

MS15/1.2: Annex 2

Market Study

Investment and corporate banking market study

Interim Report: Annex 2 – Data collection and analysis

April 2016

Annex 2: Data collection and analysis

1. During our market study we used data and information from a range of market participants and sources. These included:
 - **Banks and advisers:** we approached 81 banks and advisers with a request for information and 70 responded.
 - **Buy-side investors:** we collected data and information from 12 buy-side investors.
 - **Clients:** we approached 47 clients with a questionnaire and received responses from 10.
 - **Dealogic:** this is an integrated platform of global market data. It includes data on global primary market equities, global primary market bonds, global primary syndicated loans and global M&A transactions. We used Dealogic data in our analysis either where our dataset did not provide sufficient transaction coverage, for example in our analysis of reciprocity in Chapter 6, or, where necessary, to supplement the data we gathered from banks and advisers.
 - **Orbis:** this is a database which contains information on private (listed and unlisted) companies worldwide.
2. In this Annex we focus on the data we collected from banks and advisers and how we have analysed it. We set out:
 - what data we collected
 - how we collected our transactional data
 - how our transactional data is representative
 - what challenges we encountered in collecting the transactional data
 - what we did with the transactional data

Data we collected from banks and advisers

3. We sent an information request to 81 banks and advisers. The information request covered both qualitative and quantitative information. The quantitative data we requested covered:
 - annual revenues
 - unsuccessful bids
 - order and allocation books
 - value proposition ratings
 - transactional data
 - IPO research data

Annual revenue data

4. We asked banks and advisers to provide us with a breakdown of the gross revenues of their UK wholesale operations for 2012, 2013 and 2014. A number of banks and providers submitted their revenue data also for 2015.
5. We received 63 completed responses.
6. The data comprised revenues for UK wholesale operations split by:
 - corporate banking
 - investment banking, which was split further into primary market activities:
 - equity capital markets (ECM)
 - debt capital markets (DCM)
 - mergers and acquisitions (M&A)
 - acquisition finance (where not included in ECM and DCM)
 - other wholesale operations
7. We used this revenue data in Chapter 2. We also used this revenue data to categorise the banks in the transactional dataset adopting the criteria set out in Table 10 below.

Unsuccessful bids data

8. We asked banks and advisers to provide information for each IPO during the calendar years 2010 to 2014 and up to June 2015 for which their UK branch/subsidiary sought to act as a book-runner, adviser, manager or underwriter but were unsuccessful.¹ Similarly, we asked banks and advisers for the same information for each equity offering, excluding IPOs, during 2014 and up to June 2015.
9. We received 27 responses for IPOs and 19 responses for other ECM services. These responses were not well populated by banks and were not suitable for data analysis. Nevertheless, we took this information into consideration when carrying out the analysis of the value proposition ratings in Annex 4.

Order and allocation books

10. We requested order and allocation books from banks and advisers for IPOs conducted in the UK between January 2010 and May 2015, regardless of the location of the issuer, the listing authority, or the target investors.
11. We received responses from 32 banks with details of 801 books (of orders and allocations) on 410 IPOs. In addition, banks and advisers submitted total revenues from investors present in their allocation books from 2010 to 2014. They also provided a list of all the meetings they organised in the 12 months before the IPO date between the issuer and investors for each of the deals listed in their response to the IPO transaction level data request.
12. Order and allocation books were used in our analysis summarised in Chapter 9 and presented in the occasional paper published alongside the report. The occasional paper provides further detail on how we used this data.

¹ We asked for information for the period to date in 2015, which given the information request was sent in June 2015, comprised up to that point.

Value proposition ratings

13. We asked banks and advisers which characteristics they placed the greatest importance on when setting out their value proposition to new clients (i.e. engaging with the firm for the first time)² and existing clients. We asked banks and advisers to rank these characteristics from unimportant to extremely important (on a scale of one to five) for each of ECM, DCM, M&A and corporate lending services.
14. 66 banks and advisers responded to this part of our request. We used this data in our analysis of selection criteria in Chapter 6 and Annex 4.

Transactional data

15. We asked banks and advisers for transaction-specific information about ECM (split out between IPOs, follow-on offerings and other ECM (mainly convertible debt)), DCM, M&A and syndicated loans they had taken a role in over the period January 2010 to May 2015. The request was based on templates part pre-populated with Dealogic data. We focus on how we collected this transactional data in the rest of this Annex.
16. 70 banks and advisers responded to this part of our information request but only 60 of those completed the request providing sufficient data to be included in our dataset.

