Impact of changes to the Balance of Payments and International Investment Position, 1997 to 2014

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1. Introduction

We have previously published articles explaining changes and their impact on Balance of Payments and International Investment Position estimates:

- Methodological improvements to National Accounts for Blue Book 2015: Cross border property income, published on 19 May 2015
- Detailed assessment of changes to the Balance of Payments and International Investment Position, 1997 to 2013, published on 11 September 2015

This article summarises these main changes. The tables, charts and commentary have been extended from the previously published impact articles to include impact estimates for 2014 and updated to include the very latest published estimates for the period 1997 to 2013.

The changes and improvements that have been implemented can be split into 3 categories:

1. methodological improvements introduced through the European System of Accounts 1995 (ESA95); also known as Gross National Income (GNI) reservations
2. classification changes, as a result of new ESA10 international standards, which are planned to be incorporated into the National Accounts and Balance of Payments in Blue Book 2015 and Pink Book 2015
3. other regular improvements and methodological changes.

The remainder of this article is structured as follows:
Section 2 – the overall revision to main aggregates in the Balance of Payments and International Investment Position. This includes both changes as a result of the implementation of revised international standards and normal revisions that would be expected as part of the Pink Book (Balance of Payments annual publication) compilation process.
Section 3 – summarises the main methodological changes and their impacts; there is more information about the current account than the financial account and International Investment Position.
Section 4 – annual revisions of the trade balance, primary income balance, and current account balance.
Section 5 – annual revisions of the financial account balance and International Investment Position.

2. Summary of impact of changes on main aggregates

Table 1 provides a high level summary of the annual impact that changes have on the main Balance of Payments and International Investment Position aggregates.

Table 1: Summary of revisions on annual data between previously published data and latest published data (consistent with Pink Book 2015), 1997 to 2014 (£ billion)

£ billion	1997 to 2014				2014		
	Largest downward revision	Largest upward revision	Average annual revision	Average absolute annual revision	Previously published value	Indicative value in Pink Book 2015	Revision[1]
Trade balance	-7 (2009)	+1 (2007)	+2	2	-35	-35	+1
Primary income balance	-1 (2013)	+12 (2014)	+2	3	-45	-33	+12
Secondary income balance	0	0	0	0	-25	-25	0
Current account balance	-4 (2009)	+13 (2014)	+1	2	-106	-93	+13
Financial account balance	-4 (2013)	+15 (2014)	+2	4	-104	-89	+15
Net International Investment Position	-101 (2012)	+164 (2013)	-7	25	-445	-454	-9

[1]Change in values may not sum to revision due to rounding

3. Summary of the impact of individual methodological changes

Revisions throughout the published time series occur as a result of implementing the changes described in this article. Revisions between 1997 and 2010 were mainly due to methods changes (known as the closed period), while the years 2011 to 2014 were also fully open for revision to incorporate new data from sources (known as the open period). **Table 2** briefly summarises the main closed period changes that have been introduced to the Balance of Payments and International Investment Position. Other changes can also have a significant impact on the open period, and details of these can be found within sections 4 and 5. The table separates out those changes that impact the current account and those that do not. Changes impacting the current account, impacts on the trade balance, primary income balance and secondary income balance are presented.

Table 2: Summary of impact by change (more detail is provided in sections 4 and 5)

Change	**Summary of change**	**Impact**
Current account impacting changes		
Withdrawal of income from quasi-corporations (cross border property income)	New approach to the measurement of the stock of assets and the associated flows and earnings from rental and imputed rental arising from ownership of second homes by non-residents. Furthermore, the imports and exports of	**Current account impacts** Trade balance *All downward revisions, largest £3 billion (2010)* Primary income balance *All upward revisions, largest £3 billion (2014)* Current account balance *Range of revisions*

