

# Review of Statistics for Economic Policymaking

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Final Report to the Chancellor of the Exchequer,  
the Governor of the Bank of England  
and the National Statistician

Christopher Allsopp

March 2004

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ISBN: 1-84532-013-1

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## Foreword by Christopher Allsopp

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This is my second and final Report, addressed to the Chancellor of the Exchequer, the Governor of the Bank of England and the National Statistician. The terms of reference for the Review are extremely wide: to consider the informational requirements for monetary and wider economic policymaking; with a more specific remit to assess:

1. the demand for and provision of regional information; and
2. whether the changing structure of the UK economy is being adequately reflected in the “nature, frequency and timeliness of official economic statistics”.

Our First Report concentrated on the informational requirements for regional economic policy. We found these to be considerable and justified by the devolution of increasingly large parts of economic policy to the countries and regions of the UK. Devolution of policy responsibility requires changes in the statistical system to go with it – there should be no economic policy responsibility without statistical provision. Devolution of economic policy also requires the devolution of budgetary resources – which, if the resources involved were to increase, would be likely to pose an increasing challenge to the statistical services to make sure that the data to underpin that process are fully credible.

We are grateful to the many institutions and individuals who responded to our First Report. These responses have confirmed the pressing need for a substantial improvement in regional data and have supported the priority given in our First Report to the development of good quality and timely estimates of benchmark statistics – such as regional GVA in nominal and real terms. We reiterate here that the provision of adequate information to support the renewed interest in regional economic policy will entail additional costs – in terms of finances, people and the compliance burden on business.

This second, final, Report updates and amends our recommendations about regional data and institutional change. The main thrust of the recommendations is unchanged.

An important point is that their adoption, particularly the expansion of the main business surveys, would need to be integrated with the ongoing modernisation programme in the ONS. We are aware that this could raise sequencing issues. The modernisation programme has its own timetable, whilst the need for an improvement in regional data is urgent – that is, if expectations and political demands are to be met.

The main emphasis in this Report, however, is on the second part of our terms of reference. In many ways this raises wider and more complex issues than the provision of regional data. We interpret our remit as concerned with the consequences of structural change for the statistical system rather than being about the measurement of structural change *per se*. The key questions are about the consequences of imbalances, such as those between the treatment of goods and service sectors, for the robustness and flexibility of the statistical system as a whole in meeting the demands for data for economic policymaking. Our recommendations are concerned with the alleviation of the present imbalance as well as preventing future reoccurrence.

Our analysis suggests that a principal need for industrial sector detail is technical, concerned with the ways in which the underlying registers, surveys and National Accounting procedures interact and cohere to produce a consistent framework that can meet the core demands by economic policymakers for economic statistics. These core demands include reliable estimates of the National Accounts as well as high frequency and timely estimates of the macroeconomic data needed for monetary and fiscal policy. Both of these depend on the main business surveys and are affected by the industrial classifications adopted – and thus also by any imbalance in treatment.

Accordingly, we recommend that the balance between the treatment of goods and services should be revisited from this technical perspective. For the core statistical system, where coherence and consistency must be paramount, we call for a ‘producer perspective’ (using ‘producer’ to refer to the statistical providers as a whole) rather than a ‘user perspective’.

We find that, from this point of view, the coverage of the main business surveys is not particularly imbalanced or skewed against service sectors. This, in itself, is an indication of the progress that has already been made. Instead, the continuing imbalance arises from a lack of product detail and incomplete price information on the service sectors – detail which is available for manufacturing. Progress in correcting the imbalance thus depends upon the development of comparable detail for services. There is no disagreement about this: the main question is how quickly the needed developments can be introduced, which is, at least in part, a question of resources.

Development of the appropriate service sector detail is critical to other technical changes, such as the improvement of deflation procedures and to any rebalancing of the National Accounting processes that is judged desirable.

This Final Report thus points to two main changes to the statistical system in the UK. The first is that the pressing need for better regional data should be satisfied, as outlined in our First Report and reiterated here. The second is that the core systems need to be rebalanced to provide proper detail and coverage of the service sectors. Both require resources, and we regard it as important that both changes should be considered together – not least because they both involve changes to the main business surveys and National Accounting procedures. They also interact.

A number of responses to our First Report, which recommended that the imbalance between goods and services should be addressed, stressed the continuing policy and private sector need for manufacturing or goods sector detail. In fact, the regional requirement is for an expansion of sample sizes (this is where the expense mainly arises). Larger sample sizes allow greater precision for a given level of detail. Overall, our proposals, if adopted, would lead to a statistical system better able to respond to the demands of economic policymaking – including both regional demands and the demands for industrial and service sector detail.

Economic policymaking depends on the integrity of the statistical system that underpins it and its responsiveness to change. The increasing demands on the system can be seen as a recognition of that simple fact. We are encouraged by many of the developments that are taking place, and the widely shared vision of a coherent system that is capable of responding to changes in the structure of the UK economy and to new demands. Inevitably, however, there are resource constraints. We were acutely conscious, throughout the review process, of the sheer impossibility of responding to all, or even most of, the disparate demands for data

that now arise. For regions, this led us to distinguish between the core demand for data on the twelve regions and countries of the UK and other demands – a distinction that was reflected in the form of our recommendations. For the structural issues treated in this Report, our recommendations focus on core systems. We believe that this focus on core demands and core systems is correct and that, likewise, the ONS needs to be supported in focusing on its core responsibilities.

Clearly, resource constraints – particularly those imposed by compliance costs – would be lightened if greater use could be made of administrative data (such as tax records). We drew attention to the potential benefits as well as the difficulties in our First Report and restate here that it is important that this avenue be fully explored.

This Final Report, like the First Report, represents the views of the team as a whole. We have benefited greatly from the expertise and experience of those who have generously given us their time to discuss the issues or who have sent in submissions to the Review. I would like to extend my personal thanks to the three sponsoring institutions, which have helped in innumerable ways. I am especially grateful to the other members of the review team: Andrew Holder, Geoff Tily and Michael Williams.

A handwritten signature in black ink, appearing to read 'C.S. Allsopp', with a long horizontal flourish extending to the right.

Christopher Allsopp





# Summary

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1. This Final Report focuses mainly on the question of whether the changing economic structure of the UK is being properly reflected in the nature, frequency and timeliness of official economic statistics. It also revisits the regional and institutional recommendations from our First Report.

**Overview** 2. The starting point for our Review is a statistical system that at present does not provide all of the data needed to support regional economic policy and that is skewed towards manufacturing rather than services, despite recent improvements – particularly on measuring the service sector, and an ongoing modernisation programme that offers scope for further progress. A common factor is the need to adjust in response to change: either the recent revival of interest in regional policy or the increasing importance of the service sector in the UK economy. In addition, we seek also to move towards a system that is more responsive to such changes in future.

3. The principal outcomes from our recommendations would be:

- good quality baseline Gross Value Added (GVA) estimates for NUTS 1 regions,<sup>1</sup> and improved detail at lower levels, as part of an integrated system producing both National and Regional Accounts;
- a statistical system that is not skewed towards particular sectors of the economy, that reflects the contribution and nature of different economic sectors, and that evolves alongside future change in the economy;
- a coherent and efficient suite of registers, surveys and estimation procedures, based on sound statistical principles, that reflects the balance of the economy and delivers reliable results at acceptable compliance cost;
- that the range of information held by government can be used to increase the quality and the compliance and cost efficiency of economic statistics, while safeguarding its confidentiality; and
- good links between the centre, Office for National Statistics (ONS) or Government Statistical Service (GSS) statisticians located in the regions and devolved administrations and regional bodies, with greater comparability of those micro-regional data that are not collected centrally.

**Our approach** 4. In this Report, our approach is to consider the various demands for industrial detail, in particular that which is required for the National Accounts. We consider these in the light of the statistical processes, registers and surveys used to collect data. We focus initially on the measurement of Gross Domestic Product (GDP) using business surveys, which underpin both timely and benchmark estimates. It is also where the imbalance between manufacturing and services shows itself most starkly.

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<sup>1</sup> *The Nomenclature of Units for Territorial Statistics (NUTS) is the standard geographical classification. The nine English regions plus Scotland, Wales and Northern Ireland are the NUTS 1 level.*

5. While our First Report found a clear *policy* demand for regional data at the NUTS 1 level, the demand for industrial data is rather more diffuse, though still present. However, we find that the *technical* demands for industrial detail to feed into national data are more clearly defined, and link closely into the National Accounts framework. A key principle of this Report is that the level of industrial detail used in the National Accounts should largely reflect these technical considerations rather than user demand, and should be reviewed regularly to take account of structural change in future. In combination with the extensions to key surveys that we recommend for regional data, such a system should still meet most user demands for industrial data. Where it does not, we suggest that these can be met using other methods.

### Policy demands

6. There is clearly a significant demand for national data for monetary and fiscal policy, including a much greater need for timely estimates than we found for regions. A number of government departments have an obvious interest in data on particular industries, as do trade organisations, representative bodies and businesses themselves. But we find no clear demarcation of need, comparable to the devolution of policy to the Regional Development Agencies and the devolved administrations. A theme that is common to regional and industrial data is the almost unlimited desire for detail, which extends to microeconomic data too.

### National Accounts framework

7. Information on industries plays an important role in the National Accounts framework, providing both timely indicators and much of the detail required for the supply-use balancing process that underlies the annual benchmark estimates. Business activity surveys now collect much more information on the service sector than previously. But at present the National Accounts processes do not fully exploit the information available on the service sector. We identify two significant areas where the framework does not sufficiently reflect the economic structure of the UK:

- very detailed deflators are available for the output of manufacturing industries, drawing on information covering both products and prices, in contrast with less-developed deflation processes and no systematic provision of product information for the service sector; and
- the industry disaggregation used in the supply-use balancing process is heavily skewed towards manufacturing rather than services.

8. The ONS has set in train a modernisation programme, which is scheduled to include ‘re-engineering’ of key products, such as the National Accounts and the sources on which they are based. This will extend supply-use balancing to chained volume as well as current price estimates, which should use data more fully and, in principle, lead to more coherent and robust measures of GDP. The modernisation programme also offers an opportunity to further rebalance the statistical system and help to integrate regional data better into the overall statistical framework.

### Industries and sampling

9. The Standard Industrial Classification (SIC) of industries, which contributes to deciding the industrial composition of key surveys, gives more weight to manufacturing than its share in UK output would warrant. At present the sample allocation of key business surveys is geared towards ensuring that data are produced according to a particular level of the SIC, which is required by EU legislation.

10. We recommend that the ONS gears its sample allocation instead towards producing accurate estimates at the national level, together with broad regional and industrial breakdowns. This could imply some shift in the balance of samples from manufacturing to the service sector. But the bigger sample sizes we propose to generate better regional estimates should mean that most of the detailed industry estimates would continue to be produced, and could be of better quality – even for manufacturing. Alternative techniques, that are already used in the ONS, could generate estimates if samples prove too small for particular categories. And the option would remain to apply specific (time-limited) boosts to samples if there are industries of special interest. An important part of our proposal is that the coverage of industries in key surveys should be subject to regular review, to help the statistical system to respond to future changes in economic structure.

#### Products and deflation

11. The supply-use process, which lies behind the *Blue Book* figures, uses information on the output and use of products in balancing the different estimates of GDP. However, it uses a list of products and industries that is highly skewed towards manufacturing – more so than the SIC. Given its pivotal role in the National Accounts framework, we believe that the supply-use framework should be rebalanced, so that it better reflects the structure of the economy. But this would require more information on the service sector, particularly on product detail.

12. Economic policy requires estimates of real, or chained volume, activity, which in turn sets up a demand for price information to deflate current price estimates. Good deflators require information on both products and their prices: for manufacturing there is a wealth of detail on both of these, but relatively little on service sector products. Collection of information on the products of the service sector should be pursued as a priority, to allow development of better price indices and deflators.

#### Business register and surveys

13. Data quality is closely linked to that of the underlying registers and surveys. We believe an up-to-date and accurate business register should play a greater role in business statistics, and there are advantages in a common register used across government and in regional bodies. In contrast to other parts of the framework, the Inter-Departmental Business Register and the ONS' main surveys of business activity do broadly reflect the balance of the economy. Our key recommendation for the main business surveys is that they should be expanded to support better measurement and allocation of regional activity, though we believe that regional estimates as accurate as the National Accounts could not be justified on cost grounds in the current institutional structure. We support further integration to increase coherence across the range of different business surveys, and the use of administrative information to reduce financial and compliance costs.

#### Measuring output

14. The most timely estimates of GVA depend on output measures, which are considerably more developed for manufacturing than for services. The ONS has expanded its coverage of short-term output indicators to include more information on service sector output, although this remains an experimental statistic. We recommend that the ONS continues to improve its measurement of service sector output and the prices of business services, where better information on product would be valuable. We note difficulties in estimating the output of the financial services sector and also of government, which is being covered by Sir Tony Atkinson's review.

**Expenditure components** 15. The expenditure measure of GDP and its components are less affected than the output measure by the balance between manufacturing and services. The main instance is trade data, where there is a vast amount of detail on goods imports and exports but much less on trade in services, which is one of the areas of the National Accounts most subject to revision. The ONS has been developing its measurement of services trade and further improvement should be pursued.

**Labour market and productivity** 16. The main difficulty that we identify with labour market information is the divergence between estimates of employment from household and business surveys, including the industry breakdown of employees. However, these issues are being taken forward by an ONS Quality Review, which recently reported interim findings. Productivity estimates bring information on the labour market together with National Accounts and short-term indicators, which means that short-term estimates of productivity are more developed for manufacturing than for services. Progress here mainly depends on improving measurement of service sector output.

**Other approaches** 17. We also look at other ways of presenting and analysing economic statistics and understanding structural change. Growth accounting can be seen as an extension of the National Accounts that sets out the contribution of particular industries and factors of production to overall growth. It requires good estimates of inputs and outputs for all industries, including a measure of capital input. An alternative, bottom-up approach is Business Data Linking, which harnesses the potential from combining micro-datasets to look at determinants of productivity and related issues.

**Responses to our First Report** 18. As well as the formal consultation exercise on our First Report, the proposals were discussed at a seminar in January and at a number of other presentations. Responses were broadly supportive of our approach and welcomed the prospective improvement in regional data. Comments covered a wide range of issues and demonstrated the extent of demand for more and better data in virtually all areas. The Review Team received many helpful comments and is grateful to all those who responded. The broad thrust of our recommendations on regional data and on institutional matters is not significantly changed. These included:

- bringing Regional Accounts more into the National Accounts framework, including development of an improved and timely measure of real regional Gross Value Added;
- expanding the range of microeconomic and sub-regional data already available, with the infrastructure used by the ONS' Neighbourhood Statistics Service becoming the primary platform for area-based National Statistics;
- an ONS or GSS presence in the English regions to complement that which already exists in Scotland, Wales and Northern Ireland; and
- greater access for the ONS to administrative data held within government, which could improve both regional and national data while offering important savings in the compliance burden on business.

**Conclusion** 19. We believe this Report sets an ambitious agenda to provide the information required for regional policy and to develop statistics that fully reflect the modern economy. Our recommendations point the direction towards our overall aim of a coherent, balanced and integrated statistical system. There are also close links with the ongoing ONS modernisation programme, which has similar aims. Many of our recommendations are addressed primarily to the ONS, but it is essential that the agenda is taken forward in close consultation with users and with other producers of official economic statistics.

# Recommendations

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*The recommendations are listed here in the order that they appear in this Report. Recommendations 1 to 45 from our First Report are mostly discussed towards the end of this Report; newer recommendations, numbered from 46 onwards, appear first. Where recommendations from the First Report are not substantially changed we have retained the original numbering; where recommendations have been replaced or superseded this is indicated in the text. Most of our recommendations are addressed to the Office for National Statistics.*

## A framework for the National Accounts that responds better to the economic structure of the UK (Chapters 4 and 5)

**Chained volume supply–use tables** 46. In principle, the development of supply-use processes and the proposed integration of deflation processes within this framework should lead to more robust, coherent and transparent measures of GDP. Data requirements due to these changed procedures should be given high priority in developments to survey and register processes.

