

Statistical bulletin

Capital stocks and fixed capital consumption, UK: 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.



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Next release:
To be announced

Notice

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The [ONS advised users](#) that more time was required to produce a Blue Book 2022 consistent gross fixed capital formation (GFCF) dataset. This affected some data inputs used to produce [Capital stocks and consumption of fixed capital](#) and the [National balance sheet](#) estimates. We will continue to work with our data suppliers to resolve this and will update the release calendar when we will be able to make the data in these publications available.

In the interim period, we recommend users continue working with the [preliminary estimates](#), published by the ONS in May 2022, as the data sets are consistent with those found in the [Capital stocks and fixed capital consumption](#) and [National balance sheet](#).

For more information, please contact Media Relations Office: media.relations@ons.gov.uk

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1 . Main points

- Slow annual growth in the UK's net capital stock remained unrevised in 2020 at 0.6%, compared with an average annual growth rate since 2010 of 1.2%.
- Other buildings and structures grew at the slowest rate since 2012 at 1.3% in 2020, compared with 2.2% in 2019, though still contributed to over three quarters of net capital stock growth in the UK.
- Growth in the net capital stock of dwellings fell from 1.2% in 2019 to 0.7% in 2020, though still accounted for around 40% of the UK's net capital stock; this contrasts with stronger growth in previous years.
- Growth in machinery, equipment and weapons systems fell by 1.8% in 2020 and made a negative contribution of 0.3 percentage points to the UK's net capital stock growth in 2020; this was the largest fall in growth for machinery, equipment and weapons systems recorded.

This bulletin updates and replaces the [preliminary estimates](#) for 2020, which were published in April 2021.

2 . UK net capital stock

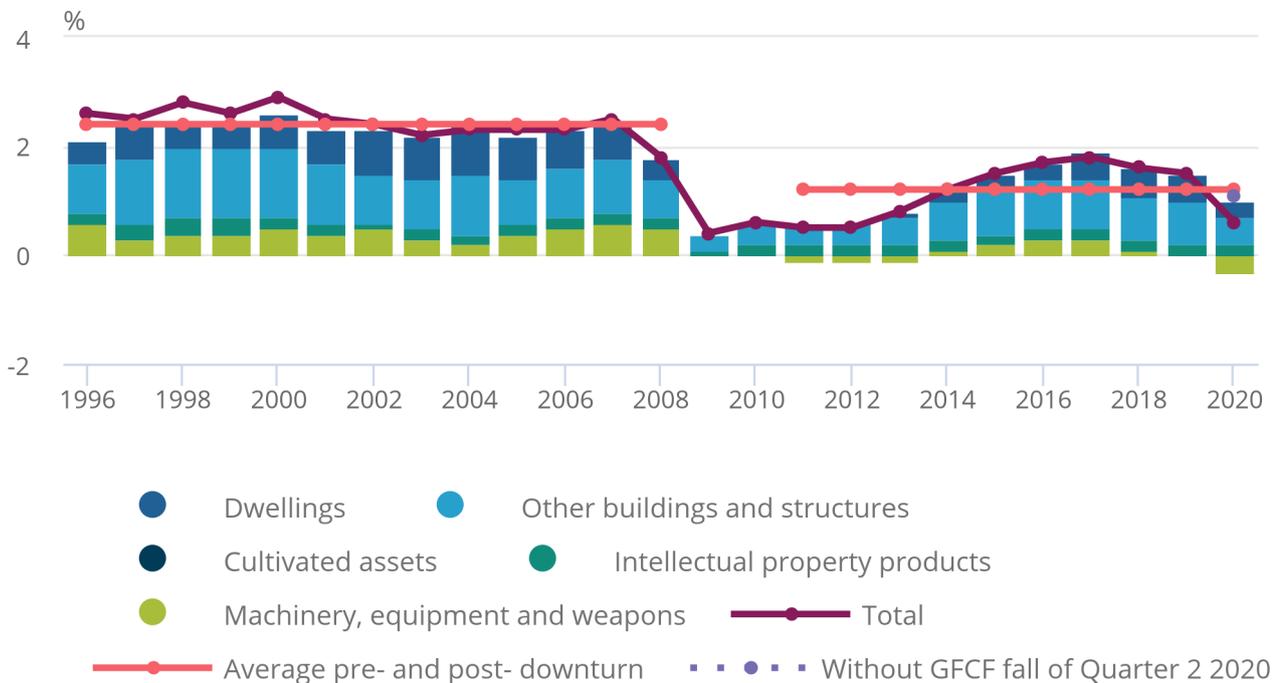
The UK's net capital stock grew by 0.6% to an estimated £4.6 trillion between 2019 and 2020. This has been the largest fall in growth recorded and equates to half the annual post-2008 global economic downturn growth. Excluding the fall in gross fixed capital formation during Quarter 2 (Apr to June) 2020, which was impacted by the first coronavirus (COVID-19) lockdown, growth in UK net capital stocks would have been an estimated 1.1% in 2020.

