

24. Consumption of fixed capital

Economically, consumption of fixed capital, (depreciation), is best described as a deduction from income to account for the loss in capital value owing to the use of capital goods in production. Its primary importance in an accounting sense is in its use as the “netting” component in estimates of net domestic product, net national income, etc., as described in earlier sections, and, so, in its ability to permit analyses that are closer to a welfare perspective than gross measures. It also constitutes one part of the costs of capital services and so plays a role in productivity measurement. Moreover it has a direct impact on GDP because estimates of non-market value-added explicitly include a component for depreciation.

Definition

The 1993 System of National Accounts defines consumption of fixed capital (depreciation), in the following way:

Consumption of fixed capital is the decline, during the course of the accounting period, in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration, normal obsolescence or normal accidental damage. [...] Losses due to war or to major natural disasters that occur very infrequently [...] are not included under consumption of fixed capital. [...]

It further states that:

The values of the assets lost in these ways are recorded in the other changes in the volume of assets accounts. [...] Consumption of fixed capital is defined in the System in a way that is intended to be theoretically appropriate and relevant for purposes of economic analysis. Its value may deviate considerably from depreciation as recorded in business accounts or as allowed for taxation purposes, especially when there is inflation.

Depreciation in business accounts is typically measured differently from depreciation in the national accounts. The latter measures depreciation by applying a “depreciation coefficient” to the *current value* of each capital asset whereas company accountants typically apply a depreciation coefficient to the value of the capital good at its *original purchase price* (“historic cost”). When the prices of capital goods rise, the difference can therefore be significant.

With the increasing importance of high-tech capital goods that undergo rapid technical change, there has been

renewed discussion about the measurement of depreciation. In particular, some have argued that depreciation should incorporate expected real holding losses on the grounds that this is the appropriate way of capturing expected obsolescence. Others have come to a different conclusion, and draw a distinction between value changes of an asset due to ageing (which they identify with depreciation) and value changes due to overall price changes of the group of capital goods; which corresponds to the position of the SNA and, indeed, the practice of statistical offices.

Comparability

Like estimates of net capital stock, the international comparability of estimates of depreciation are dependent on: i) the coverage of fixed assets; ii) the retirement and depreciation profiles used; and iii) for those countries that use the PIM model, the length of time series available for GFCF by product. Although the comparability of points i) and iii) are generally good across countries (see also Section 12), the assumptions on service lives and depreciation rates differ across countries, although as described in Section 23, there are often sound reasons for such differences, reflecting an economic reality.

Source

- OECD (2012), *National Accounts of OECD Countries*, OECD Publishing, <http://dx.doi.org/10.1787/2221433x>.

Online database

- OECD (2012), “Aggregate National Accounts: Gross domestic product”, *OECD National Accounts Statistics* (database), <http://dx.doi.org/10.1787/data-00001-en>.

Further reading

- Lequiller, F. and D. Blades (2007), *Understanding National Accounts*, OECD Publishing, <http://dx.doi.org/10.1787/9789264027657-en>.
- OECD (2009), *Measuring Capital – OECD Manual 2009: Second edition*, OECD Publishing, <http://dx.doi.org/10.1787/9789264068476-en>.
- OECD (2000), *System of National Accounts, 1993 – Glossary*, OECD Publishing, <http://dx.doi.org/10.1787/9789264180871-en>.
- UN, OECD, IMF, World Bank and Eurostat (eds.) (1993 and 2008), *System of National Accounts*, United Nations, Geneva, <http://unstats.un.org/unsd/nationalaccount/sna.asp>.

