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LABOUR FORCE PARTICIPATION AND PUBLIC PENSION SYSTEM

CHANGES IN THE LABOUR MARKET AND THEIR IMPACT ON THE PENSION DEPENDENCY RATIO

Financial stability of the public pension system depends not only on demographics and system factors, but also on developments governing the labour market. The shrinking labour force projected for the next decades is expected to cause excess demand on the labour market and a rise in the participation rate. The higher that rate and the employment level in general, the greater will be the number of contributors and the lower the pension dependency ratio. Looking at the labour market perspectives realistically, we can expect pension dependency ratios to be markedly lower in the long term than have been projected by recent studies.

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The discussion of public pension systems currently focuses on demographic trends to justify the need for a reform of the system. But the link between demographics and the financing of pensions is only of an indirect type. The direct interaction is between labour market participation and pension claims derived from it. For pension insurance organisations, the family status is also an essential factor for their expenditure side, considering that 16 percent of pension payments are made to widows and widowers, and almost 1 percent to orphans.

Since its 1998 symposium "Towards a Society for All Ages" in Vienna, the European Commission has been regularly pointing out the importance of boosting labour participation in Europe, in order to check the growth of old-age dependency ratios in spite of demographic ageing (*European Commission, 1998*); and in its recent "Report on Social Protection in Europe 1999" (*European Commission, 2000A*, pp. 8-9) it states:

"These prospective increases in dependency ratios, which are the conventional way of assessing the implications of demographic trends, are liable, however, to give a misleading impression of the scale of the problem which they pose for systems of social protection and of the most appropriate policy response to them. So far, attention in most Member States has focused on curbing the growth of pension commitments and trying to ensure that there will be sufficient funds available to effect the transfers involved. While this is important, it is equally important to take account of the fact that a large proportion of people of working age are not, in practice, in employment and, therefore, play no role in generating the income from which pensions for those in retirement have to come. Instead they rely, like those of 65 and over on support from those who are working. In other words, any assessment of the prospective difficulties of funding social transfers in future years has to distinguish between the potential work force – those aged 15 to 64 – and the actual people in employment."

At a European Union level, the labour market is accordingly given ever greater importance when it comes to measures to secure old-age pensions. The European Council in Lisbon (March 2000) had chosen as its motto "Employment and Social Security". It identified goals for labour force participation which should improve financial sustainability of the pension systems. Participation was to be raised by about 10 percentage points in the EU countries by 2010; this would mean a rise in the average EU rate from presently 61 percent to 70 percent by 2010. Particular emphasis is to be placed on women's participation in the work force (*Economic Policy Committee, 2000*).

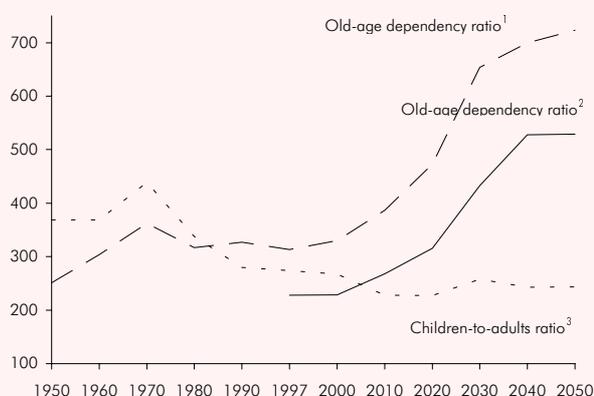
Sustainability of the Austrian pension insurance system is similarly tied to the future labour market conditions. This report analyses the impact of changes in the labour force participation rate on the pension dependency ratio¹, starting out from three issues:

- What would be the pension dependency ratio by 2030 if participation remained at its present level?
- What would be the pension dependency ratio in 2030 if employment grew by 0.4 percent annually?
- What would be the pension dependency ratio if participation rose to a level that is found in Northern Europe today?

In the early 1970s, the old-age dependency ratio (the number of those over 60 per 1,000 persons of working age, i.e., 15 to 59) was 362. Since then it has been fluctuating around 320, and it will return to the level of the early 1970s in the second half of this decade. The main variant of the population projection (*Statistics Austria, 2000*) provides for its doubling over the next 30 years: While today we have 330 persons over 60 for every 1,000 persons of working age, it will be 654 in 2030, according to current demographic estimates. If we use 65 as an age limit, the old-age dependency ratio will rise from 229 today to 529 in 2030 (Figure 1).

