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AUSTRIA

Selected Issues

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Approved by the European I Department

July 24, 2002

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I. Population Ageing and Long-Term Fiscal Sustainability[1]

A. Introduction and Summary

1. **Similar to other industrialized countries, Austria faces a significant ageing of its population over the next 50 years.** The ratio of elderly to people of working age will more than double over this period. As the average age of the population increases, spending on pensions, health care, and long-term care will rise. At the same time, the shrinkage in the number of labor force participants will lower tax and social security contribution revenues. This will put pressure on public finances from both the expenditure and revenue side, undermining the finances of the traditional Austrian welfare state.

2. **This paper looks at the fiscal burden facing Austria due to ageing and the policy steps necessary to address it.** It gives a short description of the Austrian pension, health care, and long-term care systems, and describes how ageing will affect the costs of these systems. It then analyses the development of age-related spending and the sustainability of general government finances under different scenarios, and quantifies the primary adjustment required to keep public finances on a sustainable path in the long term. The main conclusions are the following:

- Austria has an expensive public pension system, while spending on health and long-term care is comparable to that in other EU countries.

- Like other industrial countries, Austria faces a pronounced ageing of its population. This will not only translate into more people claiming pensions, but the increased longevity will also increase the need for care, giving rise to a "double-ageing" problem.

- In a public pension system, the burden of ageing is a fiscal burden. Since Austria's pension system is a public pay-as-you-go system based on the notion of solidarity among generations, its financial sustainability cannot be examined in isolation. Instead, it should be seen in the wider context of long-term sustainability of the public finances.

- Austria is not well prepared to meet this fiscal burden. Even under fairly optimistic assumptions about the success of pension and labor market reforms already underway, age-related spending will increase significantly and jeopardize long-term public finance sustainability. Under less optimistic assumptions, age-related spending will rise even more and place public finances onto an unsustainable path.

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[1] Prepared by Leif Lybecker Eskesen.

- To ensure long-term sustainability the authorities need to increase permanently the primary fiscal balance. The longer this increase is postponed, the larger the required adjustment. Given that increasing taxes is not likely to be an available or desirable option—indeed, the government plans to reduce the tax burden over the medium term—policy measures should focus on spending. Such measures should first and foremost include pension reforms, such as bringing forward the harmonization of female and male retirement ages; increasing the effective retirement age further by narrowing eligibility and strengthening disincentives to early retirement; moving toward price indexation of pensions; and lengthening the benefit assessment period. If such measures are not taken—or are insufficient—additional savings should be generated in other areas, for instance through reforms of civil service or other welfare entitlements.

B. The Austrian Pension, Health, and Long-Term Care Systems

Pension system

3. **The public pay-as-you-go pension system provides the principal source of income for retirees.** Despite changes in recent years, fully-funded pension schemes are still not very important. As in most continental European countries, the Austrian public pension system is built on the concept of solidarity among generations.

4. **Reflecting the corporatist nature of the system, different compulsory pension schemes exist for different professional groups.** There are three major schemes for the private sector: (1) Allgemeines Sozialversicherungsgesetz (ASVG); (2) Gewerbliches Sozialversicherungsgesetz/Freiberuflich Selbständige-Sozialversicherungsgesetz (GSVG/FSVG); and (3) Bauern-Sozialversicherungsgesetz (BSVG) for dependent workers, self-employed, and farmers, respectively. Civil servants have their own pension scheme covering the three levels of government and a number of public sector entities. The scheme for private dependent workers (ASVG) is by far the largest and covers around three-quarters of the employed. The schemes for the self-employed and farmers cover 12 percent, while 10 percent belong to the civil servant plans. Only around 4 percent of the employed earn below a certain minimum threshold income and are not covered by either of the schemes.

5. **Public pension schemes provide old-age, early retirement, disability and survivor pensions.** Eligibility for old-age pensions depends on the length of the contribution period, with a minimum age requirement of 65 for men and 60 for women in the ASVG. For civil servants, the minimum pension age is 65 for both genders. Early retirement pensions are provided based on either length of contribution, length of unemployment spell, or reduced capacity to work. Early retirement due to reduced capacity to work was, however, recently abolished and claimants directed to the disability schemes. Under the ASVG scheme the minimum early retirement age for men and women is currently being raised to reach 61.5 and 56.5 years by 2003, respectively, while for civil servants it is being raised to 61.5 for both men and women (see Box I-1 for recent pension reforms). Finally, disability pensions are subject to medical certification, and survivor pensions to marital status, age, and/or disability.

Box I-1. Recent Pension Reforms in Austria

A number of policy measures were taken in three waves of reforms to the pension system in 1993, 1997, and 2000.

The main measures taken in 1993 were (1) the application of a new annual adjustment formula for private sector pensions linking average pension growth to the growth of average wages (net of social contributions); (2) an extension of the benefit assessment period from the best 10 to the best 15 income years; (3) the introduction of partial retirement; and (4) a implementation of a so-called "pension security contribution" for civil servants (see footnote 3).

As part of the 1996/1997 fiscal consolidation package, the government took further steps to discourage early retirement by lengthening the contribution period and raising the discount rate in case of retirement before the statutory pension age. Also, the government introduced (1) costs for counting years spend in education toward the pension insurance coverage period; (2) contributions for rehabilitation; and (3) tighter means-testing for households receiving two pensions, or both work income and pensions. At the same time, the 1997 benefit reform (1) extended the benefit assessment period from 15 to 18 years in case of early retirement to be phased in over 22 years; (2) applied the same rule to civil servants; (3) introduced a uniform replacement rate of 2 percentage points per contribution year and a 2 percentage point discount per year in the event of early retirement; (4) tightened the eligibility criteria for early retirement due to inability to work; and (5) extended the pension adjustment system implemented in 1993 to civil servants. Furthermore, self-coverage in pension schemes for farmers and the self-employed was increased. At the same time, however, insurance coverage was extended to low part-time incomes, conditions for part-time retirement were made more favorable, and child-rearing years were to a larger extent counted as a contribution period.

The 2000 pension reform increased the minimum early retirement age for all pension schemes by a total of 1.5 years, gradually phased in until 2003. This meant an increase in the early retirement ages in the private sector schemes to 61.5 for men and 56.5 women, and in the civil servant schemes to 61.5 for both genders. Moreover, in case of early retirement, the discount rate was raised from 2 to 3 percentage points of the contribution base per year up to a maximum of 10.5 percentage points in the private sector and 18 percentage points in the civil service. Incentives to work longer were strengthened by the introduction of a reward for retirement later than the statutory age, which could increase the benefits by 4 percentage points of the contribution base per year, up to a maximum replacement rate of 90 percent. Furthermore, early retirement due to work inability was abolished, and the means-testing of widower's pensions was strengthened. Finally, pension contributions of active and retired civil servants were increased by 0.8 percentage points.

Table I-1. Austria: Average Retirement Age in the Private Sector Scheme

	Men			Women		
	1970	1980	1999	1970	1980	1999
Old-age and early	64.2	62.5	60.6	61.5	59.5	58.0
Disability	56.6	53.9	50.4	56.6	55.1	48.3
All	61.9	59.2	58.4	60.4	58.3	56.7

Source: Bundesministerium für Soziale Sicherheit und Generationen (BMSG).

6. **Early retirement and disability pensions have gained ground over time due to relatively easy access and generous benefits.** In 1999, only around 15 percent of new pensions were regular old-age pensions, about half the share in 1970. The remaining 85 percent was early retirement, disability, and survivor pensions, with shares of 45, 13, and 27 percent, respectively. As a result of the popularity of early retirement and disability pensions, the effective retirement age is significantly below the statutory pension age in both the private and public sectors. In 1999, the average retirement age was 57.6 years (58.4 for men and 56.7 for women) in the private sector schemes (Table I-1) and 59 years for federal civil servants. Compared to other countries, the labor market participation rate of elderly in Austria is consequently low (Figure I-1).

Figure I-1. Austria: Participation Rates
(Elderly, aged 55-64)

Source: Eurostat

7. **Pension benefits in Austria are generous by international standards.** Total spending on pensions in 2000 was around 14.5 percent of GDP, which is significantly higher than the EU average (Table I-2). In the private sector pension schemes, the maximum replacement rate is 80 percent, while benefits for civil servants are not subjected to a maximum level.[2] [3] Average replacement rates in 1998 for old-age, early retirement, and disability pensions under the ASVG scheme amounted to 63.5 percent on a gross basis and 78 percent on a net basis (benefits are subject to income tax and health care contributions). The benefit level depends on the retirement age, years of contribution, and the level of income determined as the average of the best 15 income years.

Table I-2. Austria: Public Pension Spending in EU in 2000
(In percent of GDP)

Austria	14.5
Italy	13.8
Greece	12.6
France	12.1
Germany	11.8
Finland	11.3
Denmark	10.5
Belgium	10.0
Portugal	9.8
Spain	9.4
Sweden	9.0
Netherlands	7.9
Luxembourg	7.4
United Kingdom	5.5
Ireland	4.6
EU	10.4

Source: EU Economic Policy Committee.

[2] The replacement rate is the ratio of pensioner's initial benefit to his/her last wage.

[3] Civil servant pensioners are, however, subject to a so-called "pension security contribution" levied on gross pension benefits and amounting to 2.3 percent of benefits. This contribution is to be phased out, and replaced by a benefit assessment period of 15-18 years.

8. **Adjustment of pension benefits is intended to secure that average pensions increase in line with average wages (net of contributions).** The indexation factor is annually determined and proposed for government approval by the Minister of Social Affairs on the basis of recommendations made by representative bodies of the insured. Given that new retirees normally receive a higher pension than old pensioners, there is a structural upward drift in average pensions. Taking this into consideration, the adjustment of pension benefits is designed to ensure that the sum of the adjustment factor and the structural drift element add up to the average increase in net wages.

9. **Contributions are insufficient to cover the total spending on pensions.** Contribution rates differ between the different pension schemes and range between 10-15 percent of gross wages for both employees and employers (Table I-3). In addition to contributions, pension spending is financed through budget transfers aimed at covering the deficit of the pension system. The federal government is obliged to cover up to one third of the deficit in the private sector pension system. The deficit in the private sector pension schemes is currently equivalent to around 2½ percent of GDP, whereas the deficit in the civil servant schemes is about 3 percent of GDP. Of course, there is no a priori resason for a public pay-as-you-go system to be balanced at all times. Decifits covered by general taxation are in principle consistent with the concept of solidarity among generations underlying the Austrian pension system.

Table I-3. Austria: Gross Wage Contribution Rates

	Employee	Employer
Private employees	10.25	12.55
Self-employed	...	15.00
Farmers	...	14.50
Civil servants	...	12.55

Source: BMSG.

Health care system

10. **Delivering health care services to the population is primarily a public task in Austria.** The Austrian Constitution stipulates that the responsibility for almost all areas of health care lies with the federal government. The most important exception concerns hospitals, where the federal government is only responsible for determining the basic legal framework and applying sanitary standards, while all other legislation and management is the responsibility of the nine Länder (provinces).

11. **Public health insurance is compulsory and practically all Austrians are covered.** People do not have the option to choose their own insurance scheme, but are assigned according to their professional background. Like pension schemes, public health insurance schemes can be divided into three main groups for (1) dependent employees, (2) self-employed and farmers, and (3) civil servants. Around 80 percent of the insured belong to the first group, and each of the other two covers around 10 percent of the insured. Health insurance covers against illness, inability to work due to illness or pregnancy, and preventive health care services. Benefits are primarily in kind, but there are also a number of cash benefits.

12. **Public health care spending in Austria is comparable to that in other industrialized countries.** In 2000, spending was around 5 percent of GDP (excluding long-term care spending), which is close to the EU average (Table I-4). Health insurance contributions and general tax revenues finance the bulk of spending, but private households also provide some co-payments, user fees, etc. Contribution rates to the different health insurance funds vary with the professions, and range from around 6-7 percent of gross earnings for white-collar workers and farmers (both employer and employee contributions) to around 9 percent for the self-employed. The contribution rates are determined by law and take into account the finances of the individual funds.

Table I-4. Austria: Public Health Care Spending in EU in 2000
(In percent of GDP)

France	6.2
Finland	6.2
Sweden	6.0
Ireland	5.9
Germany	5.7
Portugal	5.4
Belgium	5.3
Austria	5.1
Denmark	5.1
Spain	5.0
Italy	4.9
Greece	4.8
Netherlands	4.7
United Kingdom	4.6
EU (weighted average)	5.3

Source: EU Economic Policy Committee.

Long-term care system

13. **Long-term care in Austria is less institutionalized than in many other comparable countries.** Families play a relatively larger role in caring for their elderly relatives and a significant share of the elderly receiving long-term care live at home. The central and local governments are responsible for the provision of transfers or services to ensure that the elderly and others in need can receive the necessary care.

14. **All citizens have a right to long-term care if they are considered in need of basic care or domestic help, regardless of their age and without being subject to a qualifying period.** Long-term care consists of both cash benefits and benefits in kind provided by public and private suppliers. Cash benefits are determined by the extent of care needed, and are intended to provide the recipients with the necessary means to buy social assistance, but are not earmarked, means-tested, or subject to income tax. Benefits in kind comprise home care services, semi-stationary care in care facilities (i.e., day centers), and inpatient care in nursing homes, etc. Around 4 percent of the population is currently in need of in-kind assistance (care) and qualify for cash benefit care allowances.

15. **Compared to other industrialized countries, spending on long-term care in Austria is relatively low.** Spending as a share of GDP in 2000 was around 0.7 percent, which compares to a weighted average of 1.3 percent for a selected group of EU countries (Table I-5). However, given that some long-term care is provided through the health system and is consequently included in health care spending, the official figure for long-term care likely underestimates actual spending. Financing of long-term care spending is provided by taxation.

Table I-5. Austria: Public Long-Term Care Spending in EU in 2000
(In percent of GDP)

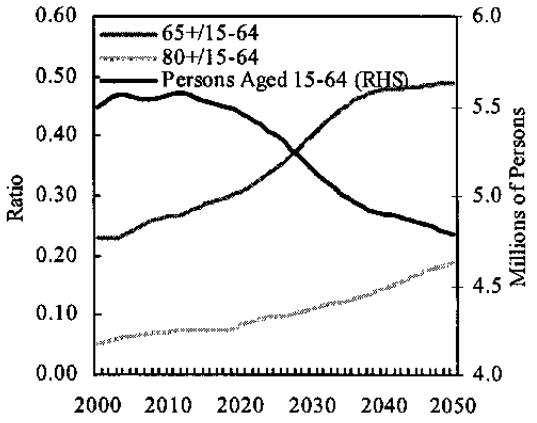
Denmark	3.0
Sweden	2.8
Netherlands	2.5
United Kingdom	1.7
Finland	1.6
Belgium	0.8
France	0.7
Ireland	0.7
Austria	0.7
Italy	0.6
EU (weighted average)	1.3

Source: EU Economic Policy Committee.

C. The Effect of Ageing on Pension, Health, and Long-Term Care Spending

16. **Like other industrialized countries, Austria faces a significant demographic shift over the next 50 years.** A strong decline in fertility and mortality rates since the 1960s will result in an increase in the number of elderly and a fall in the number of working-age people over the next five decades. The demographic shift in Austria will be more severe than in many other industrialized countries. According to the latest projections by Statistik Austria, the ratio of elderly (> 64 years of age) to working age people (15-64 years of age) will rise from 0.23 today to around 0.50 in 2050. In addition, the share of very old people (> 79 years of age) will rise by even more (Figures I-2 and I-3).

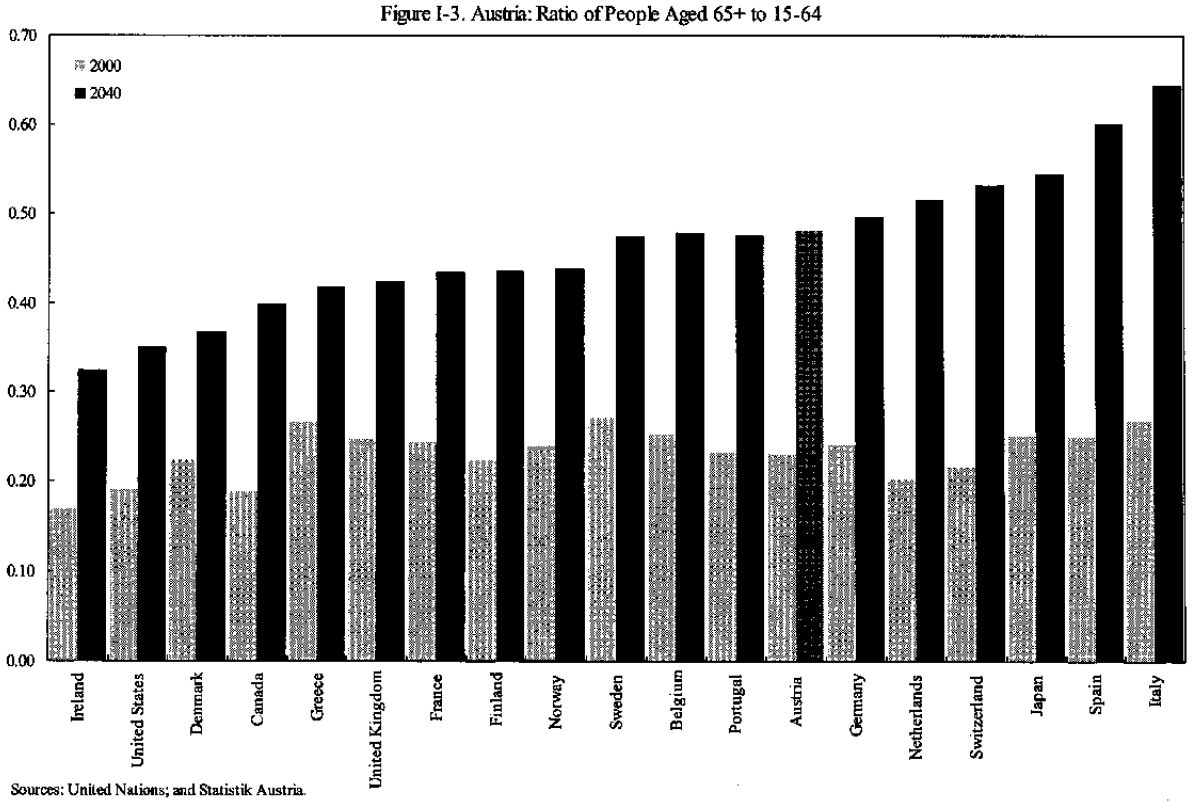
Figure I-2. Austria: Demographic Trends



Source: Statistik Austria

17. **The ageing of the population creates a distributional challenge, since the number of contributors to the Austrian welfare system will fall relative to the number of welfare recipients.** The increasing number of elderly will lead to higher age-related expenditures on pensions, health, and long-term care. At the same time, the decline in the labor force will erode the tax and social security contribution base. Absent reforms, these trends will widen the deficit of the system, necessitating increasing transfers from general tax revenues. This, in turn, will challenge the solidarity among generations underlying the current welfare system.

