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Implementing ESA95 and *BPM5* in UK

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## IMPLEMENTING ESA95 AND *BPM5* IN UK

### Summary

1. The approach taken in the UK to implementing ESA95 (the European System of Accounts regulation for the SNA93) and BPM5 is outlined. Following wide consultation with users it was decided to implement the new accounts together, and to introduce a number of other major internal changes at the same time. Users preferred one big bang rather than a series of smaller bangs. In the UK the Office for National Statistics compiles the National Accounts and the Balance of Payments as an integrated set of economic accounts, so that the Rest of the World sector is always synonymous with the Balance of Payments. Implementation was achieved with the release of the dataset for a family of publications on 24 September 1998, including the UK National Accounts and Balance of Payments. Quarterly First Releases (giving figures up to and including Q2 1998) on the new bases were issued at the same time.
2. The paper focuses on the main changes to the accounts, the management of the whole process, consultations with users, the family of publications and the outcome of the exercise.

### Main Changes

3. We came to the decision late in 1995 that the accounts published in 1998 (with reference to all years up to and including 1997) would include
  - i. full implementation of ESA95 (in UK National Accounts "Blue Book") and BPM5 (in UK Balance of Payments "Pink Book")
  - ii. effects of the new Inter-Departmental Business Register (IDBR) for business inquiry results
  - iii. rebasing constant price data to 1995 prices
  - iv. improvements in estimation of public sector output at constant prices
  - v. long-run revisions to individual data series
4. **ESA95/BPM5:** the accounts adopt the new concepts, definitions, terminology, coverage and accounting structures specified in the international manuals. Sectors have been re-defined, financial instruments re-classified and the full treatment of insurance and pension fund transactions implemented consistently across the National Accounts and Balance of Payments. Statistical inquiries have been reviewed and expanded in order to provide reliable figures at the required level of detail. For example the new Trade in Services business inquiry was discussed at the 1997 BOP Committee meeting. New data sources have been investigated. A particularly important area of implementation involved lengthy negotiations between ONS, the Bank of England and the British Bankers' Association to agree a completely revised set of forms to collect all the required banking statistics, and to establish a timetable for data supply.

5. For the Balance of Payments the main changes have been

- new current, capital and financial accounts
- product breakdown for services
- clearer distinction between services and income
- new sign convention for financial account in line with sector accounts for ESA95
- exclusion of UK offshore islands
- development and centralisation of all processing systems, including an improved geographical breakdown

A more detailed description of the changes is not in the scope of this paper.

6. **IDBR:** the new register has replaced all existing business registers. It is compiled and updated from VAT and PAYE sources so that it is more comprehensive than before, with no gaps or double-counting. The new IDBR was introduced in 1996 for the selection of samples for all business surveys and as the basis for grossing up to population totals. Its effect is to increase the general level of survey results, although growth rate changes are generally small. There has also been a significant increase in the coverage of service industries, partly due to better classification. It has been a major contribution to ensuring that all economic activity is covered on as broad a basis as possible (an important factor in lifting the Eurostat GNP reservation on exhaustiveness). All estimates have been properly linked to pre-1996 data through the input-output framework.

7. **Rebasing:** before the September publications our constant price data were based on 1990 prices. Rebasing is done every five years. The new constant price data has been published on a 1995 price base, using 1994 as the link year. The overall rebasing effect is likely to be a fall in GDP growth over the period 1994-1997 of the order of 1-2% points compared to figures previously published.

8. **Public Sector Output:** an improved methodology for measuring government output at constant prices has been developed. It relies on outputs rather than inputs and so takes into account productivity changes. Education, health and social security are the main areas covered (around 50% of the public sector) using a range of performance indicators. A longer-term aim is to put together a work programme to cover the rest of government output, to improve the indicators and to take account of changes in the quality of output.

9. **Long-run revisions:** preparatory work for implementing ESA95 and BPM5, as well as reviews to lift Eurostat GNP reservations, identified a number of improvements to data sources and National Accounts/Balance of Payments methodology, in addition to the normal data revisions. For example we have overhauled the trade in services deflation system. We have taken the opportunity to put through extensive long-run revisions to improve the accounts and to provide a sound basis for the transition to ESA95 and BPM5. This has been a major quality improvement because the revisions have produced a more coherent set of accounts and reduced

the need for balancing adjustments overall. The exclusion of UK offshore islands will also have helped coherence.