The projection thus clearly shows that there will be a substantial demographic change in the population over the next 50 years. Regardless of the variant used, the number of persons of working age will decline. In the main variant used here², the economically active population will shrink by almost 0.4 percent annually as of 2004³. If the 1999 participation rate were to continue, this would mean a marked reduction in the number of those gainfully employed. The change in the demographic distribution of the Austrian population therefore opens new perspectives as well as challenges for the labour market in the near future. Part of the rise in the pension dependency ratio could be compensated by economic growth combined with employment growth.

Figure 1: Demographic ratios



Source: Statistics Austria, WIFO. –¹ 60 and more year olds per 1,000 15 to 59 year olds. –² 65 and more-year olds per 1,000 15 to 64 year olds. –³ Under 15 year olds per 1,000 15 to 59 year olds.

In the past, the structure of the – overall constant – labour force participation rate⁴ has undergone considerable change in Austria. In 1960-1999, the participation rate of males aged 15 to 64 fell from 87.3 percent to 76.3 percent; whereas during the same period that of females aged 15 to 60 rose from 52.9 percent to 62.2 percent. Today,

¹ This report uses the concept of the pension dependency ratio in analogy to the term "old-age dependency ratio". It is defined as the number of pensions per 1,000 employment relationships subject to social insurance.

² The balance of the shift for 2000 is +3,000; it will rise to +20,000 p.a. by 2020, and then stay at that level. The overall fertility rate of 1.32 children per woman (1999) will grow until 2008, after which it is projected to stay at 1.5 (*Statistics Austria, 2000*).

³ It will similarly shrink in the "low variant" as of 2004 (total fertility rate as of 2020: 1.2; annual balance of shift as of 2020: +5,000); the "high variant" (total fertility rate as of 2020: 1.8; annual balance of shift as of 2020: +35,000) projects a decline only as of 2006.

⁴ The labour force participation rate as defined by WIFO is below the rate published by OECD, which includes employees holding marginal jobs.

Demographic perspectives

Labour market trends

overall participation is above the European average, a growth that was primarily fuelled by the rise in women's participation.

Longer education and training periods mean that gainful employment starts later: the participation rate of 15 to 20 year olds dropped from 59.9 percent in 1960 to 44.4 percent in 1999. The change was even more dramatic among older persons: in the same period, participation of persons aged 55 to under 60 shrank by 19.4 percentage points, to 42.3 percent, and of persons aged 60 to under 65 by 30.8 percentage points, to 10.5 percent. Due to gender differences in the early retirement age, participation of women aged 55 to under 60 was 23.5 percent, and that of men of the same age was 61.8 percent in 1999. In line with the gradual rise in the retirement age for women, the gap between participation rates for older men and women should shrink.

Unless participation rates can be boosted, the labour market will be faced with a significant shortage already in the next decade, which will be further aggravated in the second and even more in the third decade. The working-age population will plummet by 530,000 between 2000 and 2030 (Figure 2).

Figure 2: Working-age population

Aged 15 to 64



Source: Statistics Austria, WIFO.

Over the next 30 years, the working-age population (people aged 15 to under 60) will decline by 16 percent, whereas the population aged 60 and over will increase by 66 percent. Obviously, this will also cause changes in the pension dependency ratio, influenced by demographic shifts as much as by shifts in employment behaviour. Considering that not all persons of working age are actually working, that not all persons aged over 60 or over 65 receive an old-age pension and that some receive multiple pensions, the old-age dependency ratio naturally differs from the pension dependency ratio (Figure 3).

Whereas the demographic old-age dependency ratio fell or stagnated over the past two decades, the effective pension dependency ratio (i.e., pensions per 1,000 employment relationships) exploded over the period: from 487 in the early 1970s to 617 in 1999.

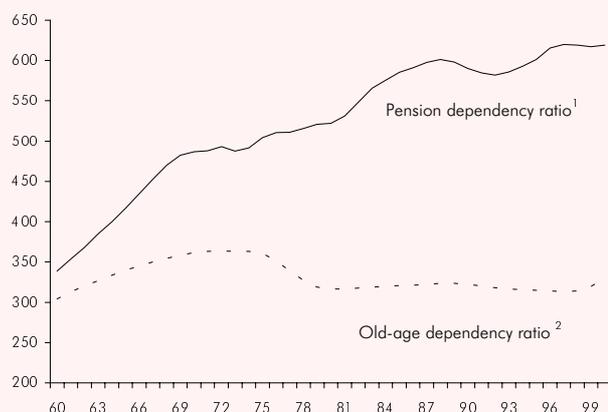
Accordingly, we have already today an effective pension dependency ratio which is much nearer to the demographic old-age dependency ratio (defined as the share of over 60 year olds in the entire population) for 2030 than that of 2000. By 2030, the old-age dependency ratio for the over 65 year olds, at 433, will be lower than the pension dependency ratio today.

