

Analysis of Svitzer and Adsteam prices and discounts

1. In this appendix, we analyse the prices and discounts offered by Svitzer and Adsteam in the different ports in which they operate. The aims are:
 - to assess whether Svitzer and Adsteam tend to give larger discounts, and to a larger proportion of customers, in ports in which they face head-to-head competition (Liverpool and the Humber) than in ports in which they do not face head-to-head competition;
 - to assess whether there are any spill-over effects from competition in Liverpool to other ports, in that customers may be able to obtain better terms from a towage provider in other ports than Liverpool if they also use that towage provider in Liverpool;
 - to assess whether there are any national aspects to pricing, in that customers who call at several ports may be able to obtain better terms than those who only call at one port; and
 - to assess the constraints on prices in ports where there is no head-to-head competition, and in particular whether a customer's ability to obtain discounts is linked to the ability of this customer, because of its size, to credibly threaten to sponsor entry.
2. Net prices are not directly comparable across ports. Indeed, as discussed in paragraph 8.4, the service provided at each port is different, depending on the geography of the port, and this will affect the cost of providing tug jobs in each ports. Net prices are also difficult to compare between customers in a given port: typically, a customer will call in a port several times in a given year, and therefore the average revenue per tug job in a year will be influenced by the mix of types of tug jobs used in the year by this customer (tug jobs will vary according to the length of the ship as well as the location of the ship in the port). For this reason, we analyse tariffs and discounts in the different ports and to different customers, rather than average net prices.
3. We first describe the parties' tariffs in the different ports. We then present data comparing the extent of discounting in Liverpool and in the Humber to other UK ports. Finally, we present the results of an econometric analysis of the determinants of discounts to customers.

Tariffs

4. As described in paragraphs 8.4 to 8.9, Svitzer and Adsteam publish annual tariffs for tug jobs in each port. The parties told us that annual tariff increases generally reflected increases in the underlying costs. Some customers then obtained a discount off the published tariff. The proportion of customers obtaining discounts off the tariff in each port, and the average discounts obtained by customers, are shown in paragraphs 10 to 18.

5. Table 1 shows the tariff increases for 2001 to 2005 in the different Svitzer ports (indexed to 100 in 2001). As can be seen, tariff increases have generally been lower in Liverpool than in the other ports in which Svitzer operates during this period.

TABLE 1 **Tariff increases in Svitzer ports, 2001 to 2005***

	2001	2002	2003	2004	2005
Avonmouth	100	105	108	111	117
Belfast	100	103	108	112	118
Forth	100	103	106	110	114
Greenock	100	103	106	110	116
Liverpool	100	103	106	106	111
Newport†	100	120	132	143	148
Tees	100	103	106	110	114
Tyne	100	103	106	111	116
Average	100	105	109	114	119

Source: CC, based on data provided by Svitzer.

*Tariffs were indexed to 100 in 2001 for each port.

†In Newport, Svitzer told us that the large tariff increases were driven by low demand.

6. Tariff increases in Adsteam's ports are shown in Table 2. Tariff increases in Liverpool have also tended to be lower than tariff increases in the other UK ports in which Adsteam operates.

TABLE 2 **Tariff increases in Adsteam's ports, 2001 to 2006***

	<i>Year-on-year changes, per cent</i>				
	2002	2003	2004	2005	2006
Felixstowe	3	3	13	5	9
Humber	-	6	7	5	-
Thames	3	3	13	9	4
Southampton	-	-	13	5	4
Medway	-	9	7	5	13
Liverpool	3	3	6	2	4

Source: CC, based on information on tariffs provided by Adsteam to the OFT.

Note: In a given port and a given year, tariffs for the different types of tug jobs do not necessarily increase in the same way. The figures shown in this table are the median changes for each port and year. Moreover, in some years there was a change in the charging structure—for instance, changes in the tariff bands depending on the size of the ship. We compared tariffs on a like-for-like basis; and therefore for some ports the analysis did not cover all tariff increases.

Comparison of the extent of discounting in Liverpool and the Humber with other ports

7. Having found that tariff increases have tended to be lower in Liverpool than in the other UK ports in which Adsteam and Svitzer operate, we now analyse the extent of discounting in Liverpool and in other UK ports. Indeed, the lower tariff increases in Liverpool could be compensated for by the fact that discounts tend to be lower or less frequent in Liverpool than in other ports. Conversely, if discounts are higher and more frequent in Liverpool than in other ports, and given that tariff increases have generally been lower in Liverpool, this would suggest that a larger proportion of customers in Liverpool are able to negotiate prices in Liverpool.
8. Both parties provided us with data on the net prices, number of tugs and discounts obtained by their customers in all UK ports in which they operate.

