

Statistical bulletin

Capital stocks and fixed capital consumption, UK: 2023

Annual estimates of the value and types of non-financial assets used in the production of goods or services within the UK economy and their loss in value over time.

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Table of contents

1. [Main points](#)
2. [UK net capital stock](#)
3. [Capital stocks and fixed capital consumption data](#)
4. [Glossary](#)
5. [Measuring the data](#)
6. [Strengths and limitations](#)
7. [Related links](#)
8. [Cite this statistical bulletin](#)

1 . Main points

- Annual growth in the UK's net capital stock was 1.6% in 2022, compared with an average annual growth rate between 2011 and 2019 of 1.4%.
- Other buildings and structures grew by 1.5% in 2022, compared with 1.3% in 2021; this contributed 36.4% to net capital stock growth in the UK.
- Growth in the net capital stock of dwellings increased from 1.2% in 2021 to 1.7% in 2022, accounting for 41.6% of the UK's net capital stock growth.
- Growth in Machinery, equipment and weapons systems was 1.9% in 2022, contributing 15.6% to the UK's net capital stock growth; growth in the previous two years was negative.

2 . UK net capital stock

The UK's net capital stock grew by 1.6% to an estimated £4.8 trillion between 2021 and 2022. Although this is faster growth compared with 1.0% in the previous year, this remains just below the pre-coronavirus (COVID-19) pandemic growth rate of 1.7% in 2019.

The contribution of "Machinery, equipment, and weapons systems" has returned to pre-coronavirus pandemic growth, contributing 0.3 percentage points (pp), following a period of negative growth in 2020 and 2021.

Dwellings continued to account for most of the increase in the UK's net capital stock, contributing a 0.7 percentage point increase in 2022 compared with a 0.5 percentage point increase in 2021.

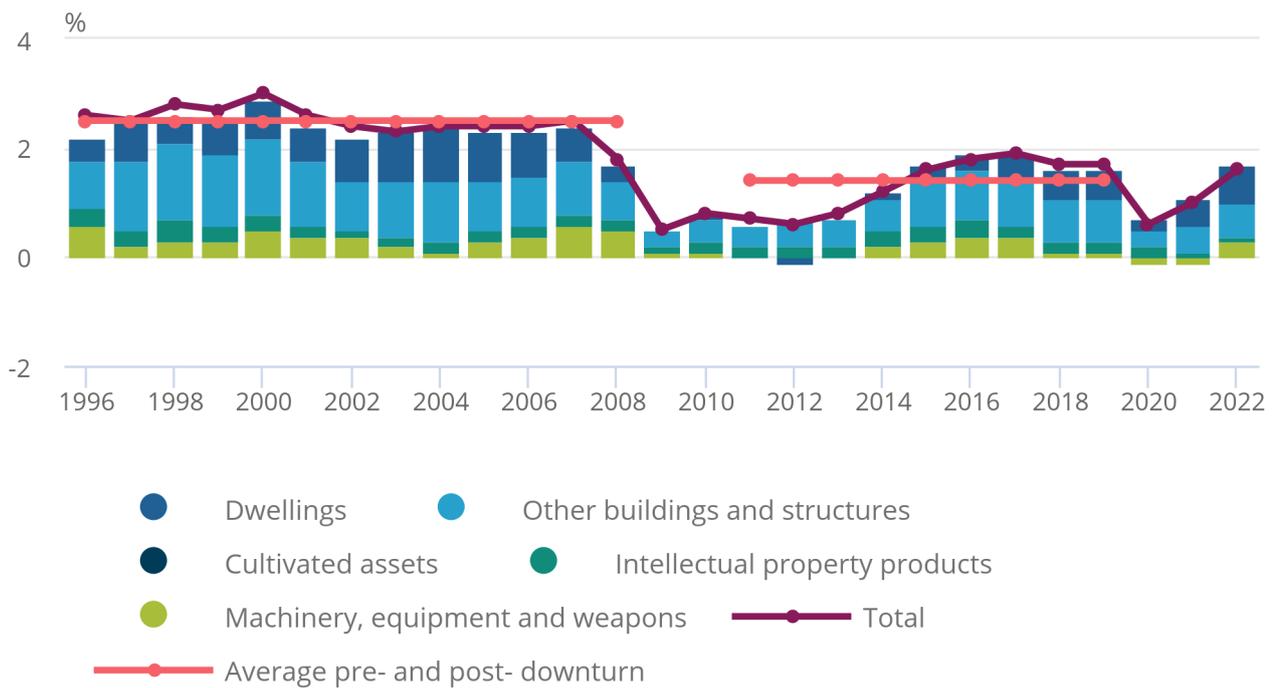
Other buildings and structures account for around 40% of the UK's net capital stock. This asset contributed 0.6 percentage points to overall growth, experiencing an increase of 1.5% in 2022, the highest since 2020.

