

**A Long-run Macroeconomic Model  
of the Austrian Economy (A-LMM)  
New Results (2014)**

**Serguei Kaniovski, Thomas Url (WIFO), Helmut Hofer,  
Sandra Müllbacher (IHS)**

Research assistance:  
Ursula Glauninger Christine Kaufmann (WIFO),  
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Austrian Institute of Economic Research, Institute for Advanced Studies

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### **Abstract**

We use the Austrian Long-run Macroeconomic Model (A-LMM) for a long-term projection of the Austrian economy until 2070. Our baseline scenario is the input for micro-simulation models of the Austrian pension insurance system. A-LMM is a neoclassical growth model replicating stylised facts about growing market economies. The current model update incorporates recent information from labour market and national accounts data. Compared to the previous report we now project slightly higher labour market participation rates and – due to the lower starting value in 2013 – a lower level of real output.

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# **A Long-run Macroeconomic Model of the Austrian Economy (A-LMM)**

## **New Results (2014)**

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## 1. Introduction and model overview<sup>1)</sup>

The first version of the Austrian Long-run Macroeconomic Model (A-LMM) was developed in 2004 (Baumgartner et al., 2004). The model has been subsequently updated in 2007 (Hofer et al., 2007), 2010 (Hofer et al., 2010), and 2013 (Hofer et al., 2013). In this paper we present simulations based on the fourth update of the model, which differs from the 2013 version in three ways. First, we update the national accounts data based on the European System of National Accounts ESA95 standard and other administrative data to 2013, and recalibrate the model accordingly. Second, the model includes a revised forecast for activity rates for the 22 cohorts (by sex and age) aged 15 and older. Third, we implement new demographic projections by Statistics Austria. The new baseline uses the current main variant of Statistics Austria's demographic projection. In this update we do not simulate alternatives to the baseline scenario.

A-LMM is a long-run macroeconomic model for the Austrian economy developed jointly by the Austrian Institute of Economic Research (WIFO) and the Institute for Advanced Studies (IHS). This annual model has been designed to analyse the macroeconomic impact of long-term issues on the Austrian economy, to develop long-term scenarios, and to perform simulation studies. The current version of the model foresees a projection horizon until the year 2070. The model puts an emphasis on financial flows of the social security system.

A-LMM is a model derived from neoclassical theory which replicates the well-known stylised facts about growing market economies summarised by Nicholas Kaldor (recit Solow, 2000). These are: (i) the output to labour ratio has been rising at a constant rate, (ii) similarly, the capital stock per employee is rising at a constant rate, (iii) the capital output ratio and (iv) the marginal productivity of capital have been constant. Together, facts (iii) and (iv) imply constant shares of labour and capital income in output. An economy for which all of the above facts hold is said to be growing in steady state.

In A-LMM, the broad picture outlined by Kaldor emerges as a result of the optimizing behaviour of two types of private agents: firms and private households. Private agents' behavioural equations are derived from dynamic optimisation principles under constraints and based on perfect foresight. As the third major actor we consider the general government. We assume a constant legal and institutional framework for the whole projection period. The government is constrained by a long-run commitment to a balanced budget, as required by the Stability and Growth Pact and by the Treaty on Stability,

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Coordination and Governance in the Economic and Monetary Union. The structure of A-LMM is shown in Figure 1.1.

The long-run growth path is determined by supply side factors. Thus, the modelling of firm behaviour becomes decisive for the properties of our model<sup>2)</sup>. Firms are assumed to produce goods and services using capital and labour as inputs. It is well known that a constant return to scale production technology under Harrod-neutral technical progress is one of the few specifications consistent with Kaldor's facts. We therefore assume a Cobb-Douglas production function with exogenous Harrod-neutral technical progress.

A Cobb-Douglas production function implies constancy of the income shares of factor inputs in the total value added. These are given by the ratios of the gross operating surplus and wages to GDP at constant prices. Although the labour income share in Austria has been falling since the late seventies, in the longer term it has varied in a narrow range of one standard deviation from the mean of 50.9 (Figure 1.2). For this reason the assumption of long term constancy of the labour income share over a long run is adequate. Factor demand is derived under the assumption of profit maximisation subject to resource constraints and the production technology. Capital accumulation is based on a modified neoclassical investment function with forward looking behaviour. In particular, the rate of investment depends on the ratio of the market value of new additional investment goods to their replacement costs. This ratio (Tobin's Q) is influenced by expected future profits net of business taxes. Labour demand is derived directly from the first order condition of the firms' profit maximisation problem.

Another feature of Cobb-Douglas technology is that the marginal and the average products of input factors grow at identical rates, their levels differing by the respective factor shares. In the baseline, we assume a constant annual rate of change of labour productivity of 1.6 percent (cf. Figure 3.3.1). This value is slightly below the average rate of growth between 1976 and 2013 (1.5 percent). The corresponding annual rate of change of total factor productivity  $TFP_t$  is 1.6 (1- $\alpha$ ) = 0.8 percent.

Private households' behaviour is derived from intertemporal utility maximisation according to an intertemporal budget constraint. Decisions about consumption and savings (financial wealth accumulation) are formed in a forward looking manner. Consumption depends on discounted expected future disposable income (human wealth) and financial wealth; additionally current disposable income is relevant because liquidity constraints are binding for some households.

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<sup>2)</sup> See, for example, Allan – Hall (1997).

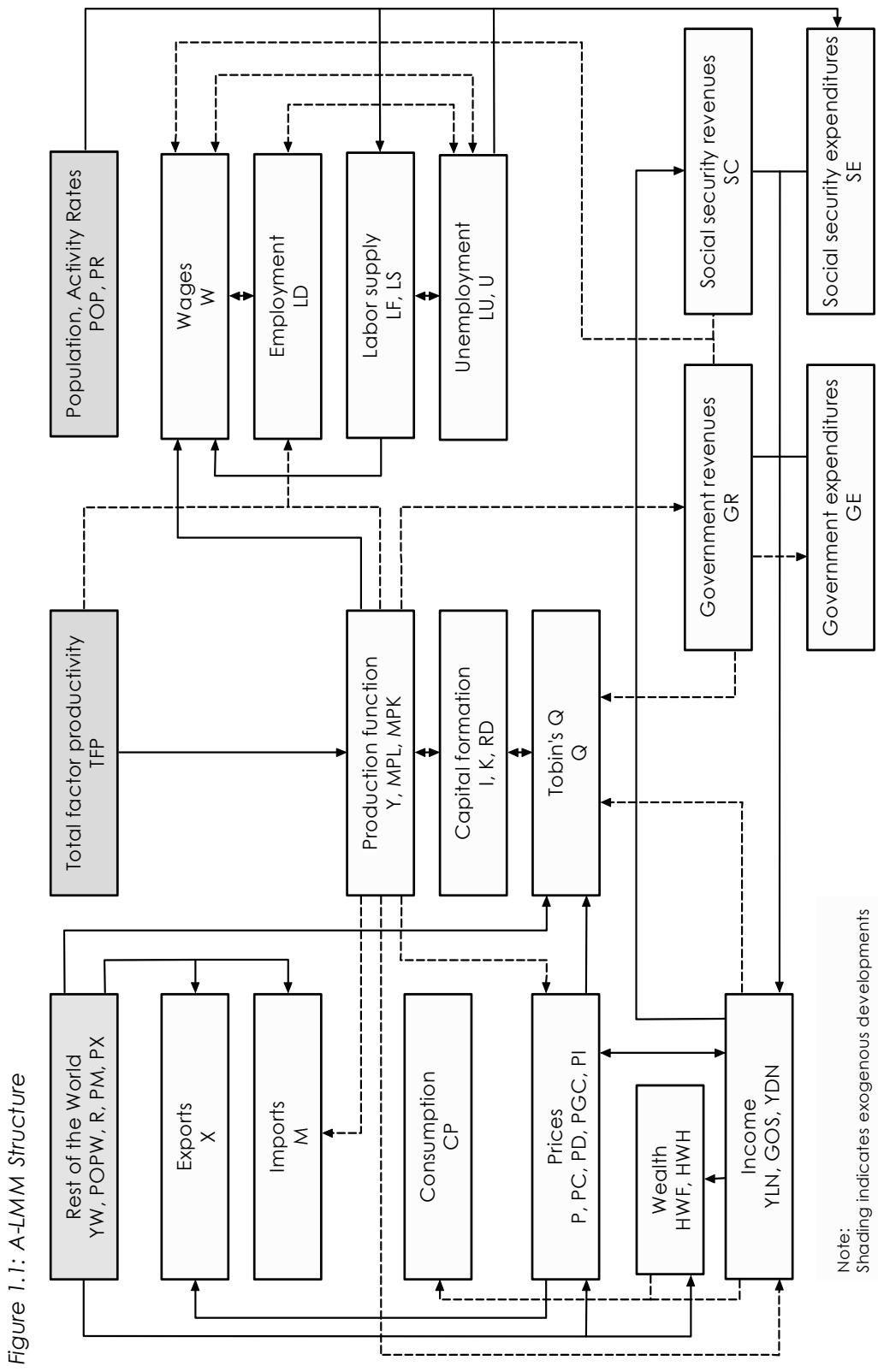


Figure 1.2: Labour share in percent of GDP in Austria



To afford consumption goods, household supply their labour and receive income in return. A special characteristic of A-LMM is the focus on disaggregated labour supply. In general, the labour force can be represented as a product of the population size and the labour market participation rate. In the model we implement highly disaggregated (by sex and 5-year age groups) participation rates. This gives us the opportunity to account for the different behaviour of males and females (where part-time work is a major difference) and young and elderly employees (here education and early retirement comes into consideration).

For the projection of the number of persons on maternity leave and persons in military service (Karenzgeld- bzw. Kindergeldbezieher und Kindergeldbezieherinnen und Präsenzdiener mit aufrechtem Beschäftigungsverhältnis), we assume a constant relationship to the population aged 0 to 4 years. Employment (in persons) is converted into employment in full-time equivalents using the factor  $QLD_t$ , cf. Hofer et al. (2007) for a detailed description. For the past,  $QLD_t$  is calculated as the ratio of full time equivalents to dependent employment. In the baseline we keep  $QLD_t$  constant at 0.92, the value for 2013. Furthermore, we account for the expected change in the average working time due to higher female labour market participation. The associated factor,  $QWT_t$ , is calculated as the weighted sum of average working hours of females and males; the weights being their shares in the total labour force. The average working time for males and females has been taken from the Microcensus. In general, we could simulate the impact of growing part-time work on production by changing the average working time for males and females, respectively. Instead, we assume constant working hours for males and females. An increasing share of females in the labour force implies that total average working time will fall.

Another feature of A-LMM is a disaggregated model of the social security system as part of the public sector. We explicitly model the expenditure and revenue side for the pension, health and accident, and unemployment insurance, respectively. Additionally, expenditures on long term care are modelled. Demographic developments are important explanatory variables in the social security model. Although, individual branches of the public sector may run permanent deficits, for the public sector as a whole, the long-run balanced-budget condition is enforced.

These features of A-LMM ensure that its long-run behaviour resembles the results of standard neoclassical growth theory and is consistent with Kaldor's facts. That is, the model attains a steady state growth path determined by exogenous growth rates of the labour force and technical progress.

A-LMM as a long run model is supply side driven and therefore does not generate business cycle fluctuations. The demand side adjusts in each period to ensure equilibrium in the goods market. The adjustment mechanism runs via disequilibria in the trade balance. The labour market equilibrium is characterised by a time varying natural rate of unemployment. Prices and financial markets are not modelled explicitly; rather we view Austria as a small open economy, so that the real interest rate and inflation rates coincide with their foreign counterparts. We impose that domestic excess savings correspond to the income balance in the current account.

Because of the long projection horizon and a comparatively short record of comparable economic data for Austria, the parameterisation of the model draws extensively on economic theory<sup>3)</sup>. This shifts the focus towards theoretical foundations, economic plausibility, and long-run stability conditions and away from statistical inference. As a consequence, many model parameters are either calibrated or estimated under theory based constraints<sup>4)</sup>. A-LMM is developed and implemented in Eviews®. Further details on the specification of the model can be found in Hofer et al. (2007).

The report is structured as follows. Section 2 discusses trend projections for the participation rates by age-cohorts and sex. Section 3 contains the simulation results. The baseline scenario is detailed in section 3.1. Finally, in section 3.2 we discuss briefly the sustainability of a constant rate of productivity growth.

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<sup>3)</sup> For consistency A-LMM relies on the system of national accounts. On the basis of the current European System of National Accounts framework (ESA95), official data are available from 1976, in part only from 1995, onwards. The projection outreaches the estimation period by a factor of three.

<sup>4)</sup> "[S]o called 'calibrated' models [...] are best described as numerical models without a complete and consistent econometric formulation [...]" Dawkins et al. (2001, p. 3655). Parameters are usually calibrated so as to reproduce the benchmark data as equilibrium. Typical sources for calibrated parameters are empirical studies unrelated to the model at hand, for example cross section analysis or estimates for other countries, or rules of thumb that guarantee model stability. For a broader introduction and discussion of the variety of approaches subsumed under the term 'calibrated models' see Hansen – Heckman (1996), Watson (1993) and Dawkins et al. (2001).



## 2. Update of (Trend) labour supply scenario

In this section we describe the update of the labour supply projections. We use the dynamic cohort method to project the labour force for the period 2014 to 2070. This labour supply scenario shows the outcome of extrapolating recent trends in the labour market behaviour (entry and exit rates) and is not based on an assessment of future changes in work patterns or economic conditions. However, the projection will take into account the expected effects of the pension reforms since 2000.

The dynamic cohort method (Scherer, 2002) is based on a model that calculates the rates of entry and exit in the labour market for each cohort in 2013 and assumes that future lifetime participation profiles are parallel to those observed in the past. Formally, the dynamic projection method is based on the observed distribution of entry and retirement probabilities by age. Let  $PR_{x,x+4}^t$  be the activity rate of age group  $x$  to  $x+4$  in period  $t$  (e. g., the activity rate of the age group 20 to 24 in 2013). Then the probability  $WX_{x,x+4}^t$  of persons aged  $x$  to  $x+4$  to retire before period  $t$  and  $t+5$ , respectively, is

$$WX_{x,x+4}^t = 1 - \frac{PR_{x+5,x+9}^t}{PR_{x,x+4}^{t-5}} \geq 0, \quad (1)$$

the probability  $WN_x^t$  to enter into the job market is

$$WN_{x,x+4}^t = 1 - \frac{\overline{PR} - PR_{x+5,x+9}^t}{\overline{PR} - PR_{x,x+4}^{t-5}} \geq 0, \quad (2)$$

where  $\overline{PR}$  is an upper limit on activity rates (we assume 99 percent for men and 95 percent for women).

We use the male and female activity rates in 5-year age groups for the years 2008 and 2013, respectively, to calculate the entry and retirement probabilities for the year 2013 for men and women separately. Based on the assumption that these probabilities will not change during the projection period 2014 to 2070, the projected activity rates for this period are given by ( $t = 2014, \dots, 2070$ ):

$$\begin{aligned} PR_{x+5,x+9}^t &= PR_{x,x+4}^{t-5} \left( 1 - WX_{x,x+4}^{2013} \right), && \text{if } WX_{x,x+4}^{2013} > 0, \\ PR_{x+5,x+9}^t &= \overline{PR} \cdot WN_{x,x+4}^{2013} + PR_{x,x+4}^{t-5} \left( 1 - WN_{x,x+4}^{2013} \right) && \text{if } WN_{x,x+4}^{2013} > 0, \\ PR_{x+5,x+9}^t &= PR_{x,x+4}^{t-5}, && \text{otherwise.} \end{aligned} \quad (3)$$

An adjustment mechanism is introduced for the young age cohorts. For the calculation of the participation rates of the age group 20 to 24 we assume a constant participation rate of the age group 15 to 19. A decrease in the participation rate of the age group 15 to 19, which is due to an extended duration of full-time education, would automatically imply a negative trend for the participation rates of prime-age persons.

