ELECTRONIC TRADING FORCES COMPETITION ONTO EXCHANGES

Seeing the end of a monopoly

By
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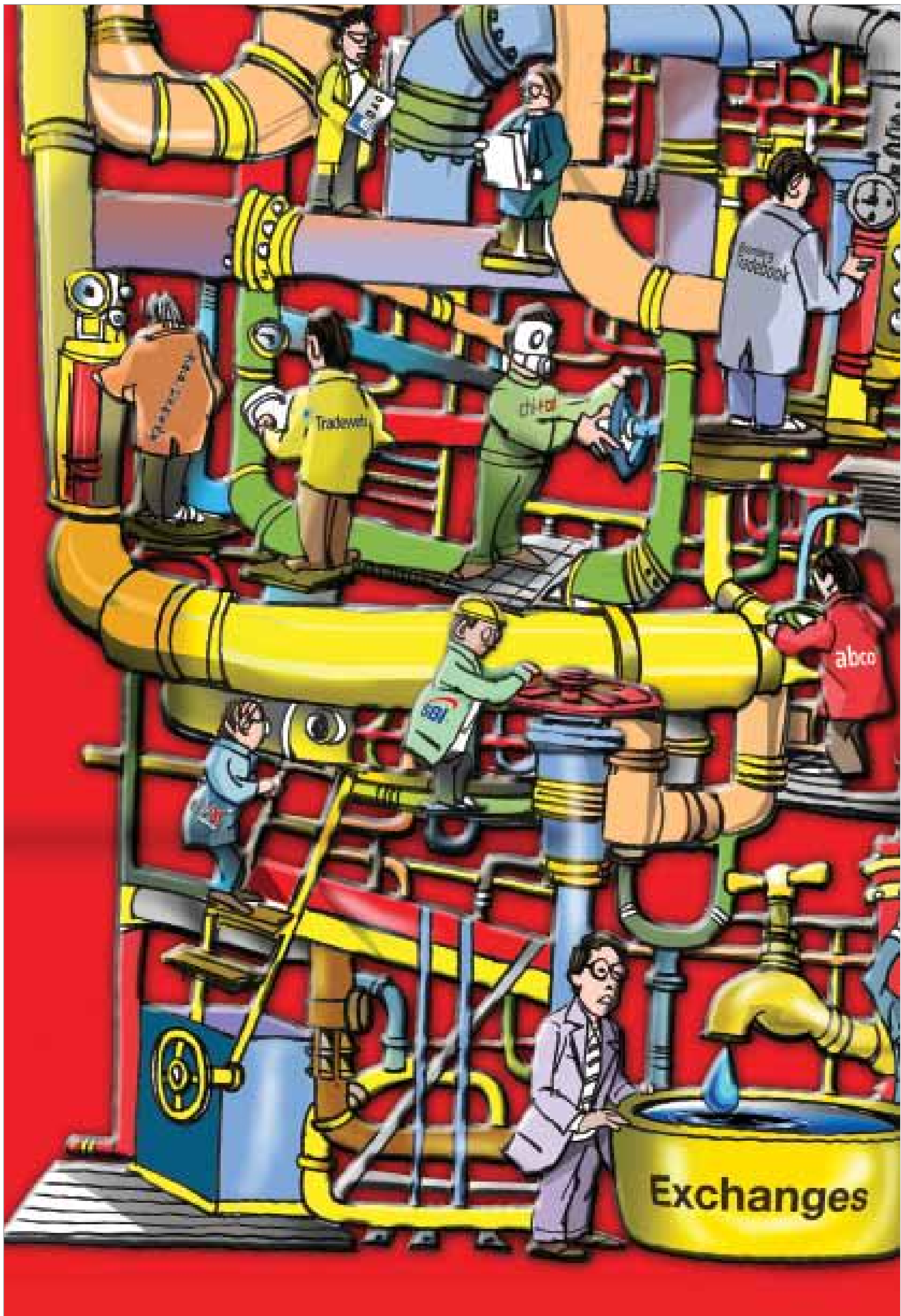
Regulators have a choice between resisting and embracing – or even shaping – change. Attempts at change may have unintended consequences, however, as adjustments can tilt the market structure in favour of different market participants.

