The future of the Quarterly Fuels Inquiry
A discussion paper following the DTI workshop held on 18 April 2005

1. This paper sets out the revised way forward for the way industrial data will be collected by the DTI. It follows from the results of the consultation on the cessation of the QFI held at the end of 2003 and discussions held with data users at the DTI workshop held on 18 April 2005.

2. The purpose of this paper is to gauge whether a revised way forward, described here and taking account of thoughts expressed at the workshop is a workable way forward. We have sent this paper to previous consultation respondents and workshop attendees. We are now looking to address concerns raised following this circulation, before launching a formal consultation later in July. The substance of the consultation in likely to broadly follow the proposals here, and will be made available on the DTI website.

The rationale for change

3. The main reasons why changes are being considered to the Quarterly Fuels Inquiry are firstly, the fact that the use of some fuels in the survey are declining quickly, leading to concerns about the feasibility of maintaining a sufficient sample to allow a robust split into varying sizebands and secondly, the introduction of a Eurostat survey collecting the same information as the Inquiry for gas and electricity. There are also gains in timeliness in sourcing data from the Eurostat survey and a need for savings to be made in terms of compliance costs for industry and the DTI. Further details of the rationale for change are given in the discussion paper for the April workshop - see http://www.dti.gov.uk/energy/inform/energy_prices/qfifuture.pdf.

The Current State of Play

4. A workshop was held on 18 April with respondents to the original consultation and other interested parties to discuss the proposals for future sourcing of industrial price data. It was generally agreed, that while there was no consensus to accept the proposals at the workshop, it had proved a useful event, with users being able to describe to the DTI what specific aspects of the data were being used and what aspects of the information was fundamental.

5. At the workshop it emerged that the large price series were those primarily used in contracts and that it might be acceptable to users for the data collected from the non-large users to be discontinued, given there was some mechanism through which those series could be approximated for the minority of contracts that used non-large data series.

6. Further details of past aspects of this process are given in the discussion paper produced for the April workshop.

The Proposed Way Forward

7. We remain convinced that it is not sustainable to publish data for all sizebands for the non-gas and non-electricity fuels. The use of many of these fuels is declining, so even a boosted sample size may only be a temporary solution. We also still believe that collecting two series of essentially the same information is not necessary, which is now the case for gas and electricity, with alternative data being available from the New Eurostat Price Transparency Survey.

8. We do, however, acknowledge the importance of maintaining and improving the quality of the aspects of the QFI survey that are being used by the consultation respondents and workshop attendees. We have therefore reconsidered the proposals presented at the workshop to try to achieve a workable compromise.

9. Our broad proposal is that the QFI changes from a series containing data for all sizebands to one that only collects data for large energy users. We will provide scaling factors to move from the large series to series for average prices that might be used in a minority of contracts. The future sourcing of DTI data on prices to non-large sizeband electricity and gas users will be through the new Eurostat price transparency survey (which can be used to derive approximate small or medium QFI sizeband prices), while the average price for the other fuels will be sourced directly from suppliers, and no non-large user prices for sizebands will be published. The sections below set out what is being proposed for each fuel. Table 1 summarises the proposed way forward.

Heavy fuel oil and Gas oil

10. We propose to maintain a large HFO and Gas Oil price series sourced from the QFI. We will take steps to boost the sample of HFO and Gas Oil users in order that the viability of the series is maintained for as long as is feasible. We are not convinced that maintaining this series is feasible in the long-term as the use of these fuels continues to decline, although it is likely to be possible until around 2010. Data for non-large users will no longer be collected from 2006, but the remaining sample will be boosted from this year.

11. Annex A sets out how scaled series for average prices for HFO and Gas Oil can be produced. It can be noted that the correspondence is very good and that movements in the scaled series do reflected to a very good degree movements in the original series. Scaled approximate series for small and medium prices could be produced in the same way.

12. As described in the discussion paper for the workshop, we have carried out a lot of work on producing scaling factors to convert the large heavy fuel oil prices from producers to the prices for the extra large and moderately large sizebands currently produced. The scaled alternative heavy fuel data for the moderately large and extra large sizebands are extremely close to those sourced from the Quarterly Fuels Inquiry. Charts comparing the differences between the two scaled series and original data are given in Annex A.

13. We will need to carry an evaluation of data quality for the large Gas Oil and HFO series in 2009 to determine whether the series is still fit for purpose.

Coal

14. We propose to continue to produce a large coal price series sourced from the QFI. We will take steps to boost the sample of large coal users in order that the viability of the series is maintained for as long as is feasible. We are not convinced that maintaining this series is feasible in the long-term as the use of coal continues to decline, although it is likely to be possible until around 2010. Data for non-large users will no longer be collected from 2006, but the sample will be boosted from this year.