9. Svitzer provided data for the period 2000 to 2006 for all customers who account for at least £20,000 of revenue a year. Adsteam provided data for all customers; however, the discount information was only available for financial years 2003/04 to 2005/06.
10. Table 3 shows the average discounts granted by Adsteam in each port for the financial years 2003/04 to 2005/06. These are revenue-weighted discounts: they are calculated as the percentage difference between total gross revenue and total net revenue in each port and in each year. On average, the discount over gross price is highest in [redacted], followed by Liverpool.

TABLE 3 Adsteam average discounts per port

	<i>per cent</i>		
	2003/04	2004/05	2005/06
Felixstowe	([redacted])		
Humber			
Liverpool*		✂	
London			
Medway			
Southampton			
All ports			

Source: CC, based on Adsteam data.

*Out of port work in Liverpool (most of which is work for the Ministry of Defence in the Falkland Islands) was excluded from this calculation, as well as from all other tables in this appendix.

11. Table 4 shows the average discounts granted by Svitzer in each port in which it operates, for the years 2000 to 2006. Average discounts in Liverpool were higher than in all other ports in all years except 2004, where average discounts were higher in [redacted]. The large increase in average discounts in [redacted] in 2004 is the result of a very large increase in the discount obtained by [redacted].

TABLE 4 Svitzer average discount per port

<i>Port</i>	<i>per cent</i>						
	2000	2001	2002	2003	2004	2005	2006
Avonmouth	([redacted])						
Belfast							
Forth							
Greenock							
Liverpool*					✂		
SE Wales							
Tees							
Tyne							
All ports							

Source: CC based on Svitzer data.

*Shell at Tranmere is excluded from this calculation, as well as from all other tables in this appendix.

12. Tables 5 and 6 show the average discount per customer in the different ports in which Adsteam and Svitzer operate. Average discount per customer is not revenue weighted and therefore would tend to be lower than the overall average discounts in Tables 3 and 4 if the larger customers tend to receive the largest discounts. Liverpool customers on average tend to get higher discounts than customers in any other Adsteam ports. In the case of Svitzer, average discounts per customer are also consistently higher in Liverpool than in all other Svitzer ports in which Svitzer operates.

TABLE 5 Adsteam average discount per customer in each port

	per cent		
	2003/04	2004/05	2005/06
Felixstowe			
Humber			
Liverpool		✂	
London			
Medway			
Southampton			
All ports			

Source: CC, based on Adsteam data.

TABLE 6 Svitzer: average discount per customer in each port

	2000	2001	2002	2003	2004	2005	2006
Avonmouth							
Belfast							
Forth							
Greenock							
Liverpool				✂			
SE Wales							
Tees							
Tyne							
All ports							

Source: CC, based on Svitzer data.

13. Tables 7 and 8 show the proportions of customers obtaining discounts from Adsteam and Svitzer in the different ports.

TABLE 7 Proportion of customers receiving discounts in Adsteam ports

	per cent			
	2003/04	2004/05	2005/06	All years
Felixstowe				
Humber				
Liverpool			✂	
London				
Medway				
Southampton				
All ports				

Source: CC, based on Adsteam data.

14. In Adsteam ports, the proportion of customers receiving discounts is the highest in Liverpool ([✂] per cent of customers over the past three years). It is second highest in [✂]. In the case of Svitzer, Liverpool is the port where the highest proportion of customers receive discounts ([✂] per cent of customers for the period 2000 to 2006), against a national average of [✂] per cent.

TABLE 8 **Svitzer: proportion of customers obtaining discounts, 2000 to 2006**

Port	2000	2001	2002	2003	2004	2005	2006
Avonmouth							
Belfast							
Forth							
Greenock							
Liverpool				✂			
SE Wales							
Tees							
Tyne							
All ports							

Source: CC, based on Svitzer data.

15. Tables 9 and 10 show the average discount per customer obtaining a discount in Adsteam and Svitzer ports.

16. In the case of Adsteam, a larger proportion of customers receive a discount in Liverpool. However, the discount they obtain tends to be on average lower than the average discount obtained by customers receiving a discount in [✂] (but higher than in all other ports). In the case of Svitzer, the average discount per customer obtaining a discount is highest in Liverpool.

TABLE 9 **Adsteam average discount per customer obtaining a discount**

	<i>per cent</i>		
	2003/04	2004/05	2005/06
Felixstowe			
Humber			
Liverpool		✂	
London			
Medway			
Southampton			
All ports			

Source: CC, based on Adsteam data.

TABLE 10 **Svitzer average discount per customer obtaining a discount**

Port	2000	2001	2002	2003	2004	2005	2006
Avonmouth							
Belfast							
Forth							
Greenock							
Liverpool				✂			
SE Wales							
Tees							
Tyne							
All ports							

Source: CC, based on Svitzer data.