As the CEO of one firm setting up in Hong Kong to provide data to traders puts it, "The best market structure wins". The statement begs the question: the best market structure for whom?

Steve Hammerton, Australia head of direct execution services and portfolio trading with UBS, comments that a "balance between retail, institutional and high-frequency flows is the right market structure". While trading in Asia is still skewed towards retail investors in most markets, development continues to see institutional investors take on a greater role, prompting changes in the market structure.

At the same time, Asia's buoyant growth combined with the rise of electronic trading is attracting new entrants – lower-cost rivals to both established stock exchanges and broker-dealers, especially in equities and foreign exchange trading but increasingly in other types of trading as well, including fixed income. In Asia, electronic trading now accounts for close



to 45% of equities trading but very little – albeit rising – is the type of high-frequency trading (HFT) which has grown to account for most trading on some markets in the West. *(See HFT article on p45.)*

"Destruction is leading to new opportunities," says Seth Merrin, founder and CEO of Liquidnet, "as demand to put more money into this region rises."

He advocates an increased efficiency on the part of exchanges to receive a larger share of the anticipated inflow of capital. Others expect authorities around the region to implement measures to impede inflows.

"I don't believe that it will progress as quickly as many anticipate," remarks Ray Tierney, CEO and president of agency broker Bloomberg Tradebook. While he sees liquidity fragmentation continuing to increase in Asia, "the number one priority for Bloomberg Tradebook is to grow the business globally".

"We expect liquidity fragmentation to take longer in Asia than it has in other regions as regulators take time to accept this development," echoes a recent Credit Suisse report. "But investors in Asia already have far more options for accessing liquidity than they did even a few years ago." Liquidity fragmentation refers to the dispersal of liquidity from primary listing exchanges to lit and dark alternative trading systems (ATSs) – as well as secondary listing venues. To date, the latter has been far more prevalent in Asia and promises to continue to rise.

Presently, estimates Tierney, his business is split 70%-20%-10% between the US, Europe and Asia. "That will change over the next three years, with an enormous focus on Asia." He expects a shift from 70%-30% between equity and derivatives to 65%-35% by the end of 2012, with an initial emphasis on US-listed options. "The buyside is looking to the best way to express their investment views across the capital structure – which increasingly means investing outside of just equities," he adds.

Tierney: Brokers not committed to investing in technology may lose business

More than just equities

While a great deal of media attention has focussed on developments in the speed and efficiency of trading in cash equities, Steve Hall, Tradeweb's head of Europe and Asia, remarks that there been a "growing trend to trade fixed income and derivatives electronically in Asia". He notes that in Europe, 50% of government debt, 25% of credit derivatives and 15% of interest rate swaps are traded electronically. "All these figures are in the low single digits in Asia."

Hall notes that Tradeweb trades more "Japanese government bonds outside Japan with European and US asset managers than within Japan" and acknowledges that the platform is "yet to be connected to a clearer" in Asia. The growth of platforms such as Tradeweb has been facilitated by a shift in behaviour by institutional investors seeking greater efficiency and levels of price transparency in trading of over-the-counter (OTC) derivatives.

"As the size of FICC transactions comes down, the market will look like the equity market today," believes Tierney. He anticipates a "quick adoption in fixed income" once the rules have been worked out. Already trends are suggesting a move in this direction. UBS recently launched its PIN crossing network for fixed income, for example.

"Today's trader takes on more responsibility," argues Tierney. "There used to be five traders – for equities, FX, futures, etc – now there are only two traders and most came from trading equities so they know equity algorithms."

Since a strong network and data infrastructure is critical to the execution process, Tierney believes that "brokers must be committed to investing in technology, or run the risk of losing business". Technology investments include high-speed connectivity to global exchanges and liquidity venues. As the complexity of executing trades rises, small brokers may gain by outsourcing trade execution and focussing instead on providing financial advisory services.