### **Managing the Process**

10. **GDP:** conceptual changes due to the implementation of ESA95/BPM5 are in principle balanced across the output, expenditure and income measures of GDP. These were identified and agreed, for all years going back to the start of the economic accounts (subject to economic significance criteria). Current price GDP was balanced for the years 1989-1996 through the input-output framework for non-ESA95/BPM5 revisions only. Later periods were balanced in line with the quarterly output measure of GDP. Balanced ESA95/BPM5 changes were then taken on. Finally constant price data for each series were rebased on 1995 prices, for both pre-ESA95/BPM5 change and post-ESA95/BPM5 change data.

11. **Sector and Financial Accounts:** a new system was developed to produce the full range of ESA95 accounts (apart from the production and generation of income accounts), including financial balance sheets. The system shows the uses/changes in assets and resources/changes in liabilities across all sectors. It has been developed so that the Rest of the World sector provides the full Balance of Payments presentation. The system is based on unique identification codes for each separate data series in a database which specifies how these codes build up to the ESA95/BPM5 aggregates. The system also defines where the data are shown and routed across and down the sequence of accounts. Sector, transaction and instrument statisticians were responsible for the accurate specification of their data series.

12. The above is easy to describe but it has involved an enormous amount of work for everyone associated with the economic accounts. The usual quarterly and annual compilations have continued and effectively many people have been coping with twice their normal workload for long periods. Communication, co-operation, a corporate attitude and a willingness to help out have all been essential attributes. Projects covering different areas of implementation had been set up in the early days: most were making good progress but they were rather independent, with the risk of gaps, duplication or misunderstandings.

13. **Programme Management:** towards the end of 1997 we asked management consultants to review our project planning. They recommended that the implementation work should be considered as a programme of projects, instead of one large project. Each project should have its own management board, timetables, etc with two overarching boards: a programme board, to review progress and ensure resources were allocated effectively, and a technical board, to ensure that specifications were agreed and the new rules were applied throughout. The strong message was that in the run-up to publication day we should concentrate more on what still needed to be done and less on what had been done. Twenty five project groups were set up comprising thirteen co-ordination projects and twelve compilation projects.

14. Another important component of the approach was the development and maintenance of a master plan - a huge Gantt-type chart showing how all the separate activities across all the projects dovetailed together. The plan was monitored and updated as necessary, and reassured people that the whole implementation was feasible. A number of other project management techniques were used, in a reasonably informal way. For example informal liaison and networking was identified as an area in need of improvement (to spread "soft" information). A small team was given the crucial role of circulating amongst all the compilers and co-ordinators regularly to check progress, to discuss their concerns and to encourage teamwork and mutual support. A set of "strategic statements" to guide the work to completion were agreed and distributed to everyone involved.

### **Consulting and Educating Users**

15. There has been an extensive programme to consult users and to help them prepare for the changes. A series of "roadshow" seminars began in Autumn 1996 for users within and outside government, concentrating on explaining the nature of the ESA95/BPM5 changes. A set of "dummy" publications, which we called the Illustrative Guides, were published in November last year. These were early versions of the new family of publications. They showed what the layout and terminology would look like, using the 1997 Blue Book and Pink Book data recast in the new framework. We invited all recipients of the Illustrative Guides to send us comments on the format, and any other aspects of the changes, including their own specific requirements. Feedback was invariably constructive and enabled us to develop the final publications.

16. The frequency of seminars increased throughout 1998 to cover user groups, business shows, government colleagues (particularly at HM Treasury) and Bank of England. We used the ONS site on the internet to tell users that changes were coming. A leaflet outlining the main changes has been inserted in all ONS publications since June. A copy of the text is included at Annex 1. Also a series of articles has been published in the monthly Economic Trends on specific areas of the main changes.

17. About four weeks before publication day two disks were made available to users on request; one contained data descriptions and identifiers, the other contained specimen annual data up to 1995. A workshop on the format of the new-style First Releases was held. To round it all off a series of post-publication seminars to key users is being planned.

18. **Internal:** throughout the process we have held internal "walk-through" sessions in which a particular sector/transaction/instrument statistician explained the detailed changes to colleagues. This process helped to spread knowledge about the new definitions, to ensure greater consistency across the new accounts and to give people an opportunity to question the concepts.

