FEATURE

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The launch of the Index of Services as a National Statistic

SUMMARY

The service sector, since 1970, has increased from 53 per cent of the economy to 74 per cent today. It is now by far the largest and fastest changing sector of the UK economy. This article describes the significant improvements that the Index of Services (IoS) development programme has brought to the measurement of the output of the service sector, as well as the output measure of gross domestic product. The article also plots the journey of the IoS from its launch in December 2000 as an experimental statistic to its expected reclassification on 29 March 2007 as a National Statistic.

he increasing importance of the service sector has been one of the most significant economic developments over the last 30 years. **Figure 1** shows the current breakdown of the UK economy.

This change has presented a significant challenge to the statistical system, which had developed much of its methodology and data collection to suit the measurement of production and manufacturing. This is reflected in the fact that a monthly indicator, the Index of Production (IoP), measuring the output of the production and manufacturing industries, has existed since 1948.

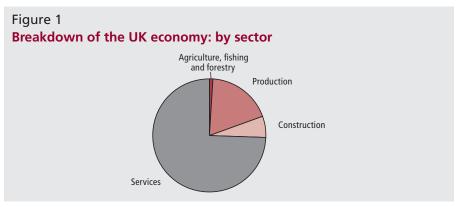
The UK, encouraged by the *Pickford*, *Allsopp* and *Atkinson Reviews* has, though, over the last 15 years led the way in meeting the challenge of measuring the service sector.

Rebalancing the priorities between the production and service sectors

In the late 1980s, the *Pickford Review* (Cabinet Office 1989) reported 'we do

not believe that the statistical recording system has adjusted adequately to changes in the structure of the economy.' Pickford recommended that there should be a review on a regular basis of the balance of statistical reporting between industries. In 1992, the 'Chancellor's Initiative' built on the conclusions of the review and a large programme of data collection for the service sector was put in place. The Index of Services (IoS) built on the outcome of these initiatives and also the improved deflators that were available from the services producer price index (SPPI) - known until November 2006 as corporate services price index (CSPI) - development programme.

Rebalancing these priorities has been a significant challenge. The measurement systems used to measure the production and service sectors are similar. It is, though, widely recognised that measuring the service sector is more complicated. The key challenge is the diversity of activity within the sector and that units of output cannot be



By gross value added weight

easily defined. Many services, in particular business to business services, tend to be tailored to each client's needs; this means that services have an uniqueness which makes them difficult to categorise as output units and consequently difficult to price. The manufacturing sector also produces a wide range of products; here, though, measurement is aided by the tangibility of the outputs produced (although this sector also faces measurement challenges as production processes become more specialised and fragmented).

Meeting user demands and key policy needs

Overarching the rebalancing between the production and service sectors (and the increased importance of services) was the challenge to meet the demands for monthly output indicators for services from users of economic data. These include HM Treasury, the Bank of England, the Monetary Policy Committee and the City.

Wider benefits of the development of the IoS

A large-scale development programme to improve the short-term measurement of the service sector was launched at the same time as the launch of the IoS. This programme of work has been successful and

there have been significant improvements in the last seven years, which are covered in detail later in the article. The success of this work has led to the expectation that the IoS will on 29 March 2007 be reclassified from experimental to National Statistic status.

The benefits of the IoS programme, though, go wider. The measurement of the service sector element of the output measure of GDP (GDP(O)) has also significantly improved, as IoS and GDP(O) share the same data sources. The links between the IoS and GDP(O) go even further in that the quarterly path of the IoS is constrained to be equal to the services component of GDP(O).

The improvement in GDP(O) is not only in terms of the methods used but also in the data content of the preliminary estimate of GDP(O), released around 25 days after the quarter. Before the launch of the IoS, 40 per cent of the service sector element of GDP(O) was based on a survey response of around 20 per cent. The launch of the IoS has led to the first two months of the quarter now being based on a response of over 80 per cent and the third month being based on a response of 20 per cent. The quarter as a whole can be derived as a weighted average, and a 60 per cent response is now achieved for the quarter (Skipper, 2005).