17. Figures 1 and 2 show the distribution of discounts among Adsteam and Svitzer's customers.

FIGURE 1

Adsteam distribution of discounts in 2005/06



Source: CC, based on Adsteam data.

FIGURE 2

Svitzer distribution of discounts in 2005



Source: CC, based on Svitzer data.

18. In summary, the data on discounts provided by the parties shows that discounts are more frequent and higher in Liverpool than in other UK ports (with the exception of [REDACTED], where Adsteam granted very high discounts although to a smaller proportion of customers than in Liverpool). In the Humber, discounts are more frequent than in the ports where Adsteam does not face head-to-head competition; however, they tend to be lower than in most of these ports.

Econometric analysis of Adsteam and Svitzer discounts to different customers

19. In the following paragraphs, we analyse the determinants of variations in prices across customers within ports. Specifically, we are interested in understanding why certain customers receive lower prices than others (in the form of discounts off the tariff).
20. The parties provided the following data on the prices to individual customers within ports:
 - net average revenue per tug job and per year; and
 - average discount off tariff over the year.
21. Typically, a customer will call in a port many times in a given year, and therefore the average revenue per tug job in a year will be influenced by the mix of types of tug jobs used in the year by this customer (tug jobs will vary according to the length of the ship as well as the location of the ship in the port). For this reason, the net average revenue per tug job appears to be a poor indicator of the variations in prices paid between customers in a given port for a similar service. Average discounts off tariffs measure, over all tug jobs in the year, the difference between the tariff and the actual price paid, and therefore appear to be more directly comparable across customers. For this reason, we chose the discount per customer as the explanatory variable.
22. We conducted a multiple regression analysis on Adsteam and Svitzer's discounts separately. We regressed average discount per customer on different measures of the importance of the customer to the provider (total number of tug jobs by the customer in the port, relative importance of the customer in the port,¹ and total number of tug jobs by the customer in all ports), as well as on the number of ports used by

¹Measured as the total number of tug jobs for the customer in the port divided by the total number of tug jobs in the port.

the customer and on a number of binary indicator variables for each port and year, and for the type of customer (whether container ship or other type).

23. We then tested:

- whether customers get consistently higher discounts in the ports in which there is head-to-head competition (Liverpool and Humber) than in ports in which there is no such competition;
- whether discounts to customers are explained by the importance of the customer to the provider in each port ('potential entry' explanation);
- whether, among ports where there is no head-to-head competition, customers tend to get higher discounts in the medium-sized ports, where successful entry is more likely than in the small ports;
- whether Adsteam and Svitzer are currently granting higher discounts (all other things being equal) to customers who call at several ports than to those who call at only one port, in order to test whether pricing to customers is undertaken on a port-by-port basis;
- whether container ships (which appear to have more flexibility to switch between ports) get consistently higher discounts than other types of customers; and
- whether there are any spill-over effects from competition in Liverpool to other ports, in the sense that customers who also call at Liverpool get systematically higher discounts in other ports than customers who do not call at Liverpool.

Regression of discounts in Svitzer ports

24. Svitzer provided data on discounts to customers whose transaction in one port exceeded £20,000 in the year, for the years 2000 to 2006. We excluded year 2006 from the analysis as it is an incomplete year and we were told that there is some seasonality in sales.
25. We first conducted a regression over all ports. We then eliminated Liverpool from the analysis in order to test whether customers in other ports were receiving higher discounts if they also called at Liverpool.
26. The results of the regression of discounts² over all Svitzer ports are reported in Table 11.

²Discounts are expressed here in percentage points off the tariff: so if the discount takes a value of 2, this would in fact be two percentage points off tariffs.

TABLE 11 Results of the regression of Svitzer discounts over all ports

Discount	Coefficient	Standard error	t-stat	P>t	95% confidence interval
<i>Year (relative to year 2000)</i>					
Year 2001					
Year 2002					
Year 2003					
Year 2004					
Year 2005					
<i>Port (relative to Avonmouth)</i>					
Belfast					
Forth					
Greenock					
Liverpool					
SE Wales					
Tees					
Tyne					
<i>Type of ship</i>					
Container ship					
<i>Number of ports used by customer</i>					
Number of tug jobs by the customer in that port and year					
<i>Total number of tugs by the customer in all Svitzer ports in that year</i>					
Relative importance of customer in terms of number of tug jobs in the port*					
Constant					

Source: CC, based on Svitzer data.

*For each customer, port and year, this is equal to:

$$(\text{number of tug jobs by the customer in that port}) / (\text{total number of tug jobs in the port}) * 100$$

Notes: Number of observations: 985. Method of regression: OLS. R-square: 0.52. Statistically significant effects (at the 5 per cent level) are given in bold. In Avonmouth and SE Wales, volumes are accounted for differently than in other ports and we discounted these by one-third to make them comparable.

