Brazil: Who will be joining the carnival?

The Olympics, the World Cup, new trading platforms... It's all happening in Brazil these days. The country's exchange, BM&FBovespa, is going full steam ahead with trading and execution system upgrades while also trying to lower fees and overhaul post trade services. But even as expectations for increased investment remain high, there are plenty of obstacles. International players have to contend with relatively high trading costs and big uncertainties over taxation. Anna Reitman reports on the emerging picture for automated trading.

In terms of performance, quant funds in Brazil have a nice story to tell, says Mauricio Bicalho, partner at fund manager Triscorp Investimentos. But the story is also a relatively new one, and the trading environment in 2012 meant that the few local quant funds around are experiencing their first slump, he adds.

Triscorp hires external managers in São Paulo, Rio de Janeiro, London and New York to run its quantitative and systematic strategies, which represent about 5% of its total allocation and include equity long/short, equity hedge and CTA/managed futures (trend following).

"In the US, most trading flow is done by quants one way or another. In Brazil, the vast majority of order flow has zero to do with quant trading," he says. "You would assume there is more opportunity for arbitrage, but then there is a problem of market depth."

Liquidity is another sticking point, and this is one of the reasons that BM&FBovespa (BVMF) is trying to attract high frequency and algorithmic trading. Though Bicalho recognises that there is a raging debate over HFT's trading footprint in the US, he says that on average quant traders are viewed as a volatility shock absorber for the rest of the market.

From an exchange point of view, more volume means more profits and BVMF has overhauled its trading and execution systems to pave the way for electronic flow. These technological upgrades have been the high point of last year for Brazil's brokers, says Amanda Altobello, head of electronic trading at Alpes CCTVM, an independent discount broker.

Mauricio Bicalho

Alpes is one of the country's top 15 brokers – top five in futures – and it transacts between 1.5 billion and 2 billion real (about $750 million-$1 billion) per month in equities and between 1.2 million and 1.6 million contracts a month in futures. In the past five years, Alpes has focused on electronic trading, with particular attention on HFT and market makers.

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Amanda Altobello

International clients tend to use their own algorithms, says Altobello, which can be accommodated, though Alpes also provides TWAP and VWAP. Based on some of the shifts she is seeing in the market, she expects to see more international clients coming on board by the end of the year, while existing clients are increasingly asking about equities.

Shake-ups

Some major changes are happening in the local broker community too, Altobello says: "Last year was great for infrastructure development but definitely not for volumes. I think we are entering 2013 with a new scenario, and brokers that have not yet gone far in terms of working with new mandates at the exchange will probably have issues," she says.

Because of the exchange upgrading its technology, she adds, brokers are making efforts to have their own technology fully developed. Counting both independent firms and those linked to major banks, Altobello estimates that there are around 76 brokers, a figure she expects will decrease due to M&A activity or firms going out of business.

One of the more high profile acquisitions completed this year has been of Link Investimentos by UBS. Link was one of the fastest growing brokerages, overtaking Morgan Stanley as No. 2 for market share in equity trading in Brazil, according to Bloomberg.

The majority of investment managers in Brazil are not yet entering full force into automated trading, though clearly they are keeping a close watch on any developments expected to boost trading. Ernesto Leme, a partner responsible for wealth management at Claritas Investments, says that any initiative that grows Brazil's market is positive.

The firm's hedge fund strategies – macro, long/short, arbitrage – do not rely on algorithmic or speed trading, though Leme says it is a possibility in the future. For now, the focus is on long-only mandates, long-short mandates and value mandates with a fundamental approach across rates, currencies, commodities and equities.

He presents a mixed view of the investment climate in Brazil.

He sees opportunities to outperform the Bovespa index in the real estate and consumer goods sectors amid an anticipated shift away from fixed income. Interest rates were increased in April to 7.5% after falling to a record low 7.25% last October. They were in the low teens in recent years and have fallen dramatically from as high as 45% in 1999.

In the Brazilian investment fund industry, Bicalho of Triscorp explains, the largest pool of assets is comprised of investment funds that closely follow the performance of the daily Brazilian interbank rate (CDI). "So whenever there is a frustration with investment performance with money managers, flow goes to savings accounts, CDI 'pegged' investment funds, bank CDs and governments bonds, et cetera," he says.