The UK is now viewed as a world leader in the short-term measurement of the service sector; indeed the UK is still the only country in the world to produce a monthly indicator for the whole of the service sector based mostly on internationally accepted methodologies. The UK has also played a large role in the drafting of an Organisation of Economic Co-operation and Development Index of Services Production Handbook.

Achievements since launch

Since the initial article, which described the launch of the IoS and set out the future work programme (Pike and Reed, 2000), a number of development projects have been taken forward. These have been described in three subsequent articles: Pike and Drew (2002), Drew and Morgan (2003) and Drew and Morgan (2005). Each of these articles reported the progress made along the development programme.

This article will now focus on the developments in the following areas:

- improvements made to data sources and methods
- improvements to seasonal adjustment
- improvements to data periodicity
- increases to the level of detail at which the IoS is published

Box 1

International guidance on price and volume

The development programme followed the guidance and recommendations made in the 'Handbook on price and volume measures in national accounts' (Eurostat 2001). In this handbook, methods are graded into one of three groups:

For the market sector, an A method would typically be output deflated by a price index that exhibits the following criteria:

- completeness of the coverage for the product
- valued on the correct basis (for market output this is basic prices)
- take quality changes into account
- is conceptually consistent with national accounts.

B methods do not generally respect all four of the criteria for A methods, and would include the use of direct detailed volume output indicators. C methods are where indicators fall a long way short of respecting the four criteria, and in practice include direct volume indicators

which are not detailed; input methods; secondary indicators; and general price indices. For non-market output, where prices are not charged, direct volume measures of either inputs or the outputs are the only options. In broad terms, output measures that meet the criteria above are at least acceptable for individual services (such as health and education), and input methods are classed as C methods, whereas for collective services (such as defence and prisons), input methods are accepted methods.

It is worth noting that the handbook is aimed at methods used in annual indicators, and while the same standards apply to quarterly and monthly data, 'this will undoubtedly mean that more B, and perhaps even C, methods will need to be employed, but this reflects the practical difficulties with deriving intraannual data' (Eurostat 2001). It is also worth noting that the ratings applied within this article are derived by the authors and are not based on any independent assessment.

A methods	Most appropriate methods	A methods are the methods that approximate the ideal as closely as possible
B methods		B methods are acceptable alternatives: they are further away from the ideal but still provide an acceptable approximation
C methods	Those methods which shall not be used	C methods are too far away from the ideal to be acceptable. They would generate too great a bias or would simply measure the wrong thing

improvements to the timeliness of the IoS publication

Finally, the article describes the journey the IoS has taken from experimental to National Statistic status.

Improved data sources and methods

Position in December 2000

Prior to the development programme, just under half of the methods, by gross value added (GVA) weight, used in both the IoS and GDP(O) were rated as being conceptually appropriate (see **Box 1**). The main area of weakness was in the business services and finance component of the IoS (see **Figure 2**). The predominant indicator in this component is turnover, but the lack of specific price indices led to the high proportion of 'unacceptable' ratings.

Current position

In terms of conceptual appropriateness, the proportion of acceptable methods has increased from 46 to 80 per cent. Across the main IoS components, **Figure 3** shows that nearly all the methods used in distribution, hotels and restaurants and transport and communication are now based on at least acceptable methods. Government and other services have seen a moderate increase, due mainly to the fact that one of the major components, the public sector, has always been based on acceptable methods. Improvements to concepts have been seen in areas such as recreation, private sector education and other service activities.

While big improvements have been made to the conceptual appropriateness of the indicators in the business services and finance component (from 12 to 62 per cent), the shortage of appropriate service sector price indices is the main challenge to further improvement.