**Use of ‘wavy line’ stratification** 47. The ONS should review the relevant level of industrial stratification for its main business surveys. The stratification technique should move away from being based on one specific level of the Standard Industrial Classification (SIC) to a ‘wavy-line’ approach based primarily on producer rather than user demands. Alternative estimation techniques should be introduced to meet some of the more detailed user requirements (see Recommendation 50). [Replaces 30]

**Review of producer demand for industry detail** 48. The ONS should examine its own ‘producer’ demand for industry and product detail to feed into the review of industrial stratification (Recommendation 47). This review should address:

- how the economic structure of the UK can be best captured?
- at what level of detail should turnover be deflated for timely GDP measures?
- how many supply-use industry/product groupings are relevant?
- what should these categories be?
- should the supply-use framework be operated so that products are defined the same as industries?
- bearing in mind deflation and supply-use requirements, at what level of detail should product data be gathered? and
- any likely additional requirements due to modernization.

The review should be updated at regular intervals in order to adapt as the structure of the economy continues to change. [Replaces 31]

**Hierarchy of user demands** 49. Official statistics should provide robust, accurate and timely estimates of national GDP and associated macroeconomic variables. Estimates should be made according to the following hierarchy:

- national GDP estimates, including broad output, expenditure and income categories;
- NUTS 1 regions;<sup>1</sup>
- industries according to the producer-led demand, following the review in Recommendation 48; and
- NUTS 2 and 3 regions and any other industry structure.

### Updating the surveys and methodology that underpin the National Accounts (Chapter 6)

**Business register** 50. As envisaged in the ONS' modernisation programme, the Inter-Departmental Business Register (IDBR), Annual Register Inquiry (ARI) and associated methodological techniques should be extended in order to play a more sophisticated central role in inputs and outputs of the business survey process to meet national and regional demands. The developments might involve widening the coverage of the IDBR, extension of the ARI, extended integration with other surveys, as well as development of new estimation and apportionment techniques. Developments should also support the more extensive range of analytical techniques and surveys undertaken across government, particularly telephone surveys. [Replaces 7 and complements 8]

**Business surveys** 51. The Annual Business Inquiry sample should be extended to provide NUTS 1 regional estimates at a level of accuracy broadly in line with Option Three of Annex A2 of our First Report. If necessary, the sample sizes of the Monthly Production Inquiry, Monthly Inquiry into the Distribution and Service Sectors and Retail Sales Inquiry should be extended to provide a reasonable advance annual measure (as described in Recommendation 14). All surveys should introduce wavy-line industry stratification as specified in Recommendation 47, and associated efficiency savings sought. At the same time, changes to samples should seek to integrate the use of administrative data. Any extensions should also consider how well the existing surveys are meeting present producer requirements. [Replaces 6]

**Non-ONS business surveys** 52. The ONS and relevant government departments should review whether the partly de-centralised survey arrangements for some National Accounts measures are satisfactory. Given the National Statistician's responsibility for National and Regional Accounts, our presumption would be for future inclusion in the appropriate ONS surveys if de-centralised sources are not able to meet the required quality standards. [Replaces 34]

**Business price surveys** 53. The ONS should review the relevant product detail for goods and services price measurement and sales estimation in the light of accuracy and efficiency considerations, and explore the scope for a more common approach to business price measurement. From a regional perspective, a study should assess whether the rates of change of corporate service and goods producer prices vary regionally, and if they do, to follow up with a feasibility study of whether price data currently provided centrally can be provided locally. [Replaces 10]

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<sup>1</sup> *The Nomenclature of Units for Territorial Statistics (NUTS) is the standard geographical classification. The nine English regions plus Scotland, Wales and Northern Ireland are the NUTS 1 level.*

- Product sales survey** 54. The ONS should estimate product sales for all industries. The timeliness and detail of these estimates should be driven primarily by producer rather than user considerations. The survey should be conducted on an annual basis rather than a quarterly basis. [Replaces 29]
- A fully coherent system** 55. The ONS should build on the current small-scale scoping study for business survey integration towards a fully coherent business survey system in the longer term. The ONS should assess:
- the relevant roles of survey and administrative data;
  - the extension of surveys to broad industries not covered at present;
  - the role for an omnibus survey of business activity;
  - the combination and integration of surveys; and
  - the resolution of detailed cross-cutting methodological issues. [Incorporates 33]
- Other countries** 56. While we are aware that there is a close relationship between statisticians in the ONS and in the devolved administrations, it is vital that initiatives developed both through modernisation and as a response to our Review take into account the views and priorities of statisticians in these institutions. Where feasible, the goal should be a central system that meets the requirements of all countries.
- Relation with modernisation** 57. The business survey aspects of the modernisation programme should take full account of our recommendations concerned with survey sources.

### Better short-term estimates of output (Chapter 7)

- Information on revisions** 58. It is important that users of statistics have sufficient information to judge how much weight to place on particular estimates. This should include indications of the nature, frequency and size of likely revisions, and the extent to which the most timely indicators are based on actual data or on estimates made by the data providers. Equally, users must recognise that revisions are part of the normal statistical process and are a necessary consequence of publishing of timely estimates. In the majority of cases, these revisions should not be seen as ‘errors’; such descriptions are inaccurate and can cast unwarranted doubt on the credibility of official statistics.
- Measuring services** 32. The coverage of the service sector in surveys of activity and prices should continue to be increased, building on the development of the experimental Corporate Services Price Indices and Index of Services, especially on improving the sectoral coverage. The ONS should accelerate this work and move towards the milestone of both the CSPI and the IoS losing their ‘experimental’ labels as early as possible, recognising also that further improvement will be necessary for some considerable time after that. The ONS should keep users informed of progress and should aim to demonstrate visible improvement by 2006, with continuing development thereafter.
- Monthly GVA estimates** 59. The ONS should publish a monthly estimate of Gross Value Added (GVA) once the IoS has been designated a National Statistic. This would bring together the information in the IoP and IoS, together with whatever is available for the industrial sectors not covered by these two indices. This indicator would be benchmarked onto quarterly and annual National Accounts data, and probably published as soon as both the IoP and the IoS were available. The timing relative to the third month of the quarter and the preliminary estimate of quarterly GDP would need to be considered carefully, in consultation with key users. We would, however, not wish to see any delay to the preliminary estimate of quarterly GDP.

**Improved measurement of services** 60. Given its importance for the UK economy, we believe improving the measurement of the service sector should be a high priority for ONS development work. We believe that significant improvements in data provision on private non-financial services should be readily attainable with sufficient resources, including money, people, methodological support and compliance costs.

### Improving the estimates of expenditure components (Chapter 8)

**Monthly consumption** 61. Once consumer services are measured in the monthly Index of Services to the quality required of a *National Statistic*, the ONS should investigate what would be required to produce a timely monthly estimate of consumer spending.

**Investment** 62. The ONS should investigate why revisions to investment tend to be larger than those to other expenditure components and what can be done to reduce the likelihood and magnitude of such revisions. It should also consider, in consultation with users, how a finer disaggregation by product might be produced to enable better capital stock measurement and deflation.

**Intrastat** 63. The Intrastat survey appears disproportionately costly and detailed compared with other business surveys undertaken by the Government Statistical Service. HM Customs and Excise should examine the constraints on Intrastat, whether the required information could be collected more efficiently, and whether this represents a sensible allocation of public funding.

**Trade in services** 64. The ONS should examine the relative strengths and weaknesses of the surveys used to compile estimates of trade in services, what measures could be taken to improve monthly and quarterly estimates, and whether deflation techniques should be improved to enable separate monthly volume indices for trade in services to be produced.

### Developing better measures of the labour market and productivity (Chapter 9)

**Public sector jobs** 65. The public sector should be brought into the Workforce Jobs Survey. The ONS should review the best way in which to do this, including improving the administrative information that departments provide to the ONS. It is important that the public sector improves the quality and timeliness of information on people employed.

66. We welcome the intention of the ONS, as part of the Quality Review of Employment and Jobs, to investigate how changes to the ABI can improve the quality of labour market statistics and better meet users needs. However, this review will need to take into account our wider recommendations for changes to the ABI.

**A single jobs series** 67. We consider the prospect of a single series of jobs data to be a reasonable aim and recommend that the ONS reviews the work required to develop a single measure, in the light of implementing the proposals from the Employment and Jobs Quality Review.

**Service sector productivity** 68. As the ONS continues to develop the IoS and other measures of service sector activity it will be important to ensure that measures of service sector productivity are developed alongside. The ONS should aim to continue development of the service sector productivity measures so that they lose their experimental tags at the earliest opportunity.



## Alternative frameworks for analysing the changing economy (Chapter 10)

- Capital stock and investment** 69. Development of better measures of capital stock and capital services is important, particularly the improvement in measuring investment, including detail of the asset break-down (see Recommendation 62). The ONS should examine the need for more regular reviews of the life of capital assets.
- Data linking** 70. We welcome the achievements made as part of the Business Data Linking Project and recognise the advantages to researchers of having access to such linked datasets. Government departments should assist the ONS in identifying suitable datasets that could be added to the existing datasets and in developing suitable protocols for their use.
71. To improve the suitability of datasets for linking in to the current set, government departments should wherever possible use the IDBR as the sample frame when embarking on a survey.
- Satellite accounts** 72. In general, the development of satellite accounts needs to be considered in an overall cost-benefit framework. The ONS should consider the resource costs of these developments against its wider objectives and the frequency of the various accounts should be tailored to the specific policy demand.

## UPDATED RECOMMENDATIONS FROM THE FIRST REPORT

### Developing Regional Accounts to provide better quality, more timely annual baseline estimates

- Benchmark GVA estimates** 1. The momentum behind ongoing changes to the production of Regional Accounts in the ONS should be maintained and developed as necessary. There should be appropriate senior management input into the process and demonstration that these are priority areas. Specifically, present problems with Inland Revenue sources should be resolved as a matter of urgency.
2. Present estimates of regional Gross Value Added (GVA) are not of sufficient quality to support analysis of the Government's policy objective to increase growth in the regions. Each region and country (at NUTS 1 level) should have annual baseline data for GVA at current prices and in chained volume terms, which would be derived according to the production approach. The ONS should aim to produce estimates according to the timetable set out in its response to the First Report (2007-08), and earlier if possible.
- Recommendation 3 has been combined with Recommendations 11 and 12.
- Short-term activity** 4. For most purposes, it would be better to assess short-term regional activity by looking at a range of timely indicators and surveys than by constructing quarterly GVA estimates for each region, which may have relatively low information content. Countries and regions could, however, produce or commission their own quarterly GVA estimates if these were thought necessary. As with initiatives presently underway, some might prefer to do this in collaboration with the ONS. Over the longer term, once other priorities have been addressed, there may be a case for revisiting the provision of short-term activity indicators if a significant number of regions or countries have commissioned their own quarterly GVA estimates.

**Measuring welfare** 5. We support the use of regional GVA both per head of population and relative to some measure of labour input, which preferably would be on the basis of both employment and hours worked. Indicators of welfare should emphasise residence-based household income, while indicators of productivity should emphasise workplace-based GVA. A fuller picture, however, requires an assessment of a wider range of indicators than GVA. In addition, below NUTS 2 level, GVA becomes increasingly difficult to measure, and other indicators are likely to provide a better picture of local economic conditions.

Recommendations 6 and 7 are now encompassed in the more general Recommendations 51 and 50, on surveys and business registers.

**Surveys and methodology** 8. The ONS should, as a matter of priority, review the methodology for apportioning reporting-unit returns to regions. This appears to be a significant source of volatility and uncertainty in the aggregate estimates of regional GVA. Such a review should be complemented by case studies of some of the largest enterprises to indicate whether there is justification in the current practice of allocating the returns of large enterprises according to the observed behaviour of small firms, and also to enable potential alternative apportionment methods to be tested. It should also consider whether some local-unit reporting of accounting information should be introduced.

**Incorporating regional intelligence** 9. Over the longer term, the ONS should identify and take the necessary steps to integrate Regional Accounts into the National Accounts framework as fully as possible and to increase the quality of Regional Accounts data towards that of the National Accounts. Statisticians in regions/countries should be involved in production of the figures for their areas:

- there should be adequate arrangements to incorporate locally-obtained information from this process into national totals;
- all relevant institutions should approve the quality of the final estimates; and
- existing mechanisms for resolving differences should be developed to meet the requirements of all interested parties.

This recommendation should be subject to the processes improving both national and regional figures; national totals should remain the responsibility of the National Statistician.

Recommendation 10 is incorporated in Recommendation 53.

**Income components** 11. There will continue to be a demand for a measure of gross household disposable income and the components of GVA according to the income approach. The ONS should continue to publish an income-based measure of regional GVA and should put together proposals for any necessary improvements to existing methods and sources.

**Expenditure components** 12. There is a requirement for estimates of individual components of the expenditure measure of GDP. The production and income measures should be accompanied by the main components of domestic expenditure, but we do not propose full estimation of an expenditure measure of GDP. The ONS should put together proposals for the following:

- extending the sample of the Expenditure and Food Survey, as part of the developing Continuous Population Survey, in order to provide a more robust annual regional breakdown of Household Final Consumption Expenditure;
- the development of fuller regional measures of Gross Fixed Capital Formation that look beyond apportionment techniques;

- the production of an annual National Accounts measure of Government Final Consumption Expenditure that takes into account the recommendations in Professor McLean's Report, as a first step towards the possible development of fuller regional government accounts; and
- potential deflation techniques for each measure.

**Sub-regional estimates** 13. We consider that initiatives should be aimed at the improvement of Regional Accounts data at the NUTS 1 level. These should improve the quality of sub-regional data, in particular the NUTS 2 estimates that are relevant for EU Structural Funds. The ONS should monitor the quality of these estimates and consider whether further action is necessary, for instance making use of estimation techniques, once other priorities have been addressed.

**More timely estimates** 14. There should be a measure of annual regional GVA growth, based on short-term inquiries, that is more timely than the ABI or income-based approaches. The ONS should put together proposals involving discussion of any need for current short-period surveys to be boosted, with the aim of publishing estimates by 2007, and earlier if possible. Users will need to recognise that any such estimate will, of necessity, have a wider margin of error than the benchmark annual Regional Accounts.

15. In terms of timing, preparatory work on extending samples for the ABI and any changes to short-term inquiry-based measures should begin as soon as possible. Changes for the short-term measures should be faster to agree and should be put in place first.

### Improving existing labour market and population data; estimating regional price levels

**The Labour Force Survey** 16. The extension of existing arrangements, via the introduction of the Annual Population Survey (APS), to boost the Labour Force Survey (LFS) have led to more reliable figures at local authority level. And the publication of quarterly APS results on the basis of rolling 12-month periods would improve the timeliness of local area labour market estimates. However, this beneficial development should be put on a more permanent and balanced footing, including centralising funding within the ONS, following a review of whether the existing arrangements are leading to detailed geographical data of adequate quality, given the differing allocation of resource between countries. The ONS, in consultation with users, should also continue to examine the scope to improve information on skills from the LFS.

Recommendation 17 is encompassed by Recommendation 67.

**Hours and earnings** 18. The ONS should publish a regional breakdown of usual hours information, disaggregating male and female, part-time and full-time, and pursue the feasibility study of annual regional estimates of employer-based vacancies.

19. We do not propose the construction of a monthly regional measure of wage/earnings pressures. The New Earnings Survey already provides detailed regional earnings information that wider initiatives should improve, although the presentation should recognise the increasing importance to users of the time series dimension of the results.