Additionally, we assume that the participation rates of males aged 35 to 44 remain at their current levels. To take the stronger labour market attachment of females into account we assume an increase in the participation rate of 5 percentage points for the age group 30 to 34 years within the next ten years.

To take into account the impact of pension reforms further adjustments are necessary. Table 2.1 summarises the most important reforms established within the last years in the old age and invalidity pension schemes. So far efforts to increase the actual retirement age have led to only modest results. Between 2005 and 2012 the demographically adjusted actual retirement age increased by one year (*Büro der Kommission zur langfristigen Pensionssicherung*, 2013). In the recent past, however, labour market attachment of the elderly increased considerably. The participation rate of persons aged 55 to 64 rose from 30.7 percent in 2005 (42.1 percent male, 19.9 percent female) to 42.5 percent in 2013 (52.8 percent male, 32.7 percent female). Moreover, most of the reform measures are only starting to get effective and will therefore have further impact in the future.

Against this background we assume the following impact of previous pension reforms on the labour market attachment of the elderly. We assume the participation rate of males in the age group 60 to 64 to rise by 17 percentage points until 2039. Due to the increase in the statutory retirement age of women we assume higher increases in their participation rates: For women in the age group 55 to 59 it will rise by 14 percentage points until 2034 and for women in the age group 60 to 64 we expect an increase by 27 percentage points until 2038.

A large part of recent reforms aims at the reintegration of disabled persons into the workforce. We keep the assumptions of our 2013 projection and assume all considered reforms to result in a return to the labour force rate of 40 percent<sup>5)</sup>: We estimate that in the long run rehabilitation measures will increase the labour force attachment in the age group 50 to 64 by 40 percent of all persons currently in temporary disability pension<sup>6)</sup>. We also assess the impact of job protection measures using spikes in the inflow to disability pension at the age of 57. We assume that 50 percent of these spikes could be reduced by tightening the criteria for job protection.

Overall our methodology implies a considerable reduction in exit rates of older workers over time. The exit rate for males aged 50 to 54, which determines the level of the activity rate of the people aged 55 to 59, falls from 12 percent to 9 percent. This reduction is due to abolishing temporary disability pensions and tightening eligibility for job protection. For male

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<sup>5)</sup> In the literature a huge range for return-to-work rates is found. Beal (2007) reports that return-to-work closures represent 29 percent of all claim closures of the reporting U.S. disability carriers and 42 percent of all closures excluding claims closed due to death or the end of the maximum benefit period. Recent evidence shows that providing financial incentives could encourage disability benefit recipients to increase their labour supply (see e.g. Campolieti - Riddell 2012). Kostol - Mogstad (2013) use a disability reform in Norway and estimate elasticities of labour force non-participation in the range of 0.13-0.30.

<sup>6)</sup> We only consider people classified as "temporary disabled" for the rehabilitation quote, as permanently disabled people cannot be affected by the reforms.

workers aged 55 to 59 we assume a drop in the exit rate from 62 percent to 40 percent. Due to the harmonization of the statutory retirement age the expected reduction in exit rates is more pronounced for females. The exit rates for females aged 50 to 54 and 55 to 59 decrease from 27 percent to 10 percent and from 78 percent to 45 percent, respectively.

Several reasons support the expectation of a strong impact of pension reforms on participation rates. The most recent pension reform implies financial discounts for early retirement and tighter eligibility criteria. Measures to reduce the inflow into disability pensions are introduced. Decoupling rehabilitation from disability pension benefits and linking it with employment services could help to prolong working lives. Econometric studies for Austria (Raab, 2011; Hanappi, 2012) find a robust relationship between financial incentives and retirement behaviour.

In the past, Austrian pension laws were characterised by a considerable degree of diversity. This complexity, combined with the uncertainty of future reforms, made it more difficult for Austrian individuals to form rational expectations about their future entitlements. As the individual pension account (Pensionskonto) improves the transparency of the Austrian pension system, it is to be expected that incentives to remain employed will increase. However, it is crucial to note that our projections rely upon the assumption that no alternative path into early retirement will be introduced.

Table 2.2 compares the current with the 2013 projections. In this report, we project slightly higher activity rates for the elderly. The differences can be explained by, first, fewer dampening adjustments when applying the dynamic cohort method, second, the incorporation of the 2013 data and, third, a more optimistic assessment of the increase in the statutory retirement age for the participation rates of females. In the 2013 projections the calculations of entry and exit rates suffered from a statistical break in the compilation method for dependent employment. As we use five-year age cohorts we had to apply data for 2012 and 2007, however, the data have been recalculated only until 2008. The aggregate effects of the reclassification are relatively minor; however, the age structure of employment has been changed markedly. In our 2013 projections we assumed constant participation rates of males in the age groups 50 to 54 and 55 to 59 after 2030 and we set the entry rate for females aged 45 to 49 to zero, which implies no increase in the participation rates between 40 to 44 and 45 to 49. As the current projection does not suffer from the statistical break we drop the above mentioned assumptions. Table 2.2 shows that participation rates of older workers increased remarkably in 2013. This implies lower exit rates and higher projected levels for the participation rates of the elderly. Finally, we incorporate new results from Horvath – Mahringer (2014) who project the activity rates until 2030. They estimate explicitly the effects of education on participation rates and models the impact of legal changes on the earliest possible retirement age. Taking into account their results we assume a slightly stronger impact of the pension reforms on participation rates of elderly females (see Table 2.3).

Figure 2.1 presents the overall effects of the cohort method and our assumptions on the effects of past pension reforms on activity rates. The biggest advances will be in the age

groups close before the statutory retirement age. Figure 2.2 shows the development of activity rates over time. Most of the adjustment will be completed by 2040.

## 2.1 Sensitivity of participation rates with respect to the choice of the cohort size

Cohorts in A-LMM are 5-year aggregates of individual year-by-year cohorts. For age groups in the prime labour supply this level of aggregation does not matter because participation rates do not vary substantially between neighbouring cohorts. Consequently the relative size of individual cohorts building the 5-year aggregate does not matter. When workers approach retirement age, however, participation rates of yearly cohorts tend to drop sharply creating feedbacks from the relative size of individual cohorts into the aggregate participation rate of a 5-year cohort. Figures 2.3A and 2.3B show that such effects have been important in the past for both sexes due to sudden drops and increases in fertility. For example birth cohorts around 1930 were small compared to the years before and after the Great Depression. The first cohort with a low birth rate from World War I became 60 years old around 1975. Figure 2.3 visualizes the composition of the 5-year cohorts 50 to 54, 55 to 59, 60 to 64 year olds for females and males. Each ribbon in Figure 2.3 shows the development of the share of one of the five individual age-groups in the 5-year cohort over time. The upper panel covers shares for 50 to 54 years group, the middle panel shows shares of the 55 to 59 years group and the lowest panel presents shares of the 60 to 64 years group. In each of the three panels the youngest age group is in the front of the figure while the oldest age group is in the back.

If a small sized age group enters a 5-year cohort this should result in a declining share of the respective age-group in the 5-year aggregate. This drop will then feed backwards through the figure until this age group drops out of the 5-year cohort. If a small sized age-group leaves the respective 5-year average, the up-front share will rise back to normal level while the other four groups in the back of the figure still show this drop.

The two World Wars, the reconstruction period after World War II, and the baby bust generation generated distinct swings in the shares of individual age-groups in the 5-year cohorts. These swings occurred for both females and males. While such composition effects have been important in the past Figures 2.3A and 2.3B show that the current demographic forecast for Austria does not imply big swings in the shares of individual cohorts. For example, the baby boom generation will enter their 60<sup>th</sup> year of life – and therefore the age relevant for early retirement – around 2020. Compared to previous composition effects the swings in shares will be dampened and more evenly spread over age-groups. A decomposition effect could also bias the exit und entry rates into the labour market used to project the development of the labour force. However, we find only minor changes between the relative shares of the one-year age cohorts within the age group 55 to 59 and 60 to 64 between 2008 and 2013.

Table 2.1: Reform measures in the old age and invalidity pension system

| <b>Old Age Pension</b>  | <b>Impact on the<br/>labour force<br/>participation rate</b> |
|---|--|
| <b>Statutory retirement age</b>   |  |
| Increase in the statutory retirement age for women<br>(2024 to 2033, from 60 to 65)   | +  |
| <b>Transparency</b>   |  |
| Individual pension account, initial credit note   | ~  |
| <b>Pathways into early retirement</b>   |  |
| Phasing-out of retirement due to long term insurance until 2017 (through gradual increases in the minimum eligibility age from 60 to 65 for males and 55 to 60 for females)                                 | +  |
| Increase in the retirement age for a special form of early retirement ("Langzeitversichertenregel") from 60/55 to 62/57 (further increase for women alongside the increase in the statutory retirement age) | +  |
| Increase in the required number of contribution years for the so called corridor-pension at the age of 62 ("Korridorpension"); 40 years instead of 37.5)  | +  |
| Introduction of early retirement due to physically hard work ("Schwerarbeitspension")   | -  |
| <b>Financial incentives</b>   |  |
| Increase of deductions for early retirement ("Korridorpension", 5.1% instead of 4.2%)   | +  |
| Implementation of deductions for early retirement due to long term insurance ("Langzeitversichertenregelung"; 4.2%, so far without deductions)  | +  |
| <b>Disability Pension</b>   | <b>Impact on the<br/>labour force<br/>participation rate</b> |
| <b>Prevention and rehabilitation</b>  |  |
| Replacement of the temporary disability pension by rehabilitation and re-training allowances  | ~  |
| Expansion of rehabilitative and preventive measures; introduction accompanying measures by the Public Employment Service (AMS) ("fit2work", "Invalidität im Wandel")  | +  |
| Improved assessment of employability („Gesundheitsstraße“, „Kompetenzzentrum Begutachtung“)   | +  |
| <b>Accessibility</b>  |  |
| Increase in the eligibility age for job protection within a business sector ("Tätigkeitsschutz")  | +  |
| Abolishment of advance pension payments on grounds of disability ("Pensionsvorschuss")  | +  |
| Introduction of a hardship provision for unskilled workers with poor job prospects ("Härtefallregelung")  | -  |

*Table 2.2: Comparison of current (2014) with previous (2013) projection of participation rates*

|                        | Projection from    |      |      |      |      |      |
|------------------------|--------------------|------|------|------|------|------|
|                        | 2013 <sup>1)</sup> |      | 2014 |      |      |      |
|                        | 2012               | 2013 | 2070 | 2012 | 2013 | 2070 |
| Percentage points      |                    |      |      |      |      |      |
| Females 55 to 64 years | 30.5               | 31.9 | 57.1 | 30.6 | 32.7 | 63.1 |
| Males 55 to 64 years   | 50.0               | 51.3 | 63.6 | 50.3 | 52.8 | 69.2 |

Notes: Own calculations. - 1) Hofer et al. (2013).

*Table 2.3: The impact of pension reforms on participation rates in 2070*

|                                  | Projections        |                    |                    |
|----------------------------------|--------------------|--------------------|--------------------|
|                                  | 2010 <sup>1)</sup> | 2013 <sup>2)</sup> | 2014 <sup>4)</sup> |
| Percentage points                |                    |                    |                    |
| Females 55 to 59 years           | 10                 | 12                 | 15                 |
| Females 60 to 64 years           | 18                 | 25                 | 27                 |
| Males 55 to 59 years             | 0                  | 3                  | 3                  |
| Males 60 to 64 years             | 9                  | 19                 | 17                 |
| Females 55 to 64 years           | -                  | 18                 | 21                 |
| Males 55 to 64 years             | -                  | 11                 | 10                 |
| Ageing Report 2012 <sup>3)</sup> |                    |                    |                    |
| Females 55 to 64 years           |                    | 18                 |                    |
| Males 55 to 64 years             |                    | 10                 |                    |

Notes: Numbers are differences in the year 2070 to the projection based on the cohort method. - 1) Hofer et al. (2010). - 2) Hofer et al. (2013). - 3) European Commission (2011, 2012). - 4) Own calculations.