15. Annex A sets out how scaled series for average prices for coal can be produced. It can be noted that the correspondence is very good and that movements in the scaled series do reflected to a very good degree movements in the original series. The correspondence is much better in terms of reflecting actual quarterly movements than the previous proposal to use HM Customs and Revenue data. Note, however, that scaled series for small or medium consumers cannot be sourced from this information. HM Customs and Revenue data will still be used to source average industrial price information to be used by the DTI.

16. We will need to carry an evaluation of data quality for the large coal series in 2009 to determine whether the series is still fit for purpose.

Gas

14. We propose to continue to produce a large gas price series sourced from the QFI. Data for non-large users will no longer be collected from 2006. We will periodically seek to determine whether the large data series are still need for contracts, with the first of these reviews being planned for 2009.

15. Annex A sets out how scaled series for average prices for gas can be produced. It can be noted that the correspondence is very good and that movements in the scaled series do reflected to a very good degree movements in the original series. Eurostat data for all sizebands will continue to be published and will replace the QFI as the main source of DTI industrial gas price information.

16. The small gas series can be approximated by the small Eurostat series (the small Eurostat band ranges from 23,446-234,457kWh/annum, while the small QFI sizeband ranges covers consumption of less than 1,500,000kWh/annum), while the medium gas series can be approximated by the median Eurostat sizeband (the medium Eurostat band ranges from 234,457-2,344,568kWh/annum, while the medium QFI sizeband ranges covers consumption of between 1,500,000-8,800,000kWh/annum). Further detail of this work is given in Annex A. It is recognised that the comparison between the data series is only possible over a limited time and that further work is needed to ascertain reasons for differences between the series.

Electricity

17. We propose to continue to produce a large electricity price series sourced from the QFI. Moderately large and extra large price information will be available from the QFI on request. Data for other users will no longer be collected from 2006. We

will periodically seek to determine whether these large data series are still need for contracts, with the first of these reviews being planned for 2009.

18. Annex A sets out how scaled series for average prices for electricity can be produced. It can be noted that the correspondence is very good and that movements in the scaled series do reflected to a very good degree movements in the original series. Eurostat data for all sizebands will continue to be published and will replace the QFI as the main source of DTI industrial electricity price information.

19. The small electricity series can be approximated by a weighted average of the small and small/medium Eurostat series (the small Eurostat band ranges from 50-500MWh/annum and the small/medium band ranges from 500-2,000MWh/annum, while the small QFI sizeband ranges covers consumption of less than 880MWh/annum – the most appropriate weighting is giving three times as much weight to the small Eurostat band as to the small/medium band), while the medium gas series can be approximated by the median Eurostat sizeband (the medium Eurostat band ranges from 2,000-18,000MWh/annum, while the medium QFI sizeband ranges covers consumption of between 880-8,800MWh/annum). Further detail of this work is given in Annex A. It is recognised that the comparison between the data series is only possible over a limited time and that further work is needed to ascertain reasons for differences between the series.

Medium Fuel Oil, Liquefied Petroleum Gases and Coke

19. We cease collecting this information from the middle of 2005, meaning that 2004 is the final year where data for these fuels are available.

Table 1: Changes to the Quarterly Fuels Inquiry by fuel and data year

	Change by data year		
Fuel	2005	2006	Post 2006
Coal	No Change, except 10% and 90% deciles no longer published.	Large sizeband QFI based data collected with boosted sample. Scaling factors available to derive average price. DTI use Customs data as main data source.	Revisit methodology around 2010 to see whether data quality is still acceptable.
Heavy Fuel Oil	Moderately large and extra large sizeband no longer published. Scaling factors available to derive these sizebands. 10% and 90% deciles no longer published.	Large sizeband QFI based data collected with boosted sample. Scaling factors available to derive existing sizebands. DTI use supplier data as main data source.	Revisit methodology around 2010 to see whether data quality is still acceptable.
Gas Oil	10% and 90% deciles no longer published.	Large sizeband QFI based data collected with boosted sample. Scaling factors available to derive existing sizebands. DTI use supplier data as main data source.	Revisit methodology around 2010 to see whether data quality is still acceptable.
Electricity	No Change. New Eurostat Price Transparency Survey data available.	Large sizeband QFI based data collected. Methods available to derive existing sizebands. DTI use Eurostat data as main data source.	Revisit issue around 2010 to see whether data is still needed in contracts.
Gas	No Change. New Eurostat Price Transparency Survey data available.	Large sizeband QFI based data collected. Methods available to derive existing sizebands. DTI use Eurostat data as main data source.	Revisit issue around 2010 to see whether data is still needed in contracts.
Medium Fuel Oil	Discontinued	-	-
LPG	Discontinued	-	-
Hard coke	Discontinued	-	-

Annex A – QFI and scaled alternative data sources compared

Heavy fuel oil

Chart A.1 presents a comparison of a scaled large HFO price series used to approximate the actual extra large prices. There is a good correspondence between the actual extra large price series and the scaled replacement series based on the large series. On average, the price paid by an extra large HFO consumer from the QFI is 3 per cent less than that of a large consumer.

