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**MINI PRESENTATIONS ON
PRODUCER PRICE INDICES**

**CHALLENGES IN THE DEVELOPMENT OF A PRICE INDEX FOR
BANKING SERVICES IN THE UK**

Nick Palmer
UK Office for National Statistics

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1. Introduction

- 1.1. This paper is an update of the paper on banking service submitted for the 2001 Voorburg conference. The main additions are in section [xx] which relate to the additional exploratory work that has been carried out during 2002 so far.
- 1.2. The current programme to develop Corporate Services Price Indices (CSPIs) in the UK includes an element for banking and related financial services to commercial customers. A concerted effort to progress in this difficult area began in autumn 2000 and this paper summarises the key considerations so far.

2. Scope: where to start ?

- 2.1. A wide range of banking and other financial intermediation services are provided to businesses and it is difficult to identify areas where price collection is realistically possible. For the time being, it has been decided that the UK will concentrate mostly on commercial loan and deposit services provided by banks – partly because this is an area where there is some relevant and apparently suitable data already collected centrally (by the Bank of England). If progress is made in this area then it is hoped that it would pave the way for the development of price indices for other banking and financial services.
- 2.2. In addition to an index for loans and deposits it may be possible in the short-term to develop an index of business account transaction charges and other charges. This would use data that are currently published on a regular basis by the major banks. However, these published service tariffs do not take account of bundled charges or volume discounts which are often applicable. The main focus of this paper though is on commercial loans and deposits.

3. Sampling/reporting burdens

- 3.1. The Bank of England already collects a significant amount of data for financial policy monitoring and it is preferable to try and make use of that rather than set up a separate price inquiry. Some of this data contributes to the ONS's calculation of national accounts. Collected on the forms are data on average interest rates (Form EIR) and banks' income and expenditure (Form A3).
- 3.2. One problem is that the existing returns may not be sufficient for the development of a meaningful and reliable banking services price index. There may be scope to change or add some questions to the existing returns in the future. However, any changes could take some time and we have to

remember that banks' reporting systems have not been designed historically to report price or income data at a sectoral or product level.

4. Who should do the work ?

- 4.1. The ONS is not in a good position to take on the single-handed development of a price index as significant insight into the data currently provided is required along with a detailed understanding of the relationships amongst the UK banks, the Bank of England and the Government. In addition, ensuring that, conceptually, a banking CSPI is representative of banks' corporate business and is consistent with the methodologies used for other price indices is challenging. The aim is to achieve a successful pooling of the right fields of expertise.
- 4.2. Fortunately the Bank of England is able to play an active role in the development work. There is a joint working group that also includes a representative of the British Bankers' Association (BBA). This group has agreed a project plan covering the period 2002-03.
- 4.3. Confidentiality of the data collected and held by the Bank of England is another issue that dictates that the Bank should play a prominent role in the price index development. The success of the project is therefore dependent on the Bank being able to provide the necessary resources over the next 1-2 years.

5. Choice of pricing methodology

- 5.1. The initial challenge is to try to utilise some statistical returns collected by the Bank of England which support the ONS in its calculation of national accounts. These include data on aggregate loans and deposits, interest earned and fees paid which could support an approach based on the principles of FISIM (Financial Intermediation Services Indirectly Measured). This could possibly be done in a way similar to that for the banking services price index being developed in the US.
- 5.2. The US approach was presented by Roslyn Swick of the Bureau of Labor Statistics to the Bank of England and some representatives of UK banks in December 2000. The initial reaction was that the detail of the US approach could not be mirrored in the UK as there is little scope for such a labour intensive operation. Nevertheless it was felt that the basic principles, using higher-level, aggregate information, could possibly be applied.
- 5.3. No single source of complete or detailed enough data appears to be available to support the current approach though. The challenge is on to find sufficient data from whatever sources are available and/or utilise that data which is available as proxy information.