## Family of Publications

19. The new annual economic accounts were published on 24 September 1998. The quarterly National Accounts and Balance of Payments First Releases (giving figures up to and including Q2 1998) on ESA95 and BPM5 bases were issued at the same time. The family of publications comprised

- UK National Accounts (Blue Book)
- UK Balance of payments (Pink Book)
- National Accounts Concepts, Sources and methods
- Introducing the ESA95 in UK
- Sector Classification for the National Accounts
- Input-Output Supply and Use Tables

20. The Blue Book includes a change series showing “old series + ESA95/BPM5 changes = new series” for each GDP component data series. Three of the publications provide documentation to explain the new accounts. *Concepts, Sources and Methods* describes the underlying concepts and how they are applied in the UK. We intend to update the *Sources and Methods* sections annually. *Introducing ESA95* is a one-off publication which explains the thinking behind the application of key ESA95/BPM5 changes in a UK context. *Sector Classifications* is not a new publication but has been expanded to cover the full impact of ESA95 on the classification of enterprises to sectors.

21. A CD-ROM version containing *Concepts, Sources and Methods* and *Blue Book Tables* has been produced. This is free to purchasers of the entire package, but can also be purchased separately.

22. All other ONS publications and first releases affected by ESA95/BPM5, rebasing, etc will be on the new basis at the first publication following 24 September.

## Outcome and Hindsight

23. **Outcome:** a lot of people have put in a lot of extra hours over a long period of time to achieve the family of new publications. We are pleased with the outcome and we are sure that all the effort has been worthwhile. Inevitably some detailed areas of implementation have been affected due to lack of time, but the overall quality, relevance and coherence of the new account is significantly better than before. “Health warnings” giving an outline of the reliability of the new data sets have been inserted in the Blue and Pink Books. The Balance of Payments one is shown in Annex 2. An important outcome is that we now have much better documentation of all systems and processes used across the accounts. It was agreed early on that effective documentation would be a high priority throughout the whole implementation programme.

24. A detailed action plan for the implementation and quality improvement work still to do is being drawn up, with specific timetables. All BPM5 changes have been made but some areas of ESA95 (eg non-financial balance sheets) only come into effect over the next few years. We were not able to include the usual geographical analysis of the Current Account in the Pink Book. This was frustrating to us all. The data will be made available to users as soon as possible and the analysis will appear as an Economic Trends article later in the year. It will be re-instated in the 1999 Pink Book.

25. We will review the whole process building up to the new publications, to identify the aspects which worked well and those which did not. The programme management approach will be retained for the 1999 Blue and Pink Books and beyond.

26. **Hindsight**: is a wonderful thing. We could have started the programme management processes much earlier, by at least two years, and resourced it properly. We could have made sure that there was more widespread knowledge of the new accounts (and the old accounts) from the outset. We could have ensured more rigorous and precise testing procedures as the new systems were being developed. We could have been stricter about meeting trial data delivery dates. We could have been more flexible in ensuring that appropriate people could move around to help out colleagues in areas with immediate problems. But when we look back on it most of us will see it as a job well done, extremely satisfying and a challenge met head-on.

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## THE NEW-STYLE BLUE AND PINK BOOKS

### A brief guide for users

The 1998 National Accounts Blue Book and Balance of Payments Pink Book will be issued in September 1998. They will incorporate the most fundamental changes since the accounts were first published.

The 1998 Blue and Pink Books will have undergone a radical overhaul, to make them consistent with the internationally agreed System of National Accounts 1993 (SNA93) and its European equivalent, the European System of Accounts (ESA95). Also from that date, the UK balance of payments will be based on the International Monetary Fund (IMF) Balance of Payments Manual (5th edition).

### What is ESA95?

- Updated version of the existing systems reflecting changes in national economies
- Consistent with the worldwide System of National Accounts 1993 (SNA93)
- Consistent with the IMF Balance of Payments Manual 5th edition (BPM5)
- Obligatory for EU Member States' returns to Eurostat from April 1999
- Eventually will be used for EMU convergence criteria and assessing some of the UK's contributions to the EU

### What is BPM5?

- Linked explicitly with SNA93
- Changes in global financial environment recognised
  - more services including financial service
  - new financial instruments including derivatives
- Linking income, transactions and levels
- equivalent to the rest of world sector in the national accounts

### ESA95/BPM5 - the "family" of publications □

- There will be six publications in the Blue Book "family" to be published in September 1998:
- United Kingdom National Accounts - the Blue Book (ESA95)
- Balance of Payments - the Pink Book (IMF BPM5)
- National Accounts Concepts, Sources and Methods
- Sector Classification for the National Accounts (MA23)
- Introducing the ESA95 in the UK
- Input-Output Supply and Use Tables

In addition to the regular annual publications, the ONS is issuing two new publications: *Concepts Sources and Methods*, which will replace the previous guide (*Sources and Methods*, last updated in 1985); and *Introducing ESA 95 in the UK*, which describes the changes specific to the UK accounting system and the reasoning behind them. Serious users of the Blue and Pink Books will



find it essential to have these two publications to help them understand the new concepts which underpin the accounts. We intend to offer the six publications as a pack, to encourage users of the Blue and Pink Books to buy the complete documentation.