Chart A.1 – Prices paid by extra large HFO consumers on the QFI and the scaled replacement series

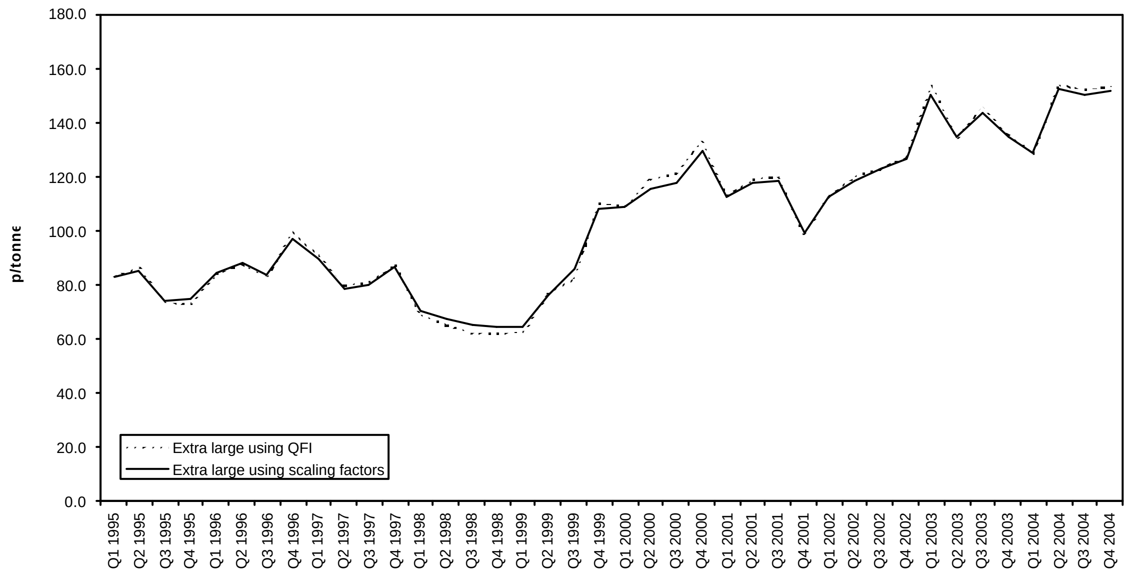


Table A.1 – Differences between prices paid by extra large HFO consumers and the scaled replacement series

	Percentage difference
Lowest difference	0.1
First quartile	0.5
Mean difference	1.5
Median difference	1.0
Third quartile	2.3
Highest difference	5.4

Chart A.2 presents a comparison of a scaled large HFO price series used to approximate the actual moderately large prices. There is a good correspondence between the actual moderately large price series and the scaled replacement series based on the large series. On average, the price paid by a moderately large HFO consumer from the QFI is 5 per cent more than that of a large consumer.

Chart A.2 – Prices paid by moderately large HFO consumers on the QFI and the scaled replacement series

Table A.2 – Differences between prices paid by moderately large HFO consumers on the QFI and the scaled replacement series

	Percentage difference
Lowest difference	-
First quartile	0.9
Mean difference	2.4
Median difference	1.5
Third quartile	3.8
Highest difference	8.2

Chart A.3 presents a comparison of a scaled large HFO price series used to approximate the actual average prices. There is a good correspondence between the actual average price series and the scaled replacement series based on the large series. On average, the price paid by an average HFO consumer from the QFI is 6 per cent more than that of a large consumer.