**Population** 20. Resolution of concerns with population statistics is of crucial importance from the perspective of regional and local policymakers. We welcome the programme of work set out in the Quality Review of ‘International Migration Statistics’, and recommend further that the ONS and statisticians in the devolved administrations develop research in order to establish how intra-UK migration can also be estimated more accurately.

**Regional prices** 21. We support the ONS’ existing approach to 2003 and 2004 regional price level estimates. It should lead to figures fit for purpose. In future, production should be based on a cycle of surveys and updates according to a timetable that meets user demand. The ONS should integrate change and level systems as necessary, recognising that users will be able use level information to derive estimates of regional inflation rates, but these should be aimed at operational simplicity rather than full coherence between price levels and changes.

### A framework for providing micro-regional data and increasing comparability

**Developing infrastructure** 22. The considerable work undertaken in recent years to develop the Neighbourhood Statistics Service shows what can be possible, although not without a price. We support the aim of the ONS to continue development of the Service. We recommend that this, and parallel systems in devolved administrations, should include scope to cover an expanded range of economic data, which could be presented at a range of different geographies below and up to NUTS 1 regions, to become the key central resource for micro-regional data. Where possible, data for small areas should identify those that cover rural areas, once a consistent definition has been agreed within government. The range of different data, including regional economies and local neighbourhoods, might suggest a suite of different access portals for such an expanded system. But the ‘Neighbourhood Statistics’ badge should be retained for those data most relevant for neighbourhood renewal.

**Regional dimension to new surveys** 23. When designing new surveys or re-designing existing surveys, the ONS and other bodies should take full account of the need for regional and sub-regional data. How precisely this is done and the level of accuracy required will depend on the particular circumstances, including assessment of the relative costs and benefits.

**Geography** 24. The NUTS hierarchy is now widely accepted across a broad range of statistical and administrative bodies. It should ideally be the standard, at the very least at the NUTS 1 level and where possible at lower levels, unless there are overriding operational reasons to do otherwise. We welcome the ONS’ proposals for a more stable small-area geography. Any new classifications that are introduced should where possible be built up from this proposed geography.

25. The current policy is that data included in the Neighbourhood Statistics Service, and parallel developments in devolved administrations, should be available for all areas. However, in some cases there may be good reasons why data are not available for all areas. Within reasonable bounds, we do not believe this should prevent their inclusion on a central system.

**NOMIS** 26. Future development of the Neighbourhood Statistics Service, including the introduction of economic statistics, should take full account of the needs of professional users. Accordingly, the ONS should ensure that the analytical requirements of NOMIS users are met in the new framework, wherever possible including Neighbourhood Statistics as well as economic statistics. Until this is possible, NOMIS or an equivalent system should be retained separately and adequately resourced to maintain service to users.

**Consistency of regional surveys** 28. Regional and local bodies will still have particular needs that are best met through *ad hoc* data collection. Regional autonomy is important, but balanced against this are significant advantages of having data that are compiled on a consistent basis and that are comparable across regions. We therefore recommend that:

- wherever possible, business surveys should use a common sample frame, usually the IDBR;
- Regional Observatories can play an important role here, including sharing of best practice;
- but this may be further facilitated by the ONS and GSS acting as a source of advice and best practice for data collected by regional bodies; and
- the ONS and others should consider an intermediate ‘kitemark’ for surveys which have been undertaken in accordance with ONS advice and compiled according to agreed standards and procedures, but are outside of ONS responsibility.

### Improving the statistical infrastructure and making better use of administrative data

**Transparency** 27. All producers of statistics should aim to provide full information to users about how data have been constructed and which are appropriate uses. A wide range of information is already available on the ONS website, but should be made more readily accessible. Statisticians in the English regions and the devolved countries can also play an important role in informing and helping users.

Recommendations 29 to 34 are superseded by those in Chapters 4 to 7 of this Report.

**Capturing change** 35. The innovative and strategic capacity within the statistical services needs to be strengthened, so that they can respond in a more satisfactory way to changes in the policy framework, in the economy and in society. A proactive approach to identifying and responding to these issues would include a strengthened research capability, greater ability to prioritise in the face of substantial but disparate user needs, and good liaison with users to find out how their needs develop over time. Once issues are identified, there should be a mechanism for investigating implications of such changes for *National Statistics* and implementing necessary changes, including reallocating resources.

**Regional statistical presence** 36. There should be a significant ONS or Government Statistical Service (GSS) presence in each English region:

- they should seek to provide a source of regional expertise to improve the ONS’ understanding of the regions, while also developing links with and acting as principal contacts with regional bodies and researchers;
- the offices must be sufficiently resourced to make a real contribution. One person in each region, even with support from ONS Head Office, is unlikely to be enough;
- regional statisticians should work with the same independence as those in ONS Head Office, while liaising closely with Government Offices, Regional Development Agencies, Regional Observatories, local authorities and other relevant bodies and individuals;

- the location in each region may vary, in the light of the particular institutional arrangements in that region, but should be one that balances an ability to maintain effective liaison with Head Office with the needs of the significantly ‘outward-looking’ role that is proposed;
- decisions on location should be taken on a region by region basis, considering possibilities such as the Government Office and the Regional Observatory; and
- there should be a common function and reporting arrangements for regional statisticians, even where the location within the region differs.

- Assessing micro-data priorities** 37. A mechanism should be set up for establishing priorities and assessing demands for micro-regional data. This might take the form of a high-level group including both producers and users of micro-regional data, with regional bodies having a significant voice in the group. A way of limiting numbers around the table would be needed to make such a group workable, for instance by use of experts with delegated powers from regional organisations. The decisions of the group should take full account of the relative costs and benefits of data provision.
- ONS central resources** 38. A higher level of resources should be devoted to building methodological, user liaison and ICT capacity to the level necessary for compliance with the wider recommendations in this Report.
- Data needs for PSA targets** 39. As targets need to be measurable, there are benefits from ONS or GSS experts being involved at an early stage of the development of targets, to advise on any associated measurement difficulties. All suggestions for new Public Service Agreement targets, or other government targets, should therefore set out how performance can be measured, based on early consultation with the relevant analysts.
- New EU regulations** 73. Any additional financial and compliance costs of new statistical regulations introduced by Eurostat should be transferred from the budget of the central government department that leads on the relevant Council formation to the ONS, once the ONS has taken on the measurement role.
- Administrative data** 40. Administrative data, if used wisely, appear to offer opportunities to increase the quality and analytical power of key *National Statistics*, as well as reducing the associated compliance costs. More generally, within the important constraints of adequate protection for sensitive information and limiting use to solely statistical purposes, we believe there is considerable scope for the Government to make better use of the information that it holds. The ONS and the Government should explore the extent to which tax and other administrative sources could replace business survey data. They should propose the necessary action to overcome legal and other barriers where information is held within government that is of sufficient quality to improve statistical provision, or where quality can be increased to meet statistical needs, while maintaining adequate safeguards of confidentiality.
- Tax records and IDBR** 41. We recommend in particular that the Government should as a matter of priority develop mechanisms whereby the ONS and the statistical services in the devolved administrations could have greater access to the information collected by the two Revenue Departments. On the other hand, the ONS should investigate how information on the IDBR could be made more widely available, subject to appropriate safeguards on confidentiality and use only for statistical purposes. Either of these may require changes to existing legislation, or indeed new legislation.

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## Minimising the effect of our proposals on business compliance costs

- Simplification** 42. We welcome action by the ONS to keep the complexity of its survey forms under review. The ONS and others involved in data collection should simplify forms as much as possible (recognising the constraint of the need for consistent questions) and also consider whether there is scope for rationalising surveys, for instance by amalgamation and joint working by different departments, where this would reduce compliance costs. Data collectors should also consider the scope for reducing the compliance burden through making better use of Information and Communications Technologies.
- Relationship with respondents** 43. The ONS should seek to exploit full advantage from further developing its relationship with companies providing data, for instance by explaining how surveys are used and offering firms information about their sector. The ONS, possibly with the involvement of HM Treasury and the Bank of England, could also improve its ‘brand image’, so that firms recognise the outputs to which their responses to surveys contribute and their importance for national and regional policy. This could improve the response rate of surveys and the quality of returns made by companies, as well as the potential to reduce complaints over compliance burdens:
- the ONS should review the way it explains to firms why it is seeking information from them; and
  - part of this could involve (with help from regional organisations, HM Treasury and the Bank of England) regular roadshows to the regions to show firms how their responses feed into the production of national and regional statistics and subsequently into better policy making.
- ONS compliance in context** 44. We recognise that businesses today face many administrative and regulatory burdens, which can be especially difficult for small firms. The compliance cost associated with statistical inquiries is rightly under close scrutiny. But we believe that the ONS accounts for a very small part of the overall regulatory and administrative requirements placed on business. While such burdens should never be increased without good cause, we believe some increase in compliance costs would be justified in terms of the significant improvements in national and regional statistics that can be achieved. There may be scope to offset some of this, in particular through making better use of administrative and tax information.

Recommendation 45 sought views in the consultation, so no longer applies.





# 1

## Introduction and overview

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**1.1** The Chancellor of the Exchequer asked Christopher Allsopp to undertake a wide-ranging review of the informational and statistical requirements for monetary and wider economic policymaking, announced in an HM Treasury press notice on 27 February 2003.<sup>1</sup> This is the Final Report of that review, addressed to the Chancellor of the Exchequer, the Governor of the Bank of England and the National Statistician.

**Terms of reference** **1.2** The terms of reference for the Review are:

*to advise on changes in the statistics and information necessary if the UK were to join the European single currency;*

*to deliver an assessment to the Chancellor, the Governor of the Bank of England and the National Statistician, with a first report by the 2003 Pre-Budget Report on the following:*

- *the regional information and statistical framework needed to support the Government's key objective of promoting economic growth in all regions and reducing the persistent gap in growth rates between the regions; and*
- *whether the changing economic structure of the UK is being properly reflected in the nature, frequency and timeliness of official economic statistics.*

**First Report** **1.3** Our First Report was published on 10 December 2003, alongside the Pre-Budget Report. It focused mainly on the economic statistics needed to support regional policy, but also presented initial views on the extent to which the UK statistical system has reflected the changing structure of the UK economy, in particular the relative importance of the manufacturing and service sectors.

**1.4** The First Report explained how the devolution and regional economic policy agendas have led to a growing demand for regional data that is not met adequately under present arrangements. Its recommendations responded to the current and future needs of policymakers and the wider user community, including business and academics, at both national and local levels. These included:

- bringing Regional Accounts more into the National Accounts framework, including development of an improved and timely measure of real regional Gross Value Added;
- expanding the range of microeconomic and sub-regional data already available, with the infrastructure used by the Office for National Statistics' (ONS) Neighbourhood Statistics Service becoming the primary platform for area-based National Statistics;
- an ONS or Government Statistical Service (GSS) presence in the English regions to complement that which already exists in Scotland, Wales and Northern Ireland; and

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<sup>1</sup> The full text of the Treasury Press Notice can be found on the HM Treasury web-site at [www.hm-treasury.gov.uk/newsroom\\_and\\_speeches/press/2003/press\\_29\\_03.cfm](http://www.hm-treasury.gov.uk/newsroom_and_speeches/press/2003/press_29_03.cfm).

- greater access for the ONS to administrative data held within government, which could improve both regional and national data while offering important savings in the compliance burden on business.

**Consultation 1.5** Our First Report was consultative, with a number of recommendations that explicitly asked for others' views to inform our Final Report. To supplement the formal written consultation exercise, a range of events was organised to present and discuss the conclusions and recommendations of the First Report. A large number of useful comments have been received and were generally supportive of the First Report's recommendations. There were 30 responses from government, regional and private sector bodies and individuals to the formal consultation that followed publication of the First Report. The Review Team is very grateful to all of the individuals and institutions that responded, and also to those with whom we have had further discussions since publication of the First Report. Annex A provides further details of the consultation.

**Final Report 1.6** This Report deals mainly with the question of how well official statistics have properly reflected the changing structure of the economy, and how they can do so better in future. Our initial assessment was set out in Chapter 9 of the First Report, which highlighted how the UK statistical system had only partially reflected the increasing importance of the service sector, although some significant progress had been made in recent years, and made some recommendations for further reducing the imbalance. This Report takes account of our subsequent discussions and views on these issues expressed during the consultation exercise. We also update the recommendations from the First Report on regional data and statistical infrastructure in the light of the consultation.

**Overall aims 1.7** The prime concern of this Review is the provision of data for economic policy. The issues we examine are in large part due to the UK statistical system not fully keeping up with either the recent renewal of interest in regional policy or the longer-standing structural shift from the manufacturing sector to the service sector. There are strong links between the national, regional and sectoral matters we have considered: the same basic business survey process underlies the data and there are similar needs for accurate business registers and balanced and consistent surveys.

**1.8** Our overall aim is a coherent and integrated statistical system that meets users' primary needs, while at the same time recognising that the scale of the present demand for data exceeds the reasonable capacity of the statistical system. We believe there is a 'core' dataset for which good quality estimates are essential: National Accounts, prices and key labour market indicators. National estimates of these are required on a very timely basis; those for NUTS 1 regions<sup>2</sup> can be produced on a slightly longer timescale. Such a core would establish a good basis into which other elements could be integrated.

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<sup>2</sup> *The Nomenclature of Units for Territorial Statistics (NUTS) is the standard geographical classification, explained in detail in Annex A1 of the First Report. The nine English regions plus Scotland, Wales and Northern Ireland are the NUTS 1 level. The NUTS 2 level corresponds to groups of counties and unitary authorities, averaging between three and four NUTS 2 areas in each NUTS 1 region. As in our First Report, we have based our recommendations on a premise that, as far as possible, all twelve regions and countries should be treated equally in terms of data provision. In the interests of readability, we generally use the term 'regional' to include both the devolved administrations and the English regions.*

1.9 Some of our recommendations are quite detailed and set out specific areas where we envisage changes to the statistical system, mainly those relating to the ‘core’ indicators. Other recommendations are more indicative, particularly as we get further away from the core, and in some cases we highlight areas that require closer scrutiny than has been possible in this Review. Our recommendations are consistent with the broad thrust of reform already underway or planned within the ONS, and will contribute to a reinvigorated statistical service that responds more fully and more flexibly to users’ needs.

**Principal outcomes** 1.10 The Review covers a wide range of issues and consequently makes a large number of recommendations. In some cases, the key improvements we seek are covered by a number of recommendations taken together. In our view, the principal outcomes from our recommendations would be:

- good quality baseline Gross Value Added estimates for NUTS 1 regions, and improved detail at lower levels, as part of an integrated system producing both National and Regional Accounts;
- a statistical system that is not skewed towards particular sectors of the economy, that reflects the contribution and nature of different economic sectors, and that evolves alongside future change in the economy;
- a coherent and efficient suite of registers, surveys and estimation procedures, based on sound statistical principles, that reflects the balance of the economy and delivers reliable results at acceptable compliance cost;
- that the range of information already held by government can be used to increase the quality and the compliance and cost efficiency of economic statistics, while safeguarding its confidentiality; and
- good links between the centre, ONS/GSS statisticians located in the regions and devolved administrations and regional bodies, with greater comparability of those micro-regional data that are not collected centrally.

**Structure** 1.11 Chapters 2 and 3 outline the analytical framework that we have applied to this part of the Review and the various policy and other demands that we have encountered. The processes involved in the production of both timely and annual baseline National Accounts figures and our associated recommendations are discussed in Chapters 4, 5 and 6, while Chapters 7 and 8 look in more detail at specific issues concerned with timely estimates of output and expenditure components. Chapter 9 extends the analysis to other key areas of economic statistics, including the labour market and productivity, while Chapter 10 looks in more detail at ways of analysing economic growth and structural change. The recommendations from our First Report on regional data and the statistical infrastructure, including use of administrative information, are revisited in Chapters 11 and 12 in the light of comments received during the consultation exercise. Finally, Chapter 13 offers some concluding remarks.