Figure 1: UK net capital stock continues to grow since 2020

Contributions to growth in UK net capital stock by asset, chained volume measures, 1996 to 2022

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Contributions to growth in UK net capital stock by asset, chained volume measures, 1996 to 2022



Source: Office for National Statistics

Notes:

1. The components of net capital stock growth do not always add to the total because of rounding or because chained volume measures data are not additive until the reference year.
2. Net capital stocks of other buildings and structures include buildings, other structures, and land improvements.

Machinery, equipment, and weapon systems

Net capital stocks in Machinery, equipment, and weapon systems grew by 1.3% in 2022 to £499 billion in constant prices (KP). This was driven by Transport, which accounted for 85% of total Machinery, equipment, and weapon systems growth in 2022, and contrasts with negative growth in Transport during the preceding two years.

Figure 2: Transport drove growth in Machinery, equipment and weapon systems

Contributions to growth in UK net capital stock of Machinery, equipment, and weapon systems, constant prices, 1996 to 2022

Figure 2: Transport drove growth in Machinery, equipment and weapon systems

Contributions to growth in UK net capital stock of Machinery, equipment, and weapon systems, constant prices, 1996 to 2022



Source: Office for National Statistics

Notes:

1. The components of net capital stock growth do not always add to the total because of rounding or because chained volume measures data are not additive until the reference year.
2. Net capital stocks of Machinery, equipment include: transport equipment, Information Communication Technology (ICT) equipment, other machinery and equipment and weapons systems.

Transport industry-level breakdown data show that contributions to growth in net capital stock of Transportation equipment are evenly split across the following industries:

- E Water services
- G Wholesale retail trade
- H Transportation storage
- N Administrative and support services industries

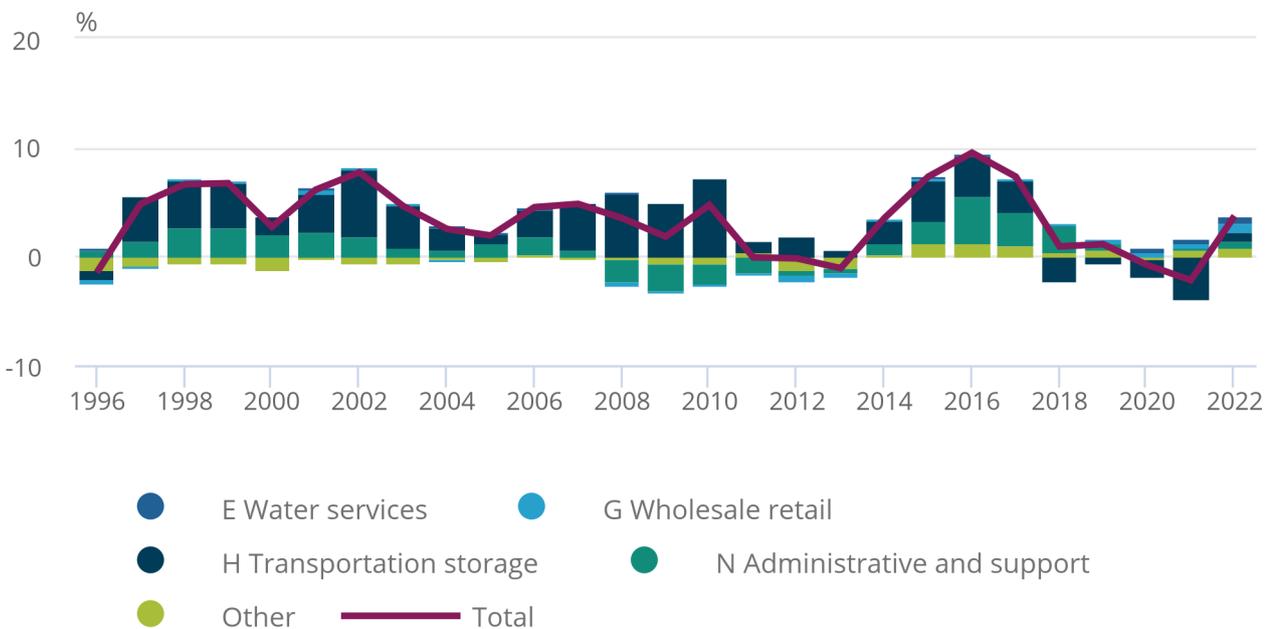
The rest are split across all other industries.

