Office for National Statistics

National Accounts Articles - Impact of ESA95 Changes on Current Price GDP Estimates

Abstract

This impact article details the latest estimate of the total impact of all the current price improvements planned for September 2014. The batch of articles being released on 29 May 2014 covers the extent of methodological changes that are being made in this year's Blue Book that have an impact on the level of Gross Domestic Product (GDP) but are not related to the introduction of the new National Accounts and Balance of Payments frameworks (European System of Accounts 2010/Balance of Payments Manual 6). This article details the latest estimates of the impact of the planned changes on selected key aggregates, further articles will follow.

Introduction

This is part of a series of articles describing changes to national accounts, detailing the improvements to National Accounts which will be made in September 2014 to ensure that the UK National Accounts continue to provide the best possible framework for analysing the UK economy and comparing it with those of other countries. That article also indicated that ONS would publish a series of articles setting out methodological details of the changes, topic by topic, and an indication of the impact of these changes.

Summary

The latest estimate of the total impact of all the improvements planned for September 2014 shows an increase in the level of GDP in current prices in 2009 of between 4% and 5%. At this stage the impact of the changes on the headline real GDP growth figure (the chained volume measure) is not available.

The batch of articles being released on 29 May 2014 cover the extent of methodological changes that are being made in this year's Blue Book that have an impact on the level of Gross Domestic Product (GDP) but are not related to the introduction of the new National Accounts and Balance of Payments frameworks (European System of Accounts 2010/Balance of Payments Manual 6). These new methods are provisionally estimated to account for around half of the total increase in the level of GDP in current prices raising it by around 2.3% in 2009, or around £33 billion. Over the period 1997-2009, the increase ranges from around 0.7% to 2.3% a year.

In addition to the announcement on 29 May 2014, the estimate of the impact of the ESA 2010 changes on current price GDP levels has been refined and is now between 2% and 3% in 2009. Previous estimates of the impact of the ESA 2010 changes, produced at an early stage of the process, showed a range of between 2.5% and 5%. Further details will be published on 10 June 2014.

Figures for 2010 and more recent years are not yet available. These are not processed until closer to the time of publication in order to take account of new data in the usual manner. They will also be affected by the rebasing of producer price indices (PPI and SPPI) from 2005 to 2010 prices. All figures will also be adjusted as a result of the change of base and reference years from 2010 to 2011.

Latest Estimates of the Impact on Key Aggregates

The latest estimates of the impact of the planned changes are shown in Table 1.

Table 1: Latest estimates of the impact of the planned changes on selected key aggregates

Indicator	Impact
Estimated impact of all changes to the level of GDP in current prices	Between +4% and +5% in 2009
Of which:	
Due to ESA 2010	Between +2% and +3% in 2009
Not related to ESA 2010	+£33 billion or +2.3% in 2009
	Between +0.7% and +2.3% a year in the period 1997 to 2009
Estimated impact of ESA 2010 change in the treatment of pensions on the Household Saving Ratio	Increase between 3 and 6 percentage points in each year over the period 1997 to 2010

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What is Being Released on 29 May 2014?

ONS is releasing details of the methodological changes that are being introduced that have an impact on the level of GDP as defined in the present European System of Accounts (ESA 1995). As shown in Table 1, these changes are provisionally estimated to add around £33 billion or 2.3% to the level of GDP in current prices in 2009.

The impact of these methodological changes in 2009 on the level of GDP in current prices is summarised in Table 2. Impacts on the level of GDP in other years between 1997 and 2009 will vary, particularly those relating to Gross Fixed Capital Formation (GFCF) and changes in inventories methods improvements, and will be published on 10 June 2014, together with the detailed methodologies for the ESA 2010 changes.

Table 2: Impact on the level of GDP in current prices

	Approximate impact in 2009	Range 1997 to 2009
Review of Non-Profit Institutions Serving Households (NPISH)	+£24 billion (1.7%)	Between £1 billion and £24 billion
Financial Intermediation Services Indirectly Measured (FISIM)	+£5 billion (0.4%)	Between 'less than £1 billion' and £6 billion
Illegal activities (drugs and prostitution)	+£10 billion (0.7%)	Between £7 billion and £11 billion
Household expenditure on new cars	Negligible	Negative and small in all years
Own-account construction	+£4 billion (0.3%)	Between 'less than £1 billion' and £4 billion
Exhaustiveness adjustments	Negligible	Negative and small in all years
Gross Fixed Capital Formation (GFCF) methods improvements	-£5 billion (-0.3%)	Between -£10 billion and +£6 billion
Change in Inventories methods improvements	-£4 billion (-0.3%)	Between -£4 billion and +£3 billion

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Individual Impacts of Non-ESA 2010 Changes

1. **Review of Non-Profit Institutions Serving Households (NPISH)**

A detailed review of sources and methods has been completed covering the NPISH sector. Further information can be found in the linked article published (109.6 Kb Pdf) on 29 May 2014. The impact

is likely to increase the level of GDP in current prices by around £24 billion for the year 2009. This is made up of two main changes:

+£14 billion to NPISH final consumption expenditure; and

+£10 billion to Household final consumption expenditure.