1.12 Throughout the Review, we have received considerable help from a wide range of both users and producers of official statistics. The Review would have made considerably less progress without the contributions of those we have met or who have submitted views. Our three sponsoring organisations have provided much help and support, in particular many different parts of the ONS have guided us through the statistical system, for which we would also like to record our thanks.



# 2

## Overall approach

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2.1 The overall remit of this Review is to look at statistical requirements *for economic policymaking*. In our First Report, our emphasis was on the provision of regional statistics. We found, then, that close attention to regional policymaking institutions and their needs for information was helpful in providing a focus and in defining a framework within which the disparate, and cross-cutting, demands for data could be organised. Our coverage of the wider, national, needs for statistical information was less complete, though we were able to put forward a number of recommendations in this area too.

2.2 This Final Report reverses the emphasis: it is mostly concerned with the second part of our remit: *‘whether the changing economic structure of the UK is being properly reflected in the nature, frequency and timeliness of official economic statistics’*. Our approach, as in the First Report, is to seek for a ‘framework’ within which the main issues can be identified and organised. We do revisit the regional and institutional aspects of our remit, in the light of comments and submissions we have received (see Chapters 11 and 12 and Annex A), though the broad thrust of our suggestions for improvement is unchanged.

### THE CONTEXT

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2.3 We interpret our remit as directing us, not to the measurement of structural change *per se* – important as that might be – but to the consequences of the structural change that has occurred, or is occurring, for the provision of the statistics relevant to economic policy. The implicit question is whether the statistical services have changed (or are changing) their methods and procedures sufficiently and rapidly enough to keep up with the demands of economic policy.

2.4 In our discussions and consultations, four reasons for an increased ‘mismatch’ between current provision and of the demands for statistics were given most prominence:

- the increasing importance of services, which now account for about 70 per cent of GDP. Much of this Report considers how the imbalanced treatment of manufacturing and services, noted in our First Report, can be addressed and what steps are needed to prevent it recurring;
- new economic phenomena and the associated demands by policy makers for information on the processes involved. An example is the increasing importance of the ICT sector (or more generally of the ‘new economy’), which raises a number of well-known economic and statistical issues;
- increased demand for high quality and timely data to support monetary policy and the operations of the MPC; and
- the pervasive change towards the aspiration of ‘evidence-based policy’, which has increased and legitimated demands for data and economic information at all levels.

2.5 Taken together with the demands for increased provision of regional information discussed in our First Report, the above suggests a wide range of competing claims and pressures on the statistical system. It is important that the different demands are considered together in terms of the statistical system as a whole – that is *as an integrated system* – which needs to respond to the multiple and changing demands put upon it by the requirements of policy makers, including the demands for regional data.

2.6 The underlying method adopted here is the same as in the First Report: to identify as far as possible the economic policy demands for statistics and to confront these with the current provision and processes – with a view to identifying problems and making recommendations. As in the First Report, this involves an implicit cost-benefit framework involving the trade-off between better-informed policy and the costs of improved provision (including compliance costs). Other caveats made in our First Report still apply: it is beyond our remit to consider non-economic statistics or the level of resources applied to statistical provision as a whole.

**Demands for data** 2.7 For this Final Report, we distinguish demands for different types of statistical information (see Chapter 3), according to three broad categories of information:

- macroeconomic data;
- sub-macro, disaggregated, data: that is, data classified by industry, by region, or by economic sector (for example, households or government); and
- microeconomic data.

2.8 Much of this Report is concerned with the sub-macro disaggregation by ‘industry’, which is taken to include the service sectors as well, although in places this relates to better provision of macroeconomic data. Our First Report focused on macro-regional data, which are a part of the sub-macro class with relatively clear cut demands; and micro-regional data where the demands were extensive: more and better data for many different variables, applying to different geographical areas and different economic problems.

**Macroeconomic data** 2.9 There is a clear and extensive economic policy demand for data relating to the economy as a whole – macroeconomic data – in particular for economic policymaking.<sup>1</sup> The demands of monetary and fiscal policy establish a clear need for high-frequency, macroeconomic data as well as for forward-looking indicators of output, prices and demand. For the regions and countries of the UK, our First Report suggested that the absence of high-frequency macroeconomic policy – especially monetary policy – limited the requirements for timely, conjunctural data.

2.10 Moreover, in our discussions with government departments, the Bank of England and others, it was taken for granted that high quality estimates of major aggregates (such as GDP in nominal and in real terms) were needed for statistical ‘benchmarking’ purposes and for international comparisons.

2.11 A consequence of these national economic policy concerns is that this Final Report has to give more attention to the ‘time-line’ of the provision of macroeconomic information. One theme is the trade-off between timeliness and accuracy. It is also important that the way in which information accrues and feeds through over time to culminate in the benchmark annual estimates of the National Accounts (presented in the Blue Book with a lag of about 1½ to 2 years) is coherent and transparent.

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<sup>1</sup> *In the First Report we explained the demand for ‘macro-regional’ data as deriving from the devolution of some parts of economic policy to regional institutions.*

2.12 Some policy concerns, for example over the exchange rate, also mean that national demands for statistics are wider than regional demands. However, in other cases there is a closer analogy between regional and national demands. For instance, productivity is a concern both at national level and at regional level. And accurate annual benchmark National or Regional Accounts are needed at both levels.

**Sub-macro and sectoral data** 2.13 A key issue for this Final Report is the (sub-macro) classification of data – especially, but not exclusively, the industry detail and the balance between services and manufacturing. Chapter 9 of our First Report, and subsequent discussions, suggest that there is a widely perceived ‘imbalance’ in present procedures and that relatively greater attention needs to be given to services. The question of what industrial detail is needed, for what variables and for what purposes, is at the heart of this Final Report.

2.14 In considering the regional aspects of our remit, we argued that a clear case for macro-regional data at NUTS 1 level arose from delegation of economic policy responsibilities to the English regions and Devolved Administrations under a system of constrained discretion. There was also a significant, if more diffuse, demand for sub-regional and microeconomic data for both economic policy and monitoring purposes.

2.15 However, we find no such clear-cut policy justification for any particular industrial classification, though Chapter 3 explains that they do matter. Instead, as we discuss below, we look to more producer-led considerations, such as those involved in the stratification of samples and balancing the National Accounts. As in the case of the NUTS classification for regions, it is helpful to users if standard classifications are adopted and kept to, as far as possible over time – for comparability reasons.

**Micro data needs** 2.16 The demands for microeconomic data to underpin national and regional economic policies appear equally disparate, and both have increased with the emphasis on finding an evidence base for policy. Much of the relevant data comes from the registers, samples and surveys that underlie the National Accounting process. Our overall concern with ‘statistics for economic policy’ suggests that register and sample design should, as far as possible, take into account microeconomic needs as well as the needs for accurate National Accounting information. There are also issues concerning access, standardisation and dissemination, similar to those discussed in the regional context in our First Report.

2.17 Clearly data on distributional concerns are likely to be required at national level. Most of the underlying data requirements are microeconomic – which tends to direct attention to the design of the major surveys and to the availability and accessibility of administrative information. Data may also be required at regional level. Our First Report argued that many distributional issues are effectively national concerns rather than regional issues, but that there are some specifically regional issues, such as those concerned with the concept of ‘regional fairness’ or concerned with how devolved budgets should be determined.

### A FRAMEWORK FOR ANALYSIS

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#### Defining a ‘core’ statistical system

2.18 We found it essential to try to define a ‘core’ statistical system that could be seen as meeting the most important economic policy demands put upon it. Central to such a system would be benchmark estimates of GDP, in current price and in real terms, to an acceptable degree of accuracy. Given the demands of national macroeconomic policy, the core system also needs to provide timely and reliable high frequency data (quarterly or monthly), especially on real GDP and its components, on inflation and on labour market developments. One way of interpreting the recommendations of our First Report is that NUTS 1 regional macroeconomic data, to an acceptable degree of accuracy, should be treated as part of the core.

2.19 The reason for thinking about such a restricted, ‘minimum kit’, system is to highlight the need for the overall *coherence* of the statistical system – including the registers and sources that feed into the estimates – with the main policy demands put upon it. But the requirement for timely estimates means that we are especially concerned with particular parts of the system at different stages of the process of moving from early (or timely) quarterly estimates through to annual benchmark estimates (e.g. of GDP), which are only available with something of a lag.

#### National Accounts framework

2.20 The National Accounts framework provides an essential starting point in looking at the overall properties of the statistical system. In abstract terms, the published Accounts are coherent (the double entry system that underlies them has to add up) and the definitions, classifications and procedures adopted reflect international agreements. If one really knew everything that needed to be known, the accounting system would simply amount to a series of definitions (e.g. of GDP or GVA) and a series of accounting identities, which must hold exactly.

2.21 In practice, of course, the Accounts are estimated: they are subject to error and some important elements may be very hard to measure. The confrontation of the estimated magnitudes with the accounting identities, that *must* hold, is an extremely important part of the process of constructing the National Accounts: some entities can be defined by residual and there may be more than one estimate available for some important variables. Where this is the case, a *reconciliation* or *balancing* process may be set in train which, it is hoped, leads through to better and more coherent estimates. The supply-use reconciliation process<sup>2</sup> used to produce the *Blue Book* estimates of current price GDP and other aggregates is a key part of our discussions.

### Sample frames, surveys and the National Accounts

2.22 The National Accounting system, on the one hand, and the system of registers (such as the Census and the Inter-Departmental Business Register (IDBR)) and the sources that feed into the accounts, on the other hand, need to be considered together – as a statistical system. This would be true, even if the only policy purpose were to produce estimates of (say) aggregate GDP. It is even more the case when the concern, as here, is with multiple demands for data of different kinds, including microeconomic data as well as sub-macro classifications such as by region or by industrial sector.

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<sup>2</sup> In the interests of readability, we use the term *supply-use* to denote the technique used to construct the *Input-Output Supply and Use Tables* that are published with the *Blue Book*.



2.23 In principle, GDP can be measured from the expenditure, income and output perspectives, which are ultimately reconciled for the *Blue Book* estimates in the supply-use balancing process. Corresponding to these different perspectives, there are different sources of information and different potential disaggregations:

- the expenditure side is usually split into consumption, investment, and government expenditure (as well as exports and imports), partly because their behaviour is likely to differ, and partly because they rely on different sources, including both household and business surveys.<sup>3</sup> And, corresponding to the various sources, further disaggregations are possible: thus, consumption can be classified by product, by use, or by type of household;
- income information on wages, salaries and profits is available from administrative sources, such as the Inland Revenue, and from business surveys, such as the Annual Business Inquiry (ABI). Again, different possible disaggregations or classifications arise from the different sources;
- the output perspective requires estimates of value added, that is gross output minus intermediate input, and is the perspective that naturally leads to a classification by industrial sector or by size of firm. The principle source is the ABI, but shorter-term, more timely estimates of turnover and output are provided through monthly inquiries.

**Modernisation** 2.24 The ONS is engaged in a modernisation programme with many strands, including ‘re-engineering’ of both the National Accounts and the associated sources. These need to be considered together and the different demands for data need to be carefully identified if the basic sources are to be re-designed appropriately. Good National Accounts depend on good registers and sources.

2.25 Streamlining the various sources and integrating them into a modernised National Accounting system is a major, ongoing task. We have been impressed by developments such as the planned Continuous Population Survey designed to rationalise household survey data. Similar developments are under way to rationalise business surveys within the overall framework of the IDBR and the ABI. Developments such as these and the National Accounts re-engineering programme should lead to a statistical system that is better able to keep up with changing policy demands.

### Narrowing the focus

2.26 In this Report we are largely concerned with the consequences of structural change, which suggests a narrower focus. In particular, we consider the supply-use balancing process, which requires data classified by industry and by product, and the output side of the National Accounting framework, since it is generally argued that it is the output approach that provides the most reliable, up-to-date indications of activity.

<sup>3</sup> For example, data on consumers’ expenditure comes from the *Expenditure and Food Survey*; most investment comes from business surveys; and government expenditure comes mainly from departmental records.

2.27 This in turn means that we are particularly concerned with business surveys – especially the IDBR/ABI – and, in considering timely measures, with the deflation process as it applies to output, since indicators of real GDP growth are needed. There is a parallel here with our First Report, which recommended using the output approach in estimating regional GVA in real and current price terms. This focus means paying relatively less attention to other aspects of the overall system. Part of the reason is pragmatic – we cannot cover everything. Importantly, however, the main concerns expressed in our discussions with interested parties were over the deficiencies in regional data provision, and imbalance in industrial sector coverage, especially the perceived shortfall in coverage of the service sector. Both of these suggest a focus on the business sector and on deflation techniques.

### Why regions and why industrial sectors?

2.28 Clarity on the demands for data classified in particular ways is essential. The problem is that identifying the demands for what we have called sub-macro data is by no means straightforward. The demands for and provision of data by NUTS 1 region and by industrial sector should be considered together – they both belong in our category of sub-macro data and both involve classifications of the same underlying information. Improvements or changes in either area require consideration of the underlying business registers and sources, as well as consideration of how these changes fit in with the National Accounting procedures.

2.29 Nevertheless there are important differences between the rationales for the two classifications/disaggregations. Table 2.1 summarises the differing reasons for regional or industrial classification:

- for **regions** this depends on economic policy and not on technical considerations. Our First Report argued that the policy demand deriving from the devolution of some aspects of economic policy is the principal rationale for disaggregation by NUTS 1 region; statistical and technical criteria did not point strongly towards this particular classification;<sup>4</sup> and
- for **industries**, which we discuss below, the user demand for sectoral data is more diffuse and less well defined, but the technical rationale for disaggregated data is much stronger, and itself has more than one dimension involving differing criteria.

Table 2.1: Demand for sub-macro data

	Policy	Technical
<b>Regional</b>	devolution with constrained discretion	not integral part of obtaining national estimates
<b>Industrial</b>	multifaceted and changing but diffuse	underpins construction of National Accounts

<sup>4</sup> Stratification of a sample is normally justified if within stratum variance is small compared with between strata variance. As far as the ABI is concerned, the most important stratification is by size of firm.

## Industrial sector detail: disentangling the criteria

2.30 We postulate five principal reasons for the sub-macro classification of industry data:

- standardisation and EU requirements;
- user demands;
- sample stratification;
- demands from the National Accounting supply-use process; and
- deflation.

2.31 These involve very different underlying principles – which need to be looked at separately and are discussed below. Our general view is that the technical and statistical criteria – the final three – need to be given most weight in designing a coherent statistical system. We suggest, in Chapters 5 and 6, that the ONS should investigate alternative ways of responding to EU requirements and user demands. We recommend that these classifications should not determine the design and stratification of sample frames and sampling procedures, which instead need to reflect the technical requirements of a more balanced UK statistical system.

**International standardisation and EU requirements** 2.32 There is an EU requirement to produce industrial sector data (for the so-called ‘structural surveys’) according to the SIC four-digit level<sup>5</sup> – which involves at the moment 517 sectors: about half of which refer to manufacturing. The internationally-agreed classification scheme is itself a factor behind the imbalance that has developed between the coverage of goods and services. The SIC four-digit classification of industry (goods and services) affects the detail and design of the main business register, the IDBR, and of sample surveys.<sup>6</sup> A new classification is to be introduced in 2007, which will address the imbalance – see Table 5.1 – but by no means completely.

2.33 Another EU requirement is for product detail – important in terms of the technical criteria discussed below. The PRODCOM survey identifies a hugely detailed classification of manufactured products, but there is no equivalent coverage of the services sector. The bias in favour of manufacturing and goods is also found in overseas trade statistics, where there is a mass of detail for goods and very much lighter coverage of services.

