United Kingdom Economic Accounts - Improving the coverage of derivatives data in the National Accounts and Balance of Payments

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Abstract

This article outlines changes to the National Accounts and Balance of Payments, as a result of the Office for National Statistics (ONS), introducing new data on derivatives business.

Summary

This article outlines changes to the National Accounts and Balance of Payments, as a result of the Office for National Statistics (ONS), introducing new data on derivatives business. Following the recommendation 3 of the article Walker G (2011) ‘Developing financial statistics for policy’ ONS are extending the coverage of data on derivatives in the National Accounts. From 2010 ONS has improved its coverage of derivatives business by including data from securities dealers. In the coming years ONS aims to improve further its coverage of derivative transactions which take place between other non-bank financial institutions and other sectors of the economy such as private non-financial corporations and the rest of the world once reliable data sources become available.

Background

In the 2011 edition of the UK Blue Book (BB11), significant changes will be introduced: new industrial and product classifications (SIC 2007 and CPA 2008 respectively), improved methods of deflation and some additional improvements, largely in improved methods for the financial services and planned revisions to data. One of the improvements to financial services information is the improved coverage of data on derivatives.

The European System of Accounts (1995) defines derivatives as financial assets based on or derived from a different underlying instrument. The underlying instrument is usually another financial asset, but may also be a commodity or an index. Financial derivatives are also referred to as secondary instruments and since the hedging or offsetting of risk is frequently a motivation for their creation, they can be referred to as hedging instruments. Only those secondary instruments, which
have a market value, because they are tradable or can be offset on the market, are financial assets in the system of accounts and are classified as derivatives.

Derivatives include

- Options – both tradable and over-the-counter (OTC). These are contingent assets which give their holders the right, but not the obligation, to purchase or sell to the issuer of the option, a financial or non-financial asset, at a predetermined price at a specified time or date.
- Warrants – a form of tradable option which give their holders the right to purchase from the issuer of the warrant a certain number of shares or bonds under specified conditions for a designated period of time.
- Futures – but only if they have a market value. Futures are commitments to deliver or take delivery of a specified quantity of standard grade of commodity, foreign exchange, or a security at a fixed price for a specified delivery date or period.
- Swaps – but only if they have a market value. Swaps are contractual agreements between two parties who agree to exchange streams of payment of the same amount of indebtedness.
- Forward rate agreements – but only if they are tradable. Forward rate agreements are contractual agreements in which two parties agree on an interest to be paid at a settlement date, based on a notional amount of principal that is never exchanged.

A more detailed explanation of derivatives can be found in the article Cullinane P (2010) ‘Incorporating derivatives data in the National Accounts and Balance of Payments’.

Methodology

Data from Securities Dealers on both asset and liability balances of derivatives contracts were collected from 2010 on the Quarterly Return of Assets and Liabilities and of Transactions in Securities. In order to fulfil the National Accounts requirements these data were further broken into the desired categories and the sectorisation was enhanced.

ONS used its standard methodology for this survey so a random stratified sample of respondents was selected, and standard methodology has been applied to enable an estimate of the total balance to be calculated.

During this methodological process, several special exercises were conducted including respondent and methodological analyses which lead to the data being judged to be of an acceptable quality. The new data has been included into the levels shown in the Blue Book – Financial Account – F34 – Financial Derivatives. However, ONS recognises that the data quality can be improved, and therefore, a further methodological review will be completed in the coming months.

In order to reduce the burden on respondents to the survey, transaction data has not been collected. However transaction data has been calculated using the same methodology that was used to implement banks transaction data in Blue Book 2010 i.e.

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\text{Change in value of derivatives portfolio} = \text{Net transactions} + \text{Net holding gains/losses}
\]
Re-arranging this equation shows:

Net transactions = Change in value of derivatives portfolio – Net holding gains/losses

Net holding gains/losses are approximated as:

Dealing profits – Net spread earnings

Therefore, by approximating net holding gains/losses as dealing profits less net spread earnings transactions data can be estimated by subtracting dealing profits less net spread earnings from the change in balance sheet data over the period.

Dealing profits and net spread earnings are also collected from Securities Dealers by the ONS on Quarterly Income and Expenditure Surveys. Standard ONS methodology is applied to the random stratified sample of respondents to produce an estimate, which is then used in the above calculation.

**Impact**

As part of the ONS’s response to the financial crisis, survey redesigns were undertaken in several areas of the Financial Corporations sector, including Insurance and Pensions and Securities Dealers.

This redesign means that the information previously collected on derivatives does not relate to the current information. The newly collected data reflects the changing financial market, and will impact on the previously published data in two ways

- Information to populate Blue Book table 4.5: Financial Derivatives: Gross positions of UK banks, securities dealers and other institutions by counterparty has not been collected. The last data point available for this table will therefore be 2009.

- From 2010 the new data will be incorporated into all tables of the Financial Account - F34 - Financial Derivatives. As the currently collected data differs from the previously collected data a discontinuity will be visible from 2010.

Data on derivatives in the banking sector were incorporated into the 2010 Blue Book from 2006, the earliest period open for revision. Within Blue Book 2011, ONS has taken the opportunity to increase its revisions period, for derivatives in the banking sector, from 2006 to 2004.

**Future**

Future work will include, extending and improving coverage further e.g. private non-financial corporations with the rest of the world and also ensuring the data are European System of Accounts 2010 compliant.
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