

Department of Trade and Industry

# Regulation of weights and measures



REPORT BY THE COMPTROLLER AND AUDITOR GENERAL  
HC 495 Session 2002-2003: 14 March 2003

# executive summary

## Regulating the accuracy of weights and measures for the benefit of consumers and businesses

- 1 Accurate, reliable and fair weights and measures are fundamental to a sustainable trading economy. Every week around £1 billion worth of retail goods are sold in the United Kingdom on the basis of the measurement of their quantity<sup>1</sup>. Consumers need to be confident that they receive the quantity of goods they have paid for. And businesses need to be confident that they are trading in a fair marketplace<sup>2</sup>.
- 2 To provide consumer protection and a fair marketplace the Government has established a system for regulating units of measurement; the design and use of weighing and measuring equipment, and the sale of goods by quantity (see examples at **Figure 1**). The legislation, which applies to England, Scotland and Wales, is made under the Weights and Measures Act 1985 and to implement European Community Directives. Regulating weights and measures for use in trade also ensures that competitive advantage is not gained purely through measurement systems in use; and improves overseas competitiveness by ensuring companies conform to international measurement and calibration standards.

### 1 Examples of short weight sales

#### Gainsborough Coal Merchant

The coal merchant was found by Lincolnshire County Council Trading Standards Officers to be using a 25 kilogram weight to weigh coal bags which actually weighed only 23.5 kilograms. The weight had been drilled in the bottom and filled with expanding foam. For this, and for having a large number of short weight bags of coal and two incorrect weighing machines, the merchant was prosecuted and ordered to pay £2,320 in fines and costs.

#### Building Supplies Company: Short Weight Sand

A customer complained to Northamptonshire County Council Trading Standards Department about having paid for five tonnes of sand but only receiving an amount which was 16 per cent underweight. Two test purchases by Trading Standards Officers of four tonnes were found to be 8.5 per cent and 11 per cent underweight. The company was also using equipment not suitable for measuring for the purposes of trade. It was prosecuted and ordered to pay £8,166 in fines and costs. The company director was fined £1,800.

*Source: National Weights and Measures website; Lincolnshire County Council Trading Standards Service*

1 National Weights and Measures Laboratory, National Measurement System: Legal Metrology Programme 1999-2002.

2 National Weights and Measures Laboratory website: The importance of legal metrology.

- 3 The main responsibility for consumer protection, the achievement of fair competitive markets, and the regulation of weights and measures used in trade, lies with the Department of Trade and Industry (the Department) and the National Weights and Measures Laboratory (the Laboratory), an executive agency of the Department. The legislation is intended to ensure that defined standards apply to weights and measures used for trade across the country. Enforcement of the legislation falls to the Laboratory in matters relating to the design of weighing and measuring equipment and to over 200 local authority Trading Standards Departments in matters relating to all other aspects. This report examines the extent to which:
- the Department has been able to identify the significant risks faced by consumers or businesses with regard to weights or measures used for trade;
  - the legislation addresses those risks; and
  - the Department can monitor how effectively weights and measures legislation is enforced.

## Identifying and assessing the significant risks to consumers and businesses

- 4 Inaccurate weighing and measuring equipment or the consequent sale of goods sold under weight may have only a small effect at the level of individual transactions, but the overall effect across the economy can be considerable. For example, not providing full liquid measures of draught beer and cider allows licensees to sell an estimated 200 million more 'pints' a year than they buy in, at an estimated value of about £130 million at wholesale prices. And, in 2000-01, an estimated 94,700 (five per cent) of the over two million items of equipment inspected in service by Trading Standards Officers were found to be inaccurate. The Department's assessment of risks to fair trading is split between two units with responsibilities for overseeing different aspects of the legislation. Legislation on transactions in goods by weight or measure are overseen by the Department's Consumer and Competition Policy Directorate (the Directorate).



Those relating to weighing and measuring equipment for use for trade fall within the remit of the Laboratory. Although no documented overview of risks across the range of weights and measures legislation has been maintained, the Directorate and the Laboratory maintain formal and informal links between themselves and local authorities to exchange information on relevant issues.

- 5 The Directorate maintains contact with consumer and commercial interests through formal and informal means, including consulting on specific issues such as protecting the consumer against being served draught beer and cider in short measure. Weights and measures research can be funded from the Directorate's overall research budget. Although such funding has to compete with other research needs, which raises the possibility that not all weights and measures research may be done in a timely fashion, there has, to date, been sufficient funding available to meet identified research needs in the weights and measures area over the last five years. This research has often taken account of issues raised by interested parties outside the Department, such as consumer complaints and local authorities, or by developments at the European Community level. To date, three studies into testing net drained weight of foodstuffs and five studies into the use consumers make of quantity information have been carried out.
  