Into the light

Regulators have a choice: they may resist change – and run the risk of storing up greater changes for the future and seeing the market participants which they regulate miss opportunities to gain early-mover advantages. Or they may shape change – and potentially trigger unintended consequences as adjustments can tilt the market structure in favour of smaller traditional brokers and exchanges or technology-centred new entrants and larger brokers, that can afford to invest more in systems to compete.

And it is only when governments have explicitly encouraged competition through deregulation that serious alternatives to exchanges have emerged. Lit, publicly displayed price, ATSs are picking up in the region, raising competition for exchanges long used to enjoying a monopoly in securities trading.

While monopolies are still the norm around the region, competition is increasing. South Korea is set to witness the launch of ATSs in the second half of 2012

Japan's proprietary trading systems have seen larger volumes and market share, as market structure adjustments have spurred increased trading

while Japan's proprietary trading systems (PTSs) have seen larger volumes and market share over the past year in particular, as market structure adjustments have spurred increased trading. Of the region's other larger markets, both China and India allow some competition in the form of duopolies.

Introducing competition for exchanges lowers the cost of trading, favouring brokerage sector consolidation – which is increasingly viewed in Asia's larger markets as necessary to increase the chances of fostering homegrown rivals to the likes of Goldman Sachs, as the Volcker rule sees global players pull back from proprietary trading. As a former global head of electronic execution at Deutsche Bank puts it, "once you tear proprietary trading out, you're left with prime brokerage".

Unsurprisingly, July's announcement of rule changes in Korea witnessed share price rises for the largest brokers – such as Daewoo Securities, Samsung Securities and Woori Securities – and falls for smaller players (such as Mirae Asset Securities) amid concerns over their need to raise capital. The changes will not only see new ATSs launched – ending Korea Exchange's (KRX) monopoly – but also permit brokers with more than 3 trillion won (US$2.64 billion) in capital to be reclassified as investment banks, and take on the commercial banks in corporate lending.

FIXED INCOME PLAYS CATCH-UP TO EQUITY TRADING

Connecting up the buyside

Hong Kong-based Jeremy Amias, co-founder of Amias Berman & Co, an agency fixed-income firm, comments that the equity market is more efficient than the bond market. "You can look at the price and see exactly where the price is … In fixed income, the dealers tell everybody what they are long and short in and then the fund manager decides what they are going to buy on the basis of dealer inventory."

Since the end 2010 launch of its abco^{e} fixed-income trading platform (short for Amias Berman & Co Electronic), the firm has operated a hybrid model of voice and electronic execution and is transitioning to allow orders to be submitted directly from its clients' order management system via FIX. Orders are placed directly on Bloomberg's All Quote (ALLQ) system in the name of Amias Berman & Co. In a similar way to Liquidnet in the equity space, Amias Berman's value added is in connecting up the buyside, disintermediating market makers. Amias notes that "in the equity space, a myriad of systems do this" but in the fixed-income space abco^{e} is "the first and only purely client-to-client system in the world". Systems like Tradeweb allow clients to check prices with many dealers (similar to dark pool aggregators). Amias Berman's system has no dealers on it, just as Liquidnet excludes high-frequency traders.

Amias: Bringing dealable, live firm prices to fixed income in Asia

Amias remarks that "fixed-income managers stare at ALLQ all day and put up [white and blue, not tradeable] indicative prices to see if there is any interest". In a sense, the advent of HFT is seeing the equity market become more like the fixed-income market – with algorithms designed to send out bids for small orders to test demand, and attempt to snoop out supply-demand imbalances. Amias adds that all prices Amias Berman posts on ALLQ are "pink and dealable, live firm prices", offering the potential to deal inside the bid-offer just as ATSs commonly offer a narrower spread. He adds that Amias Berman "mainly deals in anything with [fake] liquidity", echoing complaints about HFT liquidity representing peace-time liquidity which dries up in war-time. In Europe, this is mainly bank paper, in Asia, the bulk is high yield. He sees banks struggling to trade lower quality corporate bonds in the future, and expects a "major reduction of liquidity in this space". Recently, the two leading Swiss banks have announced that they will reduce risk-weighted assets in the fixed-income space.