As interest rates have come down, Brazilian investors have been increasingly looking at products and asset classes that are more developed abroad, as well as equities and alternative investments such as private equity and real estate funds, says Leme.

At the same time, Brazilian fees are comparatively high and varying taxation rules over the past couple of years have not been viewed positively by international investors, he adds. Another issue is that having just one exchange in the country is seen as a drawback for would-be market participants. Last year, Claritas and BATS Global Markets ended plans to launch a rival to BVMF. Leme declined to comment but did say: "For the whole world, competition is important".

Tech timeline

Q4 2007	BM&F (Brazilian Mercantile and Futures Exchange) establishes order routing agreement with CME Group
Q2 2008	Merger of BM&F and Bovespa (São Paulo Stock Exchange) to create BM&F Bovespa (BVMF)
	BVMF launches order routing with CME
Q2 2009	PUMA agreement with CME, establishes joint development of matching engine
Q4 2011	Migration to PUMA completed for derivatives
Q1 2013	Migration to PUMA completed for cash equities and cash equity derivatives
Q4 2013	Fixed income products to migrate to Puma
	Migration of derivatives products to new CCP
Q4 2014	Migration of cash equities and cash equity derivatives to new CCP

Source: BVMF


Ernesto Leme Claritas

Exchange expectancy

There is rampant speculation from all corners of the investment community over which exchange will be the first to challenge BVMF's monopoly, and when.

Virtually all observers watching this space warn of the prohibitively expensive costs of establishing a clearing and settlement system. One commentator said that once regulators approve another venue, it is expected that BVMF is going to have to open its clearing. In general, US-based exchange Direct Edge is considered ahead in terms of working towards getting approvals, though it is unclear whether an application to the Brazilian capital markets regulator, Comissão de Valores Mobiliários (CVM), has been submitted. Direct Edge declined to comment.

CME is well ensconced, having established an enduring partnership with BVMF. But another contender throwing its hat into the ring is Americas Trading Group (ATG), which has created ATS Brasil (Americas Trading Systems Brasil) in partnership with NYSE Technologies, the commercial technology division of NYSE Euronext.

Martin Koopman, global head of strategy for NYSE Technologies, explains that their role is in supplying matching engine and other technologies, as well as being a minority shareholder in ATS Brasil with board representation. ATG meanwhile leverages its on-the-ground presence to work with regulators, he says.

"What I can tell you is that [ATG] has a formal and informal dialogue going with CVM and other regulators and very shortly will be filing the documentation for approval of the ATS Brasil," Koopman says. It will be focused purely on cash equities before any expansion into other asset classes. Operations are expected to begin this year subject to regulatory approvals.

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Martin Koopman

There is a strong appetite for alternatives to execution in every corner of the market, and not only in Brazil. Companies that send order flow from the US and Europe are also keen, says Koopman, adding that establishing alternatives is expected to result in trading volume growth by attracting international flow into the Brazilian market.

In terms of clearing and settlement access, Koopman says there are three strategies: work with the exchange, build organically, or work with a partnering company that already has post-trade infrastructures.

DMA snapshot

BM&F Segment

In March, BM&F (derivatives) market segment transactions carried out through order routing via DMA registered 38.3 million contracts traded and 4.3 million trades. In February, the volume reached 38.1 million contracts traded and nearly 3.6 million trades.

DMA via direct connection: 15,654 contracts traded in 7,218 trades, compared with 52 contracts in 14 trades in February. DMA via colocation: 8.9 million contracts traded, 2.8 million trades, compared with nearly 6.9 million contracts and 2.4 million trades in February.

Transactions carried out by foreign investors presented by CME to BM&FBOVESPA (who use the Globex-BM&FBOVESPA PUMA Trading System order routing system or access BM&FBOVESPA markets via colocation) totalled nearly 3 million contracts, in more than 885,000 trades, compared with 2.3 million contracts and nearly 730,000 trades in February.

