

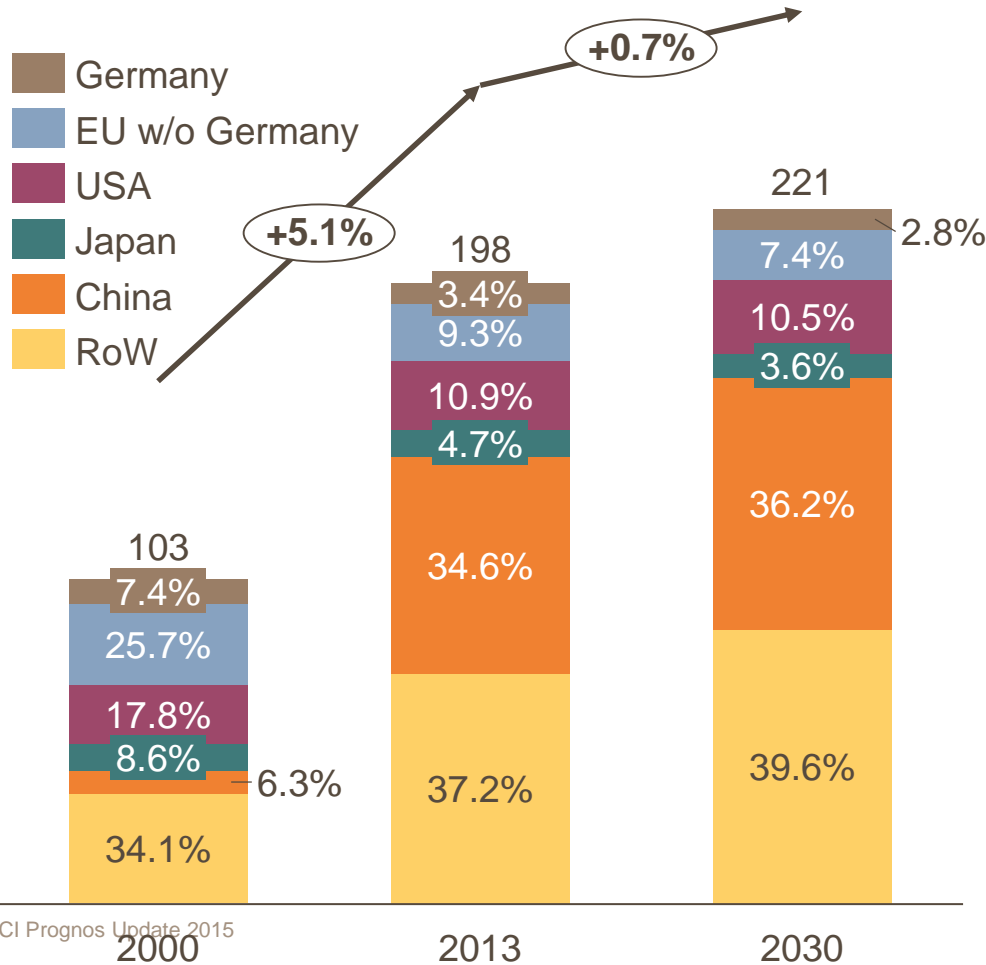
update: Juli 2019



Investments of the German Chemical and Pharma Industry – Summary

End of the investment boom in chemistry

Shares in global investments of the chemical and pharma industry
in billion euros, shares in %, CAGR 2013-2030

