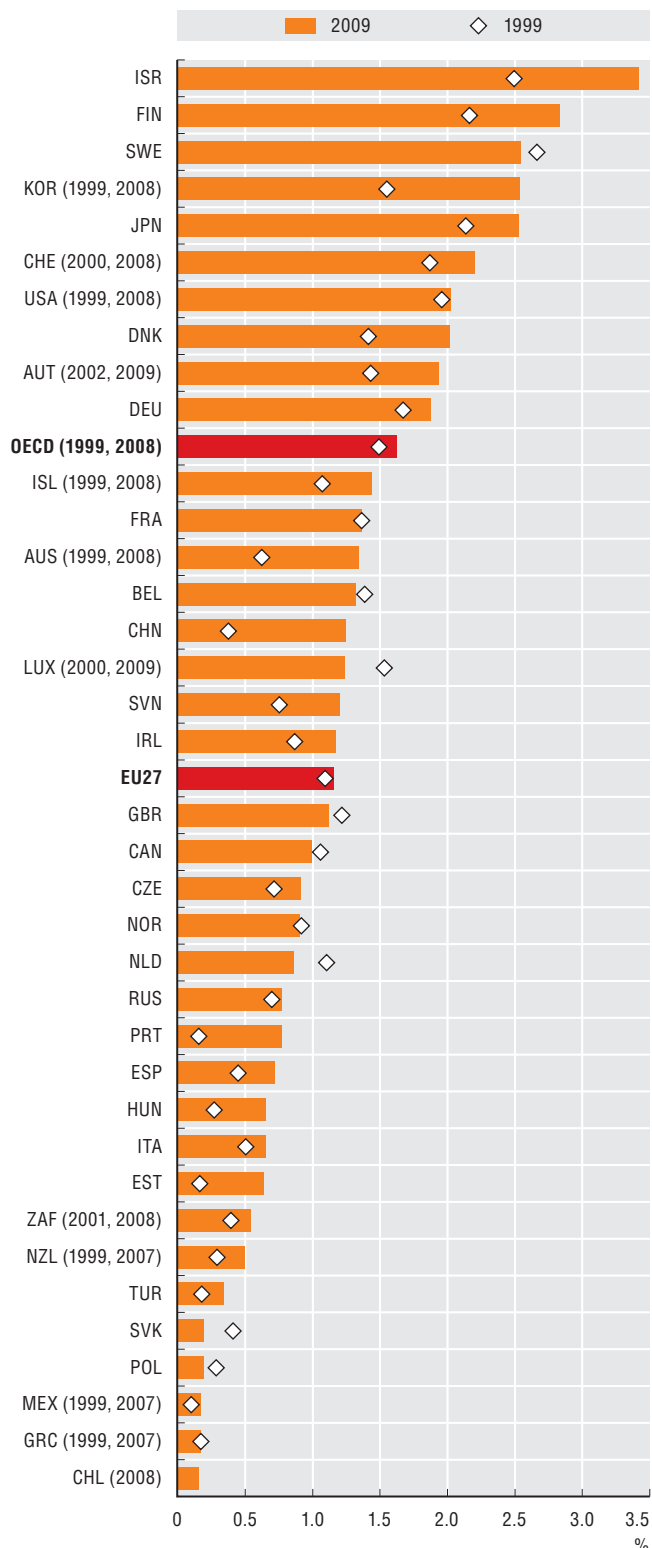


7. Business R&D

Business enterprise expenditure on R&D, 1999 and 2009

As a percentage of GDP



Source: OECD, Main Science and Technology Indicators Database, June 2011. See chapter notes.

StatLink <http://dx.doi.org/10.1787/888932486070>

Business enterprise expenditure on research and development (BERD) is considered important for innovation and economic growth. In OECD countries, business R&D accounts for the bulk of R&D in terms of both funding and performance. Business R&D reached 1.6% of OECD GDP in 2008, up slightly from 1.5% in 1999.

Foreign affiliates can play an important role in national R&D efforts. In 2007-08 they accounted for more than one-fifth of total business R&D in most OECD members. In some smaller open economies, their share exceeded one-half of total BERD. It reached 61.8% in Israel and 72.4% in Ireland. However, their share was lowest in the two OECD economies with the largest values for BERD: 14.3% in the United States and less than 5% in Japan.

Small and medium-sized firms (SMEs) also play an important role in the R&D effort of most OECD countries. Their share in total BERD tends to be larger in smaller economies: 73% in New Zealand, 71% in Estonia and 63% in Chile, compared to less than 20% in France, Sweden, Finland, the United States and Germany, and only 6% in Japan.