Chart A.3 – Prices paid by average HFO consumers on the QFI and the scaled replacement series

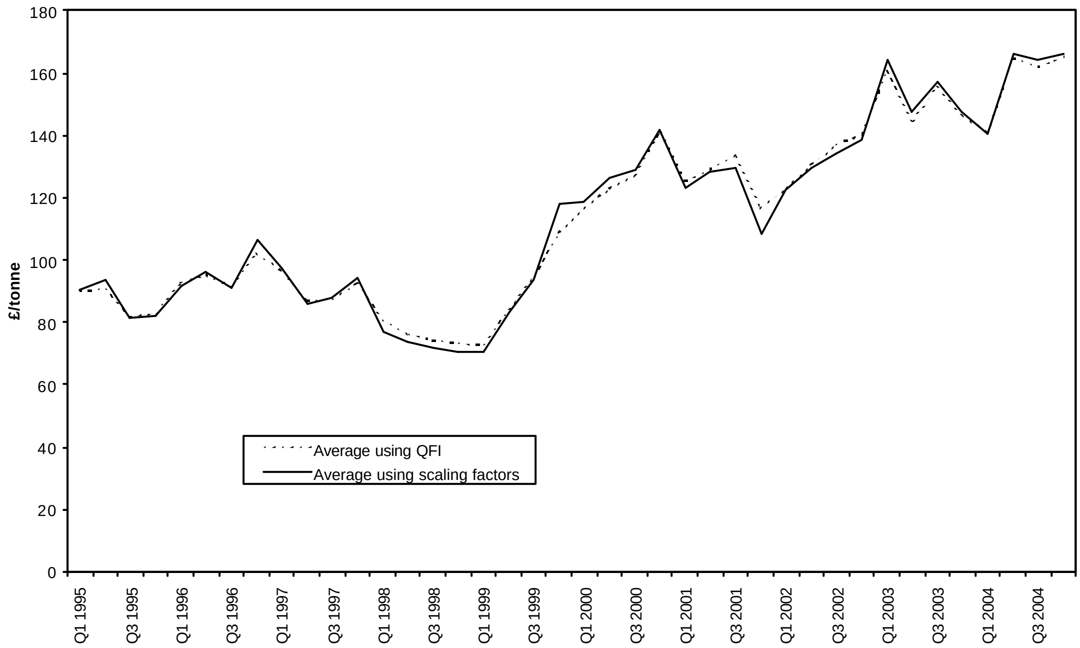


Table A.3 – Differences between prices paid by average HFO consumers on the QFI and the scaled replacement series

	Percentage difference
Lowest difference	-
First quartile	0.8
Mean difference	1.9
Median difference	1.3
Third quartile	2.7
Highest difference	8.7

Similar exercises are possible to derive small and medium sizeband prices for heavy fuel oil. The differences are larger because, as expected, there is a greater divergence between large and small or medium prices. The scaled estimates do, however, still follow closely those of the actual series and could be used to approximate these series. Please contact the DTI for further information.

Gas oil

Chart A.4 presents a comparison of a scaled large gas oil price series used to approximate the actual average prices. There is a very good correspondence between the actual average price series and the scaled replacement series based on the large series. On average, the price paid by an average gas oil consumer from the QFI is 1.5 per cent more than that of a large consumer.

Chart A.4 – Prices paid by average gas oil consumers on the QFI and the scaled replacement series

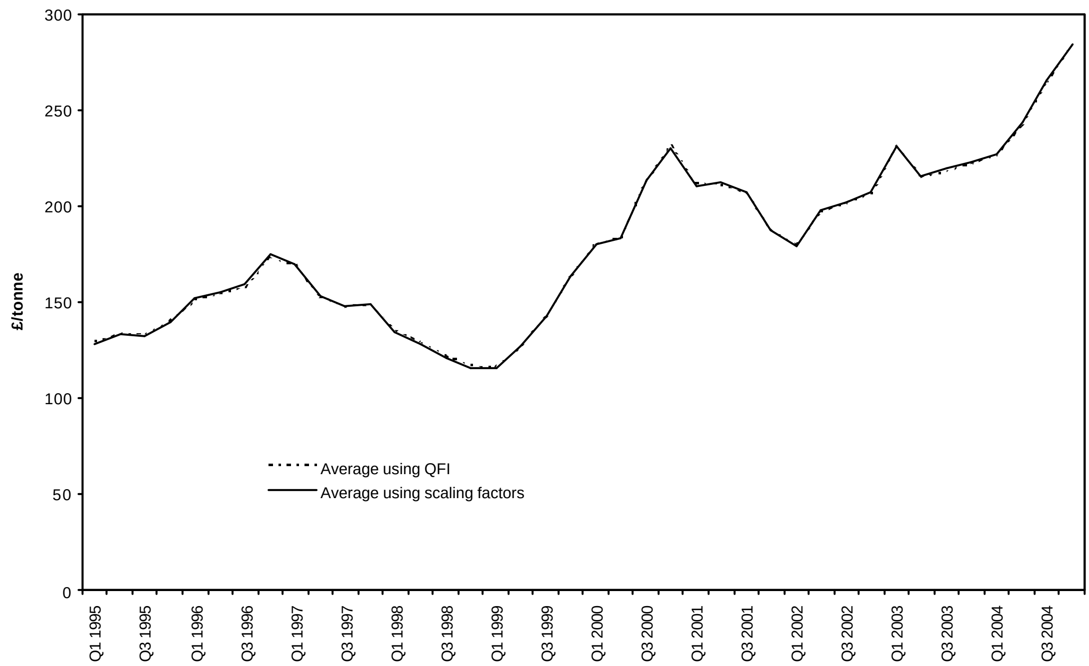


Table A.4 – Differences between prices paid by average gas oil consumers on the QFI and the scaled replacement series