- 6 The Laboratory has a well-established programme of research with which to address issues relevant to the regulation of equipment, which allows it to identify and assess new and changing risks arising from technical aspects of weights and measures. The Legal Metrology<sup>3</sup> Programme is run as part of the Department's National Measurement System. The current Programme, for the period 2002-05, has a budget of £7.4 million, of which about £2 million is most directly relevant to the identification and assessment of risks. Progress is measured with reference to task milestones although, before 2002-03, these only covered a third of the Programme's value. The extent to which the outcomes and achievements meet the Programme's objectives are not formally assessed in a way which allows success to be rated for each three-year programme and comparisons to be made between successive programmes. Achievement of task milestones will not, in itself, guarantee achievement of the Programme's objectives.
  
- 7 Trading Standards Departments are required to provide the Department with statutory annual returns containing information on weights and measures enforcement activity; the results of that activity; and the nature of any infringements identified. Information such as this is useful for identifying changes in the level and nature of enforcement and non-compliance, and any risks to consumer protection and fair trading these may represent. For the years 1990-91 to 1993-94, the Department undertook annual exercises to identify the level of weights and measures inspections carried out by Trading Standards Departments. In 2000, the Laboratory used available returns to try and establish a clearer picture of the state of local weights and measures work, but data quality problems led to no conclusions being drawn. And for the years 2000-01 and 2001-02, inspection levels were again analysed as part of work done to draft the Regulatory Reform Order on weights and measures due to come into force in 2004 (see paragraph 9). But no regular analysis of trends in the level of local weights and measures activity, or the results of that activity, has been carried out by the Department. Nor has it provided routine feedback to Trading Standards Departments on the information collected. In recent years, few authorities have provided this information on a regular basis. For the three years 1998-99 to 2000-01, only 61 (31 per cent) of the 198 Trading Standards Departments provided the Department with a return each year.

<sup>3</sup> 'Legal metrology' focuses on the need for confidence and equity in measurements which directly concern the public, especially those measurements relating to efficiency in trade, public health and safety, and environmental monitoring. The National Audit Office report focuses on those aspects relevant to trade.

- 8 The legislation largely covers longstanding risks to achieving accurate, fair and legal weights and measures, and address blatant attempts to deliver short weight. They have been updated to a degree to reflect the impact of technology on the accuracy and reliability of weights and measures, for example, the inherent errors in automated packing systems. But the main body of legislation has become increasingly out of date, with much of the Weights and Measures Act 1985 being a consolidation of the Weights and Measures Acts of 1963, 1976 and 1979. The legislation has also become an increasingly complex combination of European obligations and domestic legislation. For example, goods which were only sold wholesale in the past, and not covered by the legislation, can now be bought retail in the same quantities (for example, Do-It-Yourself products) but remain outside the legislation. And the thresholds below which quantity information is not required to be provided differs depending on the product. The 1999 Consumer White Paper recognised that the age and complexity of the legislation 'confuses businesses and... consumers who have little, if any, idea of what they should see'<sup>4</sup>. This is particularly the case for new businesses who can find understanding the amount of legislation especially burdensome.
- 9 The Laboratory has carried out a programme of updating the technical aspects of the legislation since 1985 through work carried out as part of the Legal Metrology Programme. More generally, the Department has recognised the need to update and simplify the legislation, but progress has been slow. Consultations which started in 1999 on the general principles for simplifying and clarifying the law on the sale of goods by quantity had, at the time of the National Audit Office examination, not led to changes in the legislation. This was initially due to the lack of Parliamentary time for primary legislation. And consultations begun in late 2000 on a specific aspect of weights and measures legislation to improve consumer protection against draught beer and cider being served in short measure have made slow progress because the Department has not been able to achieve a consensus between trade and consumer groups and Trading Standards Departments on the best way forward. Alongside this exercise, the Department was engaged in a broader programme to overhaul the consumer provisions of the Fair Trading Act 1973 through the Enterprise Act 2002. This and the work underway on consumer credit took priority for legislative resources in this area. On broader weights and measures reform, the main changes needed, as they relate to packaged goods, will be made by a Regulatory Reform Order under the Regulatory Reform Act 2001 and a consolidated food order under the Weights and Measures Act 1985. Both are expected to come into force in 2004, following public consultation later this year. Consultations on improving the law relating to weighing and measuring equipment have been delayed awaiting the implementation of related European legislation, which is itself not expected to come into force until 2005 at the earliest.
- 10 Some aspects of weights and measures law have been deregulated to reduce cost burdens on industry. Since 1980<sup>5</sup>, manufacturers of non-automatic weighing machines (for example, shop counter scales) have been able to obtain a single design approval which is valid throughout the European Community instead of the separate approvals previously needed in each Member State. And from 1999<sup>6</sup>, manufacturers, installers and repairers of weighing and measuring equipment covered by Section 11 of the Weights and Measures Act 1985 have been allowed to 'self-verify' that equipment installed for use conforms with the approved design, rather than such checks being made by a Trading Standards Officer.