Figure 2 Conceptual appropriateness of IoS and main components, 2000 Percentages Distribution (16%) Hotels and restaurants (4%) Transport and communication (10%) Business services and finance (37%) Government and other services (32%)

10

20

A methods

30

40

50

B methods

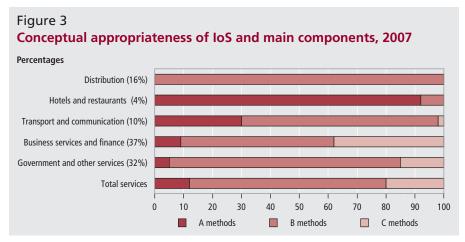
60

70

C methods

100

GVA weights in parentheses



GVA weights in parentheses

How was this improvement made?

In order to capitalise on the previous investments made by the Office for National Statistics (ONS) in measuring service sector activity, the development programme was split into a series of industry reviews (see **Box 2**).

Since early 2001, 30 industry reviews have been conducted and implemented in the National Accounts; **Table 1** shows the number of reviews implemented at each Blue Book.

All industry reviews have been fully documented and reports for each review

can be found on the National Statistics website (see link at the end of this article).

The reviews focused on three main areas:

- Indicator improvements
- Prices improvements, and
- Public sector indicator improvements

Indicator improvements

Through this review programme, progressively more ONS monthly turnover inquiry series (MIDSS – Monthly Inquiry

Box 2

Industry reviews

The development programme was broadly split into a series of work packages and focused on:

- indicator developments essentially reviews of data sources, and methods developments
- reviews of concepts and statistical methodology

These developments were undertaken through an industry-by-industry review of the service sector industries – known as industry reviews.

Each review made a full assessment of the current indicators and reviewed them against the recommended methods set out in international guidance (see Box 1). Once this was understood, the review team consulted with colleagues within ONS, in other government departments and with recognised experts, in order to evaluate data availability and seek advice on output approaches. Potential data sources were then evaluated and recommendations then submitted for peer group appraisal. All new methods have been assessed through the national accounts quality assurance process, as set out in Robinson (2006).

Box 3

Monthly survey of service sector turnover

The MIDSS turnover data covers 53 per cent (in terms of GVA) of the IoS; this makes this survey IoS's largest single data source. Of this MIDSS total, the IoS currently uses 92 per cent of these series (again by GVA).

The survey collects turnover data every month and employment data every quarter. It is a sample-based survey of 25,000 businesses in Great Britain; employment data, though, is collected from only 17,000 of the 25,000 businesses. Businesses return data around one week after the end of the reference period, for example, data for March will be returned by around 7 April.

The sample of businesses is selected from the ONS Inter-Departmental Business Register (IDBR). The IDBR consists of all businesses within the UK that are either registered for value added tax or have a Pay As You Earn scheme; businesses on the IDBR account for 99 per cent of UK economic activity.

The sample is designed so that all large businesses (with 100 or more employees) are always included. To reduce the burden on business though, only a small proportion of medium-sized (10 to 99 employees) and small (less than 10 employees) businesses are selected, and these types of business tend to remain in the sample for no more than two years. The sample covers 3 per cent of businesses within the service sector industries covered by MIDSS; this equates to 58 per cent of the industries' turnover and 53 per cent of employment.

A response rate of over 80 per cent is achieved for the industries in terms of both the number of businesses selected and also in the coverage of total value of turnover.

The MIDSS sample size is almost three times as large as the equivalent survey for manufacturing, the monthly production inquiry (MPI), reflecting the relative importance of each sector to aggregate activity. In terms of sampling frame, response rates and the timing of data collection, the MPI is, though, very similar.

Table 1
Industry review implementation: by Blue Book

Date implemented	BB2002	BB2003	BB2004	BB2005	BB2006
Number of reviews	2	5	7	8	8
Cumulative number of reviews	2	7	14	22	30
Percentage of IoS covered	82	22	25	20	13
Cumulative percentage of IoS covered	8	30	55	<i>75</i>	88

into Distribution and Service Sectors – See **Box 3**) have been introduced to the IoS. In 2000, around two thirds of the survey fed into the IoS; currently, the figure is 97 per cent. In terms of MIDSS usage by GVA weight, this represents an increase from 82 to 92 per cent. There are four industries where MIDSS are collected and not currently used, but it is envisaged that at least three of these four series will be taken on in the near future.

