Competition in gas supply

Introduction
This article describes the number of companies operating, the market concentrations of the domestic, commercial and industrial markets, and data on the size of the companies operating.

Background to changes in the gas market
Three-quarters of the non-domestic market for gas (customers with demand above 25,000 therms per year) was effectively opened up to competition at the end of 1986. Most of the remainder (between 2,500 and 25,000 therms a year) was opened up in August 1992. The domestic market was opened for competition in between April 1996 and May 1998, with large increases in the number of gas suppliers up to 2000.

After 2000 the number of companies supplying gas decreased by more than 50 per cent from its peak, driven by company mergers. BEIS analyse the data using four sectors - sales to the electricity generators, the industrial sector, the commercial sector and the domestic sector.

Competition for electricity generation cannot be calculated accurately due to complexities associated with this sector. BEIS collect data on final sales from gas companies; companies who generate electricity from gas are often the same companies who trade gas, therefore at the point of sale, sellers do not know the proportion of gas sold which will be used for generation and that which will be traded on. As such data for electricity generation competition are not presented here.

Number of companies supplying gas at least 1,750 GWh of gas
The table below shows the number of companies supplying gas to final consumption in the domestic, commercial and industrial sectors. The table shows only those companies supplying at least 1,750 GWh of gas to each respective sectors.

Table 1: Number of companies supplying gas

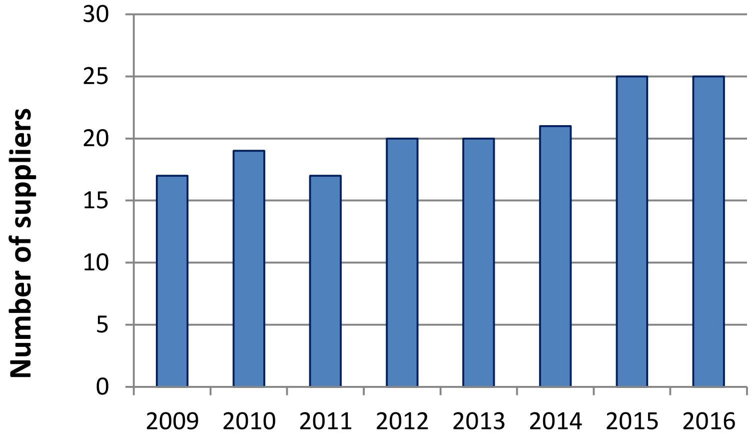
	1998	2000	2002	2004	2006	2008	2010	2012	2013	2014	2015	2016
Domestic sector	9	14	12	7	6	6	7	7	8	9	12	12
Commercial sector	12	10	10	10	7	6	8	8	9	9	9	12
Industrial sector	15	15	15	10	9	8	8	7	10	11	12	12

(1) Companies can supply into more than one market and are counted in each market they supply. Companies who supply less than 1,750 GWh within each sector are excluded. In August 2017 Ofgem data indicate that 153 suppliers were licensed to supply gas to domestic customers but some suppliers have more than one supply licence and own or part own more than one supply company.

The data indicate that the number of companies supplying gas above the threshold of 1,750 GWh has increased in the commercial sector in 2016, with the Domestic and Industrial sectors remaining the same.

Number of large and small suppliers in the market
New suppliers are continuing to enter the market at an increasing rate. Ofgem data indicates that 43 new licensed suppliers became active in the domestic segment and one in the non-domestic segment over the last year. Chart 1 shows the number of companies supplying more than 1,750GWh a year of gas, (excluding gas to electricity generation) and indicates a generally sustained pattern of increase from 17 in 2009 to 25 in 2015 and 2016.

