Investment in Austria – Stylized Facts

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Austria has one of the highest investment shares in the EU

Investment share (2016\(^1\))

<table>
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<th>% of GDP</th>
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<td>AT</td>
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<td>DE</td>
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<td>EU28</td>
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<td>PT</td>
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<td>GR</td>
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Source: Eurostat. 1) AT, IE, LU, PL: 2015

Investment share over time

% of GDP


1.) Facts
2.) Determinants
3.) Outlook
Investment dynamics in Austria dominated by nonfinancial corporations

Contributions of sectors to change in investment share since 2002

Austria

European Union

Source: Eurostat.
Structure of investment in Austria more favorable to growth than in the EU

Components of total investment

1.) Facts
2.) Determinants
3.) Outlook

Total investment

% of GDP

Dwellings

% of GDP

Other buildings and structures

% of GDP

Transport equipment

% of GDP

Other equipment

% of GDP

Intellectual property

% of GDP

Source: Eurostat.
Decline of the investment share explained by lower long term growth prospects

In a simple capital accumulation framework the investment share \( \frac{I}{Y} \) is determined by the capital ratio \( \frac{K}{Y} \), the depreciation rate \( \delta \) and the GDP growth rate \( g \):

\[
\frac{I}{Y} = (\delta + g) \frac{K}{Y}
\]

Given a capital to GDP ratio of 3.8, a decline of the trend steady state GDP growth rate by of 1 pp causes the steady state investment share to decline by 3.8 percentage points.

The drop in the investment share by 3 pp is in line with growth prospects → no specific investment gap.
Dynamics of investment can be explained by traditional determinants

Type of model

- Investment equation of OeNB’s macroeconometric model is used to explain investment
- Investment activity mainly determined by traditional factors with demand as the main driver
- Results hold for different specifications
- Decline of growth perspectives reflected in negative contribution of error correction term
- Measures of uncertainty typically not significant
No evidence of significant effects of negative loan supply shocks in recent years

**Shock decomposition of Austrian GDP growth**

_Growth of detrended real GDP in %; growth contributions in % points_

- Loan supply shocks AT
- Other domestic shocks AT
- Global shocks
- GDP

**Type of model**
- Structural Bayesian Vector autoregressive model allows to identify loan supply shocks

**Model variables**
- Real GDP, inflation, loan volume and spread between interest rates of corporate loans and EURIBOR; growth of export markets and variable for price competitiveness

**Identification of shocks**
- Negative comovement between loans and spreads
- Positive comovement of loans with GDP and prices

**Results**
- Effect of loan supply shock is almost negligible

**Source:** Own calculations.
3.) Outlook

OeNB's December 2016 Economic Outlook: Equipment investment cycle peaked in 2016

- Robust industrial output and improved prospects had a positive impact on Austrian companies’ willingness to invest in 2015 and 2016.
- Equipment investment activity is expected to slacken from early 2017 onward.
- Construction investment is expected to accelerate slightly in coming years.
- Investment stimulus package from October 2016 expected to boost investment in 2017 (0.3pp) and 2018 (0.1pp) and to dampen investment in 2019 (-0.2pp)
Equipment investment cycles in Austria: Is this time different?

Characteristics of equipment investment cycles in Austria

<table>
<thead>
<tr>
<th></th>
<th>'96Q1</th>
<th>'00Q2</th>
<th>'07Q4</th>
<th>'11Q2</th>
<th>'16Q3</th>
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<tbody>
<tr>
<td>Average cycle length 1)</td>
<td>8</td>
<td>13</td>
<td>6</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Cumulated growth in % 2)</td>
<td>9.3</td>
<td>11.2</td>
<td>9.1</td>
<td>10.3</td>
<td>12.2</td>
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1) Number of quarters with annual growth rates above 2% (=average 95-16)  
2) Cumulated growth between 8 quarters before and 4 quarters after the peak

- The duration of the current investment cycle is similar to previous cycles
- The magnitude is on the upper range of previous cycles
- Composition of current cycle similar to 2011: Transport and ICT equipment as main drivers
Summary and Conclusions

Facts
• Austria has one of the highest investment shares in the European Union
• Structure of investment in Austria more favorable to growth than in the EU

Determinants
• Dynamics of investment can be explained by demand and growth prospects
• No evidence of significant effects of negative loan supply shocks in recent years

Prospects
• Equipment investment cycle peaked in 2016

Open questions
• Efficiency of investment given low GDP growth during the last years?
• ......