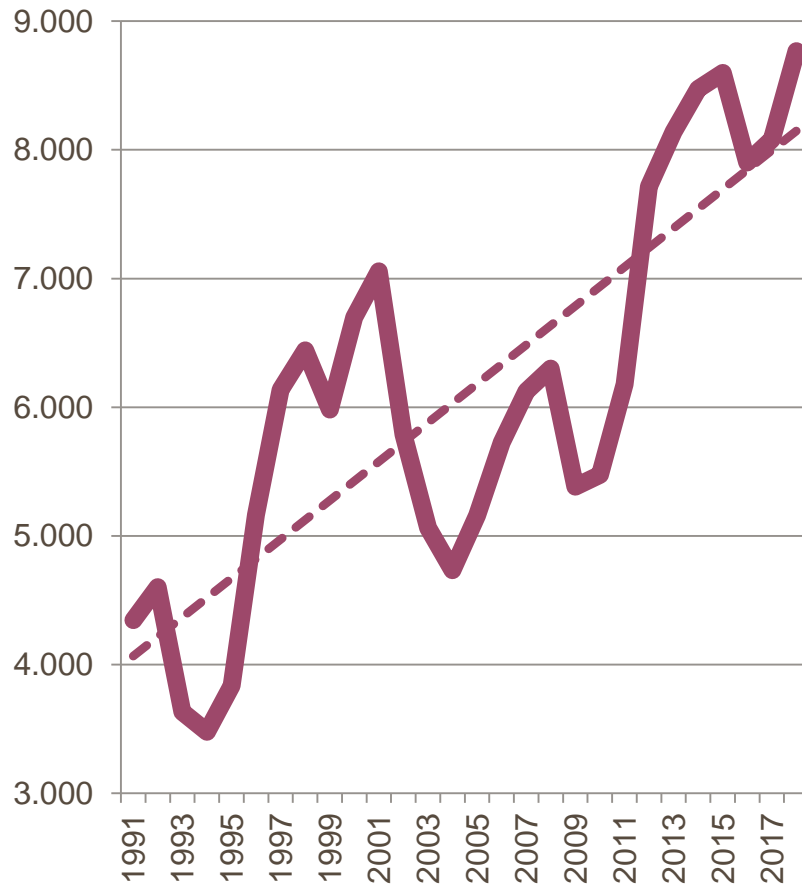


- High investment dynamics in the past
- Globally changing investment dynamics
 - Weaker demand growth
 - Overcapacities
 - Structural change continues in industrial nations and gains in importance in emerging markets

Source: VCI Prognos Update 2015

Rising foreign investments in a dynamic trend

Foreign fixed asset investments of the German chemical/pharma industry in million euros and trend

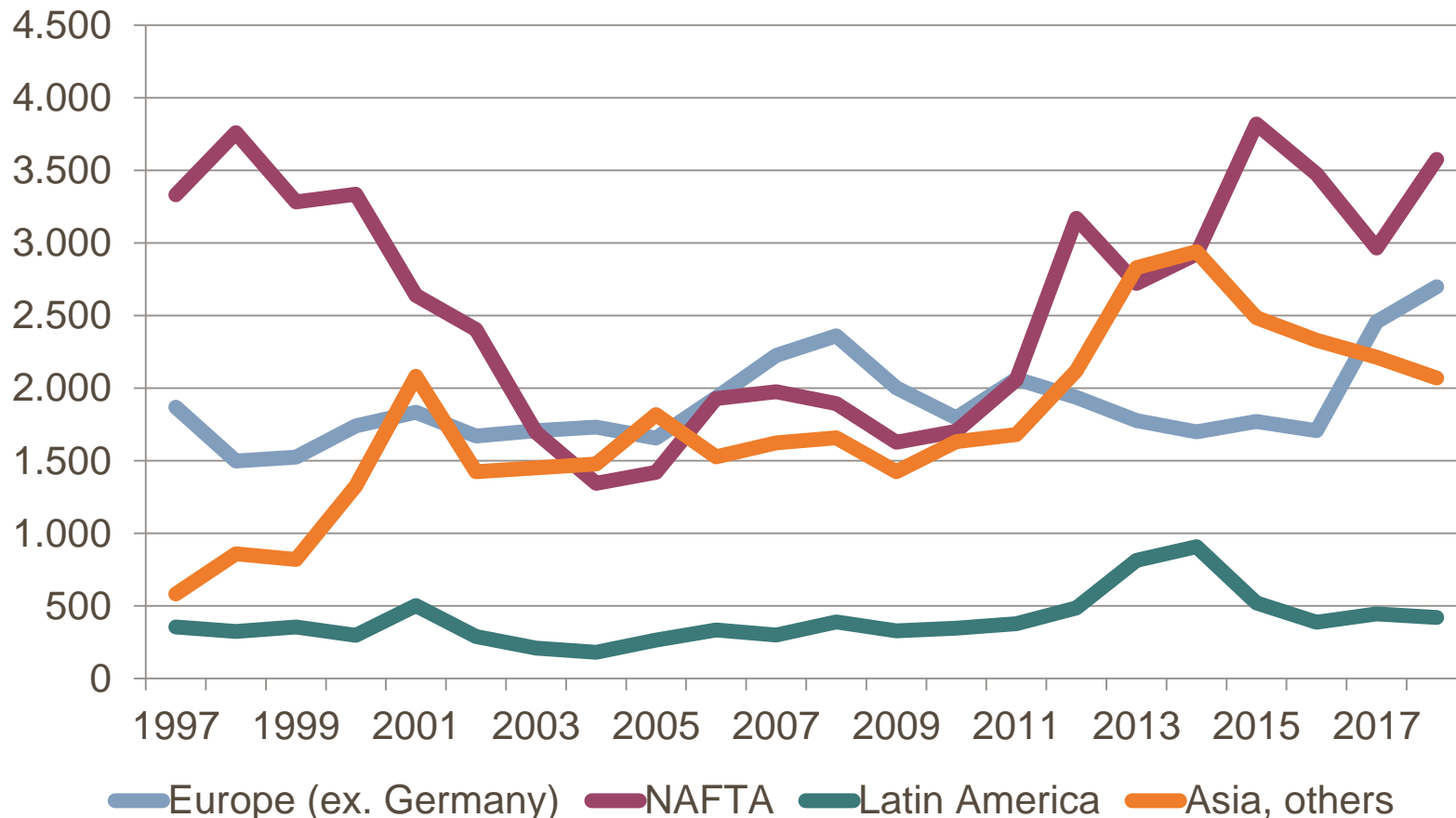


- The German chemical industry increasingly invests abroad
- Since 2012, foreign investments have been exceeding domestic investments
- Underlying reasons:
 - Globalisation strategy: participation in market growth
 - Lower raw material costs abroad
 - Investment barriers in Germany