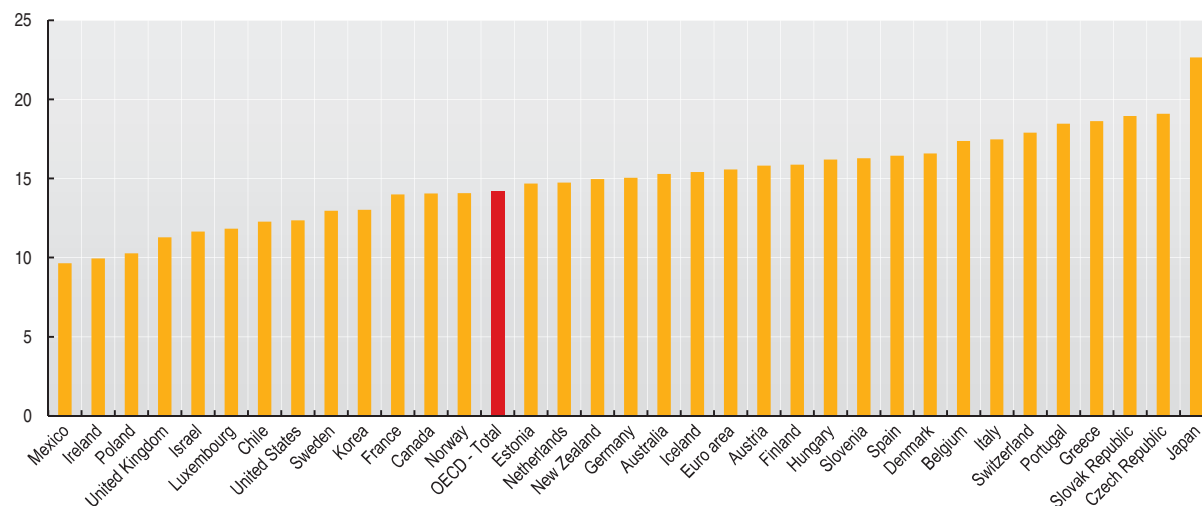
Table 24.1. **Consumption of fixed capital**
Percentage of GDP