4 Department of Trade and Industry (1999), *Modern Markets: Confident Consumers*, paragraph 6.11.

5 *The Measuring Instruments (EEC Requirements) (Amendment No.3) Regulations 1979 (SI1979/1459)*.

6 *The Deregulation (Weights and Measures) Order 1999, SI 1999/503*.

## Monitoring the enforcement of weights and measures legislation

- 11 New types of weighing and measuring equipment must receive 'type approval', normally from the Laboratory, before manufacturers can put them on the market. The Laboratory carries out most such work in the United Kingdom. The Laboratory does not collate information on instances of equipment found in use for which a type approval certificate does not exist, although it told the National Audit Office that such breaches were rare. The Laboratory has carried out limited investigations into the degree of conformity of installed equipment with the approved designs for such equipment but, again, does not collate regularly instances of non-conformity. Such information would be useful in identifying the extent to which installed equipment was bypassing the regulatory framework.
- 12 The Department is responsible for ensuring that the legislation is enforceable, but relies on local authority Trading Standards Departments to actually enforce the legislation governing the installation and use of weighing and measuring equipment and of the use of quantity information for the sale of goods, for which they have certain legal duties. This is one of a wide range of responsibilities Trading Standards Departments have who, typically, can be responsible for enforcing the requirements of over 80 Acts of Parliament, plus many more pieces of subordinate legislation. The Office of the Deputy Prime Minister in England, the Scottish Parliament and the Welsh Assembly Government have the lead within Government for developing a consistent approach to the improvement of local services generally. Within this framework, the Department oversees the weights and measures regulatory regime and relies on local enforcement to ensure that the regime contributes to achieving defined standards of consumer protection and fair trading, whilst recognising that variations in the level and nature of enforcement will exist between Trading Standards Departments to reflect local priorities.
- 13 The National Audit Office examined whether there were significant variations in the scale and results of enforcement work between Trading Standards Departments. The National Audit Office found that voluntary guidelines, applicable at the time, set by local government on the frequency with which business premises should be inspected, based on different levels of risk<sup>7</sup>, were not being fully applied. Under the guidance, high risk businesses should receive an annual visit, subject to local discretion to reflect other enforcement actions such as education and awareness campaigns. In 2000-01, on average, only 56 per cent of high risk businesses<sup>8</sup> were visited by Trading Standards Departments. The lack of legal powers available to the Department to enable it to set minimum levels of inspection has meant it has not considered it appropriate to check that inspections have been carried out to the recommended frequencies.

**"Every review of weights and measures has identified a lack of data and information on the national picture as a substantial problem when it comes to planning and securing resources."**

*DTI Legal Metrology Programme 2002-05*

<sup>7</sup> *The Local Authority Co-ordinators of Regulatory Services guidance recommends that high risk businesses should be inspected annually, medium risk businesses once every two years, and low risk businesses once every five years.*

<sup>8</sup> *These are premises assessed as high risk for all purposes not just in relation to weights and measures. The risk rating does not always reflect the metrological risk. For example, a landfill site may have a low overall risk from a consumers point of view, but represent a high metrological risk because the weighbridge used to weigh incoming fill materials (as a basis for tax collection) could be subject to adverse environmental conditions.*

## 2 Variations in average weights and measures enforcement activity and levels of non-compliance with legislation, by type of local authority, 2000-01

	County Councils	Unitary Authorities	London Boroughs	Metropolitan Boroughs	Scottish Authorities	Welsh Authorities
% of premises liable for inspection for metrological purposes actually visited	16.1	16.6	21.2	28.4	39.4	28.4
% of equipment failed at verification stage	1.6	3.9	0.1	0.4	3.6	2.0
% of equipment failed when inspected	3.3	2.5	4.2	5.2	8.1	3.1
% of samples of packages failed when inspected at packaging plants	10.1	15.3	10.1	12.7	5.7	5.2
% of items failed when tested at retail outlets	6.0	9.9	5.5	8.6	4.2	20.0

### NOTE

Figures based on 13 returns from County Councils; 14 from Unitary Authorities; nine from London Boroughs; 18 from Metropolitan Boroughs; 23 from Scottish authorities; and four from Welsh authorities.

