Office for National Statistics

Article

National Accounts articles: Detailed assessment of changes to balance of payments annual estimates, 1997 to 2015

Forthcoming changes and their indicative impact on main balance of payments and international investment position (IIP) estimates, to be introduced when revised figures for the UK National Accounts and Balance of Payments, consistent with Blue Book 2017 and Pink Book 2017, are published on 29 September 2017.

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Table of contents

1 . Executive summary

This article provides details of forthcoming changes and their indicative impact on the main balance of payments and international investment position estimates. These changes will be introduced when revised figures for the UK National Accounts and Balance of Payments, consistent with Blue Book 2017 and Pink Book 2017, are published on 29 September 2017.

We have previously published an article explaining changes and their impact on balance of payments and international investment position estimates for the period 1997 to 2012:

National Accounts articles: Detailed assessment of changes to Balance of Payments annual estimates, 1997 to 2012, published on 5 June 2017.

The tables, charts and commentary have been extended from the previously published impact article to include impact estimates for the years 2013 to 2015 and updated to include the very latest indicative estimates for the period 1997 to 2012.

We have also included indicative revisions for trade geographic data, including the 10 largest country revisions to exports and imports in 2014.

This article also includes information on the latest average absolute revision of gross national income (GNI) and the impact of changes being introduced across the UK's National Accounts, Balance of Payments and trade.

2 . Introduction

On 29 September 2017, we will publish revised figures for the UK National Accounts and Balance of Payments. This article is part of a series describing changes and improvements to the UK's National Accounts and Balance of Payments. Changes will be made in line with international standards adopted by all European Union (EU) member states and with worldwide best practice. These, as well as additional improvements that are being made, will ensure that our National Accounts and Balance of Payments continue to provide a reliable framework for analysing the UK economy and for making international comparisons.

There are a number of changes and improvements being implemented, with the largest revisions caused by the corporate bonds interest, separating estimates for the household and non-profit institutions serving household sectors and incorporation of new source data for securities dealers. These changes are explained in detail in Section 4.

The changes and improvements due to be made in September 2017 can be split into two categories:

1. classification changes and continued improvements following European System of Accounts 2010: ESA 2010[1] international standards, which are to be incorporated into the UK National Accounts and Balance of Payments publications
2. other regular improvements, methodological changes and corrections

The remainder of this article is structured as follows:

- Section 3 – provides the indicative overall revision to main aggregates in the balance of payments and international investment position; these indicative figures include both changes as a result of the implementation of new methods and normal revisions that would be expected as part of the Pink Book (Balance of Payments annual publication) compilation process

- Section 4 – explains the methodological changes and their impacts

- Section 5 – provides indicative annual revisions of the trade balance, primary income balance and current account balance

- Section 6 – provides indicative annual revisions of the financial account balance and international investment position

- Section 7 – provides indicative annual revisions of the UK's gross national income for the period 1997 to 2015

Throughout the article, data are presented to the nearest pound billion.

Notes for: Introduction

1. The European System of Accounts.

3 . Summary of indicative impact on main aggregates

Table 1 provides an indicative impact that changes will have on the balance of payments and international investment position in £ billions.

Table 1: Summary of indicative revisions on annual data between previously published data and indicative Pink Book 2017 data, 1997 to 2015 (£ billion) UK

£ billion	1997 to 2015				2015		
	Largest downward revision	Largest upward revision	Average annual revision	Average absolute annual revision	Previously published value	Indicative value in Pink Book 2017	Revision 1
Trade balance	-3	4	0.8	1.2	-30	-32	-3
Primary income balance	-26	0	-11.7	11.8	-26	-43	-17
Secondary income balance	0	2	0.8	0.8	-25	-23	2
Current account balance	-21	1	-10.1	10.1	-80	-98	-18
Financial account balance	-42	16	-14.2	17.2	-67	-91	-24
Net International Investment Position	-261	125	10.3	88.5	-86	-347	-261

Source: Office for National Statistics

Notes:

1. Change in values may not sum to revision due to rounding.

Table 2 provides an indicative impact that changes will have on the balance of payments, as a percentage of nominal gross domestic product (GDP).

Table 2: Summary of indicative revisions as a percentage of GDP between previously published data and indicative data (consistent with Pink Book 2017), 1997 to 2015 (percentage of gross domestic product), UK

% of GDP	1997 to 2015		2015	
	Largest downward revision	Largest upward revision	Previously Published Value	Indicative Value in Pink Book 2017
Trade Balance	-0.1	0.3	-1.6	-1.7
Primary Income Balance	-1.6	0	-1.4	-2.3
Secondary Income Balance	0	0.1	-1.3	-1.2
Current Account Balance	-1.4	0.1	-4.3	-5.2

Source: Office for National Statistics

4 . Summary of the indicative impact of individual methodological changes

Revisions throughout the published time series are likely as a result of implementing the improvements described in this article. Revisions between 1997 and 2012 will normally be due to methods changes. Years 2013 to 2015 are also fully open for revision to incorporate new data from sources.

The text in this section summarises the main closed period changes and the revisions with the largest impact that will be introduced into the balance of payments and international investment position (IIP). For those changes affecting the current account, indicative impacts on the trade balance, primary income balance and secondary income balance are presented. Indicative impacts for the financial account and the IIP are not presented due to the linkages within individual transactions making it difficult to isolate the individual method changes. All estimates presented remain subject to further quality assurance before publication at the end of September; therefore they should be treated as indicative.