### **What are the main changes in the new ESA System?**

new terminology and accounting structure  
re-defined sectors  
re-defined boundary between intermediate and final consumption, affecting the size of GDP  
“headline” GDP will be valued at market prices, not factor cost  
new price basis for value added - basic prices  
government licences and fees  
new classification of financial instruments  
treatment of insurance  
FISIM - financial intermediation services indirectly measured

### **Other changes in this year's Blue Book**

Apart from the introduction of the new system on national accounts, there will be several other changes in this year's Blue Book:

#### **Introduction of the new interdepartmental business register (IDBR)**

new business register amalgamating VAT and PAYE registers  
BSG survey samples selected and grossed from register from 1995  
“IDBR effect” included in national accounts from BB98  
will be included under Eurostat's exhaustiveness reservation (see GNP reservations, below)

#### **Rebasing**

constant price data revalued at 1995 prices - link year will be 1994  
expected revisions to 1995 to 1997 resulting from rebasing  
Article in Economic Trends in June 1998 giving broad estimates of changes

#### **Other revisions**

- public sector deflation: improving the deflation of the public sector using information about public sector output
- GNP reservations: the UK, in common with all other EU member states, is required to improve the accounts in several respects, in particular “exhaustiveness” - whether coverage of the economy is complete. Until we do, there is a “reservation” on our accounts - they are not fully acceptable for EU purposes.
- other annual revisions: improved methodology - e.g. new surveys for some trade in services, and data re-assessment

### **What are the main changes in the new BPM System?**

- Current account to exclude capital items
- New Capital account
- Financial account
  - broadly old capital account renamed
  - but extended and restructured analysis
  - new sign convention
- Services/income distinction
- Territorial coverage: UK offshore islands - the Channel Islands and the Isle of Man are now excluded

**Practical considerations for national accounts users**

- users will need to get used to new terminology - e.g. *compensation of employees* rather than *income from employment* - and new presentations of the data
- users of electronic data sets will find that all 4-letter codes have changed
- there will be a new data set from the beginning of the accounts - 1946 in some cases
- ONS will provide guidance on the new tables and data identifiers.

**User consultation and education**

ONS is happy to advise users of the accounts about the forthcoming changes. For further information contact those listed below:

Blue Book	ESA95	Margaret Dolling	fax 0171 533 5903 e-mail <a href="mailto:margaret.dolling@ons.gov.uk">margaret.dolling@ons.gov.uk</a>
	Other (rebasings and other changes) National Accounts first releases	Jon Beadle	fax 0171 533 5937 e-mail <a href="mailto:jon.beadle@ons.gov.uk">jon.beadle@ons.gov.uk</a>
Pink Book	BPM5 Balance of Payments first release	Colin Yeend	fax 0171 533 6061 e-mail <a href="mailto:colin.yeend@ons.gov.uk">colin.yeend@ons.gov.uk</a>
	User consultation and education	Anna Brueton	fax 0171 533 5937 e-mail <a href="mailto:anna.brueton@ons.gov.uk">anna.brueton@ons.gov.uk</a>

**RELIABILITY OF THE NEW BALANCE OF PAYMENTS DATA SET AND  
AVAILABILITY OF BACK DATA**

The adoption of BPM5 has required a number of complementary activities such as the interpretation of the new framework within the UK context and the identification of new data sources for concepts and transactions not previously identified. Inevitably some parts of the new accounts are more firmly based than others. For instance, where new information has been required, this has been more readily available for recent periods than for the more distant past. The tables in this publication generally provide data reworked onto the new BPM5 basis back to 1987 although there are some instances, particularly within trade in services, where it has not been possible to produce data as far back as 1987. Prior to 1987 detailed data are not available although long-run data have been calculated for the current account main headings and for net financial account transactions back to 1946. For the capital account there are no data available prior to 1986.