In 1960, the gap between the pension dependency ratio and the demographic old-age dependency ratio was 11 percent; it has since grown to 35 percent in 1970 and to 93 percent today (1999). The increase in pensions was caused primarily by the higher rate of own pensions for women and the brisk rise in unemployment, which resulted in a drop in the retirement age. If labour force participation were to be boosted, the effective

**Shifts in the effective
pension dependency
ratio**

pension dependency ratio could once again approach the demographic old-age dependency ratio.

Figure 3: Comparison of pension dependency ratio and old-age dependency ratio



Source: Federation of Austrian Social Security Institutions, Statistics Austria, WIFO. – ¹ Pensions per 1,000 employment relationships. – ² Persons aged 60 and over per 1,000 persons aged 15 to 59.

The pension dependency ratio is frequently used in public discussions as a criterion to evaluate the financial sustainability of the public pension insurance system. Nevertheless, the informative value of this figure is limited at best:

- Published pension dependency ratios do not compare the number of gainfully employed with the number of pensioners, but are based on the number of insurance relationships on either side. In other words, a pension dependency ratio of 617 (1999) means 617 pensions being paid for every 1,000 employment relationships subject to obligatory pension insurance. As of 1 July 2000, 1.5 percent of employees (about 45,000) held two or more jobs⁵). Multiple jobs are more frequent among female blue-collar workers (3.2 percent of all female blue-collar workers) and civil servants (4.1 percent; Haydn, 2000). The number of employment relationships thus is greater than the number of employees. In addition, almost 55,000 economically active persons simultaneously drew a pension at the above date. The number of pensions was higher by 13.6 percent (260,500) than the number of persons receiving a pension. Due to derived entitlements (widow's and widower's pensions), 20.6 percent of female pensioners and 4.2 percent of male pensioners receive more than one pension. In view of these three circumstances (persons holding several jobs, actively employed persons receiving a pension, and multiple pensions), the pension dependency ratio does not accurately reflect the "burden" that pensioners impose on the actively employed population. An adjusted comparison based on actual numbers of economically active persons and pensioners would result in a much lower ratio.
- The ratio includes all types of pensions – own entitlements, widow's and widower's pensions, as well as orphan's pensions. If we exclude orphan's pensions, the ratio for 1999 would fall from 617 to 601. Own-right pensions are just 416 per 1,000 employment relationships.
- The inclusion of all types of pensions in the figures distorts their value for assessing the financial sustainability of the public pension system. The average orphan's pension is much lower than the pension for widows and widowers, which in turn is markedly lower than the average own-right pension. A high pension dependency ratio based on a large number of orphan's pensions means less being spent on pensions than a low pension dependency ratio based on many own-right pensions. Even when the pension dependency ratio remains constant over time, the financial burden might still rise, since new pensions are generally higher than those that become extinct.

The pension dependency ratio concept

By itself, the pension dependency ratio has little informative value as an evaluation criterion for the financial sustainability of a public pension insurance system.

⁵ The number of employment relationships here is restricted to dependently employed persons; the share of all economically active persons holding two jobs is 4.3 percent. In 2000, 21 percent of the farmers and 16 percent of the self-employed in trade and industry were also dependently employed.

Altogether, we run the risk of interpreting more into the pension dependency ratio than can be reasonably expected from the value⁶. But undoubtedly, the ratio is of material⁷ as well as psychological importance. Thus, *Marin – Prinz (1999)* view the ratio as an indicator for future financial sustainability of the Austrian public pension system.

Looked at in this light, the pension dependency ratio is at the focus of this report. This index is excellently suited to demonstrate that labour market integration and pensions are two sides of the same coin. Nevertheless, no claim is made here that comments on the financial sustainability of the Austrian public pension system are solely based on the pension dependency ratio.

