

## CZECH REPUBLIC

The Czech Republic is rapidly catching up with key OECD countries and performs above east European OECD countries on a number of indicators. High-technology exports, for example, grew substantially faster than medium-high technology exports between 1998 and 2008. Inflows of foreign direct investment were also strong up to 2008.

Gross expenditure on R&D (GERD) has grown over the past decade. It peaked at 1.6% of GDP in 2006 and edged down to 1.5% in 2008. Although this is well up on the 1.15% a decade earlier, it is still well below the OECD average. Industry financed 52% of GERD in 2008 and government 41%. Business expenditure on R&D (BERD) has also increased in recent years, albeit to a comparatively low 0.9% of GDP in 2008. Just over one-third of BERD is performed by small and medium-sized firms, and 37% of total business R&D was performed in the services sector in 2007. In 2008, venture capital represented 0.12% of GDP, just above the average.

Triadic patents per million population are at a low level, but scientific publishing performs relatively better. In 2008, the Czech Republic produced 715 scientific articles per million population, contributing 0.4% of world output. An average 14% of firms introduced new-to-market product innovations in 2004-06, while a below-average 38% were non-technological innovators. Non-technological innovation was more prevalent among large firms and occurred predominantly in the services sector.

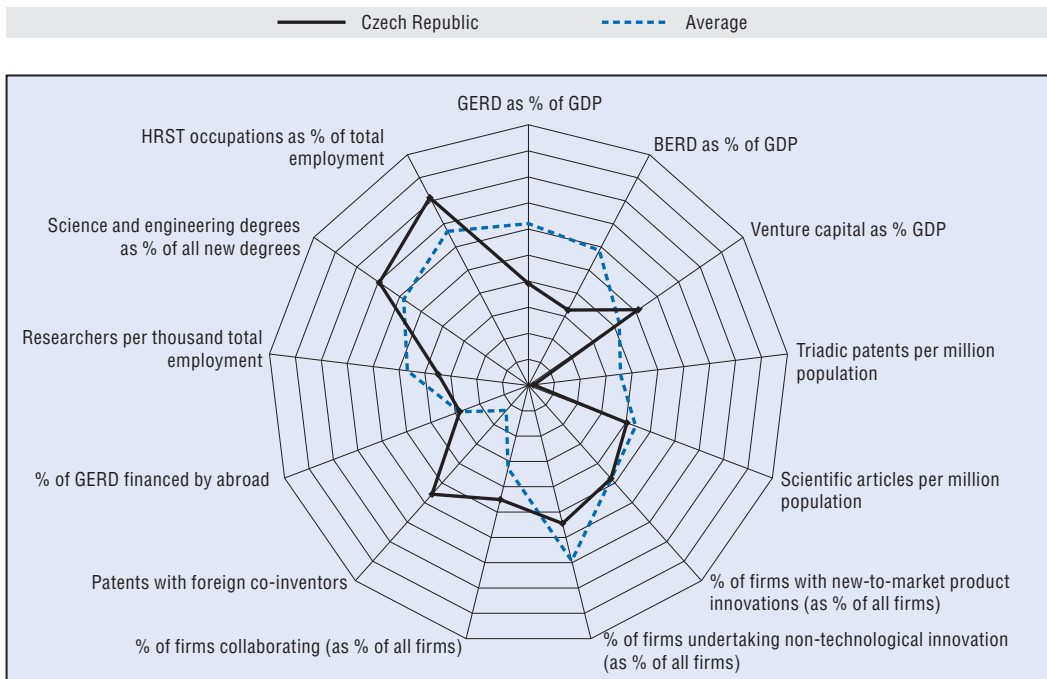
In 2005-07, 34% of Patent Cooperation Treaty (PCT) patent applications had international co-inventors, and 13% of firms collaborated on innovation during 2004-06. Although the share of GERD financed from abroad almost doubled to 5.4% between 2006 and 2008, it remained modest.

The Czech Republic's performance in human resources in science and technology (HRST) ranges from strong to below average. HRST occupations accounted for 34% of total employment in 2008, a level similar to those in key European countries, the United States and Canada, and higher than the average. In 2007, science and engineering degrees accounted for 25% of all new degrees, above the OECD average; however, there were a relatively low 5.6 researchers per thousand total employment.

The Czech economy has performed well in recent years. Real GDP grew at a compound annual rate of 4.5% between 2001 and 2008, but contracted by 4.2% in 2009, with unemployment increasing to 6.7%. Average annual labour productivity growth of 3.9% during 2000-08 exceeded the OECD average of 1.8%. GDP per capita in 2008 was significantly lower in comparison.

There is strong policy support for innovation in the Czech Republic. Currently three Operational Programmes focus on R&D and innovation issues, targeting improvements by 2013 in three key indicators: expenditures on R&D in the business sector, employment in R&D and high-technology production.

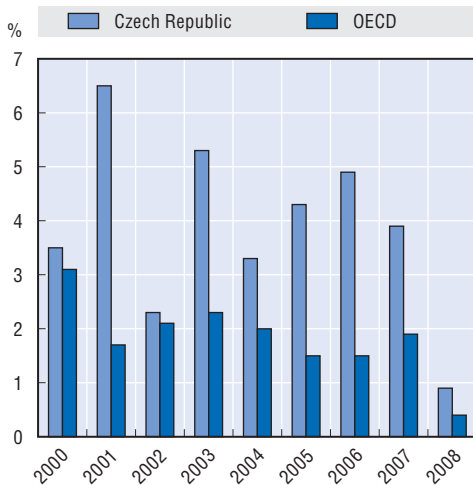
### Science and innovation profile of the Czech Republic



StatLink <http://dx.doi.org/10.1787/888932333462>

#### Labour productivity growth

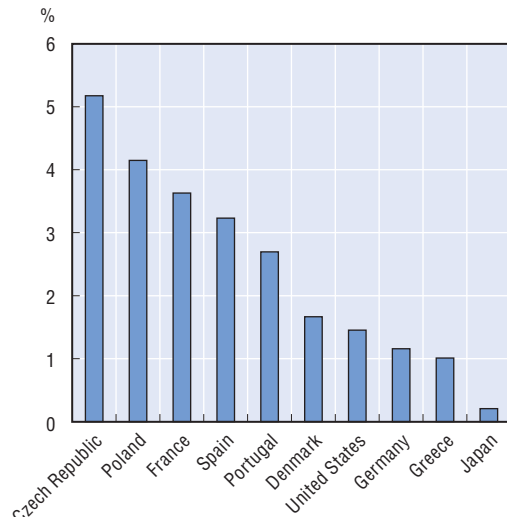
Average annual growth rate, 2000-08



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#### Foreign direct investment inflows

As a percentage of GDP, average 2003-08



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