Figure 1: Fall in net capital stock growth across assets led to slow growth in 2020

Contributions to growth in UK net capital stock by asset, chained volume measures, 1996 to 2020

Figure 1: Fall in net capital stock growth across assets led to slow growth in 2020

Contributions to growth in UK net capital stock by asset, chained volume measures, 1996 to 2020



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.

Growth in most assets was slower during 2020 compared with 2019, partly because of low investment during lockdown in Quarter 2 2020. Other buildings and structures accounted for 80% of growth in the UK's net capital stock. Being the second-largest fixed asset in the economy, other buildings and structures has been the main driver of growth in net capital stock since the 2008 global economic downturn. Since 2010, net capital stock in other buildings and structures has increased from £1.5 trillion to £1.8 trillion in 2020. Growth in other buildings and structures was nearly 60% lower in 2020 compared with 2019 and has seen the slowest growth since 1996.

Dwellings, which accounted for around 40% of capital stocks in the UK, experienced slower growth of 0.7% during 2020; this was 0.5 percentage points lower than growth in 2019.

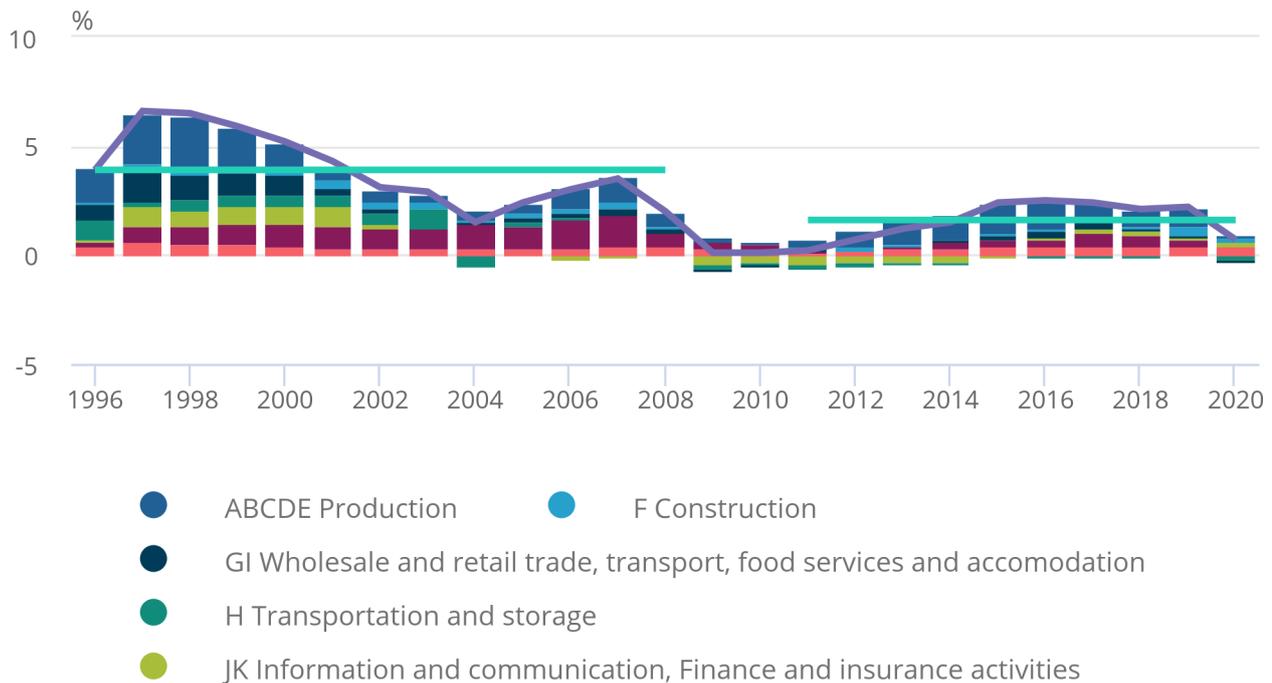
Growth in net capital stocks for machinery, equipment and weapon systems fell by 1.8% in 2020, following a period of weak growth in 2019.

