

12. Value added

- The average annual growth rate of value added between 2006 and 2012 was highest in Poland, Israel and Chile. Between 1999 and 2005, average annual growth rate was highest in Estonia, Korea, and Turkey.
- Looking at gross value added by activity, by far the largest activity amongst OECD countries was in the service producing industries. This was especially true in Luxembourg, Greece and France where nearly 80% of gross value added is recorded in the service industries. Norway, Korea, and Chile had the largest share of industry (manufacturing and energy) activity in OECD countries in 2011. Turkey, Iceland and Hungary, reported the largest share in agriculture, forestry and fishing activity.

Value added reflects the contribution of labour and capital to production. It can be shown by type of activity, by type of product, by institutional sector, etc. Value added is a key variable in economic analyses such as productivity and structural analysis.

Definition

Value added at basic prices can be simply defined as the difference between gross output (at basic prices) and intermediate consumption (at purchasers' prices) and can be decomposed into the following components: compensation of employees; gross operating surplus; mixed income; and other taxes on production less subsidies on production. It can also be derived as the difference between GDP (at market prices) and taxes on products less subsidies on products.

The SNA recommends the basic price valuation for value added but it can also be measured on different price bases such as producers' prices and at factor cost.

One of the major advantages of value added is that it avoids problems inherent in the measurement of output which is a gross concept – gross in the sense that it counts the output of all production units whether or not the output is used in the domestic production of other goods and services. Countries with fragmented production networks therefore will have, all other things equal, higher output than those with more consolidated networks, complicating international comparisons. This can also be a temporal problem as production networks can become more or less consolidated (through outsourcing for example) within a country from one year to another. Indeed production networks have become increasingly globalised in recent years, further affecting temporal and cross-country comparability. Value added avoids these problems by measuring the value that a resident unit adds to that of the units that supply its inputs.

Like its GDP counterpart, value added can also be measured on a net basis, where the “net” refers to net of depreciation.

Like its nominal counterpart, real value added can be derived as the difference between real output and real intermediate consumption, an approach known as double-deflation.

A useful additional comment worth making in the context of value added concerns non-market output. By convention, because market prices are not observable, non-market output is calculated on a sum of costs approach with gross operating surplus set equal to depreciation only and no net return to capital imputed.

Comparability

Not all countries produce value added on the basis of basic prices. Japan uses approximately market prices. New Zealand and China use producers' prices, and Iceland and the USA use factor costs.

The tables and figures showing breakdowns by activity are based on the recently revised classification system (ISIC Rev. 4). Countries generally collect information using their own industrial classification systems. The conversion from a national classification system to ISIC may create some comparability issues. For example, for Japan, Hotels (which form approximately 3.0% of value added) are included in Other services not wholesale, retail, etc. That said, at the 6 “recomposed” activity level presented here, for most countries the sectors are generally comparable. The following countries report their data using the ISIC Rev. 3 classification: Canada, Israel, Japan, Mexico, and Turkey, as well as India, Indonesia, the Russian Federation and South Africa. For more information see “Reader's guide – Industrial classification”.

Figures 12.2 and 12.3: the 6 activity level have been grouped into 3 activities, agriculture, industries (including construction) and services.

Source

OECD (2013), *National Accounts of OECD Countries*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/2221433x>.

Online database

OECD (2013), “Aggregate National Accounts: Gross domestic product”, *OECD National Accounts Statistics* (database), <http://dx.doi.org/10.1787/data-00001-en>.

OECD (2013), “Detailed National Accounts: Value added and its components by activity”, *OECD National Accounts Statistics* (database), <http://dx.doi.org/10.1787/data-00006-en>.

Further reading

Lequiller, F. and D. Blades (2007), *Understanding National Accounts*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264027657-en>.