Source: National Audit Office analysis of section 70 returns for 2000-01

- 14 Wide variations also exist in the average error rates found by different types of local authority (Figure 2). The Department is unable to say whether such differences are legitimate or not, in part because of a lack of regular analysis of the annual statutory returns from Trading Standards Departments (see paragraph 7 above) and the growing incompleteness of its database. The Department does not know whether the differences in the proportion of products inspected which were found to be inaccurate was due to greater vigilance on the part of some Trading Standards Departments; or due to more effective prevention and education programmes.
- 15 The Department has powers to inspect local authorities for the purpose of gathering information about arrangements for enforcing weights and measures legislation, but these powers were last used in 1964. This may be because there was no cause to use them. But recent studies by the Audit Commission<sup>9</sup> and Accounts Commission<sup>10</sup> have highlighted major variations in the levels and types of service provided by Trading Standards Departments, that suggest there would have been grounds for inspecting local arrangements in the interests of maintaining consistency nationally. However, these powers do not allow the Department to intervene to address cases of poor performance. Since 1999, local authority trading standards work, including weights and measures enforcement, has been covered by the Best Value inspection regime which includes powers to allow the appropriate Secretary of State to intervene where local authorities fail to provide best value. Any decision to intervene, however, must be based on an authority's performance against one or more Best Value performance indicators. Trading Standards work is covered by a single indicator which is now recognised as being inadequate for the purposes of identifying

<sup>9</sup> Audit Commission (1999), *Measure for Measure: the best value agenda for trading standards services*, London.

<sup>10</sup> Accounts Commission (2002), *Made to measure? An overview of trading standards services in Scotland*, Edinburgh.

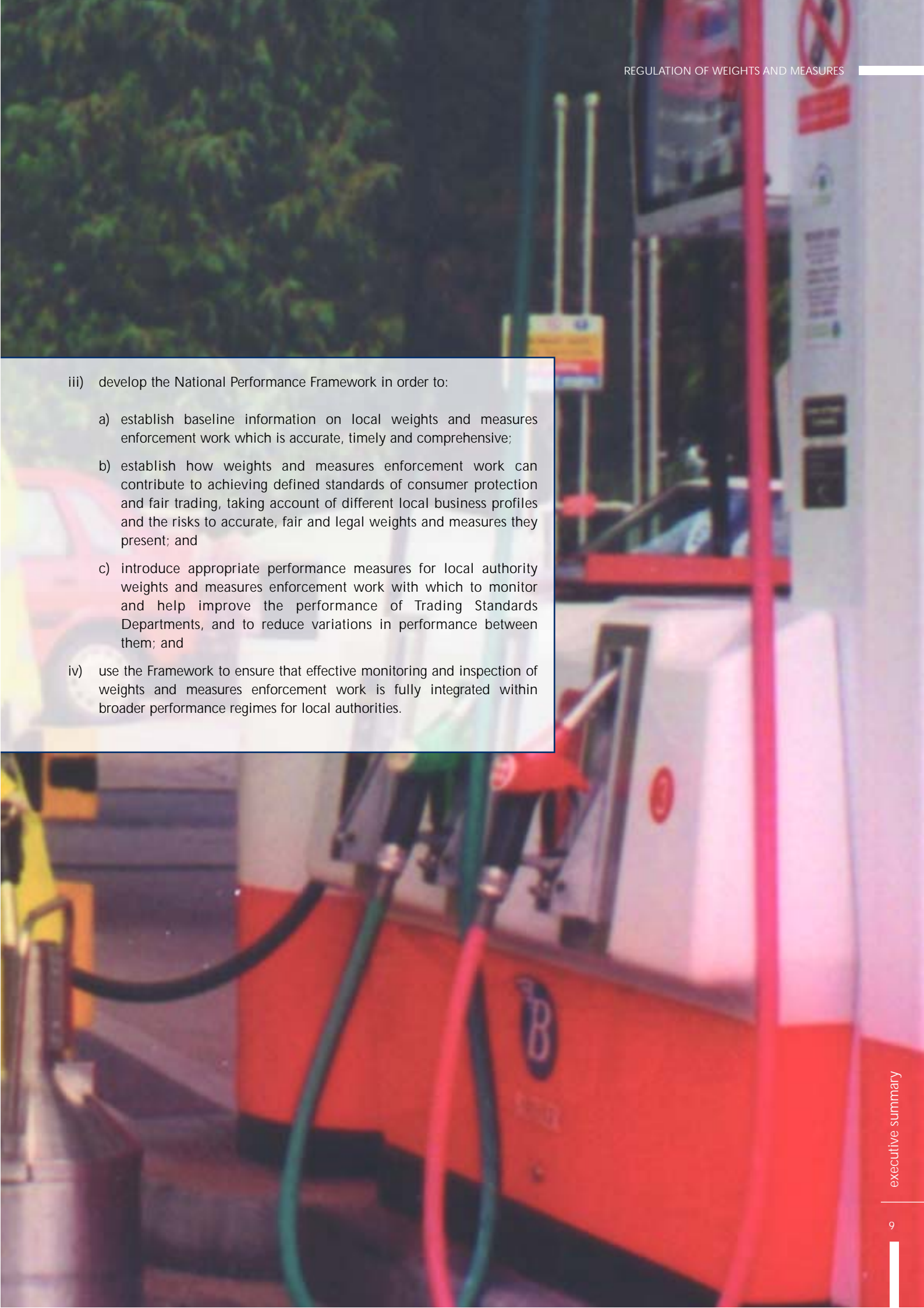
the extent to which best value has been achieved. In the absence of an appropriate indicator, regular Departmental analysis of the statutory returns it receives from local authorities could have helped to identify authorities where the level and effects of weights and measures enforcement work were widely different from the majority. This could have provided prima facie evidence of the need for further investigation by the Audit Commission to establish whether those variations were legitimate or represented a failure to achieve best value. However, the Commission would not be obliged, and sometimes not able, to conduct a Best Value inspection. So there has been no ready way for the Department to secure change in any case of weak local enforcement of weights and measures legislation.