Figure 2: Slower growth in other buildings and structures in the private sector, recorded across most industries, during 2020

Contributions of growth in UK net capital stock of other buildings and structures, private sector, constant prices, 1996 to 2020

Figure 2: Slower growth in other buildings and structures in the private sector, recorded across most industries, during 2020

Contributions of growth in UK net capital stock of other buildings and structures, private sector, constant prices, 1996 to 2020



Source: Office for National Statistics

Notes:

1. The components of net capital stock 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. Private sector excludes general government and public corporations.

Construction accounted for 43% of growth in other buildings and structures in the private sector during 2020.

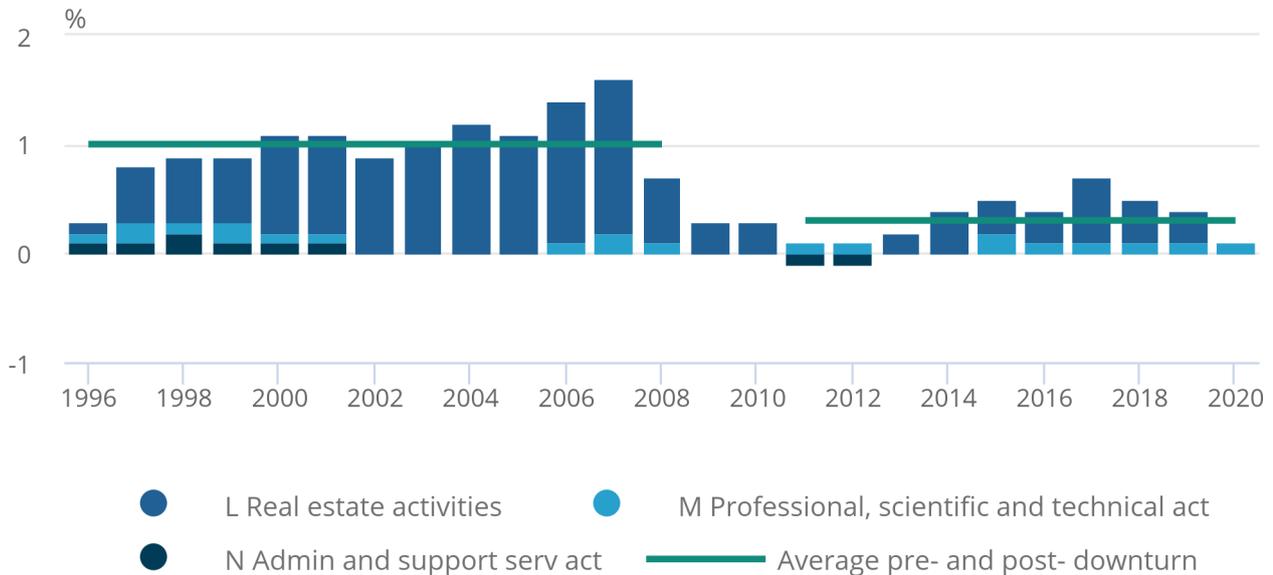
In contrast, real estate made no contribution to growth during the same period. Investment in office and retail buildings are likely to have been affected by the coronavirus pandemic.

Figure 3: Real estate made no contribution to net capital stocks of other buildings and structures in 2020

Contribution of growth in UK net capital stock of other buildings and structures from industries L, M and N, private sector, constant prices, 1996 to 2020

Figure 3: Real estate made no contribution to net capital stocks of other buildings and structures in 2020

Contribution of growth in UK net capital stock of other buildings and structures from industries L, M and N, private sector, constant prices, 1996 to 2020



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. Private sector excludes general government and public corporations.