"Ten thousand Bloomberg users can see the prices," Amias enthuses. "It's a way to get prices out to a lot of people." Increased price transparency should boost trading in time of market disruption. Just as ATSs offer the promise of continued trade during times of market disruption on the main stock exchange – in the event of a system failure, for example. "In a sharply moving fixed-income market, nothing happens. In equities, a lot happens," Amias explains. "In fixed-income, in effect you can't do anything because to do anything would cost a lot, so managers don't even try." He notes that it will "require a sea change in regulations for this to change" although "MiFID 2 [in the EU] will see a shift to requiring pre and post-trade transparency".

– BY OLIVER JONES

Asia's incumbent exchange operators do not believe that fragmenting liquidity in the market is helpful to the end investor

OVERALL SURPLUS MASKS SAVINGS SHORTFALLS IN SOME COUNTRIES

Asia rising as source for funding

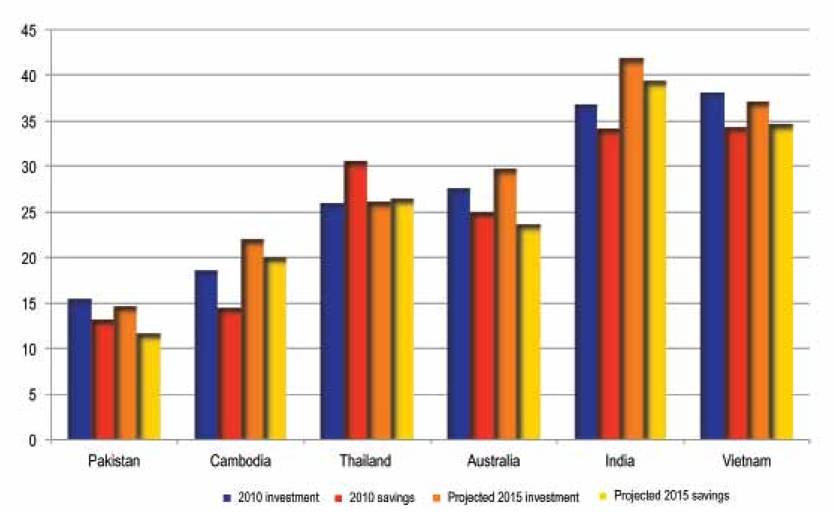
Few countries within the region suffer from a shortage of capital. In 2010, the Asian nations with insufficient domestic savings to fund investments range from Australia to Cambodia. (*See bar chart below.*) Not surprisingly, these countries have been among those witnessing the greatest efforts to establish – or boost the efficiency of their stock exchanges – with Cambodia establishing a bourse and Chi-X Australia launching this year.

Others boosting efficiency are more driven by a desire to establish their positions as regional financial centres than a need to attract capital. Singapore's savings ratio was 22.2 percentage points more than its investment ratio in 2010, for example. The island state has little need to attract capital for domestic investment purposes. (*The bar chart on the right shows the average difference between savings and investment in 2000, 2010 and 2015.*)

In contrast, exchange consolidation in the West is being driven by "a recognition of a need to increase their footprint" says one fund manager. Exchanges in much of Asia, and Hong Kong in particular, have not suffered from this pressure, although even Hong Kong is preparing for more competition from Shanghai's exchange.

The target is for Shanghai to become a global international finance centre by 2020. Nevertheless, a recent report released by law firm Allen & Overy found that 35% of China-based respondents (and 44% of 1,054 respondents overall) expect that New York will continue to be the "most important stock exchange globally by 2020". Shanghai was the second most popular response, selected by

Persistent savings shortfalls in some Asia-Pacific countries (% of GDP)



Source: World Economic Outlook database, IMF, September 2011

Slower fragmentation

Hammerton of UBS says that following an October 31 launch, the first week of operations at Chi-X Australia (an ATS) was "very orderly with no major glitches and more brokers participating than expected".