IPO research data

17. In addition, we asked banks and advisers to provide us with details of the connected and unconnected research produced in the IPO transactions on which they had a role. This information was used to carry out our analysis in the IPO process discussion paper.

How we collected the transactional data

Scope of our data request

18. Table 1 sets out the services and the time period over which we requested transactional data.

² A client can also be a new client for the specific service considered but still an existing client of the provider.

Table 1: Services and time period covered by our data

Activity	Service	Time period in the data request
ECM	IPOs	March 2008, March 2009, January 2010 – May 2015 inclusive
	Follow-on offerings	March 2008, March 2009, March 2010, March 2011, March 2012, March 2013, January 2014 – May 2015 inclusive
	Other ECM	March 2008, March 2009, March 2010, March 2011, March 2012, March 2013, January 2014 – May 2015 inclusive
	DCM	March 2008, March 2009, March 2010, March 2011, March 2012, March 2013, January 2014 – May 2015 inclusive
	M&A	March 2008, March 2009, March 2010, March 2011, March 2012, March 2013, January 2014 – May 2015 inclusive
	Corporate lending	March 2008, March 2009, March 2010, March 2011, March 2012, March 2013, January 2014 – May 2015 inclusive

Source: FCA Information Request

19. The transactional data we requested differed for some of the service types in order to make our data request proportionate. The volume of DCM, lending and M&A transactions (see Table 2) meant that collecting data over a five-year period would have been too burdensome for many banks to complete. We therefore limited the data we requested prior to January 2014 to (i) monthly data for IPOs extending back to January 2010, and (ii) one month (March) in each year for all other services extending back to March 2008.

Table 2: Number of transactions by service

Activity	Service	Number of transactions	
		2014 (12 months)	2015 (5 months)
ECM	IPOs	163	61
	Follow-on offerings	516	243
	Other ECM	85	29
DCM	Corporate high-yield bonds	227	88
	Corporate investment grade bonds	594	279
	MTNs	2,370	1,073
	Other DCM	1,053	412
	M&A	883	202
	Corporate lending	1,387	508
	Total	7,278	2,895

Source: FCA Information Request

20. To align with the geographic scope of our study, we requested data on UK operations which we defined as all activities undertaken from or in the UK, regardless of the location of the client or the legal entity into which the activity is booked for accounting reasons (or from which staff are financed). For the purposes of data collection, with the exception of IPOs³, this excluded:
- activities managed and run completely outside of the UK

³ Note that for IPOs we included all UK listings (irrespective of the location of the bank executing the listing) because we are looking at the IPO process in the UK.

- activities managed and run outside of the UK where the bank's UK branch/subsidiary has an immaterial role (e.g. only one or two team members located in the UK)

Identifying transactions

21. To enable us to develop a dataset that combined firm-specific data with publicly available data, we used Dealogic to identify the transactions that were likely to be in scope. However, the Dealogic criteria did not align with the geographic scope of our study, as described in paragraph 20. We selected transactions from Dealogic as shown in Table 3.

Table 3: Geographic coverage of transactions using Dealogic criteria

Activity	Service	Geographic coverage
ECM	IPOs	All EMEA listings and all EMEA issuers listing worldwide
	Follow-on Offerings	All EMEA listings and all EMEA issuers listing worldwide
	Other ECM	All EMEA listings and all EMEA issuers listing worldwide
	DCM	EMEA issuers
	M&A	EMEA target or acquirer
	Corporate lending	EMEA borrower

Source: FCA Information Request

22. Given the misalignment between Dealogic criteria and our scope, transactions for which we asked for data included some non-UK transactions that may have been out of the scope of our study. We therefore asked banks and advisers to identify those transactions that were included in the pre-populated templates that did not fall within the scope of UK operations.
23. In addition, if deals were missing from the Dealogic data but were within scope, we requested banks and advisers to include them in the template and complete all of the fields requested.

Data requested

24. Our transactional data request comprised two types of information for the deals identified:
- up to 60 pre-populated fields with data obtained from Dealogic
 - up to 31 'fields to complete'

Dealogic pre-populated data

25. The pre-populated fields included information about deal identifiers, timing of the deal, issuer characteristics (e.g. issuer type), deal characteristics (e.g. deal type) and fees.
26. Banks and advisers were asked to check the accuracy of the fields. They were asked to replace this data if they found it to be inaccurate and to add any missing information.