	housing services arising from imputed rental of second homes by non-residents will be recorded for the first time	*rounded to between £0 billion and +£1 billion* **Other impacts** Financial account and International Investment Position
Non-monetary gold	New source data fully exploited. Series smoothed enabling the underlying trend in the gold market to be reflected in the trade balance but minimising the volatility on the overall trade balance	**Current account impacts** Trade balance *Overview revisions provided in section 4.3.2*
Insurance services correction	Correction of an error within export of insurance services (impacts 2009 to 2013)	**Current account impacts** <u>Trade balance</u> *Largest downward revision, £7 billion (2011)*
Reclassification - changes to the treatment of research grants to and from overseas residents	Transfers of government funding of research grants to non residents now recorded in the capital account rather than the current account	**Current account impacts** <u>Secondary income account</u> *Range of revisions rounded to £0 billion in all years* **Other impacts** Capital account
Exhaustiveness	To account for under-coverage of the incomes accruing to small businesses and income concealed by businesses and households through the evasion of taxes. Has an indirect effect on trade in services	**Current account impacts** <u>Trade balance</u> *Mostly small upward revisions, largest £2 billion (2012 and 2014)*
Non -current account Impacting changes		
Reclassification - Network Rail	Reclassified to central government from private non-financial corporations and some improvements to source data	Financial account and International Investment Position
Reclassification - multi-lateral development banks	Recorded in the capital account rather than the financial account	Capital account and financial account

4. Analysis of impact on the current account

4.1 Definition of the 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 traded between UK residents and non-residents and services transactions between UK residents and non-residents

- **primary income balance,** which shows the net income earned by UK residents from non-residents and net income earned by non-residents from UK residents; this is 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.

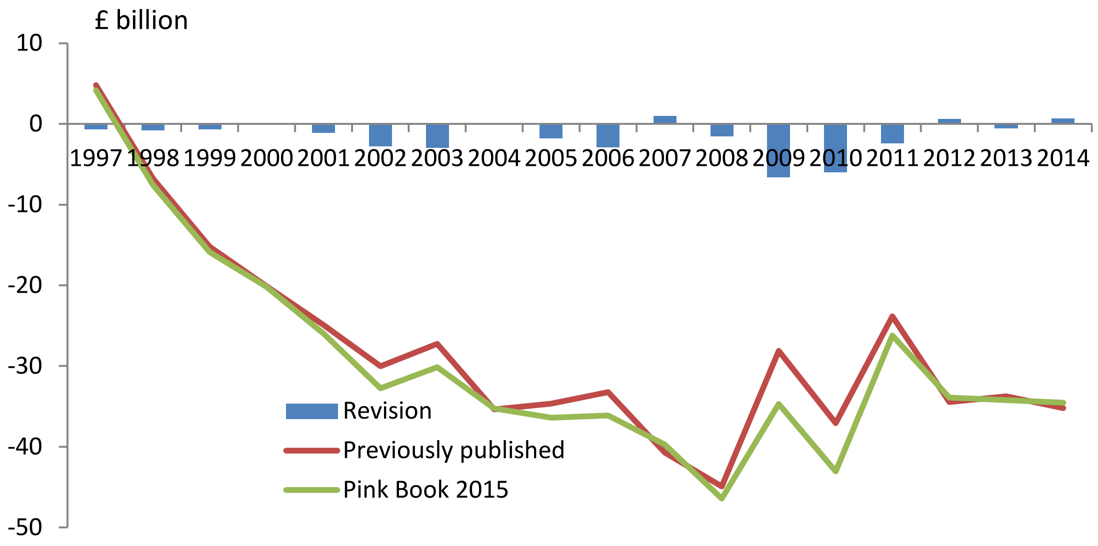
4.2 Indicative impact on the main current account aggregates

4.2.1 Trade balance

Chart 1 shows the level of the trade balance in previously published data and the latest published data (consistent with Pink Book 2015) and the revision.

Revisions to the trade balance are relatively small from 1997 to 2008 and 2011 to 2014, less than £3 billion through the time series. There is a bigger deterioration in the trade balance in 2009 and 2010, of around £7 billion and £6 billion respectively. The biggest contributors to the deterioration in 2009 are the changes to non-monetary gold and the inclusion for the first time of imports and exports of housing services arising from imputed rental of second-homes by non-residents (cross border property income). The biggest contributors to the deterioration in 2010 are the correction of the insurance services error and the inclusion for the first time of the imports and exports of housing services.