	Percentage difference
Lowest difference	0.1
First quartile	0.2
Mean difference	0.4
Median difference	0.4
Third quartile	0.5
Highest difference	1.3

Similar exercises are possible to derive small and medium sizeband prices for gas oil. The differences are slightly larger because, as expected, there is a greater divergence between large and small or medium prices. The scaled estimates do, however, still follow closely those of the actual series and could be used to approximate these series. Please contact the DTI for further information.

Coal

Chart A.5 presents a comparison of a scaled large coal price series used to approximate the actual average prices. There is a very good correspondence between the actual average price series and the scaled replacement series based on the large series. On average, the price paid by an average coal consumer from the QFI is 6.5 per cent more than that of a large consumer.

Chart A.5 – Prices paid by average coal consumers on the QFI and the scaled replacement series

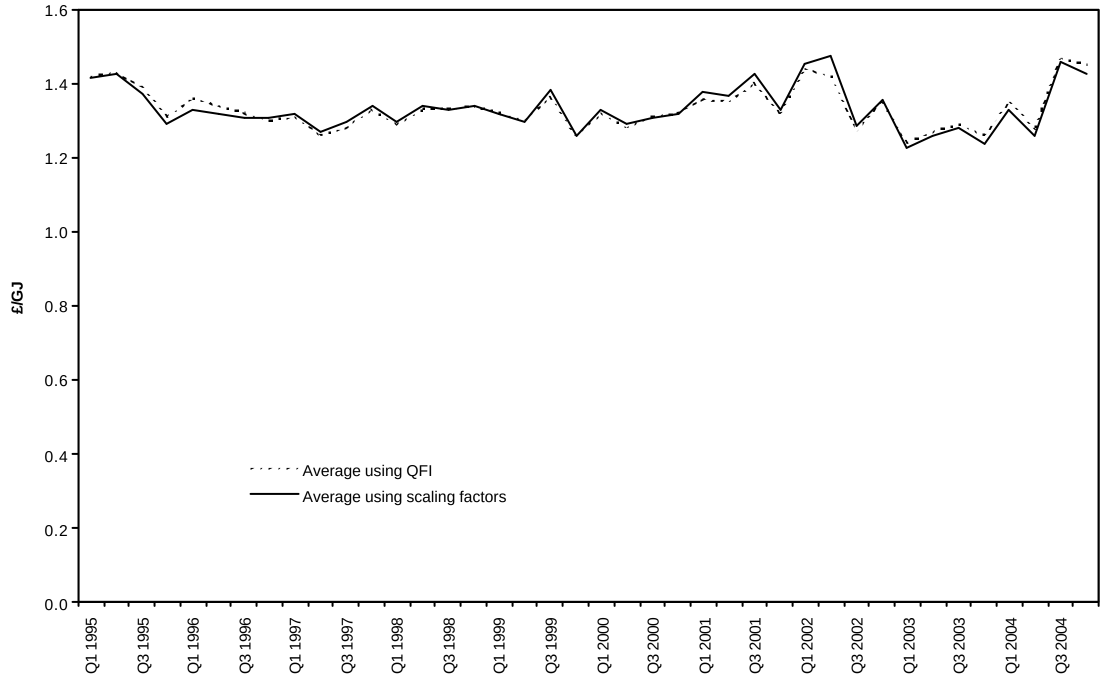


Table A.5 – Differences between prices paid by average coal consumers on the QFI and the scaled replacement series

	Percentage difference
Lowest difference	-
First quartile	0.5
Mean difference	1.0
Median difference	0.9
Third quartile	1.5
Highest difference	3.7

It is not possible to conduct similar exercises to derive small and medium sizeband prices for coal because the small and medium prices are not always subject to the same influences as the large series, meaning that the trends diverge. Under this proposal it is therefore not possible to maintain a scaled small or medium time series for coal. Please contact the DTI for further information.

Gas

Chart A.6 presents a comparison of a scaled large gas price series used to approximate the actual average prices. There is a very good correspondence between the actual average price series and the scaled replacement series based on the large series. On average, the price paid by an average gas consumer from the QFI is 5.5 per cent more than that of a large consumer.