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

Table 12.1. **Gross value added at basic prices, volume**
Annual growth rates in percentage

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Australia	4.0	2.3	3.8	2.9	4.2	3.3	3.1	3.8	3.8	2.0	2.1	2.2	3.7	2.5
Austria	3.2	3.6	1.1	1.7	1.0	2.7	2.6	4.0	3.8	1.6	-4.2	1.8	3.2	0.8
Belgium	3.3	3.5	1.3	1.2	1.0	2.7	1.8	2.7	2.9	1.6	-2.9	2.1	2.1	-0.2
Canada	5.6	5.5	1.5	2.6	2.1	3.2	3.2	2.7	2.3	0.8	-3.1	3.6	..	..
Chile	-0.2	5.0	3.3	2.7	3.6	6.7	5.9	5.6	4.7	3.0	-0.8	5.1	5.6	5.5
Czech Republic	1.9	4.5	3.2	2.8	3.1	4.7	7.0	7.7	5.5	4.1	-5.2	3.1	1.8	-1.0
Denmark	2.9	4.4	0.7	0.3	0.4	1.5	1.5	3.2	1.6	-0.4	-5.1	1.2	1.1	-0.2
Estonia	0.2	10.1	6.1	6.0	7.9	5.7	8.9	9.6	7.0	-3.4	-14.6	3.0	9.3	4.0
Finland	4.1	6.0	2.4	1.5	1.1	4.0	2.7	4.2	6.1	0.4	-9.1	3.5	2.1	-1.0
France	3.2	3.4	1.7	0.9	0.7	2.7	1.7	2.5	2.4	0.1	-3.0	1.5	2.2	0.1
Germany	1.7	3.5	1.8	0.3	-0.2	1.6	0.8	3.8	3.9	1.2	-5.6	4.4	3.3	0.8
Greece	2.1 e	4.4 e	3.6 e	4.1 e	6.4 e	5.1 e	2.4 e	4.1	3.0	0.0	-2.2	-5.2	-6.6	-6.2
Hungary	3.1	4.1	3.8	4.6	4.0	4.7	3.9	3.9	0.0	0.7	-6.8	1.3	1.7	-1.8
Iceland	5.6	6.1	3.9	-0.1	3.9	7.2	7.4	6.3	6.4	1.0	-7.5	-3.7	2.7	..
Ireland	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Israel	3.2	8.4	-0.3	0.5	1.1	4.6	5.3	5.1	5.5	4.3	0.9	4.5	4.2	..
Italy	1.2	4.0	1.9	0.5	-0.2	1.8	1.0	2.2	1.8	-1.1	-5.6	1.7	0.6	-2.3
Japan	0.2 e	2.2 e	0.1 e	0.3	1.4	2.1	1.7	1.9	2.2	-1.1	-6.4	4.5	-0.4	..
Korea	10.2	8.6	4.0	7.2	3.0	4.7	4.0	5.1	5.4	2.6	0.5	6.2	3.5	2.1
Luxembourg	8.1	7.5	3.3	3.9	1.6	3.9	5.4	5.4	6.8	-1.3	-6.1	3.3	1.4	-0.7
Mexico	3.8 e	6.6 e	0.1 e	1.0 e	1.6 e	4.2	3.6	5.4	3.7	1.6	-5.7	5.4	4.3	..
Netherlands	4.6	4.0	1.9	0.2	0.5	2.3	2.1	3.3	4.0	2.1	-3.3	1.7	1.2	-1.1
New Zealand	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Norway	2.0	3.3	1.7	1.2	0.9	3.8	2.4	1.8	2.1	0.2	-1.6	0.2	1.1	2.9
Poland	4.3	4.0	1.3	1.3	3.6	5.2	3.3	6.0	6.7	5.1	1.8	3.7	4.5	1.9
Portugal	3.5	3.8	2.4	0.9	-0.6	1.7	0.7	1.7	2.7	0.4	-2.2	1.9	-0.6	-2.3
Slovak Republic	0.3	0.5	4.9	4.2	3.8	4.4	5.9	10.0	10.6	6.4	-4.7	4.5	2.4	2.8
Slovenia	4.7	4.8	3.5	4.3	3.1	4.4	3.9	6.1	7.1	3.0	-7.5	1.4	0.4	-2.2
Spain	4.5	5.1	3.7	2.6	2.7	3.1	3.3	4.2	3.8	1.0	-3.7	-0.2	0.6	-1.3
Sweden	4.6	5.0	1.1	2.4	2.4	4.5	3.0	4.4	3.3	-0.4	-5.5	6.7	3.2	1.0
Switzerland	0.9	3.4	1.3	0.3	-0.1	2.3	2.7	3.7	3.9	2.3	-1.9	3.0	1.9	1.0
Turkey	-3.0	6.5	-4.5	5.2	4.5	9.6	8.5	7.5	4.8	1.3	-3.6	9.1	8.9	2.3
United Kingdom	3.1	4.5	1.8	2.0	4.1	3.0	3.6	2.7	3.5	-0.6	-5.4	1.6	1.2	0.3
United States	5.0 e	4.2 e	1.1 e	1.5 e	2.8 e	3.7 e	3.3 e	2.5 e	1.8 e	-0.2 e	-2.8 e	2.5 e	1.9 e	2.9 e
Euro area	2.6	3.8	2.1	1.0	0.7	2.4	1.7	3.3	3.3	0.6	-4.5	2.0	1.8	-0.5
OECD-Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..
China	7.6 e	8.4 e	8.3 e	9.1 e	10.0 e	10.1 e	11.3 e	12.7 e	14.2 e	9.6 e	9.2 e	10.4 e	9.3 e	..
India	..	..	..	..	..	..	9.7	9.6	9.4	6.8	7.9	..	..	..
Indonesia	0.8 e	4.9 e	3.6	4.5	4.8	5.0	5.7	5.5	6.3	6.0	4.6	6.1	..	..
Russian Federation	5.7 e	9.3 e	4.9 e	4.7 e	7.5 e	6.6	6.0	7.9	8.4	5.2	-6.7	4.1	3.9	3.4
South Africa	2.7	4.4	2.9	3.8	3.0	4.5	5.3	5.5	5.6	3.8	-1.3	3.0	3.3	2.4