- 16 The Department currently does not have sufficient information with which to set defined standards for trading standards work generally or weights and measures enforcement in particular. Lack of use of local enforcement data reflects concerns about the consistency of local data and therefore the reliability of the national picture. The Laboratory is carrying out work to gain a more reliable national picture as part of the 2002-05 Legal Metrology Programme. In addition, the Department and the Laboratory have taken the lead in developing, along with local authority Trading Standards Departments, a new *National Performance Framework for Trading Standards Services*. The Framework, which was introduced in April 2002, and requires local authorities to provide annual Service Delivery Plans and performance information returns, is intended to improve the consistency, performance and capability of Trading Standards Departments. By October 2002, 87 per cent of local authorities had provided their Service Delivery Plans. The Framework will be supported by a system of peer review, currently under development, designed to encourage improved planning and performance. Alongside the Framework, the Department is also seeking to raise the capabilities of Trading Standards Departments through supporting the training and skills development of Trading Standards Officers. In time the Framework should improve the quality of information available on local authority weights and measures enforcement. At the time of the National Audit Office review, the Department was consulting on the level and type of information local authorities would be required to provide. The information obtained will be fed back to local authorities, consumers and business by the publication of an annual report.
- 17 The Department currently has no means of measuring the effectiveness of Trading Standards Departments and the levels of compliance they achieve either across the full range of the legislation they have to enforce or in relation to weights and measures legislation in particular. The National Performance Framework will increase the quality and quantity of information available about trading standards performance generally, and the Department has proposed a number of performance measures, including one intended to measure compliance and the effectiveness of enforcement activity. This is a composite measure, relating to the full range of trading standards activity, which will not by itself help the Department to identify effectiveness and compliance levels with regard to weights and measures. At the time of the National Audit Office review, the Department had decided that it will collect information specifically on weights and measures enforcement as well, but was still consulting local authorities on the exact information to be included.



## Recommendations

- 18** In order to ensure that the legislation is applied consistently, so that weights and measures used in trade are accurate, reliable and fair across the country, the Department should:
- i) develop a coherent and comprehensive overview of the risks to accurate, fair and legal weights and measures in order to ensure that identification and assessment cover the full range of potential risks and any interdependencies between them;
  - ii) urgently pursue the modernisation and simplification of weights and measures legislation which it has identified as being out of date and over-complex so as to provide a clear basis for effective enforcement by the Laboratory and Trading Standards Departments;

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- iii) develop the National Performance Framework in order to:
    - a) establish baseline information on local weights and measures enforcement work which is accurate, timely and comprehensive;
    - b) establish how weights and measures enforcement work can contribute to achieving defined standards of consumer protection and fair trading, taking account of different local business profiles and the risks to accurate, fair and legal weights and measures they present; and
    - c) introduce appropriate performance measures for local authority weights and measures enforcement work with which to monitor and help improve the performance of Trading Standards Departments, and to reduce variations in performance between them; and
  - iv) use the Framework to ensure that effective monitoring and inspection of weights and measures enforcement work is fully integrated within broader performance regimes for local authorities.