4.1 Corporate bonds interest

As previously announced, we are making improvements to the way we calculate interest paid to the holders of UK corporate bonds. The improved method increases the amount of interest paid on UK-issued corporate bonds and gives improved estimates of rates of return on corporate bonds, when compared with government bonds (gilts). A more detailed description of the change can be found in this article Improvements to the treatment of corporate bonds interest, published on 19 April 2017.

As a significant proportion of the interest is paid to non-resident holders of UK corporate bonds, the amount of income earned on foreign investment in the UK (debits) will increase, leading to a widening of the current account deficit.

The range of revisions (rounded to one decimal place) is between:

- the primary income balance – £0.0 and negative £26.3 billion

4.2 Bond redemptions

In the 19 April 2017 article, we announced an improvement in the treatment of corporate bond redemptions. Bonds are redeemed when the holder is repaid the face value (principal) of the bond. Most bonds are issued with a specified date (the maturity date) when this will occur, although bonds can be redeemed before this, for example by the issuer repurchasing the bond.

We determined that bond redemptions particularly those issued by private non-financial corporations and other financial institutions, were being unrecorded. For Pink Book 2017 we are using Bank of England data to better estimate corporate bond redemptions. Increasing bond redemptions decreases net bond liability issuance by these sectors and bond asset flows for the rest of the world. This change has little impact on corporate bond levels because listed bond levels and flows are estimated separately in the UK National Accounts.

The range of revisions (rounded to one decimal place) is between:

- the primary income balance – £0.0 and negative £0.2 billion

4.3 Separating estimates for the household and non-profit institutions serving households sectors

As previously announced, splitting the household (HH) and non-profit institutions serving households (NPISH) sectors has also led to the addition of new data sources into the measurements. For a more detailed description of these significant improvements and the new source data included in this improvement please see this article Improving the household, private non-financial corporations and non-profit institutions serving household sectors' non-financial accounts, published on 19 April 2017. We have noted that from 2016 onwards changes to dividends tax policy will need to be built into the method. This will be expanded in the final BB17 impact article on 29 September 2017.

The new source data results in an increase in UK earnings on investment abroad. As a result, income earned has risen and is reflected in greater earnings in the primary income account. Subsequently, the HH and NPISH sectorisation work narrows the current account deficit.

Meanwhile, the new source data have resulted in both an increase in some years and a decrease in others in the financial account balance, albeit mainly positive, while the new source data have had a positive impact on the international investment position.

We have also added new source data to miscellaneous current transfers. Miscellaneous current transfers are split into three sub-sectors: current transfers to NPISH; current transfers between households and other miscellaneous current transfers. For each of the three sub-sectors new sources have been added, an example for the first sub-sector is new source data for the charity part of NPISH, which now comes from the National Council for Voluntary Organisations (NCVO).

For more information of new data sources please see this article Improving the household, private non-financial corporations and non-profit institutions serving household sectors' non-financial accounts. This has resulted in additional miscellaneous current transfers received by the UK from the rest of the world. In the balance of payments, this narrows the current account deficit due to increases in secondary income transfers from abroad.

The ranges of revisions (rounded to one decimal place) are between:

- the primary income balance – negative £0.8 and £3.9 billion
- the secondary income balance – £0.1 and £2.0 billion
- the current account balance – negative £0.6 and £5.5 billion

Other impacts:

- financial account
- international investment position

4.4 Incorporation of new source data for securities dealers

Improvements to data collected using updated survey questionnaires for the financial sector have been undertaken. The Securities Dealers' Survey is the first of a series of new, comprehensively revised surveys introduced in Quarter 1 (Jan to Mar) 2015 but only now incorporated into the national accounts and balance of payments.

While the new survey data starts in 2015, a full time series has been estimated for consistency in the accounts and to avoid step changes, hence the impact to the years 1997 to 2012. The survey collects, among other things, information on securities dealers' assets, liabilities, income and expenditure. The new surveys provide a more detailed breakdown of financial transactions, thereby offering us a new understanding of the securities dealers industry and previously returned estimates.

This change will narrow the current account, as the revisions to the primary income account will increase the surplus. Meanwhile, the securities dealers change will have both a negative impact in some years and a positive impact in other years on the financial account, albeit the revisions are mainly negative. However, the change will have a mainly positive impact on the international investment position.

The range of revisions (rounded to one decimal place) is between:

- the primary income balance – negative £1.6 and £3.7 billion

Other impacts:

- financial account
- international investment position

4.4.1 Securities dealers – spread earnings

We have also improved the allocation of securities dealers' spread earnings. Spread earnings are considered in the national accounts to be charges paid by consumers for the services provided by securities dealers. More information can be found in the [UK Flow of Funds Project, methods article on financial sub-sectorisation and the introduction of the new securities dealers survey data]. While the total amount of spread earnings charged to consumers has not changed, better data from the Financial Conduct Authority has meant that the method for establishing who is paying for these services has been improved. This improvement in data sourcing increases UK trade in services (exports) and narrows the current account deficit.

The range of revisions (rounded to one decimal place) is between:

- the trade balance – £0.1 and £0.6 billion

The range of revisions caused by the changes described in both paragraphs 4.4 and 4.4.1 (rounded) is between:

- the current account balance – negative £1.4 and £3.7 billion

4.5 Share ownership benchmark

Dividend receipts are allocated to sectors according to the number of shares they hold, and these allocations are determined by the Share Ownership Survey benchmarks.

The benchmarks were last updated in 2012, when the 2010 Share Ownership Survey was available. Since that time, we have run the 2012 and 2014 Share Ownership Surveys and reprocessed the 2010 survey. The early benchmarks' results suggest that the rest of the world held more UK-issued shares than currently thought, therefore increasing their allocations of dividends paid and leading to the widening of the current account deficit and decreasing gross national income (GNI). The revision has also led to negative revisions on the international investment position.