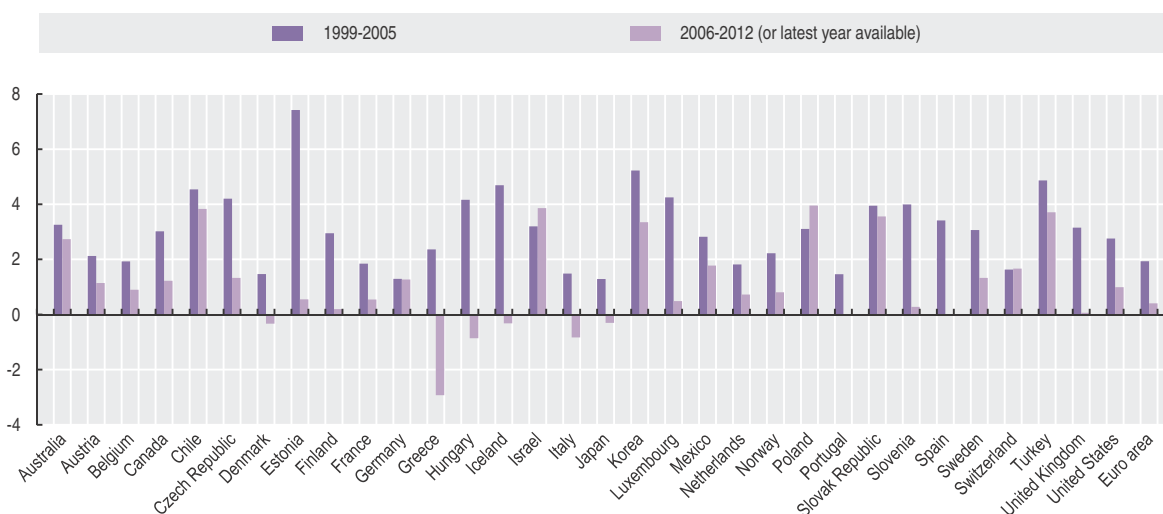
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Figure 12.1. **Gross value added at basic prices, volume**
Average annual growth rates in percentage, 1999-2005 and 2006-2012