**User demands** 2.34 Many users generally want as much industrial detail as possible, as discussed in Chapter 3, and sometimes for sectors not defined by the SIC. But there is no clear cut economic policy responsibility for most industrial sectors, though departments such as the DTI have generalised responsibilities: they need information to under-pin these and to be able to react to industrial issues as they arise. Private sector businesses and trade associations are, not surprisingly, keen to maintain as much statistical detail as possible, though finer classifications clearly involve more variable estimates. Private sector institutions are also substantial providers of statistical information themselves, at industrial and regional level.<sup>7</sup>

<sup>5</sup> *The Standard Industrial Classification (SIC) is the industrial classification used in the UK, based on internationally-agreed definitions. It has a hierarchical structure with various levels of disaggregation: four-digit SIC divides the total economy into over 500 classes. Box 5.1 of the First Report gives more detail.*

<sup>6</sup> *In principle, the IDBR should cover all firms (though in practice, there are some gaps). So the classification scheme does not affect the numbers of firms (goods or services) that are included in it. What is affected is the coding of a firm to a particular sector or activity. The coding is less finely drawn for much of services, and, in particular, is less finely drawn at four-digit SIC level.*

<sup>7</sup> *In our First Report, we recommended that the ONS and regional organisations, such as the Regional Observatories, should have a role in the collection, standardisation and dissemination of regional data.*

**Stratification** 2.35 Even if the main interest is in an aggregate, such as GDP, classification and stratification is usually justified on the grounds of statistical efficiency.<sup>8</sup> We have heard that, if the main interest is in the macro-aggregates, then the ABI surveys are probably over-stratified – and the stratification may be distorted due to the imbalance between services and goods producing sectors in the four-digit SIC classification. These issues are further discussed in Chapter 4. The point of principle to be stressed here is that survey design issues need to be considered on their own merits, independently of user demands, EU requirements and so on – these should be taken into account at a later stage.

**Current price supply-use balancing** 2.36 The supply-use balancing process used for reconciling the National Accounts for the final *Blue Book* (current price) GDP estimates uses, at present, a matrix classification of 123 industries and products. For each product, total supply (domestic gross output plus imports) is reconciled with total demand (final demand, plus intermediate demand plus exports). For each industry, the gross value of output is reconciled with intermediate input and value added, which in turn equals compensation of employees plus gross operating surplus. The industry and product classification presently in use is even more unbalanced towards the goods-producing sectors than the SIC classification. Chapter 4 discusses these issues further.

**Deflation** 2.37 The currently preferred route to chained volume estimates is to deflate current price turnover. This deflation process sets up a considerable demand for disaggregated detail relating both to turnover and to prices: finer detail allows, at least in theory, more precise deflation. The main short-term indicator of GDP is based on the output approach, but the present systems for both turnover and prices are far more complete for manufacturing than for services, as discussed in Chapters 4 and 7.

2.38 The need for deflation in the National Accounts context is discussed in Chapter 4. The ONS' modernisation proposals include the introduction of constant price supply-use balancing, which should bring a number of advantages:

- it should in principle lead to more consistent (and therefore better) estimates of chained volume GDP;
- a move to coherent deflation, including the theoretically-preferred method of double deflation; and
- the embedding of the short-term estimates in a supply-use framework should help to make sure that information from the expenditure side of the accounts plays its part in the timely estimation of GDP volume changes.

### Reconciling the criteria

2.39 In Chapters 4 to 6 we suggest that the overall system of registers, surveys and National Accounting procedures needs to be revisited with a view to satisfying and reconciling the various producer criteria that need to apply to an integrated core system of statistical provision – particularly with regard to deflation and supply-use.

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<sup>8</sup> *ABI surveys are stratified by size of firm, largely for statistical efficiency reasons. But they are also stratified by country and by four-digit SIC classification, which seems more driven by user requirements.*

2.40 We are aware that much of this process is going on, especially in the context of the modernisation programme. But we believe the main emphasis should be given to technical and statistical criteria in the overall processes of change: ‘producer’ rather than ‘user’ considerations. This is a challenge when considering industrial and service sector detail, in the face of sometimes vociferous user demands. This does not mean that we do not care about the statistical system responding to customer demands. Instead we suggest that some user demands need to be thought about in rather different ways, taking account of other competing demands, resource and compliance costs.

2.41 What this suggests is a three-way classification or hierarchy of considerations, which should be helpful in looking at the overall provision of statistics for economic policy:

1. There are core demands arising from the needs of economic policymaking.
2. There are core *statistical processes* which need to cohere with the high level demands.
3. There are a great many other demands, which should be satisfied where possible, and which certainly should be taken into account in the overall design of the system.<sup>9</sup>

2.42 The core policy demands in category 1 would be likely to include the main national macroeconomic aggregates and at least some industrial disaggregation. Our First Report can be seen as moving NUTS 1 regional GVA up from category 3 to category 1, together with recommendations about how core processes would need to change (category 2). Sub-regional and micro-data demands remained in category 3 and our recommendations reflected the large number of competing demands and the institutional need to agree priorities and to improve comparability and dissemination.

## APPLYING THE FRAMEWORK

2.43 Such a framework underlies our analysis in the chapters that follow. Our remit – whether the statistical system is keeping up with structural change and more generally with the changing demands of economic policymaking – is complex. Any answer depends upon what are regarded as the core demands on the system as well as notions about flexibility and responsiveness.

2.44 We concentrate in large part on the deceptively simple question of whether there is an imbalance in the treatment of goods and services. If the core demand were for the detail available for services and manufacturing to be commensurate with the importance of these sectors in GDP, then there clearly would be an imbalance. In many of our consultations, this was simply assumed to be the case – end of story.

2.45 Our concern with industrial sector classification (and hence with potential imbalance) is specifically linked to the processes in use and the core policy demands. Would more detail on the service sectors improve the overall coherence and performance of the statistical system? And would less detail on goods-producing sectors be costly in terms of the same criteria? These are not easy questions to answer – which accounts for the tone of our recommendation, that these questions need to be revisited.

<sup>9</sup> Here, in particular, the balance of costs and benefits needs consideration. The principle applies throughout, of course, for instance in considering the degree of accuracy and reliability required for core statistics, such as GDP.

2.46 Chapters 4 to 6 examine the technical demands for industrial and service sector detail. We suggest that procedures, classifications and register and survey design could usefully be revisited from the perspective of core processes (category 2 above). The implication is that this is where one should look for ‘imbalances’, for their consequences, and for desirable changes.

2.47 We do not believe that stratification by four-digit SIC is, in general, justified by the requirement for data to be presented according to this classification. Instead, we suggest a ‘wavy-line’ approach, in which different sectors could be disaggregated to different levels of the SIC. Although the SIC is highly unbalanced, the ABI sample and the samples for the major short-term surveys are not. Thus, coverage in the main business surveys does not explain the relative lack of service sector detail. However, both the supply-use balancing procedures and the processes of deflation *are* highly skewed towards manufacturing rather than services. This prevents the service sector playing a comparable role to manufacturing in the overall statistical system.

2.48 It has been suggested to us that particular characteristics of the service sector mean that rebalancing of the supply-use framework and greater use of service sector detail in the deflation process would bring few benefits to overall system coherence and consistency. In other words, manufacturing detail is of greater benefit than services detail, so that the system is not unbalanced in the technical sense we have been discussing. We accept this as a theoretical possibility, but we are not aware of convincing arguments or evidence against the rather strong prior in favour of a more balanced approach.

### Responding to user needs

2.49 It needs to be stressed that the producer considerations would still lead to a lot of detail, even if as a by-product. For many users that detail might be sufficient. But it is perfectly possible, indeed likely, that legitimate user demands go further. One particular requirement is that data should be provided under Eurostat directives classified according to four-digit SIC. Chapters 5 and 6 suggest that alternative techniques already used by the ONS, such as domain estimation, could be extended to meet these, or other requirements.<sup>10</sup>

2.50 In fact, some user demands (e.g. for data on particular high-tech sectors) require additional detail beyond four-digit SIC. In such cases, there is no reason why sample sizes should not be boosted and stratifications adopted to provide the relevant information. The ‘wavy line’ could be very wavy in places – and the same principles apply to manufacturing, service or other industry detail. However, we regard it as a general principle that such boosts should be regarded as temporary unless a continuing case can be made.

2.51 Ultimately, the amount of available detail and its precision depends primarily on sample sizes. There is no suggestion that sample sizes should fall, even for the manufacturing sector: our recommendations on expanding samples to provide better quality NUTS 1 data would considerably increase the precision of existing estimates and also the potential amount of industrial sector detail available.

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<sup>10</sup> *Note that there is a parallel here with demands for sub-regional data – which do not need to be met in the same way as those for NUTS1 data.*

## WIDER ISSUES

**Other parts of the ‘core’ dataset** 2.52 Consideration of the imbalances in the system, and their effects, means that many of our recommendations focus on the National Accounting techniques in use and on business surveys. This does not mean, however, that other aspects of the overall statistical system are unimportant. In looking at the demand for regionally-classified data, our consultations suggested that expenditure data and labour force data were equally important at NUTS 1 level, and, of course, the demands for sub-regional and micro-data are demands for data of all types. The same is true at national level, together with greater interest in prices and inflation. The fact that we focus on producer prices and deflation – the technical rather than the user demand – does not mean that we think consumer prices and inflation are not important. They clearly are, but are generally well measured and little affected by the imbalances we consider in this Report.

2.53 Chapters 8 and 9 discuss expenditure and labour market data, which are part of the ‘core’ dataset we discuss above. Both play an important role in conjunctural assessment and we discuss a number of potential improvements, including resolving inconsistencies between labour market information from household and business surveys. Moreover, expenditure components may receive more weight within the overall system as constant price supply-use balancing is introduced as part of the ONS modernisation programme.

**Beyond the core** 2.54 Productivity performance is a key issue at both regional and national levels, and its measurement requires consistency between National Accounts and labour market data, which we discuss in Chapter 9. Recent years have seen considerable effort expended in analysing productivity trends and the causal processes involved, which generates additional data needs:

- in Chapter 10 we look at growth accounting techniques,<sup>11</sup> which can be seen as an extension of the National Accounting framework. It is heavily dependent on industrial and service sector detail and requires ‘double deflation’ together with high quality, disaggregated capital stock data. This, in turn points to the importance of investment data as the basic input to capital stock estimates;
- we also look at ‘bottom-up’ analyses of productivity, using techniques, such as business data linking (BDL), that throw the emphasis onto the quality and accessibility of business registers and the underlying micro-data available from surveys, such as the ABI.

2.55 We have taken the underlying definitions of GDP, GVA and other macroeconomic aggregates as given. There are pragmatic reasons for this: definitions are subject to international agreement; and the main issues we are concerned with arise within the system currently in use. There are, however, more conceptual questions such as what GDP is supposed to measure. It has been suggested that some items, such as expenditure on security, would be better treated as costs (or intermediate inputs) rather than outputs of the system. Equally, it can be argued that expenditure on some intangible assets, such as employee training, should be treated as investment rather than costs. We do not go into this deeply; we take the concept of GDP as more or less as given, though Chapter 10 also discusses some extensions to the National Accounts: satellite accounts and Social Accounting Matrices are alternative presentations, which can usefully illustrate issues outside of the standard statistical framework, such as environmental and health accounts and distributional issues.

<sup>11</sup> We have been helped in our consideration of growth accounting by a paper prepared by Nick Oulton, which is published in full alongside our Report.

### TIMING OF IMPLEMENTATION

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2.56 Our two Reports together have pointed a direction for regional and national economic statistics over the coming years. If the recommendations are accepted, the question then becomes one of the speed of implementation.<sup>12</sup> It is clear from our consultation and discussions with users that the demand for good regional information is a demand for data now. Moreover, the very fact that this Review was established, together with the support that the First Report has received, has created an expectation among regional and other users that data will be improved. Such changes obviously should not be rushed, and there are questions of sequencing and integration into the ONS' modernisation programme. Nevertheless, the demand for better regional data is pressing and we would urge the ONS to implement improvements as quickly as possible – ideally this would be in advance of the indicative timetable (see Table 11.1) that was set out in the ONS' response to our First Report.

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<sup>12</sup> *This is, of course, linked to the issue of financial resources, but only partly so.*



# 3

## Data demands

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**3.1** Our remit poses the question whether the changing structure of the UK is being properly reflected in the provision of official economic statistics. This chapter examines the various economic policies and institutions with responsibility for those policies that most depend upon the answer to that question being in the affirmative. In our First Report we examined the policies that lie behind the demand for regional data. The fundamental question we asked was why should it be helpful to classify statistical information by geography. We have undertaken an analogous approach in this second part of the Review, asking why should it be helpful to classify statistical information by different structural breakdowns, such as by sector or industry, although it is important to bring all demands together to assess the overall demand on the statistical services.

**3.2** In analysing the different data demands, we have tended to focus on the demand for data by industry, that is the components of the output measure of GDP rather than expenditure and income measures, for two reasons. First, because industry data allow one to observe better the impact of structural change in the economy. This is particularly important for economic policy, such as the productivity agenda, for example. The second reason is because of the ‘timeline’ of the production of the National Accounts and estimates of GDP growth. That is, short-term estimates of growth are required for conjunctural analysis for macroeconomic policy, and monetary policy in particular; the ONS thinks the best short-term estimates of GDP are based on the output measure, which generates a demand for sector data (these are discussed further in Chapter 4). The components of expenditure and income are equally important, for example for the conduct of monetary policy, but we do not examine the demand for this data as fully. The question we are most interested in is why are disaggregated data required.<sup>1</sup>

**3.3** Our approach, as in our First Report, has been to take a medium to long-term view based on the broad direction of policy and the framework set out in Chapter 2. We do not attempt to identify gaps or over-supply in the current provision of data but to look beyond to the demand for sector data in the medium term. In addition to data on regions, areas where the statistical services will need to respond are the provision of data on the service sectors and also information on ‘new’ and rapidly changing sectors, such as the high-tech sector.

**3.4** There are four general reasons why one would want data disaggregated by sector or industry.

1. From a macroeconomic policy perspective, data on individual sectors add to the sum of knowledge about the whole economy and better understanding about how the economy works, over and above what is provided at the aggregate level. Such evidence helps inform policy in response, for example, to an economic shock specific to one sector. It also helps identify changes in trends in the economy.

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<sup>1</sup> *Annex A lists the organisations and individuals we have met or received submissions from since publication of our First Report. Submissions to the Review are available on the HM Treasury website at [www.hm-treasury.gov.uk/allsofp](http://www.hm-treasury.gov.uk/allsofp).*

2. Some microeconomic policy is directed at specific sectors, for example agriculture, or is the responsibility of one or more government departments. This is not quite analogous to regional policy where responsibility for implementing policy is devolved to a regional institution. In this case, policy is being applied differentially between sectors.
3. Microeconomic policy decisions, such as the productivity agenda, are becoming more driven by an evidence base. Policymakers, including regulators, require good data on industries and regions, which are sufficiently robust to provide confidence in the structure of the economy and the relationships shown between inputs and outputs.
4. Understanding new economic phenomena and the implications for policy delivery. An example is the increasing importance of the ICT sector (or ‘new economy’) and the effects on behaviour and performance of increasing investment in, and use of, information products by firms, government and households.

**3.5** All of this adds up to an overwhelming demand for a wide range of good quality, reliable data. For macroeconomic policymaking more timely and higher frequency data are required compared with structural analysis, such as the productivity agenda for example, which requires less frequent albeit reasonably timely data, often at a much more detailed level. In analysing these demands, we ask to what extent detailed data on the structure of the economy are required for policy purposes? A related, but key, issue is what is the appropriate level of industrial classification required for these policies. In the rest of this chapter we examine the data demands from both a macroeconomic and microeconomic policy perspective. We also examine the institutional demands for sectoral data, from government departments and other institutions involved in policy delivery. The technical demand for disaggregated data, as part of the National Accounts processes, is discussed in Chapter 4.