The range of revisions (rounded to one decimal place) is:

- the primary income balance – up to negative £6.2 billion

Other impacts:

- international investment position

4.6 Dividends payments processing correction

The dividends payments processing correction covers improvements to address the following:

- incorrect timing – an issue where the current process uses an incorrect date to capture dividends data; investigations found that not all dividends were being recorded at the point of ex-dividend, this leads to a shift in the payment pattern rather than the under- or over-payment of dividends
- missing cases – where instances of dividends that were not recorded in the dataset have now been included
- double-counting – a small number of dividends were duplicated due to them being announced more than once

This impacts the amount of foreign earnings on investments in the UK, with earnings mostly increasing therefore widening the current account deficit and decreasing GNI.

The range of revisions (rounded to one decimal place) is between:

- the primary income balance – negative £0.4 and negative £5.9 billion

4.7 Education services

Research has found that the International Passenger Survey (IPS) underestimates higher education and further education tuition fees. Therefore, tuition fees data from the Higher Education Statistics Agency (HESA) will be used to solve this. This will impact education services within trade in services and lead to an increase in exports for all periods and a narrowing of the current account deficit.

The range of revisions (rounded to one decimal place) is:

- trade balance – up to £2.1 billion

4.8 Lighthouse duties

Light Dues, which are charges paid by ships calling at ports in the UK, are no longer considered the provision of a service, so will not be recorded in the trade figures as an export of a transport service. This follows a discussion with the EU's statistical body, Eurostat, to treat Light Dues as a tax on production owing to its compulsory, redistributive nature. Therefore, trade in services declines, which leads to a widening of the current account deficit.

Decreases trade in services by less than £0.1 billion.

4.9 Households' imputed rental

Improvements to how imputed rental is being calculated have been implemented. They include improvements to the way that non-calendar year data for housing stocks and rental prices are mapped to calendar years. For more information on this change, please see this article, Changes to National Accounts: actual rentals and imputed rentals.

Overall, these changes have had little impact on the balance of payments, with trade in services decreasing slightly and a widening of the current account.

Decreases trade in services by less than £0.3 billion.

4.10 Government other current transfers review

Some of the member states within the EU are reclassifying rebates on their GNI contributions to the EU budget to a negative expenditure. Therefore, the UK's rebate on its GNI contribution, which is recorded in the national accounts as a "current international cooperation" resource, will be moved to a negative expenditure in the "GNI-based fourth EU own resources".

This is just a presentational change to secondary income, therefore there is no impact on the current account.

4.11 Trade in goods revisions – smuggling

New data for the number of users for individual drugs from the Crime Survey for England and Wales (CSEW) have been incorporated into our estimates of illegal activities. The data mainly replaces modelled estimates between 2000 and 2005.

The inclusions lead to a range of positive and negative revisions to the trade balance.

The range of revisions (rounded to one decimal place) is between:

- trade balance – negative £0.3 and £2.2 billion

4.12 FDI benchmarking

The balance of payments utilises information from quarterly Foreign Direct Investment (FDI) and annual FDI surveys. In the short-term, the quarterly survey is used within the balance of payments and then later revised when the more comprehensive annual survey data become available, known as the FDI benchmark process. This benchmark process is an annual reconciliation between the quarterly and annual surveys utilised in the production of FDI data.

The quarterly survey for outward and inward FDI has 680 and 970 sampled enterprise groups respectively; these increase to 2,100 and 3,500 enterprise groups respectively on an annual basis. The increased sample size and responses being taken from audited annual accounts, rather than quarterly management accounts, can result in revisions. This annual process ensures that the balance of payments and annual foreign direct investment publications are coherent.

These annual FDI revised estimates for the year 2014 will be incorporated into the Balance of Payments release on 29 September 2017.

The range of revisions is:

- the primary account – £7.2 billion in 2014

Other impacts:

- the financial account
- the international investment position

5 . Analysis of impact on the current account

5.1 Definition of main current account aggregates

The current account includes debit and credit transactions relating to trade in goods and services, primary income and secondary income. Credits are income or transfers receivable by the UK and UK exports. Debits are income or transfers payable by the UK and UK imports. The main indicators in this account are the:

- trade balance, which shows the balance of exports and imports of goods and services traded between UK residents and non-residents
- primary income balance, which shows the income earned by UK residents from non-residents and income earned by non-residents from UK residents; this income is further broken down into compensation of employees (wages, salaries and other benefits earned by individuals), investment income (income earned from the provision of financial capital and income earned on reserve assets) and other primary income (covers earnings from rent and taxes, and subsidies on production and on the import of goods)
- secondary income balance, which represents the provision (or receipt) of an economic value by one party without directly receiving (or providing) a counterpart item of economic value
- current account balance, which is the summation of the trade balance, the primary income balance and the secondary income balance

