

2. GDP growth

Changes in the size of economies are usually measured by changes in the volume (often referred to as real) levels of GDP. Real reflects the fact that changes in GDP due to inflation are removed. This provides a measure of changes in the volume of production of an economy.

Definition

Converting nominal values of GDP to real values requires a set of detailed price indices, implicit or directly collected. When applied to the nominal value of transactions, the corresponding volume changes can be captured. The detailed volume changes for goods and services – typically several hundred – are then aggregated to yield an overall change in the volume of GDP. In the past, most countries used fixed weights for this aggregation and the base year to which weights related was only modified every five to ten years. It is important to recognise that growth rates are not invariant to the choice of this reference period and measures of growth could turn out to be biased for reporting years that were remote from the base year.

Since the 1993 *System of National Accounts* it has therefore been recommended that weights should be representative of the periods for which growth rates are calculated. This means that new weights should be introduced every year, giving rise to chain-linked (volume) indices (see *Comparability*, below).

Comparability

As described in Section 1, comparability of nominal values of GDP across countries is good. There is generally some variability in how countries calculate their volume

estimates of GDP, particularly in respect of government consumption, but this doesn't necessarily mean that growth rates are less comparable.

With the exception of Mexico and Chile, all OECD countries derive their annual estimates of real GDP using annually chain-linked volume indices (that is the fixed prices/weights are updated every year). Mexico and Chile, like many non-OECD countries, revise their fixed weights less frequently. Such practices however tend to lead to biased growth rates, usually upward.

Source

- OECD (2011), *National Accounts of OECD Countries*, Vol. 2011/1, OECD Publishing
<http://dx.doi.org/10.1787/na-v2011-1-en>.

Online database

- OECD (2011), "Aggregate National Accounts: Gross domestic product", *OECD National Accounts Statistics* (database), <http://dx.doi.org/10.1787/data-00001-en>.

Further reading

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- Eurostat (2001), *Handbook on Price and Volume Measures in National Accounts*, Eurostat, Luxembourg.
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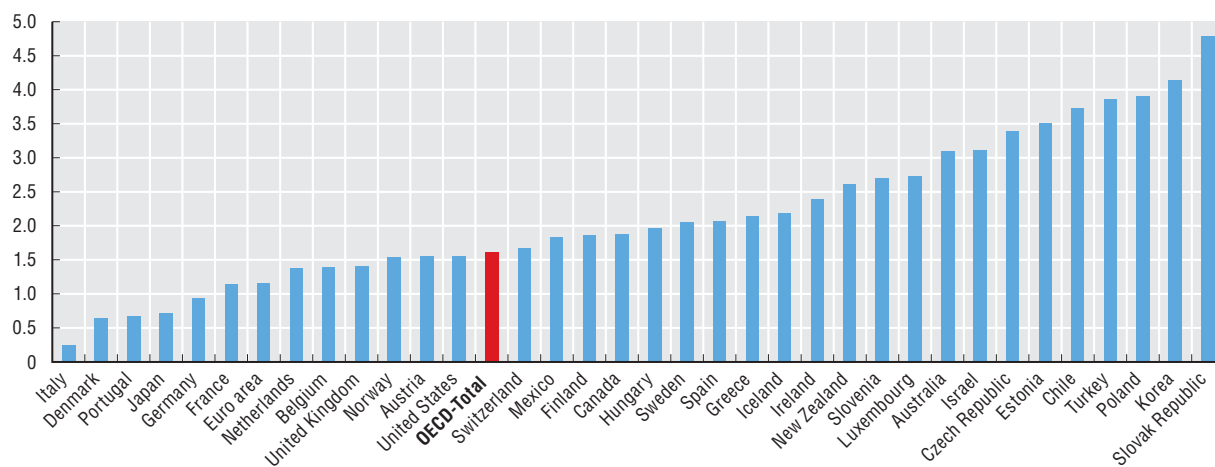
Table 2.1. **Gross domestic product, volume**
Annual growth rates in percentage