Figure 3: Net stock growth in transport equipment was evenly distributed across industries

Contributions to growth in net capital stock by industry of Transportation equipment, market sector, constant prices, 1996 to 2022

Figure 3: Net stock growth in transport equipment was evenly distributed across industries

Contributions to growth in net capital stock by industry of Transportation equipment, market sector, constant prices, 1996 to 2022



Source: Office for National Statistics

Growth in net capital stock of Transportation equipment from the transportation storage industry was driven by growth from the Water transport industry. Transport investment can be particularly volatile because of the high value of some transport equipment, such as ships and aircraft, so movements of this size are not unusual.

Figure 4: Water transport drove growth in Transportation equipment

Contributions to growth in net capital stock of Transportation equipment, industry H, market sector, constant prices, 1996 to 2022

Figure 4: Water transport drove growth in Transportation equipment

Contributions to growth in net capital stock of Transportation equipment, industry H, market sector, constant prices, 1996 to 2022



Source: Office for National Statistics

Dwellings

Between 2021 and 2022, dwellings continued to be the largest contributor to the overall net capital stock growth in the UK, contributing 0.7 percentage points. This period saw growth of 1.7%, the highest net capital growth since 2006 because of increased investment.

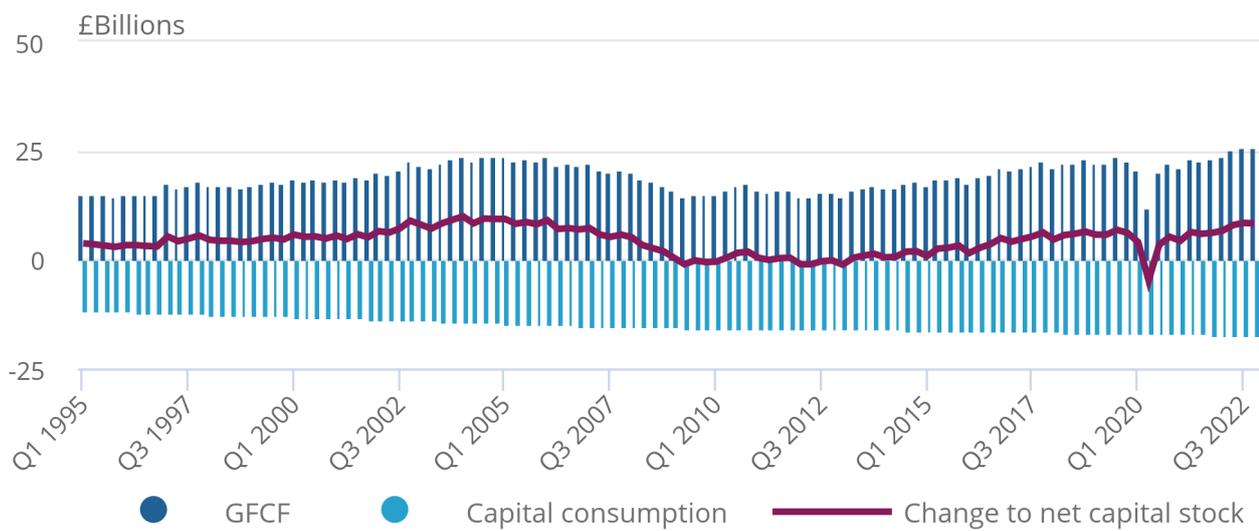
During 2022, investment rose at a faster rate than capital consumption, increasing the value of net capital stocks.

Figure 5: Investment in dwellings continued to grow in 2022

Additions to UK net capital stock for dwellings, constant prices, 1995 to 2022

Figure 5: Investment in dwellings continued to grow in 2022

Additions to UK net capital stock for dwellings, constant prices, 1995 to 2022



Source: Office for National Statistics

Notes:

1. The components of net capital stock growth do not always add to the total because of rounding or because chained volume measures data are not additive until the reference year.
2. Net capital stocks of other buildings and structures include buildings, other structures, and land improvements.

3 . Capital stocks and fixed capital consumption data

[Capital stocks and fixed capital consumption](#)

Dataset | Released 8 December 2023

Annual estimates of gross and net capital stocks and consumption of fixed capital in the UK, in current prices and chained volume measures.