Fields to complete

27. We asked banks and advisers to provide additional information by completing the fields for each transaction shown in Table 4.

Table 4: Fields to complete for each service

	Information Requested
Field to complete 1	Your UK branch/subsidiary's roles in the deal
Field to complete 2	% allocation of the fees paid by the issuer* to your firm (prior to the deduction of any expenses such as roadshow costs from the fees paid by the issuer)
Field to complete 3	Discretionary fee awarded to your firm (% of deal value)
Field to complete 4	How mandate was awarded (competitive tender, direct approach from/to client, direct approach from/to lead bank)
Field to complete 5	Ancillary services** provided to issuer for this transaction Y/N
Field to complete 6	Ancillary service** 1
Field to complete 7	Income from ancillary service** 1 (USD m)
Field to complete 8	Ancillary service** 2
Field to complete 9	Income from ancillary service** 2 (USD m)
Field to complete 10	Ancillary service** 3
Field to complete 11	Income from ancillary service** 3 (USD m)
Field to complete 12	Ancillary service** 4
Field to complete 13	Income from ancillary service** 4 (USD m)
Field to complete 14	Ancillary service** 5
Field to complete 15	Income from ancillary service** 5 (USD m)
Field to complete 26	Revenues received from the issuer* for products/services provided in 2 calendar years prior to the transaction (USD m)
Field to complete 17	Product/service accounting for highest proportion of revenues received from issuer* in 2 calendar years prior to the transaction
Field to complete 18	Proportion of revenues received from issuer* in 2 calendar years prior to the transaction accounted for by the service in Field 17
Field to complete 19	ECM products/services provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 20	DCM products/services provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 21	M&A Advisory products/services provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 22	Syndicated Loan provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 23	Bilateral Loan provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 24	Other Credit Facility provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 25	Other Corporate Banking/Ancillary Services provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 26	Secondary Market products/services provided to issuer* in 2 calendar years prior to the transaction Y/N
Field to complete 27	Provided any of these services to this issuer* for more than 5 calendar years prior to the transaction Y/N

Source: FCA Information Request. *Note that "issuer" was written in place of "client" in the M&A data request and "borrower" in the corporate lending data request. **Note that this field was "Additional service" in the corporate lending data request.

28. The list of 'fields to complete' was the same for each service except for IPOs, which had an additional four fields, as shown in Table 5.

Table 5: Additional fields to complete for IPOs

	Information Requested
Field to complete 1	Public offer as defined by the prospectus directive Y/N
Field to complete 2	Date of intention to float announcement
Field to complete 3	Date of the pathfinder
Field to complete 4	Date of the prospectus/admission document

Source: FCA Information Request

How our transactional data is representative

29. We believe that the scope of our request for information, together with data collected in response to the request, was reasonable and proportionate and provides a representative sample upon which to base our analysis, having regard to the scope of the market study and the FCA’s statutory objectives.
30. Table 6 shows how our sample compares with Dealogic EMEA data for each of DCM, ECM, M&A and lending in 2014 and 2015. As set out above, part of the reason for the difference between our sample and Dealogic is that:
- our sample comprises UK transactions that were added by banks and advisers but not reported on Dealogic (which explains why for some specific service types our sample is larger than Dealogic)
 - our sample excludes transactions that are reported in Dealogic but banks informed us were not within the scope of their UK operations