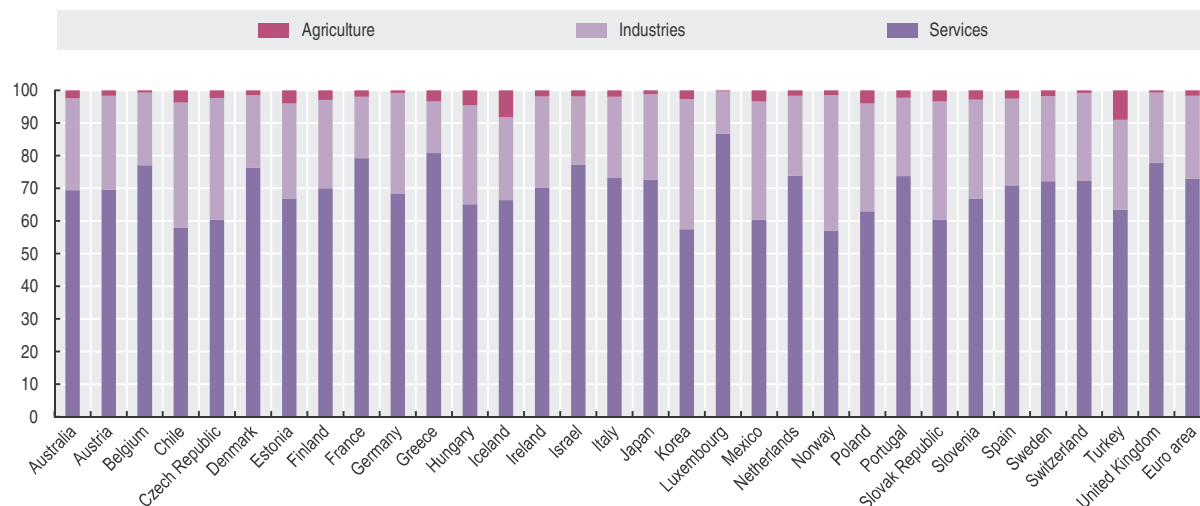
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Table 12.2. **Gross value added by activity**
Percentage of total activity

	Agriculture, forestry and fishing		Industry, including energy		Construction		Trade, transports; accommodation, restaurants; communication		Financial and insurance; real estate; business activities		Other service activities	
	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
Australia	4.3	2.4	19.6	19.9	6.2	8.2	22.2	19.9	27.7	29.8	20.1	19.7
Austria	1.9	1.7	23.7	22.1	7.3	6.6	26.5	25.7	20.8	23.7	19.8	20.2
Belgium	1.2	0.6	21.1	16.4	5.2	5.9	23.8	24.1	26.7	28.6	22.0	24.3
Canada	2.2	..	26.6	..	5.3	..	20.7	..	25.6	..	19.5	..
Chile	4.4	3.7	28.2	30.9	6.6	7.6	19.8	17.3	16.7	19.1	24.2	21.5
Czech Republic	3.5	2.3	31.3	30.5	6.3	6.8	26.8	24.3	15.2	18.5	16.8	17.7
Denmark	2.7	1.4	20.5	17.4	5.2	4.9	24.2	23.6	21.5	25.2	25.8	27.5
Estonia	4.6	4.0	22.2	22.2	5.9	6.9	29.3	26.7	21.9	23.3	16.1	16.8
Finland	3.3	2.9	27.7	20.3	6.1	6.8	23.1	22.4	19.1	23.1	20.7	24.5
France	2.5	1.9	17.3	12.7	5.1	6.2	23.6	23.1	27.3	30.3	24.1	25.9
Germany	1.2	0.8	24.9	26.0	4.9	4.7	20.8	18.6	26.5	27.3	21.8	22.6
Greece	..	3.4	..	13.3	..	2.5	..	29.8	..	25.5	..	25.5
Hungary	5.7	4.6	26.0	26.2	5.6	4.0	22.6	23.3	19.2	21.9	20.9	19.9
Iceland	8.8	8.3	19.2	21.0	8.4	4.4	22.9	20.8	18.9	22.6	21.8	22.9
Ireland	3.2	1.9	29.7	26.3	7.6	1.7	22.6	24.6	21.5	25.7	15.4	19.9
Israel	2.0	1.9	17.2	15.2	5.1	5.7	17.5	16.9	31.7	36.3	26.6	24.1
Italy	2.7	2.0	22.1	18.9	5.4	6.0	26.5	24.8	24.4	27.8	19.0	20.5