[Perpetual inventory method \(PIM\) inputs](#)

Dataset | Released 8 December 2023

Input files to the perpetual inventory method (PIM) code. Data are consistent with our Preliminary capital stocks and fixed capital consumption dataset released on 14 August 2023.

4 . Glossary

Capital stock

Capital stock is the quantity of produced non-financial assets with a lifespan of more than a year (for example, buildings and machinery), which contribute to the production of goods and services, without being completely used up or transformed in the process. Capital stock produces a flow of capital services into the production process.

It is an important variable in multi-factor productivity, which looks at the efficiency with which an economy can transform inputs, such as labour and capital, into output.

The net capital stock is the gross capital stock (defined as the value of all fixed assets still in use at a point in time), less the consumption of fixed capital accrued up to that point. It takes into account the depreciation of the assets through time as a result of physical deterioration, foreseeable obsolescence or normal accidental damage.

Capital consumption

Capital consumption measures the loss of value of assets as they age. It is the decline 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.

5 . Measuring the data

Capital stock estimates are published in gross and net values. Consumption of fixed capital is the difference between gross and net stock in a particular period.

Capital stocks are also presented in current prices and chained volume measures (CVMs). CVMs reflect changes in volumes after removing price effects. For further information about the calculation of CVMs, our [Chain-linking methods used within the UK National Accounts methodology](#).

All CVM values in this bulletin are referenced to 2019. Analysis of contributions to growth of net stocks broken down by gross fixed capital formation (GFCF) and capital consumption are presented in constant prices with 2019 as the base year.

Changes in the real net capital stock from one period to another consist of increases to the net capital stock from GFCF and reductions from capital consumption and other changes in volume (for example, war losses). GFCF includes the acquisition of capital (minus disposals) plus expenditure on non-produced assets that are classified as land improvements.

Annual growth rates are calculated as compound annual growth rates.

The pre-downturn period refers to the years 1995 to 2008, while the post-downturn period refers to the years 2011 to 2019.

Quality

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in our [Capital stocks and fixed capital consumption Quality and Methodology Information \(QMI\)](#).

6 . Strengths and limitations

The capital stocks estimates are an important variable within the accumulation accounts, which show how the value of assets within an economy change over time.

Capital consumption will depend on the average life of each asset type. For assets such as dwellings, this means the value of the asset will slowly depreciate, having a weighted life of 50 years. By contrast, investment in software will depreciate more rapidly having a weighted life of 5 years. For further information on asset lives, see our [National Accounts articles: Changes to the capital stock estimation methods for Blue Book 2019](#).

Values of capital stock and consumption of fixed capital in this release have been revised since final 2021 estimates and the preliminary 2022 estimates.

Current price estimates of net capital stock are £158 billion higher (3.0%) in 2022 than those published in our [Preliminary capital stocks and fixed capital consumption dataset](#). Similarly, capital consumption has been revised up by 1.7%, or £6.5 billion, during the same period.

Most of the revisions from the 2022 edition of our [Capital stocks and fixed capital consumption dataset](#) are caused by revisions to gross fixed capital formation (GFCF). For further details on the revisions to UK estimates of GFCF in [Blue Book 2023](#), see our [Business investment in the UK: April to June 2023 revised results bulletin](#).

There have also been methodological improvements to the coefficients of variation. This has contributed to a revised increase in net capital stocks, and downward revisions to capital consumption.

For more information on the strengths and limitations of the data, see our [Capital stocks and fixed capital consumption Quality and Methodology Information \(QMI\)](#).

7 . Related links

[Experimental regional gross fixed capital formation \(GFCF\) estimates by asset type, UK: 1997 to 2022](#)

Article | Released 8 December 2023

Experimental regional gross fixed capital formation (GFCF) split by asset type, 1997 to 2022.

[Preliminary capital stocks and fixed capital consumption](#)

Dataset | Released 14 August 2023

Preliminary annual estimates of gross and net capital stocks and consumption of fixed capital in the UK, in current prices and chained volume measures.

[Capital stocks and fixed capital consumption](#)

Dataset | Released 23 January 2023

Preliminary annual estimates of gross and net capital stocks and consumption of fixed capital in the UK, in current prices and chained volume measures.

[Capital stocks and fixed capital consumption, UK: 2021](#)

Bulletin | Released 25 November 2021

Annual estimates of the value and types of non-financial assets used in the production of goods or services within the UK economy and their loss in value over time.

8 . Cite this statistical bulletin

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