6. UK National Accounts

6.1. Demand for a banking services price index to support the calculation of UK national accounts is currently low. Measurement of UK banking output is partly based on volume indicators and partly on amounts of outstanding loans and deposits (deflated by the top-level consumer price index). Therefore there is no steer from national accounts for the development of a specific banking services deflator. However, possible moves within Europe to develop FISIM-based approaches to output measurement may influence the need for a price index based on FISIM principles although it is too early at this stage to know.

7. Currently proposed approach

7.1. An approach using interest rate figures, loan and deposit balances and estimates of fees is currently under development. This uses data compiled from a survey of 25 banks representing about 75% of total turnover in the targeted area of activity. These contributors are supplying the data on a monthly basis. There are a number of aspects which need to be assessed fully though, for example:

- aggregate data are used, therefore it would not be possible to break the price index down into particular types of loan or deposit;
- fees data are reported in total only (they are not available separately for loans and deposits and so have to be estimated in some way);
- the choice of reference rate that is required as part of the FISIM approach;
- how should deflation or adjusting for the change in value of loans or deposits be handled ?
- services to UK businesses only are under development and the prospects for including overseas dealings may need to be investigated in the future (as these constitute a significant amount of activity).

7.2. An outline of the methodology under development is given in the annex, using dummy (artificial) data.

7.3. The proposed methodology, once developed a little further, will require a significant amount of consultation, especially with the banks themselves.

8. Progress during 2002

8.1. Consultations about pricing policies were carried out with a number of banks. These highlighted a number of differences between high street clearing (or retail) banks compared to investment banks. For example, investment banks tended to concentrate their business on large corporates, typically those in the FTSE 100, whereas retail banks were mainly lending to mid-corporates. Lending to large corporates is mainly referenced initially to LIBOR (London Interbank Offered Rate) and then is fixed rate thereafter. Lending for smaller businesses tended to be priced as a margin over the repo rate, with little fixed rate lending. These, and some other differences suggested that a slightly different approach may be required for these 2 kinds of bank.

- 8.2. Further analysis of the difference between retail and investment banks was undertaken using data collected by the Bank of England. This suggested that, under the same approach, a price index for investment banks would be more volatile than that for retail banks. However it would have limited influence overall due to their small margins and small volumes when compared to retail banks. Over 85 per cent of all corporate lending is to retail banks. The initial conclusion was that separate indices need not be pursued.
- 8.3. For the approach described in 7.1 above, various different market rates to act as reference rates were considered, i.e. the repo rate, LIBOR (1 month and 3 month) and Swap. Data analysis and anecdotal evidence from discussions with banks suggested that the repo rate is the most widely used as a reference rate to determine pricing.
- 8.4. It has been acknowledged that a potential weakness of the current approach is that the fees element is not separately identifiable for loan and deposit services to businesses (i.e. private non-financial corporations). There are proposals to revise the forms used by the Bank of England to collect such data. The revisions may also include similar breakdowns for investment banking, advisory services, brokerage and underwriting services – which should assist the further development of a banking services CSPI. Unfortunately such changes to the forms may not be possible to implement for 2-3 years, partly due to knock-on effects such as banks having to change their systems in order to provide the additional detail required.
- 8.5. There has been consideration of whether a deflator should be applied to the price calculations to account for the changing value of loans and deposits over time. Some possible methods have been explored and indicators to use as a deflator have also been considered. Work on this is ongoing.

9. The top-level CSPI

- 9.1. The development of a banking services CSPI supports the overall aim to provide a top-level CSPI to represent price movements in the corporate services sector as a whole. This requires each industry to have a weighting relevant to the base year. Output information for banking is not available from the source used for most other existing CSPIs. Therefore an additional requirement will be to identify a suitable output or turnover measure to estimate an appropriate weighting. Also, a judgement would have to be made of the extent to which any banking services CSPI developed would be a proxy for all banking and financial intermediation services. The working group's view is that the index currently being developed should be restricted to covering loan and deposit services only.