BOVESPA Segment

In March, order routing via DMA in the BOVESPA (equities) segment totalled 124.85 billion real and nearly 19.8 million trades, from 104.30 billion real and nearly 15.9 million trades the previous month.

DMA via direct connection: Volume of 1.90 billion real and 119,585 trades, from 1.09 billion real and 64,396 trades in February.

DMA via co-location: Volume of 33.05 billion real and nearly 6.1 million trades from 24.03 billion real and nearly 4.4 million trades in February.

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Source: BVMF

For now, NYSE Technologies is helping interested investors "dip their toes in the water" through managed transaction hub links. These connect buy to sell side and allow any networked parties across Europe, North America and Asia to route an order to Brazil via ATG.

Jeffrey Drew, Global Liquidity Centre programme director, outlines a number of services clients are looking for: "Customers can consume raw market data as well as Superfeed, our managed market data feed, SFTI and managed computing. Our Liquidity Centres provide globally consistent trading technology so a customer who uses our technology in Mahwah or Basildon can enter the Tokyo market using the same technology." After a year of operations, there are more than a dozen firms using the services in Tokyo and Toronto.

Getting close

Using hubs to get exposure to Brazil has definitely attracted some interest, but is not suitable for latency sensitive automated traders. They are going to be interested in direct market access and colocation, says Steffen Gemuenden, chief executive of RTS Realtime Systems.

RTS connects more than 135 exchanges on multi-asset class platforms, including the equity and derivatives markets in Brazil. Its customers are Brazilian brokers and trading firms and international firms that trade into Brazil.

Gemuenden says that algorithmic trading is developing more slowly than expected: "There is a bit of mismatch of brokers expecting a lot of inbound trading into Brazil, and algo trading," he says. "The technology is not bad for algo trading … but I don't think there are that many really doing it – and mostly because of the regulatory and tax environment.

It is not as easy as it sounds for an international firm to get into Brazil."

These criticisms have not gone unnoticed by BVMF, which recently announced major plans to cut back on fees throughout 2013. In addition, it is overhauling its post-trade infrastructures by integrating its four CCPs and upgrading its trade repository systems, the latter in partnership with Calypso Technology.

The main objective of the integration of the CCPs is for cross-margining benefits, says Cicero Vieira, chief operating officer at BVMF. Currently, the four CCPs are split by products: derivatives, futures and options on futures for one; cash equities and cash equity derivatives on another; interbank FX spot transactions on a third; and government bonds on the fourth. For the past 15 years in Brazil, all OTC transactions have had to be registered by banks and financial institutions in a system authorised by the central bank.

The fact that Brazil is well ahead of Dodd-Frank and similar regulations has made it somewhat of a model. Bernardo Mariano, analyst at Equity Research Desk, says that when he works with markets and regulators in other countries, such as Russia, he points to Brazil as the market to copy in terms of transparency and risk management.

"Critics say, for example, that BVMF took too long to change the technology— it's been six years since the IPO," he says. "But what [BVMF] did really well, and it has helped volumes, is corporate governance." Even though Brazil is a maturing emerging market, more work needs to be done in post-trade before those services can be extended to competing exchanges, says Vieira, adding that the integrated CCP should get finished first; this is expected in 2015.

"Only after that will our board analyse the possibilities to offer CCP services to a new exchange," Vieira says. "We have about 100 billion deposited as collateral, so it is very important to the market, to investors, that we provide this type of portfolio margining and start offering risk offsets [to be] more efficient in terms of capital allocation."

Liquidity welcome

There is undoubtedly a measure of impatience in both the local and international investment communities for more trading venues, but for now BVMF is focused on attracting liquidity. One way it is doing this is through four DMA access offerings, two of which target latency sensitive trading strategies: DMA via direct connection and DMA via colocation. The latter has one form, but is offered with two contracting modalities: brokerage house and investor.

The two DMAs – via direct connection and via colocation – represent approximately 31.3% of total DMA trades in March, with the vast majority coming through colocation. The popularity of colocation, says Vieira, is because direct connection still verifies limits established by a broker before an order hits the matching engine.