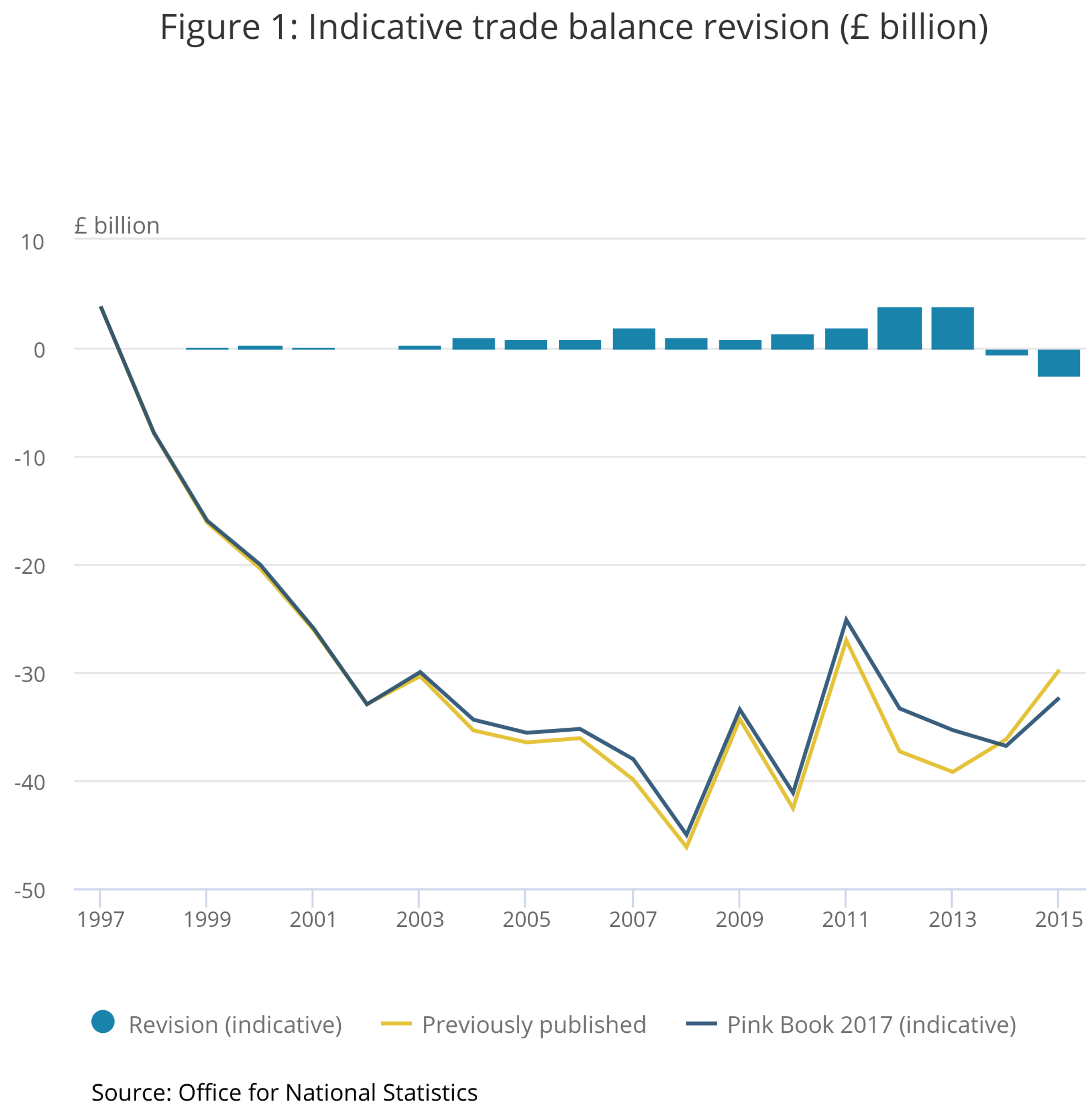
5.2 Indicative impact on main current account aggregates

5.2.1 Trade balance

The lines in Figure 1 show the level of the trade balance in published data and the Pink Book 2017 indicative balance, while the bars show the differences between the two lines (or indicative revision).

Revisions to trade are relatively small (as seen in Figure 1) with the revisions being generally positive throughout 1997 to 2015. The biggest revision is in 2012 (£4.0 billion), with the inclusion of tuition fees having the greatest impact, followed by the inclusion of drugs data into the estimates of illegal activities.

Figure 1: Indicative trade balance revision (£ billion)



Source: Office for National Statistics

A number of revisions are also expected at the geography level and these are outlined in this section.

Trade in goods

Table 3 shows the 10 largest country revisions to exports and imports of goods in 2014 and their respective rankings in Pink Book 2017 compared with Pink Book 2016. These country revisions are a result of revisions to total trade in goods and revised data from Her Majesty's Revenue and Customs (HMRC) excluding non-monetary gold.

As explained in a previous article, since 2014 (under European System of Accounts 2010 and Balance of Payments BPM6 manual[1] regulations) non-monetary gold is measured as a component of trade in goods ; it also appears within gross capital formation (GCF) as valuables.

The initial data supplied by HMRC for the first half of 2014 had non-monetary gold included with other trade in goods data. However, trade in non-monetary gold is measured very differently by HMRC and Office for National Statistics (ONS). HMRC overseas trade statistics (OTS) are based on the physical movement of non-monetary gold, but ONS balance of payments statistics measure the change in economic ownership. We need to exclude these non-monetary gold estimates and supplement with non-monetary gold data from a stronger source for change of ownership (provided by the Bank of England).

For the first half of 2014, ONS were not able to produce geographical data with non-monetary gold excluded so the estimate for exports to each country was derived by pro-rating the global exports using the geographical breakdown for 2013 (before non-monetary gold was classified as trade in goods and collected by HMRC). We have now received data from HMRC completely excluding non-monetary gold and are publishing revised estimates for 2014 in Pink Book 2017.

