

Agenda

Advancing economics in business

What does it cost to clear securities? Benchmarking of financial centres

For some time, financial regulators across the world have been looking at the appropriate market structure for securities trading and post-trading services. An international comparison of the costs of these services can provide powerful insights into the performance of different market structures. This article provides such an assessment, taking the perspective of an Australian investor, to inform the ongoing debate about the role of competition in the provision of clearing services

Traditionally, and often by construct of law, most countries had a monopoly securities trading and clearing and settlement (post-trading) provider. Over the past two decades, however, alternative trading venues have entered many national cash equity markets and attracted considerable business. In addition, in a number of European financial centres, competition for the provision of clearing services has been introduced, through both the entry of new central counterparties (CCPs, such as EuroCCP) and the expansion of existing CCPs' services to additional markets (such as SIX X-Clear, which clears trades executed on the London Stock Exchange and the SIX Swiss Exchange).

In Australia, competition has been introduced at the trading level, and Chi-X Australia, the new entrant, now executes approximately 15% of all Australian cash market trades.¹ Its entry triggered significant cuts in the trading fee charged by the incumbent provider, the Australian Securities Exchange (ASX), and local regulators are currently considering whether allowing entry at the clearing level as well would bring similar effects. Entry is strongly supported by Chi-X Australia, and by LCH.Clearnet Ltd, which is waiting in the wings to offer clearing services for Australian cash equities. However, overall, views expressed by market participants in 2012 were mixed, resulting in the Australian regulators taking a cautious approach and advising the government to defer for two years a decision on any licence application from a CCP.²

During this two-year period, ASX committed to a Code of Practice, as part of which it commissioned Oxera to conduct an international comparison of the costs of clearing and settlement services provided by ASX.³ This article presents the results of this international cost-benchmarking exercise.

Overview of methodology

Oxera's analysis compares the costs of financial market infrastructure (FMI) trading and post-trading services for cash equity trades across 14 financial centres:

- Americas: USA, Canada and Brazil;
- Europe: the UK, Germany, France, Spain, Switzerland and Denmark;
- Asia-Pacific: Australia, Japan, Hong Kong, Singapore and South Korea.

In financial centres where there is more than one FMI at either the trading or clearing level, the one with the highest market share was considered for the analysis.⁴ The UK was an exception, with the results presented for two channels: trades executed on the London Stock Exchange and cleared at LCH.Clearnet Ltd; and trades executed on BATS Chi-X Europe and cleared at EuroCCP.

The analytical approach for the analysis was based on designing profiles that are representative of investors and brokers that are active in the Australian cash equity market (the focal market). We then applied these profiles to the FMIs' fee schedules in the comparator markets. The result is an estimate, from the perspective of an Australian user, of the costs of using the trading and post-trading services of the various FMIs.

Various types of investors and intermediaries that are active in the Australian cash equity market underpin the baseline results, including hedge funds and long-only

fund managers using a range of institutional brokers and retail investors with various trading characteristics, using both online retail brokers and retail advice brokers.

The user-profile approach is well established and has been used by Oxera, regulatory authorities and FMIs in previous studies of securities trading and post-trading, as well as in studies in other sectors.⁵ However, as the approach does not directly take into account differences in the services provided by each FMI, to ensure robustness of the analysis and its conclusions, complementary pieces of analysis were conducted, including a detailed review of the services provided by each FMI.

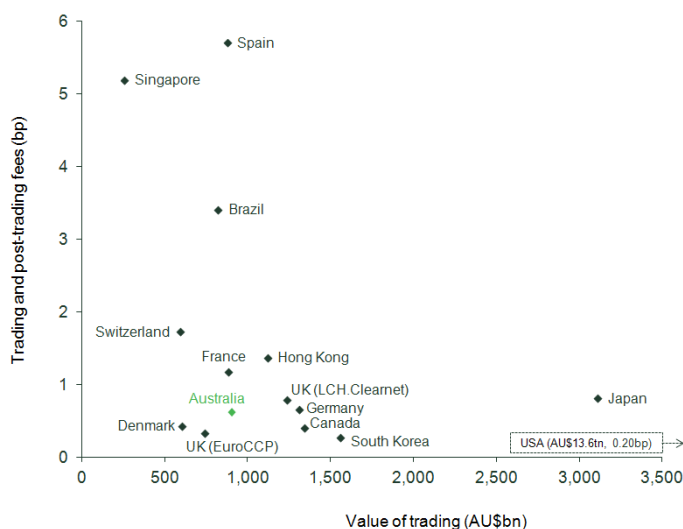
International cost benchmarking results

The user-profile analysis provides some interesting insights into how the costs of trading and post-trading differ between financial centres. In summary:

