GSCS Global Securities Consulting Services Summer 2001

Prospects

The Coming of Age of Transaction Cost Measurement

Each year Global Securities Consulting Services (GSCS) evaluates the execution effectiveness of more than 1.7 million global equity transactions worth more than $700 billion, as part of it Best Execution Comparison Service (BECS). The results of this analysis are used by institutional investment manager clients of GSCS to assess the effectiveness of their own trading operations. With more managers using the BECS service in the U.K., Europe and beyond, we have decided to present a Survey of some of the data at a "Universe" level to illustrate just how important transaction cost measurement is for improving investment returns, allocating commissions, and fulfilling fiduciary and regulatory responsibilities.

The Survey (pages 2, 3 and 4) forms the bulk of this the first issue of our newsletter Prospects. It focusses on just how much transaction costs vary by country and by broker as well as detailing the growing dominance of global brokers/dealers in world equity markets. In each of ten countries we have established a Roll of Honour of those brokers who across a large volume of trades, performed consistently above average in terms of execution. We have also compared performance against that seen two years ago in a similar analysis. Simply put in the intervening period commissions have declined but execution costs have increased due to greater market volatility and possibly wider bid/offer spreads.

As important as our review of the past is our determination to make the future better. Prospects includes comments on Trade Date VWAP, the most commonly used and most frequently castigated benchmark of execution performance. Along with other "single benchmark" approaches the usefulness of VWAP is being enhanced and in some cases superseded by technologically and analytically more sophisticated approaches. GSCS is in the forefront of developing both the technology and analysis that such approaches require and will be announcing an array of new products and services during the next few months. In our view the involvement of pension funds in transaction cost measurement also needs to be reassessed. The Fiduciary Focus service described on page 5, is our attempt to concentrate attention in this area on the relationships that really matter, and promote dialogue that may actually produce better returns.

Most of all we realise that transaction cost measurement is a complex subject that demands continuous input from interested parties. We welcome any comments readers may have about the Survey, our other services or execution analysis in general. Our business success has been built from the involvement of our clients driving development of our thinking and services. We expect the pace of new development to increase and our people and technology are ready and willing to respond to the challenges that will undoubtedly arise.

Contacts

For further information about GSCS and its transaction cost measurement services please contact:

Robert W.A. Kay, Managing Director, Global Securities Consulting Services Ltd., 2 Station Road, Chertsey, Surrey KT16 8BE
Tel: 01932 568488. Fax: 01932 564290. e-mail: rkay@gscs.co.uk.

Brokers: The Big Keep Getting Bigger

In cross-border equity execution there are basically two types of broker – global and local. Global brokers offer execution capability in any country where a client might wish to trade and provide research of leading companies in North America, Europe and Asia with either a geographic, or increasingly an industry focus. Local brokers by contrast, typically concentrate on execution and research activity built around expertise in a single market or geographically discrete group of markets (e.g. Scandinavia). Competitive pressure from global brokers has obliged many of the larger local brokers to broaden their coverage. This has helped them retain market share of business from their "domestic" clients, but has had little impact on other cross-border business.

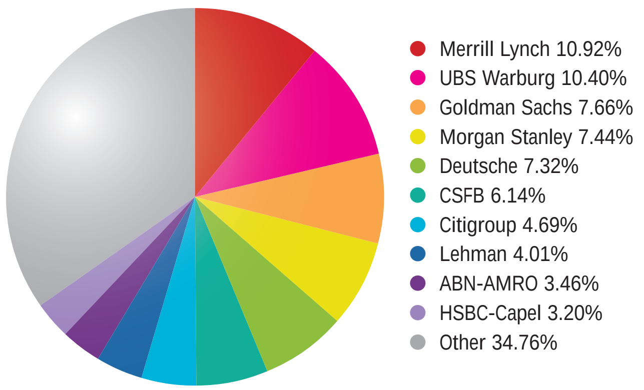
The first conclusion of the analysis is that the global brokers have already won the battle for business from leading managers and are steadily the winning the battle of ideas in terms of how research and execution should be organised. This dominance is clearly demonstrated in the overall results. Twenty-five global brokers listed in Table 1 accounted for more than 83% of all transactions completed by number, almost exactly 85% of all the deals done by value (more than $560 billion of the Universe) and more than 85% of commissions earned (more than $1 billion of the Universe).