Source: VCI

After declining investments, investments in North America have been rising again since 2010

Foreign investments of the German chemical/pharma industry by regions, in million euros

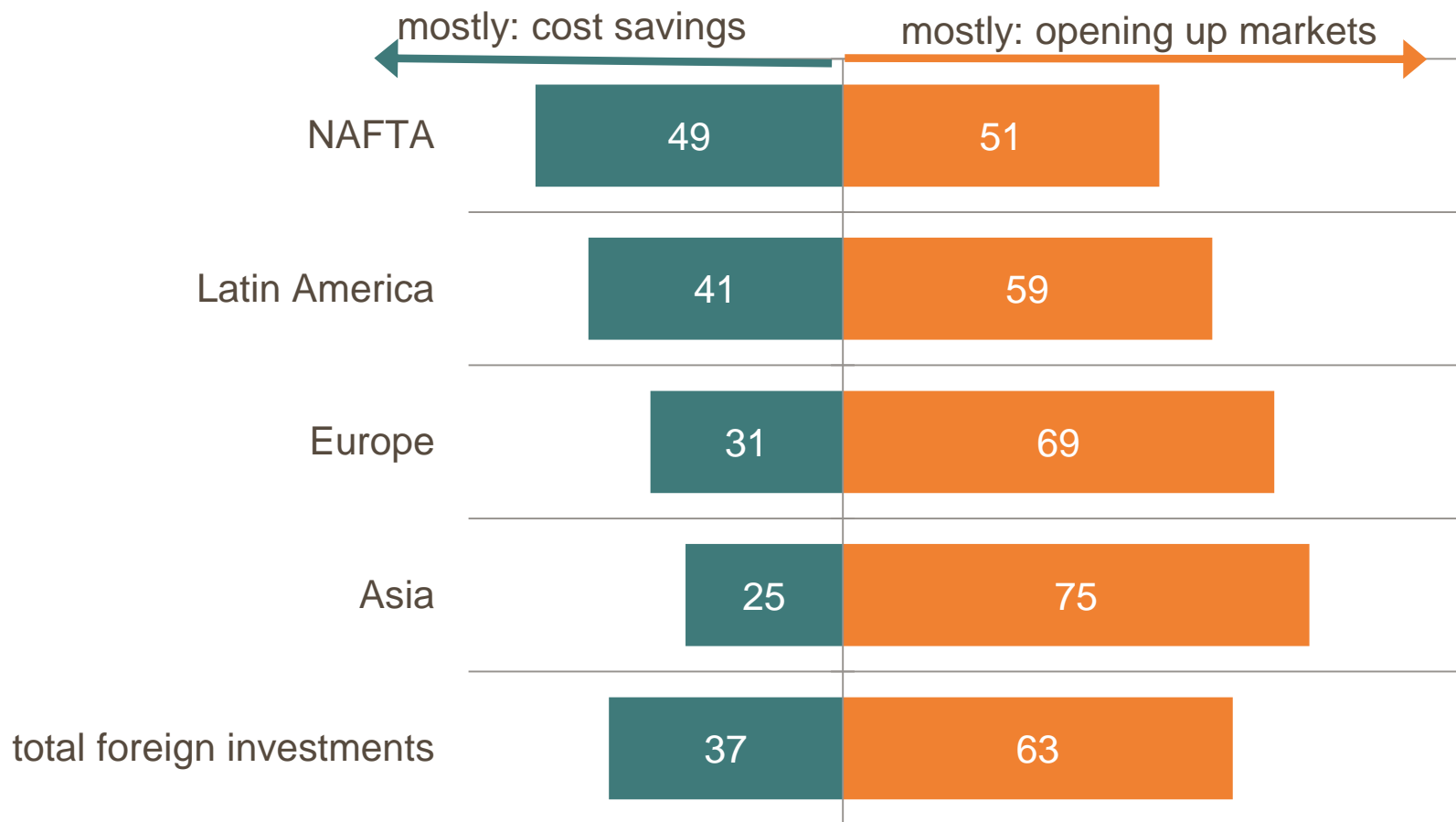


Source: VCI

Opening up markets remains the major reason for investments – Cost savings are important in Northamerica