The annual revision to the level of final consumption expenditure by NPISHs is small between 1997 and 2000 (around £1 billion). From 2001 onwards, the size of revisions grows as the current method based on benchmarks and uprating factors became increasingly out-of-date. The introduction of an updated source with better coverage has resulted in stronger growth than previously in most years.

The review has in effect also raised the level of output of the NPISH sector, and in turn, the consumption of this output by households, which is reflected by the increase in household final consumption expenditure.

2. Financial Intermediation Services Indirectly Measured (FISIM)

ONS fully implemented the concept of FISIM into the UK National Accounts in Blue Book 2008. More recently, ONS in collaboration with the Bank of England have reviewed the FISIM methodology that was introduced. The European Regulation governing the production of the National Accounts is closely followed both in the calculation of FISIM and in the allocation of FISIM into user sectors. However, to come fully in line, ONS will be implementing a number of improvements. Firstly, the reference rates used in calculating current price FISIM have been changed, resulting in a new internal reference rate and a new external reference rate. Secondly, interbank FISIM has been removed following clarity in international statistical standards. In addition the level of 'import FISIM' has been reduced to bring it into line with published levels of overseas loans and deposits.

The impact of these changes is to increase the level of GDP in current prices in 2009 by £5 billion. In all years between 1997 and 2009 the impact ranges from close to zero to just under £6 billion.

A detailed description of the new sources and methods was published on 29 May 2014 in the linked article (85.8 Kb Pdf).

3. Illegal activities (drugs and prostitution)

The National Accounts that will be published in September 2014 will for the first time include illegal drugs and prostitution. The new estimates cover the import, production and sale of illegal drugs and the provision of prostitution services. They are based on a variety of sources and assumptions. A detailed description of the new sources and methods was published on 29 May 2014 in the linked article (251.9 Kb Pdf). The detailed calculations underpinning the figures for 2009 are given in annex A (53.5 Kb Excel sheet).

The inclusion of illegal drugs and prostitution is likely to increase the level of GDP in 2009 by around £10 billion, around £5.3 billion attributable to prostitution and £4.4 billion attributable to illegal drugs. In all years between 1997 and 2009 the impact ranges from £7 billion to £11 billion.

4. Household expenditure on New Cars

Around 2.5% of household final consumption expenditure is accounted for by the purchase of new cars. The current method uses list prices to estimate expenditure from the number of new registrations. The new method takes account of discounts that are negotiated and accessories that are included at the point of sale. Information on 'target price' (i.e the price that purchasers should hope to pay) published in the magazine 'What Car?' is used as the basis for the price paid with an estimate also made for any extras purchased at the point of sale. The impact of this new methodology is to reduce household expenditure on new cars by less than £1 billion in all years from 1997 to 2009.

A detailed description of the new sources and methods was published on 29 May 2014 in the linked article (105.1 Kb Pdf).

5. 'Own-Account Construction'

Own-account construction refers to the production of new dwellings and major repairs and improvements by enterprises and households for their own use. In the National Accounts, these are classified as gross fixed capital formation.

For output of own-account construction by private corporations, the calculation should include a 'mark up' in the valuation of the asset produced. The current method is based on calculating the value of the asset produced using the sum of costs.

For output of own-account construction by households, ONS is introducing a new method using a new data source. All data for own-account construction by households comes from a point estimate for 2006 by AMA Research, a private consultancy. This study provides estimates for output (the value of self-built houses), intermediate consumption (raw materials) and compensation of employees (labour costs). These values can be varied through time using as a volume index a series for the number of self-built houses based on HMRC tax data, and various price indices.

The impact of the new methods is to raise the level of GDP in current prices in 2009 by £4 billion. In all years between 1997 and 2009 the impact ranges from less than £1 billion to £4 billion.