Figure 2.1: Labour Force Activity Rates across age groups and sexes

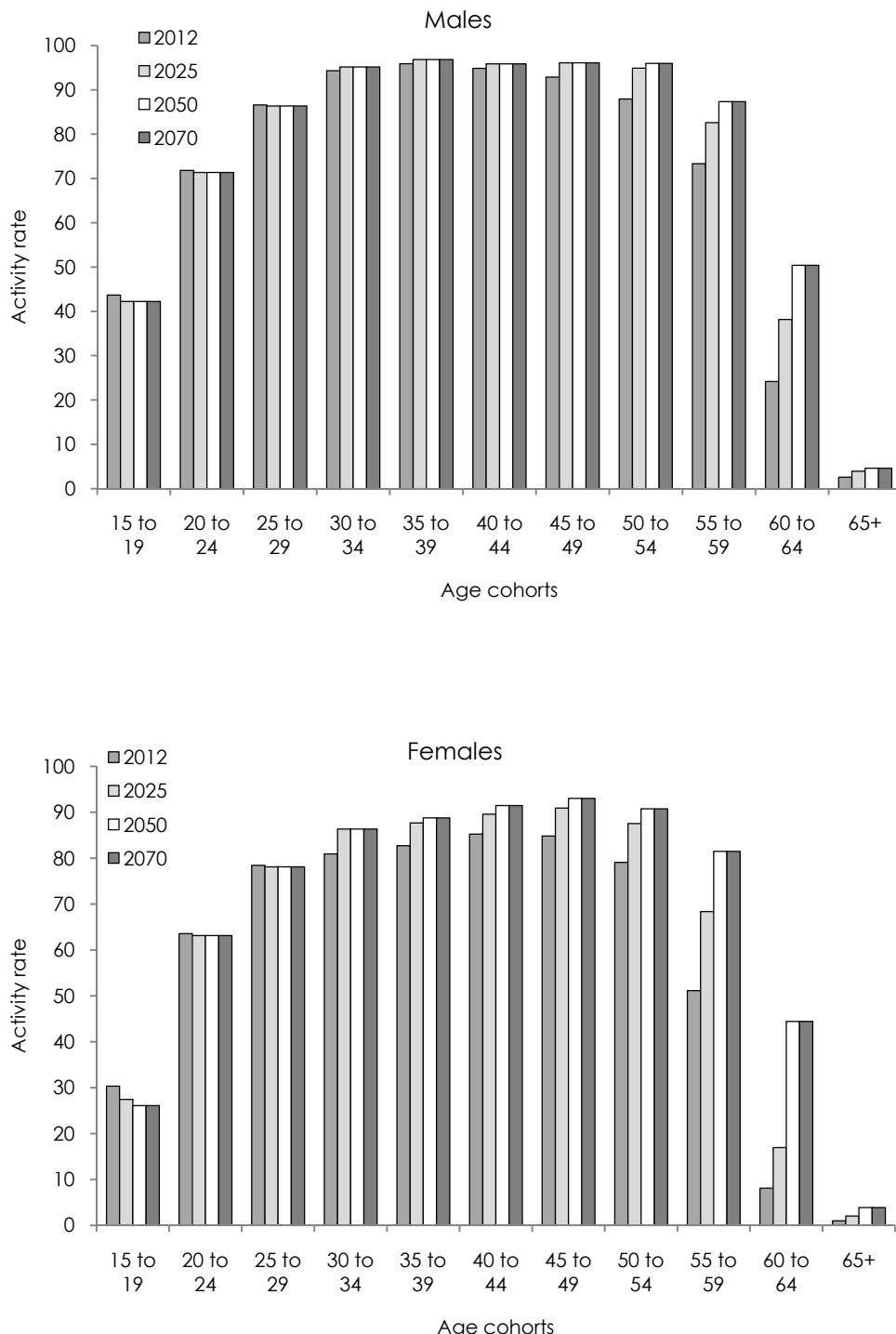


Figure 2.2: History and long-run projections of participation rates

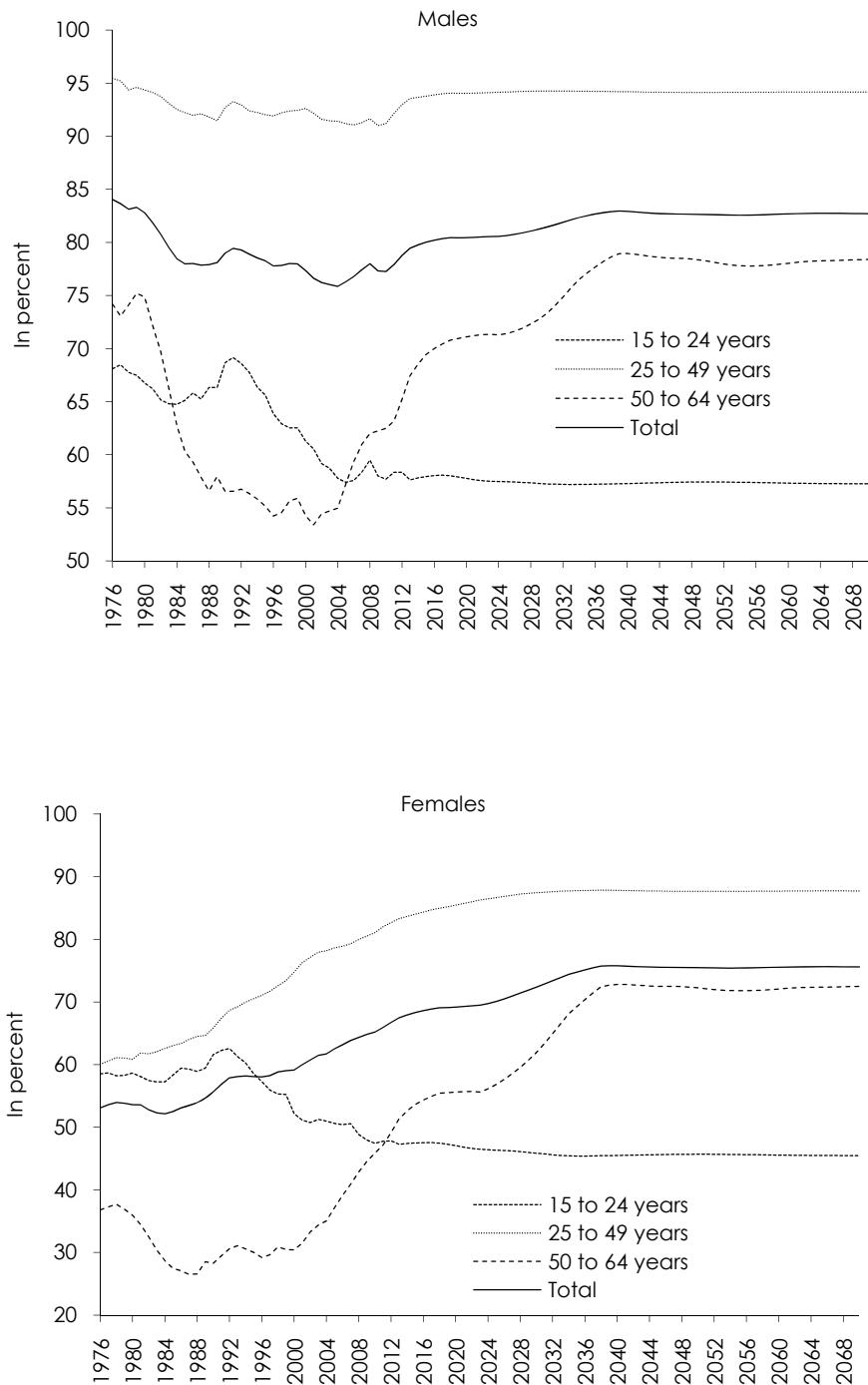


Figure 2.3A: Share of individual cohorts in aggregate 5-year cohort, Females 1952 – 2075

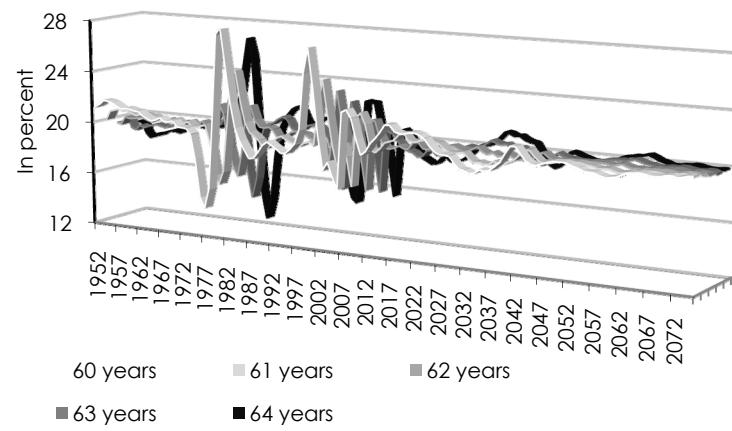
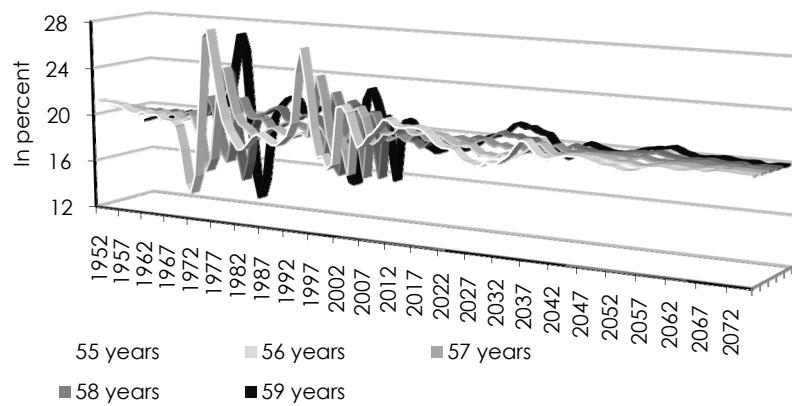
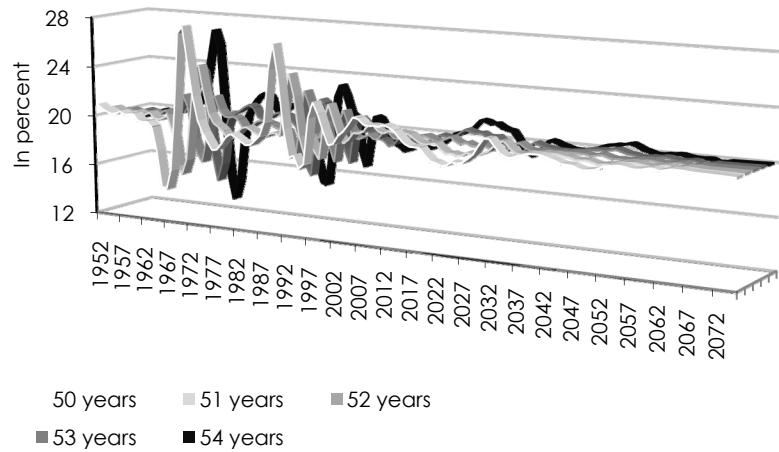
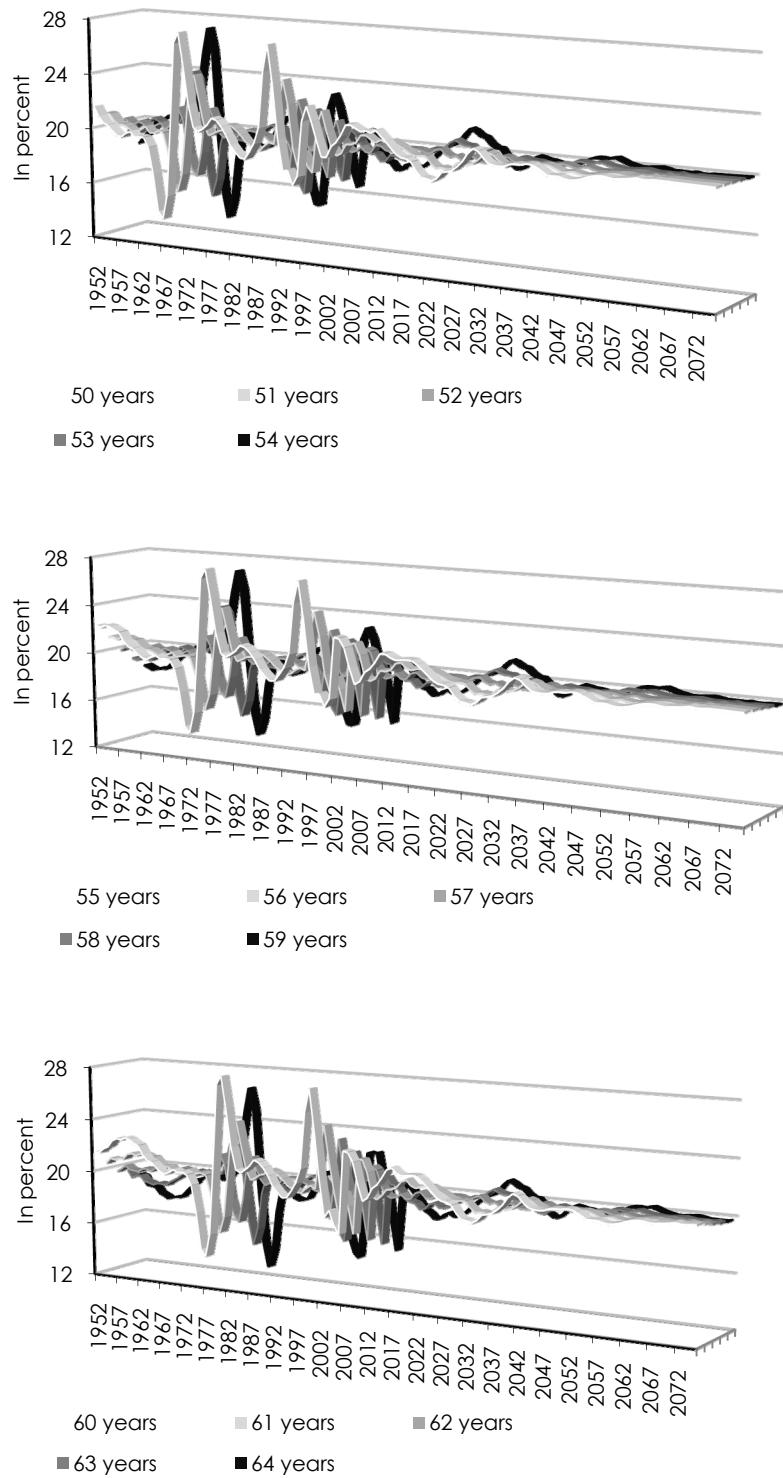


Figure 2.3B: Share of individual cohorts in aggregate 5-year cohort, Males 1952 – 2075



### 3. Simulations with A-LMM

The adjustment mechanisms in A-LMM are slow and stability of the model is not fully visible in the base scenario up to 2070, which represents the end of our main projection horizon. In the very long run the model tends to a steady state solution with a stable ratio of net foreign assets to nominal output. In the following, we first discuss a baseline scenario using the main variant of the latest Austrian population forecast (Hanika, 2013). Compared to the previous population forecast in Hanika *et al.* (2012), the current forecast left assumptions on immigration to Austria, life expectancy, and fertility rates constant. Numbers are therefore similar to the variant used in the previous update of the A-LMM model (Hofer *et al.*, 2013).

The population forecast by Statistics Austria extends to 2070 and is exogenous to the model. Since the model is intended for projections up to 2070, the population forecast horizon is too short for computing the forward looking part of A-LMM. Therefore, we use an extended population forecast going up to 2150 by assuming constant fertility and mortality rates. Forward looking terms appear in private consumption and investment functions, cf. Hofer *et al.* (2007).

#### 3.1 Baseline scenario with the main variant of the population projection

The baseline scenario uses the main variant of the population forecast for Austria (Hanika, 2013). In the aggregate the picture for the demographic forecast remains almost unchanged: population in Austria will grow to 9 million persons in 2030 and will further increase to 9.3 million in 2050. The population growth will be accompanied by a dramatic change in the age structure. The old age dependency ratio (persons aged 65 and older relative to persons aged 15 to 64) will climb from 27 percent in 2013 to 50.3 percent in 2070. The increase is similar to the previous model update (2070: 50.4 percent).

The outlook for the development of the working age population implies a decrease in the working age population by 0.1 percent annually between 2013 and 2070. The main variant of Statistic Austria's population projection foresees an increase in Austria's working age population until 2019. Between 2020 and 2038, the working age population will decline, reaching a trough at 5.4 million. After this decline, the working age population will temporarily increase and peter out at 5.4 million persons in 2070 (Table 3.1).

The main variant assumes a net immigration between 25,000 and 34,000 persons per year. Recent trends and new institutional rules tend to indicate that future migrants are more likely to be better educated and less likely to come from traditional migration countries like Yugoslavia and Turkey (Biffl, 2006). We expect that these migrants are more similar to the native population and thus model migration in the base scenario as an increase in labour supply without differentiating between natives and migrants (Barrell *et al.*, 2006).

The economically active population will nearly stagnate. The slightly improved outlook for the labour force is due to upward revisions for participation rates. The total participation rate will

Table 3.1: Baseline

|  | 2013      | 2014    | 2020    | 2030    | 2040    | 2050    | 2060    | 2070    | Avg. change<br>(in %) | Cum. change<br>(in % points) |
|--|-----------|---------|---------|---------|---------|---------|---------|---------|-----------------------|------------------------------|
|  | 2013/2070 |         |         |         |         |         |         |         | 2013/2070             | 2013/2070                    |
| Working Age Population (15-64)                         | 5,707.5   | 5,713.2 | 5,740.4 | 5,547.3 | 5,428.3 | 5,426.7 | 5,374.0 | 5,391.7 | -0.1                  |                              |
| Economically active population (labour force)          | 4,220.3   | 4,248.4 | 4,332.8 | 4,339.1 | 4,407.5 | 4,400.5 | 4,371.7 | 4,391.4 | 0.1                   |                              |
| Economically active employees in full time equivalents | 3,117.4   | 3,138.9 | 3,216.3 | 3,212.4 | 3,261.1 | 3,258.2 | 3,235.2 | 3,252.0 | 0.1                   |                              |
| Number of pensions                                     | 2,286.2   | 2,309.4 | 2,450.1 | 2,781.5 | 2,952.7 | 3,093.7 | 3,160.6 | 3,164.6 | 0.6                   |                              |
| In percent   |           |         |         |         |         |         |         |         |                       |                              |
| Participation rate, total                              | 73.9      | 74.4    | 75.5    | 78.2    | 81.2    | 81.1    | 81.3    | 81.4    | 0.2                   | 7.5                          |
| Women  | 67.8      | 68.3    | 69.7    | 73.5    | 77.6    | 77.5    | 77.8    | 77.9    | 0.2                   | 10.1                         |
| Men  | 80.1      | 80.4    | 81.3    | 82.9    | 84.7    | 84.6    | 84.9    | 85.0    | 0.1                   | 4.9                          |
| Unemployment rate                                      | 7.6       | 7.6     | 7.1     | 7.1     | 7.1     | 7.0     | 7.0     | 7.0     | -0.2                  | -0.7                         |
| Old age dependency ratio                               | 27.0      | 27.5    | 29.9    | 38.9    | 46.0    | 48.4    | 50.3    | 50.3    | 1.1                   | 23.3                         |
| Pensions relative to insured persons                   | 61.4      | 61.6    | 64.1    | 72.7    | 76.0    | 79.7    | 82.0    | 81.7    | 0.5                   | 20.3                         |
| Pensions relative to population aged 65+               | 148.2     | 147.1   | 143.0   | 129.1   | 118.3   | 117.8   | 116.9   | 116.6   | -0.4                  | -31.6                        |
| Bill. €  |           |         |         |         |         |         |         |         |                       |                              |
| Gross domestic product at constant 2005 prices         | 272.6     | 277.2   | 305.6   | 354.5   | 417.5   | 488.2   | 569.6   | 670.4   | 1.6                   |                              |
| Gross domestic product at current prices               | 313.2     | 324.8   | 403.3   | 570.3   | 818.7   | 1,166.9 | 1,659.7 | 2,381.2 | 3.6                   |                              |
| Real GDP per capita                                    | 32.2      | 32.6    | 35.1    | 39.5    | 45.4    | 52.4    | 60.8    | 71.2    | 1.4                   |                              |
| Real wage per capita, in full time equivalents (MPL)   |           |         |         |         |         |         |         |         |                       |                              |
|  | 100.0     | 100.2   | 108.4   | 126.0   | 146.1   | 171.3   | 201.2   | 235.3   | 1.5                   |                              |
| Percentage change against previous year                |           |         |         |         |         |         |         |         |                       |                              |
| Gross domestic product at constant 2005 prices         | 0.4       | 1.7     | 1.5     | 1.6     | 1.6     | 1.5     | 1.6     | 1.7     | 1.6                   |                              |
| Compensation to employees, at current prices           | 2.8       | 2.9     | 3.6     | 3.6     | 3.7     | 3.6     | 3.6     | 3.7     | 3.6                   |                              |
| Real wage per employee                                 | 0.6       | 0.2     | 1.4     | 1.4     | 1.6     | 1.6     | 1.6     | 1.6     | 1.5                   |                              |
| GDP deflator   | 1.6       | 2.0     | 2.0     | 2.0     | 2.0     | 2.0     | 2.0     | 2.0     | 2.0                   |                              |
| Ratio  |           |         |         |         |         |         |         |         |                       |                              |
| Marginal product of capital                            | 0.13      | 0.13    | 0.14    | 0.14    | 0.14    | 0.14    | 0.14    | 0.14    | 0.1                   |                              |
| Capital-output-ratio                                   | 3.79      | 3.77    | 3.69    | 3.65    | 3.61    | 3.60    | 3.60    | 3.59    | -0.1                  | -0.2                         |