Chart 1: Trade balance revision (£ billion), 1997 to 2014



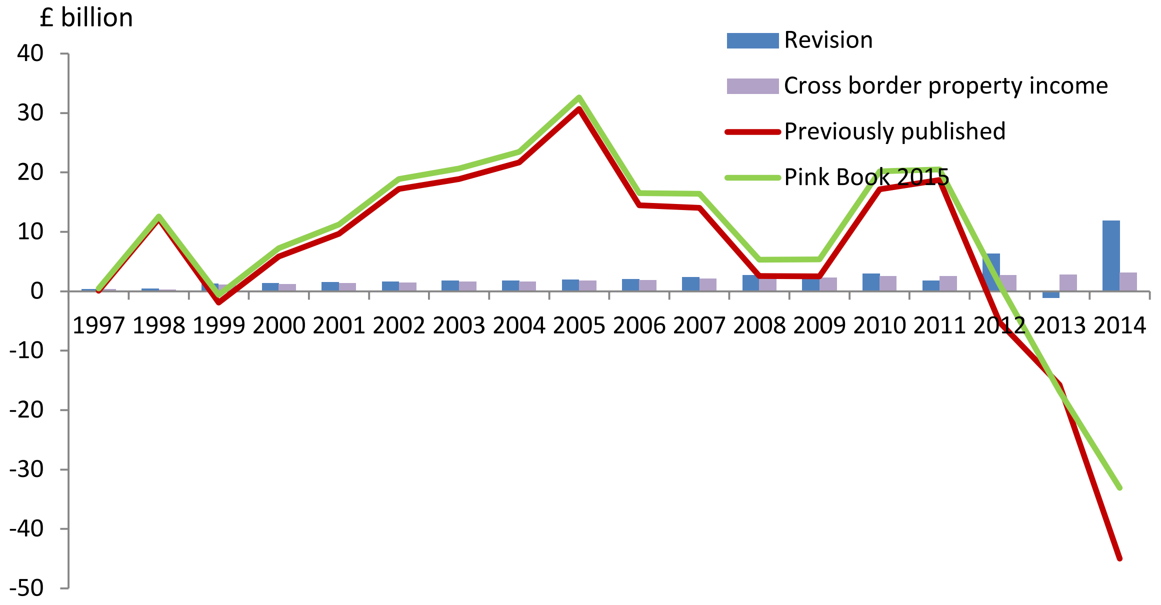
4.2.2 Primary income balance

Chart 2 shows the level of the primary income balance in previously published data and the latest published data (consistent with Pink Book 2015) and the revision, as well as the impact of changes due to cross border property income.

Revisions to the primary income balance from 1997 to 2011 are positive and relatively small, less than £4 billion through the time series. The majority of these revisions can be explained by the new approach to the measurement of earnings from rental and imputed rental (cross border property income).

There was a larger improvement to the primary income balance in 2012 of around £6 billion. This is mainly due to improvements to the coverage of UK holdings of bonds issued by other UK sectors (section 4.3.8) in addition to the new approach to earnings from rental and imputed rental. There was a slight deterioration in 2013, due to the foreign direct investment (FDI) benchmark revisions (section 4.3.8) offsetting revisions elsewhere. The upward revisions to 2014 are similar to 2013, although of a slightly larger magnitude in most cases. However, with the absence of any revisions from the FDI benchmark process, the overall revision to the primary income balance in 2014 is a positive £12 billion.