Chi-X Australia's launch ended the Australian Securities Exchange's (ASX) monopoly in securities trading. Unlike its peers in the West, however – where horizontal structures are prevalent – ASX operates under a vertically integrated model. While it now faces competition in trading, it still enjoys monopolies in listing, clearing and settlement.

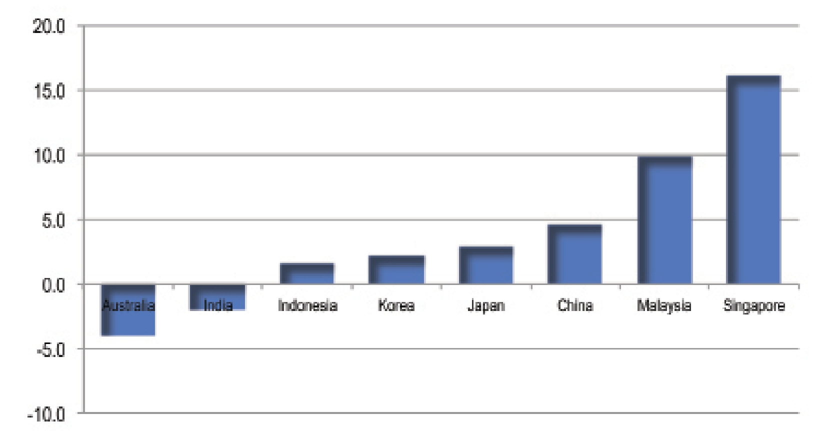
Vertically integrated structures are natural in a region populated by over a dozen different markets, all with their own rules and regulations. Consequently, liquidity fragmentation occurs more between markets than within markets despite the trend towards closer regional integration.

Bloomberg Tradebook's Tierney comments that "the jury is still out on whether [Asia's lit ATSs] will be able to draw liquidity". He observes that, "the incumbent exchange operators [in Asia] have influence over the acceptance of alternative venues and do not believe that fragmenting liquidity in the market is helpful to the end investor". HSBC withdrew its plans to launch StockMax Crossing, Hong Kong's first dark pool – where prices are not publicly displayed – for retail investors in August this year amid claims by some that Hong Kong's regulator succumbed to opposition from local brokerages. Dark pools are the only permitted alternative to trading HKEx-listed shares in Hong Kong and are restricted to institutional investors.

Liquidity fragmentation (which has accompanied controversial market structure developments in the US and EU) has raised concerns – from price discovery to HFT thriving on the arbitrage opportunities created. Quentin Limouzi, head of electronic & algorithmic trading services for Asia at BNP Paribas remarks that "after this fragmentation of liquidity, there will be consolidation".

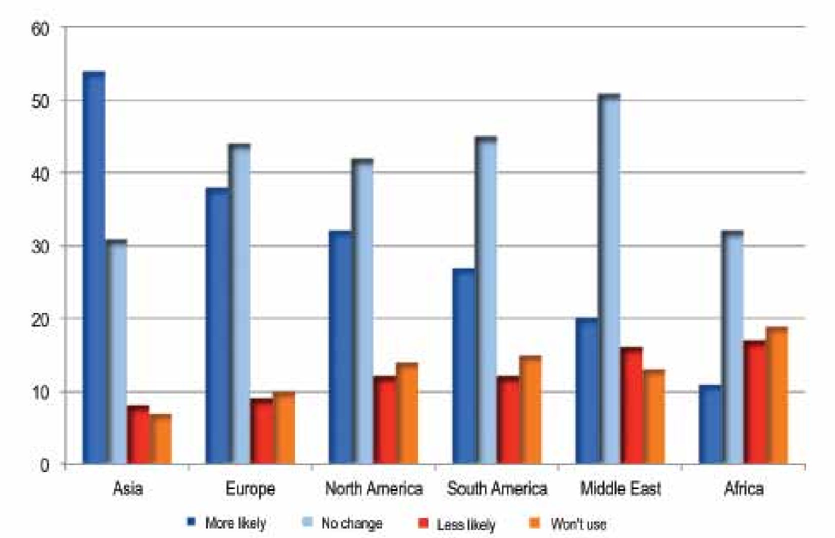
Australia, Japan and South Korea are among the few in Asia which have a large enough pool of liquidity to accommodate the liquidity fragmentation that the

