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## Indonesia

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## INDONESIA

Indonesia seems to have weathered the global financial crisis relatively well. Its GDP was just below USD 1 trillion in 2009. Although GDP growth slowed from more than 6% in 2007 and 2008 to 4.5% in 2009, it outperformed most of its regional neighbours. The official unemployment rate was 8.4% in 2008 and a moderate 7.7% in 2009. GDP per capita, however, is low by OECD standards at 8.6% relative to the United States in 2009.

Indonesia's innovation performance appears weak on various measures compared with other countries in Southeast Asia and catch-up countries such as India and China. Based on the available data, Indonesia's gross expenditure on R&D (GERD) is less than 0.1% of GDP and most R&D is performed by public research organisations (PROs). Numbers of patent applications and scientific and technical publications are relatively small. The rise in Indonesian doctoral students in the United States was a strong average annual 5.5% from 1997 to 2004.

Indonesia's manufacturing output expanded by an average of 12% a year from 1998 to 2008, faster than the OECD average (9%), but well short of the 22% average annual growth in the BRIICS group as a whole in 2000-08. In 2007, high-technology industries contributed a negative -0.9% to Indonesia's manufacturing trade balance. From 2000 to 2008, exports in medium-high-technology industries increased by 15%, below the 25% in the BRIICS group. Medium-high-technology industries contributed only modestly to trade during this

period, and much of the manufacturing trade balance still relies on low-technology industries.

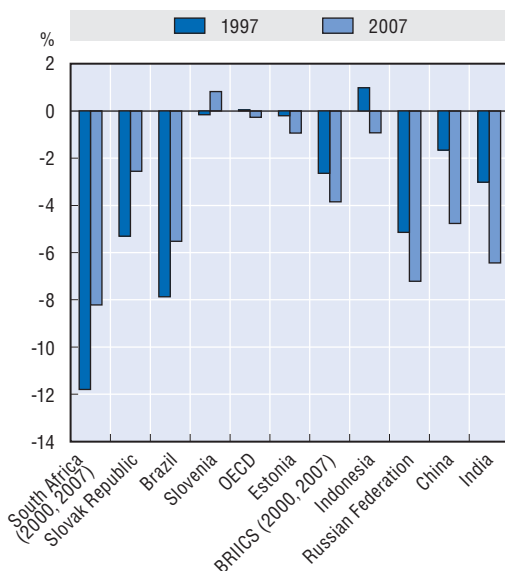
An increasing number of countries in Southeast Asia have made innovation a priority in recent years, and Indonesia is now emphasising science, technology and innovation (STI) as a source of future competitiveness. The National Medium-term Development Plan 2010-14 mentions "culture, creativity and technological innovation" among eleven development priorities. It highlights increasing the quality of human resources, including the promotion of science and technology, and strengthening the competitiveness of the economy.

The agenda of national research under the Long-Term National Development Plan 2005-25 includes seven research priority areas. Recently, a National Innovation Committee (KIN) was established, chaired by the President of Al-Azhar Indonesia University. The committee is an autonomous body consisting of 30 members and reports directly to Indonesia's President.

It is too early to say how effectively the KIN will resolve major issues, such as raising STI awareness, securing more resources for STI activities, and building a more cohesive national innovation system by better mobilising and linking innovation stakeholders. Looking forward, improving co-ordination between the research performed in PROs and the needs of industry and society remains a challenge, as does the integration of education, industry and science and technology policies.

### Change in the contribution of high-technology industries to manufacturing trade balance

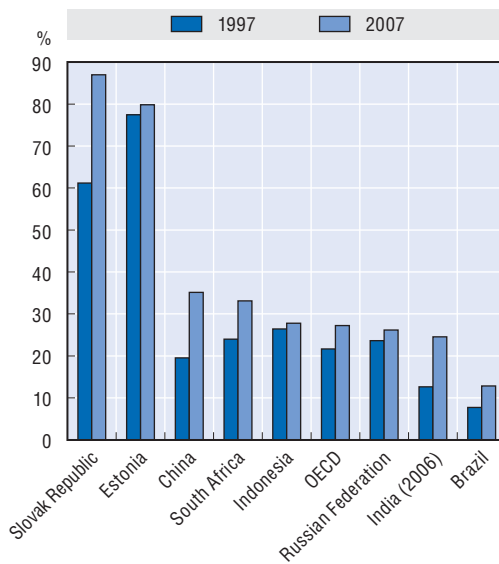
As a percentage of manufacturing trade, 1997 and 2007



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### Total exports and imports

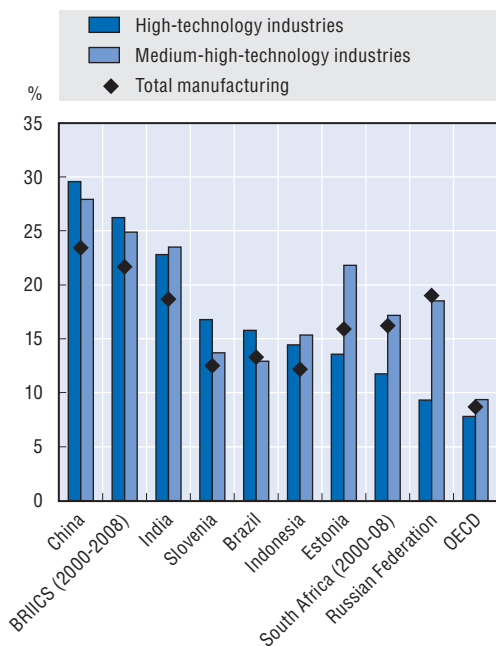
Average, as a percentage of GDP, 1997 and 2007



StatLink <http://dx.doi.org/10.1787/888932334051>

### Growth of high- and medium-high-technology exports

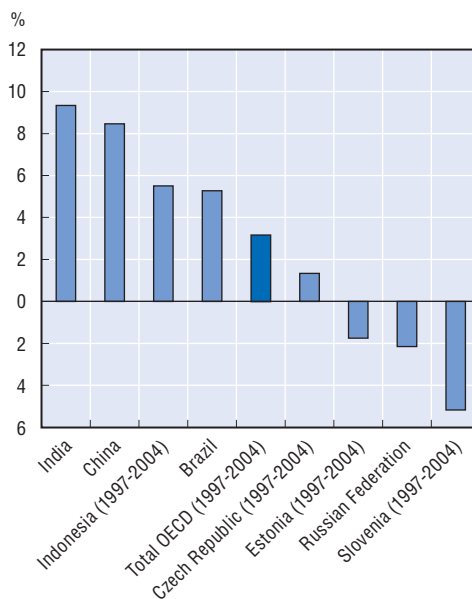
Average annual growth rate, 1998-2008



StatLink <http://dx.doi.org/10.1787/888932334070>

### Growth of foreign scholars in the United States, by country of origin

Average annual growth rate, 1997-2007



StatLink <http://dx.doi.org/10.1787/888932334089>