Chart 2: Indicative primary income balance revision (£ billion), 1997 to 2014

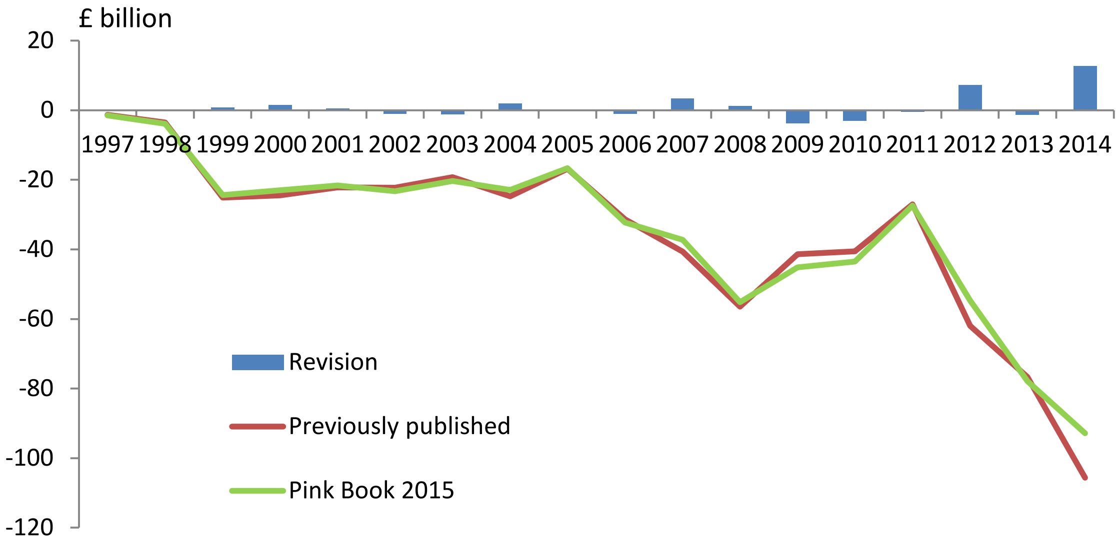


4.2.3 Current account balance

Chart 3 shows the level of the current account balance in previously published data and the latest published data (consistent with Pink Book 2015) and the revision. This chart approximately represents the summation of the changes to the trade balance (shown in Chart 1) and the primary income balance (shown in Chart 2). Revisions to the secondary income balance are small.

Revisions to the current account balance are relatively small from 1997 to 2011 and 2013, less than £4 billion through the time series. 2012 shows a fairly large revision to the current account deficit of a positive £7bn, mainly due to the revisions to the primary income balance. The revision of a positive £13 billion to 2014 is the largest through the time series. This is mainly due to the improvements to the coverage of UK holdings of bonds issued by other UK sectors (section 4.3.8), updates to smuggling data, changes due to exhaustiveness and changes to non-monetary gold.

Chart 3: Indicative current account balance revision (£ billion) , 1997 to 2014



4.3 Impact by change

The following sections further explore the impact of the biggest changes on the current account. The information provided in this section (4.3) was provided in this previously published article, and is included here for completeness.

4.3.1 Withdrawal of income from quasi-corporations (cross border property income)

The UK National Accounts are produced in line with agreed international standards to ensure statistics are compiled on a comparable basis across all European Union (EU) Member States. Occasionally Eurostat (the statistical office of the EU) places transversal reservations on all member states, requiring all members to review their statistics in a specific area of the accounts to ensure comparability across countries. In line with a transversal reservation in this area in Pink / Blue Book 2015, we have used revised methodology to estimate the transactions associated with the ownership of second homes by non-residents. Given the fully integrated nature of the National Accounts and Balance of Payments in the UK, these changes have also been reflected in Balance of Payments statistics.

This change includes a new approach to the measurement of earnings from rental and imputed rental. Furthermore, the imports and exports of housing services arising from imputed rental of second homes by non-residents have been recorded for the first time. These changes have lead to revisions in the primary income account and increases to the exports and imports of services.

An article outlining the full methodology and indicative impact of this change was published on 19 May 2015.

4.3.2 Non monetary gold

To comply with international statistical standards, we introduced estimates for trade in non-monetary gold and other precious metals into the quarterly National Accounts and Balance of Payments from 30 September 2014. In developing these estimates, it had been proposed to use data from a Bank of England (BoE) survey which collected estimates of physical holdings of gold and other precious metals for the reporting period March 2013 onwards. This was described in 'Measurement of non-monetary gold' published on 23 January 2014.

However, upon receiving the aggregated survey results, the data were volatile with large monthly changes. Despite being on a net trade basis, the volatility in the month-on-month change in the new series significantly affected the trade balance. Due to this volatility and the limited number of observations available from the new survey, it was decided to undertake further work to quality assure these data, and to review more generally the methods used to measure non-monetary gold. In addition, further disclosure assessment was required to ensure the confidentiality of the small number of businesses within the survey was maintained. Therefore, as an interim measure, we extended the pre-2013 method, derived from BoE information of gold as a store of wealth by UK Monetary Financial Institutions, with the new survey used to inform the movements of the later periods.