increase from 73.9 percent in 2013 to 81.4 percent in 2070. Compared to the previous model update, the participation rate in 2070 is higher by 2 percentage points. The brighter outlook for participation rates is due to higher starting values in the base year of the model simulation. Furthermore, the pension reform of spring 2012 increased monetary penalties for early retirement and made it more difficult to obtain a permanent disability pension (mandatory rehabilitation). Significantly higher participation rates are assumed for both sexes (Table 3.1).

The consequences of the recent financial and economic crisis have been accounted for in the baseline scenario. The crisis resulted in the most severe economic recession in Austria for decades and a loss of real output by 3.8 percent in 2009. The baseline scenario implies that the economic crisis shifts the level of output permanently downwards, leaving the growth rate unchanged. Annual labour productivity growth (in full time equivalents) will thus amount to 1.6 percent, corresponding to the value assumed in the previous model update. No long term impact of the crisis is assumed for labour demand. The unemployment rate, however, will decline only gradually to 7 percent until 2030, remaining constant at 7 percent until 2070. This implies an upward revision of the steady state unemployment rate by 0.5 percentage points. Hysteresis effects after the economic crises and the integration of older workers with unfavourable labour market chances dampen the decline of the unemployment rate.

The inflation rate showed relatively high volatility – related to the consequences of the economic crisis – in the most recent past. In the meantime inflation has stabilized at low levels. The baseline scenario foresees no fundamental change in the long-term perspectives for consumer price inflation. Price increases are assumed to follow the target set at 2 percent by the European Central Bank. Real GDP and real per capita wage grow at an annual growth rate of 1.6 percent. In the current baseline scenario real output in 2070 is higher by 146 percent compared to the year 2013. The previous model update led to an increase in real output of 152 percent between 2013 and 2070.

The development of key parameters for the public pension system is slightly improved in the current scenario compared to the previous model update. The upward revision of the employment rates for older persons has no effect on the increase in the number of pensions (0.6 percent)<sup>7)</sup>. Together with the almost unchanged old age dependency ratio in the current population forecast this implies that the increase in the number of pensions relative to the number of insured persons will be 20 percentage points between 2013 and 2070. The number of pensions relative to the population aged 65+ decreases by 31.6 percentage points due to higher participation rates in the cohorts younger than the legal pension entry age of 65 coupled with fewer disability and survivor's pensions. At the same time, the ratio of pensioners older than 65 to the respective population group will remain constant.

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<sup>7)</sup> For details on modeling the social security system in general and the pension system in particular, cf. Hofer et al. (2007).

### 3.2 Uncertain development of Productivity

Total factor productivity growth has been the most important source of the expansion in per capita output in industrial countries. The simulation results with ALMM also show that long-run growth converges quickly to the value implied by total factor productivity growth. Changes in the labour force add minor deviations during periods of demographic change. Capital accumulation adjusts to both demographic changes and total factor productivity growth. Thus the sustainability of total factor productivity growth of 0.8 percent per year is an important issue.

The average growth rate in an economy is determined by changes in employment, capital stock, and total factor productivity. While employment is primarily driven by participation rates and demographic developments, the capital stock adjusts endogenously according to optimality conditions with respect to Tobin's Q. In the baseline, the growth rate of total factor productivity is set constant at an annual rate of 0.8 percent. On a balanced growth path, where employment and the capital output ratio remain constant, labour productivity growth coincides with the growth rate of total factor productivity divided by the labour share. This scenario implies an annual rate of growth in labour productivity of 1.6 percent. Compared to Hofer et al. (2013) this value is unchanged and implies for Austria the same increase in average labour productivity (in full time equivalents) as assumed by the European Aging Group (Table 1.8 in European Commission, 2012). Our baseline average labour productivity growth matches the EU27 average and it is 0.2 percentage points above the average for the Euro area.

Figure 3.3.1 compares the assumption on productivity growth to the historic development of average labour productivity growth (in full time equivalents) from 1976 to 2013. The average annual growth rate of 1.54 percent per year is close to the growth rate in the baseline scenario (1.6 percent). The amplitude of historic fluctuations in labour productivity growth has been markedly higher and the economic development after the financial market crisis lowered the average rate of growth.

Fernald – Jones (2014) discuss the US-prospects for total factor productivity growth within a growth accounting model based on new growth economics. If long-run growth results from the discovery of new ideas the non-rivalry of ideas implies increasing returns to scale at the aggregate level (Romer, 1990). Conventional rival inputs such as capital contribute only to the output of a single firm whereas ideas benefit each firm in the economy. In this case, income per person depends on the total number of ideas rather than the number of ideas per person. Under the assumption of a constant long-run growth rate of per-capita output Fernald – Jones (2014) present the following growth accounting decomposition:

$$y^* \approx \left( \frac{K}{Y} \right)^\beta h(R & D \text{ intensity})^\gamma L^\varepsilon$$

$$2.0 \approx 0.0 \quad 0.4 \quad 1.2 \quad 0.4$$

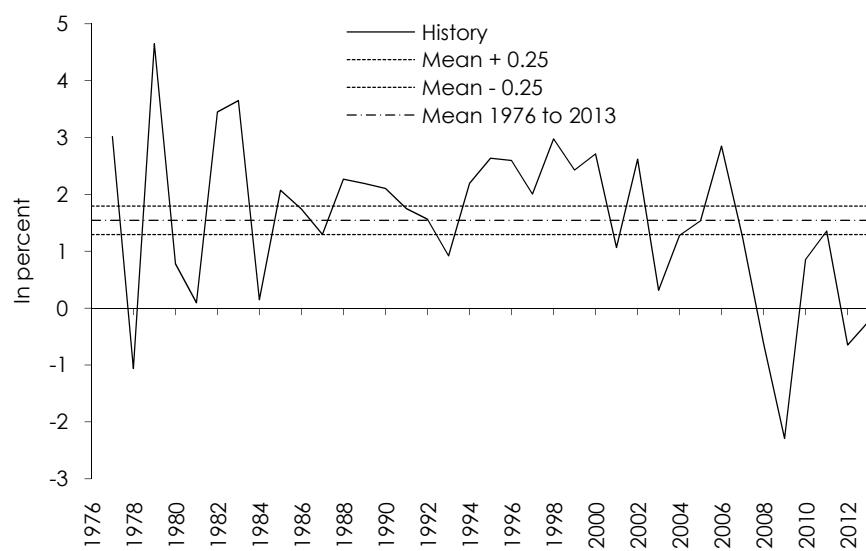
Between 1870 and 2012 US output per person,  $y^*$ , grew at a rate of 2 percent per year. This growth rate can be decomposed into contributions from higher capital intensity ( $K/Y$ ) due to capital accumulation. Since the beginning of the industrial revolution capital deepening did not add to the average growth rate. As in Lucas (1988) higher educational attainment increases the amount of human capital per person,  $h$ . Human capital accumulation accounted for 0.4 percentage points of the average increase in per capita output. The third factor in this decomposition represents research intensity and reflects investment into the search for new ideas (Romer, 1990). The share of researchers in total workers can be used as an empirical approximation to research intensity. Research intensity contributed a further 1.2 percentage points to the average growth rate of per-capita output. Finally, increasing employment,  $L$ , contributed 0.4 percentage points to the rise in output. The last two components represent total factor productivity growth and reflect the contribution of the stock of ideas to output growth. Every period, the flow of new ideas adds to the existing stock of ideas and helps to keep the average growth rate of output at the same level. This flow depends on the stock of existing ideas,  $A$ , and the number of researchers, i. e. the number of people searching for new ideas. Fernald – Jones (2014) propose the following function for the flow of ideas  $\dot{A}$ :

$$\dot{A} = Rf(A) = \beta RA^\phi, \quad (3.2.1)$$

where  $\beta$  and  $\phi$  are scale and elasticity parameters, respectively.

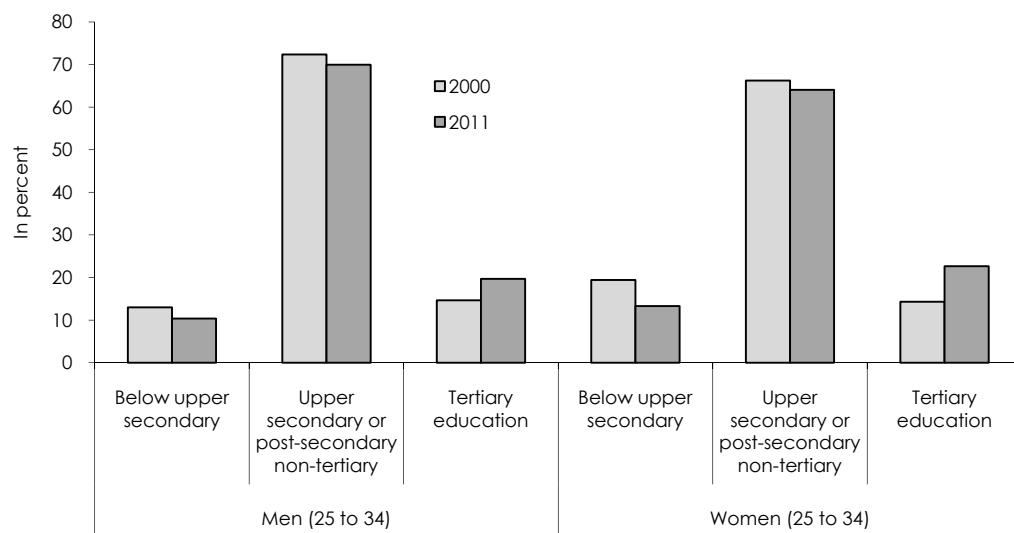
The contribution of human capital results from rising levels of education of younger cohorts. In the US educational advances started to slow down in the 1950s and stopped to increase after 1980 (Goldin – Katz, 2008). In contrast, Figure 3.3.2 shows that tertiary education is still rising in Austria. In the long-run, the educational attainment of adults could continue to rise just because life expectancy is increasing and this results in higher education levels of older cohorts and bigger incentives to invest into human capital accumulation. The fraction of workers active in research and development, on the other hand, is unlikely to rise without bound. Thus much of the long-run growth performance appears to be the result of a transition process. Scale effects associated with the number of researchers,  $R$ , and specific shapes for function (3.2.1) generating the flow of ideas may still act as sources of sustainable growth. The functional form of  $f(A)$  in equation (3.2.1) is a power function which is required for a balanced growth path. Empirical estimates for  $\gamma$ , however, indicate diminishing returns in the production of new ideas, i. e. as the stock of ideas rises it becomes harder to develop new ideas. Nevertheless, the shape of  $f(A)$  may be completely different and allow for ongoing contributions of research and development efforts to labour productivity growth. The second component in the flow of ideas equation 3.2.1 is very likely to increase further during a considerable period of time. The number of researchers,  $R$ , in developing countries will certainly rise more quickly than employment because as these economies become richer, they are more engaged in shifting the technology frontier outward.

Figure 3.3.1: Development of labour productivity



Note: Labour productivity is defined as real GDP per economically active employee measured in full time equivalents.

Figure 3.3.2: Development of Educational attainment among 25 to 34-year groups in Austria



Source: OECD, Education at a Glance 2013.



## 4. References

- Allen, C., Hall, S. (Eds.), *Macroeconomic Modelling in a Changing World, Towards a Common Approach, Series in Financial Economics and Quantitative Analysis*, John Wiley & Son, 1997.
- Barrell, R., Guillemineau, C., Liadze, I., "Migration in Europe", *National Institute Economic Review*, 2006, 198, pp. 36-39.
- Baumgartner, J., Hofer, H., Kaniovski, S., Schuh, U., Url, Th., *A Long-run Macroeconomic Model of the Austrian Economy (A-LMM). Model Documentation and Simulations*, WIFO Working Papers, 2004, 224.
- Beal, R. W., *Survey of Rehabilitation and Returns-to-Work Practices Among U.S. Disability Carriers*, Cornell University ILR School, 2007.
- Biffl, G., "Teilstudie 6: Bevölkerungsentwicklung und Migration", in *WIFO-Weißbuch*, Aigner, K., Tichy, G., Walterskirchen, E., *WIFO-Weißbuch: Mehr Beschäftigung durch Wachstum auf Basis von Innovation und Qualifikation*, WIFO, Wien, 2006.
- Büro der Kommission zur langfristigen Pensionssicherung, Bericht 2013 über das Monitoring des effektiven Pensionsantrittsalters 2012, BMASK, Wien, 2013, available at <http://www.sozialministerium.at/cms/site/attachments/1/8/3/CH2818/CMS1401714744658/monitor13.pdf>.
- Campolieti, M., Riddell, C., "Disability policy and the labor market: Evidence from a natural experiment in Canada 1998–2006", *Journal of Public Economics*, 2012, 96(3), pp. 306-316.
- Carone, G., Long-term labour force projections for the EU 25 Member States: A set of data for assessing the economic impact of ageing, 2005, *Economic Papers* (235), European Commission DG Economic and Financial Affairs, Brussels.
- Dawkins, C., Srinivasan, T. N., Whalley, J., "Calibration", in Heckman, J. J., Leamer, E. (Eds.), *Handbook of Econometrics*, 2001, Vol. 5, Chapter 58, pp. 3653-3703.
- European Commission, "The 2012 Ageing Report: Underlying Assumptions and Projection Methodologies", *European Economy*, 2011, (4).
- European Commission, "The 2012 Ageing Report: Economic and budgetary projections for the 27 EU Member States (2010-2060)", *European Economy*, 2012, (2).
- Fernald, J. G., Jones, C. L., "The Future of US Economic Growth", *American Economic Review Papers & Proceedings*, 2014, 104(5), pp. 44-49.
- Goldin, C., Katz, L. F., *The Race Between Education and Technology*, Belknap Press, Cambridge MA, 2008.
- Hanappi, T., "Retirement Behaviour in Austria: Incentive Effects on Old-Age Labor Supply", NRN Working paper – labor welfare state, 2012, (1213).
- Hanika, A., Jaschinski, I., Klotz, J., Marik-Lebeck, S., Wisbauer, A., "Zukünftige Bevölkerungsentwicklung Österreichs 2012 bis 2060 (2075)", *Statistische Nachrichten*, 2012, 67(10), pp. 785-809.
- Hanika, A., "Zukünftige Bevölkerungsentwicklung Österreichs 2013 bis 2060 (2075)", *Statistische Nachrichten*, 2013, 68(11), pp. 1005-1024.
- Hansen, L. P., Heckman, J. J., "The Empirical Foundations of Calibration", *Journal of Economic Perspectives*, 1996, 10(1), pp. 87-104.
- Hofer, H., Kaniovski, S., Schuh, U., Url, Th., *A Long-run Macroeconomic Model of the Austrian Economy (A-LMM) - An Update of the Model Documentation*, IHS Research Report, Vienna, 2007.
- Hofer, H., Kaniovski, S., Schuh, U., Url, Th., *A Long-run Macroeconomic Model of the Austrian Economy (A-LMM). An Update of the Model Documentation and Simulations*, IHS Research Report, Vienna, 2010.
- Hofer, H., Kaniovski, S., Müllbacher, S., Url, Th., *A Long-run Macroeconomic Model of the Austrian Economy (A-LMM). An Update of the Model Documentation and Simulations*, WIFO study, Vienna, 2013.
- Horvath, T., Mahringer, H., Entwicklung der Erwerbsbeteiligung bis 2030 unter Berücksichtigung von Änderungen im Bildungsverhalten und rezenter Pensionsreformen, WIFO Working Paper, 2014 (im Erscheinen).
- Kostol, A. R., Mogstad, M., "How Financial Incentives Induce Disability Insurance Recipients to Return to Work", NBER Working Paper, 2013, (19016).
- Lucas, R. E., "On the Mechanics of Economic Development", *Journal of Monetary Economics*, 1988, 22(1), pp. 3-42.