Savings minus investment (% of GDP)



Source: World Economic Outlook database, IMF, September 2011; average of 2000, 2010 and 2015 (estimate)

More sourcing of major financing from Asia in five years' time (%)



Source: World Economic Outlook database, IMF, September 2011

33% of respondents based in China and 19% overall. London (14% overall), Mumbai (7%) and Hong Kong (6%) came in third, fourth and fifth. Singapore, which is competing to be more of a regional than global financial centre, came in seventh, after Frankfurt and ahead of Tokyo.

Victor Ho, a China-based partner with Allen & Overy remarks that there is a "little bit more scepticism as to whether or not initial public offerings are the best means of raising capital". Asked about their "current preferred type of funding or capital-raising for expansion and growth opportunities" 47% of respondents selected bank loans, 25% private investment, 21% debt capital markets followed by only 11% choosing an IPO/rights issue. The popularity of PE-type fund-raising may result in a future rise in IPO funding, should investors seek this route to exit. Over 54% of respondents said that they are more likely to use Asia as a source for major financing needs in five years' time, a higher percentage than those citing Europe (38%) or North America (32%). (*See bar chart on the left.*)

– By Oliver Jones

launch of ATSs entails and are relatively more interested in promoting a more competitive broking sector. Further, ASX and KRX are among the exchanges in the region which have been most successful in moving away from a reliance on cash equities.

Japan's cash equities-focussed Tokyo Stock Exchange (TSE) is merging with the more derivatives-focussed Osaka Securities Exchange (OSE). "The merger ... will allow the TSE/OSE combine to provide both cash equity and derivatives products from one platform and create synergies not just for the two exchanges but also for the firms trading on them," comments Anshuman Jaswal, senior analyst at Celent. "It will enable the merged entity to better compete for the expected migration of business from the OTC derivatives space as a result of the recent regulations."

Smart routing algos

The existence of more than one exchange in Japan has long provided a means for brokers to differentiate themselves, with larger firms investing in smart order routing (SOR) technology to route trades for securities listed on more than one exchange to where they can be executed the fastest or most cheaply. Access to SOR algorithms has broadened, with independent trading technology provider TORA extending its SOR algorithm to Hong Kong in November 2011, "as it sees increasing market fragmentation as a key challenge for buyside traders in achieving best execution".

More broadly, Tierney comments that "it used to be that algos were built in the US and applied to any market, but that is now changing amid rising regulatory complexity". The trend is for more localization: "It is not about who can bring the most algos, but who can bring better ones". He notes that the market has been commoditized in the US but "Asia is not at that point yet, providing an opportunity – if you can deliver localized algos adapted to the Asian market then you can differentiate yourself as a broker." Surveys suggest that the buyside sees its future success depending in part on better access to algorithms. In Tierney's view, "the complexity of Asia's marketplace in terms of regulations and

Dark pools often provide greater depth in small caps, in contrast to lit ATSs, where liquidity providers prefer to trade large caps

fragmentation – creates opportunities to benefit from execution consultancy". He comments that "this market is generally a Vwap market" although the trend is for brokers to "earn more ownership of order flow by offering value services outside of traditional trade execution". He adds that "trading affects the entire investment process" and is no longer viewed as just a cost centre. It should be added that algorithms aimed at improving execution are more readily provided by third parties than proprietary algorithms developed by high-frequency traders.