Pension reforms are usually of the parametric type, i.e., they interfere directly with the valid pension law. Reforming the parameters on the benefits side generally affects the amount paid or the time for which payment is granted, which again affects the pension dependency ratio. Thus, raising the retirement age will extend the period of economic activity. If this actually entails longer employment, both the numerator and the denominator of the ratio will change, and its rise will be decelerated. More jobs being subjected to social security will similarly act positively on the ratio. This last factor is at the centre of the following simulations, which were based on the question of which labour market changes up to 2030 could counteract the effects of demographic ageing, so as to keep the pension dependency ratio as low as possible.

This estimate of future pension dependency ratios is not so much intended to describe the most likely development but should rather examine the potentials offered by the labour market to check the growth of the ratio. It starts out from the stock and structure of dependent and independent employment subject to public pension insurance and the stock of pensions covered by the various social security organisations in 1999. The pension dependency ratios published by the Federation of the Austrian Social Security Institutions do not include civil servants and their pensions, so that this sector is similarly excluded in these deliberations.

The simulation comprises three scenarios:

- The "status-quo scenario" starts out from the assumption that labour force participation rates will remain constant up to 2030.
- The "base scenario" depicts a more likely development, i.e., that of continuous growth of employment by 0.4 percent per year.
- The "Northern scenario" estimates pension dependency ratios to be obtained if the labour force participation rate were gradually approximated to the current levels of Denmark or Norway.

It is assumed that unemployment will decline by 3 percent p.a. up to 2015 (i.e., –6,600 jobless in 1999)⁸, and by 6 percent p.a. between 2015 and 2030. This would entail a reduction of the unemployment rate to 3.5 percent by 2015 and to 1.3 percent by 2030. In view of the contracting working-age population, this assumption is plausible.

The ratios are estimated by assuming

- own-right pensions are a proportion of the non-economically active population in all age groups;
- that higher labour force participation raises the number of own-right pensions and thus their share in overall pensions, since more persons meet the requirements for own-right pensions due to uninterrupted insurance periods;
- the number of survivors' pensions as a proportion of the total population in the respective age cohort is kept at the 1999 level;
- that changes in family structures and the lower replacement rates of widow's and widower's pensions⁹ reduce the number of derivative pension claims.

In 1999, 95 percent of non-economically active men and 70 percent of the non-economically active women aged 65 to 69 (excluding civil servants) drew a pension in their own right; the proportion is lower in older cohorts. For the period of simulation, the

⁶ The same risk is incurred when interpreting the labour force participation rate: when it rises this does not necessarily mean that the work volume in a given economy has grown – it might simply have been more widely spread (more part-time jobs).

⁷ See *Economic Policy Committee (2000)*, *European Commission (2000A, 2000B)*.

⁸ Between 1999 and 2000, unemployment fell even more rapidly than assumed here.

⁹ Own income (pension) is given greater weight in the calculation of the widow's and widower's pension.

Scenarios for the future pension dependency ratio

Apart from the design of the pension system, it is primarily changes in employment which determine the system's sustainability.

Assumptions on future labour market development

Assumptions underlying the pension dependency ratios

ratio of own-right pensions as a share of the non-economically active population aged 65 and over will be gradually raised to that level (95 percent for men and 70 percent for women) for all cohorts (technical assumptions). However, should it be possible to improve pension entitlements for women, a higher share of own-right pensions must be expected up to 2030.

The share of widow's and widower's pensions will fall by 10 percent between 1999 and 2030. This decline will be the result of changes in family structures (trend to single parent families and single households, more divorces) and will be reinforced by the effects of the 2000 pension reform (replacement rate down to 0 to 60 percent).

In 1999, the Austrian participation rate was 67.8 percent (77.5 percent for men and 57.9 percent for women). In the status-quo scenario this level continues unchanged up to 2030. Considering the shrinkage of the population aged 15 to 64, a constant labour force participation rate over the next 30 years would mean a substantial decline in the number of economically active persons. Accordingly, the number of employment relationships (excluding civil servants) subject to pension insurance is assumed to decline by about 180,000 between 1990 and 2030.

Based on this assumption, the pension dependency ratio will rise to 760 by 2015 and to 889 by 2030 (Table 1).

The status-quo scenario should be viewed as a worst-case scenario for a number of reasons: The pension law which became effective in 2000 provides for a rise in the early retirement age (to 56.5 years for women and 61.5 years for men). Women's standard retirement age is to be gradually raised to the level applicable for men. As a consequence, a rise in the labour force participation rate is expected, which contradicts the assumption of a constant level. What's more, demand for labour is expected to continue to rise.