Figure I-3. Austria: Ratio of People Aged 65+ to 15-64



Sources: United Nations; and Statistik Austria.

18. **Rising outlays on pensions will be the main driver of age-related spending pressures.** In addition to demographics, developments in employment and the generosity of the pension benefit system—both with respect to eligibility and to the benefit level—will have effects on the outcome. Thus, the increase in pension spending will depend on the development of four factors (Box I-2):

- the relative number of elderly (*ageing effect*)
- the share of working-age people in employment (*employment effect*)
- the share of elderly receiving pensions (*eligibility effect*)
- the pension level of recipients (*benefit effect).*

Both labor market and pension reforms aimed at increasing the labor force participation rate of the elderly and others (including women), as well as tightening eligibility for—and lowering the level of—benefits (pension, unemployment, etc.) will thus be important to accommodate the spending pressures. On the other hand, pension spending is not very sensitive to the age structure of pensioners, and the rising share of very old people will therefore not have an effect on outlays.

Box I-2. Decomposition of Pension Spending

The evolution of pension spending as a share of GDP depends on the development in the age structure of the population, pension generosity and eligibility, and the productivity of the employed. Thus, the pension share to GDP can be written as

$$(1)\quad \frac{Pension\ \ Spending}{GDP} = \left(\frac{Number\ \ of\ \ Pension\ \ Recipients}{Employment}\right) * \left(\frac{Average\ \ Pension\ \ Benefit}{Average\ \ Productivity}\right)$$

The ratio of pensioners to employed can be decomposed further into the product of three ratios: (i) the dependency ratio; (ii) the inverse of the employment ratio; and (iii) the eligibility ratio (Dang, Antolin, and Oxley, 2001). This gives

$$(2)\quad \frac{Pension\ \ Spending}{GDP} = \underbrace{\left(\frac{Population\ \ \geq 55}{15 \leq Population\ \ \leq 64}\right)}_{1} * \underbrace{\left(\frac{15 \leq Population\ \ \leq 64}{Employment}\right)}_{2} * \underbrace{\left(\frac{Recipients}{Population\ \ \geq 55}\right)}_{3} * \underbrace{\left(\frac{Average\ \ Pension\ \ Benefit}{Average\ \ Productivity}\right)}_{4}$$

The first three ratios on the right-hand side are the dependency, inverse employment, and eligibility ratios, respectively. This shows that pension spending as a share of GDP increases with the dependency and eligibility ratios and with the generosity of pensions to average productivity, and decreases with the employment ratio.

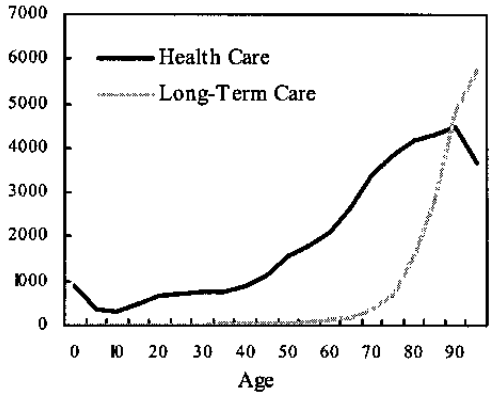
The contribution of each of these four ratios to the change in the overall share of pension spending to GDP can be approximated by the linear decomposition

$$(3)\quad \frac{\partial\left(\frac{Pension\ \ Spending}{GDP}\right)}{\partial t} \cong \left(\frac{\partial\ log(1)}{\partial t} * ps_{t=0} + \frac{\partial\ log(2)}{\partial t} * ps_{t=0} + \frac{\partial\ log(3)}{\partial t} * ps_{t=0} + \frac{\partial\ log(4)}{\partial t} * ps_{t=0}\right) + \varepsilon$$

where $ps_{t=0}$ is current pension spending as a share of GDP and ε is the residual from the log linearization. To minimize the significant residuals normally following from a linearization of a non-linear function with large changes over long periods, one can calculate (3) for shorter sub-periods and add them. This procedure was followed when calculating the results presented in the next section (Figures I-5 and I-6) by calculating (3) for consecutive five-year periods.

19. **Consumption of health and long-term care services is also very sensitive to the ageing of the population.** Spending on health and long-term care services generally increases with the age of the recipient (Figure I-4). In 2000, average spending per person on acute health care for people aged 55 and above amounted to around € 2,900, while average spending on people younger than 54 only averaged around € 800. For long-term care the average spending per person for the two age groups was around € 500 and € 20, respectively. The rising age profile of spending reflects the fact that health diminishes with age.

Figure I-4. Austria: Age Profile for Spending
(Average amount per person, in Euros)



Source: IHS.

This means that spending on these categories will not only rise because the share of the elderly rises, but also because the share of the very old (> 80 of age) is projected to increase reflecting higher longevity. There is thus a "double ageing" effect on health and long-term care spending resulting from both the ageing itself and the structure of ageing.

20. **Finally, the demographic shift will also reduce the number of contributors to the welfare state**. The shrinkage in the number of working-age people and, therefore, the labor force resulting from ageing will reduce the number of wage earners paying taxes and social contributions. Absent tax increases or hikes in social security contribution rates, this will result in lower revenues. Although pensions are taxable and pensioners pay some social contributions, these will be insufficient to counter the reduction in revenues resulting from the lower number of people working.

D. Scenario Analysis: The Impact of Age-Related Spending on the Public Finances

21. **Long-term projections of age-related spending and its effect on general government finances are very sensitive to the underlying economic assumptions**. Assumptions about demographic changes and about the impact of labor market policies and pension reforms have large effects on the path of age-related spending. In addition, ageing-induced demand for health and long-term care services can significantly increase public spending on these and add to the age-related spending increase. Furthermore, when age-related spending is measured relative to the size of the economy, the assumptions about economic growth, interest rates, and other macroeconomic variables also play an important role for the outcome of the projections. Combined, these assumptions determine how much the rise in pension, health, and long-term care expenditures will impact public finances.

22. **The sensitivity of age-related spending and thus public finances to the economic outlook and to the effect of structural reforms is illustrated in a number of different scenarios**. The scenarios are divided into three groups that explore the outlook for spending and the public finances in a "high case" of solid growth and very successful outcomes of the structural reforms already taken; a "low case" of lower growth and more moderate success of structural reforms; and a case in which additional pension reform measures are implemented.

"High case"

Scenario 1: Assuming that the pension and active labor market policy reforms already underway are very successful, in line with the authorities' expectations,[4] the growth of spending on pensions will be contained through a higher employment ratio (*employment effect)*, later retirement (*eligibility effect*), and potentially an increase in productivity growth to above average pension growth (*benefit effect*).[5] However, this

[4] See Ministry of Finance (2000).

[5] Specifically, the authorities' assumption is that total participation rates of elderly aged 55-59, 60-64, and 65 and above will increase by 54, 380, and 295 percent from 2000-2050,

(continued)

will be insufficient to counter the impact of the rise in the dependency ratio (*ageing effect*), and pension spending (as a share of GDP) is still projected to rise by 3.2 percentage points from 2000-2050 (Figure I-5). Together with a projected rise of 2.9 percentage points in spending on health and long-term care, total age-related spending will put public finances under pressure. Absent compensating measures, this would lead to a rise in the debt-to-GDP ratio of around 36 percentage points relative to the current level. This scenario broadly corresponds to the authorities' current baseline.

Scenario 2: This scenario explores the impact of higher productivity growth than in scenario 1, which raises real GDP growth to 2.0 percent per annum during 2008-2050. However, this increase in productivity would also lead to higher wage growth and thus adjustments in the average pension level, leaving the *benefit effect* unchanged from scenario 1. Overall age related spending as a share of GDP falls, as pension spending is projected to reach around the same level as in scenario 1 while health and long-term care spending is lower due to the higher GDP level. This has positive dynamic effects on public finances, and the debt-to-GDP ratio is consequently projected to rise slightly less than in scenario 1 (Figure I-5).

"Low case"

Scenario 3: The increase in participation rates assumed in scenario 1 would be very difficult to reach under current policies. This scenario explores the outlook under the assumption of a more modest impact of the pension reforms and active labor market policies compared to scenarios 1 and 2.[6] This assumption makes a considerable difference. Pension spending increases by just under 6 percentage points from 2000-2050, as employment develops more negatively (*employment effect*), people retire

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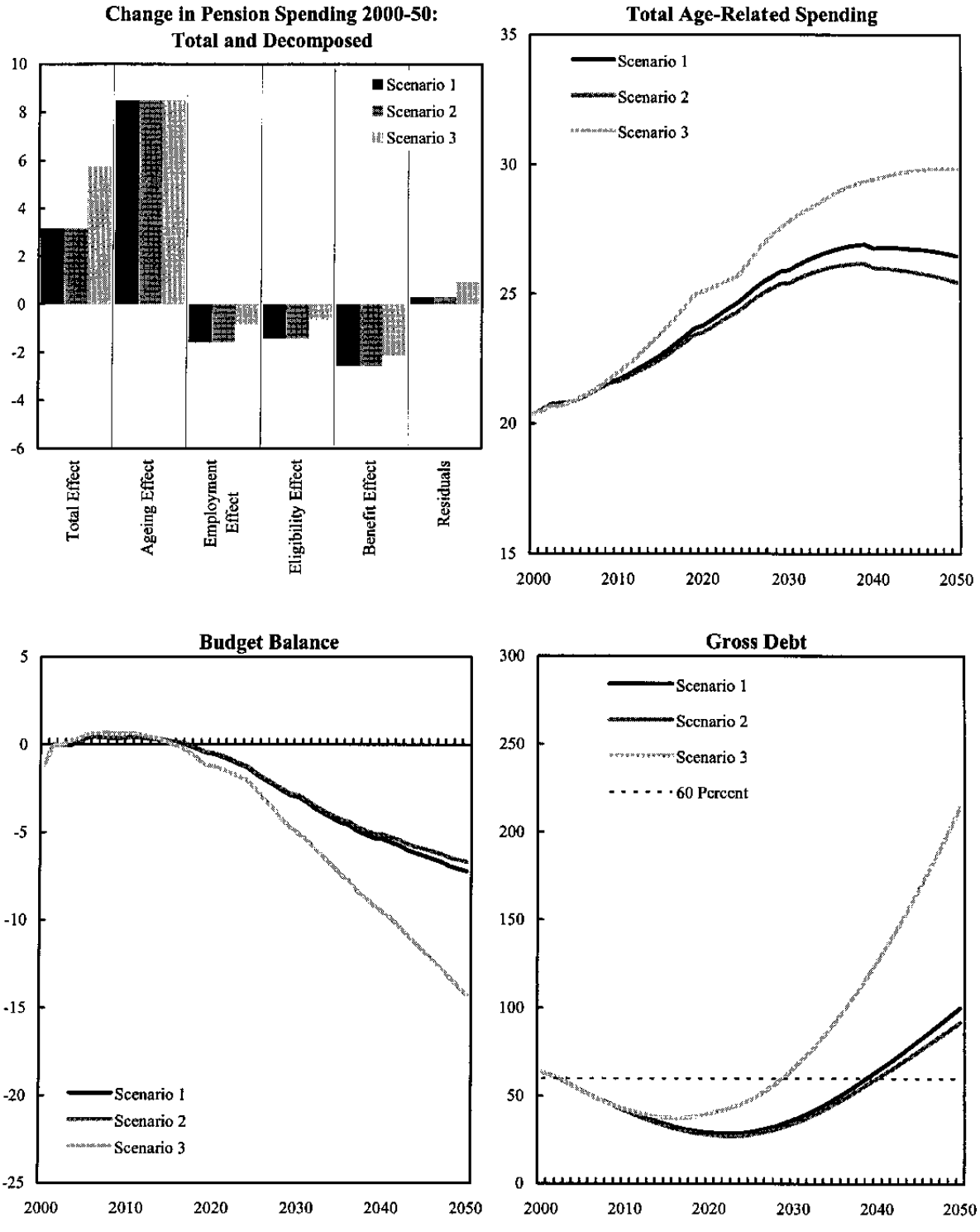
respectively (with the rates for women in these age groups increasing, 128, 800, and 400 percent, respectively). Employment is expected to fall on average 0.1 percent annually over the period due to the shrinkage in the effective labor supply despite the higher participation rates, while the unemployment rate will drop to around 4 percent. Annual real GDP growth equals IMF WEO projections for 2000-2007, and is assumed on average to fall to about 1.7 percent thereafter. This implies average productivity growth of around 1.8 percent, which is in line with the experience of recent years. Average pension benefits are set to increase annually by 1.4 percent (real), in line with average net wages.

[6] Thus, the participation rates of elderly are assumed not to increase much beyond the direct effect from the already decided increase in the minimum ages for early and old-age retirement. Employment is projected on average to fall by 0.2 percent annually, and the consequent lower level of employment leads to reduced annual real GDP growth compared to scenarios 1 and 2 which is assumed to average 1.5 percent during 2008-2050, 0.2 percent lower than in scenarios 1 and 2.

Figure I-5. Austria: Public Finances Under Scenarios 1-3
(In percent of GDP)



Source: IMF staff projections.

earlier (*eligibility effect*), and average pensions develop more in line with the slower growing GDP (*benefit effect*). Health and long-term care spending increase by around 3.5 percentage points due to lower GDP growth, raising total age-related spending as a share of GDP by more than 9 percentage points (Figure I-5 and I-6). This puts the gross debt ratio on an explosive path, reaching around 215 percent of GDP by 2050 (Figure I-5 and I-6). In what follows, this more conservative scenario is used as the staff's baseline.

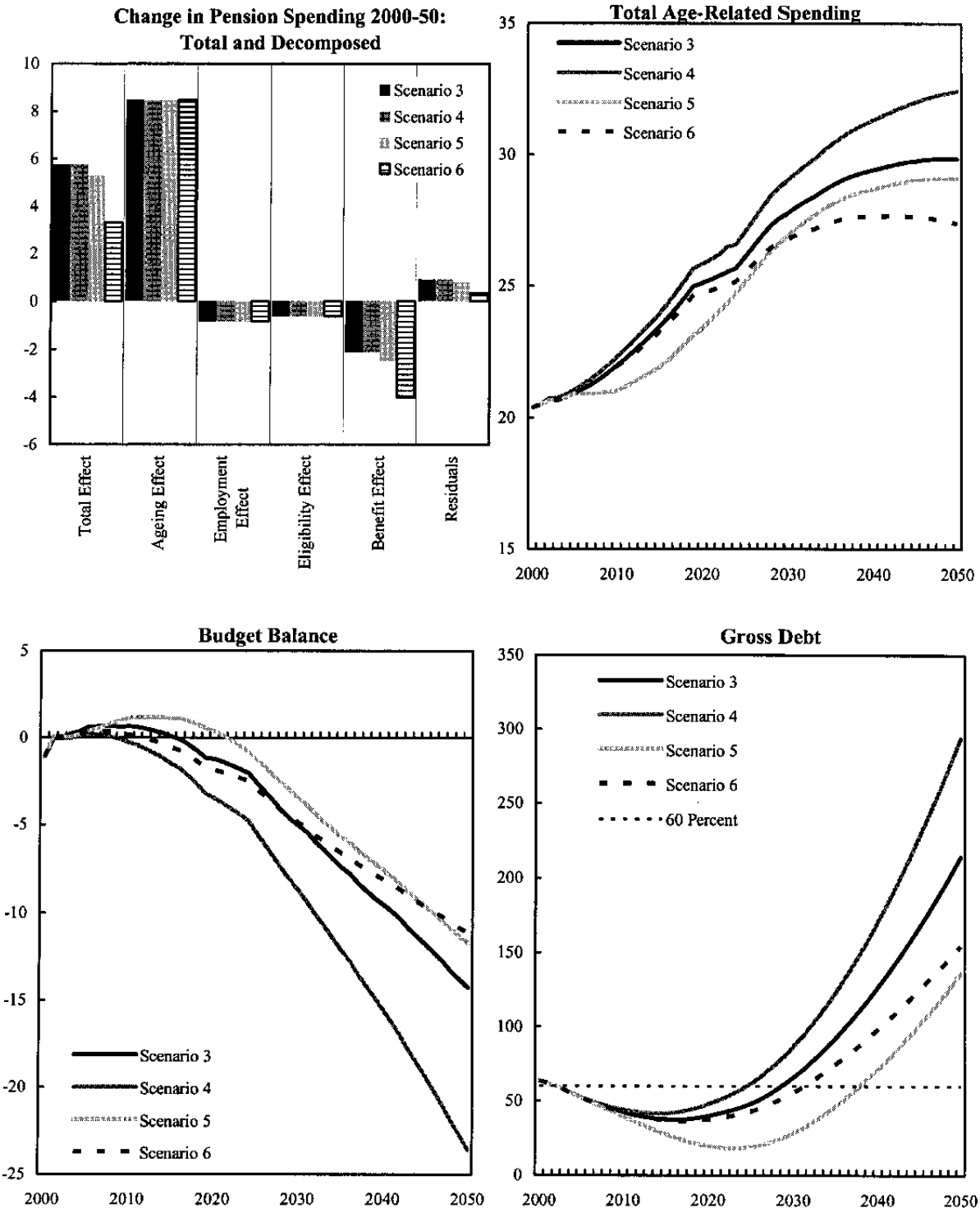
Scenario 4: In addition to the difficulties of reaching the higher participation rates envisaged by the authorities under current policies, there is the risk that the cost of health and long-term care services could rise even further than contemplated in scenarios 1-3.Current supply constraints on health and long-term care, combined with rising demand for these services as the population ages, could lead to higher cost inflation than assumed in the other scenarios. Assuming an additional annual nominal cost inflation of 0.5 percent for these services relative to scenario 3 doubles the share of health and long-term care spending to GDP. Together with the rise in pension spending, public finances deteriorate even further, and the debt ratio is projected to fall just shy of 300 percent of GDP by the end of the forecasting horizon (Figure I-6).

