

INVESTMENT IN ICT

Investment in information and communication technology (ICT) was the most dynamic component of investment in the late 1990s and early 2000s. This investment enabled new technologies to enter the production process, to expand and renew the capital stock, and to sustain economic growth.

Definition

Investment is defined in accordance with the 1993 *System of National Accounts*. ICT investment covers the acquisition of equipment and computer software that is used in production for more than one year. ICT has three components: information technology equipment (computers and related hardware); communications equipment; and software. Software includes acquisition of pre-packaged software, customised software and software developed in-house.

The investment shares presented here are percentages of each country's gross fixed capital formation, excluding residential construction.

Comparability

Data availability and measurement of ICT investment vary considerably across OECD countries, especially in terms of measurement of investment in software, deflators applied, breakdown by institutional sector and temporal coverage.

In the system of national accounts, expenditure on ICT is considered as investment only if the products can be physically isolated (i.e. ICT embodied in equipment is

Overview

ICT shares in total non-residential investment in 2010 (or the latest year available) differ significantly among OECD countries but were particularly high (at 20% or more of the total) in the United States, Sweden, Denmark, the United Kingdom and New Zealand, while they were only slightly above 10% in Italy and Korea.

Software has been the main component of ICT investment in many countries. Its share in non-residential investment in 2010 (or the latest year available) was highest in the United States, Sweden, Denmark, and the United Kingdom while it was below 6% in Italy and Austria. The share of IT equipment was highest in Denmark and in the United States, while it was lowest in Korea, France and Spain. The share of communication equipment in non-residential investment was higher than 5% in the United States, New Zealand and Switzerland and was below 2% in Denmark, Sweden and Japan.

considered not as investment but as intermediate consumption). This may affect the comparability of ICT investment across countries depending on how they differentiate between intermediate consumption and investment in practice. In addition the form and nature of transactions, particularly those relating to software, can cause differences in recorded ICT investment. For example software purchased as a one-year license will be recorded as intermediate consumption but software purchased with a license for a longer period will be treated as investment. In addition measures of the individual components of ICT investment will differ depending on whether, for example, software is sold separately or bundled within other ICT products, such as hardware. However in practice these differences are not expected to significantly affect international comparability of total ICT investment.

Note that ICT components that are incorporated in other products, such as motor vehicles or machine tools, are included in the value of those other products and excluded from ICT investment as defined here.

Sources

- OECD (2012), *OECD Productivity Statistics* (database).

Further information

Analytical publications

- OECD (2012), *OECD Internet Economy Outlook*, OECD Publishing.
- OECD (2011), *OECD Communications Outlook*, OECD Publishing.
- OECD (2011), *OECD Information Technology Outlook*, OECD Publishing.
- OECD (2011), *OECD Science, Technology and Industry Scoreboard 2011*, OECD Publishing.
- OECD (2008), *Broadband Growth and Policies in OECD Countries*, OECD Publishing.

Statistical publications

- OECD (2012), *National Accounts of OECD Countries*, OECD Publishing.

Methodological publications

- Ahmad, N. (2003), "Measuring Investment in Software", *OECD Science, Technology and Industry Working Papers*, No. 2003/6.
- OECD (2010), *Handbook on Deriving Capital Measures of Intellectual Property Products*, OECD Publishing.
- OECD/Federal Statistical Office (2009), *Productivity Measurement and Analysis*, OECD Publishing.

Online databases

- STAN: *OECD Structural Analysis Statistics*.

Websites

- OECD work on patent statistics, www.oecd.org/sti/ipr-statistics.

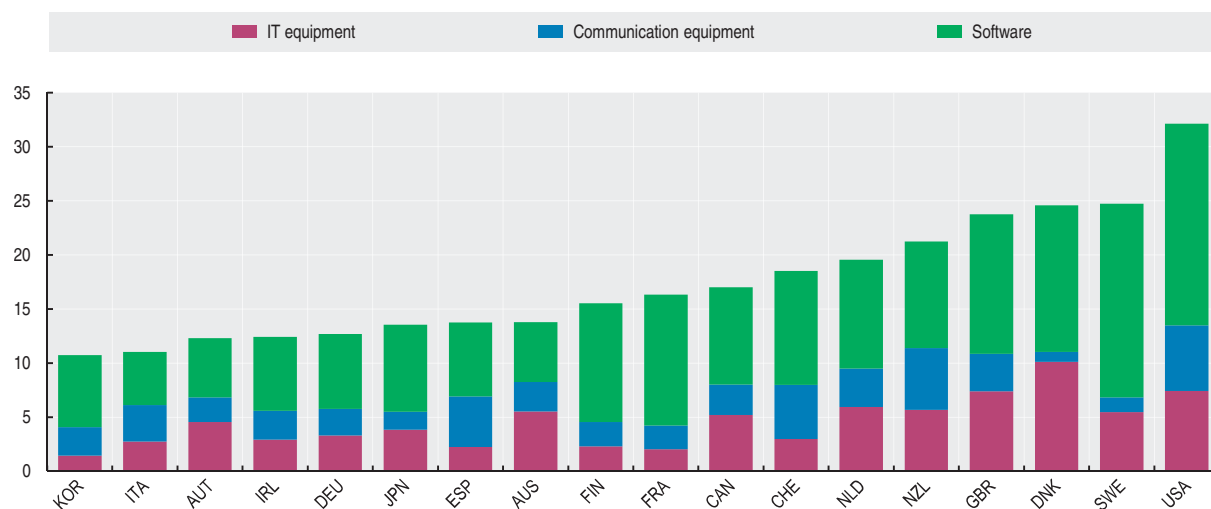

Shares of ICT investment in non-residential gross fixed capital formation

As a percentage of total non-residential gross fixed capital formation, total economy