Reasons for foreign investments of the German chemical industry

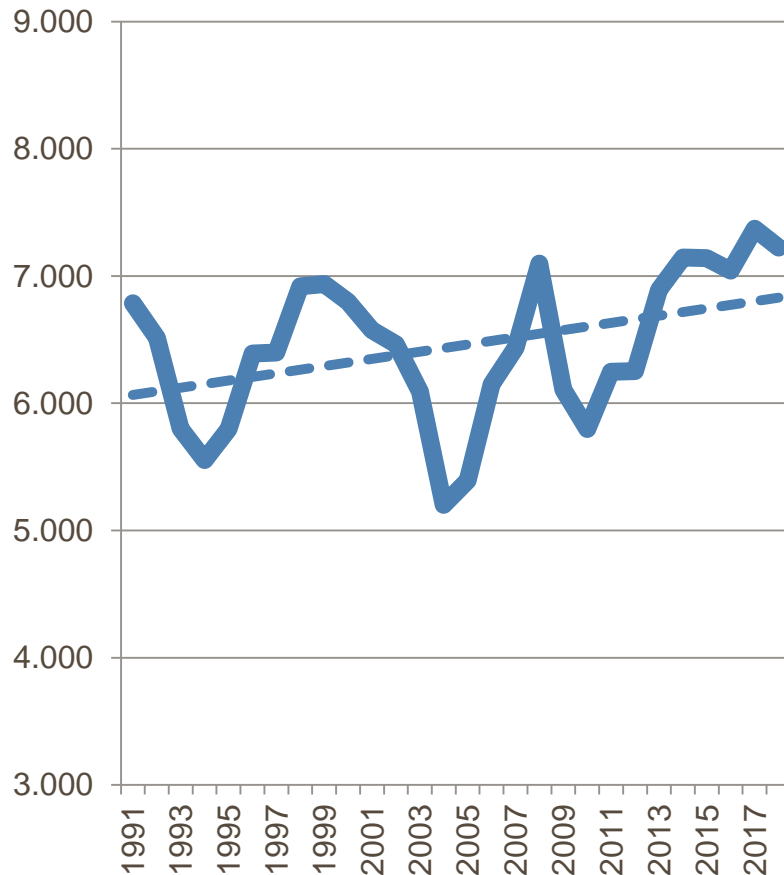
Large companies, statements (weighted) in percent, 2018



Source: VCI

Long-term trend is less dynamic in domestic investments

Domestic fixed asset investments of the German chemical/pharma industry in million euros and trend



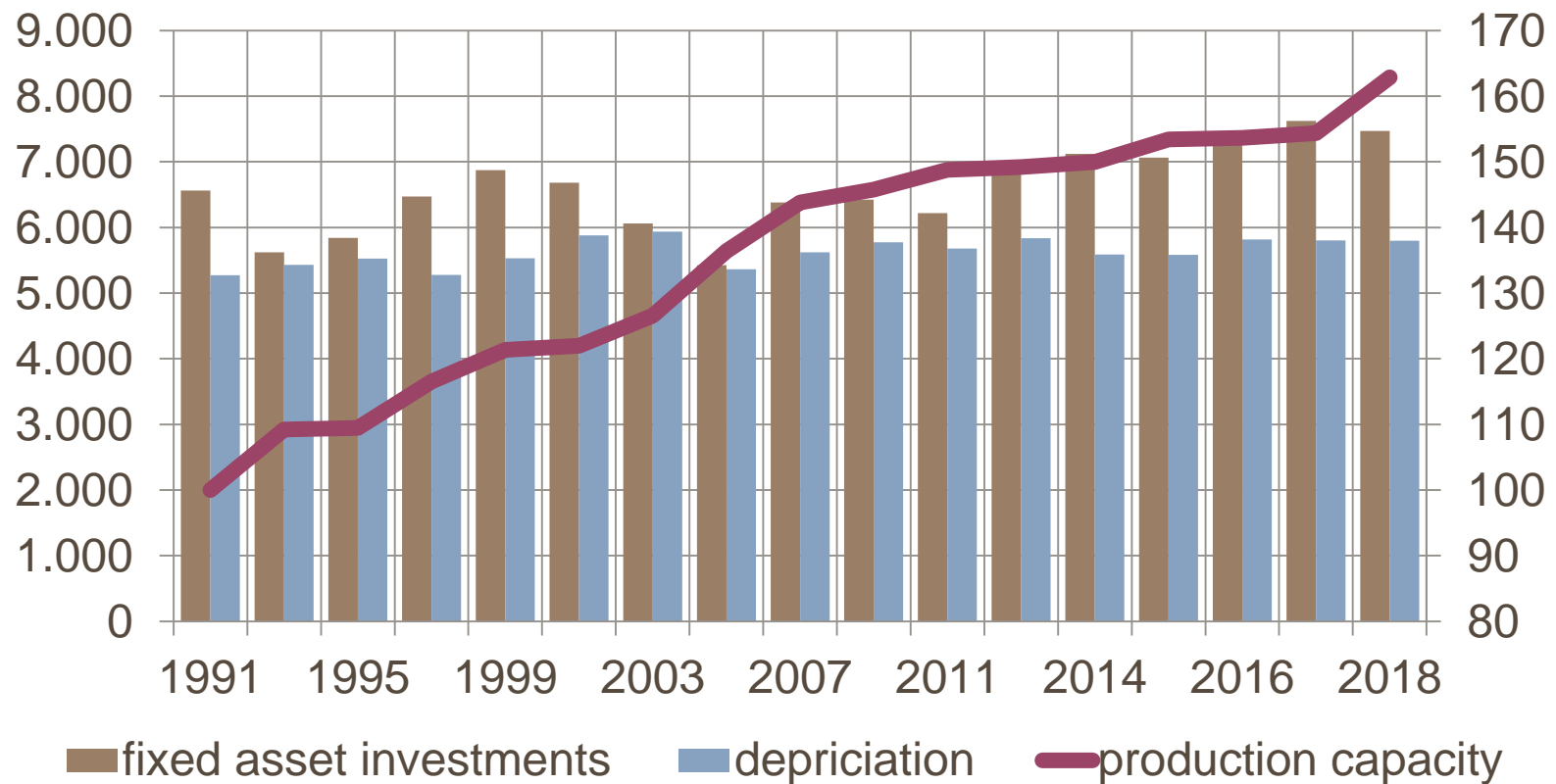
- 2018: lower investment
- Lower trend growth in domestic investments
- Structural change, efficiency gains and weak market growth in Europe dampen investments at the location
- Moreover, existing framework conditions impair investments in Germany