3 . Growth in dwellings

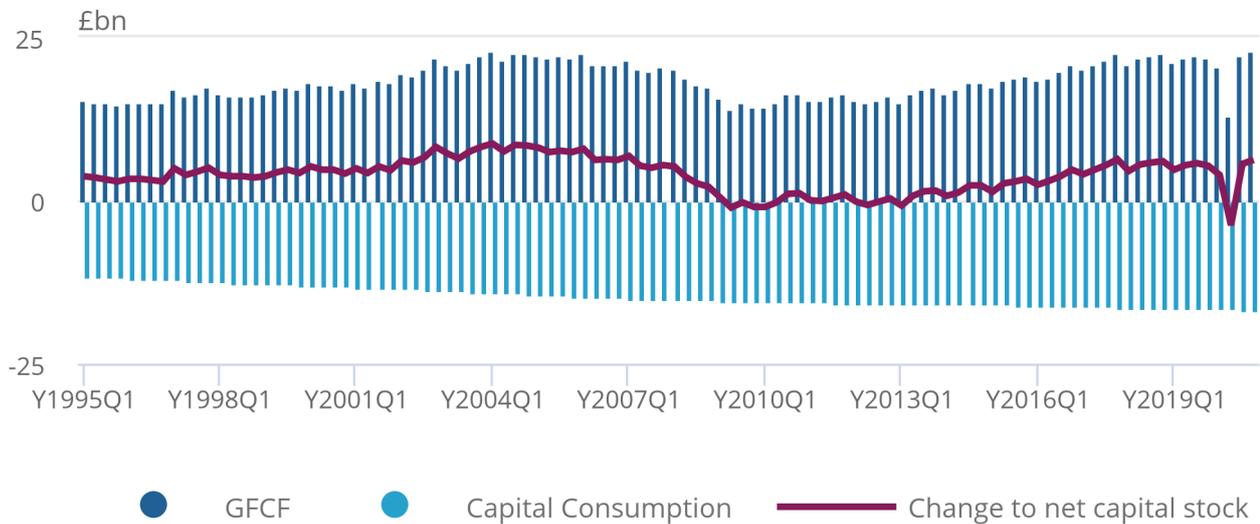
During 2020, capital investment in dwellings fell by more than 10%, while consumption of fixed capital increased by 0.6% during the same period. This resulted in additions to the net capital stock of dwellings falling from £21.1 billion in 2019 to £11.9 billion in 2020. The strongest fall was noted in Quarter 2 (Apr to June) 2020, during the coronavirus (COVID-19) lockdown, when consumption of fixed capital on dwellings outpaced investment for the first time since Quarter 1 (Jan to Mar) 2013.

Figure 4: Investment in dwellings fell to lowest level in Quarter 2 2020

Additions to UK net capital stock for dwellings, constant prices, 1995 to 2020

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Additions to UK net capital stock for dwellings, constant prices, 1995 to 2020



Source: Office for National Statistics

Notes:

1. The components of net capital stock do not always add to the total because of rounding.

4 . Machinery, equipment, and weapon systems

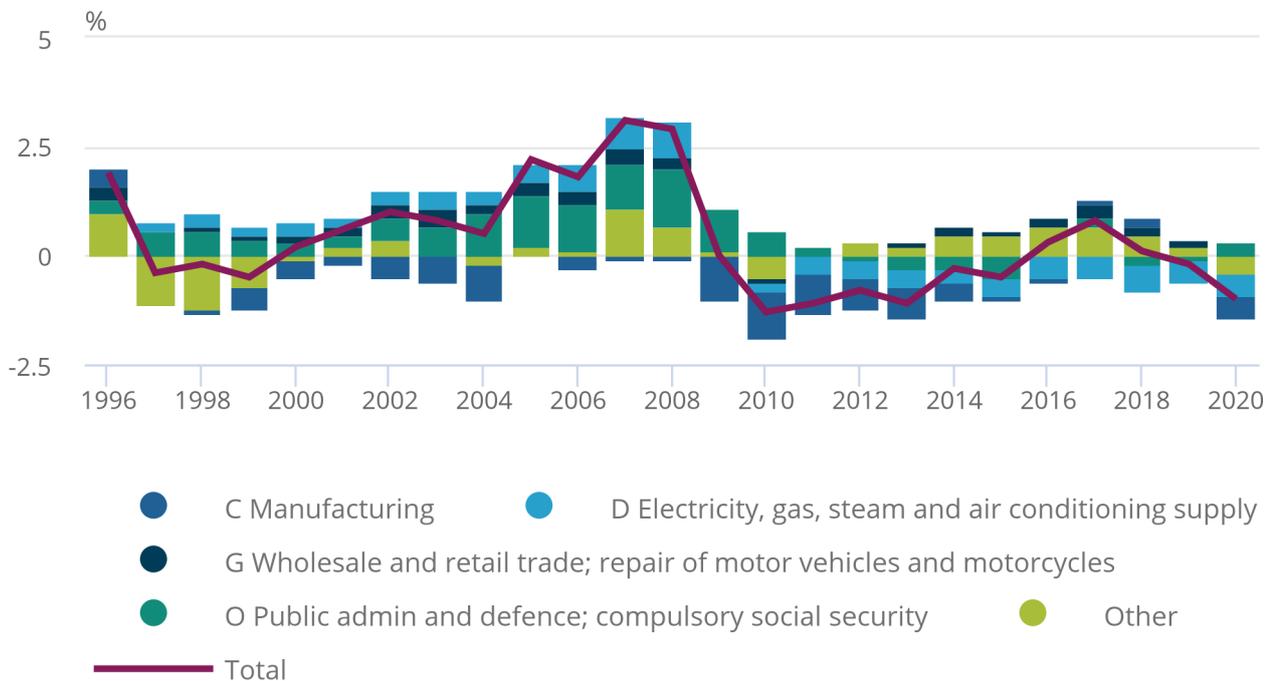
Net capital stocks in Machinery, equipment, and weapon systems fell by 1.8% in 2020 to £656 billion, making it the largest recorded fall. Despite increasing investment in other buildings and structures, the energy industry (D) has made negative contributions to growth in net capital stock of other machinery and equipment for the past 11 years.

