

22. 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, 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 assumptions used for service lives and rates of depreciation; and iii) the time series of GFCF estimates. 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 21, there are often sound reasons for such differences, reflecting an economic reality.

Source

- OECD (2010), *National Accounts of OECD Countries 2010*, Volume I, Main Aggregates, OECD Publishing, http://dx.doi.org/10.1787/na_vol_1-2010-en.

Online database

- OECD (2010), “Aggregate National Accounts: Gross domestic product”, *OECD National Accounts Statistics* (database), <http://dx.doi.org/10.1787/data-00001-en>.

Further reading

- OECD (2009), *Measuring Capital – OECD Manual 2009: Second edition*, OECD Publishing, <http://dx.doi.org/10.1787/9789264068476-en>.
- Lequiller, F. and D. Blades (2007), *Understanding National Accounts*, OECD Publishing, <http://dx.doi.org/10.1787/9789264027657-en>.
- OECD (2000), *System of National Accounts, 1993 – Glossary*, OECD Publishing, <http://dx.doi.org/10.1787/9789264180871-en>.
- UN, OECD, IMF and Eurostat (eds.) (1993), *System of National Accounts 1993*, United Nations, Geneva, <http://unstats.un.org/unsd/sna1993>.

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Table 22.1. Consumption of fixed capital