Table 1

Twenty-five leading global brokers based on commissions earned within the GSCS-BECS Universe

ABN-AMRO	Dresdner KW	JP Morgan
BNP Paribas	DLJ	Lehman Bros
Bear Stearns	Fleming	Merrill Lynch
Credit Agricole	Goldman Sachs	Morgan Stanley
Cazenove	HSBC-Capel	Nomura
Commerzbank	ING Baring	Citigroup (SSSB)
Credit Lyonnais	Instinet	Societe Generale
CSFB	Jardine Fleming	UBS Warburg
Deutsche		

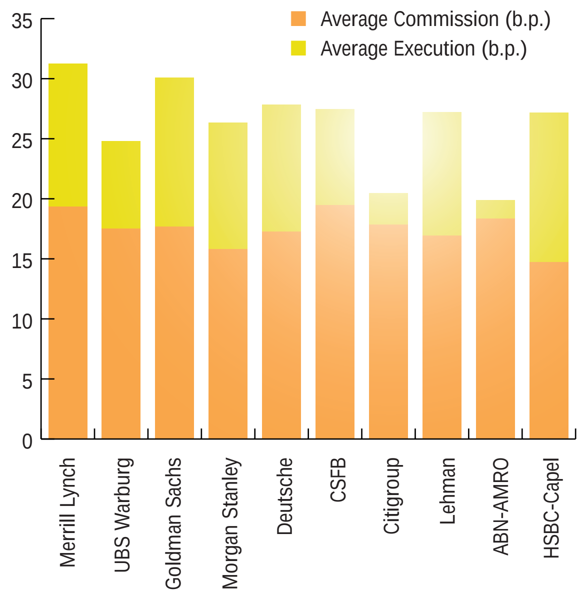
Chart 1: % Share by Commission



However the dominance of global brokers in the business does not imply domination by a handful of players. The second interesting development is the increase in the number of global brokers capable of winning a reasonable market share of execution business across multiple countries. Of the twenty-five names in Table 1, ten, shown in detail in Chart 1, individually accounted for more than 3% of the overall business, implying many hundreds of millions of dollars of commission being generated. The bringing together of JPMorgan, Chase and Fleming would add an eleventh name to the list. It would appear that increasing numbers of U.S. and European firms are making some progress in extending competitive choice for clients.

Chart 2 shows just how well the leading ten brokers performed. The breadth of coverage in terms of markets, securities, clients and types of order makes their overall results genuinely comparable. In terms of execution performance across multiple markets Citigroup (formerly Schroder Salomon Smith Barney) and ABN-AMRO stand out in a positive light with costs very close to zero. The remaining eight brokers all performed to a similar level of around 10 b.p. cost, virtually identical to the overall cost seen taking all trades into account in every market and for all brokers. The inability to beat Trade Date VWAP is an interesting phenomenon which is covered in more detail on page 6. From a client perspective concentration appears to be neither good nor bad. Almost all brokers, whatever their rhetoric, are about equal when it comes to execution of large numbers of transactions in multiple markets. However this disguises material differences, in both market share and performance, in different countries. The key for managers and their clients must be to ensure they are using brokers in their areas of particular strength and not assume they are equally effective everywhere.

Chart 2: Commission and Execution Costs



Brokers and Markets: The Devil is in the Detail

Execution and commission costs vary in different markets. So does the market share concentration and performance of brokers. For the ten largest markets in the GSCS-BECS Universe the following data highlights the average execution cost and the proportion of trades by value that failed to beat the Trade Date VWAP "benchmark". It also lists those brokers who had above average execution performance (i.e. lower costs than the market as a whole) and who executed at least 5% of the transactions by value. These names are listed in alphabetical order and classified as Roll of Honour names.