The strategy to attract HFT has at this point resulted in it representing about 8% of volumes, according to Vieira, though it is expected to increase in the next few years due to upgrades to the new matching engine. TABB Group reports that as much as 10% of the market uses HFT, with the new PUMA trading ▸

Colocation

Brokerage houses

The brokerage houses will contract and have exclusive access to the hosting unit and installed trading equipment to perform user, administrative, management, and control functions. The brokerage houses may install software on their servers to send orders on behalf of their own accounts or on behalf of their customer accounts.

Investors

The investors and their brokerage houses will contract access and only investors will have the exclusive access to the hosting unit and installed trading equipment to perform user, administrative, management, and control functions. The customers may install software on their servers to transmit orders exclusively on behalf of their own accounts.

Source: BVMF

system being rolled out likely to increase HFT to 30% of volume.

Vieira says that the new matching engine will not only reduce latency but also the standard deviation of latency. Currently, the average latency of the Mega Bolsa trading platform (equities segment) is 30 milliseconds. In production tests, latency in the upgraded PUMA trading platform has been reduced to less than one millisecond with a standard deviation of 370 microseconds.

But he does not expect to see the same levels of HFT dominance

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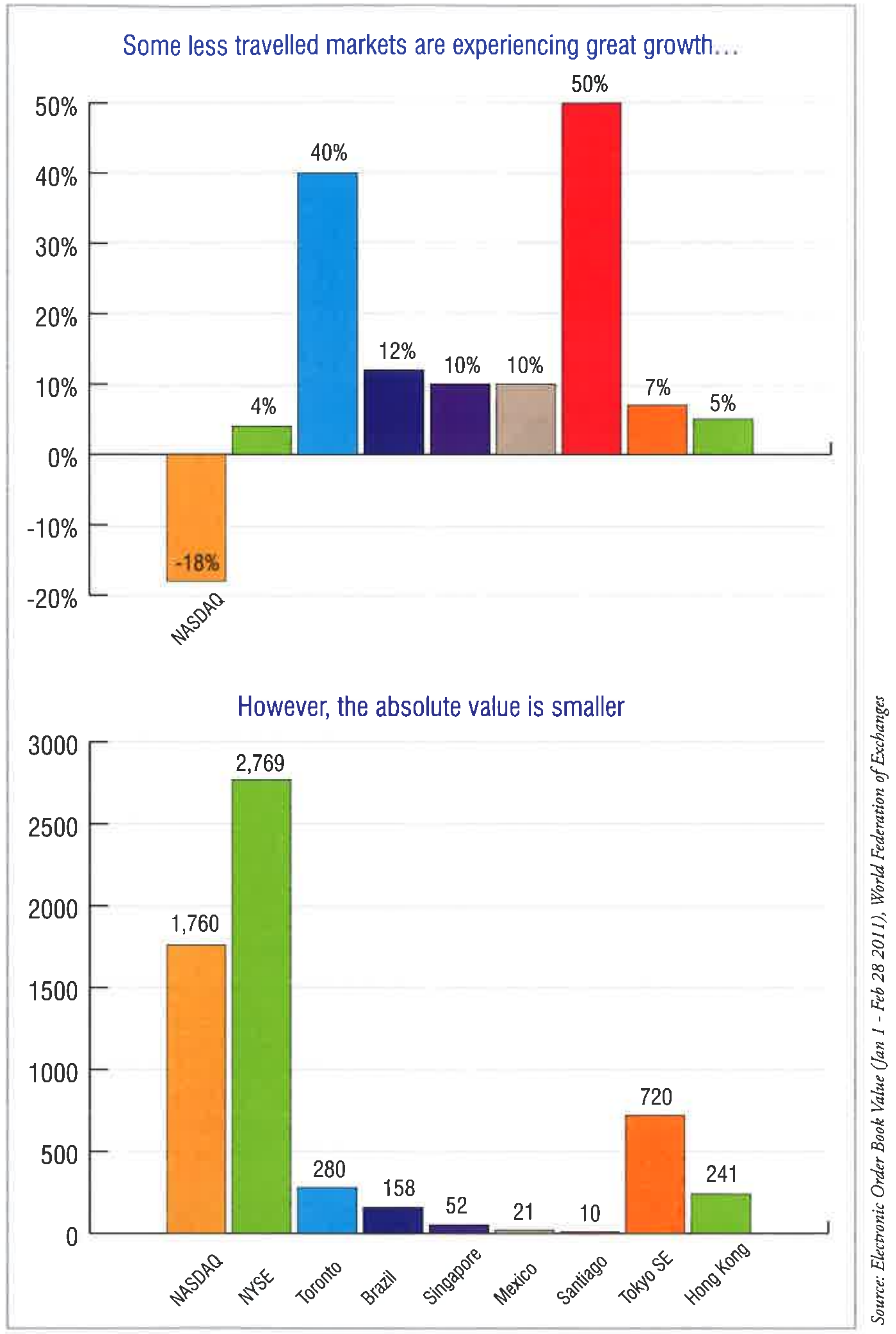