"Status-quo scenario": constant labour force participation rate

If the labour force participation rate remains constant, then the pension dependency ratio will rise by more than a third up to 2030, owing to demographic changes.

Table 1: Pension dependency ratios in the status-quo scenario (constant labour force participation rate up to 2030)

	1999			2015			2030		
	Men	Women	Total	Men	Women In percent	Total	Men	Women	Total
Labour force participation rate (15 to 64)	77.5	57.9	67.8	77.5	57.9	67.8	77.5	57.9	67.8
Pensions per 1,000 employment relationships									
Total			617			760			889
Own-right pensions			447			581			654
Derived pensions			170			179			235

Source: WIFO. The labour force participation rates for 2015 and 2030 are kept at the 1999 level.

Starting from the current employment situation, the base scenario assumes continued growth of demand for labour, which, at 0.4 percent p.a., is slightly below employment growth in 1970 to 2000 (0.5 percent p.a.). At the same time, a decline in the unemployment rate (national definition) from 6.7 percent in 1999 to 1.3 percent in 2030 is assumed.

Continuous employment growth is accompanied by a rise in the labour force participation rate to 71.3 percent in 2015 and to 82.1 percent in 2030. The extent to which this will check the rise of the pension dependency ratio will depend on the age groups that will profit from additional demand for labour. If the participation rate rises among the young, the pension dependency ratio will be reduced less markedly than if older workers remain on the labour market for longer.

According to this scenario, it is assumed that it will only be the participation rate of those over 39 which will rise until 2015, followed by younger age groups, mainly women, which will profit from the growing demand for labour until 2030 (Figure 4). Altogether, participation of the over 50 year olds is greatly increased in this variant (50 to 64 year olds: 45.1 percent in 1999, 63.9 percent in 2015, and 75.5 percent in 2030).

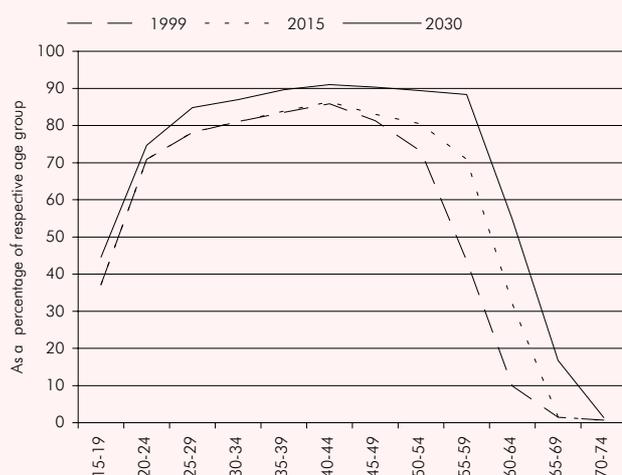
Assuming increasing participation rates and additional own-right pensions based on increased employment, in this main scenario the pension dependency ratio rises to 656 in 2015, and 766 in 2030 (Table 2).

This scenario assumes a growth in the demand for workers by 0.4 percent p.a. If employment growth were stronger, the pension dependency ratio would be correspondingly lower.

"Base scenario": rise in employment and participation

If employment grows continuously up to 2030, the pension dependency ratio will rise from 617 today to 766 in 2030. Increasing demand for workers will significantly curb the rise of the ratio.

Figure 4: Labour force participation rates in the case of continuous employment growth up to 2030



Source: WIFO

Table 2: Pension dependency ratio in the "base scenario" (continuous employment growth until 2030)

	1999	2015	2030
Economically active population (15 to 64)	3,704,812	3,895,254	4,022,687
Unemployed	221,529	136,075	53,798
Employees excluding civil service (15 to 64)	3,121,467	3,415,026	3,639,902
Labour force participation rate (15 to 64)	in percent 67.7	71.3	82.1
Employment to working-age population rate (15 to 64)	in percent 63.7	68.8	81.0
Unemployment rate	in percent 6.3	3.5	1.3
Own-right pensions	1,396,069	1,676,776	2,097,269
Widow's and widower's pensions	480,005	514,090	641,904
Orphan's pensions	50,324	49,919	48,420
	Pensions per 1,000 employment relationships		
Pension dependency ratio	617	656	766

Source: WIFO.