In addition to options for trading in the underlying on different venues, investors have more options to trade in products such as ETFs which can result in liquidity being fragmented away: from Indonesia's stock exchange to Singapore, for example. While issuers seeking to raise their profile among the global investor community have long sought to list on regional exchanges, products such as ETFs make it easier for investors, for example, to gain exposure to Pakistan's stock index without investing directly in shares listed on the Karachi Stock Exchange, raising the frequency of supply/demand trends in the ETF market and affecting supply/demand for the underlying stocks.

Smaller tick sizes

The region's regulators and exchanges have learnt from the experiences of exchanges in the US and EU. Chi-X Australia's launch was preceded by a shift in regulatory oversight for trading from the ASX to the Australian Securities and Investments Commission (ASIC) while the Reserve Bank of Australia regulates clearing and settlement. In turn, the ASX has launched a number of initiatives to prepare for the long-anticipated onslaught of competition: from reducing trading fees to launching new trading platforms and upgrading technology. Also, competitor Chi-X Australia's trades are cleared and settled on an ASX-owned system and the new platform was launched with the same tick sizes as those on the ASX, limiting the extent to which the incumbent should lose liquidity.

One factor behind the growth of ATSs has been lower pricing – spurring HFT activity. The strongest effect of Chi-X's launch in Europe was on clearing fees, with the entry of the ATSs (or multilateral trading facilities – MTFs – under the EU legislation) triggering a price war between the two leading clearing houses in the EU.

Further, an identical tick size should see brokers bypass the venue until sufficient market maker activity has been established. Nevertheless, a relatively strict best execution policy put out by ASIC has been one factor encouraging brokers to sign up to Chi-X Australia at launch.

Hall: Trend in Asia to trade fixed income and derivatives electronically

In contrast, the two largest PTSs in Japan – Chi-X Japan and SBI Japannext – offer tick sizes a tenth of those on the TSE. The growth of PTSs has been facilitated by access to clearing and settlement on industry-owned Japan Securities Clearing Corporation and Japan Securities Depositary Centre – a similar market structure to that in the US. Other factors remain unchanged, however, limiting the pace at which trading on PTSs has grown.

Domestic institutional investors have, for example, long steered clear for fear of breaching a Tender Bid Offer rule whereby the acquisition of 5% of a listed company's outstanding voting shares off the primary exchange within 60 days requires the acquirer to submit a formal takeover offer, limiting PTS trading to less than 5% of a company's share over a 60-day period until the rules change. Gradually, rules have been adjusted – with regard to market maker incentives, for example – spurring a surge in PTS trading from less than 1% of the total at the start of 2010 to over 5% this year.

Nevertheless, the third largest PTS – kabu.com – shut down operations in October 2011, stating that the TSE's launch of Arrowhead in January 2010 had diminished the inefficiencies – relatively high latency and fees on the incumbent exchange – that its business model depended upon.

Who is afraid of the dark?

Just as exchanges have – where permitted by deregulation – faced competition from trading platforms operating from a lower cost base than incumbent exchanges, brokers have faced competition from low cost electronic crossing networks (ECNs). Tierney comments that Bloomberg Tradebook started out in 1996 as an ECN but has evolved from "execution-only to execution everything" adding 22 independent research providers to the platform since May 2011, for example. "A broker in Taiwan or Korea can add their research to the platform and distribute to a broader audience," he says, providing them with a low-cost distribution platform, considering that they "don't have to build a sales staff".

Larger brokers have capitalized on their size, internalizing flows in dark pools such as broker crossing networks or internalization engines. "We are now seeing dark pools become much more important in the trading process," the head of electronic execution at one broker says. In contrast to lit ATSs, where liquidity is provided by market makers who prefer to trade in the most liquid stocks, or large caps, broker-operated dark pools often

Despite the similarity between SBI Japannext and Chi-X Japan in terms of large-cap trading, the two PTSs attract very different flows

provide greater depth in small caps while ECNs cater more to institutional investors seeking to limit information leakage and the market impact which their larger order sizes give rise to.