Additional pension reform measures

The last two scenarios start with the staff's baseline (scenario 3) and estimate the effect that additional pension reform measures would have on the public finances. Two such measures are examined: an increase in working life (scenario 5) and a lower rate of growth of benefits (scenario 6). While the specific measures assumed in each scenario are by no means the only reform options available to the authorities, they were chosen because they illustrate the two fundamental alternatives open to policy-makers.

Scenario 5: The basic assumptions are the same as in scenario 3, except that the harmonization of the female and male retirement age is moved forward from 2019-2033 to 2005-2015. Also, GDP growth is expected to increase relative to scenario 3 during the period when female retirement ages are increased. The increase of pension spending under these assumptions is somewhat smaller than in scenario 3 due to the higher GDP growth during the interim period (*benefit effect*), and total age-related spending is projected to increase by slightly less than 9 percent (Figure I-6). However, moving forward the harmonization has a large impact on public finances due both to the higher GDP growth and to the positive debt dynamics resulting from realizing earlier the savings from the higher female retirement age. Therefore, the debt-ratio is projected to fall by around 80 percentage points relative to scenario 3 and reach around 135 percent in 2050, 70 percentage points above the current level (Figure I-6).

Figure I-6. Austria: Public Finances Under Scenarios 3-6
(In percent of GDP)



Source: IMF staff projections.

Scenario 6: The underlying assumptions are again the same as in scenario 3, but here pension benefit growth is slower.[7] This reduces the growth of pension spending as a share of GDP, which increases by just about 3 percentage points over the entire period, close to the level obtained in scenario 1. The result is driven by the reduction in benefit generosity (*benefit effect*), which relative to scenario 1 outweighs the less positive effects from lower employment (*employment effect*) and earlier retirement (*eligibility effect*). Including health and long-term care spending, total age-related spending still increases by 7 percentage points and the debt ratio by close to 90 percentage points by 2050 (Figure I-6).

23. **These scenarios illustrate a number of points.** *First*, even if the pension and labor market reforms already underway turn out to be very successful in significantly containing the inflow to retirement and increasing the labor force participation rates (especially of the elderly), the fiscal pressures associated with the ageing of the population would still rise. A better growth performance could have some positive dynamic effects on public finances, but would still not alleviate the problem. *Second*, under less optimistic assumptions about the effects of reforms, the fiscal outlook would deteriorate materially and quickly. This would be even more pronounced if the cost of health and long-term care increased faster than currently foreseen. *Third*, additional pension measures could maintain public finance sustainability, but the timing is crucial. For example, bringing forward the harmonization of male and female retirement ages will have important dynamic effects as savings are realized earlier. Combined with a decrease in the rate of real growth of benefits, this could secure long-term sustainability. The same effect could be achieved through other measures, such as increasing the minimum early retirement ages further, strengthening the financial incentives for staying longer in the labor market, and lengthening the wage assessment period for measurement of benefit entitlement. Measures could also be taken to avoid the escalation of health and long-term care spending, such as introducing more user fees, tightening eligibility to certain services and benefits by strengthening means-testing, and increasing the specialization of hospitals.

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[7] In this example, it is assumed that the indexation of pensions moves towards direct price indexation. Due to the large difference between the average pension of old and new pensioners and the associated element of drift in average pensions over time, the indexation of individual pensions is currently assumed to be in line with inflation. As the difference between old and new pensions diminishes over time, individual pensions can be indexed by a factor higher than inflation, while still matching total average pension growth to that of average net wages. A move towards price indexation of *individual* pensions will therefore result in marginal but increasing savings on *average* pensions. With this in mind, it is assumed in this scenario that *average* pension indexation relative to the preceding scenarios is reduced by 0.2 percentage points from 2010-2024 and by an additional 0.2 percentage points from 2025-2050.

E. Ensuring Long-Term Public Finance Sustainability

24. **Pension and health care reform is not the only answer to accommodate the projected buldge in age-related spending.** As the discussion in the previous section illustrated, the problem of growing age-related spending in a public pay-as-you-go system based on solidarity among generations should not be thought of as simply an actuarial problem. The sustainability of such a system should be analyzed in the broader context of fiscal sustainability. This section looks at the theoretical concept of fiscal sustainability, its practical application, and presents calculations illustrating a time profile for the primary balance improvement necessary in Austria to maintain long-term sustainability under the different scenarios.

Sustainability in theory and practice

25. **Theoretical discussion of fiscal sustainability is typically based on the assumption that the government must satisfy both a static and intertemporal budget constraint (Chalk and Hemming, 2000).** Assuming a closed-economy representative agent model and abstracting from monetary conditions, the static budget constraint or every-period condition is

$$B_{t+1} = (1+r_t) * B_t + PD_t \tag{1}$$

where B_t and B_{t+1} are the initial and subsequent-period nominal government debt levels, respectively, $1+r_t$ is the nominal discount factor between the two periods, and PD_t is the nominal fiscal primary deficit. To derive the intertemporal budget constraint, (1) needs to be solved forward to give

$$B_t = -\sum_{i=0}^{\infty} D(t,t+i)^{-1} * PD_{t+i} + \lim_{T\to\infty} D(t,t+T)^{-1} * B_{t+T+1} \tag{2}$$

where $D(t,t+i) = \prod_{k=0}^{i} (1+r_{t+k})$ is the discount factor between periods t and $t+i$.

According to the intertemporal budget constraint, fiscal sustainability is secured if the present value of future primary balances exceeds the difference between the present value of the terminal and the initial debt level. If the level of outstanding debt grows at a rate less than r, then the present discounted value of the terminal debt converges to zero over time.

$$\lim_{T\to\infty} D(t,t+T)^{-1} * B_{t+T+1} = 0 \tag{3}$$

Therefore, assuming (3) is fulfilled, the government's intertemporal budget constraint holds if the excess of primary surpluses over primary deficits, in present value terms, matches the outstanding value of initial debt. This gives what is usually referred to as the government's present value budget constraint

(4) $$B_t = -\sum_{i=0}^{\infty} D(t,t+i)^{-1} * PD_{t+I}$$

Putting it more simply, (4) says that a government that has outstanding debt must anticipate sooner or later to run primary budget surpluses, and those surpluses have to be large enough to satisfy (4).

26. **This concept of sustainability is difficult to apply due to the assumption of an infinite time horizon.** Practical applications of the concept of sustainability are based on finite horizons, which also means that the present value of the terminal debt level will normally be larger than zero and (3) will consequently not hold. Sustainability, as a result, boils down to preferences/targets for the end-horizon debt level, typically measured relative to output.

27. **A number of indicators have been developed as tools to assess public finance sustainability.** Buiter (1985) argued that a sustainable fiscal policy should maintain the ratio of public sector net worth to output at its current level. To assess fiscal sustainability, Buiter suggested an indicator comparing the current primary deficit to the deficit ensuring the stabilization of net worth. However, despite its intuitive appeal, Buiter's indicator has the problem that it is difficult to obtain accurate information on the net worth of the government. Blanchard (1990) circumvented this problem by looking at the primary deficit or tax rate necessary to maintain the current debt ratio. Blanchard's *primary gap* indicator is

(5) $$\overline{pd} - pd_t = (g_t - r_t)^* b_t - pd_t$$

where $b_t = \frac{B_t}{Y_t}$ is the debt-to-output ratio. A positive value of the *primary gap* indicator suggests that the current primary deficit is sufficiently small (or the surplus sufficiently large) to stabilize the debt ratio, while the opposite is true for a negative value.

Long-Term Sustainability Indicators for Austria

28. **The indicator used to gauge the long-term sustainability of Austria's public finances is built on the *primary gap* indicator suggested by Blanchard.** The indicator compares the average annual primary deficit $\overline{pd}^I$ implied by the projected debt ratio in 2050 b_{50}^p with the average annual primary deficit necessary to maintain the debt ratio at the current or targeted level $\overline{pd}$. The primary deficit implied at the beginning of the period by the projected debt ratio is given by

$$\sum_{t=s}^{50}\left(\frac{1+\bar{r}}{1+g_a}\right)^{-t} * \overline{pd}^{I} = -b_s + b_{50}^{p} * \left(\frac{1+\bar{r}}{1+g_a}\right)^{-(50-s)}$$

(6) $\Downarrow$

$$\overline{pd}^{I} = \frac{-b_s + b_{50}^{p} * \left(\frac{1+\bar{r}}{1+g_a}\right)^{-(50-s)}}{\sum_{t=s}^{50}\left(\frac{1+\bar{r}}{1+g_a}\right)^{-t}}$$

where g_a is the average annual growth rate for the entire forecasting period, and b_s and $\bar{r}$, respectively, are the debt ratio at time s ($1 \leq s \leq 50$) and the fixed interest rate. The equation says that the present value of the average implied primary deficit (discounted by GDP growth) equals the difference between the initial debt ratio and the present value of the terminal debt ratio (discounted by GDP growth). The implied deficit increases with the relative size of the terminal debt level and—for given initial and terminal debt levels—decreases with the spread between the interest and growth rate.

The primary deficit necessary to maintain the debt ratio at the current or some "target" level is given by

$$\sum_{t=s}^{50}\left(\frac{1+\bar{r}}{1+g_a}\right)^{-t} * \overline{pd} = -b_S + b_{50} * \left(\frac{1+\bar{r}}{1+g_a}\right)^{-(50-s)} \quad ; b_{50} = b_S$$

(7) $\Downarrow$

$$\overline{pd} = \frac{-b_S * \left(1 - \left(\frac{1+\bar{r}}{1+g_a}\right)^{-(50-s)}\right)}{\sum_{t=s}^{50}\left(\frac{1+\bar{r}}{1+g_a}\right)^{-t}}$$

Combining (6) and (7) and rearranging gives the *long-term primary gap* indicator used in this exercise for Austria:

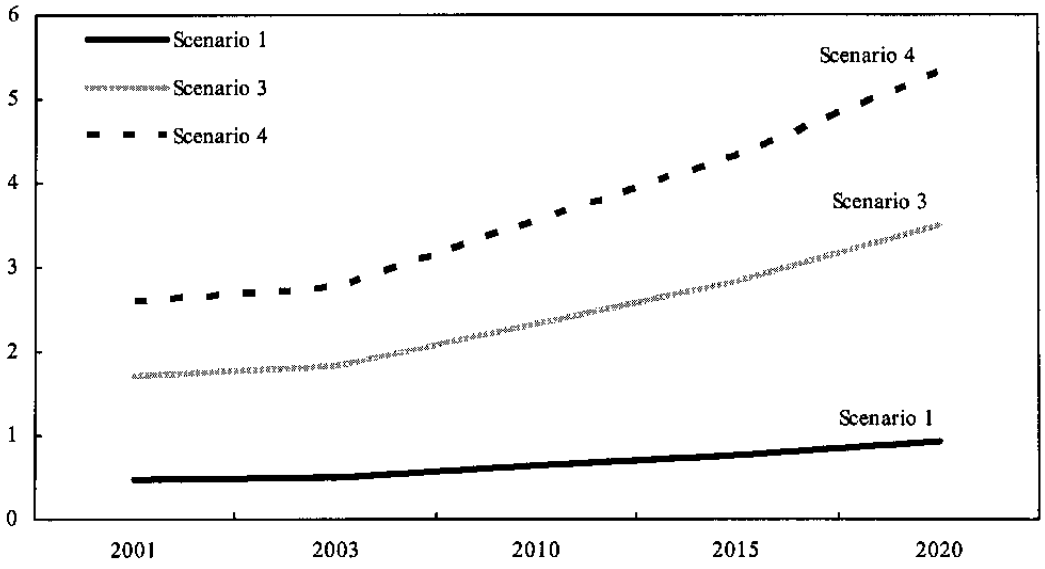
$$\overline{pd} - \overline{pd}^{I} = \frac{(b_S - b_{50}^{p}) * \left(\frac{1+\bar{r}}{1+g_a}\right)^{-(50-s)}}{\sum_{t=s}^{50}\left(\frac{1+\bar{r}}{1+g_t}\right)^{-t}} \quad (8)$$

A positive value indicates that the long-term projected fiscal policy is on a sustainable path, while a negative value indicates that projected primary surpluses are insufficient to keep the terminal debt ratio on target. The absolute size of the gap shows how much the primary

balance at time $t=s$ would need to be permanently adjusted to maintain the terminal debt ratio below the current ratio or some other "sustainable" debt ratio target.

29. **Calculations of the *long-term primary gap* for Austria are carried out for the scenarios presented earlier and under different assumptions about the timing of the adjustment.** The calculations show the time profile of the primary balance necessary to keep the debt ratio in 2050 less than or equal to a 60 percent level, assuming that the total required primary adjustment is undertaken *once-and-for-all* at the given time. This, of course, is not the only possible policy option. There is an infinite number of primary balance time profiles that could achieve the terminal debt level target in each scenario. The objective could for example be reached by initially adjusting the primary balance by less than suggested by the *long-term primary gap*. But in this case, the aggregate adjustment over the long term would need to be greater. For this reason, although the long-term primary gap indicator does not have an immediate prescriptive value, it is still a useful indicator of the cumulative effort required over the period to reach the target terminal debt level.

Figure I-7. Austria: Required Permanent Primary Adjustment with Different Timings for Adjustment
(In percent of GDP)



Source: IMF staff calculations.

30. **The results highlight the need for an immediate improvement in the primary fiscal balance.** The results (Figure I-7) show that the size of the required primary adjustment depends heavily on the assumption about the success of reforms already underway, as well as on the timing of adjustment. Even under fairly optimistic assumptions about reform success (scenario 1), the primary balance still needs to be raised permanently from next year onward by around 0.5 percentage point of GDP. If action is delayed to 2020, the required permanent adjustment rises to 1 percentage point. In the staff's baseline scenario (scenario 3), the primary balance needs to be raised permanently by around 2 percent of GDP starting in 2003

to achieve a debt ratio of 60 percent in 2050. Delaying the adjustment to 2015 increases the required improvement to 3 percentage points. In the event health and long-term care costs increase by more than expected (scenario 4), the required adjustment is even higher.

31. **The analysis underscores the need for time consistency in fiscal policy**. The calculations presented above assume that the authorities keep to the new primary balance path for the rest of the period. Deviations from this path could seriously worsen the outlook and increase further the primary adjustment required to ensure achievement of the terminal debt ratio. This emphasizes the importance of adhering to the chosen fiscal path over the long term. Finally, it should be pointed out that the primary adjustment requirement calculated for all the scenarios only ensures that the terminal debt ratio is equal to 60 percent in 2050. This, however, is not sufficient to guarantee that the debt ratio is not increasing at an unsustainable rate at that time. Depending on the specific primary balance path during 2003-2050, additional adjustment may be necessary to ensure debt sustainability after 2050.

F. Concluding Remarks

32. **Austria faces a major fiscal challenge from the ageing of the population over the next 50 years, requiring early and sustained fiscal policy action to tackle it**. Age-related spending is projected to increase strongly, undermining the political economy of Austria's welfare system and jeopardizing the sustainability of public finances. Bold measures are needed, and their timing is crucial for two reasons. First, the demographic effects will start setting in around 2010, leaving a window of opportunity during the current decade to design and implement the necessary structural reforms to the pension and labor market system. Second, realizing early savings will have considerable dynamic effects and thereby reduce the cost of the total required primary improvement.

33. **Measures should focus on the spending side**. To bring about the necessary primary improvement, the authorities have a number of options. However, given the already high level of taxation and the stated policy objective to lower it, hiking taxes is not likely to be one of them. The authorities will instead have to concentrate on the expenditure side. The expenditure measures should include additional pension reforms, such as bringing forward the harmonization of female and male retirement ages; increasing the effective retirement age by narrowing eligibility and strengthening disincentives to early retirement; and reducing benefit generosity, for example by moving towards price indexation of individual pensions and lengthening the benefit assessment period. But the problem of Austria's public pay-as-you-go solidarity-oriented pension system can also be solved in the wider context of public finances. If pension measures are not sufficient to ensure actuarial sustainability of the system, the authorities would need to take measures to reduce spending on a wider front. Finally, it will be important for the government to adhere to fiscal discipline over the long term. Even relatively modest deviations from the primary balance requirement to ensure sustainability may have large dynamic effects in the long term. Adopting a more formalized medium-term fiscal framework could help ensure time consistency.