- Raab, R., "Financial incentives in the Austrian PAYG-pension system: micro-estimation", Empirica, 2011, 38(2), pp. 231-257.
- Romer, P. M., "Endogenous Technological Change, Journal of Political Economy", 1990, 98(5), pp. S71-S102.
- Scherer, P., "Age of Withdrawal from the Labour Force in the OECD countries", OECD Labour Market and Social Policy Occasional Papers, 2002, (49), Paris.
- Solow, R. M., Growth Theory - An Exposition, Oxford University Press, Oxford, 2000.
- Watson, M. W., "Measures of Fit for Calibrated Models", Journal of Political Economy, 1993, 101(6), pp. 1011-1041.

## Appendix 1: List of variables

|       | English  | German  |
|-------|--|---|
| CA    | Current account balance, at current prices   | Saldo der Leistungsbilanz, laufende Preise  |
| CAT   | Balance in transfers, at current prices  | Saldo der Transferbilanz, laufende Preise   |
| CAXM  | Balance in goods and services trade, at current prices   | Saldo der Waren- und Dienstleistungsbilanz, laufende Preise                               |
| CAY   | Balance in income, at current prices   | Saldo der Einkommensbilanz, laufende Preise   |
| CP    | Private consumption, at constant prices  | Privater Konsum, real   |
| DPN   | Consumption of fixed capital, at current prices  | Abschreibungen, laufende Preise   |
| GBD   | General government financial balance, at current prices  | Finanzierungssaldo Staat, laufende Preise   |
| GC    | Government consumption, at constant prices   | Konsumausgaben des Staates, zu laufenden Preisen  |
| GD    | Government debt, at current prices   | Staatsverschuldung, laufende Preise   |
| GE    | Government expenditures, at current prices   | Staatsausgaben, laufende Preise   |
| GEl   | Government expenditures on interest, at current prices   | Zinsen für die Staatsverschuldung, Staat konsolidiert, laufende Preise                    |
| GELIC | Government expenditures on long term care, at current prices   | Ausgaben für Pflegegeld/Bundespflegegeld, laufende Preise                                 |
| GEO   | Other government expenditures, at current prices   | Sonstige staatliche Ausgaben, laufende Preise   |
| GOS   | Gross operating surplus and gross mixed income, at current prices                                      | Bruttobetriebsüberschuss u. Selbstdändigeneinkommen, laufende Preise                      |
| GR    | Government revenues, at current prices   | Staatsentnahmen, laufende Preise  |
| HSC   | Social contributions, payable, private households, at current prices                                   | Sozialbeiträge, private Haushalte, gezahlt, laufende Preise                               |
| HTDIR | Current taxes on income and wealth, payable, private households, at current prices                     | Einkommen und Vermögensteuern, private Haushalte, gezahlt, laufende Preise                |
|       | Social benefits other than social transfers in kind, receivable, private households, at current prices | Monetäre Sozialleistungen, private Haushalte, erhalten, laufende Preise                   |
| HTRM  |  | Sonstige laufende Transfers, Saldo, private Haushalte, laufende Preise                    |
| HTRO  | Balance of other current transfers, private households, at current prices                              | Finanzvermögen der privaten Haushalte, zu Preisen von 2005                                |
| HWF   | Financial wealth of private households, at constant 2005 prices  | Humanvermögen der privaten Haushalte, zu Preisen von 2005                                 |
| HWH   | Human wealth of private households, at constant 2005 prices  | Vermögenseinkommen, Saldo, private Haushalte, laufende Preise                             |
| HYI   | Balance of property income, private households, at current prices                                      | Arbeitnehmerentgelt, private Haushalte, erhalten, laufende Preise                         |
| HYL   | Compensation of employees, receivable, private households, at current prices                           | Verfügbares Einkommen der privaten Haushalte ohne Selbständigeneinkommen, laufende Preise |
| HYSI  | Non-entrepreneurial disposable income of private households, at current prices                         | Selbständigeneinkommen, priv. Haushalte, erhalten, laufende Preise                        |
| HYS   | Mixed income, net, private households, at current prices   | Bruttoinventitionen, real   |
| I     | Gross capital formation, at constant prices  | Nettkapitalstock, real  |
| K     | Physical capital stock, at constant prices   |   |
| LD    | Economically active employees in full time equivalents, in million persons                             | Unselbständig (Aktiv) Beschäftigte in Vollzeitäquivalente, Mio. Personen                  |

|       |  |  |  |
|-------|--|--|--|
| LE    | Employees (incl. LENA), in million persons   | Persons on maternity leave and persons in military services, in million persons            | Unselbstständig Beschäftigte (inkl. KUG), Mio. Personen  |
| LENA  |  |  | Kindergeebzeiher und Präsenzdienner, Mio. Personen   |
| LF    | Economically active population (Labour force), in million persons  | Realisierte Erwerbspersonen  | Erwerbspersonen  |
| LEFF  | Economically active population (females), in million persons   | Erwerbspersonen, Frauen  | Erwerbspersonen, Männer  |
| LFM   | Economically active population, males, in million persons  | Arbeitsangebot unselbstständig, Mio. Personen  | Selbstständig Beschäftigte, Mio. Personen  |
| LS    | Dependent labour supply, in million persons  | Selbständige Beschäftigte Landwirtschaft, Mio. Personen                                    | Selbständige Beschäftigte Gewerbe, Mio. Personen   |
| LSS   | Self employed, in million persons  | Arbeitslose, Mio. Personen   | Güter und Dienstleistungseimporte, real  |
| LSSA  | Self employed, farmers, in million persons   | Mindestbeitragsgrundlage für Selbstständige  | Netto-Auslandsvermögensposition, laufende Preise   |
| LSSNA | Self employed, non-farmers, in million persons   | Netto-Betriebsüberschuss und Selbständigeneinkommen netto, laufende Preise                 | Nettooperating surplus and net mixed income, at current prices                                 |
| LU    | Unemployed, in million persons   | Arbeitnehmerentgelt, laufende Preise, abzüglich Lohnsteuer und Sozialversicherungsbeiträge | Compensation to employees, at current prices, net wage taxes and social security contributions |
| M     | Goods and services imports, at constant prices   | Deflator, Bruttoinlandsprodukt   | P  |
| MCBS  | Minimum contribution basis of self employed  | Pensionsanpassung Struktureffekt   | Deflator, GDP  |
| NFA   | Net foreign assets, at current prices  | Pensionsanpassung Gewicht  | PASE   |
| NOS   | Net operating surplus and net mixed income, at current prices  | Deflator, privater Konsum  | PAW  |
| NYLN  | Nettooperating surplus and net mixed income, at current prices, net wage taxes and social security contributions | Anzahl der Pensionsbezüge (Direkt- und Hinterbliebenenpensionen)                           | PC   |
| P     |  | Deflator, öffentlicher Konsum  | PEN  |
|       |  | Deflator, Bruttoinvestitionen  | PGC  |
|       |  | Bevölkerung, Mio. Personen   | PI   |
|       |  | Bevölkerung im Alter von 0 bis 4   | POP  |
|       |  | Bevölkerung im Alter von 0 bis 4 (hohe Lebenserwartung)                                    | POP00  |
|       |  | Bevölkerung im Alter von 0 bis 4 (hohe Nettozuwanderung)                                   | POP00HE  |
|       |  | Bevölkerung im Alter von 0 bis 4 (hohe Nettozuwanderung)                                   | POP00HW  |
|       |  | Bevölkerung im Alter von 0 bis 4 (niedrige Nettozuwanderung)                               | POP00NW  |
|       |  | Bevölkerung im Alter von 5 bis 9   | POP01  |
|       |  | Bevölkerung im Alter von 5 bis 9 (hohe Lebenserwartung)                                    | POP01HE  |
|       |  | Bevölkerung im Alter von 5 bis 9 (hohe Nettozuwanderung)                                   | POP01HW  |

|         |   |  |
|---------|---|--|
| POP01NW | Population, age group 5 to 9, in million persons (low fertility)          | Bevölkerung im Alter von 5 bis 9 (niedrige Nettozuwanderung)   |
| POP02   | Population, age group 10 to 14, in million persons                        | Bevölkerung im Alter von 0 bis 14                              |
| POP02HE | Population, age group 10 to 14, in million persons (high life expectancy) | Bevölkerung im Alter von 10 bis 14 (hohe Lebenserwartung)      |
| POP02HW | Population, age group 10 to 14, in million persons (high migration)       | Bevölkerung im Alter von 10 bis 14 (hohe Nettozuwanderung)     |
| POP02NW | Population, age group 10 to 14, in million persons (low fertility)        | Bevölkerung im Alter von 10 bis 14 (niedrige Nettozuwanderung) |
| POP03   | Population, age group 15 to 19, in million persons                        | Bevölkerung im Alter von 15 bis 19                             |
| POP03HE | Population, age group 15 to 19, in million persons (high life expectancy) | Bevölkerung im Alter von 15 bis 19 (hohe Lebenserwartung)      |
| POP03HW | Population, age group 15 to 19, in million persons (high migration)       | Bevölkerung im Alter von 15 bis 19 (hohe Nettozuwanderung)     |
| POP03NW | Population, age group 15 to 19, in million persons (low fertility)        | Bevölkerung im Alter von 15 bis 19 (niedrige Nettozuwanderung) |
| POP04   | Population, age group 20 to 24, in million persons                        | Bevölkerung im Alter von 20 bis 24                             |
| POP04HE | Population, age group 20 to 24, in million persons (high life expectancy) | Bevölkerung im Alter von 20 bis 24 (hohe Lebenserwartung)      |
| POP04HW | Population, age group 20 to 24, in million persons (high migration)       | Bevölkerung im Alter von 20 bis 24 (hohe Nettozuwanderung)     |
| POP04NW | Population, age group 20 to 24, in million persons (low fertility)        | Bevölkerung im Alter von 20 bis 24 (niedrige Nettozuwanderung) |
| POP05   | Population, age group 25 to 29, in million persons                        | Bevölkerung im Alter von 25 bis 29                             |
| POP05HE | Population, age group 25 to 29, in million persons (high life expectancy) | Bevölkerung im Alter von 25 bis 29 (hohe Lebenserwartung)      |
| POP05HW | Population, age group 25 to 29, in million persons (high migration)       | Bevölkerung im Alter von 25 bis 29 (hohe Nettozuwanderung)     |
| POP05NW | Population, age group 25 to 29, in million persons (low fertility)        | Bevölkerung im Alter von 25 bis 29 (niedrige Nettozuwanderung) |
| POP06   | Population, age group 30 to 34, in million persons                        | Bevölkerung im Alter von 30 bis 34                             |
| POP06HE | Population, age group 30 to 34, in million persons (high life expectancy) | Bevölkerung im Alter von 30 bis 34 (hohe Lebenserwartung)      |
| POP06HW | Population, age group 30 to 34, in million persons (high migration)       | Bevölkerung im Alter von 30 bis 34 (hohe Nettozuwanderung)     |
| POP06NW | Population, age group 30 to 34, in million persons (low fertility)        | Bevölkerung im Alter von 30 bis 34 (niedrige Nettozuwanderung) |
| POP07   | Population, age group 35 to 39, in million persons                        | Bevölkerung im Alter von 35 bis 39                             |
| POP07HE | Population, age group 35 to 39, in million persons (high life expectancy) | Bevölkerung im Alter von 35 bis 39 (hohe Lebenserwartung)      |
| POP07HW | Population, age group 35 to 39, in million persons (high migration)       | Bevölkerung im Alter von 35 bis 39 (hohe Nettozuwanderung)     |
| POP07NW | Population, age group 35 to 39, in million persons (low fertility)        | Bevölkerung im Alter von 35 bis 39 (niedrige Nettozuwanderung) |
| POP08   | Population, age group 40 to 44, in million persons                        | Bevölkerung im Alter von 40 bis 44                             |
| POP08HE | Population, age group 40 to 44, in million persons (high life expectancy) | Bevölkerung im Alter von 40 bis 44 (hohe Lebenserwartung)      |
| POP08HW | Population, age group 40 to 44, in million persons (high migration)       | Bevölkerung im Alter von 40 bis 44 (hohe Nettozuwanderung)     |