Table 6: Summary statistics of our sample compared with Dealogic EMEA data

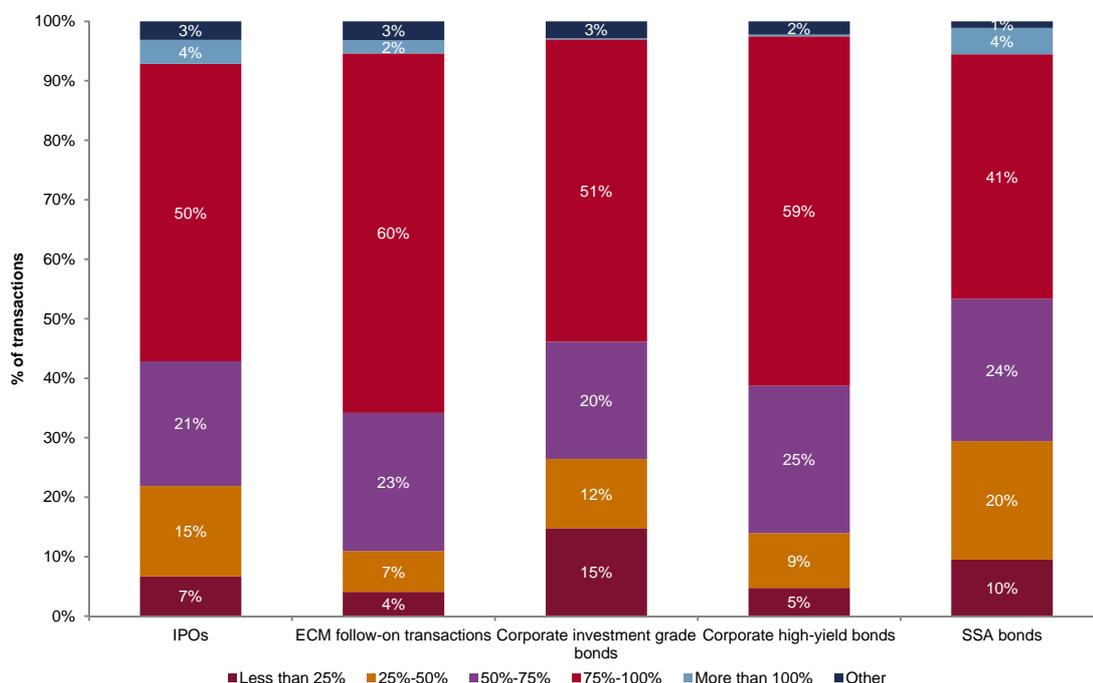
Service	Summary statistics	Our sample		Dealogic EMEA data	
		2014 (12 months)	2015 (5 months)	2014 (12 months)	2015 (5 months)
ECM	Number of ECM deals	764	333	1,184	543
	Total deal value (\$m)	269,311	111,725	283,140	117,062
	Average deal value (\$m)	370	354	239	216
	Total gross fee (\$m)	4,922	1,642	5,107	1,6
	Average gross fee (\$m)	6.6	5.1	4.3	2.9
DCM	Number of DCM deals	4,196	1,826	6,936	3,222
	Total deal value (\$m)	2,292,326	1,001,483	3,755,848	1,547,868
	Average deal value (\$m)	680	677	542	480
	Total gross fee (\$m)	7,259	3,068	7,318	3,033
	Average gross fee (\$m)	2.2	2.1	1.3	1.2
M&A	Number of M&A deals	883	202	5,174	2,423
	Total deal value (\$m)	1,182,892	109,660	2,184,035	756,181
	Average deal value (\$m)	1,647	741	382	312
	Total gross fee (\$m)	4,839	652	6,458	2,641
	Average gross fee (\$m)	5.8	3.8	4.8	4.7
Corporate lending	Number of Loan deals	1,387	508	2,519	1,105
	Total deal value (\$m)	1,162,479	406,521	1,466,707	598,575
	Average deal value (\$m)	958	920	582	542

Source: FCA transactional data collected from a sample of 60 firms. Dealogic EMEA data for 2014 and 2015.

Note: the number of transactions for DCM included above is different to the total set out in Table 2 because we do not include those transactions where the total deal value/total gross fee is not available.

31. The transactional data gathered as part of the market study did not include information on all banks and advisers that were members of a syndicate for a particular transaction. To assess our coverage of syndicate participants, for each transaction, we compared the number of banks and advisers that responded to our data request with the total number of syndicate participants according to Dealogic. Figure 1 shows that, across the main types of ECM and DCM services, our data covered at least three quarters of syndicate members for around half of transactions (50% of IPOs, 60% of ECM follow-ons, 51% of corporate investment grade bonds, 59% of corporate high-yield bonds and 41% of SSA bonds).

Figure 1: Proportion of syndicate banks and advisers covered by the transactional data compared to the total number of syndicate participants according to Dealogic, January 2014 to May 2015



Source: FCA transactional data collected from a sample of 60 firms.

Note: The category 'more than 100%' includes syndicates where the total number of syndicate members in our sample was larger than the total number of syndicate members identified by Dealogic. The category 'other' includes syndicates where Dealogic data did not include information on the total number of banks in the syndicate or where the transaction was not captured by Dealogic data.