### **DEMAND FROM MACROECONOMIC POLICYMAKERS**

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**3.6** In Chapter 3 of our First Report we discussed the demand for data from the range of institutions responsible for delivering the regional economic policy agenda. The description we applied was of constrained discretion to implement policy and meet targets set by central government. Fewer institutions operate at the macroeconomic level, namely the monetary and fiscal authorities, but they have responsibility for short-term macroeconomic policy and hence a huge demand for high-frequency data for conjunctural analysis. However, there are a large number of institutions, in both the private and the public sector, researchers and individuals, which demand macroeconomic data on the UK economy to analyse and assess the current macroeconomic conjuncture.

## Monetary Policy

3.7 The Monetary Policy Committee (MPC) of the Bank of England has a national objective and a single, national policy instrument – the short-term interest rate. To conduct monetary policy the MPC requires very timely information on economic activity, demand and prices. As outlined above, a demand for timely output indicators implies a demand for sector data. The Bank also has an ongoing process of understanding and modelling the way in which the UK economy functions to inform the MPC's policy decisions. The information on the structure of the economy feeds into the Bank's analysis of the monetary policy transmission mechanism<sup>2</sup>, its forecasting process and analysis of the economic conjuncture<sup>3</sup> and analysis of sector specific shocks to the UK economy, for example analysing the impact of the Foot and Mouth outbreak. Such analysis helps the Bank provide support to the MPC.

3.8 There is therefore a clear case for information on the structure of the UK economy if it serves to give a better picture of the national economy and the inflationary pressures within. Detailed data of the components of the three measures of GDP are important for this analysis, as well as good quality data on the UK's labour and other markets. The Bank is specifically charged under the Bank of England Act 1998 with taking proper account of sectoral and regional information in its policy decisions. But data from the private sector, such as from the CBI or Chartered Institute of Purchasing and Supply, are also useful for this analysis. The Bank staff are expert users and are able to adjust data for monetary policy purposes, such as data on investment and capital stock, for example, where the Bank derive their own estimates of the capital stock.

3.9 In addition, external members of the MPC have highlighted a number of specific structural issues in recent years, which require detailed information on the sectors and components of the UK economy, because of their potential impact on monetary policy. Examples include:

- imbalances between sectors in the UK economy;<sup>4</sup>
- the existence of a 'new economy' in the UK and its implications for monetary policy;<sup>5</sup>
- whether the changing structure of the UK economy has affected the UK's labour market;<sup>6</sup> and
- the behaviour of the service sector.<sup>7</sup>

<sup>2</sup> See Bank of England (1999) for a description of the transmission mechanism of monetary policy.

<sup>3</sup> See Allsopp (2002).

<sup>4</sup> See, for example, Allsopp (2002)

<sup>5</sup> See, for example, Buiter (2000) and Wadhvani (2001).

<sup>6</sup> See, for example, Nickell (2001)

<sup>7</sup> See, for example, Julius and Butler (1998)

## Fiscal Policy

**3.10** Since 1997, the Government has implemented a new framework for fiscal policy. Fiscal policy is directed towards maintaining sound public finances over the medium term, and that spending and taxation impact fairly both within and across generations; and over the short-term, to support monetary policy where possible.<sup>8</sup> The Government sets fiscal policy to meet two fiscal rules, which provide benchmarks against which the performance of fiscal policy can be judged.<sup>9</sup>

**3.11** Similar to the Bank of England and the MPC, the fiscal authorities require data to assess the current conjuncture and the impact of their policy decisions on the wider economy. Timely and sufficiently disaggregated measures of all three measures of GDP are required, as well as information on markets, for conjunctural analysis and economic forecasts (of both the economy and of the public finances). Economic forecasts are needed in order to provide a basis for projections of the public finances and setting of fiscal policy.

**3.12** The Government has committed to transparency in the setting of fiscal policy objectives, the implementation of fiscal policy and in the publication of the public accounts.<sup>10</sup> This in itself implies a large demand for data as transparency provides opportunity for a high degree of scrutiny on the conduct of fiscal policy. Hence, data are required to assess performance against the two fiscal rules. The Government has said it will meet the golden rule if, on average over a complete economic cycle, the current budget is in balance or surplus.<sup>11</sup>

**3.13** Data are required to inform Budget decisions and assess their impact – the composition of the Budget can also have an important bearing on its economic effect. The Government's key indicator for assessing the overall fiscal impact is the change in public sector net borrowing (PSNB). The PSNB is itself made up of changes in the operation of the automatic stabilisers; and changes in the fiscal stance (which is equivalent to changes in the cyclically-adjusted or structural PSNB). Within the PSNB, the Government requires sufficient data to make decisions on undertaking discretionary tightening or loosening of the fiscal stance.

**3.14** Under the fiscal framework, a variety of fiscal aggregates are reported regularly by the Government and the ONS.<sup>12</sup> Each of these aggregates has a role to play in the analysis of fiscal policy. Complementary approaches to assessing performance of fiscal policy are described in Box 3.1.

<sup>8</sup> See *HM Treasury (1999)*.

<sup>9</sup> *The golden rule that over the economic cycle, the Government will borrow only to invest and not to fund current spending; and the sustainable investment rule that public sector net debt as a proportion of GDP will be held over the economic cycle at a stable and prudent level (defined as not more than 40% of GDP).*

<sup>10</sup> *The five principles include transparency; stability in the policy-making process and in the way fiscal policy impacts on the economy; responsibility in the management of the public finances; fairness, including between generations; and efficiency in the design and implementation of fiscal policy and in managing both sides of the public sector balance sheet.*

<sup>11</sup> See table 4.7 of *HM Treasury (1998a)*, which shows progress against the Golden Rule by the average of the percentage of GDP since the start of the economic cycle.

<sup>12</sup> *HM Treasury (1999)*, chapter 4 sets out the key fiscal aggregates required to analyse the impact of fiscal policy.

**Box 3.1: Complementary ways to assess performance of fiscal policy**

The main fiscal aggregates reported in the Budget and Pre-Budget Reports are measured on the National Accounts basis.<sup>1</sup> However, there are alternative approaches for examining progress against the Government's fiscal policy objectives (over the long term), including the use of comprehensive projections, analysis of the inter-temporal budget constraint, fiscal gaps, generational accounting<sup>2</sup> and accruals-based accounting. Using these different approaches it is possible to build up a broader understanding of the position of the public finances.<sup>3</sup>

Accruals accounts provide a more comprehensive picture of an entity's financial position than a simple cash statement by including all of that entity's assets and liabilities. They therefore improve the framework for planning, controlling and accounting for departmental expenditure. The Government has committed itself to produce full accruals-based accounts for the whole of the public sector<sup>4</sup> and has announced that it will publish Whole of Government Accounts (WGA) presenting a consolidated view of the public sector finances covering central government, local authorities, NHS Trusts and public corporations.<sup>5</sup> The Pre-Budget Report (2003) announced that the first data to be published will be for 2006-07.<sup>6</sup>

<sup>1</sup> See page 283 of *Budget 2004*.

<sup>2</sup> *Generational accounting was developed in the mid 1980s to early 1990s as a more comprehensive public finance indicator than existing measures such as the budget balance and the debt to GDP ratio. The first set of generational accounts for the UK was published by the National Institute of Economic and Social Research (NIESR) in 1998.*

<sup>3</sup> See *HM Treasury (2003b)*. *HM Treasury (2002c)* also discusses some of the alternative approaches, in particular those based on comprehensive projections.

<sup>4</sup> *HM Treasury (1998b)*.

<sup>5</sup> *The whole of the public sector will be treated as a single entity. All material transactions and balances between constituent entities will be eliminated.*

<sup>6</sup> See *HM Treasury press release at [http://www.hm-treasury.gov.uk/newsroom\\_and\\_speeches/press/2003/press\\_133\\_03.cfm](http://www.hm-treasury.gov.uk/newsroom_and_speeches/press/2003/press_133_03.cfm)*

**Spending framework** 3.15 In addition to the fiscal framework, the Government has implemented a new regime for planning and controlling spending. Under this framework three-year spending plans are set for all the main government departments, although that part of expenditure which cannot reasonably be subject to multi-year limits is subject to annual scrutiny as part of the Budget process. Within these amounts current and capital expenditure are planned and managed separately by departments.<sup>13</sup> Departments are responsible for collecting and monitoring all spending for which they are responsible. They report their spending to HM Treasury, which publishes it annually in the Public Expenditure Statistical Analysis (PESA).<sup>14</sup> The presentation of departmental public spending by region was discussed in our First Report (Chapter 6). However, departments need data to allocate and direct their public spending decisions to meet their policy objectives, some of which are on a sectoral basis (see below).

<sup>13</sup> *HM Treasury (2002a)* sets out the expenditure plans for financial years 2003 to 2006.

<sup>14</sup> See *HM Treasury and ONS (2003)* for the latest published data.

**Tax policy** 3.16 As with spending, the fiscal authorities also need information by sector and industry to direct its decisions on setting tax policy. In principle, tax should be levied where it is most efficient. This requires data for analysis. However, tax is also used for the alternative purpose of affecting behaviour and outcomes, for example the Climate Change Levy was introduced to encourage a reduction in emissions of greenhouse gases. Data is needed differentiated between sector or industry if the problem is specific to one or a few sectors only. It is important the tax authorities have the right information available to prevent any unnecessary distortions arising because of the tax system, and to identify how the tax burden is changing as the economy changes.

### SECTOR/INDUSTRIAL POLICY

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3.17 Whereas the responsibility for meeting certain policy objectives has been devolved to regional institutions, as discussed in our First Report, central government departments remain responsible for achieving the Government's sector and structural objectives. This section discusses the main departmental responsibilities for different sectors of the UK economy.

3.18 Information by sector is useful for a number of policy reasons. We ask in our First Report why macroeconomic data should be produced at a regional level. One of the answers is that regions are not homogenous and data is therefore required to understand regional developments. A further answer is policy is devolved to the regional level, which by itself sets up a large demand for data. The same question is relevant for data on sectors. Sectors are not homogenous so information on them will help understanding and inform policy. But the policy demand is more diffuse and less well defined at a sector level – for example do market failures differ by sector, requiring a differentiated approach? However, policy interest does focus on fast moving and changing sectors, such as new technology sectors, for a variety of reasons. This raises a particular demand that may change over time for data on such sectors. A key question is what level and definition of sector data is relevant for policymakers?

**Market outcomes** 3.19 In many cases the Government is interested in the outcomes of markets. But because firms in a sector tend to be oriented to the same markets, the data required to analyse and assess the market outcomes need to follow the same demarcation by sector as the firms that make up the market. Hence, where markets may behave or develop differently, there is a well-founded demand for data differentiated by market or sector, especially if some markets change at different speeds to others.

3.20 There has been a rising demand for microeconomic data driven by the increased focus on the evidence base for a range of policymaking. The responsibility for delivering the Government's policy is split between a number of departments with responsibility for different sectors (see below). However, the different departments generally face the same overall targets – to raise productivity in the sector for which they are responsible. Box 3.2 sets out the relevant Public Service Agreement targets.<sup>15</sup> A further reason for Government departments needing sector information is because a number of government policies are delivered through firms and data are required to monitor them. An example cited is environmental policy whereby emissions of harmful gases are cut by policy action directed towards energy-intensive industries.

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<sup>15</sup> *It is possible that these targets may be revised in the 2004 Spending Review.*

**Box 3.2: Public Service Agreement Targets**

There are a number of Public Service Agreement (PSA) targets that relate to different sectors of the UK economy, which are spread between a number of government departments. The following are the main ones:

**Department of Trade and Industry**

*Target 2.* Improve the relative international performance of the UK's science and engineering base, the exploitation of the science base, and the overall innovation performance of the UK economy.

*Target 4.* Ensure the UK ranks in the top 3 most competitive energy markets in the EU and G7 in each year, whilst on course to maintain energy security, to achieve fuel poverty objectives; and (joint target with DEFRA) improve the environment and the sustainable use of natural resources, including through the use of energy saving technologies, to help to reduce greenhouse gas emissions by 12.5% from 1990 levels and moving towards a 20% reduction in carbon dioxide emissions by 2010.

*Target 8.* Make the UK the best place in the world for e-business, with an extensive and competitive broadband market, judged using international comparative measures of business uptake and use of information and communication techniques.

**Department for Environment, Food, and Rural Affairs**

*Target 5.* Deliver more customer-focused, competitive and sustainable food and farming as measured by the increase in agriculture's gross value added per person excluding support payments; and secure CAP reforms that reduce production-linked support, enabling enhanced EU funding for environmental conservation and rural development.

**Department for Culture, Media and Sport**

*Target 3.* Improve the productivity of the tourism, creative and leisure industries.

**Home Office**

*Target 8.* Increase voluntary and community sector activity, including increasing community participation, by 5% by 2006.

*Source: HM Treasury (2002b).*

**Industry 3.21** The Department of Trade and Industry (DTI) has traditionally been the government department with responsibility for UK industrial policy, and manufacturing in particular. However, in recent times this description has become looser. While the DTI remains the sponsoring department for many of the broad 'manufacturing' sectors, as well as construction and energy, other departments sponsor a number of other sectors (see below). The DTI also has responsibility for a number of cross-cutting government policies, such as consumer protection or employment legislation, and it takes an interest in a range of other areas, for which it requires information on sectors beyond its own specific interest. The DTI is partly responsible for the delivery of devolved responsibilities to regions through its role as lead government department on the RDAs. It is also responsible for compliance costs burdens on firms, or rather keeping them to a minimum, including, as part of that, the burdens from collecting statistical information.

3.22 Specific DTI policy interests, which drive its demand for a lot of detailed data by sector, include:

- understanding what drives innovation, productivity and growth to inform its input to the productivity agenda (discussed above);
- the impact of globalisation on the performance of the economy and firms;
- changing patterns of consumer behaviour and their impact on the economy;
- how to respond to specific events, for example a plant closure;
- helping firms adapt to change, by, for example, matching the supply of skills to the demand by firms; and
- to understand the impact and contribution to the economy from specific sectors of policy interest, including the knowledge based sector, broadband, the off-shore industry, and energy.

3.23 It is clear that the DTI needs sector data to cover a wide range of issues, not least because of the growing importance of some sectors of the economy and the DTI's lead on the Government's manufacturing strategy, which "aims to help more manufacturers to move up the value chain"<sup>16</sup>. Much of this demand is for data on manufacturing and energy sectors, rather than, say, service sectors. This demand has been met by the current Standard Industrial Classifications (SIC), although DTI's needs for greater detail and alternative industry definitions do go beyond this. The DTI also collects and publishes data that it needs for specific policy purposes, such as *ad hoc* surveys on business investment for example. The DTI also collects the data on the construction sector for the National Accounts (see Chapters 5 and 6).

**Creative industries** 3.24 Although the DTI has specific responsibility many of the industries that would count as 'creative'<sup>17</sup> industries, such as advertising, architecture, publishing and software industries, the Department for Culture, Media and Sport (DCMS) sponsors the film and music industries and coordinates Government policy on the creative industries overall.<sup>18</sup> The DCMS's data requirements are similar to those of the DTI: broad, good quality industry data to monitor the sectors of interest to them; industry data to allow detailed analysis on specific areas of policy interest, including productivity drivers. Given the importance of the creative and tourism sectors to the economy, the DCMS is keen for satellite accounts to be developed (see Chapter 9).<sup>19</sup>

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<sup>16</sup> See Department of Trade and Industry (2002).

<sup>17</sup> Creative industries are defined as "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property".

<sup>18</sup> DCMS's aim is "to improve the quality of life for all through cultural and sporting activities, to support the pursuit of excellence and to champion the tourism, creative and leisure industries". A specific objective is to maximise the contribution that the tourism, creative and leisure industries can make to the UK economy, to be achieved by improving productivity.