Table 3: 10 largest country revisions to exports and imports of goods in 2014

Exports				Imports			
Country	Revision	Pink Book 2017 Rank	Pink Book 2016 Rank	Country	Revision	Pink Book 2017 Rank	Pink Book 2016 Rank
Switzerland	-4517	12	8	Norway	-2878	9	7
Germany	+1651	2	2	Canada	-2269	19	17
United States of America	+1609	1	1	Spain	+2108	8	9
Netherlands	+1584	3	3	Germany	+1097	1	1
Hong Kong	-1382	15	11	South Korea	+900	22	23
South Korea	-1270	17	14	Qatar	+894	37	43
Saudi Arabia	+1168	14	19	Belgium & Luxembourg	+868	6	6
India	-1076	13	12	Switzerland	+834	11	12
Irish Republic	+928	5	5	United States of America	+688	4	4
Canada	+815	20	24	Singapore	-592	32	25

Source: Office for National Statistics

Trade in services

Table 4 shows the 10 largest country revisions to exports and imports of services in 2014 and their respective rankings in Pink Book 2017 compared with Pink Book 2016. These country revisions are a result of revisions to total trade in services and updated country allocations.

Table 4: 10 largest country revisions to exports and imports of services in 2014

Exports				Imports			
Country	Revision	Pink Book 2017 Rank	Pink Book 2016 Rank	Country	Revision	Pink Book 2017 Rank	Pink Book 2016 Rank
France	+2961	2	4	Norway	+625	17	27
Netherlands	-1342	4	3	Spain	+584	3	3
United Arab Emirates	+1114	13	22	France	+558	2	2
Cayman Islands	-891	25	20	Switzerland	-474	9	9
Kazakhstan	-672	44	32	Hong Kong	-425	23	16
United States of America	+512	1	1	United Arab Emirates	+322	21	23
Peru	+462	51	88	Ireland	+235	5	5
Bermuda	-458	39	34	Lebanon	+192	56	75
Switzerland	+377	5	5	Azerbaijan	+173	59	79
Afghanistan	-357	64	45	Germany	-154	4	4

Source: Office for National Statistics

An error in the allocation of trade in exports and imports of services for 2014, as published in Pink Book 2016, was identified for Mexico, where a proportion of UK trade with Mexico had been wrongly assigned to the category “Other Central American Countries”. Table 5 shows the revisions to Mexico in 2014 for Pink Book 2017, including the impact of revisions to total trade in services.