Australia

Average Commission Cost:	27.64 b.p.
Average Execution Cost:	3.44 b.p.
% of Trades Missing VWAP:	54.9% by value 51.5% by number
Number of 25 Largest Brokers Beating VWAP:	4
Roll of Honour:	CSFB, Deutsche, JBWere, MacQuarie, SSSB (Citigroup), UBS Warburg

France

Average Commission Cost:	18.68 b.p.
Average Execution Cost:	8.90 b.p.
% of Trades Missing VWAP:	58.2% by value 53.2% by number
Number of 25 Largest Brokers Beating VWAP:	2
Roll of Honour:	CA Indosuez, Exane, Goldman Sachs, Lehman

Germany

Average Commission Cost:	17.68 b.p.
Average Execution Cost:	17.75 b.p.
% of Trades Missing VWAP:	58.9% by value 53.4% by number
Number of 25 Largest Brokers Beating VWAP:	1
Roll of Honour:	CSFB, Deutsche, Lehman, UBS Warburg

Hong Kong

Average Commission Cost:	23.81 b.p.
Average Execution Cost:	4.08 b.p.
% of Trades Missing VWAP:	54.1% by value 50.9% by number
Number of 25 Largest Brokers Beating VWAP:	5
Roll of Honour:	CSFB, Credit Lyonnais, Goldman Sachs, HSBC Capel, Morgan Stanley

Japan

Average Commission Cost:	11.66 b.p.
Average Execution Cost:	7.36 b.p.
% of Trades Missing VWAP:	55.9% by value 53.3% by number
Number of 25 Largest Brokers Beating VWAP:	4
Roll of Honour:	Goldman Sachs, ING Baring, Morgan Stanley, Nomura, SSSB (Citigroup), UBS Warburg

Netherlands

Average Commission Cost:	19.53 b.p.
Average Execution Cost:	3.35 b.p.
% of Trades Missing VWAP:	54.7% by value 50.4% by number
Number of 25 Largest Brokers Beating VWAP:	5
Roll of Honour:	CSFB, ING Baring, Morgan Stanley, UBS Warburg

Sweden

Average Commission Cost:	19.41 b.p.
Average Execution Cost:	11.47 b.p.
% of Trades Missing VWAP:	55.9% by value 51.7% by number
Number of 25 Largest Brokers Beating VWAP:	4
Roll of Honour:	ABN-AMRO (Alfred Berg), Deutsche, Merrill Lynch

Switzerland

Average Commission Cost:	18.79 b.p.
Average Execution Cost:	6.93 b.p.
% of Trades Missing VWAP:	59.7% by value 54.7% by number
Number of 25 Largest Brokers Beating VWAP:	2
Roll of Honour:	CSFB, Lehman, UBS Warburg

UK

Average Commission Cost:	15.54 b.p.
Average Execution Cost:	7.04 b.p.
% of Trades Missing VWAP:	55.3% by value 55.3% by number
Number of 25 Largest Brokers Beating VWAP:	2
Roll of Honour:	CSFB, Dresdner KW, Merrill Lynch, SSSB (Citigroup), UBS Warburg

US

Average Commission Cost:	12.58 b.p.
Average Execution Cost:	14.93 b.p.
% of Trades Missing VWAP:	59.7% by value 54.5% by number
Number of 25 Largest Brokers Beating VWAP:	2
Roll of Honour:	Bear Stearns, Goldman Sachs, Merrill Lynch, Morgan Stanley, SSSB (Citigroup), UBS Warburg

Markets: Commissions Down, Spreads Up?

The GSCS-BECS Universe covers more than forty countries. However, only twenty-five saw the 2000 transactions worth at least $500 million needed to make them statistically reliable. Chart 3 ranks the twenty-five in terms of "total" cost (i.e. the aggregate of agency commission costs and execution costs) while Chart 4 takes the ten largest and compares the position in 2000 with that in 1998.

A number of conclusions may be drawn from Chart 3. Perhaps most obvious is the very high cost of business in Asian markets ex-Japan. Five of the six most expensive countries are in Asia. It appears that in these markets (as well as Australia, Hong Kong and Singapore) the full benefits of competition have yet to be realised. Commission costs are generally high and while execution quality is perfectly acceptable, it fails to offset much, if any, of the higher commissions compared to Europe and North America.