Figure 5: Manufacturing and Energy industries drove the fall in net capital stocks for Machinery, equipment, and weapon systems

Growth in UK net capital stock of Machinery, equipment, and weapon systems, constant prices 1996 to 2020

Figure 5: Manufacturing and Energy industries drove the fall in net capital stocks for Machinery, equipment, and weapon systems

Growth in UK net capital stock of Machinery, equipment, and weapon systems, constant prices 1996 to 2020



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, ICT equipment, other machinery and equipment and weapons systems.

5 . UK capital stocks data

[Capital stocks and fixed capital consumption](#)

Dataset | Released 25 November 2021

Annual estimates of gross and net capital stocks and consumption of fixed capital in the UK, from 1995 to 2020, in current prices and chained volume measures.

6 . 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.

7 . Measuring the data

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

Capital stocks are also presented in current prices and chained volume measures (CVMs); the latter reflects changes in volumes after removing price effects. Further information about the calculation of CVMs can be found in [Chain-linking methods used within the UK National Accounts](#).

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.

References to the pre-downturn period refer to the years 1995 to 2008, while the post downturn period refer to the years 2010 to 2020.

More quality and methodology information is available in the [Capital stocks and fixed capital consumption QMI](#).

8 . 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 five years. Further information on asset lives can be found in [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 the [preliminary estimate](#). Revisions include annual survey data typically used to benchmark gross fixed capital formation (GFCF) estimates, improved methodologies using the financial services survey and revised deflators. We provide further information on [revisions to GFCF](#), including final supply use balanced GFCF estimates when calculating estimates of gross stock, net stock and consumption of fixed capital. The Blue Book production schedule was not able to accommodate GFCF supply use balanced estimates in the Perpetual Inventory Method.

Current price estimates of net capital stock are £60 billion, or 1.3%, lower in 2020 than those published in the [preliminary estimate](#). Similarly, capital consumption has been revised down by 0.6%, or £2 billion, during the same period.

More information on the strengths and limitations of the data can be found in the [Capital stocks and fixed capital consumption QMI](#).

9 . Related links

[The national balance sheet and capital stocks, preliminary estimates, UK: 2021](#)

Statistical bulletin | Released 29 April 2021

Preliminary annual estimates of the nation's net worth, by type of financial and non-financial asset for the UK. Includes estimates of produced assets used in the production process and their loss of value over time.

[The UK national balance sheet estimates: 2020](#)

Statistical bulletin | Released 1 December 2020

Annual estimates of the market value of financial and non-financial assets for the UK, providing a measure of the nation's wealth.

[National Accounts articles: Changes to the capital stock estimation methods for Blue Book 2019](#)

Article | Released 20 August 2019

Details the improvements to capital stock methods and estimates updated as part of the Blue Book 2019 to align our approach with the international best practices.

[National Accounts articles: Latest developments and changes to capital stocks to be implemented in Blue Book 2019](#)

Article | Released 30 August 2019

National Accounts article on the impact of method changes on capital stock estimates and estimates for the lives of assets in Blue Book 2019.

[Business investment in the UK: April to June 2021 revised results](#)

Statistical bulletin | Released 30 September 2021

Estimates of short-term indicators of investment in non-financial assets, business investment, and asset and sector breakdowns of total gross fixed capital formation.

[Productivity overview, UK: April to June 2021](#)

Article | Released 7 October 2021

The main findings from official statistics and analysis of UK productivity, presenting a summary of recent developments.