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| POP08NW   | Population, age group 40 to 44, in million persons (low fertility)        | Bevölkerung im Alter von 40 bis 44 (niedrige Nettozuwanderung) |
| POP09     | Population, age group 45 to 49, in million persons                        | Bevölkerung im Alter von 45 bis 49                             |
| POP09HE   | Population, age group 45 to 49, in million persons (high life expectancy) | Bevölkerung im Alter von 45 bis 49 (hohe Lebenserwartung)      |
| POP09HW   | Population, age group 45 to 49, in million persons (high migration)       | Bevölkerung im Alter von 45 bis 49 (hohe Nettozuwanderung)     |
| POP09NW   | Population, age group 45 to 49, in million persons (low fertility)        | Bevölkerung im Alter von 45 bis 49 (niedrige Nettozuwanderung) |
| POP10     | Population, age group 50 to 54, in million persons                        | Bevölkerung im Alter von 50 bis 54                             |
| POP10HE   | Population, age group 50 to 54, in million persons (high life expectancy) | Bevölkerung im Alter von 50 bis 54 (hohe Lebenserwartung)      |
| POP10HW   | Population, age group 50 to 54, in million persons (high migration)       | Bevölkerung im Alter von 50 bis 54 (hohe Nettozuwanderung)     |
| POP10NW   | Population, age group 50 to 54, in million persons (low fertility)        | Bevölkerung im Alter von 50 bis 54 (niedrige Nettozuwanderung) |
| POP11     | Population, age group 55 to 59, in million persons                        | Bevölkerung im Alter von 55 bis 59                             |
| POP11HE   | Population, age group 55 to 59, in million persons (high life expectancy) | Bevölkerung im Alter von 55 bis 59 (hohe Lebenserwartung)      |
| POP11HW   | Population, age group 55 to 59, in million persons (high migration)       | Bevölkerung im Alter von 55 bis 59 (hohe Nettozuwanderung)     |
| POP11NW   | Population, age group 55 to 59, in million persons (low fertility)        | Bevölkerung im Alter von 55 bis 59 (niedrige Nettozuwanderung) |
| POP12     | Population, age group 60 to 64, in million persons                        | Bevölkerung im Alter von 60 bis 64                             |
| POP12HE   | Population, age group 60 to 64, in million persons (high life expectancy) | Bevölkerung im Alter von 60 bis 64 (hohe Lebenserwartung)      |
| POP12HW   | Population, age group 60 to 64, in million persons (high migration)       | Bevölkerung im Alter von 60 bis 64 (hohe Nettozuwanderung)     |
| POP12NW   | Population, age group 60 to 64, in million persons (low fertility)        | Bevölkerung im Alter von 60 bis 64 (niedrige Nettozuwanderung) |
| POP13     | Population, age group 65 to 69, in million persons                        | Bevölkerung im Alter von 65 bis 69                             |
| POP13HE   | Population, age group 65 to 69, in million persons (high life expectancy) | Bevölkerung im Alter von 65 bis 69 (hohe Lebenserwartung)      |
| POP13HW   | Population, age group 65 to 69, in million persons (high migration)       | Bevölkerung im Alter von 65 bis 69 (hohe Nettozuwanderung)     |
| POP13NW   | Population, age group 65 to 69, in million persons (low fertility)        | Bevölkerung im Alter von 65 bis 69 (niedrige Nettozuwanderung) |
| POP14     | Population, age group 70 to 74, in million persons                        | Bevölkerung im Alter von 70 bis 74                             |
| POP14HE   | Population, age group 70 to 74, in million persons (high life expectancy) | Bevölkerung im Alter von 70 bis 74 (hohe Lebenserwartung)      |
| POP14HW   | Population, age group 70 to 74, in million persons (high migration)       | Bevölkerung im Alter von 70 bis 74 (hohe Nettozuwanderung)     |
| POP14NW   | Population, age group 70 to 74, in million persons (low fertility)        | Bevölkerung im Alter von 70 bis 74 (niedrige Nettozuwanderung) |
| POP15     | Population, age group 75 to 79, in million persons                        | Bevölkerung im Alter von 75 bis 79                             |
| POP1564   | Population, age group 15 to 64, in million persons                        | Bevölkerung im Alter von 15 bis 64                             |
| POP1564HE | Population, age group 15 to 64, in million persons (high life expectancy) | Bevölkerung im Alter von 15 bis 64 (hohe Lebenserwartung)      |

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| POP1564HW | Population, age group 15 to 64, in million persons (high migration)              | Bevölkerung im Alter von 15 bis 64 (hohe Nettozuwanderung)            |
| POP1564NW | Population, age group 15 to 64, in million persons (low fertility)               | Bevölkerung im Alter von 15 bis 64 (niedrige Nettozuwanderung)        |
| POP15HF   | Population, age group 75 to 79, in million persons (high life expectancy)        | Bevölkerung im Alter von 75 bis 79 (hohe Lebenserwartung)             |
| POP15HW   | Population, age group 75 to 79, in million persons (high migration)              | Bevölkerung im Alter von 75 bis 79 (hohe Nettozuwanderung)            |
| POP15NW   | Population, age group 75 to 79, in million persons (low fertility)               | Bevölkerung im Alter von 75 bis 79 (niedrige Nettozuwanderung)        |
| POP16     | Population, age group 80 to 84, in million persons                               | Bevölkerung im Alter von 80 bis 84                                    |
| POP16HE   | Population, age group 80 to 84, in million persons (high life expectancy)        | Bevölkerung im Alter von 80 bis 84 (hohe Lebenserwartung)             |
| POP16HW   | Population, age group 80 to 84, in million persons (high migration)              | Bevölkerung im Alter von 80 bis 84 (hohe Nettozuwanderung)            |
| POP16NW   | Population, age group 80 to 84, in million persons (low fertility)               | Bevölkerung im Alter von 80 bis 84 (niedrige Nettozuwanderung)        |
| POP17     | Population, age group 85 to 89, in million persons                               | Bevölkerung im Alter von 85 bis 89                                    |
| POP17HE   | Population, age group 85 to 89, in million persons (high life expectancy)        | Bevölkerung im Alter von 85 bis 89 (hohe Lebenserwartung)             |
| POP17HW   | Population, age group 85 to 89, in million persons (high migration)              | Bevölkerung im Alter von 85 bis 89 (hohe Nettozuwanderung)            |
| POP17NW   | Population, age group 85 to 89, in million persons (low fertility)               | Bevölkerung im Alter von 85 bis 89 (niedrige Nettozuwanderung)        |
| POP18     | Population, age group 90 to 94, in million persons                               | Bevölkerung im Alter von 90 bis 94                                    |
| POP18HE   | Population, age group 90 to 94, in million persons (high life expectancy)        | Bevölkerung im Alter von 90 bis 94 (hohe Lebenserwartung)             |
| POP18HW   | Population, age group 90 to 94, in million persons (high migration)              | Bevölkerung im Alter von 90 bis 94 (hohe Nettozuwanderung)            |
| POP18NW   | Population, age group 90 to 94, in million persons (low fertility)               | Bevölkerung im Alter von 90 bis 94 (niedrige Nettozuwanderung)        |
| POP19     | Population, age group 95 and older, in million persons                           | Bevölkerung im Alter von 95 und älter                                 |
| POP19HE   | Population, age group 95 and older, in million persons (high life expectancy)    | Bevölkerung im Alter von 95 und älter (hohe Lebenserwartung)          |
| POP19HW   | Population, age group 95 and older, in million persons (high migration)          | Bevölkerung im Alter von 95 und älter (hohe Nettozuwanderung)         |
| POPF      | Population, females, in million persons  | Bevölkerung, Frauen, Mio. Personen                                    |
| POPF00    | Population, females, age group 0 to 4, in million persons                        | Bevölkerung, Frauen, im Alter von 0 bis 4                             |
| POPF00HE  | Population, females, age group 0 to 4, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 0 bis 4 (hohe Lebenserwartung)      |
| POPF00HW  | Population, females, age group 0 to 4, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 0 bis 4 (hohe Nettozuwanderung)     |
| POPF00NW  | Population, females, age group 0 to 4, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 0 bis 4 (niedrige Nettozuwanderung) |

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| POPF01   | Population, females, age group 5 to 9, in million persons                          | Bevölkerung, Frauen, im Alter von 5 bis 9                               |
| POPF01HE | Population, females, age group 5 to 9, in million persons (high life expectancy)   | Bevölkerung, Frauen, im Alter von 5 bis 9 (hohe Lebenserwartung)        |
| POPF01HW | Population, females, age group 5 to 9, in million persons (high migration)         | Bevölkerung, Frauen, im Alter von 5 bis 9 (hohe Nettozuwanderung)       |
| POPF01NW | Population, females, age group 5 to 9, in million persons (low fertility)          | Bevölkerung, Frauen, im Alter von 5 bis 9 (niedrige Nettozuwanderung)   |
| POPF02   | Population, females, age group 10 to 14, in million persons                        | Bevölkerung, Frauen, im Alter von 10 bis 14                             |
| POPF02HE | Population, females, age group 10 to 14, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 10 bis 14 (hohe Lebenserwartung)      |
| POPF02HW | Population, females, age group 10 to 14, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 10 bis 14 (hohe Nettozuwanderung)     |
| POPF02NW | Population, females, age group 10 to 14, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 10 bis 14 (niedrige Nettozuwanderung) |
| POPF03   | Population, females, age group 15 to 19, in million persons                        | Bevölkerung, Frauen, im Alter von 15 bis 19                             |
| POPF03HE | Population, females, age group 15 to 19, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 15 bis 19 (hohe Lebenserwartung)      |
| POPF03HW | Population, females, age group 15 to 19, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 15 bis 19 (hohe Nettozuwanderung)     |
| POPF03NW | Population, females, age group 15 to 19, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 15 bis 19 (niedrige Nettozuwanderung) |
| POPF04   | Population, females, age group 20 to 24, in million persons                        | Bevölkerung, Frauen, im Alter von 20 bis 24                             |
| POPF04HE | Population, females, age group 20 to 24, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 20 bis 24 (hohe Lebenserwartung)      |
| POPF04HW | Population, females, age group 20 to 24, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 20 bis 24 (hohe Nettozuwanderung)     |
| POPF04NW | Population, females, age group 20 to 24, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 20 bis 24 (niedrige Nettozuwanderung) |
| POPF05   | Population, females, age group 25 to 29, in million persons                        | Bevölkerung, Frauen, im Alter von 25 bis 29                             |
| POPF05HE | Population, females, age group 25 to 29, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 25 bis 29 (hohe Lebenserwartung)      |
| POPF05HW | Population, females, age group 25 to 29, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 25 bis 29 (hohe Nettozuwanderung)     |
| POPF05NW | Population, females, age group 25 to 29, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 25 bis 29 (niedrige Nettozuwanderung) |

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| POPF06   | Population, females, age group 30 to 34, in million persons                        | Bevölkerung, Frauen, im Alter von 30 bis 34                             |
| POPF06HE | Population, females, age group 30 to 34, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 30 bis 34 (hohe Lebenserwartung)      |
| POPF06HW | Population, females, age group 30 to 34, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 30 bis 34 (hohe Nettozuwanderung)     |
| POPF06NW | Population, females, age group 30 to 34, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 30 bis 34 (niedrige Nettozuwanderung) |
| POPF07   | Population, females, age group 35 to 39, in million persons                        | Bevölkerung, Frauen, im Alter von 35 bis 39                             |
| POPF07HE | Population, females, age group 35 to 39, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 35 bis 39 (hohe Lebenserwartung)      |
| POPF07HW | Population, females, age group 35 to 39, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 35 bis 39 (hohe Nettozuwanderung)     |
| POPF07NW | Population, females, age group 35 to 39, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 35 bis 39 (niedrige Nettozuwanderung) |
| POPF08   | Population, females, age group 40 to 44, in million persons                        | Bevölkerung, Frauen, im Alter von 40 bis 44                             |
| POPF08HE | Population, females, age group 40 to 44, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 40 bis 44 (hohe Lebenserwartung)      |
| POPF08HW | Population, females, age group 40 to 44, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 40 bis 44 (hohe Nettozuwanderung)     |
| POPF08NW | Population, females, age group 40 to 44, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 40 bis 44 (niedrige Nettozuwanderung) |
| POPF09   | Population, females, age group 45 to 49, in million persons                        | Bevölkerung, Frauen, im Alter von 45 bis 49                             |
| POPF09HE | Population, females, age group 45 to 49, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 45 bis 49 (hohe Lebenserwartung)      |
| POPF09HW | Population, females, age group 45 to 49, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 45 bis 49 (hohe Nettozuwanderung)     |
| POPF09NW | Population, females, age group 45 to 49, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 45 bis 49 (niedrige Nettozuwanderung) |
| POPF10   | Population, females, age group 50 to 54, in million persons                        | Bevölkerung, Frauen, im Alter von 50 bis 54                             |
| POPF10HE | Population, females, age group 50 to 54, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 50 bis 54 (hohe Lebenserwartung)      |
| POPF10HW | Population, females, age group 50 to 54, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 50 bis 54 (hohe Nettozuwanderung)     |
| POPF10NW | Population, females, age group 50 to 54, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 50 bis 54 (niedrige Nettozuwanderung) |

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| POPF11   | Population, females, age group 55 to 59, in million persons                        | Bevölkerung, Frauen, im Alter von 55 bis 59                             |
| POPF11HE | Population, females, age group 55 to 59, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 55 bis 59 (hohe Lebenserwartung)      |
| POPF11HW | Population, females, age group 55 to 59, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 55 bis 59 (hohe Nettozuwanderung)     |
| POPF11NW | Population, females, age group 55 to 59, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 55 bis 59 (niedrige Nettozuwanderung) |
| POPF12   | Population, females, age group 60 to 64, in million persons                        | Bevölkerung, Frauen, im Alter von 60 bis 64                             |
| POPF12HE | Population, females, age group 60 to 64, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 60 bis 64 (hohe Lebenserwartung)      |
| POPF12HW | Population, females, age group 60 to 64, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 60 bis 64 (hohe Nettozuwanderung)     |
| POPF12NW | Population, females, age group 60 to 64, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 60 bis 64 (niedrige Nettozuwanderung) |
| POPF13   | Population, females, age group 65 to 69, in million persons                        | Bevölkerung, Frauen, im Alter von 65 bis 69                             |
| POPF13HE | Population, females, age group 65 to 69, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 65 bis 69 (hohe Lebenserwartung)      |
| POPF13HW | Population, females, age group 65 to 69, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 65 bis 69 (hohe Nettozuwanderung)     |
| POPF13NW | Population, females, age group 65 to 69, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 65 bis 69 (niedrige Nettozuwanderung) |
| POPF14   | Population, females, age group 70 to 74, in million persons                        | Bevölkerung, Frauen, im Alter von 70 bis 74                             |
| POPF14HE | Population, females, age group 70 to 74, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 70 bis 74 (hohe Lebenserwartung)      |
| POPF14HW | Population, females, age group 70 to 74, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 70 bis 74 (hohe Nettozuwanderung)     |
| POPF14NW | Population, females, age group 70 to 74, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 70 bis 74 (niedrige Nettozuwanderung) |
| POPF15   | Population, females, age group 75 to 79, in million persons                        | Bevölkerung, Frauen, im Alter von 75 bis 79                             |
| POPF15HE | Population, females, age group 75 to 79, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 75 bis 79 (hohe Lebenserwartung)      |
| POPF15HW | Population, females, age group 75 to 79, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 75 bis 79 (hohe Nettozuwanderung)     |
| POPF15NW | Population, females, age group 75 to 79, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 75 bis 79 (niedrige Nettozuwanderung) |

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| POPF16   | Population, females, age group 80 to 84, in million persons                            | Bevölkerung, Frauen, im Alter von 80 bis 84                                |
| POPF16HE | Population, females, age group 80 to 84, in million persons (high life expectancy)     | Bevölkerung, Frauen, im Alter von 80 bis 84 (hohe Lebenserwartung)         |
| POPF16HW | Population, females, age group 80 to 84, in million persons (high migration)           | Bevölkerung, Frauen, im Alter von 80 bis 84 (hohe Nettozuwanderung)        |
| POPF16NW | Population, females, age group 80 to 84, in million persons (low fertility)            | Bevölkerung, Frauen, im Alter von 80 bis 84 (niedrige Nettozuwanderung)    |
| POPF17   | Population, females, age group 85 to 89, in million persons                            | Bevölkerung, Frauen, im Alter von 85 bis 89                                |
| POPF17HE | Population, females, age group 85 to 89, in million persons (high life expectancy)     | Bevölkerung, Frauen, im Alter von 85 bis 89 (hohe Lebenserwartung)         |
| POPF17HW | Population, females, age group 85 to 89, in million persons (high migration)           | Bevölkerung, Frauen, im Alter von 85 bis 89 (hohe Nettozuwanderung)        |
| POPF17NW | Population, females, age group 85 to 89, in million persons (low fertility)            | Bevölkerung, Frauen, im Alter von 85 bis 89 (niedrige Nettozuwanderung)    |
| POPF18   | Population, females, age group 90 to 94, in million persons                            | Bevölkerung, Frauen, im Alter von 90 bis 94                                |
| POPF18HE | Population, females, age group 90 to 94, in million persons (high life expectancy)     | Bevölkerung, Frauen, im Alter von 90 bis 94 (hohe Lebenserwartung)         |
| POPF18HW | Population, females, age group 90 to 94, in million persons (high migration)           | Bevölkerung, Frauen, im Alter von 90 bis 94 (hohe Nettozuwanderung)        |
| POPF18NW | Population, females, age group 90 to 94, in million persons (low fertility)            | Bevölkerung, Frauen, im Alter von 90 bis 94 (niedrige Nettozuwanderung)    |
| POPF19   | Population, females, age group 95 and older, in million persons                        | Bevölkerung, Frauen, im Alter von 95 und älter                             |
| POPF19HE | Population, females, age group 95 and older, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 95 und älter (hohe Lebenserwartung)      |
| POPF19HW | Population, females, age group 95 and older, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 95 und älter (hohe Nettozuwanderung)     |
| POPF19NW | Population, females, age group 95 and older, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 95 und älter (niedrige Nettozuwanderung) |
| POPF65   | Population, females, age group 65 and older, in million persons                        | Bevölkerung, Frauen, im Alter von 65 und älter                             |
| POPF65HE | Population, females, age group 65 and older, in million persons (high life expectancy) | Bevölkerung, Frauen, im Alter von 65 und älter (hohe Lebenserwartung)      |
| POPF65HW | Population, females, age group 65 and older, in million persons (high migration)       | Bevölkerung, Frauen, im Alter von 65 und älter (hohe Nettozuwanderung)     |
| POPF65NW | Population, females, age group 65 and older, in million persons (low fertility)        | Bevölkerung, Frauen, im Alter von 65 und älter (niedrige Nettozuwanderung) |
| POPFHE   | Population, females, in million persons (high life expectancy)                         | Bevölkerung, Frauen, Mio. Personen (hohe Lebenserwartung)                  |