Second, the majority of the markets (15 out of 25) have overall costs between 25 and 35 b.p. This may therefore be reasonably relied upon by managers and their clients as an effective estimate of the overall costs of trading; implying an overall cost

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Chart 4: Ten largest markets 1998/2000

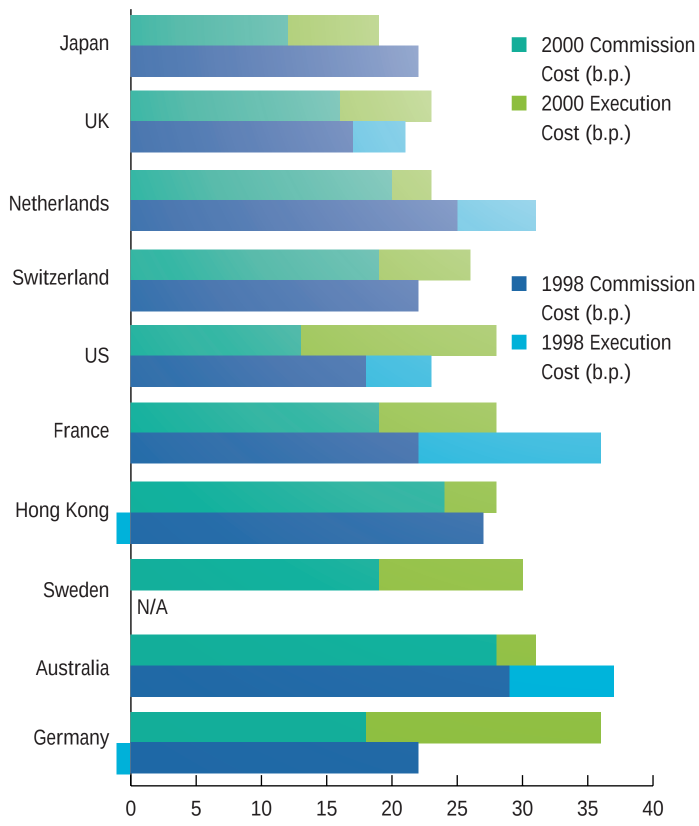
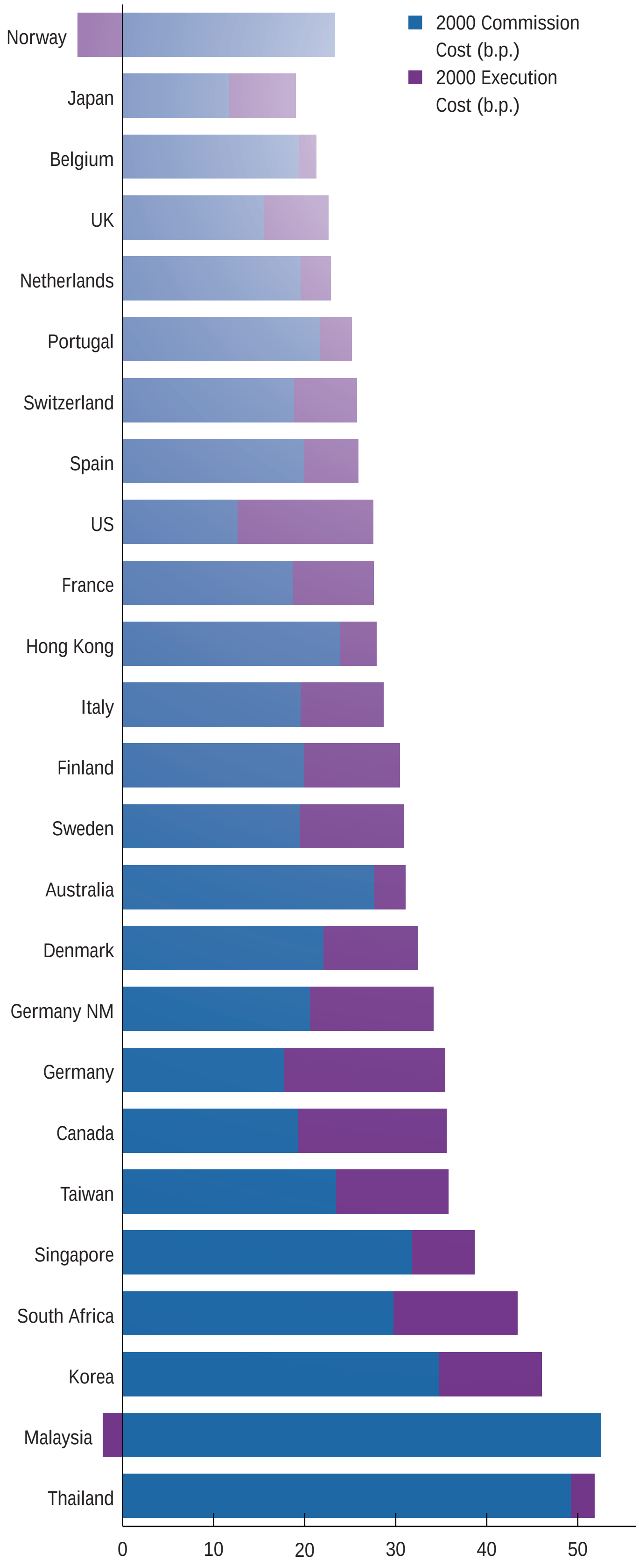