Table 5: Revisions to Mexico in 2014

Exports of Services	+217
Imports of Services	+44

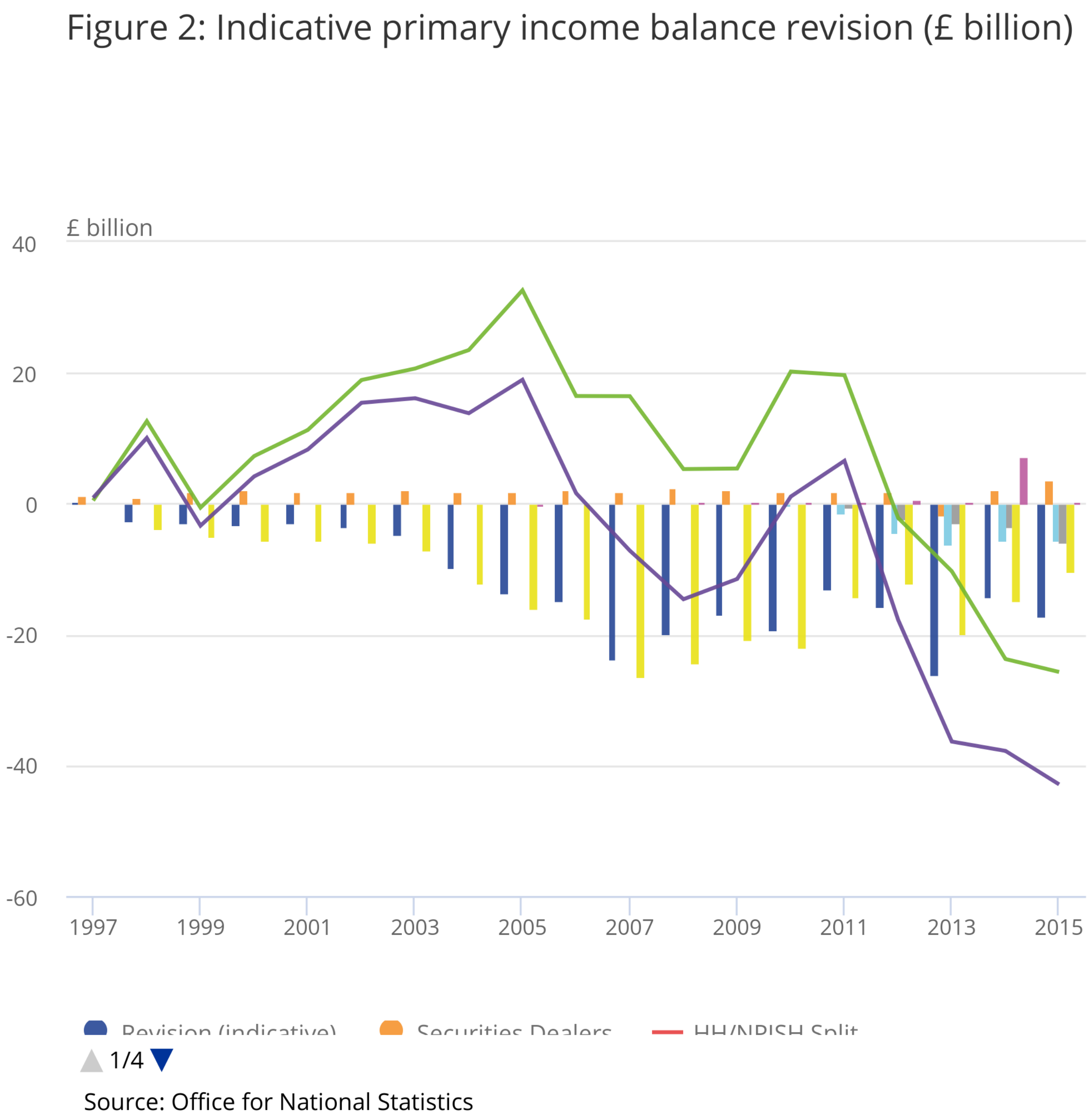
Source: Office for National Statistics

5.2.2 Primary income balance

The lines in Figure 2 show the level of the primary income balance in published data and the Pink Book 2017 indicative balance. The total revision is also shown along with the impacts of the securities dealers change, the previously announced household and non-profit institutions serving households split, share ownership benchmarking changes, corporate bonds interest change and other changes.

Revisions to total primary income between 1997 and 2015 are all negative apart from a slight increase in 1997 with the previously published change in corporate bonds having a negative impact on the primary income balance and outweighing the increases caused by the other impacts.

Figure 2: Indicative primary income balance revision (£ billion)



Source: Office for National Statistics

Notes:

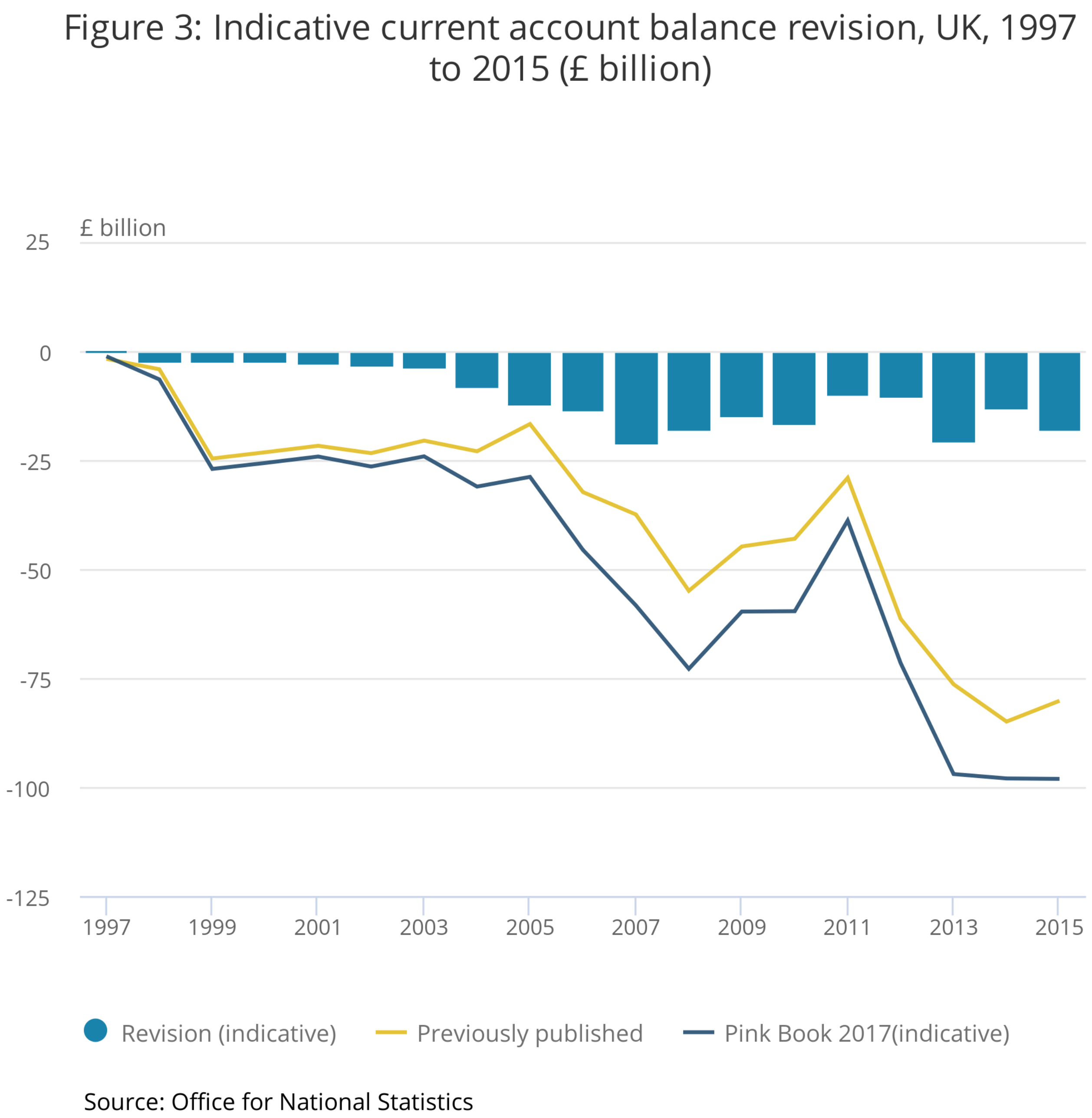
1. Other changes include bond redemption, FDI benchmarking and late and updated source data.

5.2.3 Current account balance

Figure 3 shows the level of the current account balance in published data and the Pink Book 2017 indicative balance.

The revisions between 1997 and 2015 are mostly negative with the only exception of a slight increase in 1997. The revisions up to and including 2003 are relatively small (up to negative £3.6 billion). After 2004, the revisions become larger, reflecting the greater revisions in the primary income and secondary income accounts.