Sources: Destatis, VCI (estimates 2017/2018)

Production capacity is rising slowly – production potential is maintained

Fixed asset investments and tax depreciation

Fixed asset investments and tax depreciation in million euros (left-hand scale), production capacity 1991=100 (right-hand scale)

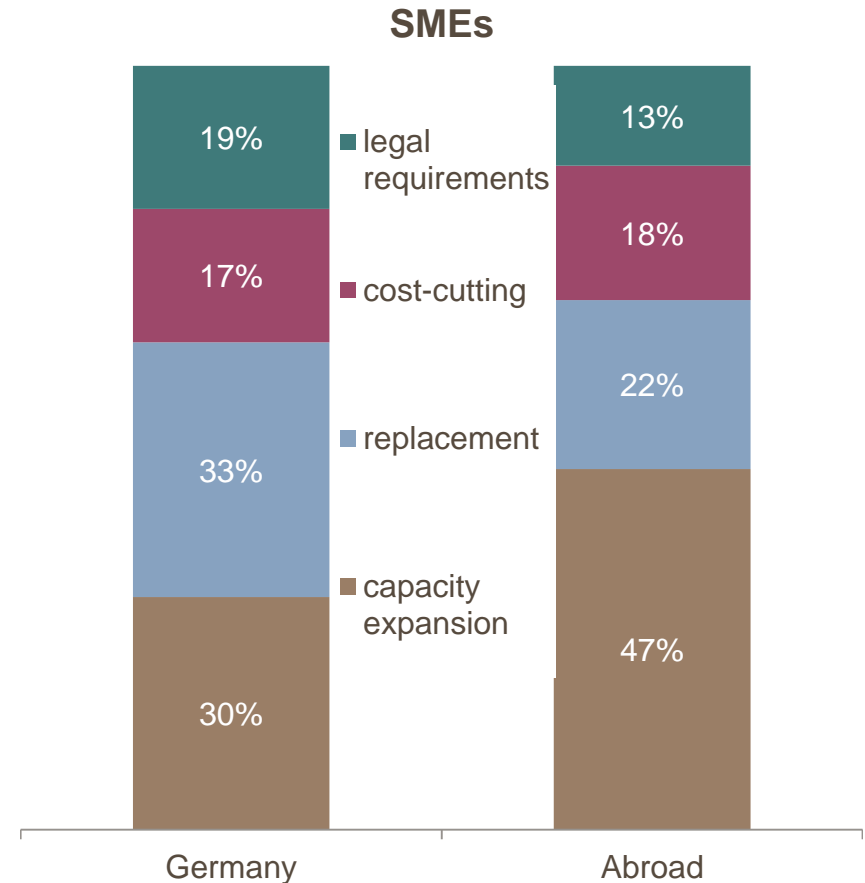
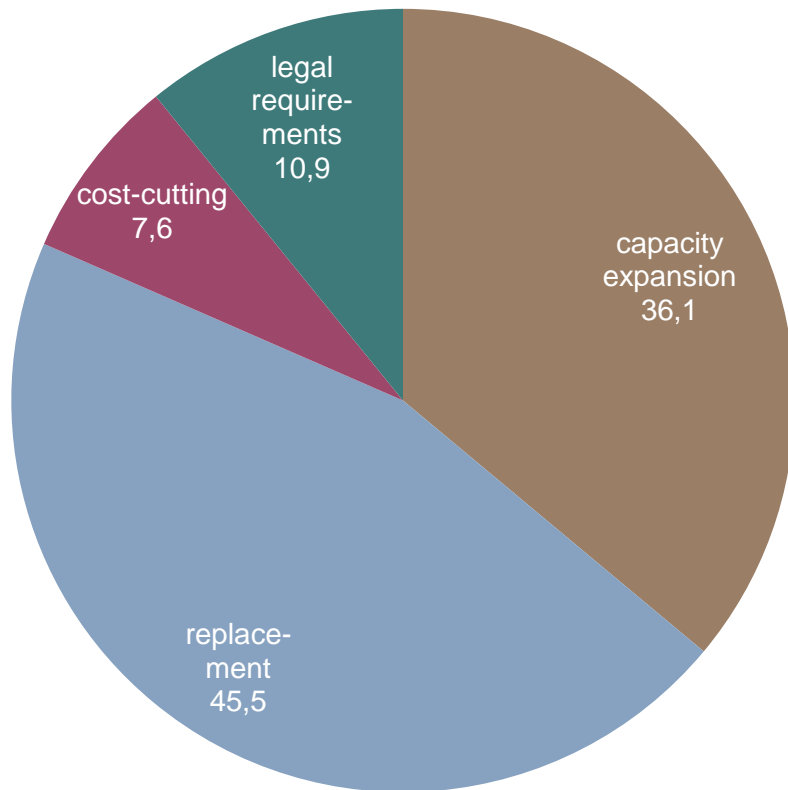