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II. A System on the Move: Internationalization and Adaptation in the Austrian Financial Sector[8]

A. Introduction

34. The ongoing changes in the Austrian financial system reflect evolution in financial services internationally as well as factors specific to Austria, the Euro area, and the neighboring Central and Eastern European Countries (CEECs). Since 1995, the openness of the Austrian financial system has increased significantly, Austrian households have demonstrated a greatly increased preference for alternatives to traditional bank savings, and the Austrian banking sector is in an ongoing process of consolidation and restructuring. At the same time that the financial system is being transformed by these forces, the regulatory and supervisory framework is also adapting. The legal foundation for prudential regulation and the supervisory structure have been modernized and strengthened, not only to respond to developments in the Austrian financial sector, but also to reflect ongoing developments in international best practices. In this connection, in particular, the regulatory and supervisory framework has been strongly influenced by the entry of Austria into the European Union in 1995 and the concomitant requirement to implement EU financial sector directives. These recent changes have laid the foundation for the financial sector to continue to meet the intermediation needs of Austria and to develop as a strong regional player. The next few years will be crucial in determining success as financial institutions strive to meet the continuing challenges of increasing competition domestically and abroad, and the new regulatory and supervisory framework is further refined and put into practical application.

35. This short paper highlights some important trends in the Austrian financial sector, in particular some that may be overshadowed by more visible developments. The expansion of Austrian banks into the neighboring CEECs is well known, but the increase in the percentage of international assets held by Austrian mutual funds and insurance companies has been even greater than the increase in banks' international assets. At the same time, the acquisition of a controlling share in Bank Austria by Bayerische HypoVereinsbank meant that there has been a major increase in the share of Austrian bank assets controlled by foreign-owned institutions. The establishment in April 2002 of a new financial service regulator was the most visible step to revamp the framework for prudential oversight of the sector. Although less visible, but just as significant, were the recent major revisions to laws and regulations, the expansion of supervision activities and the devotion of increased resources to researching, identifying and monitoring financial stability which,. The next section of this paper provides a snapshot of the Austrian financial system today. It is followed by sections on the evolution of the domestic banking sector; international expansion; and a review of recent changes to the prudential framework and remaining supervisory challenges.

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[8] Prepared by Michael Andrews, MAE.

B. A Snapshot of the Austrian Financial System

36. The Austrian financial sector has traditionally been bank-dominated, and banks still account for the majority of intermediation (Table II-1). The position of the banks is even more dominant than suggested by the bank asset data since they control the majority of large mutual fund companies, and also have significant insurance subsidiaries and affiliates. However, the amount of intermediation undertaken by banks is somewhat overstated, due to the high proportion of loans and advances to credit institutions included in total assets (€ 172 billion, or 29 percent of total assets at end-2001). In large part, this reflects the tiered structure of the savings bank and cooperative sectors of the Austrian banking system, with individual banks placing liquidity reserves and managing positions through centralized providers of services. Erste Bank, for example, had at end-2001 about one-third of its total assets, and a similar volume of liabilities, comprised of interbank claims largely arising from its role as a centralized service provider to its 63 member savings banks.

Table II-1. Austrian Financial Intermediaries, End-2001

	Number	Assets (€ billions)
Banks	907 (head offices) 5453 (branches)	588
Mutual funds	23 (companies) 1720 (funds)	99
Insurance companies	57	57
Pension funds	19	8

Source: OeNB.

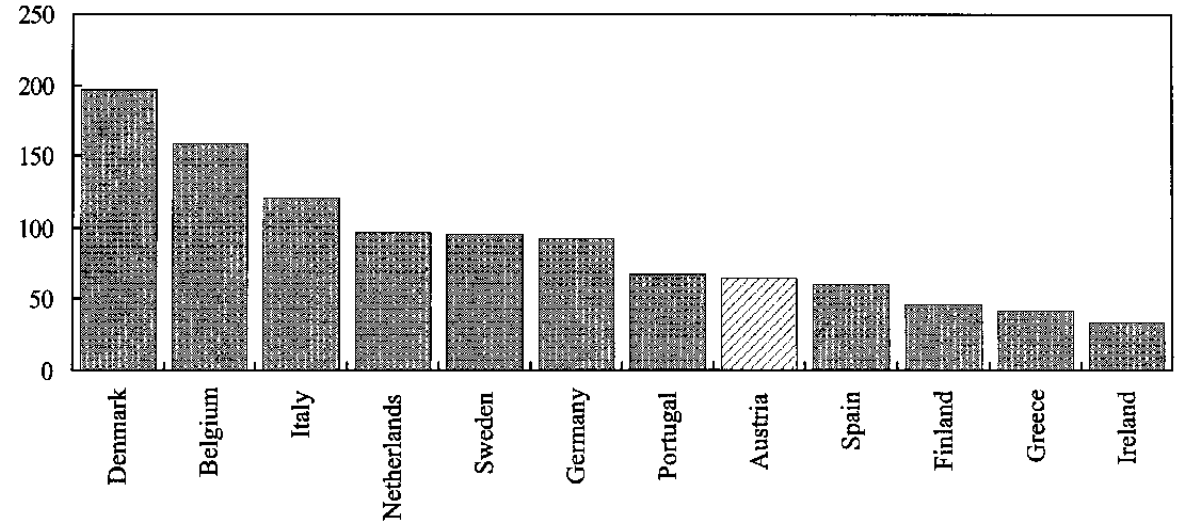
37. Capital markets are quite small relative to the banking sector, and at the lower end of the range among the EU countries (Figures II-1 and II-2). Market capitalization of the Vienna Stock Exchange at end-2001 was € 27.5 billion, with turnover during the year amounting to € 16.3 billion. Bond markets are dominated by public sector and bank issues, with modest amounts of corporate issues outstanding (Table II-2). During 2001, a record year for Austrian corporate issues, € 700 million new bonds were placed.

Table II-2. Austrian Bonds Outstanding, End-2000
(In billions of euros)

Public issuers	90.8
Financial institutions	62.4
Non-banks	3.4
Foreign	1.3
Total	157.9

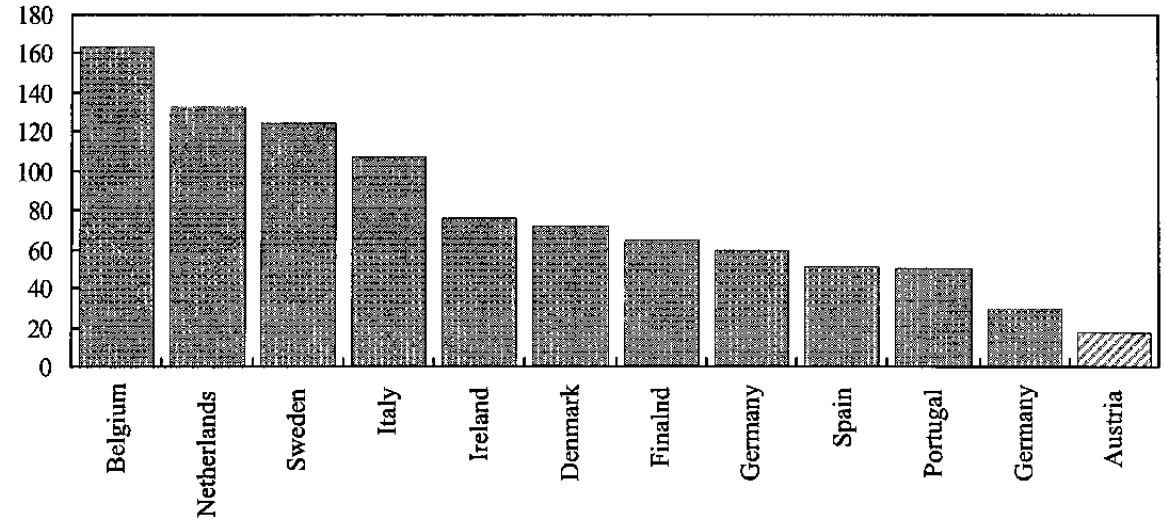
Source: OeNB.

Figure II-1. Par Value of Bonds Outstanding
(In percent of GDP, 1997)



Source: European Central Bank.

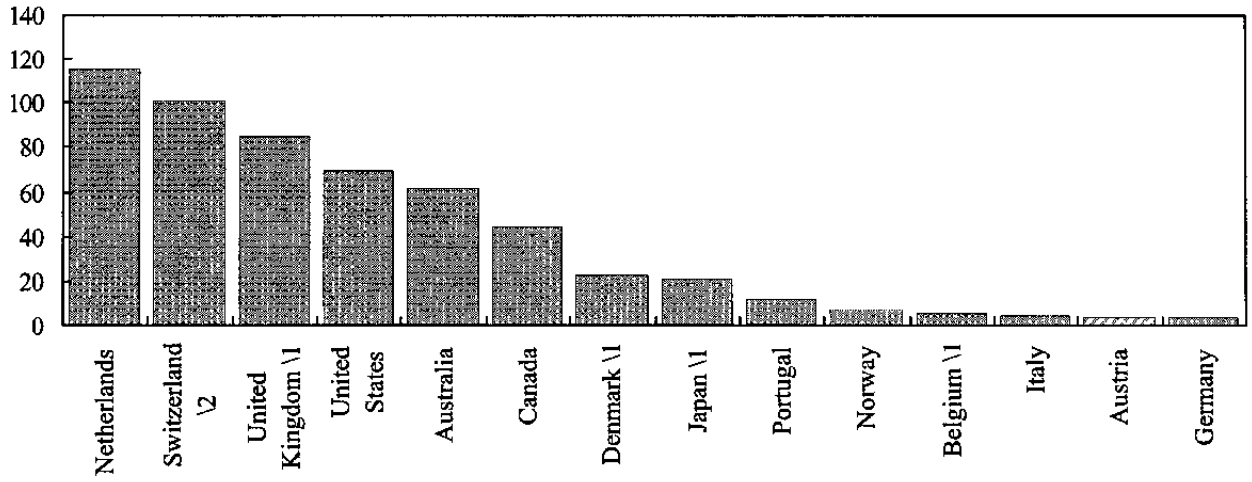
Figure II-2. Market Value of Equities
(In percent of GDP, 1997)



Source: European Central Bank.

38. The relatively small size of the Austrian capital markets reflects factors from both the supply of capital and the demand for debt. On the supply side, Austria has relatively few and small institutional investors. Given the generous state pension system, the modest size of private pension plans is not surprising (Figure II-3). Austrians save relatively small amounts through insurance holdings (Figure II-4), in part because Austria does not provide the tax incentives prevalent in some countries for insurance products, and in part because insurance products may be more important as part of individuals' retirement savings in countries with less generous state pension plans. Moreover, Austrians may be encouraged by subsidized mortgage financing to favor investment in housing over other savings vehicles. On the demand side, the more favorable tax treatment of debt relative to equity seems likely to have encouraged the development of bank financing at the expense of the capital markets.[9] Few and small institutional investors, coupled with a lower historical appetite of individual Austrian savers for equity investments (Figure II-5), and a corporate preference for debt over equity, all contribute to a bank-dominated financial system.

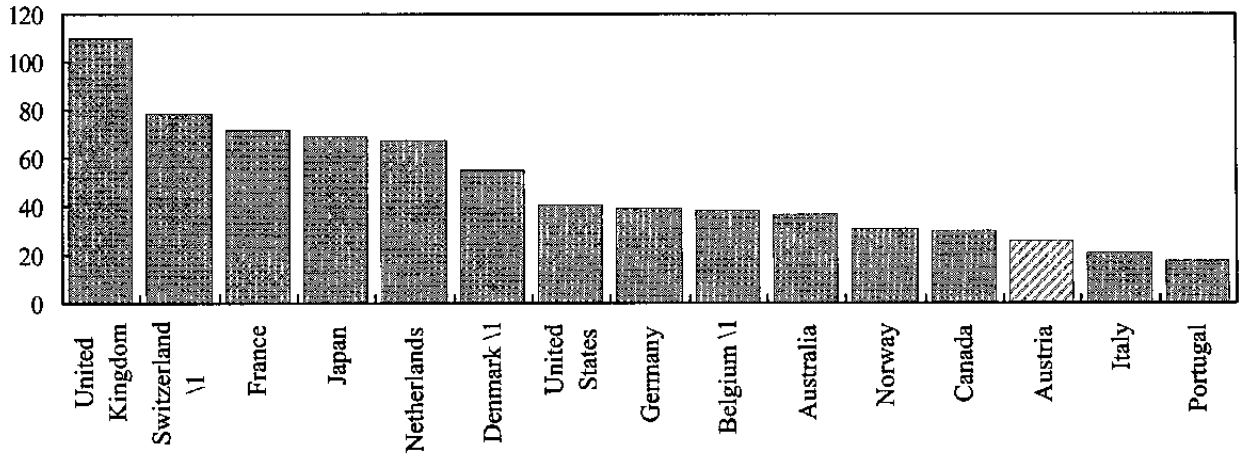
Figure II-3. Financial Assets of Pension Funds, End-2000
(In percent of GDP)



Source: OECD *Institutional Investors Statistical Yearbook.*
1/ End-1999.
2/ End-1998.

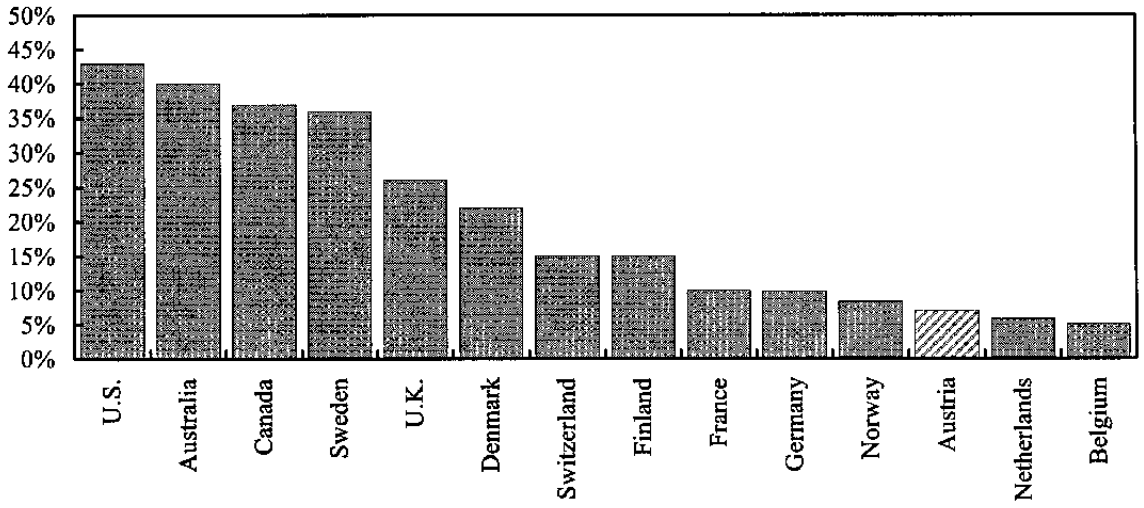
[9] Interest payments are tax deductible, while dividends are paid from a company's after-tax income, and are in turn subject to income tax in the hands of the investor (double taxation).

Figure II-4. Financial Assets of Insurance Companies, End-2000
(In percent of GDP)



Source: OECD *Institutional Investors Statistical Yearbook.*
1/ End-1999.

Figure II-5. Percent of Population Owning Shares, 2000



Source: OeNB.

C. The Evolving Domestic Banking Sector

39. The Austrian banking system historically comprised a number of distinct sectors with unique ownership structures, targeted to serve specific markets (Table II-3). Over time, the distinctions between the sectors has become less significant. Most banks today offer a wide range of bank and non-bank financial services, but there are still some important differences in ownership structure, as well as considerations that may transcend the legal structures of the banks. Banks owned by a controlling shareholder or widely held (joint stock) banks were historically less important than banks with a cooperative or mutual structure, or controlled by foundations. These differences in ownership structures can result in banks having objectives—such as serving the needs of the community or maintaining high levels of individualized services—which may take precedence over profit maximization, provided that the banks are sufficiently profitable to support future growth. The large market shares of banks with objectives other than profit maximization is one reason why spreads and efficiency historically have been low in Austria. This has changed, in recent years, as innovative legal structures have been introduced to permit greater access to capital for the cooperative and savings bank sectors. The need to meet the income expectations of shareholders, in addition to providing the service levels expected by cooperative or mutual owners, is one of the forces that have led Austrian banks to look externally for growth and profitability.

Table II-3. Austria: Banking System, End-2001

Banking sector	Total assets (€ billions)	Bank	Market share (percent of total assets)
Savings banks	203	Bank Austria and Creditanstalt	23.7
Joint stock and private banks	129	Erste Bank	9.5
Raiffeisen credit cooperatives	126	BAWAG and PSK	8.8
Special purpose banks	45	RZB	5.5
State mortgage banks	36	Kontrollbank	4.2
Volksbank credit cooperatives	29	OeVAG	2.0
Building and loan associations	19	RLB Oberosterreich	1.8
Total	588	RLB Niederosterreich-Wein	1.7

Source: OeNB.