Chart A.6 – Prices paid by average gas consumers on the QFI and the scaled replacement series

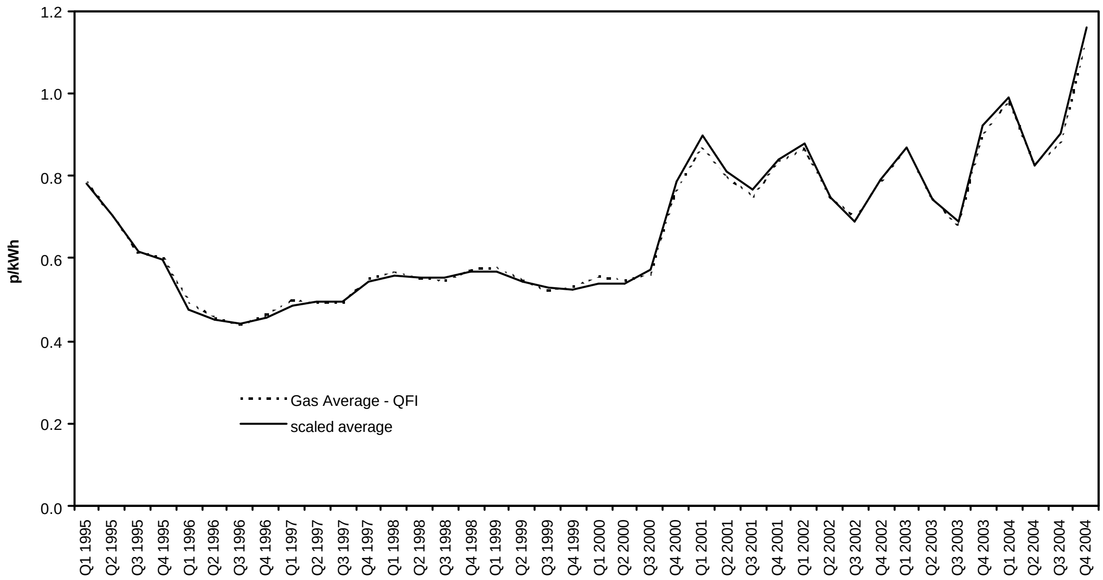


Table A.6 – Differences between prices paid by average gas consumers on the QFI and the scaled replacement series

	Percentage difference
Lowest difference	-
First quartile	0.6
Mean difference	1.3
Median difference	1.3
Third quartile	1.6
Highest difference	3.7

It is not possible to conduct similar exercises to derive small and medium sizeband prices for gas because small and medium prices are not always subject to the seasonal pricing component to the same degree as the large series. It is therefore not possible to maintain a scaled small or medium time series. Instead the new Eurostat price transparency data can be used to derive an approximation.

Charts A.7 and A.8 present a comparison of the Eurostat and QFI medium gas price series and a comparison of the Eurostat and QFI small gas price series respectively. There is a reasonable correspondence between the relevant series, although differences do exist.

Chart A.7 – Prices paid by medium QFI gas consumers and medium Eurostat gas consumers