Prices improvements

The improvement and refinement of service sector deflation is in many cases the only path to moving from conceptually 'unacceptable' to 'acceptable' methods. Hence the IoS development programme has worked in close tandem with the ongoing development of SPPIs (see **Box 4**).

When the IoS development programme had started, only eight SPPIs were being used in IoS and GDP(O). This has since increased to 22 SPPIs being used as direct deflators, with a number of others being used as proxy deflators.

As Tily (2006) sets out, there are three main approaches to deflation:

- services sold direct to consumers use components of the monthly consumer prices index
- services sold to other companies use:
 - quarterly SPPIs
 - where SPPIs are not available or applicable, various proxy measures based on earnings and (often aggregate) consumer prices

Table 2 shows the main methods of deflation in the IoS.

Table 2

Methods of deflation in the IoS

Deflator	Percentage	Excluding volume percentage	
		percentage	
SPPI	11	20	
RPI	24	41	
PPI	6	10	
AEI/RPI	14	23	
Direct volume	42		
Other	3	5	

Table 2 shows that SPPIs and RPIs (the appropriate deflators for household and non-household output) are used for 35 per cent of

the IoS. After discounting the 42 per cent of the IoS that is not deflated, as direct volume measures are used, 61 per cent of the service sector is covered by preferred approaches.

Producer price indices (PPIs) of underlying goods are used (and are an accepted method) to deflate wholesale and rental output in the absence of the preferred deflators.

Where no appropriate deflators are available, the approach adopted in the IoS is to use a combined average earnings index (AEI)/retail prices index (RPI) deflator, which reflects the movements in service sector wages relevant to the industries in question and the general price movements of households. This approach is used for 14 per cent of the service sector.

Public sector indicators improvements

It was an original stated aim of this review programme to improve the indicators used to measure the output of public sector methods. However, this element of the work programme was overtaken by the Atkinson Review (Atkinson, 2005) and the work of the subsequently formed UK Centre for the Measurement of Government Activity (UKCeMGA). The IoS development team have worked with colleagues in UKCeMGA and introduced methods that have been subsequently passed through the national accounts quality assurance process.

Outstanding areas

While much progress has been made in improving data sources and methods, there are still areas of development required:

Box 4

Services producer price index

SPPIs have been developed since 1994. At present, 33 indices corresponding to 33 of the 60 SIC classes regarded as services provided to businesses are published each quarter. These measures are based on prices for 4,400 products and drawn from 1,300 firms across the UK.

Results are published nine weeks after the end of the reference period. Of the 33 SPPIs that are published, 22 are used

in the deflation of IoS and GDP(O). SPPIs are published on a quarterly basis and in order to be used as a monthly deflator, the series are interpolated using a cubic spline. Full details of this function are available as part of the IoS Methodology on the National Statistics website. A full breakdown of which SPPIs are published and how these are used can be found in Drew and Morgan (2005).

- SPPI coverage as Box 4 details,
 SPPIs cover 33 out of the 60 potential products; further development is essential for the further improvement of the conceptual quality of the IoS
- timeliness while many of the ONS data sources are available in time for the first publication of IoS, the timeliness of non-ONS data sources is an area where improvements will be sought
- MIDSS coverage industry review work has identified a number of industries where the MIDSS survey could be extended

Seasonal adjustmentPosition in December 2000

The IoS was based on 39 per cent monthly data in December 2000. However, the time series for most of these data were too short to allow a robust and reliable seasonal adjustment. The IoS data, therefore, was seasonally adjusted monthly but then benchmarked to the equivalent quarterly GDP(O) data. This was a sensible approach until the IoS monthly data matured and became established; it did, though, mean month-on-month movements in the monthly data had the potential to be lost.

Current situation

The IoS is now based on 57 per cent monthly data. Almost three-quarters of these data are now seasonally adjusted monthly and are no longer benchmarked to quarterly GDP(O). Instead, the GDP(O) quarter is formed by an average of the seasonally adjusted months. The time series of the remaining 25 per cent of monthly data are still too short to be seasonally adjusted monthly. In time we expect all these data to be seasonally adjusted monthly.