A detailed description of the new sources and methods was published on 29 May 2014 in the linked article (105.1 Kb Pdf). The detailed calculations underpinning the figures for 2009 are given in annex B (53.5 Kb Excel sheet).

6. Exhaustiveness Adjustments

Measuring the Non-Observed Economy: A Handbook (OECD, 2002) notes that 'GDP estimates are said to be exhaustive when they include all production activities within the System of National Accounts production boundary'. A review of the methods to ensure exhaustiveness in the UK National Accounts has been carried out including examination of the existing adjustments.

A detailed description of the new sources and methods was published on 29 May 2014 in the linked article (105.1 Kb Pdf). The new methods lead to lower household final consumption expenditure on gambling and digital TV offset in the later years by increased expenditure on fuel. The total impact is small and negative in all years between 1997 and 2009.

7. Gross Fixed Capital Formation Methods Improvements

There are two key improvements that have been made to the methods for calculating GFCF that are not related to the introduction of ESA 2010. In response to user feedback following the changes to GFCF made in Blue Book 2013, a new method has been introduced in respect of allocating some annual adjustments to quarters. This has the effect of reducing the volatility in the current quarterly series. In addition, there has been a review of the conversion of survey data from Standard Industrial Classification 2003 (SIC03) to SIC07. The conversion of survey data, initially carried out in 2011, when the reclassification was introduced, has been re-estimated, as a longer time series of data collected on a SIC07 basis is now available. This has had an impact on the industry and asset breakdowns for GFCF, and a limited impact on the implied deflators.

The impact of these changes is to reduce the level of current price GDP in 2009 by a little under £5 billion, although the impact is different depending on the year. Between 1997 and 2009, the impact ranges from -£10 billion to +£6 billion.

A detailed description of the new sources and methods was published on 29 May 2014 in the linked article (157.8 Kb Pdf).

8. Change in Inventories Methods Improvements

The revision to changes in inventories is as a result of introducing improved methodologies to meet user needs. This change for Blue Book 2014 was announced in the article GDP Continuous Improvement: summary of improvements to the estimation of changes in inventories in the UK National Accounts (200.8 Kb Pdf), published in March 2013.

ONS has undertaken a significant programme of work to improve estimation of changes in inventories. Some improvements were already implemented in Blue Book 2013. The two remaining improvements to be implemented for Blue Book 2014 are:

- that deflation will take place at a detailed industry level, using a full set of industry deflators. These replace the forecast implied deflators in use since Blue Book 2011 and complete the full set of improvements begun in Blue Book 2013. This has a significant impact on the implied deflator and volume measures for inventories; and
- in line with international standards, changes in inventories and holding gains will no longer be adjusted as part of the supply and use balancing process. This has an impact on the current prices series.

A detailed description of the new sources and methods was published on 29 May 2014 in the linked article (114.8 Kb Pdf).

The impact of these revised methods to inventories is to lower the level of GDP in current prices by around £4 billion in 2009. In all years between 1997 and 2009, the impact ranges from -£4 billion to +£3 billion.

Plans for Future Updates

The article of 16 May 2014 informed users that ONS planned to give information about the methods used and the likely scale of the impact on the key economic aggregates at the earliest opportunity. Users will have this information well before publication of the full set of accounts in September. The next update on the impact of the changes is scheduled for 10 June 2014 when it is planned to describe the detailed methodologies underlying the ESA 2010 changes. That article will give the overall impact of all changes, ESA 2010 and non-ESA 2010, on the level of GDP in current prices for each year 1997-2009. The impact on the headline real GDP growth figures will be included in the article scheduled for around the end of June/early July.

Future scheduled release dates are shown in Table 3.

Table 3: Release dates for future articles

Release date	Topic
10 June 2014	Impact of detailed methods changes to the level of GDP at current prices arising from ESA 2010/ BPM6. This article will also include the impact of all of the planned changes on the level of GDP at current prices for years 1997 to 2009.
Late June/Early July 2014	Impact of detailed methods changes that affect real GDP; Impact of detailed methods changes that affect the sector accounts and balance of payments. This article will include the impact of all of the planned changes on headline real GDP growth in the years 1997 to 2009.
10 July 2014 (prov)	International comparisons of impacts
July/August 2014	Additional articles on the impacts of changes (tbc)
30 September 2014	Publication of quarterly National Accounts data consistent with Blue Book and Pink Book 2014
31 October 2014	Publication of Blue Book and Pink Book 2014

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Background notes

1. Details of the policy governing the release of new data are available by visiting www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html or from the Media Relations Office email: media.relations@ons.gsi.gov.uk

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