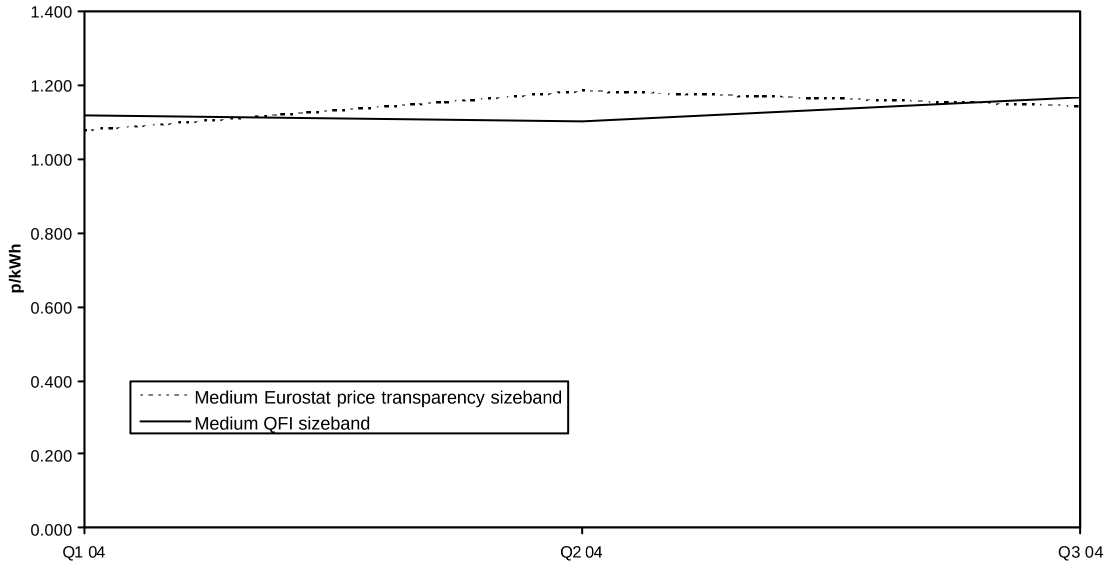
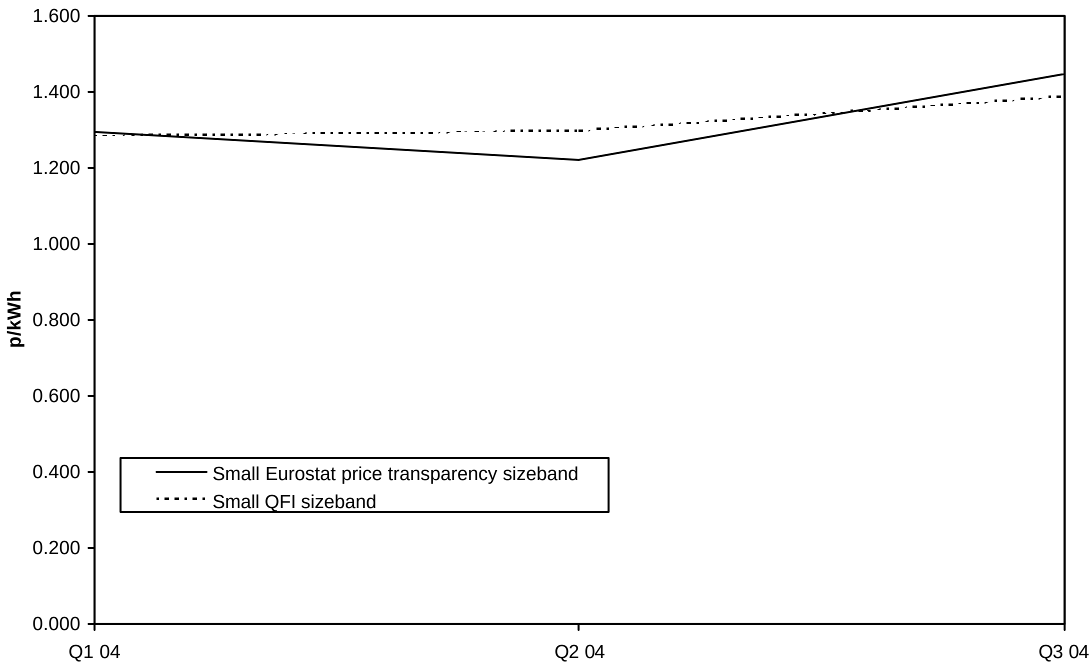


Chart A.8 – Prices paid by small QFI gas consumers and small Eurostat gas consumers



Electricity

Chart A.9 presents a comparison of a scaled large electricity price series used to approximate the actual average prices. There is a good correspondence between the actual average price series and the scaled replacement series based on the large series. On average, the price paid by an average electricity consumer from the QFI is 11.5 per cent more than that of a large consumer.

Chart A.9 – Prices paid by average electricity consumers on the QFI and the scaled replacement series