Credit Suisse claims that its dark pool – Crossfinder, which vies with Goldman Sachs' Sigma X to be Asia's largest – offers "proportionally better liquidity in small caps than the primary exchanges in Australia and Hong Kong and better liquidity than the PTSs in Japan". Almost a third and half of Crossfinder executions are outside the top 200 and 100 names in Hong Kong and Australia respectively, which account for only 10% of total liquidity in each market, according to the Swiss bank.

Despite the similarity between SBI Japannext and Chi-X Japan in terms of large-cap trading – which accounts for 98% or more of trading on each – the two PTSs attract very different flows. While Chi-X Japan is HFT flow-focussed, SBI Japannext is more focussed on retail investors, with sister company SBI Securities – which claims the largest share of Japan's online retail community – now employing an SOR to rout orders to SBI Japannext where the ATS meets best execution requirements.

A high share of small-cap name trading in dark pools is not surprising since these stocks often suffer from higher spreads on-exchange, fulfilling dark pools' goal of offering price improvement. Trading in small caps does not siphon much liquidity from the exchanges which tolerate dark pools in places like Hong Kong where trades on dark ATSs are subject to the same fees as if their trades had taken place on-exchange.

Catering to institutionals

In contrast, ECNs cater more to institutional investors or seek to act as dark pool aggregators. "There is not an exchange which has catered to institutional investors," says Merrin of Liquidnet, adding that "a few years ago, exchanges looked at us as competition, but we are not competition – Chi-X is competition; exchange participants are competitors". Merrin

Merrin: There is not an exchange that has catered to institutional investors

touts Liquidnet's recent deal to be the exclusive dark pool available to members of SIX Swiss Exchange as a template for exchanges in the region, seeking to attract more institutional investment. "We'll make an announcement [of a similar type of arrangement] with an Asian exchange in 2012," he predicts. If institutional investors "know there are block size venues [where wholesale-size block trades interact with block trades] there is a very good chance of their being able to execute" their trades. Markets such as Indonesia and Malaysia are far more interested in boosting institutional flows to balance out retail investor flows, than they are in attracting high-frequency traders.

Chi-East – a joint venture between Chi-X and Singapore Exchange – became the region's first exchange-sponsored dark pool when launched in November 2010, albeit not exclusively to institutional investors. Offering a non-displayed price crossing network for stocks listed in Australia, Hong Kong, Singapore and Japan on one platform, the first set of figures it released showed a 203% quarter-on-quarter increase in the value of trades matched in the third quarter to US$71 million a day as it added three broker-dealers (ITG, J.P. Morgan and the Royal Bank of Scotland) to the five which have participated from launch: Instinet, Deutsche Bank, Morgan Stanley, Nomura and UBS. In contrast, Credit Suisse claims an average of US$400 million is traded each day in Crossfinder, rising to as much as US$700 million in recent volatility.

Those operating dark pools in all four of the markets which Chi-East seeks to penetrate include Citi, Credit Suisse, Goldman Sachs and Liquidnet. Others have launched in the more liquid markets of Australia, Hong Kong and Japan "which have much more crossing opportunities" than Singapore – including Bank of America Merrill Lynch, ITG and Morgan Stanley. These more developed markets in Asia are likely to see a further deepening of ties as Asia continues to attract liquidity flows from the West.

Further, as high-frequency trading picks up around the region, the impetus to trade in the dark – limiting exposure to algorithms – rises, further spurring the growth of ATSs. Once a move away from one listing venue has occurred, it is not clear what the new equilibrium will look like.

Boosting retail efficiency

What *is* clear is that ultimately Asian trading venues should not lose sight of their retail investor bases amid an inflow in institutional and HFT funds. Wong Joo Seng, chairman of Singapore-based M-DAQ believes the trend towards rising competition between exchanges in Asia is here for good, despite the existence of incumbent monopolies. He sees stock exchanges increasingly involved in "a race to zero – cutting listing fees and trading costs".

M-DAQ's proposed solution would see exchanges gain FX revenue by providing real-time feeds for the stocks listed on them, not just in the local currency, but also in a host of other currencies. Will intermediaries rise to the challenge of adopting more such investor-friendly services that the rise of the Asian investor demands?