Analysis of Long-run Historical Data at the Bank of England

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ARCHIVAL WORKSHOP
Inflation, Money, Output
Prague – May 14, 2015
The United Kingdom benefits from having some extremely long time series for both macroeconomic and financial variables. Analyse the interaction of monetary, financial and business cycles across different regimes. Links between money and inflation over long horizons.

Bank of England has played an important role in the last three centuries of economic history. Unique historical perspective on the analysis of monetary policy and policies affecting the structure of the financial system. Archive contains a wealth of information.
Historical data and Bank Research

- **One Bank Research Agenda** (OBRA) launched in February

- **Theme 4:** How can historical data and archive information be used to enhance understanding of the economy and the financial system?

  - What are the stylised facts about repeated, but relatively rare, events which help us to understand how the economy and financial system work?

  - How have UK financial and economic cycles interacted in the past and to what extent does this depend on the monetary policy regime and structure of the banking system?

  - How large are the costs of financial crises, what are their sources and how do they depend on crisis management strategies?

  - What lessons can we learn from history about the role and efficacy of both monetary and macroprudential policy in the United Kingdom?
Two datasets released

• Bank of England Balance Sheet Data
  – Annual breakdown of balance sheet between 1696-2014

• Three centuries of UK data (re) released
  – Originally released in 2010 alongside Hills, Thomas and Dimsdale QB article on UK historical recessions
  – Provisional update in February to 2013/14 alongside One Bank Research Agenda launch – Version 2.1
  – An update planned for later this year to complete 2014 data
  – Input into British Historical Statistics project

• Available here
  http://www.bankofengland.co.uk/research/Pages/onebank/datasets.aspx

- Other assets including repos
- Holdings of bullion, coin and retained notes
- Holdings of government securities

per cent of nominal GDP
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• Annual, monthly and quarterly data some as far back as 1661
  – UK/GB data only, largely secondary sources
  – Macroeconomic dataset: National accounts, fiscal data, financial market prices, money and credit
  – Now have 31 worksheets

• Best endeavours basis
  – Not official Bank data, but shared research resource that will build up over time
  – So will be errors and omissions but hopefully rectified as data gets used

• Both raw data and spliced series, formulae are provided
  – Users can create their own series/rectify any errors themselves
Examples: Money and inflation

- Wholesale/producer price inflation
- CPI inflation

Nominal GDP, Notes and coin, Broad money

Percentage change on a year earlier
Simple measures suggest business and credit cycles appear to have lengthened in the period since financial liberalisation....

.....and with the credit cycle possibly lagging that of the business cycle
TFP growth during the Great Recession has fallen by an unprecedented amount.
• Has the decline in broad money velocity over the past 40 years been ended?
• Will broad money now grow more in line with nominal GDP in the future
Will the decline in narrow money velocity continue given a low interest rate world?
So is the demise of cash greatly exaggerated?
Next steps

- **Weekly BoE balance sheet data 1844+**
  - To allow analysis of financial crises

- **Three centuries data to be expanded**
  - Monthly price data
  - Monthly exchange rates back to C18th
  - Expanded section on UK trade
  - Improved monetary aggregates
  - Banking system balance sheets
  - Financial balances, sector balance sheets and accounts 1948+
Research Collaboration

• The Bank of England is keen to engage with external researchers on OBRA, with the link to practicalities for doing so here (http://www.bankofengland.co.uk/research/Pages/onebank/externaleng.aspx)

• Competitions launched back in late-February at the OBRA launch conference http://www.bankofengland.co.uk/research/Pages/onebank/competition.aspx

• You can also access the Bank’s Archive – via the following link: http://www.bankofengland.co.uk/archive/Pages/visit.aspx