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	4.6	5.2	4.0	2.1	3.9	3.3	4.2	3.0	3.1	3.6	3.8	1.4	2.3	2.5 e
Austria	2.3	3.8	3.5	3.7	0.9	1.7	0.9	2.6	2.4	3.7	3.7	1.4	-3.8	2.3
Belgium	3.7	1.9	3.5	3.7	0.8	1.4	0.8	3.3	1.7	2.7	2.9	1.0	-2.8	2.3
Canada	4.2	4.1	5.5	5.2	1.8	2.9	1.9	3.1	3.0	2.8	2.2	0.7	-2.8	3.2
Chile	6.6	3.3	-0.7	4.5	3.3	2.2	4.0	6.0	5.6	4.6	4.6	3.7	-1.7	5.2
Czech Republic	-0.9	-0.2	1.7	4.2	3.1	2.1	3.8	4.7	6.8	7.0	5.7	3.1	-4.7	2.7
Denmark	3.2	2.2	2.6	3.5	0.7	0.5	0.4	2.3	2.4	3.4	1.6	-1.1	-5.2	1.7
Estonia	11.7 e	6.7 e	-0.3 e	10.0 e	6.3	6.6	7.8	6.3	8.9	10.1	7.5	-3.7	-14.3	2.3
Finland	6.2	5.0	3.9	5.3	2.3	1.8	2.0	4.1	2.9	4.4	5.3	1.0	-8.2	3.6
France	2.2	3.4	3.3	3.7	1.8	0.9	0.9	2.5	1.8	2.5	2.3	-0.1	-2.7	1.5
Germany	1.7	1.9	1.9	3.1	1.5	0.0	-0.4	1.2	0.7	3.7	3.3	1.1	-5.1	3.7
Greece	3.6 e	3.4 e	3.4 e	4.5 e	4.2 e	3.4 e	5.9 e	4.4 e	2.3 e	5.5	3.0	-0.2	-3.2	-3.5
Hungary	3.1	4.1	3.2	4.2	3.7	4.5	3.9	4.8	4.0	3.9	0.1	0.9	-6.8	1.3
Iceland	4.9	6.3	4.1	4.3	3.9	0.1	2.4	7.8	7.2	4.7	6.0	1.3	-6.7	-4.0
Ireland	10.9	7.8	9.9	9.3	4.8	5.9	4.2	4.5	5.3	5.3	5.2	-3.0	-7.0	-0.4
Israel ¹	3.4	4.1	3.4	9.3	-0.2	-0.6	1.5	4.8	4.9	5.6	5.5	4.0	0.8	4.8
Italy	1.9	1.4	1.5	3.7	1.8	0.5	0.0	1.5	0.7	2.0	1.5	-1.3	-5.2	1.3
Japan	1.6	-2.0	-0.1	2.9	0.2	0.3	1.4	2.7	1.9	2.0	2.4	-1.2	-6.3	4.0 e
Korea	5.8	-5.7	10.7	8.8	4.0	7.2	2.8	4.6	4.0	5.2	5.1	2.3	0.3	6.2
Luxembourg	5.9	6.5	8.4	8.4	2.5	4.1	1.5	4.4	5.4	5.0	6.6	0.8	-5.3	2.7
Mexico	6.8 e	5.0 e	3.8 e	6.6 e	0.0 e	0.8 e	1.4 e	4.1	3.3	5.1	3.4	1.5	-6.0	5.4 e
Netherlands	4.3	3.9	4.7	3.9	1.9	0.1	0.3	2.2	2.0	3.4	3.9	1.8	-3.5	1.7
New Zealand	2.9	1.2	5.2	2.5	3.5	4.9	3.9	3.6	3.2	2.2	2.9	-1.1	0.8	2.3 e
Norway	5.4	2.7	2.0	3.3	2.0	1.5	1.0	3.9	2.7	2.3	2.7	0.7	-1.7	0.3
Poland	7.1	5.0	4.5	4.3	1.2	1.4	3.9	5.3	3.6	6.2	6.8	5.1	1.6	3.9
Portugal	4.4	5.0	4.1	3.9	2.0	0.7	-0.9	1.6	0.8	1.4	2.4	0.0	-2.5	1.4
Slovak Republic	4.4 e	4.4	0.0	1.4	3.5	4.6	4.8	5.1	6.7	8.3	10.5	5.9	-4.9	4.2
Slovenia	5.0	3.5	5.3	4.3	2.9	3.8	2.9	4.4	4.0	5.8	6.9	3.6	-8.0	1.4
Spain	3.9	4.5	4.7	5.0	3.6	2.7	3.1	3.3	3.6	4.0	3.6	0.9	-3.7	-0.1
Sweden	2.7	4.2	4.7	4.5	1.3	2.5	2.3	4.2	3.2	4.3	3.3	-0.6	-5.2	5.6
Switzerland	2.1	2.6	1.3	3.6	1.2	0.4	-0.2	2.5	2.6	3.6	3.6	2.1	-1.9	2.7
Turkey	7.5 e	3.1 e	-3.4	6.8	-5.7	6.2	5.3	9.4	8.4	6.9	4.7	0.7	-4.8	9.0
United Kingdom	3.3	3.6	3.5	3.9	2.5	2.1	2.8	3.0	2.2	2.8	2.7	-0.1	-4.9	1.4
United States	4.5	4.4	4.9	4.2	1.1	1.8	2.6	3.5	3.1	2.7	1.9	-0.4	-3.5	3.0
Euro area	2.6	2.8	2.9	3.8	2.0	0.9	0.7	2.2	1.7	3.2	3.0	0.4	-4.2	1.8
OECD-Total	3.7 e	2.7 e	3.5 e	4.2 e	1.3 e	1.7 e	2.0 e	3.2 e	2.7 e	3.2	2.7	0.2	-3.9	3.0 e

1. Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

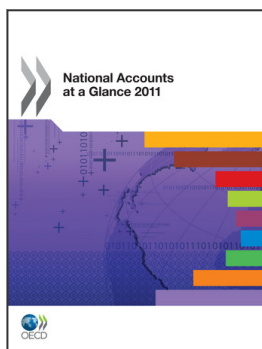
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Figure 2.1. **Gross domestic product, volume**
Average annual growth rates between 2000 and 2010



Note: Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

StatLink  <http://dx.doi.org/10.1787/888932549036>



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