

# Long-lasting low growth scenario: The case study Austria

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## 1 Introduction

The paper is motivated by the assumption that low economic growth rates could be the normal case and not the exception in developed economies in the near and also in the far future. Several reasons imply limits on economic scale and thus limits to growth, e.g. resource scarcities, commodity price shocks, instability of financial markets, government debts, a decline in consumer confidence, or a managed attempt to reduce consumption.

The intention of this paper is to identify possible reasons for a slow economic development in Austria and underpin these reasons with appropriate assumptions. The scenario is based on domestic and foreign low-growth causes. Foreign causes are a deteriorating balance of trade and increasing resource prices; domestic causes are consumer restraint of households and less immigration.

The reasons identified were matched so that an average growth rate of GDP 0.55% per annum was achieved until 2025. Before we explain the domestic and foreign low-growth causes that are relevant for Austria and considered in the modelling analysis we describe the assumptions of the reference scenario that is needed to interpret the results of the low growth scenario.

## 2 The reference scenario

The reference scenario is based on an *average growth rate of the Austrian gross domestic product (GDP)* by 2.0% p.a. Thus, the growth rate is a little bit lower compared with the development in the past (1980-2008: 2.3% pa, 2000-2008: 2.1% pa), because of developments in 2010 (2%).

For *work force development* and labour supply in 2025 an increase in labour force participation was assumed, due to net immigration of about 30,000 persons per year (Statistik Austria 2010).

Regarding the *development of the state budget* we assume that the Austrian government follows the achievement of the Maastricht criteria. From 2016 to 2025 the development of the state budget is aligned in the reference scenario at balancing the budget balance, i.e. there is almost no new net borrowing.

Due to the global economic situation, and under the assumption that the expansion of world trade does not continue in the current dimensions (IEA 2009), we assume that the Austrian export to 2025 will grow by nearly 6% pa on average.

## 3 Causes for low growth

For the domestic market the main reasons of a potential economic weakness are a decreasing supply of labour and a change in consumption, especially household consumption and, related to this, a change of the government budget.

We assume that the net immigration is by 20,000 people per year lower than in the reference scenario.

In principle, the increase in labour productivity is positively correlated with economic growth: it is high, if the economy is growing strongly; and it is low in times of a weakened economic development (see, for example, Biffl, 2001). Based on this, we assume a productivity growth of 1% p.a. for the low-growth scenario, while in the reference scenario the model calculates an average growth rate of productivity of 1.4%.

For future *consumption of private households* it is expected that the level of equipment of households with durable goods (such as household, communications and consumer electronics and cars) will not yet increase in all areas massively. It primarily involves the replacement of existing assets of equal or higher quality consumer goods. In addition to these partial saturation also increased spending on the individual retirement security are assumed. In addition, rising prices and slower growth rates of disposable income compared to previous years (following from the assumptions of the low-growth scenario) restrict the consumption possibilities.

Regarding the *state budget*, we assumed that the deficit path is approximately 0.7% percentage points higher than in the reference scenario. While government spending will grow more slowly mainly due to the lower population growth, state revenues are affected by a decreasing tax base (income tax and value added tax) due to lower consumption and employment.

Since Austria is a country without much supply of own resources, also foreign effects may trigger low growth. A shortage of raw materials commodity will increase prices rising and therefore spending on imports is increasing. We assume a growth rate of exports of about 4.3% per year between 2010 and 2025 compared to 6.5% between 2000 and 2008. The low-growth scenario also assumes substantial price increases for fossil fuels and foodstuffs similar to the already historically observed increase since 2000.

#### **4 Modelling results of the low-growth scenario**

Given the slower population growth, the development of consumption and investment is adversely affected. The consumption is further reduced by the reticence of households. The balance of trade is weakening because of the assumed development of exports in comparison to the reference scenario.

Consumption and exports in the low-growth scenario are similarly affected. Compared to the reference scenario, the relative deviation of private consumption and exports in 2025 is -20% and -21% respectively. In 2025, per capita consumption is still lower than in 2010 by 3.7%.

Not only the loss of momentum of population growth but also the lower income of private households is stressing housing investments. While the population dynamics influences the number of households in Austria and thus the residential construction, at the same time investing activities in the housing stock (building-up and renovation) are reduced.

Compared with the reference scenario *public debt* is also higher. While government spending will grow more slowly because of the lower population growth, tax revenues strongly reduce. The smaller increase in production compared to the reference scenario leads to less value-added.

The *labour market development* is characterized by the following effect: the number of employed labour measured in full-time equivalence decreases by about 13.5% until 2025. Unemployment as well as unemployment rates are higher in the scenario of low economic growth than in the reference development path.

If tax rates and social security contributions stay constant, also the growth of available income for private households is lower than in the reference scenario. Nevertheless, the available income per household rises relative to the actual prices, considering the price developments, at a rate of up to 3% a year.

With regard to income distribution effects, high-income households suffer the greatest losses. Their extreme burden is a consequence of their considerably better baseline situation. However, low-income households carry a bigger burden, because their expenses for every-day goods (such as energy for heating) are relatively high when compared to high-income quintiles.

In comparison to the reference scenario, a lower level of domestic production reduces the country's CO<sub>2</sub> emissions and the use of materials (measured in DMI). At the same time, imported material uses decrease in comparison to the reference development path. Nevertheless, CO<sub>2</sub> emissions and material uses keep on rising slightly.

## **5 Literature**

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