<sup>19</sup> The desire for tourism satellite accounts for the English regions was made strongly to us in consultations for our First Report.



**Agriculture 3.25** The Department for Environment, Food and Rural Affairs (DEFRA) has a remit “to pursue sustainable development” and is the focal point for all rural policy.<sup>20</sup> In practice, this means that DEFRA is the government department sponsoring the farming, food and fisheries industries. This includes policy on EU and international agriculture policy, including the Common Agricultural Policy; and fisheries, including the Common Fisheries Policy and freshwater fisheries.<sup>21</sup> So, just as the DTI requires data to understand the nature of the industries it sponsors, DEFRA requires data on the agricultural sector. DEFRA collects much of the data it requires and publishes a wide range of economic and statistical information, including on, for example, agriculture and food, farming statistics and the environment. Like the DTI, the data DEFRA collects on the agricultural sector feed in to the National Accounts.

**3.26** A number of other government departments, such as the Department for Transport, for example, also require information and data on the industries for which they are responsible. For some of this wide-ranging demand, such as to monitoring or regulating markets, high-frequency timely data may be needed. However, data required to support structural policy initiatives are not likely to be needed on the same timely basis because the policy impact is over a much longer time horizon. In some areas, the time consistency of the data is important to enable identification of changes in trends, whereas others may require more detail for a range of variables. Together these demands for data sum to a demand for as much data as possible, with the provision of lots of detail by sector.

**Regulation 3.27** Responsibility for regulating markets or firms is a valid demand for information on specific sectors. For example, information on the financial services sector is required by the Bank of England and the Financial Services Authority (FSA): the Bank of England has responsibility for the overall stability of the whole financial system while the FSA regulates individual institutions. Similarly, OFWAT requires information to support its role as the economic regulator for water and sewerage services in England and Wales; and OFGEM requires information to regulate Britain’s gas and electricity industries; and so on.

## SECTOR INSTITUTIONS

**3.28** Our First Report discussed the role of various institutions in delivering the Government’s regional and other policy agendas (Chapter 3). In particular, it described how the Regional Development Agencies (RDAs) and the regional partnerships frameworks are the Government’s mechanism for determining, region by region, the priorities for economic development and skills. In addition to the number of regional institutions created to implement policy, the Government has also created a few institutions with similar responsibilities but defined by sector. This section describes these institutions and their roles.

<sup>20</sup> See *Department for Environment, Food and Rural Affairs (2002b). The objectives and PSA targets set out in this document were replaced by new targets agreed in Spending Review 2002. See HM Treasury (2002b) for the latest targets.*

<sup>21</sup> *DEFRA’s strategy for how industry, government and consumers can work together was published in December 2002. See Department for Environment, Food and Rural Affairs (2002a).*

### Sector Skills Councils

**3.29** The Government is adding another dimension to national, regional and local arrangements for tackling development, productivity and skills issues in the form of Sector Skills Councils (SSCs). The Councils are independent, UK-wide, organisations, developed by groups of firms in industry or business sectors, and actively involve trade unions, professional bodies and other stakeholders.<sup>22</sup> They are set up on sector lines because firms tend to identify with others in the same or related industry.<sup>23</sup> This common identity provides the basis for recognising common needs and developing solutions best suited to their sector. The interaction between the SSCs and the RDAs is shown in Figure 3.1.

**3.30** SSCs are licensed by the Secretary of State for Education and Skills, in consultation with Ministers in Scotland, Wales and Northern Ireland. The first five ‘Trailblazer’ Councils were licensed in 2001.<sup>24</sup> The intention is to have around 25 Councils established by summer 2004. SSCs give responsibility to firms to meet their sector’s skills and business needs. In return they receive public investment and greater dialogue with government departments on policies affecting skills, productivity, education and training.

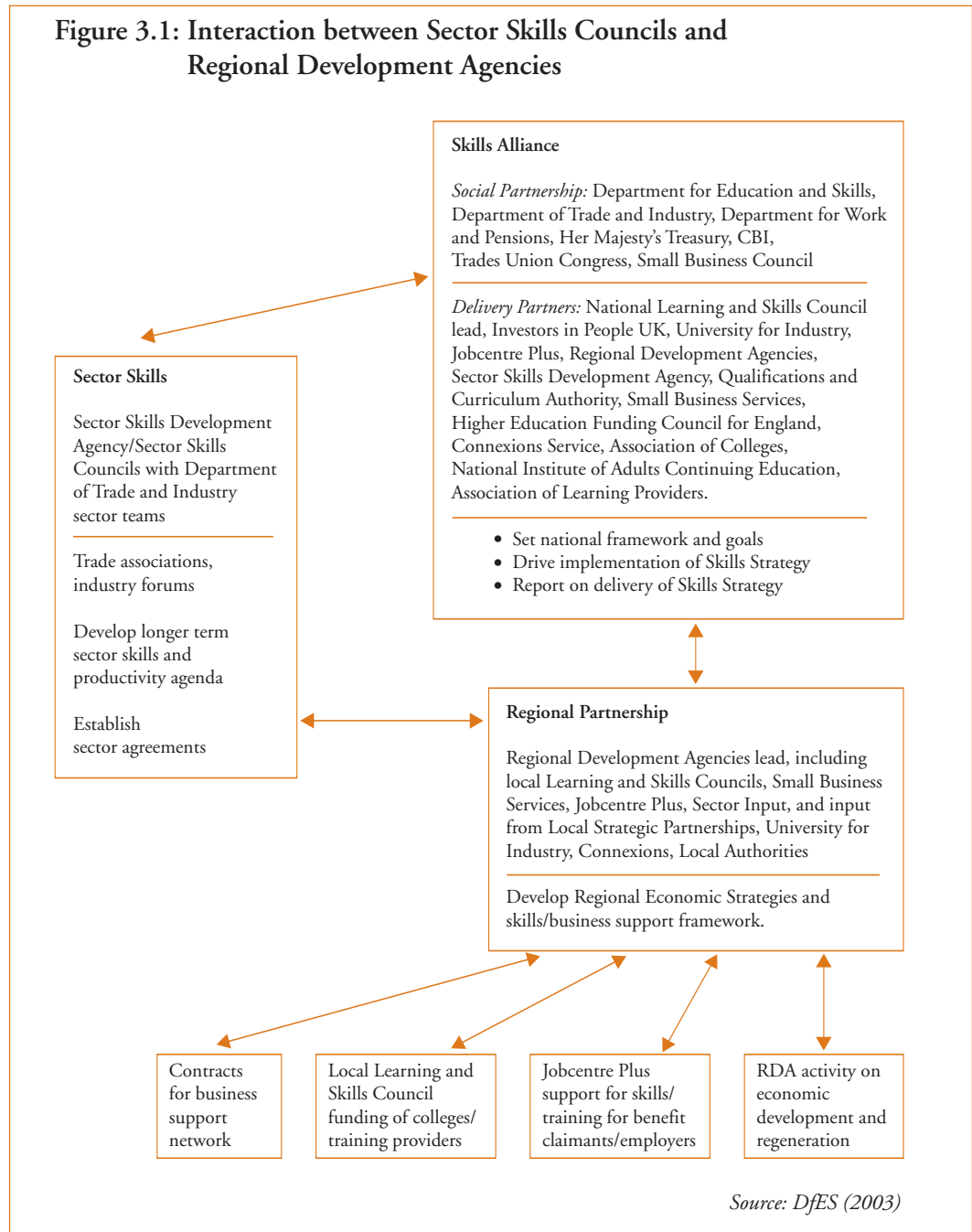
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<sup>22</sup> *The SSCs replaced the 73 National Training Organisations from March 2002. The network of Sector Skills Councils is known as the Skills for Business Network.*

<sup>23</sup> *“RDAs have a close understanding of their region but cannot be expected to have that same depth of understanding across each and every sector of the economy... we need both dimensions: regional and sectoral”, Department for Education and Skills (2003).*

<sup>24</sup> *Retail; Land based industries (including farming, agriculture, forestry and rural development); Audio-visual industries (broadcast, film, video and interactive media); Clothing, footwear and textiles; Petrochemical industries. The DfES Press Release announcing their creation is available at [www.dfes.gov.uk/pns/DisplayPN.cgi?pn\\_id=2001\\_0427](http://www.dfes.gov.uk/pns/DisplayPN.cgi?pn_id=2001_0427). Information on the Trailblazer Councils are others is available at [www.ssda.org.uk/ssc](http://www.ssda.org.uk/ssc).*

**Figure 3.1: Interaction between Sector Skills Councils and Regional Development Agencies**



### The Sector Skills Development Agency

**3.31** The Sector Skills Development Agency (SSDA) funds, supports and champions the new UK-wide network of SSCs. It also monitors their performance. Its aim is to secure a high level of engagement by employers across the UK.

**3.32** The Agency’s Chair and Chief Executive are from business, appointed by the Secretary of State for Education and Skills. The Agency’s Board is also made up of representatives from employers. It is jointly sponsored by the Department for Education and Skills and the Department of Trade and Industry.

### The Manufacturing Advisory Service

3.33 The Manufacturing Advisory Service was set up to help manufacturing firms' access external expertise and skills.<sup>25</sup> It provides assistance to small manufacturers to improve productivity. This service is provided in partnership with the Regional Development Agencies (RDAs), the Small Business Service (SBS) and its network of Business Links (BLs) in England, and with the Welsh Development Agency for coverage in Wales.

3.34 The two main components of the service are:

- a network of regional centres for manufacturing, which provide advice and assistance with the wide range of issues about technology and manufacturing best practice which manufacturers face, tailored to individual firms' circumstances;<sup>26</sup> and
- a supporting national network of centres of expertise in manufacturing.

### Private Sector Users

3.35 There is also a large demand for sector data from private sectors users, such as the Confederation of British Industry, the British Chambers of Commerce, the Trades Union Congress, and various trade organisations, as well as businesses themselves. Each of these bodies has interests across a range of sectors. While our Review has focussed on the demands for economic policymaking we recognise the well founded demands for sector data from these organisations.

## DATA REQUIREMENTS FOR EU

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3.36 An important consideration for using data for many policy purposes is whether the data are internationally comparable, such as for example measures of productivity. A particularly large demand for UK data comes from the EU, for various purposes. Data are collected by Eurostat, the EU statistical agency, for use by the Commission and the ECB. An important element of data provided to the EU is that they are estimated on a comparable basis to estimates undertaken in other Member States. The ONS leads in negotiations with Eurostat on how data are to be collected and estimated but other government departments lead on their own policy issues in EU negotiations and deal with many proposals that can have implications for data collection, for which responsibility for collecting the data is passed to the ONS. Insufficient consultation with the ONS has the potential of distorting the ONS' priorities. Our recommendation to improve the management of this potential problem is set out in Chapter 11.

**Eurostat** 3.37 The ONS is required by EU Regulation to collect data on behalf of Eurostat, although much of what is collected for Eurostat is data that are also required for domestic policy purposes. A good example of data collected, set out in our First Report, is ProdCom, a detailed list of products produced by the European Community. However, the full list of data collected and sent to Eurostat is quite extensive, and includes:

- macro data: on output, expenditure, employment, wage rates, prices, trade, BOP, investment;

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<sup>25</sup> Information of the Manufacturing Advisory Service can be found at [www.dti.gov.uk/manufacturing/](http://www.dti.gov.uk/manufacturing/)

<sup>26</sup> Regional Centres for Manufacturing Excellence have been launched in: South East, East Midlands, South West, North East, West Midlands, North West and Yorkshire and Humberside.

- meso/micro data: on industry/region output (ABI), labour force and qualifications data, household income/expenditure as part of social inclusion agenda, ICT use, environment etc.

- ECB 3.38** The data requirements of the European Central Bank (ECB) are similar to those of the MPC. It requires data for a range of variables on the euro area economy, including the different sectors and industries as well as up-to-date labour market information, to assess inflationary pressures in the euro area. In addition to data on the euro area as a whole, the ECB also requires information on individual Member States, as this provides additional information on developments in the wider euro area economy. This is akin to the demand by the MPC for information on the regions of the UK, as discussed in our First Report. Although the UK is not a member of the euro area, as a member of the wider EU economy, and the euro area's largest trade partner, developments in the UK are important for the ECB to monitor.
- European Commission 3.39** The European Commission requires data to assess Member States' contributions to the EU Budget and to analyse and monitor country performance against agreed policy initiatives. The main policy areas for which economic data are required are for assessing annually Member States macroeconomic performance against the EU's Broad Economic Policy Guidelines; fiscal policy performance and outlook (and whether the UK meets the requirements of the Stability and Growth Pact)<sup>27</sup>; qualification for Structural Funds<sup>28</sup>; and performance against the Lisbon economic reform agenda. The data requirements for assessing fiscal performance are reported in the Budget and Pre-Budget reports.
- Lisbon agenda 3.40** In March 2000 in Lisbon, Europe's leaders committed themselves to a ten-year strategy of reform of Europe's labour, capital and product markets<sup>29</sup>, with the strategic goal for the next decade "to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion"<sup>30</sup>. Recognising the need for robust evidence to monitor the performance of Member States against this strategy, the Lisbon Council mandated the development of a set of comprehensive structural indicators to underpin analysis.<sup>31</sup> The indicators cover six broad areas: general economic background, employment<sup>32</sup>, innovation and research, economic reform, social cohesion and environment. Not all are quantified or time-specific.<sup>33</sup> However, the Nice Council called for a shorter list of indicators, focussing on the priority areas, to measure progress in meeting the Lisbon goals.<sup>34</sup>

<sup>27</sup> The fiscal aggregates required are to assess performance against the Maastricht criteria. As the UK is not a member of the euro area we are not formally bound by the Stability and Growth Pact. The UK's performance is set out in the annual convergence report.

<sup>28</sup> The data requirements for assessing qualification for Structural Funds were discussed in our First Report (Chapter 4). Details on the Structural Funds, including their eligibility criteria, can be found at [www.dti.gov.uk/europol/structural.html](http://www.dti.gov.uk/europol/structural.html)

<sup>29</sup> The Lisbon strategy and goals and objectives are set out in HM Treasury (2002d).

<sup>30</sup> The Lisbon Presidency Conclusions can be downloaded at [ue.eu.int/newsroom/LoadDoc.asp?BID=76&DID=60917&from=&Lang=1](http://ue.eu.int/newsroom/LoadDoc.asp?BID=76&DID=60917&from=&Lang=1)

<sup>31</sup> Subsequent European Councils at Stockholm (March 2001), Göteborg (June 2001) and Barcelona (March 2002) have developed and refined the initial set of indicators.

<sup>32</sup> The Lisbon Agenda has subsumed the European Employment Strategy, set out in the Amsterdam Treaty, which adds further demands from the European Commission for greater and faster delivery of information on the labour markets of Member States. HM Treasury (2003a) sets out a number of issues relating to the achievement of the Lisbon employment targets.

<sup>33</sup> HM Treasury (2003c) updates HM Treasury (2002).

<sup>34</sup> The most recent assessment by the Commission, of the UK's and other Member States performance against the targets, was published on 21 January 2004 and includes recommendations for areas where policy action is required – see European Commission (2004). The Government published its own report on progress made in delivering European economic reform in February – See HM Treasury (2004).

3.41 For the Commission to undertake such an assessment and identify shortcomings requires good, reliable data that are comparable with those produced in other Member States. The process to create an indicator set required collaboration between the statistics offices of the EU 15 (and now 25). Not all the indicators produced by the ONS for the Lisbon agenda are National Statistics, as some of the key policy interests are in areas covered only by private sources, or by administrative data whose quality is not established. Since 2001, the ONS and the other EU statistics organisations have worked to fill gaps with new sources, and redefined some measures to improve indicator reliability, with most of the development work to date focused in the areas of innovation, economic reform and cohesion. This work has included both development of surveys (eg for ICT use) and more sophisticated and consistent analysis of data (eg for comparing qualifications and exclusion from higher education). Having put the indicator system in place, statistics offices are now working to improve the quality and comparability of data.