Challenges in collecting the transactional data

32. The main challenges we encountered during the data collecting process were:

- Each bank and adviser had different difficulties with completing the data request. We issued a 'Frequently Asked Questions' document during the data collection phase to assist respondents. We also held conference calls with many banks and advisers to assist them with the collection process and address additional queries.
- Unfortunately, some banks and advisers were not able to retrieve all the data we requested. This led to gaps in some firms' data.
- Many banks did not have the data we requested easily accessible in their systems and many had to conduct a manual collection process. This meant the completion of the exercise took longer.

- In many cases, responses were submitted without having followed the instructions in the information request. For example, this included instances of not completing the additional fields to complete, not checking the accuracy of the data and not replacing the data where necessary.
 - The manual collation of data created a greater likelihood of inconsistent information and meant a significant data cleaning process. Part of the data cleaning process involved further iterations with banks to eradicate errors and gaps in the data.
33. Although we specified parameters or options to use when completing some of the fields, there were considerable inconsistencies in responses with many different terms used by banks and advisers. For instance, for field to complete 4 in Table 4, 'how was the mandate awarded', we specified 7 options but received in excess of 600 variants of answers. Again, this lengthened the data cleaning process considerably.

What we did with the transactional data

34. After gathering data and information from banks and advisers, we conducted a thorough data cleaning process. This data cleaning covered both the Dealogic fields that we wished to use and the 'fields to complete'. It was mainly aimed at standardising the data and information across banks and advisers. The phases of our data cleaning process are outlined in Figure 2.

Figure 2: The data cleaning process

1. Processing data

We checked our understanding of the data submitted by banks and advisers. To ensure robustness of the data, we sent several follow-up queries to the firms.

2. Combining data

We combined data from individual firms into a single dataset. To ensure consistency, we took the following steps:

1. We updated Dealogic information where corrected by banks.
2. We updated any data and information submitted in response to our follow-up queries.
3. We compared situations where we had different responses on the same transaction.

3. Dropping observations

We dropped observations on transactions that were out of the scope of our market study. In addition, we dropped transactions that firms submitted with very little information (i.e. where all fields to complete were submitted with blanks). At the end of this phase, the dataset comprised responses from 60 banks and advisers.

4. Standardising observations across banks and advisers

We standardised the observations using the same conventions. First, we recoded the cases where banks and advisers were supposed to answer using one of our listed options but answered with slightly different options. Second, where the answers did not fall into any listed option, we categorised them in groups. For instance, this exercise was done for standardising the roles undertaken by banks and advisers.

5. Dealing with conflicting entries

As mentioned above, we asked firms to correct the pre-populated fields with data obtained from Dealogic. We compared the responses we received from different banks and advisers on the same transactions to check that all banks and advisers made the same corrections. If banks and advisers submitted different information on the same deal, we applied a number of rules to ensure consistency. For example, if at least half of the firms in the transactions changed the Dealogic entry to the same figure, we replaced the Dealogic figure with the corrected version.

6. Converting figures to USD

We requested that the information was submitted in US Dollars. Where banks and advisers submitted information in other currencies, we converted the figures to USD by using the European Central Bank (ECB) exchange rates.

7. Removing duplicate transaction entries

We requested that banks and advisers submit information (e.g. fees received) for each transaction they were mandated on. However, in some cases, banks submitted multiple entries for the same transaction, providing information for each tranche of the transaction separately. In these cases we kept only a single transaction-level entry, aggregating the tranche level information to transaction level where feasible and appropriate.

8. Adding information from Orbis, Dealogic and from other datasets

To carry out some pieces of our analysis, we needed to supplement our dataset with information available in Orbis or Dealogic. For example, we obtained detailed information about clients conducting transactions (i.e. assets, revenues and current market capitalisation) from Orbis and detailed information on the sponsors on the transactions from Dealogic). We also supplemented the dataset with the data banks and advisers submitted on annual revenues in response to the information request.

9. Categorising clients and providers

We categorised clients and providers by type and size using the information obtained in phase 8. We explain how we categorised providers and clients in detail below.

35. To allow us to conduct our analysis split by different types of banks and advisers and different types of clients, we categorised (i) clients and (ii) banks and advisers according to their characteristics.