We have since worked with the Bank of England and the London Bullion Market Association to develop a method of smoothing the new source data, enabling the underlying trend in the precious metals to be reflected in the trade balance, but minimising the volatility on the overall trade balance. Due to the small number of operators in the precious metals clearing market the data are highly disclosive. As a result, we are unable to give more detail about the approach used and the associated revisions.

The revised precious metals data will continue to be included as part of the erratic series in future publications. This change has lead to annual positive and negative revisions to the trade in goods balance, and consequently the trade balance and current account balance of between negative £5 billion and positive £3 billion.

4.3.3 Insurance correction

As announced previously, an error in the input data used for the measurement of the changes in provisions for unpaid claims was identified while preparing the annual insurance benchmark process. The impact is to insurance as a whole, but 80 per cent of this series is apportioned to exports impacts on our estimates of trade.

This error leads to a downwards revision to exports of services for the period 2009 to 2012. The largest revision is negative £7 billion in 2011. For 2013 the revision to insurance is not entirely attributed to the error, as the series is also impacted by revisions to data sources as part of the usual annual production round.

4.3.4 Implementation of reclassifications - Changes to the treatment of research grants to and from non-residents

Following the capitalisation of research and development in Pink and Blue Book 2014, further changes have been made this year to improve compliance with international regulation. Transfers of government funding of research grants to non-residents is now recorded in the capital account rather than the current account.

4.3.5 Exhaustiveness

The exhaustiveness changes cover improvements to the estimation of concealed income/activity and also under-coverage of unincorporated small businesses. Both form part of the wider exhaustiveness adjustments that account for any production, income and expenditure that is not picked up in source data. There are indirect impacts on trade in services (mainly exports) via coherence adjustments in order to align the three approaches to GDP.

4.3.6 Non-Profit Institutions Serving Households (NPISH)

Changes to estimates of Non-Profit Institutions Serving Households' (NPISH) activity were implemented in Blue Book 2014, including new estimates of activity within the charities sector (based on National Council for Voluntary Organisations (NCVO) data). The further changes in Blue Book and Pink Book 2015 cover improvements to the impact on other sectors. This has led to annual revisions of less than £1 billion to exports of services.

4.3.7 Smuggling

Updated data on prices of smuggled alcohol and tobacco have led to annual revisions of less than £1 billion to imports of goods for the majority of the time period, although the revision to 2014 is slightly larger. As a result of these revisions, the impact of alcohol and tobacco is treated with greater consistency across the UK National Accounts.

4.3.8 Other changes

During 2012 and 2013, the primary income account, financial account and International Investment Position have been impacted as a result of applying the foreign direct investment (FDI) benchmark, an annual reconciliation between the quarterly and annual surveys utilised in the production of FDI data. In the short term, the quarterly survey is used and then later revised when the more comprehensive annual survey data become available. The quarterly survey for outward and inward FDI has 680 and 970 sampled enterprise groups respectively; these increase to 2100 and 3500 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. The benchmark process has led to revisions to the balance of direct investment income for 2012 (less than negative £1 billion) and 2013 (almost negative £10 billion), impacting on the primary income account.

As part of our continuous improvement programme, improvements to the coverage of UK holdings of bonds issued by other UK sectors have led to revisions to the amount of receipts allocated to the rest of the world. Within the Balance of Payments, the improvements decrease Portfolio Investment into the UK from 2011 to 2014, positively impacting the primary income account balance between £1 billion and £6 billion annually.

During the introduction of the new international standards in Pink Book 2014, some FDI debt transactions were reclassified to portfolio investment and other investment. As part of its continuous improvement, we have introduced changes in Pink Book 2015 to the allocation between portfolio investment and other investment debt. There are minor switches between the functional categories, but no impact to total income or investment.

In line with normal practice, revisions also result from the availability of new data, particularly for Trade in Services and Trade in Goods.