Figure 3: Indicative current account balance revision, UK, 1997 to 2015 (£ billion)



Source: Office for National Statistics

Notes for: Analysis of impact on the current account

1. Balance of payments manual.

6 . Analysis of impact on the financial account and the international investment position

6.1 Definition of main financial account and international investment position aggregates

The financial account includes transactions (flows) associated with changes of economic ownership of the financial assets and liabilities. The financial account balance shows the net position of these flows between the UK and the Rest of the World.

The international investment position (IIP) measures the UK's stock (levels) of external financial assets and liabilities. A positive net IIP indicates that assets exceed liabilities, while a negative figure indicates that liabilities exceed assets.

6.2 Indicative impact on the main financial account and international investment position aggregates

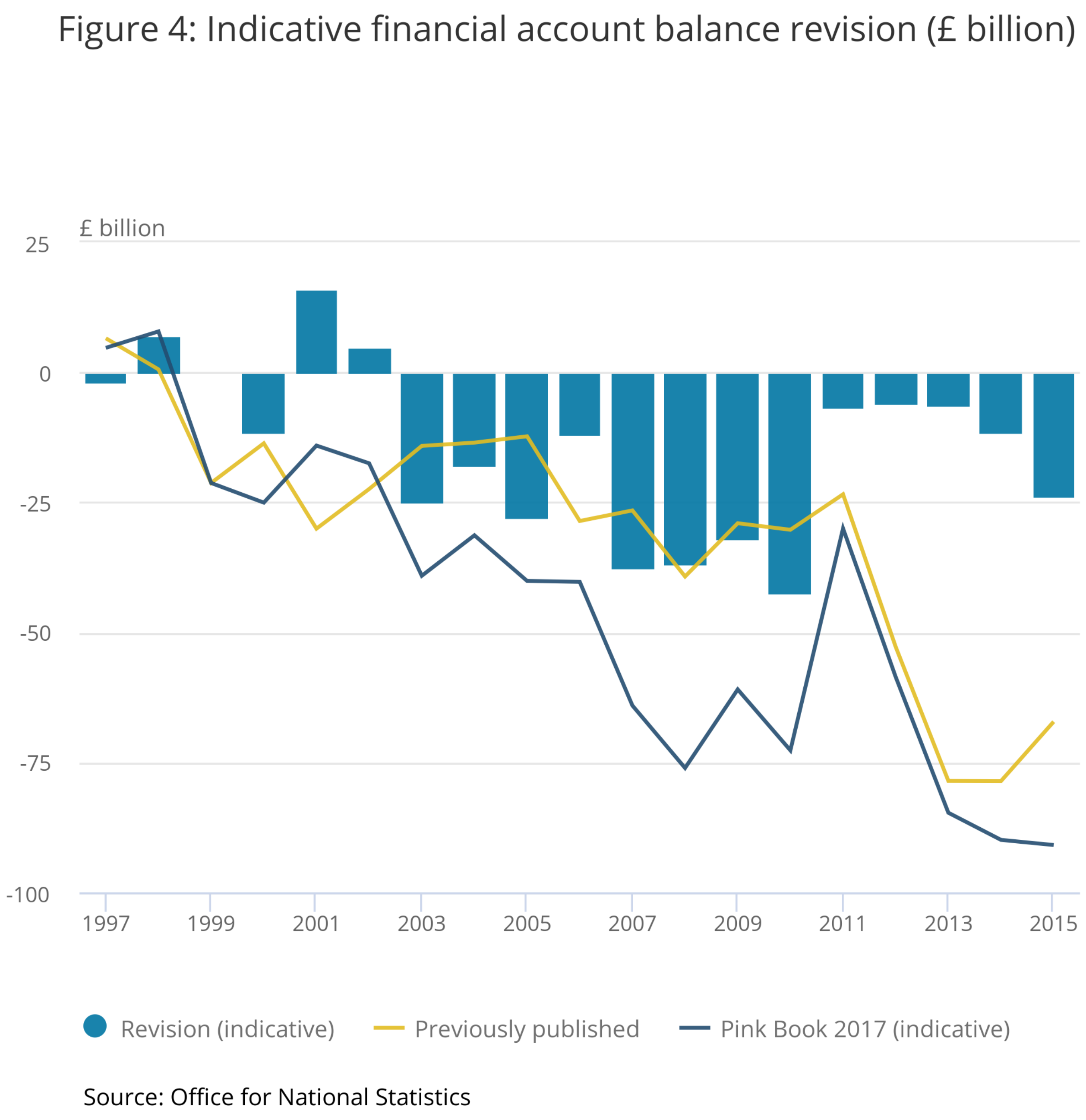
6.2.1 Financial account balance

The lines in Figure 4 show the level of the financial account balance in published data and the Pink Book 2017 indicative balance, the bars show the total differences between the two lines (that is, the revision).

As shown in Figure 4, the total revisions are mainly negative throughout 1997 to 2015, with the only positive revisions occurring in 1998, 2001 and 2002.

The negative revisions are caused mainly by the incorporation of new source data for securities dealers, which has led to an increase in the net inflow into the UK, with the largest overall revision occurring in 2010 (negative £42.4 billion) (see Section 4.3 for more detail on the change). The largest positive revision of £16.0 billion occurs in 2001, with the incorporation of new data sources resulting from the separating of the estimates for the household and non-profit institutions serving households sectors (see Section 4.2) having a positive impact.