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|-----------|--|---|
| POPFIW    | Population, females, in million persons (high migration)                         | Bevölkerung, Frauen, Mio. Personen (hohe Nettozuwanderung)              |
| POPFNW    | Population, females, in million persons (low fertility)                          | Bevölkerung, Frauen, Mio. Personen (niedrige Nettozuwanderung)          |
| POPHE     | Population, in million persons (high life expectancy)                            | Bevölkerung, Mio. Personen (hohe Lebenserwartung)                       |
| POPHW     | Population, in million persons (high migration)                                  | Bevölkerung, Mio. Personen (hohe Nettozuwanderung)                      |
| POPNW     | Population, in million persons (low fertility)                                   | Bevölkerung, Mio. Personen (hohe Nettozuwanderung)                      |
| POPM      | Population, males, in million persons  | Bevölkerung, Männer, Mio. Personen                                      |
| POPMM00   | Population, males, age group 0 to 4, in million persons                          | Bevölkerung, Männer, im Alter von 0 bis 4                               |
| POPMM00HE | Population, males, age group 0 to 4, in million persons (high life expectancy)   | Bevölkerung, Männer, im Alter von 0 bis 4 (hohe Lebenserwartung)        |
| POPMM00HW | Population, males, age group 0 to 4, in million persons (high migration)         | Bevölkerung, Männer, im Alter von 0 bis 4 (hohe Nettozuwanderung)       |
| POPMM00NW | Population, males, age group 0 to 4, in million persons (low fertility)          | Bevölkerung, Männer, im Alter von 0 bis 4 (niedrige Nettozuwanderung)   |
| POPMM01   | Population, males, age group 5 to 9, in million persons                          | Bevölkerung, Männer, im Alter von 5 bis 9                               |
| POPMM01HE | Population, males, age group 5 to 9, in million persons (high life expectancy)   | Bevölkerung, Männer, im Alter von 5 bis 9 (hohe Lebenserwartung)        |
| POPMM01HW | Population, males, age group 5 to 9, in million persons (high migration)         | Bevölkerung, Männer, im Alter von 5 bis 9 (hohe Nettozuwanderung)       |
| POPMM01NW | Population, males, age group 5 to 9, in million persons (low fertility)          | Bevölkerung, Männer, im Alter von 5 bis 9 (niedrige Nettozuwanderung)   |
| POPMM02   | Population, males, age group 10 to 14, in million persons                        | Bevölkerung, Männer, im Alter von 10 bis 14                             |
| POPMM02HE | Population, males, age group 10 to 14, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 10 bis 14 (hohe Lebenserwartung)      |
| POPMM02HW | Population, males, age group 10 to 14, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 10 bis 14 (hohe Nettozuwanderung)     |
| POPMM02NW | Population, males, age group 10 to 14, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 10 bis 14 (niedrige Nettozuwanderung) |
| POPMM03   | Population, males, age group 15 to 19, in million persons                        | Bevölkerung, Männer, im Alter von 15 bis 19                             |
| POPMM03HE | Population, males, age group 15 to 19, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 15 bis 19 (hohe Lebenserwartung)      |
| POPMM03HW | Population, males, age group 15 to 19, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 15 bis 19 (hohe Nettozuwanderung)     |
| POPMM03NW | Population, males, age group 15 to 19, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 15 bis 19 (niedrige Nettozuwanderung) |
| POPMM04   | Population, males, age group 20 to 24, in million persons                        | Bevölkerung, Männer, im Alter von 20 bis 24                             |
| POPMM04HE | Population, males, age group 20 to 24, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 20 bis 24 (hohe Lebenserwartung)      |
| POPMM04HW | Population, males, age group 20 to 24, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 20 bis 24 (hohe Nettozuwanderung)     |

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| POPM04NW | Population, males, age group 20 to 24, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 20 bis 24 (niedrige Nettozuwanderung) |
| POPM05   | Population, males, age group 25 to 29, in million persons                        | Bevölkerung, Männer, im Alter von 25 bis 29                             |
| POPM05HE | Population, males, age group 25 to 29, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 25 bis 29 (hohe Lebenserwartung)      |
| POPM05HW | Population, males, age group 25 to 29, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 25 bis 29 (hohe Nettozuwanderung)     |
| POPM05NW | Population, males, age group 25 to 29, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 25 bis 29 (niedrige Nettozuwanderung) |
| POPM06   | Population, males, age group 30 to 34, in million persons                        | Bevölkerung, Männer, im Alter von 30 bis 34                             |
| POPM06HE | Population, males, age group 30 to 34, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 30 bis 34 (hohe Lebenserwartung)      |
| POPM06HW | Population, males, age group 30 to 34, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 30 bis 34 (hohe Nettozuwanderung)     |
| POPM06NW | Population, males, age group 30 to 34, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 30 bis 34 (niedrige Nettozuwanderung) |
| POPM07   | Population, males, age group 35 to 39, in million persons                        | Bevölkerung, Männer, im Alter von 35 bis 39                             |
| POPM07HE | Population, males, age group 35 to 39, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 35 bis 39 (hohe Lebenserwartung)      |
| POPM07HW | Population, males, age group 35 to 39, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 35 bis 39 (hohe Nettozuwanderung)     |
| POPM07NW | Population, males, age group 35 to 39, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 35 bis 39 (niedrige Nettozuwanderung) |
| POPM08   | Population, males, age group 40 to 44, in million persons                        | Bevölkerung, Männer, im Alter von 40 bis 44                             |
| POPM08HE | Population, males, age group 40 to 44, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 40 bis 44 (hohe Lebenserwartung)      |
| POPM08HW | Population, males, age group 40 to 44, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 40 bis 44 (hohe Nettozuwanderung)     |
| POPM08NW | Population, males, age group 40 to 44, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 40 bis 44 (niedrige Nettozuwanderung) |
| POPM09   | Population, males, age group 45 to 49, in million persons                        | Bevölkerung, Männer, im Alter von 45 bis 49                             |
| POPM09HE | Population, males, age group 45 to 49, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 45 bis 49 (hohe Lebenserwartung)      |
| POPM09HW | Population, males, age group 45 to 49, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 45 bis 49 (hohe Nettozuwanderung)     |
| POPM09NW | Population, males, age group 45 to 49, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 45 bis 49 (niedrige Nettozuwanderung) |
| POPM10   | Population, males, age group 50 to 54, in million persons                        | Bevölkerung, Männer, im Alter von 50 bis 54                             |
| POPM10HE | Population, males, age group 50 to 54, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 50 bis 54 (hohe Lebenserwartung)      |

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| POPM10HW | Population, males, age group 50 to 54, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 50 bis 54 (hohe Nettozuwanderung)     |
| POPM10NW | Population, males, age group 50 to 54, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 50 bis 54 (niedrige Nettozuwanderung) |
| POPM11   | Population, males, age group 55 to 59, in million persons                        | Bevölkerung, Männer, im Alter von 55 bis 59                             |
| POPM11HE | Population, males, age group 55 to 59, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 55 bis 59 (hohe Lebenserwartung)      |
| POPM11HW | Population, males, age group 55 to 59, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 55 bis 59 (hohe Nettozuwanderung)     |
| POPM11NW | Population, males, age group 55 to 59, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 55 bis 59 (niedrige Nettozuwanderung) |
| POPM12   | Population, males, age group 60 to 64, in million persons                        | Bevölkerung, Männer, im Alter von 60 bis 64                             |
| POPM12HE | Population, males, age group 60 to 64, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 60 bis 64 (hohe Lebenserwartung)      |
| POPM12HW | Population, males, age group 60 to 64, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 60 bis 64 (hohe Nettozuwanderung)     |
| POPM12NW | Population, males, age group 60 to 64, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 60 bis 64 (niedrige Nettozuwanderung) |
| POPM13   | Population, males, age group 65 to 69, in million persons                        | Bevölkerung, Männer, im Alter von 65 bis 69                             |
| POPM13HE | Population, males, age group 65 to 69, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 65 bis 69 (hohe Lebenserwartung)      |
| POPM13HW | Population, males, age group 65 to 69, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 65 bis 69 (hohe Nettozuwanderung)     |
| POPM13NW | Population, males, age group 65 to 69, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 65 bis 69 (niedrige Nettozuwanderung) |
| POPM14   | Population, males, age group 70 to 74, in million persons                        | Bevölkerung, Männer, im Alter von 70 bis 74                             |
| POPM14HE | Population, males, age group 70 to 74, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 70 bis 74 (hohe Lebenserwartung)      |
| POPM14HW | Population, males, age group 70 to 74, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 70 bis 74 (hohe Nettozuwanderung)     |
| POPM14NW | Population, males, age group 70 to 74, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 70 bis 74 (niedrige Nettozuwanderung) |
| POPM15   | Population, males, age group 75 to 79, in million persons                        | Bevölkerung, Männer, im Alter von 75 bis 79                             |
| POPM15HE | Population, males, age group 75 to 79, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 75 bis 79 (hohe Lebenserwartung)      |
| POPM15HW | Population, males, age group 75 to 79, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 75 bis 79 (hohe Nettozuwanderung)     |
| POPM15NW | Population, males, age group 75 to 79, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 75 bis 79 (niedrige Nettozuwanderung) |
| POPM16   | Population, males, age group 80 to 84, in million persons                        | Bevölkerung, Männer, im Alter von 80 bis 84                             |

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| POPM16HE | Population, males, age group 80 to 84, in million persons (high life expectancy)     | Bevölkerung, Männer, im Alter von 80 bis 84 (hohe Lebenserwartung)           |
| POPM16HW | Population, males, age group 80 to 84, in million persons (high migration)           | Bevölkerung, Männer, im Alter von 80 bis 84 (hohe Nettozuwanderung)          |
| POPM16NW | Population, males, age group 80 to 84, in million persons (low fertility)            | Bevölkerung, Männer, im Alter von 80 bis 84 (niedrige Nettozuwanderung)      |
| POPM17   | Population, males, age group 85 to 89, in million persons                            | Bevölkerung, Männer, im Alter von 85 bis 89                                  |
| POPM17HE | Population, males, age group 85 to 89, in million persons (high life expectancy)     | Bevölkerung, Männer, im Alter von 85 bis 89 (hohe Lebenserwartung)           |
| POPM17HW | Population, males, age group 85 to 89, in million persons (high migration)           | Bevölkerung, Männer, im Alter von 85 bis 89 (hohe Nettozuwanderung)          |
| POPM17NW | Population, males, age group 85 to 89, in million persons (low fertility)            | Bevölkerung, Männer, im Alter von 85 bis 89 (niedrige Nettozuwanderung)      |
| POPM18   | Population, males, age group 90 to 94, in million persons                            | Bevölkerung, Männer, im Alter von 90 bis 94                                  |
| POPM18HE | Population, males, age group 90 to 94, in million persons (high life expectancy)     | Bevölkerung, Männer, im Alter von 90 bis 94 (hohe Lebenserwartung)           |
| POPM18HW | Population, males, age group 90 to 94, in million persons (high migration)           | Bevölkerung, Männer, im Alter von 90 bis 94 (hohe Nettozuwanderung)          |
| POPM18NW | Population, males, age group 90 to 94, in million persons (low fertility)            | Bevölkerung, Männer, im Alter von 90 bis 94 (niedrige Nettozuwanderung)      |
| POPM19   | Population, males, age group 95 and older, in million persons                        | Bevölkerung, Männer, im Alter von 95 und älter                               |
| POPM19HE | Population, males, age group 95 and older, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 95 und älter (hohe Lebenserwartung)        |
| POPM19HW | Population, males, age group 95 and older, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 95 und älter (hohe Nettozuwanderung)       |
| POPM19NW | Population, males, age group 95 and older, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 95 und älter (niedrige Nettozuwanderung)   |
| POPM65   | Population, males, age group 65 and older, in million persons                        | Bevölkerung, Männer, im Alter von 65 und älter                               |
| POPM65HE | Population, males, age group 65 and older, in million persons (high life expectancy) | Bevölkerung, Männer, im Alter von 65 und älter (hohe Lebenserwartung)        |
| POPM65HW | Population, males, age group 65 and older, in million persons (high migration)       | Bevölkerung, Männer, im Alter von 65 und älter (hohe Nettozuwanderung)       |
| POPM65NW | Population, males, age group 65 and older, in million persons (low fertility)        | Bevölkerung, Männer, im Alter von 65 und älter (niedrige Nettozuwanderung)   |
| POPMHE   | Population, males, in million persons (high life expectancy)                         | Bevölkerung, Männer, Mio. Personen (hohe Lebenserwartung)                    |
| POPMHW   | Population, males, in million persons (high migration)                               | Bevölkerung, Männer, Mio. Personen (hohe Nettozuwanderung)                   |
| POPMNW   | Population, males, in million persons (low fertility)                                | Bevölkerung, Männer, Mio. Personen (niedrige Nettozuwanderung)               |
| PRD      | Probability of death (Inverse of life - expectancy), private households              | Sterbevorscheinlichkeit (Kehrwert d. Lebenserwartung) des privaten Haushalts |
| PRF03    | Participation rate, females, age group 15 to 19                                      | Erwerbsquote, Frauen, im Alter von 15 bis 19                                 |