- some of the variation in trading and post-trading fees between FMIs can be explained by economies of scale;
- in most financial centres, retail investors pay more than institutional investors for post-trading services;
- the structure of the FMIs' fee schedules can affect the way in which local investors/intermediaries trade;
- the relative size of CCP and CSD fees varies both between financial centres and within financial centres according to the post-trading characteristics of the investor, with larger intermediaries generally receiving more of any benefits arising from the introduction of competition.

Each of these conclusions is considered below.

Figure 1 Total cost of FMI trading and post-trading services



Note: The fees are based on a long-only fund manager using medium-sized intermediaries. Source: Oxera analysis.

International variation in costs and economies of scale

Figures 1 and 2 present the costs of trading and post-trading services provided by each FMI to a typical Australian long-only fund manager relative to the total value of trades executed on the associated trading platform.

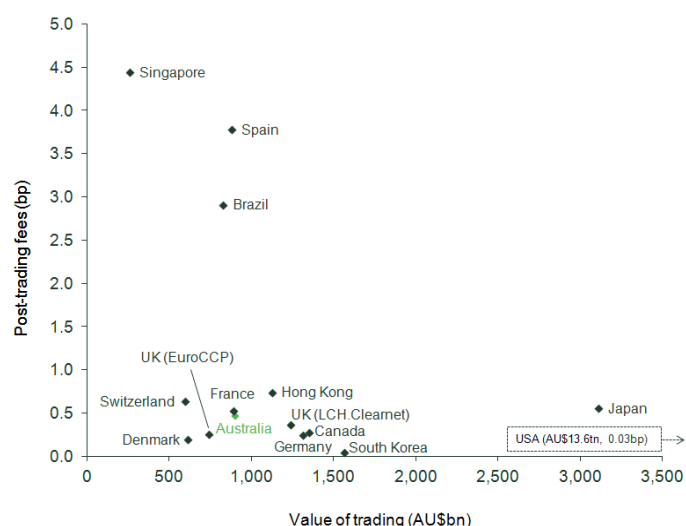
In terms of total trading and post-trading costs, the FMIs appear to fall into three groups:

- those with fees in excess of 2bp—FMIs in Singapore, Brazil and Spain;
- those with fees between around 0.3bp and 1.5bp—this is the largest group, covering FMIs in Australia, Hong Kong, Japan, France, Germany, Canada, Denmark and the UK (EuroCCP and LCH.Clearnet);
- those with fees below 0.3bp—FMIs in South Korea and the USA.

FMIs in the higher-cost group tend to be relatively small and FMIs in the lower-cost group tend to be relatively large, providing evidence of at least some economies of scale in the provision of FMI services.

These costs are based on Australian profiles and therefore overestimate the costs incurred by local Swiss and local Spanish investors in their home markets. For example, SIX Swiss Exchange imposes a trading fee floor and the Spanish exchange, BME, recovers a significantly larger proportion of costs per transaction from trading and settlement fees. Investors and intermediaries in these markets have a substantially larger average trade size than those in Australia or the rest of Europe, at around AU\$20,000. This compares with a range of AU\$5,500 to AU\$6,000 in Australia, and AU\$7,500 in the UK

Figure 2 Cost of FMI post-trading services



(for example), which is likely to be in response to their pricing structures. A larger trade size reduces the significance of per-transaction fees and trading fee floors when considered relative to the value traded.