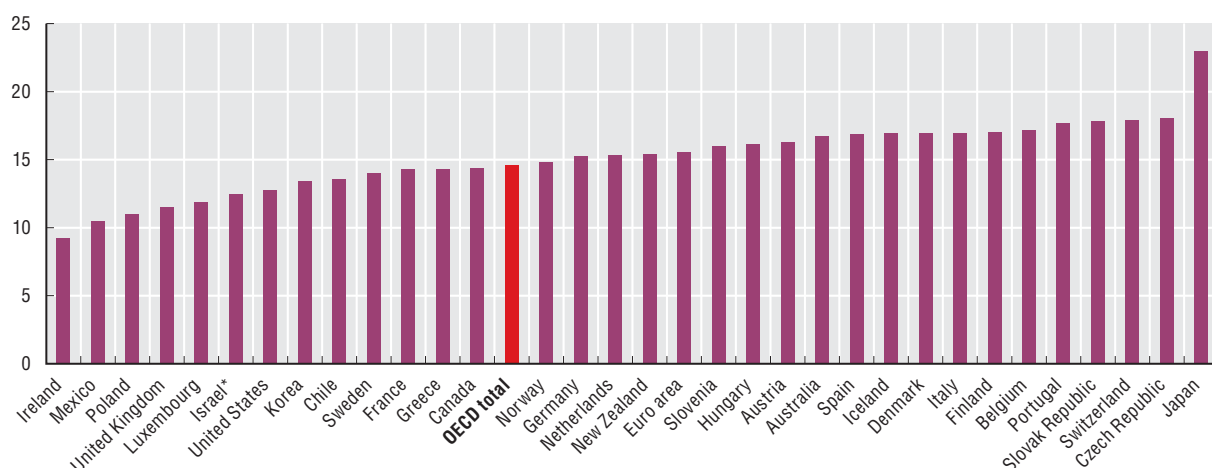
Percentage of GDP

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Australia	15.5	15.6	15.7	15.6	15.9	15.7	15.6	15.4	15.6	15.6	15.6	15.5	15.8	16.8 e
Austria	14.8	15.1	15.1	15.1	15.1	15.4	15.5	15.6	15.5	15.4	15.2	15.1	15.3	16.3
Belgium	14.9	15.0	15.0	15.2	15.2	15.3	15.1	15.5	15.5	15.7	16.0	16.1	16.5	17.2
Canada	13.2	13.2	13.4	13.1	12.8	13.3	13.5	13.3	13.0	12.8	12.8	12.8	13.1	14.3
Chile	13.1 e	12.6 e	12.6 e	13.3 e	12.8 e	13.0 e	13.2 e	12.8	12.1	11.3	10.7	10.6	11.9	13.5 e
Czech Republic	19.3	20.1	19.9	20.3	20.6	20.3	19.9	19.7	19.1	18.6	17.9	17.3	17.3	18.1
Denmark	15.6	15.7	15.9	16.1	15.8	16.1	16.2	16.5	16.4	15.9	15.8	16.0	16.3	16.9
Finland	16.5	15.8	15.5	15.6	15.5	15.6	15.3	15.4	15.4	15.6	15.5	15.4	16.0	17.0
France	12.4	12.3	12.1	12.2	12.4	12.6	12.7	12.8	12.9	13.1	13.3	13.3	13.8	14.3
Germany	14.7	14.8	14.8	14.8	15.0	15.0	15.0	14.9	14.8	15.0	14.7	14.8	14.8	15.3
Greece	11.6 e	11.4 e	11.5 e	11.5 e	11.4	11.6	11.5	12.5	12.3	12.3	12.2	12.0	12.4	14.3
Hungary	19.2	18.5	17.9	18.4	17.9	17.0	15.8	15.2	14.6	14.6	14.8	14.7	14.8	16.1
Iceland	13.2	12.1	11.5	11.9	11.9	12.1	12.1	12.0	11.6	11.7	12.4	13.0	14.9	16.9
Ireland	9.9	9.8	9.4	9.7	10.0	10.0	10.2	9.9	10.0	10.2	9.8	9.3	9.4	9.3
Israel*	10.8	11.1	11.4	11.9	11.3	11.8	12.9	13.3	13.4	13.3	12.8	12.5	12.3	12.5
Italy	14.4	14.5	14.5	14.6	14.6	14.7	15.0	15.1	15.2	15.5	15.6	15.7	16.2	17.0
Japan	18.7	18.7	19.4	19.5	19.7	20.1	20.2	20.9	21.1	20.8	20.9	20.8	21.4	23.0 e
Korea	12.1	12.9	14.8	14.4	13.8	13.5	12.9	13.0	12.9	13.2	13.2	13.2	13.2	13.4
Luxembourg	13.6	13.7	13.7	13.0	13.2	13.6	12.1	11.3	11.7	11.1	10.7	10.5	10.8	11.9
Mexico	9.7 e	9.2 e	9.3 e	9.0 e	8.6 e	8.8 e	8.8 e	9.0	8.9	8.7	8.5	8.7	9.1	10.5 e
Netherlands	14.7	14.4	14.5	14.6	14.7	14.7	14.9	15.0	15.0	14.7	14.5	14.4	14.4	15.4
New Zealand	13.7	13.7	14.0	14.0	14.0	13.7	13.5	13.3	13.4	13.7	14.0	13.9	14.6	15.4 e
Norway	15.1	14.8	15.5	15.0	13.5	13.9	14.2	14.0	13.5	12.7	12.3	12.8	13.3	14.8
Poland	14.1	13.7	13.5	13.6	13.3	13.6	13.6	13.7	13.1	12.9	12.7	12.1	11.6	11.0
Portugal	15.9	15.7	15.4	15.4	15.9	16.1	16.5	16.8	16.8	17.1	17.0	16.8	17.4	17.7
Slovak Republic	20.5	20.6	20.3	20.9	20.7	20.6	20.7	20.5	19.7	19.3	18.2	17.0	16.4	17.8
Slovenia	17.3	17.1	17.3	16.8	17.2	17.0	16.3	15.5	15.4	15.3	14.9	14.5	14.7	16.0
Spain	13.1	13.2	12.9	13.2	13.7	13.8	14.1	14.4	14.9	15.3	15.6	15.7	16.2	16.9
Sweden	11.5	11.6	11.9	12.2	12.7	13.1	13.2	12.8	12.4	12.4	12.3	12.3	12.9	14.0
Switzerland	17.3	17.0	16.9	17.4	17.6	18.2	18.3	18.2	18.0	17.9	17.6	17.3	17.4	17.9
Turkey	..	..	..	..	..	..	..	..	..	..	..	..	..	..
United Kingdom	11.9	11.5	11.3	11.4	11.4	11.3	11.3	11.0	11.2	11.0	11.1	11.0	10.5	11.5
United States	11.0	11.0	11.1	11.2	11.4	11.8	11.8	11.7	11.7	11.8	12.0	12.2	12.4	12.7
Euro area	14.0	14.0	13.9	13.9	14.1	14.2	14.3	14.4	14.4	14.6	14.6	14.6	14.9	15.6
OECD-Total	13.2 e	13.1 e	13.2 e	13.3 e	13.4 e	13.6 e	13.7 e	13.7 e	13.6 e	13.6 e	13.7 e	13.7 e	13.9 e	14.6 e

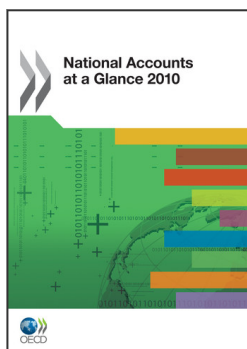
StatLink  <http://dx.doi.org/10.1787/888932352196>

Figure 22.1. Consumption of fixed capital

Percentage of GDP, 2009

StatLink  <http://dx.doi.org/10.1787/888932351607>

* The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.



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