Japan	1.5	1.2	23.2	20.5	6.8	5.6	20.8	24.6	16.4	17.0	31.4	31.1
Korea	4.4	2.7	30.0	33.9	7.1	5.9	21.9	19.0	19.6	19.2	17.0	19.2
Luxembourg	0.7	0.3	12.6	7.0	6.8	5.9	24.8	25.0	39.2	44.8	15.9	17.0
Mexico	4.2 e	3.4	28.3 e	29.6	6.3 e	6.6	29.1 e	28.1	18.9 e	18.9	13.6 e	13.5
Netherlands	2.4	1.6	18.7	19.1	5.8	5.4	25.8	23.5	25.7	25.6	21.5	24.8
New Zealand	8.7	..	20.2	..	4.6	..	22.5	..	27.0	..	17.0	..
Norway	1.8	1.4	35.9	36.1	4.2	5.5	21.5	17.7	15.9	17.8	20.7	21.5
Poland	5.1	4.0	22.1	24.8	7.4	8.2	29.9	29.3	17.6	17.0	17.8	16.7
Portugal	3.4	2.2	19.8	18.2	8.3	5.8	26.8	27.9	19.3	22.2	22.3	23.7
Slovak Republic	5.0	3.4	28.1	27.2	6.3	8.9	27.4	25.8	16.5	17.9	16.7	16.7
Slovenia	3.0	2.8	28.3	24.4	6.3	6.0	23.0	24.6	19.6	21.9	19.8	20.3
Spain	4.1	2.5	20.2	17.1	10.9	9.5	28.2	28.8	17.3	19.9	19.3	22.2
Sweden	2.0	1.7	23.3	20.9	4.6	5.2	22.7	23.2	22.2	22.7	25.2	26.3
Switzerland	1.1	0.8	22.1	21.3	5.3	5.6	26.0	26.4	19.8	19.8	25.6	26.0
Turkey	9.4	9.0	23.8	22.5	4.7	5.0	29.6	31.4	21.5	20.1	11.0	12.0
United Kingdom	0.8	0.7	19.7	15.1	6.2	6.4	26.9	24.7	25.9	30.8	20.5	22.4
United States	..	..	..	..	..	..	..	..	..	..	..	..
Euro area	2.4	1.7	21.6	19.4	5.9	5.9	24.2	23.2	24.6	26.8	21.3	23.0
OECD-Total	..	..	..	..	..	..	..	..	..	..	..	..
China	14.4	10.0	39.7	39.8	5.4	6.8	16.8	15.9	8.3	10.9	15.4	16.6
India	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia	15.3	..	40.8	..	5.7	..	20.8	..	8.2	..	9.2	..
Russian Federation	6.5 e	4.4	28.0 e	30.2	7.4 e	6.5	31.7 e	29.0	6.5 e	16.0	19.9 e	13.9
South Africa	3.5	2.5	29.9	25.4	2.4	3.8	23.7	24.7	19.1	21.3	21.4	22.4