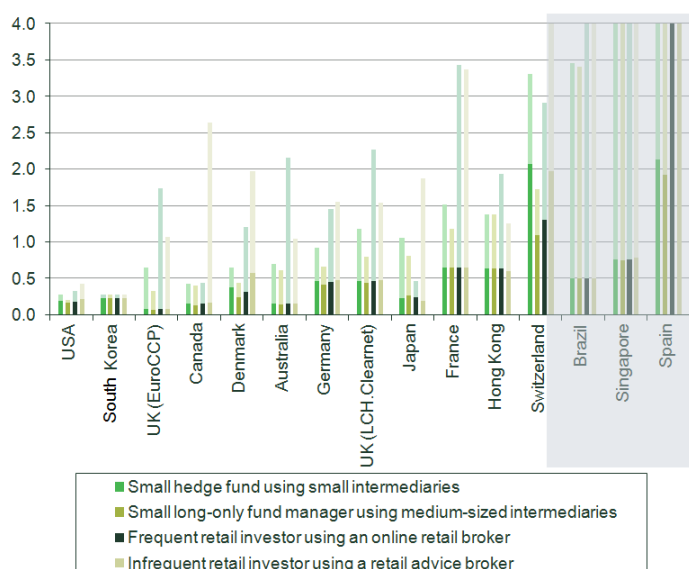
Variation in fees between and within financial centres

Retail investors tend to pay a higher fee for FMI post-trading services than institutional investors as a proportion of value traded, but trading fees are more comparable—as shown in Figure 3.

As shown in Figure 4, which disaggregates CCP and CSD fees, this difference between types of investor is driven largely by CSD costs which, when considered relative to the value traded, are typically higher for retail investors than for institutional investors. CSD services are often charged per settlement and/or relative to the value of assets under management. This fee structure, combined with the smaller order size and low turnover velocity that is common for most retail investors, results in higher CSD costs relative to the investors' value traded. (Smaller order sizes imply a higher number of settlement instructions for a given value traded. CSD fees, when considered relative to the value traded, therefore appear higher. Similarly, a lower trading velocity implies a higher value of assets held for a given value traded, and therefore a higher incidence of CSD fees for a given value traded.)

Figure 4 also shows that the cost of using CCP services provided by ASX, which is the FMI of primary interest in the analysis, is relatively high. In contrast, especially for large institutional investors, the cost of ASX's CSD services is relatively low.

Figure 3 Trading (dark shading) and post-trading (light shading) fees (bp)—truncated axis



Note: The total trading and post-trading fees for Brazil, Spain and Singapore, and for the infrequent retail investor using a retail advice broker in Switzerland, are truncated at 4bp. The financial centres are ordered by the total fee from smallest to largest for the small long-only fund manager using medium-sized intermediaries. Source: Oxera analysis.

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Figure 4 also provides some insights into the potential effects of competition in the market. For example, in Europe, CCPs commonly offer volume discounts, whereas in Australia, the USA and Canada, which are markets without competition, flat tariffs are the norm.

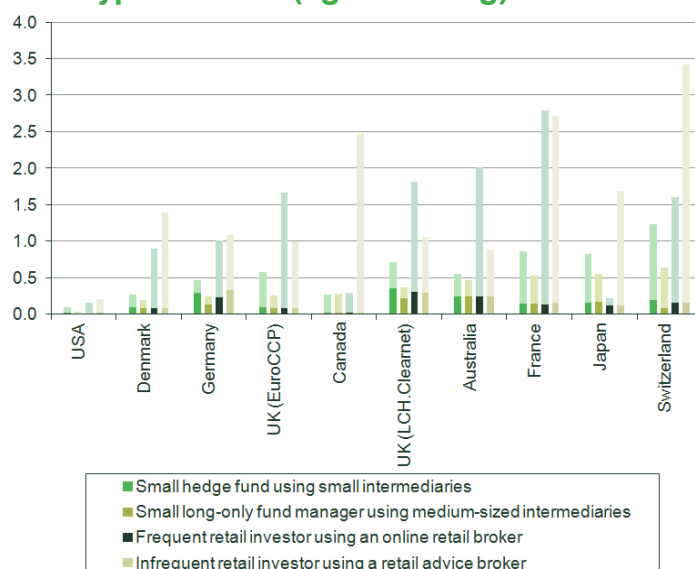
Whether competition accounts for the full difference in CCP costs between some European markets and Australia is not clear. First, not all CCPs in Europe offer significantly lower fees than ASX, particularly for the smaller users. Second, as the service comparison below explains, there is an important difference in the CCP services provided by ASX and those provided elsewhere—ASX places more of its own equity at risk ahead of non-defaulting clients in the resolution of a clearing member's default.