In 1999, the Austrian labour force participation rate was slightly above the EU average (71.6 percent as against 69.0 percent). In Europe, the rate is highest in Iceland (85.9 percent in 1999), Switzerland (82.2 percent), Norway and Denmark (80.6 percent each; Table 3). The standard retirement age in Iceland and Switzerland differs considerably from that in Austria, so that it does not appear practical to compare rates directly, especially at the level of older cohorts. In the Northern scenario, the Austrian rate is given a linear convergence up to 2015 to the Danish level as of 1998¹⁰. In 1998, the Danish rate was higher by 8 percentage points than in Austria. Participation in the group of 15 to 24 year olds and the 50+ group was clearly higher in Denmark than in Austria. If the Austrian participation rate were to reach by 2015 today's level in Denmark, then the pension dependency ratio, at 595, would be lower by 22 than the 1999 ratio.

If the labour force participation rate were to rise to the even higher 1998 level of Norway (80.8 percent) by 2030, this would translate into another reduction of the pension dependency ratio. The structure of participation in Norway differs considerably from that in Denmark: in the 15 to 19 year age group, the rate is slightly higher than in Austria and thus markedly lower than in Denmark. On the other hand, 11.9 percent of the over 65 year old Norwegians are still integrated in the labour market, whereas it is just 3.0 percent in Denmark. Assuming the high Norwegian participation rates of the over 65 year olds, the pension dependency ratio for 2030 would be 759. For the simulation,

Pension dependency ratios in the "Northern scenario"

If the labour force participation rate were to rise to the high Danish or Norwegian level, this would, in the medium term, reduce the pension dependency ratio more than would continuous employment growth. In the long term, a steady increase in demand for workers will be able to curb the rise in the pension dependency ratio.

¹⁰ The calculations were based on the Danish labour force participation rate for 1998, which was lower than that for 1999. In 1999, the rates were identical in Denmark and Norway.

the Austrian standard retirement age was, however, used¹¹, so that employment of the over 65 year olds has not been adjusted to the Norwegian level. As a result, the pension dependency ratio in 2030 will be 782 (Table 4).

Table 3: International labour force participation rates broken down by age groups

1999	15 to 64	15 to 24	25 to 54	55 to 64
	Economically active population in percent of the respective age group			
Denmark	80.6	73.3	88.2	56.6
Men	85.0	76.7	92.7	61.9
Women	76.1	70.1	83.5	50.6
Germany	71.2	51.2	84.9	44.7
Men	79.7	55.7	93.9	55.1
Women	62.3	46.3	75.7	34.3
Iceland	85.9	68.1	92.1	87.1
Men	89.4	66.2	97.1	94.1
Women	82.3	70.1	87.0	80.3
Norway	80.6	63.9	87.6	68.0
Men	85.0	66.7	91.8	74.5
Women	76.1	61.0	83.2	61.5
Switzerland	82.2	68.6	87.5	73.6
Men	89.6	67.9	97.2	80.9
Women	74.5	69.3	77.6	64.0
Austria	71.6	58.4	85.1	30.7
Men	80.5	62.6	93.8	43.9
Women	62.7	54.2	76.3	18.3
EU	69.0	47.8	82.2	41.4
Men	78.4	51.8	92.6	52.7
Women	59.5	43.6	71.7	30.5

Source: OECD, Employment Outlook, June 2000.

Table 4: Pension dependency ratios of the Northern scenario: the effect on the Austrian pension dependency ratio of achieving international labour force participation rates

	1999			2015			2030		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
	Economically active population in percent of the respective age group								
Total participation rate	77.5	57.8	67.7	83.5	75.0	79.3	85.5	75.9	80.8
15 to 19	43.4	30.4	37.2	62.9	66.3	64.1	48.6	49.0	48.5
20 to 24	72.7	68.5	70.9	80.1	75.9	78.0	79.9	70.0	74.8
25 to 29	83.0	72.2	78.1	90.1	80.5	85.3	91.2	80.8	86.6
30 to 34	90.1	71.1	81.0	92.2	82.7	87.5	92.3	82.0	87.9
35 to 39	94.5	72.0	83.5	93.1	84.0	88.6	93.1	83.9	89.1
40 to 44	96.3	74.9	85.8	93.3	86.7	90.0	93.9	84.6	89.3
45 to 49	92.5	70.3	81.3	92.5	79.2	85.9	92.4	83.1	87.8
50 to 54	84.8	61.6	73.0	90.3	79.0	84.7	91.1	82.5	86.8
55 to 59	64.1	24.5	43.6	79.4	64.0	71.7	86.8	70.9	79.0
60 to 64	16.3	5.1	9.9	41.0	21.9	31.0	62.5	48.3	56.1
Over 65 ¹⁾	2.1	1.2	1.5	6.0	1.6	3.0	14.7	8.6	11.9
	Pensions per 1,000 employment relationships								
Pension dependency ratio	617			595			782		