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Figure 12.2. **Gross value added by main activity**
Percentage of total activity, 2011



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Table 12.3. Contribution to gross value added growth by activity

Percentage

	Agriculture, forestry and fishing		Industry, including energy		Construction		Trade, transports; accommodation, restaurants; communication		Financial and insurance; real estate; business activities		Other service activities	
	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011	2001	2011
Australia	0.1	0.0	0.3	0.7	0.7	0.8	0.8	0.7	1.2	0.9	0.7	0.5
Austria	0.0	0.2	0.9	1.6	-0.3	0.0	0.5	0.5	0.2	0.8	-0.1	0.1
Belgium	-0.1	0.0	0.0	-0.2	0.0	0.5	0.9	0.6	0.3	0.9	0.1	0.4
Canada	-0.2	..	-1.1	..	0.4	..	0.9	..	1.0	..	0.4	..
Chile	0.3	0.4	0.3	0.5	0.2	0.6	0.8	1.6	1.1	1.6	0.5	0.8
Czech Republic	-0.1	0.0	1.0	1.6	-0.3	-0.4	1.8	0.6	0.6	0.2	0.2	-0.3
Denmark	0.1	-0.1	0.0	0.1	-0.4	0.3	0.5	0.5	0.3	0.6	0.2	-0.3
Estonia	-0.5	0.5	2.4	2.8	0.0	1.9	2.1	3.2	1.7	0.8	0.4	0.2
Finland	-0.1	0.1	1.3	-0.4	-0.5	0.2	1.6	1.1	0.0	0.9	0.0	0.1
France	-0.1	0.1	0.3	0.2	0.2	0.0	0.8	0.7	0.2	0.9	0.4	0.3
Germany	0.0	-0.2	0.3	1.4	-0.3	0.2	1.1	0.7	0.8	0.9	0.0	0.3
Greece	..	-0.2	..	-1.0	..	-1.0	..	-3.2	..	-1.1	..	-0.2
Hungary	0.8	0.4	0.4	0.0	0.3	0.1	1.6	0.5	0.2	0.3	0.6	0.4
Iceland	0.1	0.3	0.7	0.5	0.1	0.0	0.0	1.9	1.3	0.2	1.4	-0.1
Ireland	..	..	..	..	..	..	..	..	..	..	..	..
Israel	0.2	0.1	-1.6	0.4	-0.3	0.5	0.2	0.7	0.5	1.8	0.7	0.8
Italy	-0.1	0.0	-0.2	0.3	0.3	-0.3	0.9	0.3	0.6	0.3	0.4	0.1
Japan	0.0	0.0	-1.1	-0.8	-0.2	0.1	0.3 e	0.0	0.5	0.0	0.4 e	0.3
Korea	0.1	-0.1	0.9	2.3	0.4	-0.3	1.5	0.9	0.7	0.3	0.5	0.3
Luxembourg	-0.1	0.0	-0.2	-0.8	0.2	0.1	1.8	1.7	1.0	-0.1	0.7	0.5
Mexico	0.2 e	-0.1	-0.9 e	1.1	-0.4 e	0.3	0.2 e	1.9	0.9 e	1.0	0.0 e	0.1
Netherlands	-0.1	0.0	0.2	0.1	0.1	0.3	0.5	0.5	0.6	0.0	0.6	0.4
New Zealand	..	..	..	..	..	..	..	..	..	..	..	..
Norway	-0.1	0.1	0.6	-0.7	-0.1	0.1	0.4	0.7	0.7	0.3	0.1	0.5
Poland	0.3	0.1	0.0	2.0	-0.2	1.0	0.7	0.6	0.2	0.8	0.4	0.1
Portugal	-0.1	0.0	0.4	0.2	0.2	-0.5	0.6	0.2	1.0	-0.3	0.4	-0.3
Slovak Republic	1.0	0.5	1.9	1.4	-0.8	0.3	2.0	-0.4	-0.3	1.0	1.1	-0.4
Slovenia	0.0	0.2	1.0	0.7	0.0	-0.7	1.6	0.4	0.5	-0.2	0.4	0.0
Spain	-0.1	0.1	0.7	0.4	0.8	-1.0	1.0	0.3	0.7	0.5	0.6	0.2
Sweden	0.1	0.0	-0.2	0.7	0.2	-0.1	0.6	1.1	0.2	1.3	0.2	0.1
Switzerland	-0.1	0.1	1.2	1.2	0.1	0.2	0.7	-0.1	-0.9	0.0	0.4	0.6
Turkey	-0.8	0.6	-1.8	2.1	-0.9	0.5	-2.6	3.2	1.9	1.7	0.5	0.5
United Kingdom	-0.1	0.1	-0.4	-0.2	0.1	0.1	1.0	0.3	1.0	0.8	0.2	0.1
United States	..	..	..	..	..	..	..	..	..	..	..	..
Euro area	-0.1	0.0	0.3	0.6	0.1	-0.1	0.9	0.5	0.5	0.6	0.3	0.2
OECD-Total	..	..	..	..	..	..	..	..	..	..	..	..
China	0.4 e	0.4 e	3.5 e	4.2 e	0.4 e	0.6 e	1.5 e	1.7 e	0.7 e	0.8 e	1.8 e	1.6 e
India	..	..	..	..	..	..	..	..	..	..	..	..
Indonesia	0.5	..	1.0	..	0.3	..	1.0	..	0.6	..	0.3	..
Russian Federation	..	0.5	..	1.1	..	0.3	..	1.3	..	0.8	..	-0.2
South Africa	-0.1	0.0	0.5	0.7	0.1	0.0	0.8	0.9	1.5	0.8	0.0	0.8



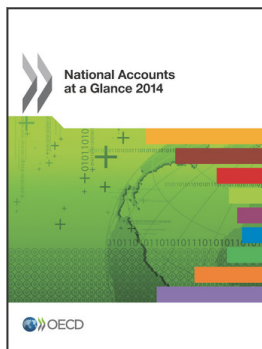
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Figure 12.3. Contribution to gross value added growth by main activity

Percentage, 2011



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