40. The number of Austrian banks has been declining steadily, with an average of over 30 banks exiting the market each year since 1980, largely through mergers. The decline in banking outlets has been less pronounced, with the current total representing a decline of about 200 from the 1996 peak. With about 5,400 bank branches serving a population of 8 million, Austria has one bank branch for each 1,480 people, one of the highest branch

densities in the world.[10] The 20 bank mergers that occurred in 2001 might appear to be a large number for a country of Austria's size. However, with 600 Raiffeisen banks, over sixty savings banks, a similar number of Volksbanks, and many small private banks, Austria still has over 900 mostly small banks. While some economies and efficiencies are gained through the centralized provision of services in the tiered sectors, there is a cost to Austrian consumers in having small, locally-owned and controlled banks. To the extent consumers are prepared to pay higher costs for services—or owners are prepared top accept lower returns, there will be less pressure for rapid consolidation of the banking system. But, the desire to maintain the local ownership and control of the individual cooperative and savings banks and a high level of branch service is a constraint on further consolidation, making it likely that the pace of consolidation and concentration levels reached in Austria will be lower than in countries that lack a history of cooperative and mutually owned banks.

41. The sectoral groupings in the Austrian banking sector remain important for understanding both the tiered banking structure (Table II-4) and the mutual support provided by the legally independent banks within each sector. Deposit insurance is provided on a sectoral basis, with banks being legally required to belong to the deposit insurance scheme for their sector, and being assessed after the fact on a formula based on their size for any required deposit insurance payments. This contingent liability for individual banks, potential loss exposure of the "apex" banks (Erste Bank, RZB and OeVAG), plus the reputational risks to the survivors of a failure within the sector all provide incentives to be proactive in dealing with weak member banks, for example by arranging mergers with stronger partners. These incentives have been further strengthened with the recent adoption in the savings bank and Raiffeisen sectors of mutual guarantee agreements that make the individual member banks jointly and severally liable for the deposits of all banks in the sector.

[10] The comparable figures for Germany and Switzerland, two other highly-banked countries, are one branch for each 1,725 and 1,854 persons respectively.

Table II-4. Austria: Savings and Cooperative Banking Sectors

Sector	Assets (€ billions)	Market share (percent of total bank assets)
Savings banks (many originally founded by local governments)	203	34.5
• 67 savings banks, of which Erste Bank has a controlling or blocking minority in the 6 largest, collectively accounting for about three quarters of savings bank assets.		
• Erste Bank is the lead savings bank, serving both as a centralized provider of services to other savings banks and a competitor in its own right. Erste Bank has investments in CEEC banks that collectively amount to about one-quarter of its assets. Erste Bank is 41 percent controlled by AVS, a foundation without shareholders, and has a public float of about 35 percent.		
Raiffeisen credit cooperatives (historically agriculturally based)	126	21.5
• 617 local Raiffeisen banks		
• 9 regional Raiffesien Landesbanken, owned by the local Raiffeisen banks, providing services and support to the Raiffeisen banks and meeting the needs of customers whose requirements exceed the capacity of the local Raiffeisen banks		
• Raiffeisen Zentralbank (RZB) provides central services as well as the products of leasing, investment banking, funds management and insurance subsidiaries, which are distributed by the local and regional Raiffeisen banks. RZB also owns and manages an international presence consisting of 14 "networkbanks" in 12 central and eastern European countries, and subsidiaries, branches and representative offices providing trade-related services around the world. RZB is 87 percent owned by the Raiffeisen Landesbanken.		
Volksbank credit cooperatives (historically industrially based)	29	4.9
• 70 local Volksbank		
• Oesterreichische Volksbanken (OeVAG) is a centralized provider of services to the Volksbanks, and also provides commercial banking services and limited retail banking. OeVAG has made small investments in the CEECs (less than € 2 billion at end-2001). It is 64 percent owned by the Volksbank.		

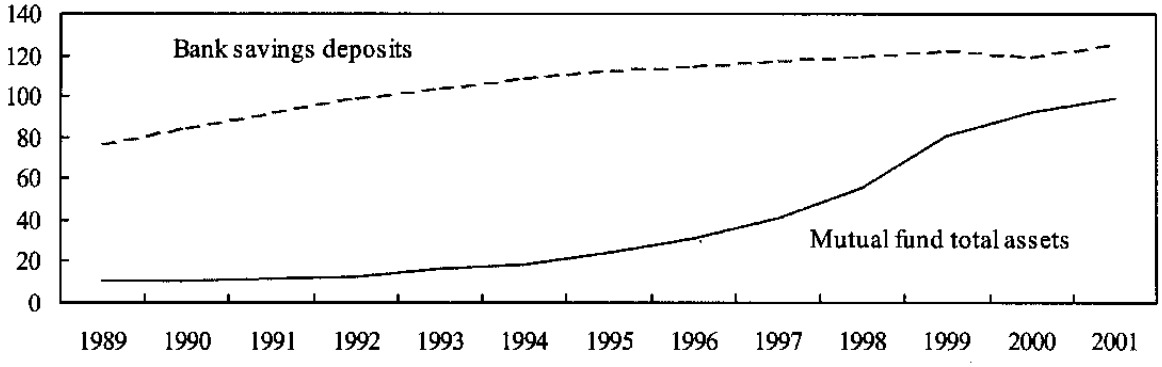
42. The largest of the joint stock and private banks is Bank für Arbeit und Wirtschaft AG (BAWAG) which, after its acquisition of the state-owned Österreichische Postsparkasse

(PSK) in 2000, became the third largest banking group in Austria. The eight state mortgage banks, seven of which have guarantees from the governments of their respective *Länder*, provide a range of banking services in addition to their core mortgage financing businesses. Building societies channel subsidized savings into mortgage financing, and there are several special purpose banks, the largest of which is Kontrollbank. Kontrollbank, owned by the major Austrian banking groups, provides export financing supported by sovereign guarantees and provides loans collateralized by receivables guaranteed under the Export Guarantee Act. It also acts as the clearing house for the Vienna Stock Exchange and is the central securities depository and settlement agency.

43. With the completion of the privatization of PSK, government shareholding in the banking system has been reduced to about 0.1 percent of total bank equity. However, there are strong links between the provinces and the regional mortgage banks, with seven of the eight having the benefit of guarantees from their respective *Land*. Also, municipalities originally sponsored many of the savings banks, and the foundation (a limited liability company without shareholders) used to control banks may in some cases provide for significant local government influence.

44. As in many other developed countries, Austrian banks have seen increasing competition for savings from mutual funds and other savings vehicles. While the growth in Austrian mutual funds has recently slowed, total mutual fund assets are now equivalent to about 45 percent of total bank liabilities to customers (excluding interbank), or almost 85 percent of total bank savings deposits (Figure II-6). Banks control the majority of Austrian mutual funds, so they are generally able to retain the customer relationship when consumers opt for a mutual fund investment rather than a savings deposit. However, the increasing preference for non-bank savings vehicles may put additional pressures on banks' cost of funds by reducing the relative size of the pool of low-interest savings accounts.

Figure II-6. Austria: Bank Savings Deposits and Mutual Fund Assets
(In billions of euros)



Source: OeNB.

45. Austrian banks typically have narrow margins and high non-interest expenses, although aggregate data for the system obscures significant variations among the sectors

(Tables II-5, II-6). The savings bank sector, although it has the lowest net interest income, also has the lowest level of non-interest expense, so savings banks net income is close to the average for the banking system. Austria's banking system has consistently ranked near the bottom of the EU in earnings (Figure II-7). The low earning capacity of the Austrian banks limits the ability to build capital through retained earnings and lessens resilience to credit losses.

Table II-5. Austria: Banks Net Interest Income
(In percent of total assets)

Net interest income	1999	2000	2001
All banks	1.20	1.20	1.21
Volksbank credit cooperatives	1.70	1.76	1.55
Raiffeisen credit cooperatives	1.49	1.50	1.40
Joint stock and private banks	1.22	1.38	1.36
Savings banks	1.05	0.97	1.05

Table II-6. Austria: Banks Non-Interest Income
(In percent of total assets)

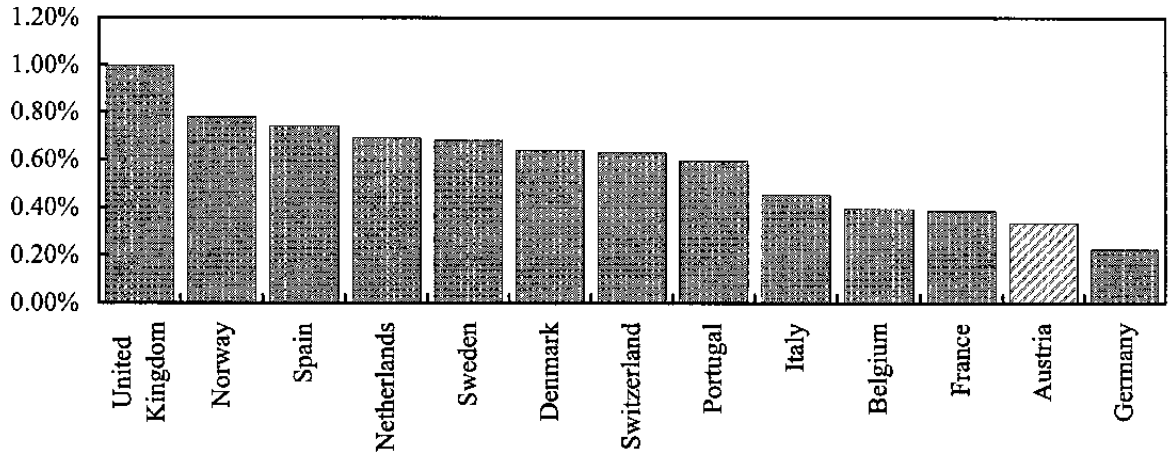
Non-interest expense	1999	2000	2001
All banks	1.63	1.60	1.61
Volksbank credit cooperatives	2.04	1.96	1.83
Raiffeisen credit cooperatives	2.03	1.71	1.47
Joint stock and private banks	1.90	1.95	1.86
Savings banks	1.34	1.31	1.46

Source: OeNB.

46. High levels of capitalization and conservative provisioning would tend to mitigate the lack of resilience from low earnings. All Austrian banks reported compliance with capital adequacy requirements at end-2001, with the banking system as a whole having regulatory capital equal to 14.6 percent of risk-weighted assets. Asset quality and provisioning information is currently only available annually from bank supervisory reports completed by the bank's external auditors.[11] Nevertheless, the limited data available indicates that Austrian banks typically have established provisions in excess of 120 percent of non-performing loans.

[11] More detailed and timely data on asset quality will be available for 2002 following the implementation of a quarterly reporting requirement.

Figure II-7. Credit Institutions Average Return on Assets, 1997-2000



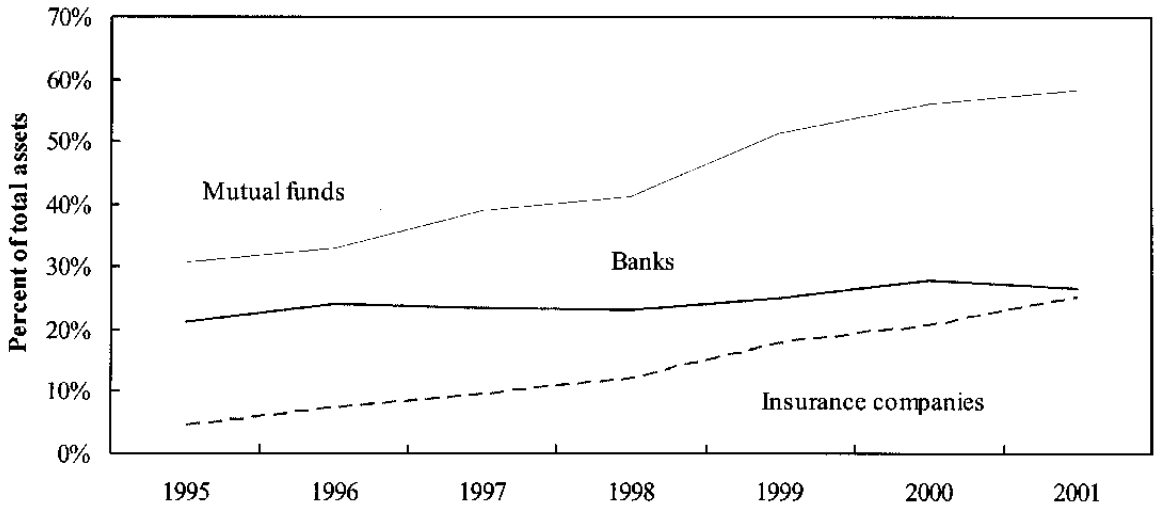
Source: Eurostat.

D. International Focus

47. The expansion of Austrian banks into the CEECs is an important facet of the internationalization of the Austrian financial sector. This has been well documented,[12] but the focus on bank expansion in CEECs may obscure the more general trend of the increasing international orientation of the Austrian financial sector as a whole. While foreign assets relative to total assets of the banking system increased from about 21 percent in 1995 to over 26 percent at end-2001, the increases since 1995 in foreign holdings by Austrian mutual funds from 30 to 58 percent of total assets and insurance companies from 4 to 25 percent are more dramatic (Figure II-8). The increase in international holdings potentially benefits Austrian investors through diversification and returns that may exceed those available in domestic markets.

[12] See the Austrian National Bank's *Financial Marked Stability Report* Number 1 (June 2001) and Number 2 (December 2001) and the 2000 Selected Issues chapter "Challenges of European Financial Integration: The Case of Austria."

Figure II-8. Austria: Foreign Assets of Financial Intermediaries



Source: OeNB.

48. There are many factors that have influenced the increasing outward focus of the Austrian financial sector. For the pension, insurance, and mutual fund sectors, the very small size of the Austrian capital markets virtually forces an outward orientation as assets grow. The free float of shares on the Vienna Stock Exchange amounts to only about 40 percent of market capitalization, meaning that there is only about € 11 billion in shares available for purchase. Coupled with the small size of the bond market, this means that Austrian institutional investors, while small by European standards, have a demand for capital markets instruments that outstrips domestic supply.

49. The mature nature of the Austrian banking markets caused banks to look outward for growth opportunities and improved profitability. Austrian markets have been characterized by relatively narrow margins and high operating costs. Coupled with a stable macro environment and low levels of loan losses, the result has been a banking system with a history of adequate but not exceptional profitability. Due to Austrian banks' small size and only middling efficiency, expansion into the EU was not practical. The neighboring CEECs, however, provided an opportunity for Austrian banks to capitalize on their geographic proximity, historical links, and greater banking sophistication. The small size of the banking systems in the transition economies meant that Austrian banks have been able to acquire or build significant market shares with relatively small investments (Table II-7).

Table II-7. Share of Majority Austrian Owned Banks in CEEC Markets, End-June 2001

Country	Market share (percent)	Assets (€ billions)
Slovak Republic	40	7.8
Czech Republic	21	17.6
Croatia	14	2.5
Hungary	16	4.3
Poland	7	9.0
Slovenia	5	0.8

Source: OeNB.

50. Returns from the Austrian banks' CEEC investments, both on an absolute and risk-adjusted basis, have so far have exceeded returns from domestic business. Not only are margins higher, but loan loss experience has been lower, due in part to state-support through guarantees or put options provided in several cases where Austrian banks purchased CEEC banks through privatization. This state support is limited to loans existing at the time of privatization, so future loan loss experience will be increasingly dependent on the ability to manage the credit risk of subsidiaries in countries where the legal and accounting infrastructure remains less well developed than in the Austrian home market. So far, a conservative approach characterized by slow loan growth has helped to keep loan losses low. Total assets of Austrian banks in the CEECs were € 59 billion at end-2001, amounting to about 10 percent of total Austrian banking assets. Profits attributable to the CEECs ranged from 25 to 63 percent for the various banking groups, and amounted to about one-third of the profit of the Austrian banking system.

51. The expansion strategies of the Austrian banking groups are not identical, but in general there is a focus on building a strong retail and commercial banking franchise in the CEECs. The expectation is that continued financial deepening will increase banking assets in the CEECs from an average of less than 60 percent of GDP today towards the EU average of around 245 percent. Austrian banks expect that they will be able to hold or increase their market share as this growth takes place. The presumption is that their early entry will provide them an advantage over other international banks that may be attracted later, as these banking markets become more developed. Currently, two Austrian banks rank in the top ten foreign banks in eastern and central Europe, and the CEEC investments of Bayerische HypoVereinsbank of Germany are managed through its Austrian subsidiary, Bank Austria (Table II-8).

Table II-8. Regional Market Share of Foreign Banks in East and Central Europe
(In percent of regional banking assets)

KBC (Belgium)	11.7
HypoVereinsbank (Germany)	9.9
UniCredito (Italy)	7.7
Société Générale (France)	7.7
Citibank (US)	7.6
Erste Bank (Austria)	7.4
BCI/Intesa (Italy)	5.4
ING (Netherlands)	4.4
RZB (Austria)	4.0
Commerzbank (Germany)	3.8

Source: *The Banker,* November 2001.

52. Foreign participation in the Austrian financial sector has been increasing at the same time as Austrian institutions have been looking outward (Table II-9). Most of the foreign-controlled banks in Austria are small. They accounted for less than 3 percent of total banking system assets prior to the acquisition of a controlling interest in Bank Austria by Germany's HypoVereinsbank, which increased the foreign-owned share of banking system assets to the current level of approximately 26 percent.[13] In addition, German banks have strategic investments in two of the large Austrian banking groups (OeVAG—Deutsche Zentral-Genossenschaftsbank; BAWAG—Bayerische Landesbank), and at end-2000, 167 foreign credit institutions were active in Austria on the basis of the EU freedom of services provisions.