5 Analysis of impact on the financial account and the International Investment Position

5.1 Definition of financial account and International Investment Position aggregates

The financial account includes transactions (flows) associated with changes of 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.

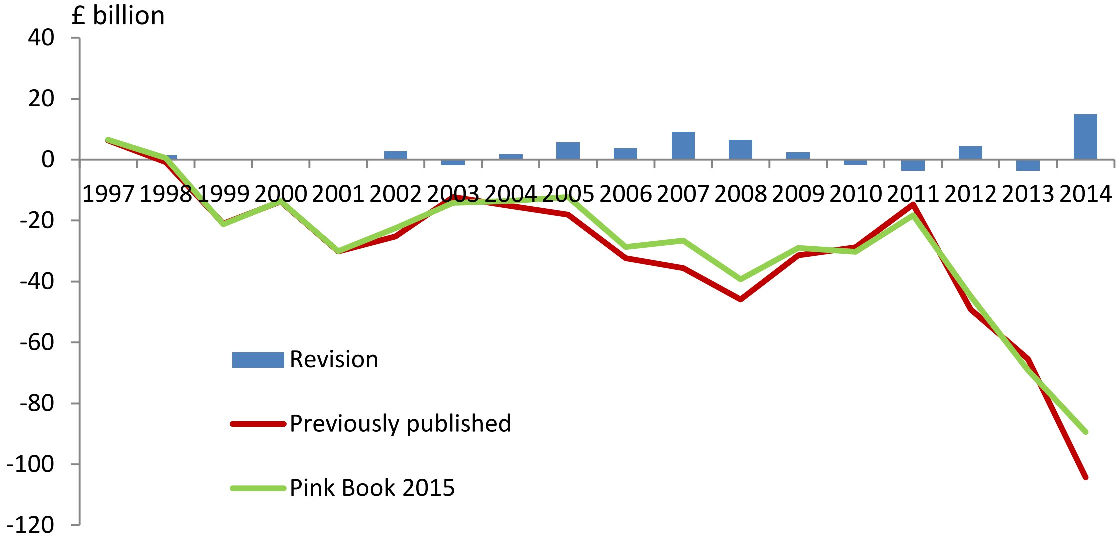
5.2 Indicative impact on the key financial account and International Investment Position aggregates

5.2.1 Financial account balance

Chart 4 shows the level of the financial account balance in previously published data and the latest published data (consistent with Pink Book 2015 and the revision).

Revisions are relatively small from 1997 to 2006 and 2009 to 2013, less than £6 billion through the time series. 2007 and 2008 show larger revisions to the financial account balance of around £9 billion and £7 billion respectively. This is mainly due to changes to the associated flows from cross border property ownership. 2014 has the largest revision throughout the time period, with a revision of positive £15 billion. This is mainly due to the incorporation of updated sources from survey data and administrative data.