27. Regarding our hypotheses, we found that:

- [✂]
- Discounts in a port increase both with the number of tug jobs of the customer in that port and with the relative importance of the customer to that port (both effects are statistically significant).
- After Liverpool, the port where discounts are highest is [✂].
- Discounts do not increase with the number of ports used by the customer (in fact, they decrease, but this effect is not statistically significant); they increase with total volume of tug jobs by the customer throughout all Svitzer ports but this effect is not statistically significant.
- [✂]

28. The results of the regression on discounts excluding the port of Liverpool are reported in Table 12.

TABLE 12 Results of the regression of Svitzer's discounts in ports other than Liverpool

	Coefficient	Standard error	t-stat	P>t	95% confidence interval
Year 2001					
Year 2002					
Year 2003					
Year 2004					
Year 2005					
Whether customer also used Liverpool in same year					
Belfast					
Forth					
Greenock					
SE Wales					
Tees					
Tyne					
Container?					
Number of ports used by customer					
Number of tug jobs by the customer in that port and year					
Total number of tugs by the customer in all Svitzer ports in that year					
Relative importance of customer in terms of number of tug jobs in the port					
Constant					

Source: CC, based on Svitzer data.

Notes: Method of estimation is OLS. Number of observations: 856. R-square: 0.51. Statistically significant effects (at the 5 per cent level) are given in bold. In Avonmouth and SE Wales, volumes are accounted for differently than in other ports and we discounted these by one-third to make them comparable.

- Customers who also use Svitzer in Liverpool do not get higher discounts than those who do not (in fact, they get lower discounts, but this is not statistically significant).

Regression of discounts in Adsteam ports

- Adsteam provided data on discounts to all customers, for the financial years 2003/04 to 2005/06.
- We first conducted a regression of discounts over all Adsteam ports. We then eliminated Liverpool from the analysis in order to test whether customers in other ports were receiving higher discounts if they also called at Liverpool.
- The results of the regression of discounts³ over all Adsteam ports are reported in Table 13.

³Discounts are expressed here in percentage points off the tariff: so if the discount takes a value of 2, this would in fact be two percentage points off tariffs.

TABLE 13 Results of the regression of Adsteam discounts over all ports

	Coefficient	Standard error	t-stat	P>t	95% confidence interval
<i>Year (relative to 2003/04)</i>					
2004/05					
2005/06					
<i>Number of ports used</i>					
<i>Relative importance of customer*</i>					
<i>Total number of tug jobs in all ports</i>					
<i>Container?</i>					
<i>Port (relative to Felixstowe)</i>					
Humber					
Liverpool					
London					
Medway					
Southampton					
Constant					

Source: CC, based on Adsteam data.

*For each customer, port and year, this is equal to:

$$(\text{number of tug jobs by the customer in that port}) / (\text{total number of tug jobs in the port}) * 100.$$

Notes: Method of estimation is OLS. Number of observations: 1,900. R-square: 0.35. Statistically significant effects (at the 5 per cent level) are given in bold. Relative importance of customer and number of tug jobs by the customer in a port are very highly correlated; therefore we only conducted the analysis for relative importance of customer.

33. Regarding our hypotheses:

- Discounts are consistently higher in Liverpool than in all other ports.
- Discounts in a port increase with the relative importance of the customer to that port.
- After Liverpool, the ports in which discounts are the highest are [✂]. In the Humber, discounts are lower than in these two ports. [✂]
- Discounts increase with the number of ports used by the customer, but this effect is not statistically significant; discounts increase with the total number of tug jobs by the customer throughout all of Adsteam’s ports and this is statistically significant (so there appears to be a national aspect to Adsteam’s pricing policy).
- Container ships consistently receive higher discounts than other types of customers.

34. The results of the regression of Adsteam’s discounts excluding Liverpool are reported in Table 14.

TABLE 14 Results of the regression of Adsteam discounts excluding Liverpool

	Coefficient	Standard error	t-stat	P>t	95% confidence interval
<i>Year (relative to 2003/04)</i>					
2004/05					
2005/06					
<i>Use of Liverpool</i>					
Number of ports used					
Relative importance of the customer					
Total number of tug jobs in all ports					
Container?					
<i>Port (relative to Felixstowe)</i>					
Humber					
London					
Medway					
Southampton					
Constant					

Source: CC, based on Adsteam data.

Notes: Method of estimation is OLS. Number of observations: 1,583. R-square: 0.29. Statistically significant effects (at the 5 per cent level) are given in bold.

35. Customers who also use Adsteam in Liverpool receive higher discounts than those who do not; however, this effect is not statistically significant.