[13] OeNB data for end-2001 indicates that foreign controlled subsidiaries and branches in Austria had a market share of 19.7 percent. Creditanstalt, a subsidiary of Bank Austria (controlled by Bayerische HypoVereinsbank of Germany), was still classified by the OeNB as a domestic bank at end-2001 pending final legal integration into the Bank Austria structure. Adding the 6 percent market share of Creditanstalt, which was reclassified by the OeNB as a foreign bank in 2002, results in a foreign bank market share of 25.7 percent at end-2001.

Table II-9. Austria: Number of Foreign Credit Institutions

	1990	2001
100 percent foreign-owned subsidiaries	14	19
Of which: Subsidiaries of EU-based banks	5	10
Non-EU based banks	9	9
Majority foreign-owned subsidiaries	10	9
Of which: Subsidiaries of EU-based banks	4	4
Non-EU based banks	6	5
Branches of foreign banks	2	18
Of which: Branches of EU-based banks	1	17
Non-EU based banks	1	1

E. Regulation and Supervision

53. The legal foundation and practice of supervision in Austria has been evolving rapidly to respond to developments in the financial sector, to implement the EU financial sector directives, and to introduce ongoing improvements in international best practice. Banking legislation has been completely revamped, there is a new focus on cooperation with supervisors internationally, and greater coordination has been required among national supervisors to address conglomeration and distribution networks that cross traditional boundaries between different types of financial institution.

54. The most visible change in supervision and regulation is the establishment, effective April 1, 2002, of a single financial supervisory agency, the Financial Market Authority (FMA) (Box II-1). Previously, the Ministry of Finance (MoF) had responsibility for bank supervision, as well as the oversight of insurance and pension funds, and the OeNB contributed to financial supervision through a program of on-site bank examinations and off-site analysis as well as the collection of prudential returns and other banking statistics. One concern with this arrangement was the lack of independence from government, since, despite the involvement of the independent central bank, final responsibility for supervision issues rested with the Ministry.

Box II-1. Austria: The Financial Market Authority

Background: The Austrian government announced in February 2000 the intention to create an independent bank supervisory authority. Previously, the supervisory apparatus lacked independence, as responsibility for bank supervision rested formally with the MoF. The OeNB undertook on-site examinations and analysis, and provided input and advice to the MoF. Various options, including making the OeNB responsible for banking supervision, had been discussed, but the government ultimately opted for a unified supervisory agency responsible for insurance, pensions, capital markets, and banking.

Legal Basis: The Financial Market Supervision Act (FMABG) was approved by parliament in the summer of 2001. However, the Austrian Constitutional Court's December 2001 ruling that the basis for legal independence of the Austrian Securities Authority (ASA) was contrary to the constitution invalidated the FMABG, since a similar legal structure had been planned for the FMA. With the consent of two-thirds of parliament, a constitutional provision was passed to establish the FMA as a public entity with legal independence. The necessary amendment to the FMABG was passed in March 2002, and the FMA began operations on April 1, 2002.

Governance and funding: The FMA is managed by an Executive Board consisting of two members, one nominated by the MoF, and one nominated by the OeNB. The Supervisory Board is responsible for the governance of FMA and oversight of management. The OeNB nominates three of the six voting members of the Supervisory Board appointed by the MoF, including the Deputy Chairman. There are two non-voting members representing the Austrian Economic Chamber (Wirtschaftskammer Österreich). The FMA obtains 10 percent of its budget from the federal government and the balance from direct charges to regulated institutions.

Coordination with the OeNB and MoF: The Financial Market Committee, established to foster cooperation among the institutions with broad responsibility for stability, will meet at least quarterly in an advisory role. The FMA, OeNB and MoF each appoint a member and a deputy to this committee. Formal cooperation and coordination between the FMA and OeNB is established in the FMABG. Among other things, the OeNB must be consulted in matters of licensing and formal supervisory action. The OeNB will continue to collect monthly returns and quarterly reports from banks and maintain the central credit register, will continue to conduct on-site examinations in the area of market and credit risk, and may be requested by the FMA to conduct on-site examinations covering other areas.

Structure: The FMA is organized into four departments: (i) banking supervision; (ii) insurance and pension funds supervision; (iii) securities supervision; and (iv) legal, services and internal control. There are currently about 100 staff, largely transferred from the MoF and ASA, with plans to recruit an additional 50 staff over the next 6 to 12 months. The biggest need is recruitment and training of bank examiners and analysts.

55. Creation of a supervisory agency with legal independence is a welcome step in complying with international best practice. However, the real challenge is to ensure that the legal framework is effectively implemented, resulting in prudent and efficient supervision of the financial sector. The new FMA has to deal with significant transitional issues as it

incorporates staff transferred from the MoF and securities supervisor, and recruits and develops the necessary expertise in banking supervision. Experience elsewhere indicates that it will be a significant challenge to develop a common culture and capitalize on the potential of a single agency to effectively supervise financial conglomerates.

56. Ongoing revisions to the Banking Act and regulations and continuous improvements in the practice of supervision, while garnering less public attention than the FMA, have been important in implementing EU standards for the financial sector and preparing for the expected revisions to the Basel Capital Accord. The Banking Act as revised through 2001 contains extensive prudential requirements with respect to market risks and internal models. The supervisory focus is increasingly on the identification and measurement of risks and the potential risk-sensitivity of credit institutions.

57. The OeNB has been increasing the number of staff devoted to on-site examinations, and with the additional resources the FMA will bring to bear, it is expected that all banks will be inspected periodically. Previous supervisory practice placed greater reliance on external audits and off-site analysis, with the OeNB typically conducting routine examinations of a small number—perhaps five percent of all banks—in a given year. The OeNB has the authority under the Banking Act to undertake special or targeted examinations, and in 2001 made on-site visits to 92 banks to focus on specific issues. Targeted examinations continue to be an important supervisory tool, but regular on-site reviews of banks' application of their policies and procedures—particularly with respect to risk management and internal controls—is an important part of moving towards a risk-focused supervisory approach. While all banks do not need to be examined every year, ensuring that all banks will be examined periodically, and at the same time using risk profiles to determine which banks require more frequent or more intensive supervisory oversight, should strengthen the ability to detect and deal with any emerging problems on a timely basis.

58. A review of prudential reporting requirements in 2000 concluded that the statistical information available to banking supervisors did not fully meet the requirements for comprehensive off-site analysis. In conjunction with the banking industry, the OeNB has been developing revised requirements to expand the coverage and/or increase the frequency of reporting on key risks. Effective from the beginning of 2002, banks are required to report quarterly on asset quality and provisioning, while previously the supervisors had relied on the annual supervisory reports of external auditors for this information. A quarterly requirement for solo and group large exposure reporting has also been introduced, and by end-2002 it is expected that the requirement for regular reporting of interest rate and maturity risk will be in place. A new directive for supervision of conglomerates is in preparation. As a single regulator, the FMA should be well placed to supervise groups on both a solo and consolidated basis, but there is currently no legal foundation for the supervision of conglomerates.

59. Revisions to the Banking Act have been implemented to address concerns about potential abuse of anonymous bearer passbooks. Previously, it was possible to open a

passbook anonymously and conduct transactions with only a password as identification. Passbooks can no longer be opened without appropriate identification of the customer and, effective June 2002, it will no longer be possible to make anonymous deposits or withdrawals. OeNB's self-assessment is that Austria is now fully compliant with all the Financial Action Task Force (FATF) recommendations.

60. The OeNB and MoF have been focusing on developing greater knowledge of the supervisory apparatus in the CEEC countries, and–to facilitate information exchange—memoranda of understanding have been concluded with the supervisiory authorities in the Czech Republic, Hungary, and Slovenia, and are being negotiated with Slovakia and Poland. The OeNB will begin its first on-site examinations at foreign establishments of Austrian banks in the third quarter of 2002. The OeNB has identified and monitors on an ongoing basis the country risk exposure of Austrian banking groups. More broadly, the OeNB has undertaken a wide range of financial stability-related research projects, and has since June 2001 published a semi-annual Financial Stability Report.

61. Austria's limited experience with bank failures (four since 1998) has generally been concentrated in smaller joint stock and private banks. This is likely due to the prevalence of collective action within the cooperative and savings bank sectors to resolve weak banks without formal action on the part of the supervisor. The Banking Law and FMABG provide the supervisory authority with a full range of tools and sanctions for dealing with problem banks, but in the past, bank owners have sometimes been able to use the legal system to stay or overturn supervisory actions. This has led to delays, both because of the need to attempt to ensure an air-tight legal case prior to taking action, and because of lengthy appeals by banks against actions that have been taken. The legal system imposes some unavoidable constraints, but there is an expectation that over time the FMA may be able to move away from a strict legalistic approach, enabling faster action to be taken if problems are detected.

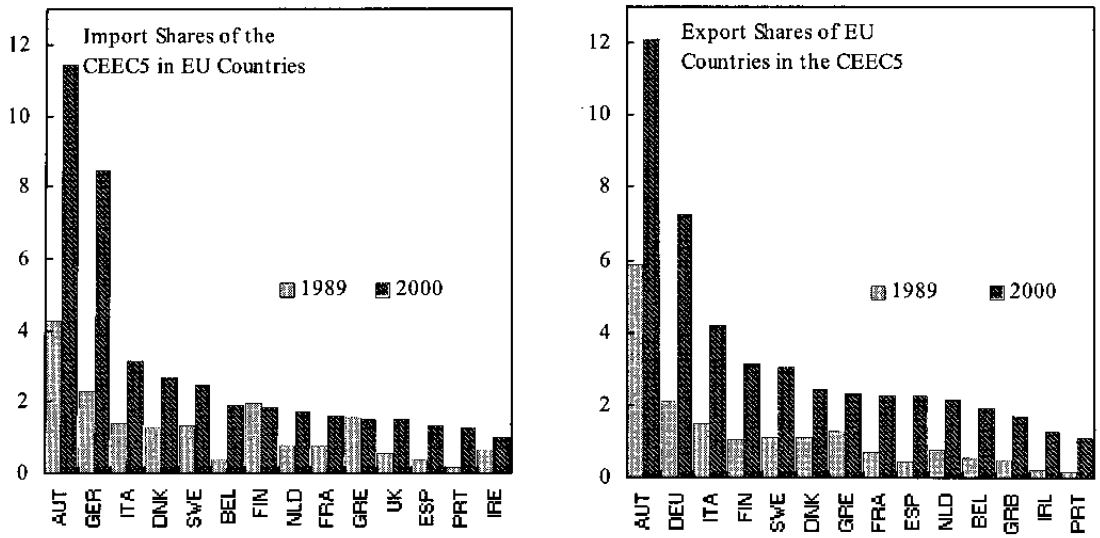
III. The Effects of EU Enlargement for Austria[14]

A. Introduction and Summary

62. Austria is among the European Union's member states likely to be most affected by the upcoming eastward EU enlargement. There are two main reasons. The first is geographic location: four of Austria's neighbors (the Czech Republic, Hungary, the Slovak Republic, and Slovenia), covering about half of its borders, are among the leading accession candidates, expected to join the EU in 2004. The second reason is the strength of the economic ties that Austria has already developed with the Central and Eastern European countries (CEECs).

63. Austria's links with the CEECs strengthened considerably over the 1990s. The opening up of the CEECs toward the West, combined with the Europe Agreements that eliminated most non-agricultural tariffs between the CEECs and the EU, set the stage for a dynamic expansion of trade flows, especially with Austria. The annual growth rate of Austrian exports to and imports from the CEEC5 (the four neighboring candidate countries plus Poland) averaged in the double digits over the 1990s. As a result, the share of the CEEC5 in Austrian exports and imports doubled (Figure III-1).

Figure III-1. Austria: Trade Links with the CEEC5

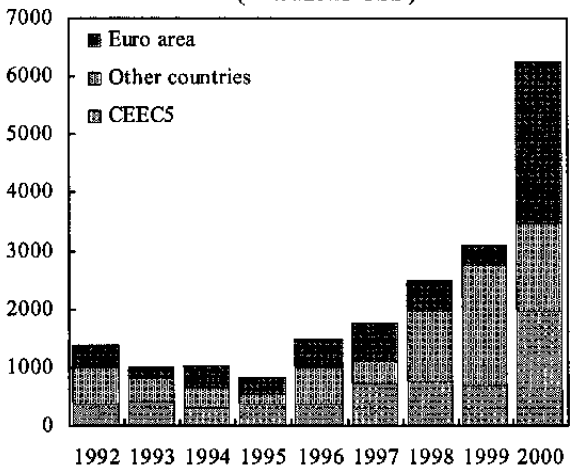


Source: IMF Direction of Trade Statistics.

[14] Prepared by Kornélia Krajnyák.

64. Equally spectacular was the increase of these countries' importance as a destination for Austria's outward foreign direct investment (FDI). This reflected both the acquisition of privatized CEEC assets and greenfield investments by Austrian firms, as these sought to gain market share and take advantage of lower production costs via outsourcing. By the end of the 1990s, the CEECs accounted for over one third of outward Austrian FDI flows (Figure III-2), and Austria ranked as one of the top foreign investors in all of its CEEC neighbors (Table III-1).

Figure III-2. Austria: Regional Breakdown of Outward FDI
(In millions USD)



Source: OeNB.

Table III-1. Austria: Austria as a Foreign Direct Investor in CEECs

Country	Total stock (billion USD)	Ranking of Austria	Austria's share (in percent)	Date
Slovenia	2.8	1	45.6	2000 Dec
Croatia	5.9	1	29.2	2001 Sep
Slovak Republic	4.3	3	18.4	2001 Sep
Hungary	10.4	3	12.1	1999 Dec
Czech Republic	17.6	3	10.1	1999 Dec
Bulgaria	4.3	5	6.5	2001 Sep
Romania	4.8	7	5.2	2001 Sep
Ukraine	3.9	10	3.3	2000 Dec
Poland	48.4	11	2.5	2001 Jun

Source: OeNB, WIFO.

65. The experience so far has been positive for Austria. The opening up of the CEECs has increased Austria's exports and growth, created jobs, and helped keep inflation low. Estimated growth effects are significant, adding close to ½ percent per year to annual Austrian GDP growth,[15] while no major adjustment problems appear to have emerged in the factor markets or at the sectoral or regional level.

66. Increased exports and FDI to the CEECs were accompanied by job creation in Austrian manufacturing at home, disproving fears that jobs would go East in search of lower wages. Palme (1999) estimates the direct effects on manufacturing employment between

[15] See Breuss and Schebek (1998), Table 3.

6,000 and 20,000 jobs. Taking into account indirect effects would approximately double these numbers.

67. The integration of the CEECs with Western Europe is likely to continue in the future. This Chapter reviews the extensive research on the channels through which EU enlargement, is likely to influence the Austrian economy.[16] Although the integration process is multidimensional and EU accession has numerous important non-economic aspects in the candidate countries (such as policy coordination and convergence of institutions, norms and standards) that may in turn have economic repercussions for Austria, the Chapter focuses on direct economic linkages and does not consider other effects in detail.[17] The horizon over which effects on the Austrian economy are examined is the medium term. Although after EU enlargement, the new member countries could possibly adopt the euro within this time frame, this further step in the integration process is not considered here.

68. The possible effects of EU enlargement on the Austrian economy can be grouped in three broad categories: budgetary, macroeconomic, and distributional. Budgetary effects comprise the direct costs of EU enlargement through changes in Austria's net contribution to the EU budget. Macroeconomic effects show up as changes in the major economic aggregates (output, prices, exports and imports, cross-border movements of capital and labor). Finally, distributional effects generate "winners" and "losers" (at least in relative terms) for instance in the labor market, among various industries, or across regions.

69. The main channels for the direct **budgetary effects** of enlargement are the rules determining Austria's gross payments to the EU budget and the EU policies on agricultural subsidies and structural funds. While the size of the contribution to the EU budget (1.27 percent of GDP) is not expected to change with enlargement, post-accession budgetary arrangements are still being negotiated, and the Common Agricultual Policy—a critical component from the point of view of net contributions—is under discussion. The size of the budgetary effects is hard to estimate, and is not undertaken here.[18]

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[16] The review draws strongly on the results of the "Preparity" cross-border research project that was launched in 1999 by seven Austrian provinces and the Federal Ministry of Economic Affairs and Labor, with the mandate to analyze the economic consequences of EU enlargement. Many of the cited papers can be accessed at the "Preparity" project's website: http://www.preparity.wsr.ac.at/

[17] An example where a non-economic aspect of the CEECs' integration may have economic consequences could be faster institutional convergence that encourages FDI activity.

[18] Existing studies based on hypothetical post-accession budgetary arrangements indicate small changes in Austria's net contributions to the EU budget. Kohler and Keuschnigg (2000) estimate an increase of 0.1-0.2 percent of GDP, while Breuss and Lehner (2001) put the increase to 0.05-0.1 percent of GDP.

70. The major channels for the **macroeconomic effects** of EU enlargement (discussed in detail in Section B) are trade, changes in firm size and market structure, and cross-border movements of capital and labor.[19]

- As most tariffs have already been eliminated, additional trade creation upon EU enlargement would be modest and largely due to lower costs from eliminating border controls. However, "imponderables", such as faster real and institutional convergence in the accession countries after their EU entry are also likely to broaden the scope for trade between the old and the new members.

- Widening the single market is likely to increase the scope for economies of scale, thus raising productivity, and strengthen competition, thus putting a downward pressure on markups and input costs. Through these channels, EU enlargement could increase long-term growth and lower inflation in new and old member countries.

- By reducing investment risk, EU accession is expected to stimulate FDI inflows to the new entrants. To the extent that this crowds out investment in Austria, as domestic and foreign investors divert some of their funds to the accession countries, slower capital accumulation would tend to lower economic growth.[20]

- Labor flows are likely to remain limited following EU enlargement, as the 7-year transitional arrangement in the area of labor mobility will constrain migration. After that, Austria—like the rest of the current members of the EU—is likely to be a net recipient of labor. This would increase the economy's resources and contribute positively to economic growth.