How was this improvement made?

ONS's experts in time series now conduct the routine annual seasonal adjustment reviews for IoS and quarterly GDP(O) as joint exercises and recommend the optimum seasonal adjustment. The seasonal adjustment method used in the IoS is now much closer to that used in the IoP. In the production and manufacturing industries, the GDP(O) quarter is formed by an average of the seasonally adjusted months.

Improvements to periodicity Position in December 2000

As mentioned previously, when the development programme began, just under 40 per cent of the indicators being used were based on monthly data by GVA weight. The distribution of this was not equal across the service sector. While distribution, and hotels and restaurants were predominantly monthly, transport and communication was based on 80 per cent

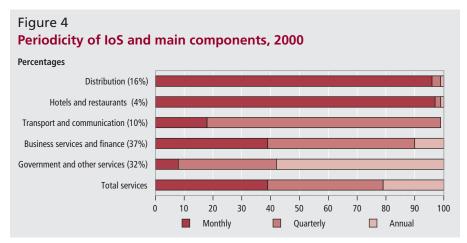
quarterly data, over half of business services and finance was based on quarterly data and over half of the data in government and other services was annual.

Current position

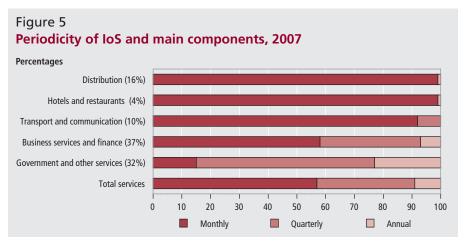
As at the last Blue Book in 2006, almost 60 per cent of the IoS is based on pure monthly data. The biggest improvements have been made in the transport and communication section. **Figure 4** and **Figure 5** illustrate the change in periodicity since 2000.

How was this improvement made?

One of the other main objectives of the industry review programme has been to improve the periodicity of the indicators used in the IoS and GDP(O), that is, to



GVA weights in parentheses



GVA weights in parentheses

move away from quarterly and annual indicators wherever possible in favour of monthly data.

Improvements to periodicity have been made through sourcing new data sources that are available on a monthly basis (such as postal and air transport data), but the bulk of the increase has been through taking on more MIDSS data and using this on a monthly basis. As previous articles have explained, most service sector industries used to be only collected on a quarterly basis.

One of the first areas tackled through the IoS project was to move all MIDSS turnover data collection to monthly collection. This was done in two phases: the first in 2000 moved all forms that were used in IoS and GDP(O) at that time to monthly, and a year later the remainder were moved. One issue of changing to monthly collection is that a proportion of these data still needed to be summed to quarters for seasonal adjustment purposes (monthly data were then produced by interpolating a monthly path through the quarterly data), as seasonal adjustment requires a long run of monthly data in order to effectively seasonally adjust on a monthly basis. For this reason, it was not until Blue Book 2006 that all MIDSS were finally passed as being fit for monthly seasonal adjustment, and in effect useable as monthly indicators. Up until that point, MIDSS series being summed to quarters were still regarded for the purpose of evaluation as quarterly indicators, even though they were based on a monthly survey.

In terms of further progress in improving the level of monthly data, the main shortfall can be found in the government and other services section. This is due to the supply of non-market data. The breakdown of periodicity between market and nonmarket shows that 70 per cent of market sector data is available on a monthly basis, whereas for the non-market sector there are no series available on a monthly basis. However, it is worth noting that, when the IoS development programme started, 83 per cent of the indicators used for non-market were available only annually, whereas now non-market is made up of 70 per cent quarterly data. In many cases quarterly data collection may suffice for the non-market.