3.42 There is to be a mid-term review of the Lisbon strategy in 2005. It would benefit the review if it were also to examine developments in the data required to monitor the strategy and identify any deficiencies across Member States. The ONS should continue to advise the Government on the implications of the strategy for data collection in the UK and the suitability of their current processes for meeting these commitments.

### DEMAND FROM MICROECONOMIC POLICYMAKERS

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3.43 In addition to the broad demand for macroeconomic data discussed above, there is an increasing demand for microeconomic data. Much of this increased demand is driven by an increasing focus on evidence-based policy making, going beyond the need to understand the performance of different sectors of the economy. It is also supported by the Government's wider growth and welfare objectives. This section looks at the data demands from the growth agenda by examining the component parts: the labour market and productivity policy agendas. The data demands of the welfare agenda are discussed later.

#### Labour Market Agenda

3.44 There are a number of policy demands for labour market statistics. These include the demand for aggregate data by macroeconomic policy makers; detailed microeconomic data split different ways to inform a number of specific policy initiatives, including, for example, active labour market policies; the National Minimum Wage; policies dealing with employee relations; European Union labour market policies. This section examines each of these demands briefly. Labour market policies pursued at sub-UK levels were addressed in our First Report (Chapter 4).

#### Macroeconomic policy

3.45 Labour market statistics are important for understanding the economic conjuncture and pressures in the economy. They are an important piece of evidence considered each month by the Monetary Policy Committee as labour market developments provide evidence of potential inflationary pressures. Similarly, the fiscal authorities require labour market evidence to inform Budget decisions. But the input to macroeconomic analysis goes further as understanding the labour market is important for policy makers when considering the impact of shocks on the economy – we discuss in our First Report the importance of well-functioning labour markets for adjustment to shocks. Such information includes changing work practices and how they affect labour market flexibility, as well as changes in the costs and impediments to labour market adjustment.

**Labour market policies** 3.46 The Department for Work and Pensions has an objective to “promote work as the best form of welfare for people of working age, while protecting the position of those in greatest need”.<sup>35</sup> The DWP shares a joint Performance Service Agreement target with HM Treasury to

“Demonstrate progress by Spring 2006 on increasing the employment rate and reducing the unemployment rate over the economic cycle.”<sup>36</sup>

3.47 Data are clearly required to measure performance against these targets. But they are also required to inform the labour market policies designed to achieve the targets.<sup>37</sup> If the policy interest is in employment in different sectors then labour market data by sector are required. However, labour market data are required differentiated in many different ways because different parts of the labour market exhibit different characteristics, possibly requiring different types or combinations of policy response. For example, the problems faced by lone parents finding work are different to problems faced by elderly workers.

3.48 Not surprisingly, the policy demand for labour market data is extensive, requiring, for example, a detailed breakdown of labour market statistics by males and females, full-time and part-time workers, by age category, and so on. The DWP has other PSA targets, which add to this wide demand for data, including targets to increase the employment rates of people with disabilities or from disadvantaged groups or areas. While much labour market data are produced by the ONS (see Chapter 9), the DWP also produces a lot of the data it needs.<sup>38</sup>

3.49 A key aspect of the demand for this data is the need for the ‘work’ element to be integrated with the ‘welfare’ element, in line with the inter-related nature of the policies and their delivery. Hence, information and evidence on barriers to people finding work are equally important. Our First Report highlighted the importance of skills, childcare and benefit regimes for labour market adjustment<sup>39</sup> and how this expands the demands for data into other areas such as job information, housing, transport and relocation incentives<sup>40</sup>. We have not investigated such wider qualitative information in our Review.

**Pay policy** 3.50 The Low Pay Commission is a major user of earnings and other labour market information in order to fulfil its role of advising the Government<sup>41</sup> on the level to be set for the National Minimum Wage (NMW). Not surprisingly, the focus of the data demand is on earnings and wage data at the bottom end of the income distribution, as well as numbers of people in those groups. Evidence required is on levels of pay, differentials, composition of pay as well as general evidence on employment, unemployment and participation.

<sup>35</sup> *HM Treasury (2002b). Under the devolution settlement in the UK, responsibility for some of the central labour market policies has been devolved to administrations in Scotland (Scottish Executive), Wales (Welsh Assembly) and Northern Ireland (Northern Ireland Assembly – The Northern Ireland Assembly and Executive were suspended from 15 October 2002, since then the responsibility for governing Northern Ireland has rested with the Secretary of State for Northern Ireland). For England, these matters are the responsibility of the central government departments (mainly Department for Work and Pensions and Department for Education and Skills).*

<sup>36</sup> *ibid*

<sup>37</sup> *See Department for Work and Pensions (2003) for a good description of the wide range of labour market policies pursued in the UK.*

<sup>38</sup> *Data published the DWP is available at [www.dwp.gov.uk/lasd/statistics.asp](http://www.dwp.gov.uk/lasd/statistics.asp).*

<sup>39</sup> *See, for instance, Donovan et al (2002).*

<sup>40</sup> *See Gregg et al (2001).*

<sup>41</sup> *The Department of Trade and Industry is formally responsible for the NMW.*

3.51 To advise the Government, the Low Pay Commission requires evidence on the level of pay by sector. The incidence of low pay is heavily dominated by a small number of sectors: Hotels and restaurants, textiles and clothing, retail, security, industrial cleaning, social work activities.<sup>42</sup> And then, low paid workers are concentrated in small firms, with fewer than 10 employees. The ONS has developed a new earnings survey, the Annual Survey of Hours and Earnings (ASHE), to improve data available on low pay (see Chapter 9).

3.52 Public sector pay policy more generally relies on evidence on the wider labour market (Chapter 4 of our First Report discussed the merits of pay information at a regional level). For example, the six Pay Review Bodies (PRB) examine the current state of the labour market when making their recommendations to the Government for the annual pay awards for the groups they cover. The Government's evidence to PRB's includes commentary on labour market data and is published by the relevant lead department.<sup>43</sup>

**Other requirements** 3.53 Detailed disaggregated data are required to inform employment relations and legislation on employment rights. The Department of Trade and Industry is responsible for employment rights legislation, including on hours of work, pay entitlement, public holidays, employment agency standards, individual employment rights, redundancy arrangements, employee consultation, trade unions and collective rights.<sup>44</sup> These data are required for both public and private sector employers as well as trade unions and individuals. A wider perspective would take in information on health and safety at work, disability and so on, but we have not investigated such information in our Review.

### The Productivity Agenda

3.54 Good quality measures of labour input are also important for measuring productivity. Improving UK productivity has been one of the Government's key policy objectives since 1997. The Government aims to improve the productivity performance of the UK by providing "the best environment for all participants in the economy to maximise their productive potential and not to interfere directly in the way businesses are run."<sup>45</sup> It has a specific target to "demonstrate progress by 2006 on the Government's long-term objective of raising the rate of UK productivity growth over the economic cycle, improving competitiveness and narrowing the productivity gap with the US, France and Germany".<sup>46</sup> Improving the productivity of the public sector is also becoming an important part of the Government's strategy to improve the delivery of public services. Policymakers also analyse productivity trends for fiscal and monetary policy decisions as it is seen as a key determinant of the long-term trend growth of the economy.<sup>47</sup> This range of policies has resulted in rising demand for better and more comprehensive productivity data to understand the nature of the UK's productivity gap with other major industrial countries and in turn to inform policies targeted to close the gap.

<sup>42</sup> *The sectors with concentrations of low paid workers are discussed in Low Pay Commission (2003).*

<sup>43</sup> *So, for example, the Government's evidence to the Doctors and Dentists PRB is published by the Department of Health. The PRB's decisions, which take account of the Government's evidence and evidence from other parties are published on the OME web site at [www.ome.uk.com](http://www.ome.uk.com).*

<sup>44</sup> *See, for example, Statutory Instrument 1998 No. 1833, The Working Time Regulations 1998, which requires data and information on time worked to assess the general economic impact of the legislation. Actual policing of the legislation will require information on a firm-by-firm basis. Information on the Working Time Regulations is available at [www.dti.gov.uk/er/work\\_time\\_regs/index](http://www.dti.gov.uk/er/work_time_regs/index).*

<sup>45</sup> *HM Treasury (2000).*

<sup>46</sup> *HM Treasury (2002b). This target is shared by HM Treasury and the Department for Trade and Industry.*

<sup>47</sup> *See HM Treasury (2002e) for the importance of productivity for the long-term outlook for the economy. Budget 2004 presents the latest forecasts for productivity growth.*



**The Government's productivity strategy** 3.55 The Government's strategy to raise the UK's productivity performance and its associated regional data requirements were discussed in our First Report. We highlighted market failure as a key rationale for Government intervention in a market and noted that it is likely to be best detected by those working in the regions. This partly explains the delegation of responsibility for raising productivity to so many different regional institutions. However, market failure and other problems may also be dealt with at a sector level. This thinking is behind the creation of the Sector Skills Development Agency (SSDA) and the Sector Skills Councils (SSCs) (see above).

3.56 The Government's productivity strategy focuses on five priority areas, where market failures may be important.<sup>48</sup> This focus is reflected in the data requirements. A short set of indicators for the 'five drivers' is being developed, initially at the national level. But devolving responsibility for implementing the strategy to regional and sector institutions thereby creates a demand for regional and sector data on each of the 'five drivers'.<sup>49</sup>

**Analysing productivity** 3.57 Research has been conducted for many years on UK productivity. However, almost all of this work has been aggregate in nature, either looking at whole-economy productivity or industry-level productivity. The data requirements for aggregate analysis are for good quality Gross Value Added and for compatible labour input data. This work has been influential in documenting the UK productivity gap with other countries and suggesting some of the productivity drivers that policy might act upon. But users of productivity statistics have a wide range of needs. Because analysis of productivity is a diverse area that can be viewed at the micro level of the productivity of an individual firm all the way up to the macro level of the productivity of the whole economy, including various levels of disaggregation, sufficient data are required to allow a range of analytical choices.

3.58 In recent years, policy has become more focused on the microeconomic analysis of the drivers of productivity, partly because of the growing demands of evidence-based policy, centred around the 'five drivers', but also because aggregate measures hide a huge amount of heterogeneity within even very narrowly defined industries. At this level, either in micro-data or very detailed industrial analysis, more limited time series may be acceptable if combined with a broader range of variables, such as skills or investment for example, or more detailed disaggregated data set. Therefore data collected in such a way that it can be linked to other data in a simple and consistent manner are of a high value. The benefits from new techniques of 'data linking' are discussed in Chapter 10. Analysis of such data sets can provide useful insights for policy makers: for example, Disney et al (2003) use the ONS' newly developed linked database to show that the entry and exit of firms accounts for 50 per cent of establishment labour productivity growth. Such micro-data work, although focused on productivity analysis, also has an important by-product. Because it focuses on differences between firms rather than aggregates, this type of analysis can give early warning of structural changes; it can also identify improvements required in survey data in order to track new economic relationships.

<sup>48</sup> These are referred to as the five drivers of productivity growth and include investment, skills and human capital, innovation, competition and enterprise.

<sup>49</sup> A recent Budget paper, HM Treasury and Department of Trade and Industry (2004), announced a consultation on the existing productivity and competitiveness indicators grouped around the five drivers. The consultation also seeks views on productivity indicators and indicators of the 'five drivers' at a regional level, in response to our suggestion in our First Report that they be included in the consultation.

**New economy and growth accounting** 3.59 Moreover, the demand for data has increased as interest has grown in the implications for productivity of developments in specific sectors, namely Information and Communication Technologies (ICT). In recent years there has been specific interest in the possibility of a new economy in the United States<sup>50</sup> and whether the increase in the US productivity growth rate could be replicated in the UK. Much of this analysis has employed growth accounting methods to explain the increase in total factor productivity (TFP)<sup>51</sup> growth in the US and examine developments in the UK, which have their own specific demands for data, including data on capital services (TFP and growth accounting are discussed in Chapter 10).<sup>52</sup>

### The Welfare Agenda

3.60 At a basic level, estimates of GDP, usually on a per head basis, are used as a headline measure to judge welfare. We note in Chapter 4 of our First Report that the Government aims to achieve its equity objectives through the tax and benefit system as well as spending on health, education and so on. However, the analysis of changes in welfare are undertaken at much more detailed level, looking at the impact of the changing structures of the UK economy on different geographical areas or social groups. The data demands of the ‘welfare to work’ agenda are linked to the demand for labour market data, discussed above. Much of the geographical data is provided through the Neighbourhood Statistics Service (NeSS). Social Accounting Matrices are a useful tool to examine the link between social issues and data available from the National Accounts and are particularly useful in examining the effect of structural change in the economy through the interaction of economic and social statistics. These are discussed in Chapter 10. We have not covered the wider demands from the welfare agenda as part of this review.

**Sustainability** 3.61 The broad issues of social and ‘cultural’ development can also be considered under the welfare agenda. We discussed in Chapter 4 of our First Report how these are better judged, not in terms of economic growth, but in terms of quality of life. In the same way that it is important for the changing structure of the UK economy to be captured in the economic statistics, it is important for social statistics to capture the changing structure of society in the UK. Some of the data will help inform economic policy making, while economic variables will inform social policy. However, these indicators and others, including, for example, environmental indicators, are largely beyond the scope of the Review.

### The Public Services

3.62 The public sector is an important sector in the UK’s economy. Because of its significance, there is a wide-ranging demand for data on the sector, and the provision of public services in particular – from a macroeconomic perspective to judge the sector’s impact of the wider economy; and from a microeconomic perspective of assessing the provision of public services. Our First Report identified a demand for data to measure the provision of public services in the regions and discussed the need to measure the Government’s performance against its PSA targets, especially the effectiveness of spending on the public services in delivering productivity growth or jobs. There is also an interest in the outcomes of spending on the public services, especially what impact they have on people’s welfare and standard of living, as well as the broader impact of the public sector on UK economic growth.

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<sup>50</sup> See, for example, *Jorgenson and Stiroh (2000a) on evidence of a new economy in the US.*

<sup>51</sup> *Total Factor Productivity is also referred to as Multi-Factor Productivity, or MFP.*

<sup>52</sup> *See, for example, Oulton (2002).*

3.63 There is a growing demand for data to measure accurately the output of the government sector. Such data is required to assess the performance of government departments against their objectives, including action to raise the productivity of public services as part of the Government's productivity agenda.<sup>53</sup> However, measuring public services is difficult, complicated by a distinction between outputs and outcomes – this is discussed in Chapter 7. A review led by Sir Tony Atkinson is due to report in early 2005 on ways to improve measure of government output and productivity. In addition to generating this large demand for data departments are also a rich source of data as many collect a lot of data to help inform their policy intervention.

## CONCLUSION

3.64 This chapter has looked at the extent of the demand for structural data in the UK, from both a policy perspective but also from the perspective of the various institutions involved in policy delivery. It is clear the demand for data on the structure of the economy is wide-ranging and very large, although in some cases, it is not very well defined. The discussion has tended to focus on the demand for the components of output data, that is detailed information on the different sectors of the economy. But equally important are the components of expenditure and income, as well as information on the structure of the labour market. For many, the requirement for information on sectors, industries and further detail is in addition to the demand for data on regions. Moreover, sector data is required at a regional level, as well. Together this adds up to a huge demand for detail (for example, information on industrial sectors in a specific region), which puts further pressure on the ONS and the UK's statistical services. For practically all of the various demands, ensuring that the data on the UK economy properly reflects the structure of the economy is important.

<sup>53</sup> *HM Treasury (2003d) sets out the Government's framework for improving public sector productivity, based on "a focus on outcomes, constrained discretion for local service providers, and improved governance of public services".*