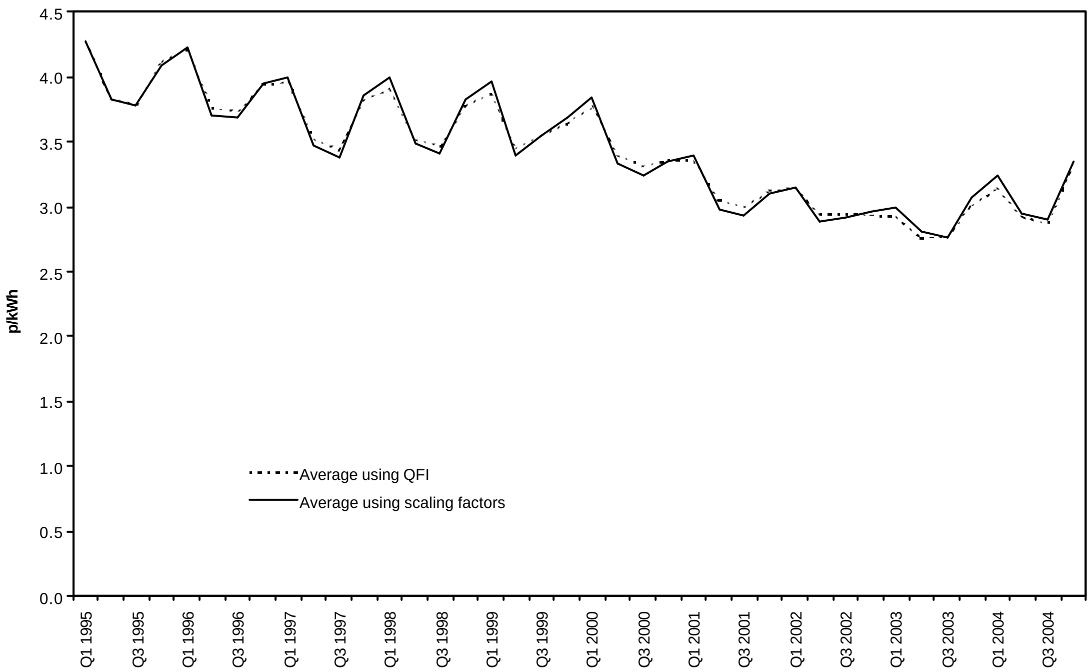


Table A.9 – Differences between prices paid by average electricity consumers on the QFI and the scaled replacement series

	Percentage difference
Lowest difference	0.1
First quartile	0.7
Mean difference	1.3
Median difference	1.2
Third quartile	1.9
Highest difference	3.3

It is not possible to conduct similar exercises to derive small and medium sizeband prices for electricity because small and medium prices are not always subject to the seasonal pricing component to the same degree as the large series. It is therefore not possible to maintain a scaled small or medium time series. Instead the new Eurostat price transparency data can be used to derive an approximation.

Charts A.10 and A.11 present a comparison of the Eurostat and QFI medium electricity price series and a comparison of a weighted average of the small and small/medium Eurostat series and QFI small electricity price series respectively. There is a reasonable correspondence between the relevant series, although differences do exist.

Chart A.10 – Prices paid by medium QFI electricity consumers and medium Eurostat electricity consumers

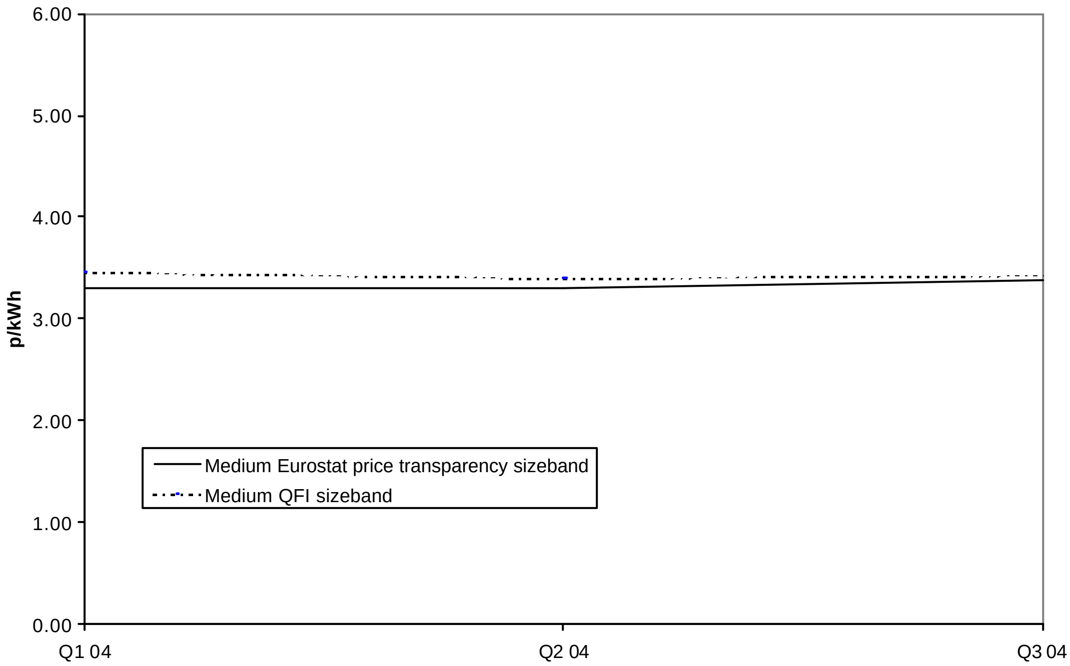


Chart A.11 – Prices paid by small QFI electricity consumers and a weighted average of the small and small/medium Eurostat series electricity consumers