Definitions

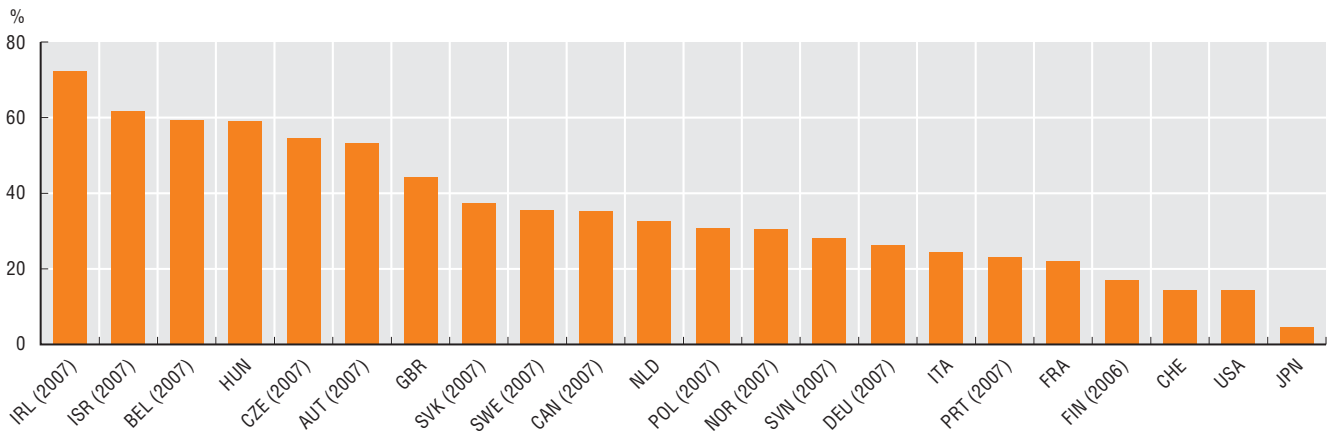
Business enterprise expenditure on R&D (BERD) covers R&D activities carried out in the business sector by performing firms and institutes, regardless of the origin of funding. While the government and higher education sectors also carry out R&D, industrial R&D is arguably most closely linked to the creation of new products and production techniques, as well as to a country's innovation efforts. The business enterprise sector includes:

- All firms, organisations and institutions whose primary activity is the production of goods and services for sale to the general public at an economically significant price.
- The private and not-for-profit institutions mainly serving them.

The term "foreign affiliate" refers to affiliates under foreign control; the geographical origin of a foreign affiliate is the country of residence of the ultimate controller. An investor (company or individual) is considered to be the investor of ultimate control if it is at the head of a chain of companies and controls directly or indirectly all the enterprises in the chain without itself being controlled by any other company or individual. The notion of control implies the ability to appoint a majority of administrators empowered to direct an enterprise, to guide its activities and determine its strategy. In most cases, this ability can be exercised by a single investor holding more than 50% of the shares with voting rights.

R&D expenditures generated by foreign-controlled affiliates, 2008

As a percentage of BERD

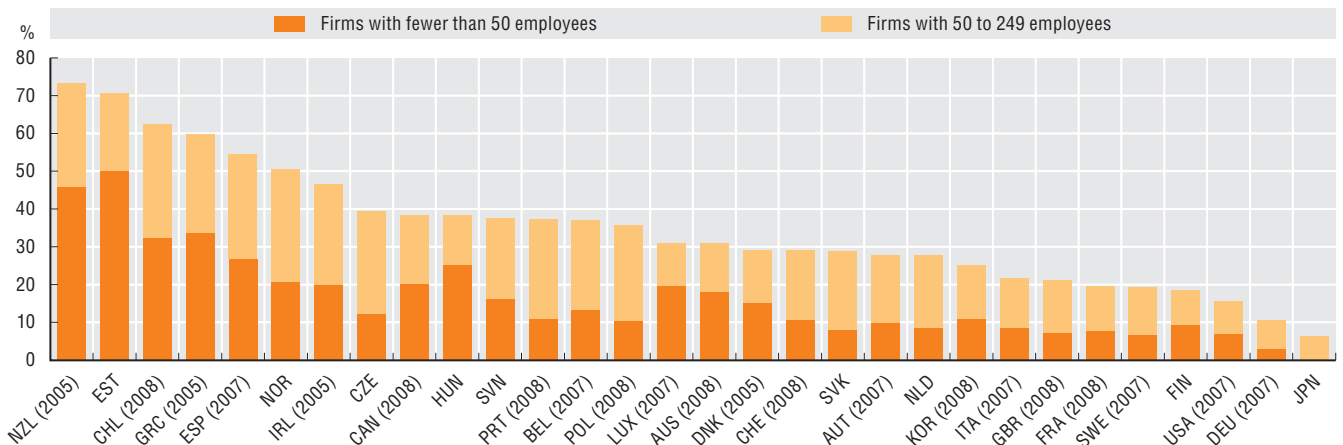


Source: OECD, AFA, FATS and AMNE Databases, May 2011. See chapter notes.

StatLink <http://dx.doi.org/10.1787/888932486089>

Business R&D by size class of firms, 2009

As a percentage of total BERD



Source: OECD, Research and Development Database, May 2011. See chapter notes.

StatLink <http://dx.doi.org/10.1787/888932486108>

Measurability

When assessing changes in BERD over time, it is necessary to take account of changes in methods and breaks in series, notably in terms of the extension of survey coverage, particularly in the services sector, and the privatisation of publicly owned firms. Identifying new and occasional R&D performers is also a challenge and OECD countries take different approaches in their BERD surveys.

Not all activities related to foreign affiliates' R&D are recorded in company transactions. There are intra-company transfers (e.g. intra-company mobility of researchers) with no monetary counterparts which lead to R&D efforts that do not appear in the statistics as R&D spending by foreign affiliates.



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