Sources: Destatis (cost structure), VCI

Regulatory reasons for SMEs are gaining in weight – replacement important in Germany

Reasons for investments

Large companies in Germany 2018 (left-hand chart) and in SMEs 2015 (right-hand chart)



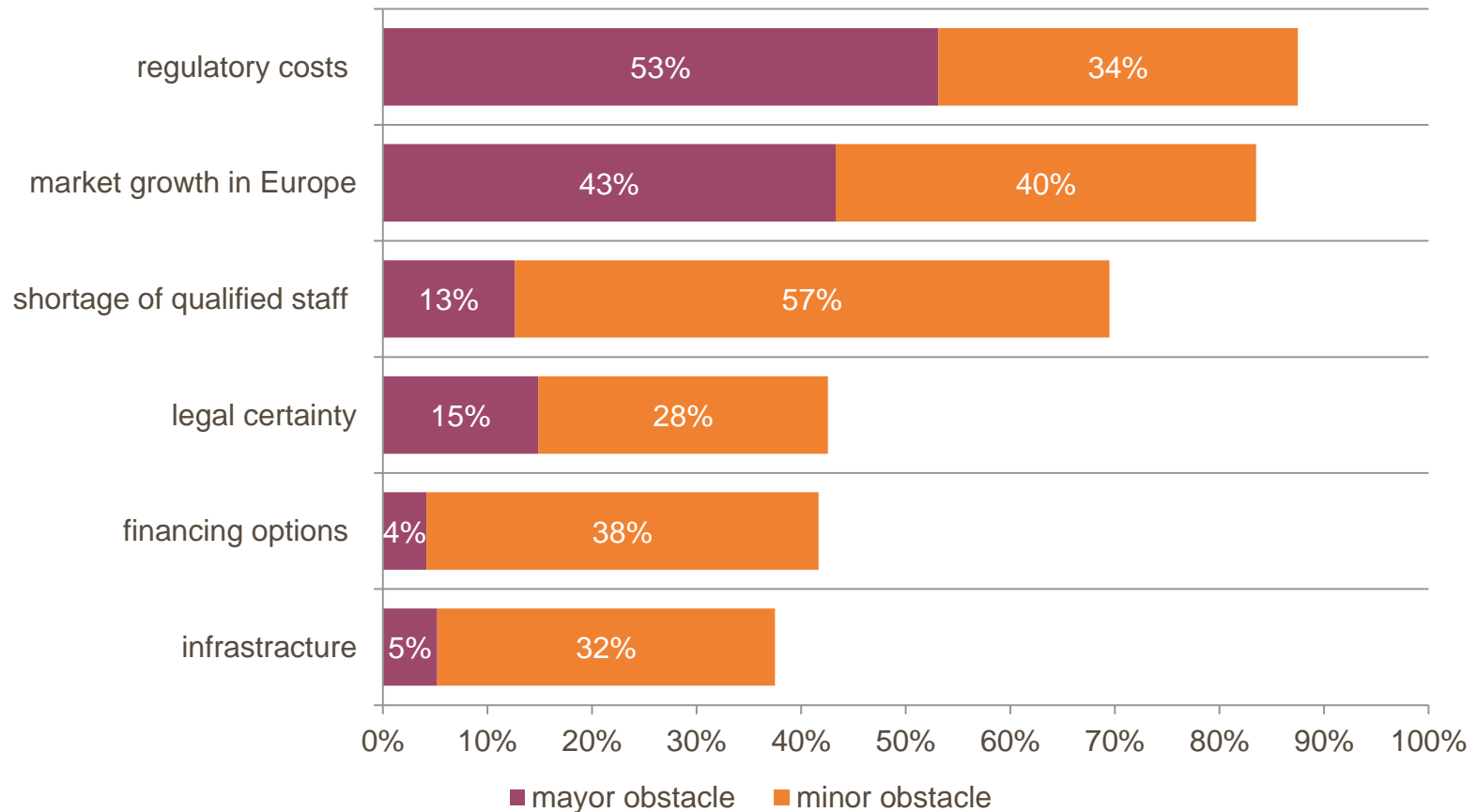
Sources: Ifo, VCI

Source: VCI survey