10. Business account transaction and other charges

- 10.1. Rates and fees charged for transactions and other services relating to current accounts targeted specifically at small and medium-sized businesses are published regularly by each of the major UK banks. These include things

like credits and debits, stopping cheques and night safe charges. Prices for large businesses (greater than 250 employees) are not included.

- 10.2. In theory these prices could be combined with some suitable weighting information, perhaps based on volumes of transactions, to derive a price index. The challenge then would be to obtain such weighting information, including a source for weighting individual banks' data together. The problem would remain though of how to obtain commensurate information for large businesses – who often negotiate their own sets of charges with banks individually. This would possibly have to be via a separate survey.
- 10.3. This area of banking services would require a weighting within banking services overall. This would be very small but, nevertheless, if data are readily available then it may be worthwhile. However, if a separate survey needs to be established for large businesses it may not. For large business lending, prices move due to competition, negotiation, lending policy changes, etc. - therefore a different approach would probably be needed to reflect this element of the CSPI.

11. Summary

- 11.1. Progress is being made in the development of a FISIM-based price index for loans and deposits, although there are still a number of key issues that need to be resolved. The prospects for indices covering other banking services are less clear and may depend on the level of success achieved via the current approach.
- 11.2. The working group is aiming to produce a prototype index by December this year to be followed by a period of consultation. Publication of an experimental price index for commercial loans and deposits is targeted for spring 2003.

ANNEX

CORPORATE SERVICES PRICE INDEX - BANKING SERVICES PROPOSED PRICE INDEX METHODOLOGY FOR LOANS AND DEPOSITS (DUMMY DATA SHOWN)

| | <u>QTR 1</u> | <u>QTR 2</u> | <u>QTR 3</u> | <u>QTR 4</u> | |
|------------------------|---|--------------|--------------|--------------|--------------|
| <u>LOANS</u> | | | | | |
| A | Interest payments (£m) | 2,000 | 2,050 | 2,150 | 2,200 |
| B | Fees (£m) | 70 | 75 | 80 | 80 |
| C | Interest + fees = A+B (£m) | 2,070 | 2,125 | 2,230 | 2,280 |
| D | Balances (£m) | 100,000 | 101,000 | 104,000 | 105,000 |
| E | Effective percentage charged = C/D*100 | 2.070 | 2.104 | 2.144 | 2.171 |
| F | Reference rate (%) | 6.000 | 6.000 | 6.100 | 6.100 |
| G | Ref rate per qtr (%) = F/4 | 1.500 | 1.500 | 1.525 | 1.525 |
| H | Annualised service price (%) | 0.570 | 0.604 | 0.619 | 0.646 |
| I | INDEX: LOANS (QTR 1 = 100) | 100.0 | 106.0 | 108.6 | 113.4 |
| <u>DEPOSITS</u> | | | | | |
| K | Interest payments (£m) | 500 | 500 | 500 | 550 |
| L | Fees (£m) | 10 | 15 | 20 | 20 |
| M | Interest - fees = K-L | 490 | 485 | 480 | 530 |
| N | Balances (£m) | 70,000 | 71,000 | 72,000 | 75,000 |
| O | Effective percentage paid = M/N*100 | 0.700 | 0.683 | 0.667 | 0.707 |
| P | Reference rate (%) | 6.000 | 6.000 | 6.100 | 6.100 |
| Q | Ref rate per qtr = P/4 (%) | 1.500 | 1.500 | 1.525 | 1.525 |
| R | Annualised service price = Q - O (%) | 0.800 | 0.817 | 0.858 | 0.818 |
| S | INDEX: DEPOSITS (QTR 1 = 100) | 100.0 | 102.1 | 107.3 | 102.3 |
| | WEIGHTED INDEX (70% loans, 30% deposits) | 100.0 | 104.8 | 108.2 | 110.1 |