Source: OECD, WIFO. 1999: actual labour force participation rate for Austria; 2015: Danish labour force participation rate in 1998; 2030: Norwegian labour force participation rate in 1998. - ¹⁾ For the calculation, the participation rate of over 65 year olds was assumed at 3 percent for 2015 and 2030.

A comparison of the three scenarios shows that annual employment growth of 0.4 percent up to 2030 would result in the lowest pension dependency ratio. Such employment growth would result in a labour force participation rate of 82.1 percent by 2030. With this, participation would be just as high as today's level in Switzerland and higher than in Norway (1999 level for both). If employment of older workers grew continuously, the pension dependency ratio would be better than if the Austrian participation rate were to approach that of Denmark and Norway, because it is more likely to be

Comparing the results of the simulation

¹¹ According to today's laws, harmonisation of the standard retirement age of men and women will be completed in 2033, so that the simulation will not meet with any legal restrictions.

curbed by boosting the participation rate of older workers than by lowering the entrance rate among the young: reducing the education and training periods has hardly any effect on the pension dependency ratio.

Rürup – Schroeter (1997) projected a pension dependency ratio that is higher by almost 100 than the estimate of the status-quo scenario presented here. The divergence results from differences in population projections and, even more, in labour market projections. The Rürup-Schroeter model is based on a decline in the number of actively employed by 6.3 percent over 1995, and an unemployment rate of 4.4 percent for 2030, which is high compared to our simulations. Rürup-Schroeter appear to have considerably underestimated employment dynamics: their projection for 2000 is already markedly below actual values.

Substantially rising labour force participation puts an effective brake on the rise of the pension dependency ratio.

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Labour Force Participation and Public Pension System – Summary

The European Commission has in recent years stressed the importance of increasing labour force participation in Europe, in order to curb the old-age dependency rates in spite of demographic ageing.

Like elsewhere, changes in the demographic framework and the labour market have a direct impact on the public pension insurance system in Austria. The labour market thus provides the focus from which obvious structural effects in the system can and should be countered, because labour is expected to be in shorter supply over the coming decades. So there are several signs to indicate that labour market trends can put a brake to the rise in the pension dependency ratio. For labour market policies, there are opportunities offered by three factors:

- the decline in the number of people of working age (15 to 64) improves opportunities for women and older people on the labour market;
- demand for labour is expected to continue to grow over the next three decades;
- according to current law, harmonisation of the early retirement age will be completed by 2027 and of the standard retirement age (65 for men and women) is scheduled to be completed by 2033.

These developments may be used to improve the integration of women, and in particular older workers, in the labour market, provided that appropriate accompanying measures are taken (better reconciliation of job and family, internal training of older workers, etc.).

If participation of older workers and women were to be raised, this would have effects at several levels of the social transfers system: it acts positively on the income situation, on revenues for the pension insurance organisations and on the level of pensions. It reduces expenditure for passive labour market policies and it checks the pension dependency ratio.

These interactions between the labour market and the pension dependency ratio were described in three scenarios. If the status quo of labour force participation were to continue at the level of 1999 (a highly unlikely event), the pension dependency ratio would rise to 889 pensions per 1,000 employment relationships subject to pension insurance. If the labour force were to grow for the next decades at more or less the same rate as in the past three decades (the base scenario), the pension dependency ratio would rise moderately, to 766. If, however, the Austrian participation rate should rise, by 2030, to today's level in Norway, the pension dependency ratio would rise to just 782.

The discussion on pension reforms concentrates on parametric changes in the pension system. However, any long-term financial sustainability of old-age provision is not solely determined by the pension laws, but is also affected by the economic environment and in particular the labour market. The higher the employment level, the higher will be the number of contributors and the lower the pension dependency ratio. The level of participation therefore is a key factor for sustainability of the pension systems – and it is an interaction which has moved to the foreground of employment policies also at a European level.

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