Regulation impairs investments in Germany

Obstacles to investment at the location Germany

Shares of major and minor obstacles, in percent

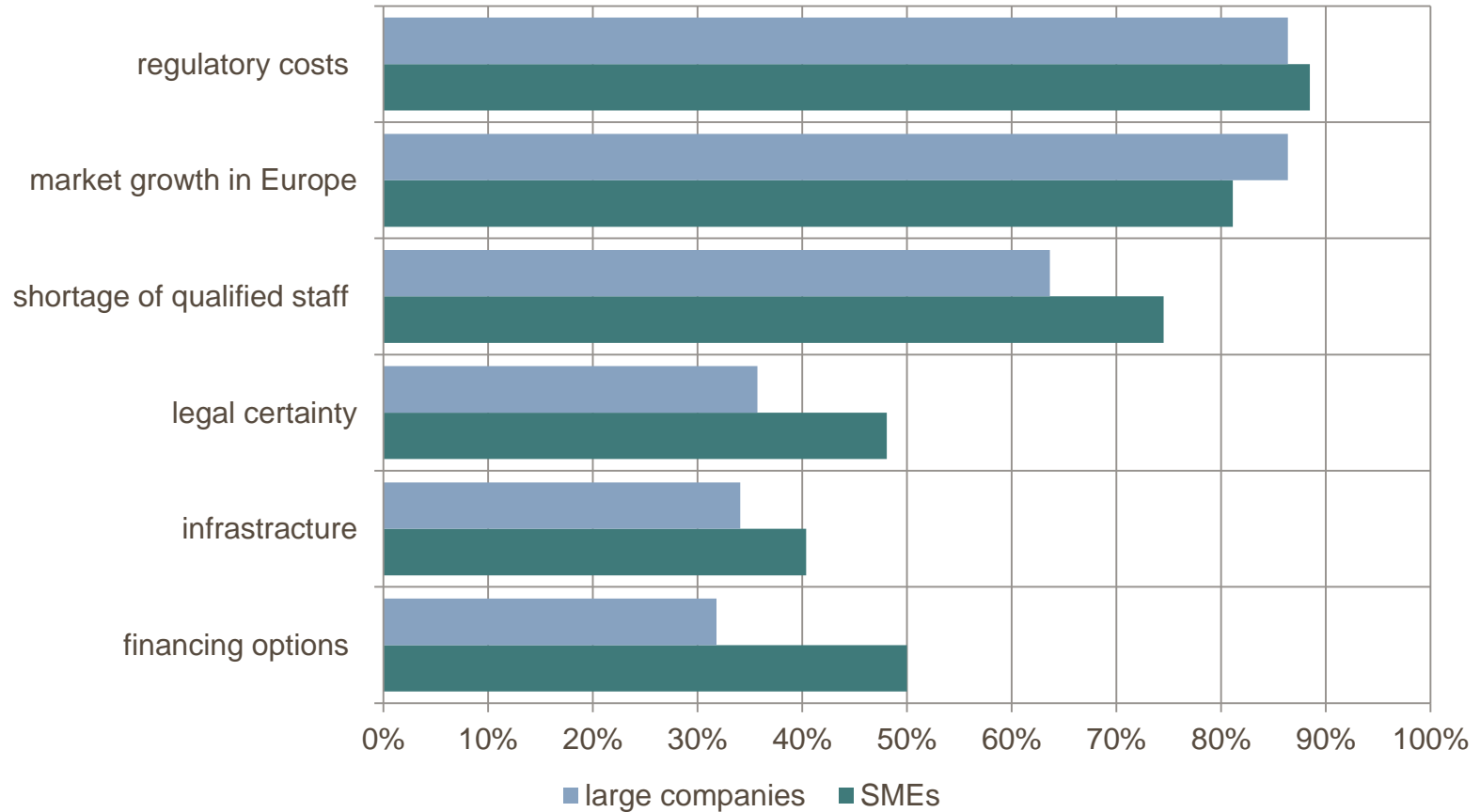


Source: VCI

Small and medium-sized enterprises (SMEs) feel more strongly impaired

Investment obstacles at the location Germany

Major to minor obstacles, shares in percent