Level of detail published in the IoS

Position in December 2000

In December 2000 headline IoS and the following five high level components were published:

Table 3
Level of detail currently published in the IoS

Published			Not published			
SIC Division	Description	Weight within IoS	SIC Division	Description	Weight within IoS	
50	Motor trades	2.8	61	Water transport	0.4	
51	Wholesale trades	5.9	66	Insurance and pension funding	2.2	
52	Retail trade	7.7	67	Activities auxiliary to financial	1.4	
55	Hotels and restaurants	4.2		intermediation		
60	Land transport	2.9	71	Renting of machinery and equipmen	nt 1.5	
62	Air transport	0.8	73	Research and development	0.6	
63	Supporting and auxiliary transport					
	activities	2.4				
64	Post and telecommunications	4.0				
65	Financial intermediation	7.0				
6x	Financial services adjustment	-6.2				
70	Real estate activities	3.4				
79	Letting of dwellings	10.6				
72	Computer and related activities	3.9				
74	Other business activities	12.9				
75	Public administration and defence	7.0				
80	Education	7.9				
85	Health and social work	9.6				
90	Sewage and refuse disposal	0.9				
91	Activities of membership organisation	S				
	nec	0.8				
92	Recreational, cultural and sporting					
	activities	3.9				
93	Other service activities	0.8				
95	Private households with employed					
	persons	0.7				
Total		93.9			6.1	

- distribution
- hotels and restaurants
- transport, storage and communication
- business services and finance, and
- government and other services

Current position

The level of detail, from the September 2005 IoS release, was significantly expanded to include 22 of the 27 service sector divisions. These 22 divisions equate to 94 per cent of the service sector (**Table 3** provides further details). Users now have available a far greater breakdown of the service sector; this significantly improves their ability to analyse and understand this ever-increasing important sector of the economy.

The IoS development programme also delivered a further improvement to the data available to users. Divisional level data are now first published one month earlier in the quarterly GDP releases, in the UK Output, Income and Expenditure First Release rather than the Quarterly National Accounts First Release.

How was this improvement made?

A range of analyses were conducted to assess if the divisions were of suitable quality to be published. The analyses included:

- data content what proportion of the division was based on actual data rather than forecasts when it was first published
- revisions performance the average revision, absolute average revision and mean relative absolute revision were calculated for each division. This helped reach a conclusion whether publishing the data would prove helpful to users (for example, data could be used with the knowledge that the numbers were unlikely to be revised significantly). The results were also compared against equivalent data that are published as part of the IoP; this was done to better understand the quality of data already available to users
- volatility the stability of the each division was assessed by calculating the ratio of the irregular and trend components

A key criterion that informed the final decisions was a comparison of the performance between the IoS data and those data that were already considered to be of suitable quality to be published within the IoP (an already established National Statistic).

loS: the journey from experimental to National Statistic status

Position in December 2000

The IoS was launched in December 2000; the headline IoS and all components within the index were classified as experimental statistics. The main reason for the experimental label was the large-scale development programme that began at the same time as the IoS launch. This programme of work was expected to significantly improve the short-term measurement of the output of the service sector; a key element of the rationale for why statistics are classified as experimental is that they are in the testing phase and are not yet fully developed.

Current position

The headline IoS is expected to become a National Statistic on 29 March 2007. This is in recognition of the significant improvements that have been made in the short-term measurement of the output of the service sector. Over 80 per cent (including four of the five high level components) of the IoS is now classified as a National Statistic. **Table 4** provides a breakdown of total IoS between those industries that are classified as National Statistics and those that are still experimental.

How was this improvement made?

The IoS was subject to a trailblazing and robust evaluation process that has helped establish a benchmark for the development of other statistics in ONS. The process is summarised below in five main headings.

Improved methods in the measurement of the output of the service sector

The first step was to identify and implement improved methods to measure the service sector. These improvements were delivered via the industry review programme explained earlier in this article.

Creation of a quality assurance team

A quality assurance team from ONS's methodology directorate was created. The team comprised experts in index numbers, prices and deflation, time series and sample design and estimation.