71. Studies quantifying these macroeconomic effects of EU enlargement on Austria estimate that the overall magnitude of the gains is modest but significant. Estimated cumulative growth effects over the medium term are in the 0.7 to 1.6 percentage point range (or 0.1-0.2 percentage points extra growth per year), while employment is slightly higher and inflation is slightly lower than in the no-enlargement counterfactual.

72. The two main channels for **distributional effects** from EU enlargement (discussed in Section C) are relative wage changes and shifting patterns of comparative advantage across industries or regions.

- Relative wages may change due to the reallocation of resources. Increasing immigration or cross-border commuting to work after the liberalization of labor

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[19] This presentation follows Breuss (2002a) and (2002b).

[20] However, negative effects of lower growth on welfare would be offset by higher capital income from abroad and improved overall efficiency from the better allocation of resources.

movements between Austria and the new EU members may change the relative supply of different skills on the labor market, leading to a change in relative wages. To the extent that foreign workers would be competing with lower- to medium-skilled Austrian workers, they would bid down relative wages in these skill categories. Moving capital and production to the CEECs would also influence relative wages through changes in labor demand.

- The consequences of the relocation of economic activity are likely to be concentrated in specific industries and regions. For example, production intensive in low-skilled labor (such as textile production) may be relocated to the new EU members, or the CEECs may exploit better their comparative advantage in certain areas of agricultural production. Regions where such disadvantaged industries are overrepresented would be challenged to adjust to these shifting production patterns. The likely target areas for immigration and commuting, Vienna and the border regions, would experience a change in the size and skill composition of their labor force, which could, in turn, change their comparative advantage vis-à-vis other regions, necessitating structural adjustment.

73. Additional distributional effects triggered by EU enlargement are unlikely to be dramatic over the medium term. As Austria's links with have CEECs been gradually tightening during the 1990s, production allocation decisions have already been changing, with attendant distributional effects. EU enlargement may speed up this process but is unlikely to cause drastic changes. In the area of labor markets, the transitional arrangements prevent disruptive changes in the size or composition of the labor force. Finally, there is no indication that Austria's comparative advantages will shift overnight with EU enlargement. Rather, enlargement appears to pose just one more challenge for Austria in a globalizing world economy. Studies suggest that the Austrian economy is well-positioned to tackle this challenge while keeping costs to a minimum.

74. The remainder of the chapter reconsideres the channels and effects sketched above. Drawing on the literature on the effects of EU enlargement on old member states, in particular, on Austria, Section B discusses the various macroeconomic effects in detail. Section C follows with a detailed discussion of distribution effects.

B. Macroeconomic Effects of EU Enlargement

75. Regional studies indicate that EU enlargement would benefit economic growth in Austria. This is not surprising, as fuller integration of the CEECs with the rest of Europe would reduce distortions and contribute to the more efficient allocation of economic resources. However, growth benefits are estimated to be asymmetric. First, the payoff for new members would be substantially—perhaps by a factor of five to ten—larger than for old members.[21] This is not surprising, given the relative size of the EU and the candidate

[21] See for instance European Commission (2000) or Breuss (2002a).

countries.[22] And second, some old EU members would benefit more than others. The distribution of benefits among the EU members is largely determined by two factors: the strength of their economic linkages with the CEECs; and the change in their net contributions to the EU budget. As the Austrian economy already has close ties with the CEECs, and Austria is not expected to be among the strongest competitors of the CEEC for EU structural funds, Austria stands to benefit more than the EU average.

76. Quantitative estimates of the macroeconomic effects of EU enlargement bear this out. While EU enlargement would on a cumulative basis add 0.1 to 0.7 percentage points to growth over the medium term in old members (or about 0.02 to 0.1 percentage points per year), the estimates for Austria are significanty larger, ranging from 0.7 to 1.6 percentage points, or about 0.1-0.2 percentage points extra growth per year (Table III-2).

Table III-2. Austria: Cumulative Growth Effects of EU Enlargement 1/

Source	Growth effect	Country	Method
Gasiorek, Smith and Venables (1994)	0.5-0.8	EU12	CGE model
Baldwin, Francois and Portes (1997)	0.2	EU15	CGE model
Kohler (2000)	0.1	EU15	CGE model
Neck, Haber and McKibbin (2000)	0.0	EU15	CGE model
European Commission (2001)	0.5-0.7	EU15	Growth model
Breuss (2001)	0.3	EU15	Macro model
Lejour, de Mooij and Nahuis (2001)	0.1	EU15	Macro model
Breuss and Schebek (1995) 2/	1.6-1.7	Austria	Macro model
Breuss and Schebek (1998) 3/	1.3	Austria	Macro model
Keuschnigg and Kohler (1997) 4/	1.4-1.5	Austria	CGE model
Keuschnigg and Kohler (2001) 2/	1.1-1.3	Austria	CGE model
Breuss (2001)	0.7	Austria	Macro model

Source: Fidrmuc et al (2002), p. 50, Table 1.

1/ Estimates without migration effects.
2/ The lower and the higher values correspond to the accession of 5 and 10 CEECs, respectively.
3/ Assumes the accession of 10 CEECs.
4/ Assumes reforms of the EU budget.

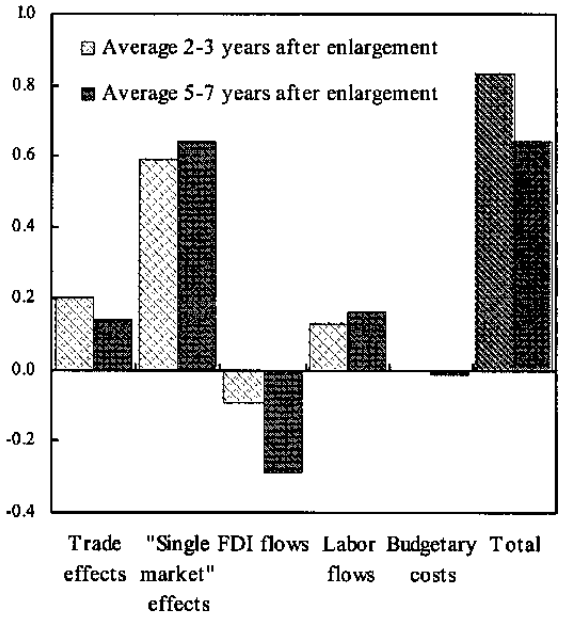
77. EU enlargement can also be beneficial for inflation and employment in old members, but these estimated effects tend to be small. Better resource allocation and stronger competition would tend to reduce costs and markups, which, in addition to possibly stimulating growth, would decrease inflation. For Austria, estimated cumulative inflation effects are in the 0.1 to 1.4 percent range over a 10-year horizon (Breuss (2002b)).

[22] The combined GDP of the ten CEECs amounts to about 10 percent of the EU15's GDP in PPP terms.

78. The estimated aggregate employment effects also tend to be small (Breuss (2002b) reports a cumulative increase in employment between 0.1 and 1 percent for Austria), and mostly reflect job creation from faster growth. Consistent with the transitional arrangements in the area of labor mobility, these estimates are based on the assumption of a small net labor inflow. Since the net economic effect of immigration is positive for recipient countries, larger net immigration into Austria would unambiguously raise growth and employment even more in the long run, but in the short run, a fast expansion of labor supply could temporarily increase unemployment. These macroeconomic benefits would be accompanied by distributional effects on the labor market (discussed in Section C), as competition between domestic workers and immigrants could bid down relative wages for certain skill levels and professions.

79. The main channels through which macroeconomic effects materialize are trade, changes in firm size and market structure, and cross-border movements of capital and labor. While trade creation provides a demand pull, increased productivity (from e.g., exploiting economies of scale), keener competition, and better allocation of the factors of production act predominantly on the supply side and raise the economy's growth potential. Breuss (2002a) decomposes his estimates of the medium-term effects of EU enlargement for Austria's economic growth (Figure III-3) and finds that supply factors account for most of the benefits. This conclusion, however, may be somewhat biased. To the extent that trade creation after EU enlargement is not fully attributable to the elimination of tariffs and border controls (see below), demand pull effects are probably somewhat underestimated. In addition, as the calculations assume cumulative net immigration flows of about 1 percent of Austria's population over the medium term,[23] the contribution of labor flows to growth is likely to be overstated.

Figure III-3. Austria: Contribution to Cumulative Effect on Real GDP Growth
(In percent)



Source: Breuss (2002a), Table II.

[23] This is based on the estimates of Boeri and Brückner (2000) that assume free mobility of labor immediately after enlargement.

80. After this bird's-eye review of the macroeconomic effects of EU enlargement and their expected magnitude in Austria, the remainder of this section discusses in detail some of the channels through which enlargement can influence the major macroeconomic indicators.

Trade creation

81. Over the 1990s, the rapid redirection of trade of the CEECs led to fast growth in their exports to and imports from countries in the western part of Europe. As a result, the Austrian economy registered correspondingly fast growth in its exports to and imports from the region (Table III-3). The increase in trade flows between East and West was boosted by a reduction of tariffs between the CEECs and EU countries. In the framework of the Europe Agreements concluded with 10 CEECs, the EU eliminated most tariffs (with the exception of agricultural and sensitive products) on CEEC imports. The CEECs took a similar step in 2002.[24]

Table III-3. Austria: Growth of Manufacturing Exports
(In percent)

To country:	Period	Growth rate
Czech Republic	93-00	9.7
Hungary	89-00	16.0
Poland	89-00	9.3
Slovak Republic	93-00	10.2
Slovenia	93-00	11.0
CEEC5	93-00	11.2
EU	93-00	6.7
World	93-00	7.9

Source: IMF Direction of Trade Statistics.

82. What is the further scope for trade creation between Austria and the candidate countries, and how it would be influenced by EU enlargement? The magnitudes are uncertain, but studies indicate that trade flows are likely to increase further and more dynamically after EU enlargement. The CEECs' share in Austrian exports and imports appears to have plateaud in recent years, reflecting that the transition-induced large shift in the geographical trade structure of the candidate countries has mostly been completed. However, as countries with more similar real income levels tend to trade more, the catching-up process in the CEECs is expected to create more trade. In addition, the intensity of trade relations between the EU countries and the CEECs still falls short of that observed between EU member countries even if real income differentials are taken into account. For example, based on a gravity model, Egger (1999) estimates that trade flows between Austria and the CEEC5 could increase more than threefold in nominal terms, should trade links become as

[24] Kohler and Keuschnigg (2001) estimate that this eliminated an average tariff of about 6 percent on Austria's CEEC imports. They estimate the average tariff on the CEECs Austrian exports at about 7 percent.

tight as between current EU members.[25] One channel through which EU enlargement could facilitate trade creation is the elimination of border controls.[26]

83. Although the potential for additional trade creation appears large, the extent and timing of the effects attributable to EU enlargement are highly uncertain. They would depend on such imponderables as the boost EU accession gives to real convergence in the CEECs or the change in the speed of institutional convergence between old and new EU members. However, some changes upon EU enlargement are more tangible. Breuss (2002a) and (2002b) considers the elimination of all remaining tariffs (assumed at 5 percent for CEEC imports from the EU) as well as border controls (assumed to cost 5 percent of trade flows). The elimination of these distortions and trade costs would benefit Austrian exports and growth, increase employment, and lower inflation. But the overall estimated effect is predictably small, amounting to some 0.2 percentage point of growth on a cumulative basis over the medium term.

Changes in market structure

84. EU enlargement will increase the size of the single market. This will have two implications for market structure. First, the larger market will provide more scope for exploiting economies of scale, increasing production while at the same time raising productivity. Second, the number of firms within the single market producing the same good or close substitutes will increase, strengthening competition and putting a downward pressure on markups. In addition, EU entry of Austria's CEEC neighbors would facilitate breaking up production processes and locating some phases in the new members (outsourcing), thereby reducing costs via cheaper intermediate inputs.[27] Through higher productivity, lower costs, and improved international competitiveness, EU enlargement would increase long-term growth and lower inflation in both old and new members.

85. Breuss (2002a) calibrates the likely increase in productivity and the decrease in the price level based on ex ante expectations of similar effects at the creation of the single market. As Austria is a small country that trades relatively extensively with the CEECs, the estimated effects are above the EU average, raising GDP growth by about 0.6 percent on a cumulative basis over the medium run.

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[25] If this were to occur in about 35 years, annual average trade growth between the old and new EU members would have to be about 3 percentage point higher than the baseline.

[26] If the new entrants joined the euro area at some later date—an option not considered here—transaction costs between the EU members and the CEECs could decline substantially, further stimulating trade.

[27] Kratena and Wüger (2001) estimate positive output effects from more extensive outsourcing, accompanied by slightly lower employment.

FDI flows

86. During the 1990s, foreign direct investment played a significant role in the economic restructuring of CEECs. Further inflows are expected, as foreign firms will continue to seek to secure or increase their share in the fast-growing CEEC markets. In addition, the CEECs' relatively cheap and highly-skilled labor force can provide cost advantages and thus attract foreign capital. EU accession is likely to stimulate this process by lowering risk premia required by foreign investors.

87. Increased FDI inflows to CEECs can affect the Austrian economy through two main channels. First, domestic and foreign investors may divert some of their funds that otherwise would have been available for investment in Austria—or in other old EU members—to the accession countries. This can increase the cost of capital, crowding out some investment and lowering capital accumulation in the old members. Second, jobs and production may migrate together with capital to the new members.

88. Given the CEECs' small size, faster upgrading of their capital stock after EU enlargement is likely to have limited effects on capital availability in old members; all the more so as not all of their capital needs would be financed from within the EU. Correspondingly, changes in the cost of capital would remain small. For example, Breuss (2002a) assumes that short-term interest rates in the euro area could rise by five basis points after enlargement, and then by further 15 basis points over the medium term. The resulting lower investment in Austria would dampen growth by about ¼ percentage points on a cumulative basis over the medium term.

89. Regarding the other possible effects of higher FDI inflows to the new members after enlargement, Austria's experience during the 1990s does not appear to support the argument that employment and production also relocated with capital. As a result of Austrian firms' strong investment activity in the CEECs, the share of these countries in Austria's FDI stock reached about 25 percent by the end of the decade. Meanwhile, cross-border intra-company trade consistently produced surpluses for Austrian firms with CEEC subsidiaries, and domestic employment by Austrian firms that made direct investments in the CEECs probably rose more dynamically than domestic employment by all Austrian firms with FDI.[28] The fact that Austrian investors predominantly cite gaining market share as their motivation for investing in the CEECs (Table III-4) suggests that FDI and exports will remain complements

[28] Employment growth figures are hard to interpret because of the rapidly changing number of firms with FDI in the CEECs. For example, Stankovsky (1999) reports for the 1990-96 period cumulative employment growth rates of 170 percent and 9 percent, respectively, for firms with subsidiaries in Eastern Europe and for firms with foreign subsidiaries. Total private sector employment (without agriculture and forestry) grew by a cumulative 2.3 percent over the same period.

in the years to come. As a result, increased FDI in the CEECs after EU enlargement would not crowd out domestic employment; rather, it would create jobs via higher exports. Were cost considerations to become more important, some production would shift to the East, with temporary negative growth and employment effects. However, over the long run, exploiting comparative advantages would raise welfare.

Table III-4. Austria: Motivation of Austrian Outward Direct Investors, End-1999

	Labor costs	Taxation	Market access	Supply security	Other	Labor costs	Taxation	Market access	Supply security	Other	Total investments	
	Share in the number of investments (in percent)					Share in the value of investments (in percent)					Number	In millions euro
Germany	0	2	70	2	25	0	1	51	0	48	325	1,428
UK	0	1	66	3	29	0	1	23	28	49	68	726
Hungary	8	0	68	4	19	7	0	69	2	22	404	841
USA	0	4	77	1	18	0	1	39	0	60	74	599
Czech Republic	6	0	74	1	19	3	0	61	1	35	257	993
Switzerland 1/	1	5	66	4	24	0	9	32	6	53	137	385
Netherlands	0	16	50	0	34	0	17	34	0	49	38	246
Caribbean countries	0	33	11	0	56	0	49	0	0	50	9	157
Sweden	0	0	86	0	14	0	0	100	0	0	14	29
Poland	2	0	74	12	11	1	0	79	4	16	105	236
Other countries	3	1	76	2	18	1	3	52	5	40	741	3,621
Total	3	2	72	3	20	1	3	50	5	41	2172	9,261
EU-11	1	2	70	2	25	0	2	46	0	51	565	2,846
EU-15	1	2	70	2	25	0	3	40	5	51	664	3,841
Eastern Europe	6	0	73	3	17	4	1	71	2	23	1098	3,314

Source: OeNB, "Austrian Outward and Inward Direct Investment at the End of 1999" (Focus on Austria 2/2001), Table 10.1.

1/ With Liechtenstein.

Migration

90. The transitional arrangements in the area of labor mobility provide constrain migration after EU enlargement. However, as the immigration potential from the new members is highly uncertain, and labor movements can have significant distributional consequences, the issue remains an important topic in policy discussions. Especially so in Austria that – together with Germany – can expect to be a favored destination on account of its geographical proximity to the CEECs and its relatively large existing stock of CEEC immigrants.

91. Estimates of potential labor flows from the new to the old EU member countries vary widely. For Austria, they range from 10,000 to over 100,000 immigrants (or from 0.1 to 1¼ percent of the Austrian population) annually in the first few years after relaxing administrative constraints on labor mobility.[29] Experience from previous EU enlargements, as well as from the German unification, indicates that flows above the high end of the range are unlikely to materialize.[30] An immigration potential closer to the midpoint of the range,

[29] See Huber (2002), Tables 1 and 2, for a summary of the estimates.