Chart 1: Total number of companies supplying over 1,750GWh of gas, 2009 to 2016



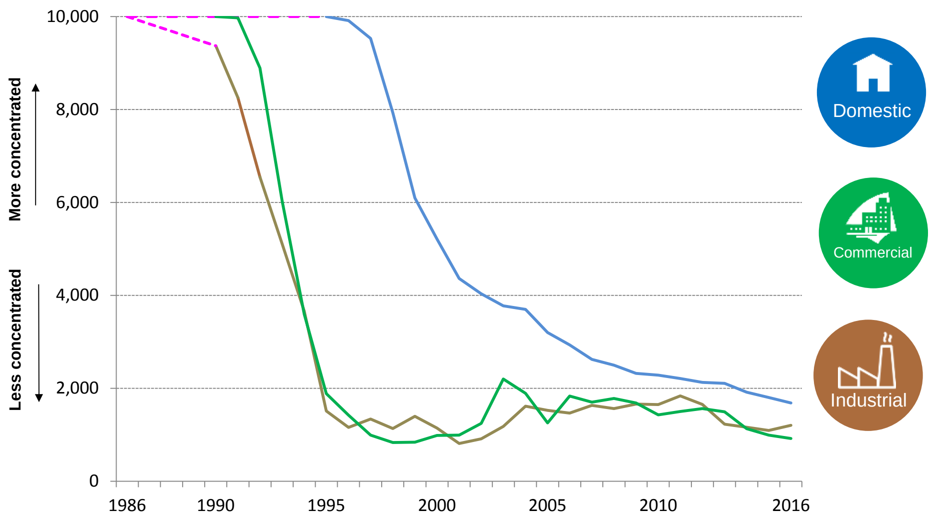
In addition, smaller suppliers continue to enter the market. BEIS collects information from companies licenced to supply gas through two surveys, one a mandatory return for companies supplying more than 1,750 GWh a year of gas (~ 0.5 per cent of final consumption), the other a voluntary return for companies supplying less than that threshold. Return rates for the survey of companies over the 1,750 GWh threshold is 100 per cent, whilst the return rate for smaller companies under than threshold was 58 per cent in 2016, as many registered suppliers do not yet supply gas. In 2016 there were 37 small gas suppliers who returned data compared with 8 returns in 2009. The increase has been broadly steady over that period but differences in survey completion rates will affect this.

Competition in gas sales to the domestic, commercial and industrial sectors, 1986 to 2016

Continuing the trend of recent years, concentration in the domestic and commercial markets has decreased in comparison with 2015. This is due to the increasing number of small suppliers joining the market, and taking a larger part of the market share. In contrast the industrial market concentration has increased slightly on last year.

Chart 2 shows the market concentration as expressed through the Herfindahl-Hirschman index, one of the standard metrics for analysing concentration. In the chart higher numbers show more concentration and lower numbers indicate a more diverse market.

Chart 2: Herfindahl-Hirschman Index for market concentration, 1986 to 2016



Over the last few years the market concentration has consistently decreased in all three sectors, as smaller companies joined the markets. In 2016 this pattern continued for the domestic and commercial markets, but the industrial market saw its first increase in concentration since 2011.

The domestic market has become less concentrated due to increasing number of small suppliers taking an increasing percentage of the market share. In 2016 the total number of companies supplying gas to the market was 36, up from 30 in 2015. Table 1 shows that the number of companies who supplied more than 1,750 GWh remained at 12 in 2016; previously this figure had been increasing since 2008 as new companies took an increasing market share.

The commercial market has seen the number of companies supplying more than 1,750 GWh since 2015 increase from 9 to 12 (see Table 1). This, coupled with the fact that smaller companies have also joined the market (35 companies in total supplying the market in comparison to 31 in 2015), has led to the market becoming less concentrated.

In contrast the industrial market has become more concentrated in 2017 despite the fact that the number of suppliers over the threshold has remained stable on last year. This was because the largest companies have taken a larger market share. The total number of companies supplying gas to the market and the number supplying over 1,750 GWh have remained the same as 2015, at 27 and 12 respectively.

Gas supplied to all consumers by aggregated shares.

Table 2 shows how the market shares of the largest companies have changed over the last 5 years, with the largest tending to lose market share to the medium sized and smaller companies. In 2012 the top 9 accounted for 81 per cent of the market, which is down to 77 per cent in 2016. Figures are based on total gas supplied excluding gas for electricity generation

Table 2: Gas supplied to all consumers by aggregated shares.

	Market share (%)				
Gas suppliers	2012	2013	2014	2015	2016
Aggregated share of top 3 suppliers	46.9	45.5	43.7	42.3	40.8
Aggregated share of next 3 suppliers	20.2	21.1	20.8	20.6	20.5
Aggregated share of next 3 suppliers	14.3	14.9	15.5	14.3	15.4
Aggregated share of top 9 suppliers	**81.4**	**81.5**	**80.0**	**77.2**	**76.7**
Other suppliers	18.6	18.5	20.0	22.8	23.3

Herfindahl-Hirschman

The Herfindahl-Hirschman measure attempts to measure market concentration. It places extra emphasis on the contributions of participants with the largest shares. The measure is commonly used to assess whether mergers should go ahead and whether they will significantly affect the balance of the market in a particular sector.

It is expressed by the following equation:
Herfindahl-Hirschman measure = the square of each participant's market share added together across all participants in the market

Values vary between zero, which signifies a perfectly competitive industry, and ten thousand, for a pure monopoly.

James Halliwell
Downstream gas
Oil and Gas Statistics Team
Tel: 0300 068 8121
E-mail: James.Halliwell@beis.gov.uk