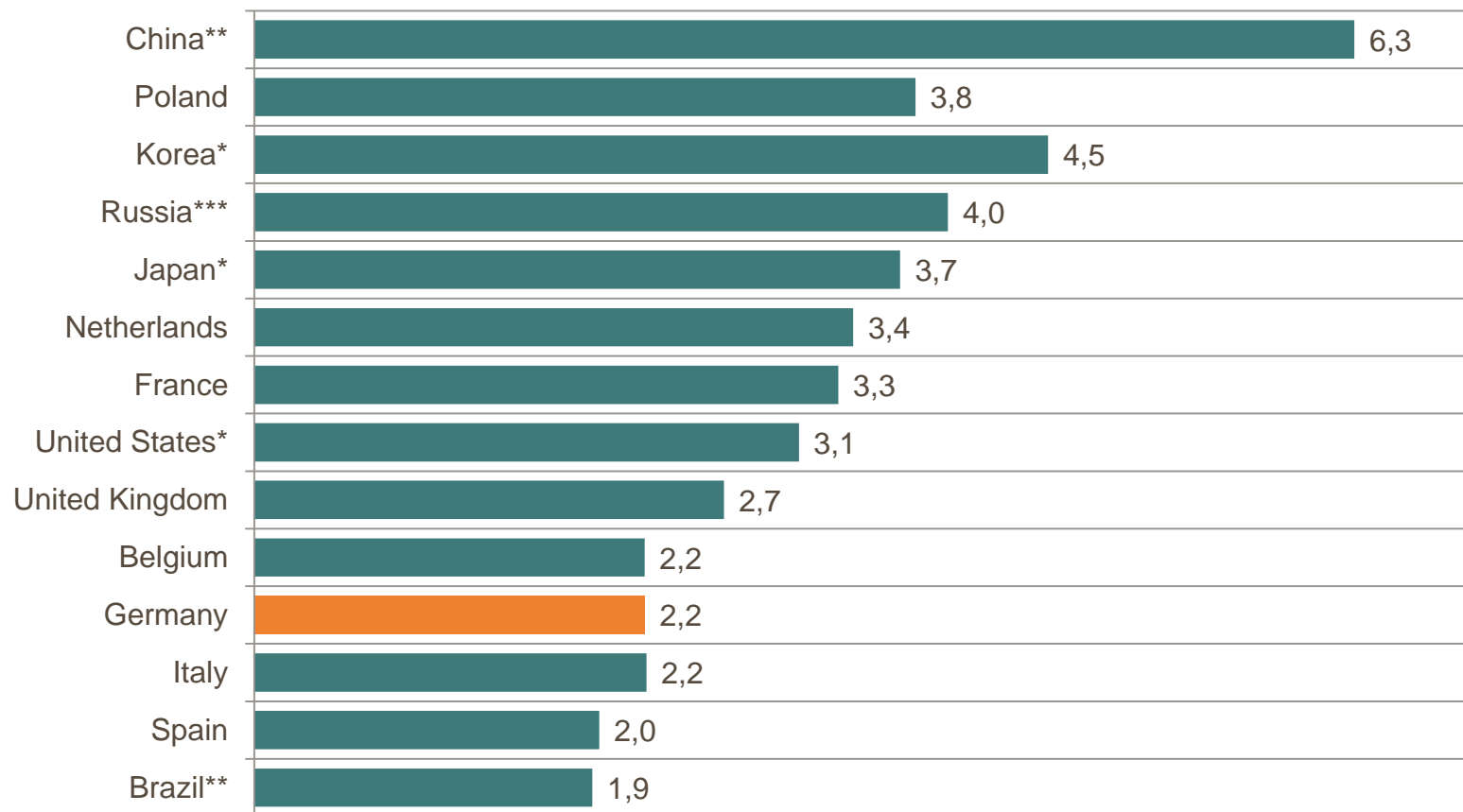


Source: VCI

Low public investment activities – Framework conditions are deteriorating

Investment ratios of countries – international comparison

Gross fixed asset investments by public administrations, in percent of GDP, 2018



Source: OECD

*2017, ** 2016, ***2015