[30] The European Commission (2000) argues that the removal of barriers to labor mobility had only a minor impact on migration flows from Greece, Portugal and Spain into other EU countries. Currently, per capita GDP relative to Germany or Austria in the Czech Republic,

(continued)

such as the estimates of Boeri and Brückner (2000) (Table III-5), would appear more consistent with previous experience.

Table III-5. Austria: Projections of Immigration from the CEEC (in percent of baseline population) 1/

	1	2	3	5	10	15	20	25	30
From the CEEC10 2/									
EU-15	0.09	0.08	0.07	0.07	0.04	0.02	0.01	0.00	0.00
Austria	0.50	0.45	0.41	0.37	0.22	0.12	0.06	0.03	0.00
Germany	0.27	0.24	0.22	0.20	0.12	0.07	0.04	0.01	0.00
From the CEEC8 3/									
EU-15	0.05	0.05	0.04	0.04	0.02	0.01	0.01	0.00	0.00
Austria	0.30	0.27	0.24	0.22	0.13	0.07	0.04	0.02	0.00
Germany	0.16	0.14	0.13	0.12	0.07	0.04	0.02	0.01	0.00

Source: Boeri and Bruckner (2000), Tables 7.6 and 7.10, World Bank World Development Indicators, and staff calculations.

1/ For Germany, immigration projections are from Boeri and Bruckner (2000). For the EU and Austria, immigration projections were obtained by scaling the projections for Germany based on the relative number of CEEC immigrants.
2/ CEEC5, plus Bulgaria, Estonia, Latvia, Lithuania, and Romania.
3/ CEEC5, plus Estonia, Latvia, and Lithuania.

92. However, the Boeri-Brückner estimates, which are based on historical immigration data, may not be appropriate for gauging the scope for labor flows from the CEECs. Blanchard (2001) has argued that in the past, labor tended predominantly to move either between countries that were similar in terms of income levels and culture (e.g., the Netherlands and Germany), or between countries that were dissimilar in both respects (e.g., Germany and Turkey). The CEECs and the EU present a third case, where different income levels combine with similar cultures. This is probably conducive to higher mobility. But, even in such a case, in which the scope for immigration was underestimated by, say, a factor of 2 to 3, labor inflows from the CEECs to Austria would still be comparable to those experienced in the early 1990s.

93. As a net recipient of labor, Austria would derive long-term benefits from future liberalization of labor movements between old and new EU members. Immigration would increase the economy's resources and have a positive effect on economic growth. However, the adjustment of the economy to a larger labor supply would also have costs in the short term. These costs would mainly take the form of temporarily higher unemployment, and tensions emanating from distributional effects, and their duration would depend on labor market flexibility.

Hungary, Poland, and Slovakia is about the same as Portugal's relative per capita GDP at the time of its EU accession. Relative per capita GDP in Slovenia is higher, similar to that in Greece or Spain at the time of their respective EU accessions.

C. Distributional Effects of EU Enlargement

94. A purely macroeconomic perspective on the effects of EU enlargement misses distributional consequences that may be particularly important from a political economy point of view. While Austria stands to gain in the aggregate, the benefits are unlikely to be evenly distributed and may vary across segments of the labor market, industries, and regions.

95. Popular concerns remain strong regarding possible labor market disruption, in particular. After the liberalization of labor movements, distributional effects on the labor market could indeed be substantial. Although—as argued above—immigration is likely to remain contained even over the long run, Austria's long borders with the new EU members combined with the proximity of major urban areas across the borders provide large scope for cross-border commuting. This would increase labor supply and amplify the extent of labor market effects from enlargement. The Austrian labor market has recent experience of labor inflows: in the early 1990s, the labor market demonstrated its flexibility by quickly absorbing a wave of immigrants without large frictions. However, depending on the composition of immigrants, certain groups of Austrian workers could be strongly affected even with moderate aggregate inflows.

96. Relative wages and unemployment rates may also vary by industry, reflecting varying output and employment effects of EU enlargement. As trade in manufactures has largely been liberalized, additional production and employment effects in most industries are expected to remain small, with the possible exception of industries that rely on lower-skilled labor and operate in a highly cost-competitive markets (e.g., textiles and leather, plastic products, production of construction materials). The situation is different in services, where liberalization has been slower. As a result of EU enlargement, service industries with a regional reach—construction, transportation, and retail trade—can come under increased competitive pressure. Consistently with the expected macroeconomic benefits from EU enlargement, Austria's production structure is dominated by industries (both in services and manufacturing) that are either advantaged or neutral form in the process of economic integration with the CEEC.

97. Because labor market and sectoral effects will tend to be concentrated in certain geographic regions, distributional problems may become compounded: e.g., border regions with a disadvantaged industry structure may be particularly adversely affected by EU enlargement.

Relative wage changes

98. EU enlargement may speed up the reallocation of resources between old and new EU members: capital and labor flows may intensify, changing the size and composition of labor supply and demand. After the liberalization of labor movements, immigration and cross-border commuting is likely to change the relative supply of different skills on the labor market. While there are large uncertainties regarding the size of labor flows, both for immigration and for cross-border commuting (Table III-6), there is more consensus in the

literature on the composition of the group of newcomers on the Austrian labor market. Foreign workers are expected to be predominantly prime-age males, with skill levels above those of immigrants from traditional "guest worker" countries.

Table III-6. Austria: Estimated Day Commuter Potential

Province	Baseline	Upper variant	Lower variant	Baseline	Upper variant	Lower variant
	in thousands			in percent of employees		
Vienna	30.3	68.2	22.7	3.9	8.9	3.0
Lower Austria	23.2	52.2	17.4	4.5	10.2	3.4
Burgenland	4.7	10.6	3.5	6.0	13.5	4.5
Styria	8.5	19.1	6.4	2.0	4.5	1.5
Carinthia	4.6	10.2	3.4	2.4	5.5	1.8
Upper Austria	5.0	11.2	3.7	1.0	2.1	0.7
Salzburg	0.0	0.0	0.0	0.0	0.0	0.0
Border regions total	76.3	171.5	57.1	2.8	6.3	2.1

Source: Preparity project (2001), p.27.

99. The attendant changes in relative wages depend on who these workers compete with. Experience from the 1989-92 wave of immigration, which increased the Austrian population by some 300,000, indicates that newcomers tend to compete with lower- to medium-skilled, less mobile, workers many of whom are "old" immigrants themselves. For these groups, the risk of unemployment increases, and relative wages are bid down, increasing the differential between high- and low-wage earners. How large could these effects be? Hofer and Huber (2001) estimate that annual immigration of about 40,000 persons would decrease blue collar workers' average annual wage growth by about 0.3 percent.

100. In contrast to distributional effects through changes in labor supply, moving capital and production to the CEECs could influence relative wages through changes in labor demand. For example, Palme (1999) identifies disadvantaged manufaturing industries as those with technologies requiring relatively little human capital. As such industries tend to use more low-skilled labor (e.g., textile production), their relocation to the new EU members would depress demand for low-skilled labor in Austria. These effects, however, would tend to be small.

101. In summary, although immigration and cross-boarder commuting are expected to have distributional effects on the Austrian labor market, their size will likely be small. Nevertheless, increasing further the flexibility of the labor market could strengthen Austria's ability to adjust smoothly to these shocks.

Changes in the patterns of comparative advantage

102. The industry structure of the Austrian economy is adapting continuously, reflecting the changing competitive position of the individual industries both on domestic and international markets. The opening up of the CEECs in the 1990s influenced this process via two channels: by providing new markets, and by intensifying competition. As discussed

before, Austria benefited from the trade creation effect. However, the comparative advantages of individual Austrian industries have changed as a result of the emergence of competition from the CEECs.

103. In general, manufacturing industries that relied on lower-skilled labor and participate in markets with strong cost-competition became disadvantaged. Examples include textile and leather, plastic products, construction materials, and wood products. Reflecting the adjustment taking place in response to the changes in comparative advantages, some—but not all—of these industries scaled down employment[31] and are running trade deficits with the CEECs. However, employment losses were small, and the trade surpluses[32] of some disadvantaged industries with the CEECs indicate that they may have improved their competitive position due to non-cost factors.

104. As trade in manufacturing is already largely liberalized, EU enlargement is unlikely to represent a trigger for abrupt, large-scale structural changes. While advantaged industries are expected to win and disadvantaged ones to lose from closer integration between Austria and the CEECs, the process—which in any event is already in motion—is likely to remain gradual and driven by established forces.

105. Among the service industries, those with international reach and high human capital intensity (e.g., financial services) can be considered advantaged. Disadvantaged service industries are likely to be those that rely on lower-skilled labor and operate on highly contested regional markets—for example, construction, transport, and retail trade. As liberalization in the area of services remained slow in 1990s, EU enlargement is likely to have stronger effects than in manufacturing. However, liberalization of trade in services will be gradual between Austria and the new EU members, as the EU allowed Austria and Germany to introduce measures in sensitive sectors where the cross-border provision of services could lead to serious disturbances.

106. The overall consequences of the relocation of economic activity are likely to be concentrated in regions where disadvantaged industries are overrepresented. These regions would be challenged to adjust to shifting production patterns. At the same time, Vienna and the border regions, the likely target areas for immigration and cross-border commuting, would over the long run experience a change in the size and skill composition of their labor force. Due to these regions' proximity to the border, commuters are likely to be drawn to these destinations. Thus, the distributional effects of EU enlargement on the labor market may also be concentrated in a few geographic areas.

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[31] Preparity (2001), p.11.

[32] Mayerhofer and Palme (2001a), Table 4, p.33.

107. In some cases, disadvantaged production structures and exposed labor markets are both present in the same region. For example, disadvantaged service industries have a large share in the economies of Burgenland and Carinthia, two provinces bordering CEECs (Table III-7).

Table III-7. Austria: Service Industries Potentially Affected by EU Enlargement

	Industries with international markets 1/	Industries with regional markets near border 1/	Potentially affected industries 1/	Index of advantaged industries 2/	Index of disadvantaged industries 2/
Vienna	31.5	68.5	100.0	138	102
Lower Austria	27.0	48.9	75.9	87	112
Burgenland	21.7	78.3	100.0	82	142
Styria	26.3	52.3	78.6	89	115
Carinthia	28.6	71.4	100.0	95	130
Upper Austria	28.6	33.5	62.1	98	96
Salzburg	38.4	0.0	38.4	88	59
Austria total	30.6	43.2	73.8	100	100

Source: Preparity project (2001), pp.14-15.

1/ Employment in percent of total service sector employment
2/ 100 = national average. A value over 100 indicates above-average representation.

108. Nonetheless, such regions need not be net losers from enlargement over the long term. For example, Huber (2002) argues that immigration can actually help the border regions. While low-skill immigrants derive significant benefits from the agglomeration of similar workers in urban areas, these "peer benefits" may become lower as the skill level rises. As a result, low-skilled workers would tend to congregate in cities, while higher-skilled workers would choose the border regions. This hypothetical settlement pattern would increase the relative human capital endowment of border regions, and help modernize their industry structure. Border regions may also benefit from strengthening cross-border linkages of local economies. For example, Hanson (1996) found that relocating manufacturing to Mexican border cities increases the demand for goods and services produced by US border cities, contributing to the formation of binational regional production centers. This mechanism, however, is unlikely to be significant in rural regions.

109. Over the medium term, the pressure for adjustment generated by EU enlargement will undoubtedly vary by region. This, however, would largely represent the continuation of existing trends emanating from globalization rather than a brand-new phenomenon.

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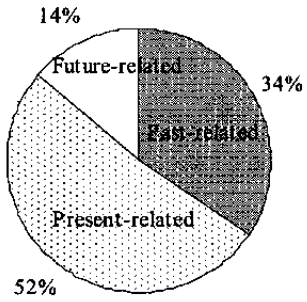
Austria: The Time Dimension of Expenditure Policy[33]

110. The government budget balance is frequently used as a summary indicator of fiscal policy. However, when the objective is to assess the long-term sustainability of public finances, a disaggregated analysis of public expenditures can provide useful additional information. A simple example is decomposing expenditures into primary spending and interest expenditures. The relative dynamics of the two categories can be indicative of long-term sustainability. For instance, a constant expenditure to GDP ratio with an increasing share of interest expenditures calls long-run sustainability into question. Another example is decomposition of public expenditures into redistribution-related versus other spending. After some (high) threshold level, persistently increasing redistribution spending is likely to cause large distortions and increase the likelihood of unsustainable long-term developments in public finances.

111. One way of disaggregating public spending is to classify expenditures along their time dimension. Public spending items can be divided into three categories:

- **Past-related expenditures** are determined by past political and legal commitments. Examples include interest payments on public debt and public pensions.
- **Present-related expenditures** cover the cost of providing current public services and, more broadly, an economic, legal, and social framework for economic activity. Examples are public administration costs, spending on defense, as well as health care outlays and social transfers (other than pensions) that target maintaining the productive potential of the labor force.
- **Future-related expenditures** are those that improve the future growth potential of the economy. These include education expenditures or spending on R&D and public infrastructure.

Austria: The Structure of Public Expenditures in 2000

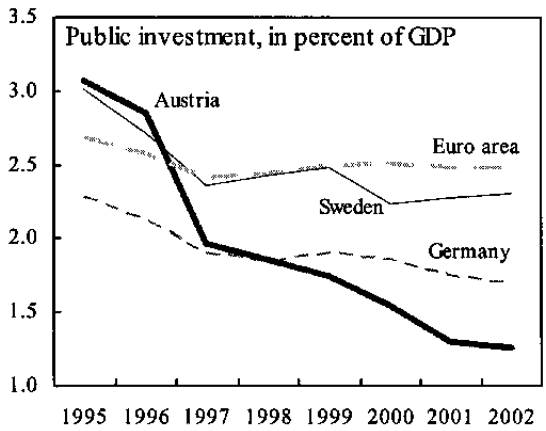


Source: Eurostat

[33] Prepared by Kornélia Krajnyák. This Appendix is based on A. Katterl (2002): "On the time dimension of budget policy", mimeo, Ministry of Finance.

112. Due to different degrees of commitment, the flexibility of fiscal policy differs across these three expenditure categories. Typically, the evolution of past-related expenditures is taken as predetermined by the policymaker: significant changes (e.g., restructuring public debt or reducing public pensions) would require amending or repudiating existing legal obligations or, more generally, the "social contract," and would thus entail high political and economic costs. The degree of commitment is smaller and the room for discretion is higher for the other two categories.

113. A very rough decomposition of Austria's public expenditure along these lines shows that the bulk of spending is past- and present-related.[34] While the numbers are highly tentative, a comparison with the 1995 shares indicates that the substantial (4.5 percent of GDP) decline in total expenditure between 1995 and 2000 was associated with broadly stable spending composition. In the case of past-related expenditures, the unchanged share was due to smaller interest payments. Data for other EU countries tell a similar story: decreasing interest payments helped keep the share of past-related expenditures in overall spending stable. This is consistent with the interpretation that, due to little policy flexibility in the past-related category, spending restraint tended to concentrate on areas of lesser resistance, such as for instance public investment or administration costs.



Source: OECD

114. Under current policies, Austria's past-related expenditures are set to increase over the long run. Assuming that the policy objective of balanced budget over the cycle is maintained in the coming years, the trend in interest payments will remain favorable for some time due to the declining public debt stock, but demographic changes will lead to an increasing public pension bill. Fiscal policy may react to this in three ways: passively, reactively, and preemptively.

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[34] This decomposition is based on Eurostat COFOG classification of public expenditures. Consistent data are available for Austria for the 1995-2000 period. Pension and interest expenditures were categorized as past-related spending; education, environmental protection, and housing and community amenities as future-related spending; and present-related spending was defined as the residual. This decomposition is likely to underestimate past and future-related spending, as all non-pension entitlements and some public investment show up in the present-related category.

- **"Passive" policy**. There is no fiscal adjustment and the widening deficit of the public pension system is fully reflected in a larger general government deficit. Public debt is quickly accumulated, interest payments rise, and the debt dynamics may become unsustainable.

- **"Reactive" policy**. Rising pension obligations are accommodated either by increasing taxes or compressing other, present- or future-related spending items. Given Austria's already high tax burden, steep further increases in taxation are likely to produce a negative supply response either because of more severe distortions or because of lower competitiveness or the flight of internationally mobile factors of production. A vicious circle with a shrinking tax base and increasing tax rates may develop, endangering fiscal sustainability. Similarly, large cuts in present- and future-related spending may prove counterproductive (by e.g., reducing the rate of human capital accumulation, running down administrative and physical infrastructure, or weakening the social safety net). In addition, their feasibility may also be questioned, as some present-related spending items, such as non-pension benefit spending, also involve some political and legal commitment.

Austria: Public Finances in 2001
(In percent of GDP)

Revenues	53.1
Tax revenue	45.8
o/w pension contribution	9.4
Nontax revenue	7.3
Expenditure	53.2
Benefits	23.5
Pensions	14.5
Other benefits	9.0
Interest payments	3.5
Discretionary expenditure	26.1
Balance	-0.1
Government debt	62.9

Source: Statistik Austria.

- **"Preemptive" policy**. Preemptive steps encompass measures that change current policies in anticipation of the future increases in past-related spending. One option is to run sustained large surpluses in the coming 10-15 years and run down public debt in preparation for future borrowing to finance higher pension expenditures. This amounts to bringing "reactive" measures forward. The other option is to change the dynamics of past-related expenditures by modifying entitlement rules—that is, to introduce pension reforms. Because legal and political commitments imply that major retroactive changes to coverage or benefit levels are not possible, the dynamics of total pension spending can only change gradually. This underscores the need for early action.