Chart 4: Indicative financial account balance revision (£ billion), 1997 to 2014

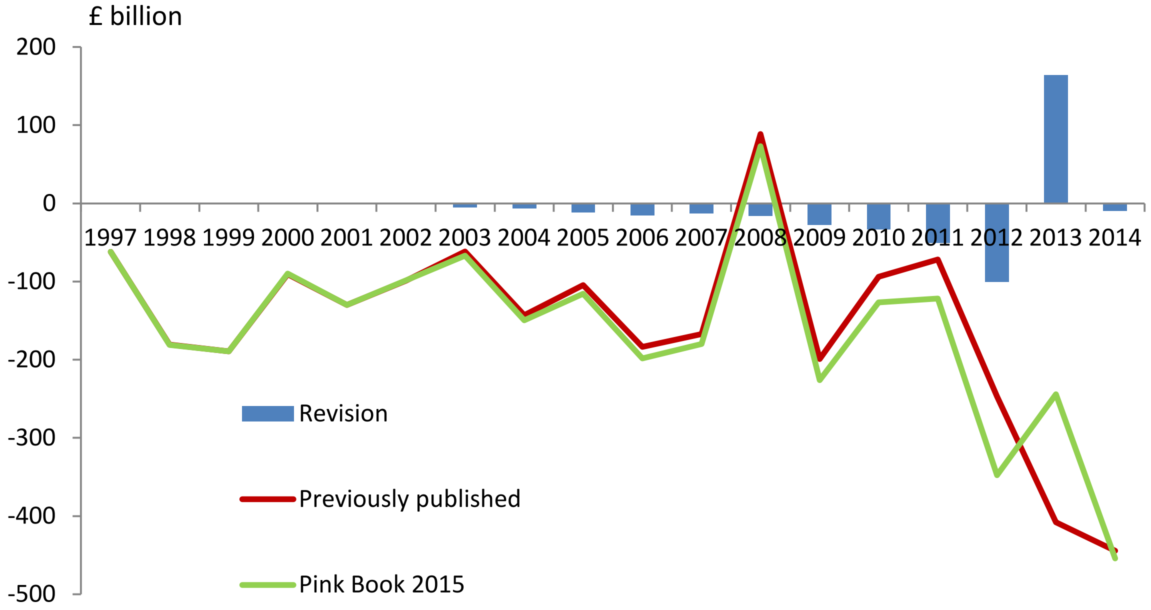


5.2.2 Net International Investment Position

Chart 5 shows the level of the net International Investment Position in previously published data and the latest published data (consistent with Pink Book 2015) and the revision.

The revisions from 1997 to 2011 steadily increase through the time series, mainly due to the changes to the measurement of the stock of assets in relation to ownership of cross border property and the improvement to sources made during the reclassification of Network Rail (see section 5.3.2.1). The benchmark of quarterly FDI data to annual FDI surveys has a large impact on 2012 and 2013 (further explained in sections 4.3.8 and 5.3.3), which largely explains the revision in the net liability position at the end of 2012 and 2013. The revisions to 2014 are smaller, mainly due to other changes mostly offsetting cross border property revisions and the absence of any FDI benchmark impacts.

Chart 5: Indicative net International Investment Position revision (£ billion), 1997 to 2014



5.3 Impact by change

The following sections further explore the impact of the biggest changes on the financial account and International Investment Position. The information provided in this section (5.3) was provided in this previously published article, and is included here for completeness.

5.3.1 Withdrawal of income from quasi-corporations (cross border property income)

The changes to the approach for measuring the stock of assets, and the associated flows from rental and imputed rental (captured within the change to cross border property income), has lead to revisions to direct investment in the financial account and International Investment Position.

An article outlining the full methodology and impact of this change was published on 19 May 2015.

5.3.2 Implementation of reclassifications

5.3.2.1 Network Rail

As a result of new guidance under the European System of Accounts 2010, a review was undertaken of the sector classification of Network Rail. The review concluded that Network Rail should be reclassified to the central government sector from private non-financial corporations sector from April 2004. As a result of this decision some of the counterparties in the International Investment Position and financial account have been revised. Some changes have been made to aggregates as a result of improvements in associated data sources. More details of the review and its decisions can be found in this previously published article.

5.3.2.2 Multi-lateral development banks

The UK Government subscribes to international institutions, such as the International Monetary Fund and World Bank, which provide loans for economic and social development activities in developing countries. These institutions are referred to as multi-lateral development banks. From Pink / Blue Book 2015, UK Government subscriptions to these institutions have been recorded in the capital account, rather than the financial account. This change is as a result of a classification decision. Full details of this classification decision are available in this previously published article.

5.3.3 Other changes

As a result of applying the annual benchmark to quarterly FDI data for 2012 and 2013 (as explained in 4.3.8 above), in addition to the impact on the primary income account, the benchmark process has also impacted the financial account and International Investment Position (IIP). The net IIP revisions of negative £101 billion in 2012 and positive £164 billion in 2013 are largely due to the smaller quarterly FDI survey data being aligned with the larger annual FDI survey data. For 2013, the indicative closing position of UK assets was revised by positive £75 billion to a level of £9,684 billion, while the indicative closing position of UK liabilities was revised by negative £89 billion to a level of £9,928 billion.

In line with normal practice, revisions also result from the availability of new data, particularly for other portfolio investment and other investment.

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7 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