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	20.2	21.5	24.0	22.5	19.9	19.7	17.3	15.3	14.6	14.2	13.8	..	..
Austria	12.6	13.5	13.4	14.0	14.5	13.1	12.4	11.9	12.1	12.3	..	..	..
Belgium	..	..	..	..	..	..	..	..	..	..	..	..	..
Canada	18.8	19.9	20.6	20.2	19.2	18.8	18.5	17.6	16.8	16.7	15.9	17.5	17.0
Chile	..	..	..	..	..	..	..	..	..	..	..	..	..
Czech Republic	..	..	..	..	..	..	..	..	..	..	..	..	..
Denmark	19.5	21.6	19.9	19.2	22.0	22.1	23.7	24.8	24.5	24.6	..	..	..
Estonia	..	..	..	..	..	..	..	..	..	..	..	..	..
Finland	13.8	14.6	13.2	11.7	11.1	14.5	14.4	15.0	15.4	14.3	12.8	14.4	15.5
France	18.7	19.9	19.2	20.5	19.2	18.6	17.6	17.5	17.0	16.2	16.2	16.3	..
Germany	15.2	16.5	17.3	17.5	16.6	15.1	14.5	15.0	15.2	14.0	13.0	13.2	12.7
Greece	..	..	..	..	..	..	..	..	..	..	..	..	..
Hungary	..	..	..	..	..	..	..	..	..	..	..	..	..
Iceland	..	..	..	..	..	..	..	..	..	..	..	..	..
Ireland	11.6	11.0	11.0	11.2	9.3	9.1	9.0	7.5	9.0	8.9	7.5	11.3	12.4
Israel	..	..	..	..	..	..	..	..	..	..	..	..	..
Italy	14.2	13.9	14.6	13.6	12.3	11.6	11.5	11.7	10.9	10.7	10.4	10.9	11.0
Japan	12.0	13.0	15.0	15.1	14.8	14.8	14.6	14.3	13.5	13.4	13.5	..	..
Korea	12.8	15.8	18.0	17.0	15.7	13.2	11.9	12.2	12.4	12.1	11.7	11.4	10.7
Luxembourg	..	..	..	..	..	..	..	..	..	..	..	..	..
Mexico	..	..	..	..	..	..	..	..	..	..	..	..	..
Netherlands	18.9	19.1	19.9	19.9	19.1	20.0	21.3	22.0	22.3	19.5	..	..	..
New Zealand	24.4	23.3	26.1	22.3	21.1	21.8	21.7	21.6	22.3	22.4	22.9	21.6	21.2
Norway	..	..	..	..	..	..	..	..	..	..	..	..	..
Poland	..	..	..	..	..	..	..	..	..	..	..	..	..
Portugal	..	..	..	..	..	..	..	..	..	..	..	..	..
Slovak Republic	..	..	..	..	..	..	..	..	..	..	..	..	..
Slovenia	..	..	..	..	..	..	..	..	..	..	..	..	..
Spain	14.7	14.9	14.7	14.3	13.8	13.6	13.3	12.7	12.7	13.1	13.6	13.7	13.8
Sweden	27.8	28.8	30.3	27.9	26.2	24.9	24.8	25.1	24.4	23.0	21.9	24.7	..
Switzerland	16.5	17.5	17.2	17.8	18.9	18.3	19.0	18.4	17.9	17.7	17.9	18.8	18.5
Turkey	..	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	25.6	27.2	30.0	28.0	26.5	24.5	25.0	24.6	24.7	23.8	..	..	..
United States	29.3	31.0	32.6	31.2	30.3	30.5	29.8	27.8	26.7	26.3	26.4	30.6	32.1
EU 27	..	..	..	..	..	..	..	..	..	..	..	..	..
OECD	..	..	..	..	..	..	..	..	..	..	..	..	..
Brazil	..	..	..	..	..	..	..	..	..	..	..	..	..
China	..	..	..	..	..	..	..	..	..	..	..	..	..
India	..	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia	..	..	..	..	..	..	..	..	..	..	..	..	..
Russian Federation	..	..	..	..	..	..	..	..	..	..	..	..	..
South Africa	..	..	..	..	..	..	..	..	..	..	..	..	..

 StatLink <http://dx.doi.org/10.1787/888932709054>
Shares of ICT investment in non-residential gross fixed capital formation

As a percentage of total non-residential gross fixed capital formation, total economy, 2010 or latest available year


 StatLink <http://dx.doi.org/10.1787/888932709073>



From:
OECD Factbook 2013
Economic, Environmental and Social Statistics

Access the complete publication at:
<https://doi.org/10.1787/factbook-2013-en>

Please cite this chapter as:

OECD (2013), "Investment in ICT", in *OECD Factbook 2013: Economic, Environmental and Social Statistics*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/factbook-2013-65-en>

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