Figure 4: Indicative financial account balance revision (£ billion)



Source: Office for National Statistics

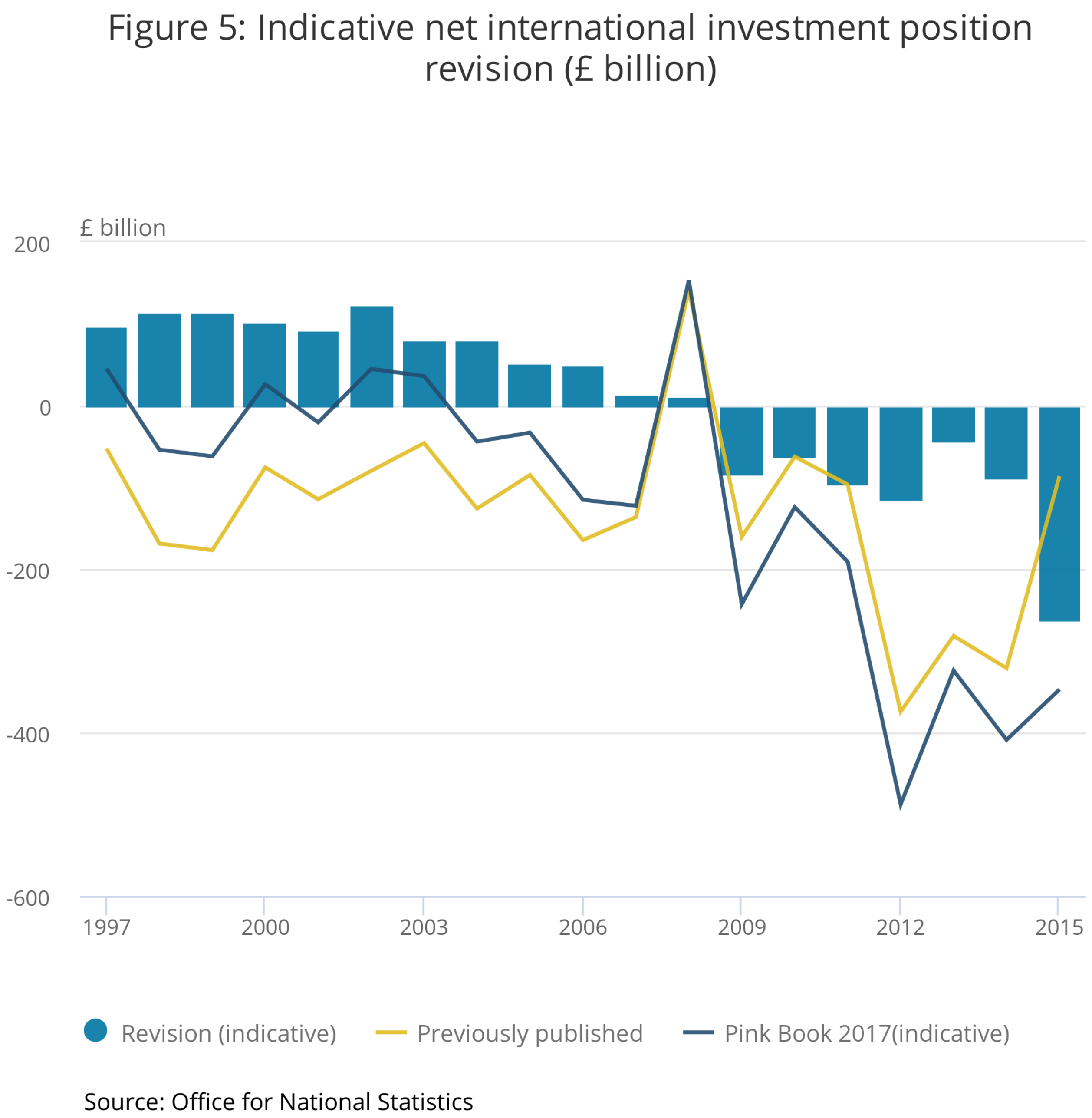
6.2.2 Net international investment position

The lines in Figure 5 show the net IIP in published data and the Pink Book 2017 indicative position, the bars show the total difference between the two lines (that is, the revision). Please note that the revisions in the IIP are larger than the financial account because the IIP measures the stock (or position) at the end of the period and also incorporates other changes such as price changes or currency changes.

As shown in Figure 5, the revisions up to 2008 are positive, with the largest positive revision occurring in 2002 (£124.7 billion). The new data sources incorporated due to the separating of the household and NPISH sectors (Section 4.2) has led to a positive impact throughout 1997 to 2015 by increasing net UK assets. From 1997 to 2006, the incorporation of new source data for securities dealers (Section 4.3) has also had a positive impact, again leading to larger net UK assets.

Since 2009, the revisions have been negative and caused mainly by the share ownership benchmarking (see Section 4.4), which has led to a greater allocation of investment in UK equities to the Rest of the World. The largest downward revision is in 2015 (negative £261.0 billion).

Figure 5: Indicative net international investment position revision (£ billion)



Source: Office for National Statistics

7 . Impacts on GNI

In the UK system of accounts, the transition of gross domestic product to gross national income (GNI) is obtained by adding the difference between compensation of employees and property income received from and paid to the rest of the world. Compensation of employees is basically the remuneration paid by an employer to employee for work done; property income[1] is primarily the earnings from financial investments and assets, such as interest, dividends and repatriated profits.

In our previous article, National Accounts articles: Detailed assessment of changes to balance of payments annual estimates, 1997 to 2012, we outlined the impact on GNI of all the improvements being made this year up to 2012. This article extends the revisions to 2015 and has led to an average absolute revision decreasing from £7.0 billion to £6.7 billion.

Notes for: Impacts on GNI

1. Property income in System of National Accounts is equivalent to investment income in balance of payments.

8 . Authors

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