Service comparison

At their core, post-trading services are comparable across jurisdictions. However, differences do exist in the way the systems are set up and operate, so it is useful to consider to what extent service differences account for the variations in user costs observed.

There are two ways in which clearing systems differ, which can have significant implications for the costs and benefits to users: whether the clearing house 'novates' and therefore

Figure 4 Breakdown of fees between CCP-type services (dark shading) and CSD-type services (light shading)



Note: The countries excluded from the total sample because of bundling of fees are Brazil, Spain, South Korea, Hong Kong and Singapore. The financial centres are ordered by total fee from smallest to largest for the small long-only fund manager using medium-sized intermediaries. Source: Oxera analysis.

guarantees the trade; and what protection is given to the collateral of non-defaulting clearing members held at the CCP.

- **Novation:** in most financial markets there is a CCP that assumes the obligation of each side of a trade and guarantees the settlement via a process known as novation. However, this is not (currently) the case in Spain. Although the CCP, Iberclear, offers a form of protection to its customers through a guarantee fund, the participants are still exposed to their counterparty default risk. In this context, one might expect lower clearing fees at Iberclear than at other CCPs, but this does not appear to be the case. The bundled clearing and settlement fee is considerably higher than the combined clearing and settlement fees in most other financial centres (see Figures 1 and 2). Representatives of Iberclear interviewed for Oxera's study explained that these higher costs were because the lack of novation means that Iberclear must settle each trade on a trade-by-trade basis. As such, it cannot achieve the same cost efficiencies that other CSDs benefit from as a result of the netting of trades by CCPs during the novation process.
- **Protection of the collateral of non-defaulting clearing members:** a 'default waterfall' specifies the order in which the funds available to the CCP will be used if a participant defaults. For most CCPs, after a

defaulting participant's margin is exhausted, the default waterfall mostly comprises non-defaulting participants' funds, with the contribution of the CCP's own funds being proportionately small. ASX is different in this regard, and has committed AU\$250m to protect non-defaulting participants' funds. This arrangement is (conservatively) estimated to save clearing members approximately 0.04bp to 0.07bp. Compared with a cost of CCP services of 0.24bp for most types of Australian investor, this implies that the protection provided by ASX to the collateral of non-defaulting clearing members is material in value.

Conclusion

The user-profile analysis highlights some important differences between financial centres and types of user in the cost of trading and post-trading. The economies of scale and participants' behaviour in terms of adjusting to certain elements of the FMI's pricing structures could help to explain some of these differences, as discussed above. The observed variation could also be rooted in other features of the market structure—such as the level of competition—and of the post-trading systems. Combined with a service-level comparison, the benchmarking analysis gives a more in-depth overview of the post-trading market and can be viewed as a first step in identifying key differences between financial centres and their potential drivers.

¹ This is based on total cash market share including both lit and dark trades as at the last week of July 2014. See ASX (2014), 'Australian cash market report. Week of 28 July 2014 to 01 August 2014', p. 2.

² Council of Financial Regulators (2012), 'Competition in Clearing Australian Cash Equities: Conclusions', December.

³ For the full report, see Oxera (2014), 'Global cost benchmarking of cash equity clearing and settlement services', prepared for ASX Clear Pty Ltd and ASX Settlement Pty Ltd, June. For a previous *Agenda* article based on the initial analysis commissioned by ASX in 2013, see Oxera (2013), 'Aussie rules: the Oxera Trading and Post-trading Monitor', *Agenda*, September.

⁴ For a list of the exact FMIs included in the analysis, see Table 2.5 on p. 13 of Oxera (2014), 'Global cost benchmarking of cash equity clearing and settlement services', prepared for ASX Clear Pty Ltd and ASX Settlement Pty Ltd, June.

⁵ For previous analysis of the costs of trading and post-trading services, see, for example, Oxera (2012), 'What would be the costs and benefits of changing the competitive structure of the market for trading and post-trading services in Brazil?', prepared for Comissão de Valores Mobiliário, June; or Oxera (2010), 'Costs of securities trading and post-trading—UK equities', prepared for Euroclear, 26 February. For applications of user-profile benchmarking in retail banking, see, for example, Competition and Markets Authority and Financial Conduct Authority (2014), 'Banking services to small and medium-sized enterprises: a CMA and FCA market study', Annex E: BCA Pricing, 18 July.