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Australia	15.8	15.7	16.0	15.9	15.7	15.5	15.6	15.7	15.8	15.7	15.9	16.0	15.5	15.3 e
Austria	14.9	15.0	15.1	15.4	15.5	15.7	15.6	15.6	15.3	15.1	15.4	16.1	16.0	15.8
Belgium	15.0	15.2	15.1	15.3	15.1	15.5	15.5	15.7	16.0	16.1	16.5	17.3	17.2	17.4
Canada	13.4	13.1	12.8	13.3	13.5	13.3	13.0	12.8	12.8	12.8	13.1	14.4	14.1	14.0 e
Chile	12.8 e	12.7 e	12.6 e	12.6 e	12.5 e	12.2 e	12.0 e	11.9 e	11.5 e	11.6 e	12.1 e	12.2 e	12.1 e	12.3 e
Czech Republic	19.9	20.3	20.6	20.2	19.8	19.7	19.0	18.5	18.0	17.6	17.7	18.9	19.0	19.1
Denmark	15.9	16.1	15.8	16.1	16.2	16.5	16.4	15.9	15.8	16.1	17.0	17.9	16.9	16.6
Estonia	11.1	11.9	11.8	12.1	12.1	12.1	12.4	12.3	12.2	12.0	13.1	15.9	15.7	14.7
Finland	15.4	15.5	15.4	15.5	15.3	15.3	15.3	15.6	15.5	15.4	15.9	17.0	16.2	15.9
France	11.7	11.7	11.8	12.0	12.2	12.2	12.3	12.5	12.8	12.9	13.4	13.9	13.9	14.0
Germany	14.4	14.5	14.7	14.8	14.8	14.8	14.7	14.7	14.5	14.5	14.8	15.8	15.2	15.1
Greece	11.4 e	11.4 e	11.3 e	11.5 e	11.4 e	12.4 e	12.2 e	12.2	12.2	12.2	12.8	14.1	16.0	18.6
Hungary	18.2	18.7	18.3	17.3	15.9	15.3	14.7	14.5	14.8	14.9	14.9	16.5	16.4	16.2
Iceland	11.5	11.9	11.9	12.1	12.1	12.0	11.6	11.7	12.4	13.0	14.8	17.0	16.3	15.4
Ireland	9.9	10.0	10.0	10.1	9.9	9.8	10.0	10.2	10.5	10.2	10.1	10.4	10.2	9.9
Israel ¹	11.6	12.2	11.5	12.0	12.9	13.2	13.3	13.3	12.7	12.6	12.2	12.4	11.8	11.6
Italy	14.4	14.5	14.6	14.6	15.0	15.1	15.2	15.5	15.6	15.7	16.2	17.0	17.0	17.5
Japan	19.6 e	19.6 e	19.9 e	20.3	20.4	20.1	20.0	20.1	20.5	20.7	21.7	22.7	22.4	22.7 e
Korea	14.8	14.4	13.8	13.5	12.9	13.0	12.9	13.2	13.2	13.2	13.2	13.3	12.9	13.0
Luxembourg	13.7	13.0	13.2	13.6	12.1	11.3	11.7	11.1	10.9	10.7	12.1	13.1	12.4	11.8
Mexico	9.3 e	9.0 e	8.6 e	8.8 e	8.8 e	9.0	8.9	8.7	8.5	8.6	9.0	10.6	10.1	9.6 e
Netherlands	14.5	14.6	14.7	14.7	14.9	15.0	15.0	14.7	14.5	14.4	14.4	15.3	15.2	14.7
New Zealand	14.0	13.9	14.0	13.7	13.5	13.3	13.3	13.6	14.0	13.9	14.7	15.1	14.9 e	15.0 e
Norway	15.5	15.0	13.5	13.9	14.2	13.9	13.2	12.5	12.2	12.7	12.7	14.9	14.5	14.1
Poland	13.5	13.6	13.3	13.6	13.6	13.7	13.1	12.9	12.7	12.1	11.4	11.0	10.7	10.3 e
Portugal	15.4	15.4	15.8	16.1	16.4	16.7	16.8	17.0	17.0	16.7	17.3	17.7	17.9	18.5
Slovak Republic	20.3	20.9	20.7	20.6	20.7	20.5	19.7	19.3	18.2	17.0	17.0	18.9	18.7	18.9
Slovenia	17.2	16.7	17.1	16.9	16.2	15.4	15.3	15.3	14.9	14.6	14.8	16.5	16.3	16.3
Spain	12.9	13.2	12.7	12.8	13.1	13.4	13.8	14.1	14.3	14.4	14.8	15.6	16.1	16.4
Sweden	11.9	12.2	12.7	13.1	13.2	12.8	12.4	12.4	12.3	12.3	13.0	14.1	13.4	13.0
Switzerland	18.0	18.4	18.5	19.0	19.2	19.3	18.8	18.6	18.0	17.7	17.7	18.6	18.0	17.9
Turkey	..	..	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	11.2	11.4	11.4	11.4	11.4	11.1	11.3	11.0	11.1	10.9	10.5	11.4	11.2	11.3
United States	11.1	11.2	11.4	11.8	11.8	11.7	11.7	11.8	12.0	12.2	12.5	12.9	12.4	12.4
Euro area	13.7	13.7	13.8	13.9	14.0	14.1	14.2	14.3	14.3	14.3	14.7	15.5	15.4	15.6
OECD-Total	13.2 e	13.3 e	13.3 e	13.6 e	13.6 e	13.5 e	13.4 e	13.4 e	13.5 e	13.6 e	13.9 e	14.6 e	14.2 e	14.2 e

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

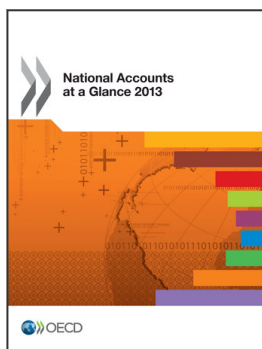
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Figure 24.1. **Consumption of fixed capital**
Percentage of GDP, 2011



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

StatLink  <http://dx.doi.org/10.1787/888932762197>



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