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| PRF04  | Participation rate, females, age group 20 to 24           | Erwerbsquote, Frauen, im Alter von 20 bis 24          |
| PRF05  | Participation rate, females, age group 25 to 29           | Erwerbsquote, Frauen, im Alter von 25 bis 29          |
| PRF06  | Participation rate, females, age group 30 to 34           | Erwerbsquote, Frauen, im Alter von 30 bis 34          |
| PRF07  | Participation rate, females, age group 35 to 39           | Erwerbsquote, Frauen, im Alter von 35 bis 39          |
| PRF08  | Participation rate, females, age group 40 to 44           | Erwerbsquote, Frauen, im Alter von 40 bis 44          |
| PRF09  | Participation rate, females, age group 45 to 49           | Erwerbsquote, Frauen, im Alter von 45 bis 49          |
| PRF10  | Participation rate, females, age group 50 to 54           | Erwerbsquote, Frauen, im Alter von 50 bis 54          |
| PRF11  | Participation rate, females, age group 55 to 59           | Erwerbsquote, Frauen, im Alter von 55 bis 59          |
| PRF12  | Participation rate, females, age group 60 to 64           | Erwerbsquote, Frauen, im Alter von 60 bis 64          |
| PRF65  | Participation rate, females, age group 65 and older       | Erwerbsquote, Frauen, im Alter von 65 und älter       |
| PRFT03 | Trend participation rate, females, age group 15 to 19     | Trend Erwerbsquote, Frauen, im Alter von 15 bis 19    |
| PRFT04 | Trend participation rate, females, age group 20 to 24     | Trend Erwerbsquote, Frauen, im Alter von 20 bis 24    |
| PRFT05 | Trend participation rate, females, age group 25 to 29     | Trend Erwerbsquote, Frauen, im Alter von 25 bis 29    |
| PRFT06 | Trend participation rate, females, age group 30 to 34     | Trend Erwerbsquote, Frauen, im Alter von 30 bis 34    |
| PRFT07 | Trend participation rate, females, age group 35 to 39     | Trend Erwerbsquote, Frauen, im Alter von 35 bis 39    |
| PRFT08 | Trend participation rate, females, age group 40 to 44     | Trend Erwerbsquote, Frauen, im Alter von 40 bis 44    |
| PRFT09 | Trend participation rate, females, age group 45 to 49     | Trend Erwerbsquote, Frauen, im Alter von 45 bis 49    |
| PRFT10 | Trend participation rate, females, age group 50 to 54     | Trend Erwerbsquote, Frauen, im Alter von 50 bis 54    |
| PRFT11 | Trend participation rate, females, age group 55 to 59     | Trend Erwerbsquote, Frauen, im Alter von 55 bis 59    |
| PRFT12 | Trend participation rate, females, age group 60 to 64     | Trend Erwerbsquote, Frauen, im Alter von 60 bis 64    |
| PRFT65 | Trend participation rate, females, age group 65 and older | Trend Erwerbsquote, Frauen, im Alter von 65 und älter |
| PRM03  | Participation rate, males, age group 15 to 19             | Erwerbsquote, Männer, im Alter von 15 bis 19          |
| PRM04  | Participation rate, males, age group 20 to 24             | Erwerbsquote, Männer, im Alter von 20 bis 24          |
| PRM05  | Participation rate, males, age group 25 to 29             | Erwerbsquote, Männer, im Alter von 25 bis 29          |
| PRM06  | Participation rate, males, age group 30 to 34             | Erwerbsquote, Männer, im Alter von 30 bis 34          |
| PRM07  | Participation rate, males, age group 35 to 39             | Erwerbsquote, Männer, im Alter von 35 bis 39          |
| PRM08  | Participation rate, males, age group 40 to 44             | Erwerbsquote, Männer, im Alter von 40 bis 44          |
| PRM09  | Participation rate, males, age group 45 to 49             | Erwerbsquote, Männer, im Alter von 45 bis 49          |
| PRM10  | Participation rate, males, age group 50 to 54             | Erwerbsquote, Männer, im Alter von 50 bis 54          |
| PRM11  | Participation rate, males, age group 55 to 59             | Erwerbsquote, Männer, im Alter von 55 bis 59          |
| PRM12  | Participation rate, males, age group 60 to 64             | Erwerbsquote, Männer, im Alter von 60 bis 64          |
| PRM65  | Participation rate, males, age group 65 and older         | Erwerbsquote, Männer, im Alter von 65 und älter       |
| PRMT03 | Trend participation rate, males, age group 15 to 19       | Trend Erwerbsquote, Männer, im Alter von 15 bis 19    |
| PRMT04 | Trend participation rate, males, age group 20 to 24       | Trend Erwerbsquote, Männer, im Alter von 20 bis 24    |
| PRMT05 | Trend participation rate, males, age group 25 to 29       | Trend Erwerbsquote, Männer, im Alter von 25 bis 29    |

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| PRMT06 | Trend participation rate, males, age group 30 to 34  | Trend Erwerbsquote, Männer, im Alter von 30 bis 34   |
| PRMT07 | Trend participation rate, males, age group 35 to 39  | Trend Erwerbsquote, Männer, im Alter von 35 bis 39   |
| PRMT08 | Trend participation rate, males, age group 40 to 44  | Trend Erwerbsquote, Männer, im Alter von 40 bis 44   |
| PRMT09 | Trend participation rate, males, age group 45 to 49  | Trend Erwerbsquote, Männer, im Alter von 45 bis 49   |
| PRMT10 | Trend participation rate, males, age group 50 to 54  | Trend Erwerbsquote, Männer, im Alter von 50 bis 54   |
| PRMT11 | Trend participation rate, males, age group 55 to 59  | Trend Erwerbsquote, Männer, im Alter von 55 bis 59   |
| PRMT12 | Trend participation rate, males, age group 60 to 64  | Trend Erwerbsquote, Männer, im Alter von 60 bis 64   |
| PRMT65 | Trend participation rate, males, age group 65 and older  | Trend Erwerbsquote, Männer, im Alter von 65 und älter  |
| PW     | Deflator, imports  | Deflator, Importe  |
| PX     | Deflator, exports  | Deflator, Exporte  |
| Q      | Tobins Q   | Tobinsches Q   |
| QCAY   | Adjustment factor, balance in income   | Anpassungsfaktor für die Einkommensbilanz  |
| QCEN   | Ratio of government consumption to government expenditures less social security expenditures, subsidies and expenditures on interest | Verhältnis der Konsumausgaben des Staates zu den Staatsausgaben abzüglich der Sozialausgaben, der Subventionen und Zinsen für die Staatsschuld |
| QCDMV  | Ratio of ex-budgetary transactions to government debt  | Verhältnis der außerbudgetären Transaktionen zur Staatsschuld  |
| QGRO   | Other government revenues, ratio   | Restliches Staatseinnahmen, Quotie   |
| QHSC   | Share of private households in social contributions  | Anteil der privaten Haushalte an den Sozialbeiträgen, Durchschnittssatz  |
| QHTDIR | Share of private households in direct taxes  | Anteil der privaten Haushalte an den direkten Steuern, Durchschnittssatz   |
| QHTRM  | Share of private households in monetary transfers  | Anteil der privaten Haushalte an den Sozialtransfers, Durchschnittssatz  |
| QHTRO  | Share of private households in other transfers   | Anteil der privaten Haushalte an den sonstigen Transfers, Durchschnittssatz  |
| QHYI   | Share of private household interest income in gross operating surplus  | Anteil der Zinseinkommen privater Haushalte am Betriebsüberschuss, Durchschnittssatz   |
| QHYL   | Share of private household labour income in compensation to employees  | Anteil der privaten Haushalte am Lohneinkommen, Durchschnittssatz  |
| QHYS   | Share of private household entrepreneurial income in gross operating surplus   | Anteil der Einkommen aus unternehmerischer Tätigkeit privater Haushalte am Betriebsüberschuss, Durchschnittssatz                               |
| QLD    | Ratio of LE to LD  | Umrechnungsfaktor zwischen (Aktiv) Beschäftigten und Vollzeitäquivalenten  |

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| QLENA  | Ratio of LENA to POP0  | Faktor Nicht-Aktiv-Beschäftigte an Kindern im Alter von 0 bis 14                           |
| QLS    | Share of dependent employees in total labour supply  | Anteil der unselbstständig Beschäftigten am gesamten Arbeitsangebot                        |
| QLSSA  | Share of farmers in self employed  | Anteil der Beschäftigten in Landwirtschaft an den Selbstständigen                          |
| QPP    | Share of pensions and active labour force in total population at age 55-64   | Anteil der Pensionen und Labour Force an der Gesamtbevölkerung im Alter zwischen 55 und 64 |
| QRP    | Share of pensions in population aged below 55  | Anteil der Pensionen an der Bevölkerung im Alter unter 55                                  |
| QS B   | Ratio of business savings to investment  | Verhältnis von Sparen im Unternehmensektor zu den Investitionen                            |
| QS C   | Ratio of social contributions according to ESA to social security contributions according to Federation of Austrian Social Security Institutions, average rate | Verhältnis von Sozialbeiträgen lt. VGR zu Sozialversicherungsbeiträgen, Durchschnittssatz  |
| QSEAO  | Ratio of transfer to other expenditures, accident insurance  | Verhältnis der sonstigen zu den Transferausgaben Unfallversicherung                        |
| QS EHO | Ratio of transfer to other expenditures, health insurance  | Verhältnis der sonstigen zu den Transferausgaben Krankenversicherung                       |
| QS EPO | Ratio of transfer to other expenditures, pension insurance   | Verhältnis der sonstigen zu den Transferausgaben Pensionsversicherung                      |
| QS UB  | Ratio of subsidies to tax revenues   | Verhältnis von Subventionen zu Steuereinnahmen, Durchschnittssatz                          |
| QWT    | Working time (weighted by male/female)   | Arbeitszeit (gewichtet mit durchschnittl. Arbeitszeit Männer/Frauen)                       |
| R      | Real long term interest rate   | Realer Zinssatz, Sekundärmarktrendite Bund   |
| RD     | Rate of physical depreciation  | Ökonomische Abschreibung, Durchschnittssatz  |
| RGD    | Implicit average interest rate on government debt  | Impliziter durchschnittlicher Zinssatz der Staatsschuld                                    |
| RN     | Nominal long term interest rate  | Nominaler Zinssatz, Sekundärmarktrendite Bund  |
| RSA    | Contribution rate, accident insurance  | Beitragssatz, Unfallversicherung   |
| RSH    | Contribution rate, health insurance  | Beitragssatz, Krankenversicherung für Pensionisten   |
| RSHR   | Contribution rate, health insurance, for retirees  | Beitragssatz, Pensionsversicherung, Arbeitgeber  |
| RSPC   | Contribution rate, pension insurance, for employers  | Beitragssatz, Pensionsversicherung, Arbeitnehmer   |
| RSPE   | Contribution rate, pension insurance, for employees  | Beitragssatz, Krankenversicherung der PV Träger  |
| RSPF   | Contribution rates of the pension insurance funds  | Beitragssatz, Pensionsversicherung, Selbständige   |
| RSPS   | Contribution rate, pension insurance, for self-employed  | Beitragssatz, Arbeitslosenversicherung   |
| RSU    | Contribution rate, unemployment insurance  | Unternehmenssteuer (Kost+Gewst), Durchschnittssatz   |
| RTC    | Corporation taxes, average tax rate  | Restliche Einkommen- und Vermögenssteuern, Durchschnittssatz                               |
| RTDIR  | Other taxes on income and wealth, receivable, average tax rate   | Produktions- und Importabgaben, Durchschnittssatz  |
| RTND   | Taxes on production and imports, average tax rate  |  |

|        |   |
|--------|---|
| RTP    | Rate of time preference   |
| RTW    | Wage taxes, average tax rate  |
| S      | Domestic savings  |
| SC     | Social contributions, at current prices   |
| SCA    | Social security contributions - accident insurance, at current prices   |
| SCH    | Social security contributions - health insurance, at current prices   |
| SCHE   | Social security contributions - health insurance, employees, at current prices                                  |
| SCHR   | Social security contributions - health insurance, retirees, at current prices                                   |
| SCP    | Social security contributions - pension insurance, at current prices  |
| SCPE   | Social security contributions - pension insurance, employees, at current prices                                 |
| SCPGOV | Social security contributions - contribution of the federal government  |
| SCPO   | Social security contributions - other revenues  |
| SCPS   | Social security contributions - pension insurance, self-employed, at current prices                             |
| SCU    | Social security contributions - unemployment insurance, at current prices                                       |
| SDIFFN | Changes in inventory, acquisition less disposition of valuables, and statistical discrepancy, at current prices |
| SE     | Social security expenditures and long term care payments, at current prices                                     |
| SEA    | Total social security expenditures, accident insurance, at current prices                                       |
| SEAO   | Other social security expenditures, accident insurance, at current prices                                       |
| SEH    | Total social security expenditures, health insurance, at current prices   |
| SEHO   | Other expenditures - health insurance, at current prices  |
| SEP    | Total social security expenditures, pension insurance, at current prices  |
| SEPO   | Other expenditures - pension insurance, at current prices   |
| STR    | Social security and long term care transfers, at current prices   |
|        | Zeitpräferenzrate   |
|        | Lohnsteuer inkl. AK und Land AK Umlage, Durchschnittssatz   |
|        | Inländisches Sparen   |
|        | Sozialbeiträge, laufende Preise   |
|        | Beitragseinnahmen der Unfallversicherung, laufende Preise   |
|        | Beitragseinnahmen der Krankenversicherung, laufende Preise  |
|        | Beitragseinnahmen der Krankenversicherung, Arbeitnehmer, laufende Preise  |
|        | Beitragseinnahmen der Krankenversicherung, Beitrag für Pensionisten, laufende Preise                            |
|        | Beitragseinnahmen der Pensionsversicherung, laufende Preise   |
|        | Beitragseinnahmen der Pensionsversicherung, Unselbständige, laufende Preise                                     |
|        | Beitragseinnahmen der Pensionsversicherung, Bundesbeitrag zur Pensionsversicherung                              |
|        | Beitragseinnahmen der Pensionsversicherung, sonstige Einnahmen der Pensionsversicherung                         |
|        | Beitragseinnahmen der Pensionsversicherung, Selbständige, laufende Preise                                       |
|        | Beitragseinnahmen der Arbeitslosenversicherung  |
|        | Vorratsveränderungen, Nettozugang an Wertsachen und Statistischer Differenz, laufende Preise                    |
|        | Sozialversicherungsausgaben und Pflegegeld, laufende Preise   |
|        | Gesamte Ausgaben, Unfallversicherung  |
|        | Sonstige Ausgaben, Unfallversicherung   |
|        | Gesamte Ausgaben, Krankenversicherung   |
|        | Sonstige Ausgaben der Krankenversicherung   |
|        | Gesamte Ausgaben, Pensionsversicherung  |
|        | Sonstige Ausgaben der Pensionsversicherung  |
|        | Transferausgaben Sozial- und Arbeitslosenversicherung sowie Pflegegeld, laufende Preise                         |

|      |  |   |
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| SUB  | Subsidies, at current prices   | Subventionen, laufende Preise                                 |
| TDIR | Current taxes on income and wealth, receivable, at current prices                        | Einkommen- und Vermögenssteuern, Aufkommen, laufende Preise   |
| TFP  | Total factor productivity, rate of change  | Veränderungsrate der Gesamtfaktorproduktivität                |
| TIND | Taxes on production and imports, at current prices                                       | Produktions- und Importabgaben, laufende Preise               |
| TRA  | Transfer expenditures, accident insurance, at current prices                             | Leistungsausgaben der Unfallversicherung                      |
| TRH  | Transfer expenditures, health insurance, at current prices                               | Leistungsausgaben der Krankenversicherung                     |
| TRP  | Transfer expenditures, pension insurance, at current prices                              | Leistungsausgaben der Pensionsversicherung                    |
| TRU  | Transfer expenditures, unemployment insurance, at current prices                         | Leistungsausgaben der Arbeitslosenversicherung                |
| TW   | Wage taxes, at current prices  | Lohnsteuer inkl. AK und Land AK Umlage, laufende Preise       |
| TWED | Tax wedge  | Lohnschere  |
| U    | Unemployment rate  | Arbeitslosenquote   |
| UTH  | Upper threshold health insurance contributions, at current prices                        | Höchstbeitragsgrundlage der Krankenversicherung               |
| UTPA | Upper threshold pension and accident insurance contributions, at current prices          | Höchstbeitragsgrundlage der Pensions- und Unfallversicherung  |
| UTU  | Upper threshold unemployment insurance contributions, at current prices                  | Höchstbeitragsgrundlage der Arbeitslosenversicherung          |
| W    | Real wage per capita, in full time equivalents   | Realer Lohn in Vollzeitäquivalenten                           |
| WA   | Alternative wage path index  | Index des Alternativlöhns                                     |
| X    | Goods and services exports, at constant prices   | Güter und Dienstleistungsexporte, real                        |
| Y    | Gross domestic product, at constant prices   | Bruttoinlandsprodukt, real                                    |
| YDEN | Disposable income, at current prices   | Verfügbares Einkommen, laufende Preise                        |
| YDN  | Disposable income of private households, at current prices                               | Verfügbares Einkommen der privaten Haushalte, laufende Preise |
| YLN  | Compensation to employees, at current prices   | Arbeitnehmerentgelt, laufende Preise                          |
| YN   | Gross domestic product, at current prices  | Bruttoinlandsprodukt, laufende Preise                         |
| YNPN | Gross national product, at current prices  | Bruttonationalprodukt, laufende Preise                        |
| YW   | Gross domestic product, 25 OECD countries, in 100 billion US dollars, at constant prices | Bruttoinlandsprodukt von 25 OECD-Länder*, 100 Mrd. USD, real  |