Chart 3: Commission & Execution Costs, 2000



GSCS Fiduciary Focus

Trade Execution Cost Measurement for Pension Funds

What is it?

Fiduciary Focus provides pension funds with an easy-to-use, low cost way of monitoring transaction costs in global equity portfolios.

What is unique about it?

Focus

Fiduciary Focus highlights among all the manager/broker relationships, only those where the amount of business being done is large and execution quality is weaker than would be expected.

Ease-of-Use

Reports allow quick and easy identification of those relationships where execution quality may merit discussion with managers and reassures that other relationships are performing satisfactorily. It makes it easy for pension funds to meet their fiduciary obligations as far as transaction costs are concerned (including "best value" assessment for public sector pension funds in the U.K.).

Ease of Administration

There are no lengthy contracts or custom formats to be considered. A simple phone call to a global custodian or manager can activate the service within a few hours.

Low Cost

Because the service is easy to administer and easy to use it also has a low delivery cost. Individual fixed price quotes can be provided on request.

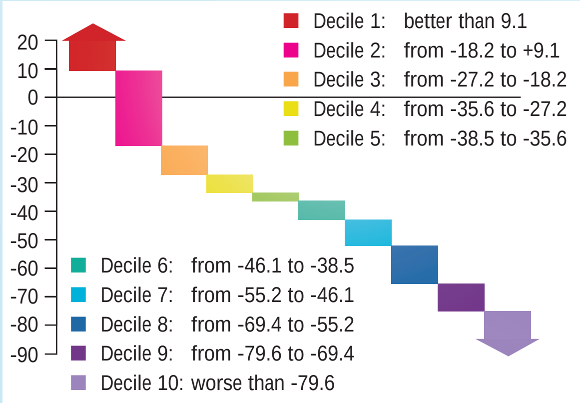
Who should be interested in Fiduciary Focus?

Larger funds in the U.S., U.K. and Europe should be especially interested in this kind of service. As well as fulfilling a fiduciary obligation, funds can actually look forward to getting better investment results by lowering costs. Effective monitoring of directed commission and "soft-dollar" activity is also possible.

Any pension fund that already monitors transaction costs, whether for fiduciary reasons or to improve returns, should look at Fiduciary Focus as an opportunity to ease administration, enhance performance and reduce costs.

The importance of focus on the largest relationships of managers and brokers is illustrated by a recent study completed in the U.K. by GSCS. The study covered more than 200,000 transactions in a three month period and involved more than 11,000 individual relationships between managers and executing brokers (so called "manager/broker pairs").

The Chart shows how the performance in terms of transaction costs (commissions plus execution costs) of different deciles of performance. At the top, managers and brokers managed to execute at prices consistently better than the Trade Date Volume Weighted Average Price (VWAP) resulting in a positive 9.1 basis point contribution to performance. At the other end of the scale the worst performers cost their funds almost 80 basis points, giving a difference between top decile and tenth decile performance of almost 90 basis points. The difference between first quartile and fourth quartile performance was just over 40 basis points.