Documentation and performance of methods used

The methods and the data sources used to measure each industry were fully documented and the performance of the methods was analysed by the IoS team. Topics and analyses covered included:

- conceptual appropriateness of the data sources and methods used; this included an assessment against international guidelines
- coverage of the data sources
- response rates
- data content at first publication
- contribution to key estimates from imputed values
- revisions performance
- are the statistical methods sufficiently robust to suit the circumstances material to their use, for example, robustness of computer system and data quality assurance procedures

Table 4
Total IoS: breakdown of National Statistics by division

National Statistic			Experimental			
SIC Division	Description	Weight within IoS	SIC Division	Description	Weight within IoS	
50	Motor trades	2.8	61	Water transport	0.4	
51	Wholesale trades	5.9	65	Financial intermediation	7.0	
52	Retail trade	7.7	66	Insurance and pension funding	2.2	
55	Hotels and restaurants	4.2	67	Activities auxiliary to financial		
60	Land transport	2.9		intermediation	1.4	
62	Air transport	0.8	6x	Financial services adjustment	-6.2	
63	Supporting and auxiliary transport		70	Real estate activities	3.4	
	activities	2.4	71	Renting of machinery and equipmen	nt 1.5	
64	Post and telecommunications	4.0	72	Computer and related activities	3.9	
74	Other business activities	12.9	73	Research and development	0.6	
79	Letting of dwellings	10.6	85 (pt)	Health and social work: private		
75	Public administration and defence	7.0		sector	2.1	
80	Education	7.9	91	Activities of membership		
85 (pt)	Health and social work: public sector	7.5		organisations nec	0.8	
90	Sewage and refuse disposal	0.9	92 (pt)	Recreational, cultural and sporting		
92 (pt)	Recreational, cultural and sporting activities: excluding radio and TV, and			activities: radio and TV, and betting and gaming	1.6	
	betting and gaming	2.3	95	Private households with employed		
93	Other service activities	0.8		persons	0.7	
Total		80.6			19.4	

- speed of publication compared with reference period being published
- user feedback on usefulness and credibility of the statistics produced

Review of documentation and performance of methods

The quality assurance team reviewed this information and then made a decision. This was often following further discussion with the IoS team regarding requests for further information or clarification on certain issues.

Reclassification in the IoS release of an industry and/or high level component to National Statistic status

The IoS release was updated as soon as possible to reflect a decision made on the appropriateness of an industry or high-level component to be reclassified to National Statistic status. Users were therefore kept fully up to date on the National Statistic content of the IoS.

Improving the timeliness of the publication of the IoS

Position in December 2000

The IoS was published around 15 weeks after the end of the month to which it related – at the IoS launch in December 2000, data for August 2000 were first published.

Current position

The publication of the IoS has been speeded up by seven weeks. The IoS is now published around eight weeks after the end of the month to which it relates and is a leading indicator every one month in three (in March, June, September and December), when data are published for one month beyond the current GDP quarter. For example, on 28 March 2007, the Quarterly National Accounts First Release will publish the third estimate for Q4 2006 GDP; the IoS First Release on 29 March will publish data for January 2007.

How was this improvement made?

Speeding up the IoS has mainly been achieved by improving the efficiency in three aspects of operational procedures – the quality assurance of data, index compilation via a quicker production system and the production and dissemination of the IoS release. There has been minimal impact on the availability of source data.

Conclusion

This article marks the conclusion of a very successful development programme which has met the aims that were set out at the

end of 2000. An exhaustive development programme has seen:

- the conceptual quality of the indicators almost double
- the proportion of monthly data reach almost 60 per cent
- the increased use of ONS survey data
- an increase in industrial detail that is published
- the speeding up of the publication of the IoS
- the IoS being a leading economic indicator for every one month in three

With the dropping of the experimental status of the IoS, users now have monthly indicators for 93 per cent of the economy. As part of the re-engineering of the National Accounts (see Aldin and Tuke, 2004), a monthly estimate of GDP will be produced which will bring together the IoS, IoP and GDP(O) systems into one integrated system. As well as being a leading indicator in its own right, the system will also be a key provider of output and deflators for central systems in the National Accounts and in particular the proposed quarterly supply and use system.

ONS will continue developing service sector data sources and methods as part of the wider methods developments for reengineering the National Accounts.

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