Clients

36. In our dataset, the number of transactions by type of clients is shown in Table 7.

Table 7: Number of transactions by type

Type of client	Number of transactions in our dataset
Corporate	5,367
FIG	4,037
SSA	1,196

Source: FCA transactional data collected from a sample of 60 firms.

Note: Corporate bonds comprise issues by both corporates and FIGs. The table sets out the number of transactions by client type for January 2014 to May 2015, except for IPOs, for which we used data from January 2010 to May 2015.

37. We decided to categorise corporates according to their size. The primary method was to classify corporates into small, medium and large categories based on their current market capitalisation, using information from Orbis. The size thresholds we adopted were selected so as to broadly reflect the FTSE indices so that:

- the large category comprises corporates that are approximately the same size as FTSE 100 firms
- the medium-sized category comprises corporates that are approximately the same size as FTSE 250 firms
- the small category comprises corporates that are approximately the same size as FTSE Small Cap firms

38. It was not possible to obtain data on current market capitalisation from Orbis for all of the corporate clients in our sample. Where this information was not available we classified firms using thresholds based on a combination of firms' total assets and operating revenues. Where this information was also unavailable we classified firms according to the size category they had been assigned in the Orbis database.

39. The thresholds we used for each criterion are shown in Table 8.

Table 8: Corporate client categorisation criteria

Size of client	Market capitalisation - thresholds	Operating turnover and total assets value – combined thresholds	Orbis thresholds/classification
Large	above \$2000m	total assets above \$5000m and operating turnover above \$2000m	<p>According to Orbis classification, this includes:</p> <ul style="list-style-type: none"> • very large firms: <ul style="list-style-type: none"> – total assets above or equal to \$260m – operating turnover above or equal to \$130m – employees more than or equal to 1,000 – listed companies • large firms: <ul style="list-style-type: none"> – total assets above or equal to \$26m – operating turnover above or equal to \$13m – employees more than or equal to 150
Medium	between \$250m and \$2000m	total assets above \$1000m and operating turnover above \$500m	<p>This includes firms with:</p> <ul style="list-style-type: none"> • total assets above or equal to \$2.6m • operating turnover above or equal to \$1.3m • employees more than or equal to 15
Small	below \$250m	total assets below or equal to \$1000m and operating turnover below or equal to \$500m	All firms classified as 'small' by Orbis.

40. Based on these criteria, the number of transactions across all of ECM, DCM, M&A and lending by category of corporates is shown in Table 9.

Table 9: Number of transactions by category of corporates

Type of client	Size	Number of transactions in our dataset
Corporates	large	2,148
	medium	887
	small	2,006

Source: FCA transactional data collected from a sample of 60 firms.

Note: The table sets out the number of transactions by category for January 2014 to May 2015, except for IPOs, for which we used data from January 2010 to May 2015. The difference between the number of transactions in Table 7 and the sum of the categories in this table is due to the numbers reported in this table excluding 326 transactions where it was not possible to obtain the information needed to classify the corporate client by size. For M&A transactions, the relevant client (i.e. either the target or acquirer in the transaction) was the client of the bank that submitted the transactional data.

Banks and advisers

41. We also categorised banks and advisers according to their size. We classified the banks and advisers that provided transactional data into small, medium and large

based on their annual investment banking revenues, applying the thresholds shown in Table 10.

Table 10: Bank and adviser categorisation criteria

Size of bank/adviser	Annual investment banking revenues - thresholds
Large	above \$450m
Medium	between \$45m and \$450m
Small	below \$45m

42. In addition, we categorised banks and advisers according to their type. We classified firms into universal banks, investment banks, corporate banks, and advisers using a combination of the information that banks and advisers provided in response to the information request and publicly available information.
43. In our dataset, the number of banks and advisers by type and size is shown in Table 11.

Table 11: Number of banks and advisers by category

Type of providers		Size	Number of providers in our dataset
banks	universal bank	large	10
		medium	7
		small	-
	corporate bank	large	1
		medium	3
		small	2
	investment bank	large	2
		medium	14
		small	13
Advisers		large	-
		medium	2
		small	6

Source: FCA transactional data collected from a sample of 60 firms.

Note: a number of banks in our dataset can be categorised in multiple ways. For example, we categorised banks that reported to be investment banks with only advisory services as investment banks. However, they could also be categorised as advisers.

Financial Conduct Authority



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25 The North Colonnade Canary Wharf
London E14 5HS
Telephone: +44 (0)20 7066 1000
Website: www.fca.org.uk
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