Among pension fund clients reviewed in the study 16% of all manager/broker pairs accounted for more than 55% of all the activity undertaken for the funds in question. Of these relationships a surprisingly large proportion (27%) performed at a level that placed them in the fourth quartile in terms of transaction costs. Among these fourth quartile performers 25% represented "soft-dollar" and "directed commission" relationships, which represents a possible cause for concern among plan sponsors.

What is more important for plan sponsors however is that the Fiduciary Focus approach of GSCS plan Sponsor Solutions meant that less than 5% of all manager/broker pairs were identified as requiring potential discussion with managers making the process both feasible and constructive in the context of general quarterly performance review meetings.

Volume weighted average price: benchmark or millstone?

Stephen Berkowitz, Dennis Logue and Gene Noser wrote their seminal paper on transaction costs back in the late 1980's proposing that the Trade Date Volume Weighted Average Price (VWAP) should be used as a "benchmark" against which to measure trade execution. Ever since, money managers, brokers and pension funds have argued about the usefulness and appropriateness of this method. In its favour are its simplicity and the statistical basis that underpins it. Against are the fact that it is too simple (if applied to individual trades) and that managers and brokers can "game it" (i.e. assure that they beat it) but in doing so they may well disadvantage the funds for which they are responsible.

As well as perfectly sound differences of opinion about the process of getting orders completed and the complexity of measuring execution performance, there is a further, perhaps even more important reason for the arguments to continue. At the heart of the Berkowitz-Logue methodology is the premise that randomly generated orders executed with no skill whatsoever should, over time, achieve an aggregate result that is very close to VWAP. If this is true then surely, so a client might argue, institutional traders at money management firms working with sales traders at large broker/dealers, should be able to beat VWAP fairly consistently. The uncomfortable truth is that they do not! All studies, including those of GSCS included in our Survey, lead consistently to the conclusion that more than 50% of trades by number and by value do not beat a simple Trade Date VWAP "benchmark". And this is true at a market, broker and security level and across all sizes of transaction. This rather awkward fact creates a problem for many of the people involved. As such it demands explanation.

The explanations take many forms. Large managers say they are disadvantaged by having to complete very large orders in relatively illiquid stocks. Small managers say that getting small orders completed puts them at a disadvantage because brokers only really want large orders. Everyone agrees that orders received some hours after the market has opened or even worse, minutes from the close may make it practically impossible to beat VWAP. This is certainly true. However these very same conditions sometimes guarantee that VWAP can be beaten easily. Traders can and do blame portfolio managers for setting price limits, restricting broker choice, limiting the time within which the order must be completed and generally constraining the execution process in ways that ensure the trader cannot beat the VWAP bogey especially when dealers insist on earning the "bid/offer" spread. Finally of course for cross-border investors there is the fact that "locals" keep the best deals for themselves so as "foreigners" they are naturally disadvantaged.

Of course all these explanations are true. Even GSCS, which has used Trade Date VWAP at the core of its service for many years, recognises that it can only provide performance pointers, not the definitive results some might like to see. The good, and bad, news is that help is on the way. Technology and better information mean that more and more of the factors of a trade that "invalidate" VWAP as a measure of performance can be allowed and corrected for in the analysis. As such genuine "value-added" of the trading function can be established in ways that are harder to challenge. Such growing transparency will, as in all things, be a source of comfort to those who do indeed perform well. Others may be less sanguine about the way the business of transaction cost measurement is developing.

Continued from page 4…
to a typical fund of 35 to 50 b.p. per annum. This is certainly important for large funds but suggests that the potential for massive improvement in performance through better management of executions, is perhaps often overstated.

A cursory review of the Chart 4 shows that average commissions were lower in 2000 than in 1998 by around 4 b.p. This represents a decline of around 15% on the average commission of 25 b.p. seen across all the countries in 1998; a performance that is better than is often suggested by brokers.

As important from a client perspective is the increase in execution costs. In 1998 these were zero or negative in four countries out of ten. In 2000 no markets achieved this performance. Even excluding the anomalous position of Germany, the average increase in execution costs is more than 2.5 b.p., an increase of more than 50% on the 4.5 b.p. average seen in 1998. Put another way it represents a cost to clients of more than $150 million simply on the trades in the GSCS-BECS Universe in these countries.