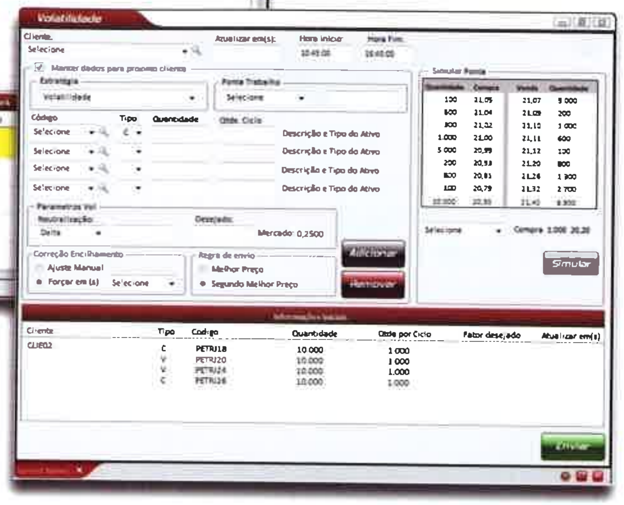
Market growth and size
Canada has the largest number of NYSE inter listings but Brazil is third.

as in the US: "There are arbitrage opportunities for HFT [in Brazil], but not the same amount as if we were a completely fragmented market like the US. I don't think we are going to see HFT representing more than 50% of trading volumes," he says.

Funds' focus

For fund managers already established in quantitative trading, however, latency is an important concern. BNY Mellon's asset servicing director in Brazil, Alberto Elias, says that software and the intelligence of a system generating orders are of course factors, but the idea is to make as many trades as possible once a stock trend is identified. And for that, speed is something he sees local fund managers being "very worried" about.

Watch Automated Trader's interview with Aite's Latin America specialist to learn more about the Brazilian market place.
www.fa5t.net/1i5



CMA Algo System (Series 5)

"We are seeing that some governments are putting limits for HFT. We know that BVMF has many risk controls, but we never know with the government here."

BNY Mellon provides administration for about $100 billion, managed by 315 of about 480 independent investment firms associated with the self-regulatory organisation, Brazilian Financial and Capital Markets Association (ANBIMA). Of those, Elias estimates that maybe five are highly specialised in managing quant funds.

Overall, people interviewed by Automated Trader identified between five and 10 significant players, naming ,among others, Principia Capital Management, Kadima Asset Management, Murano Investimentos, Quest Investimentos, Polo Capital Management and XP Investimentos.

From the perspective of technology vendor CMA, however, the biggest factor contributing to latency is in the software.

"We have hosting in many data centres and the latency is almost the same … [if] we are talking about within one kilometre away from the exchange," says Raphael Juan, product and market director at CMA. But, if all trading through a broker's order management system (OMS) is going to track triggering limits, that adds up to latency, he points out.

In terms of back office issues in particular, some market participants mention issues with Sinacor, which registers customer names and transactions, and calculates settlement rates and commissions. Although it is not a mandated system, BVMF estimates that about 95% of Brazil's brokers are using it, with some making it part of the critical path for trade confirmation.

It is a system that was not designed, and is not going to be designed, for millisecond processing, said Cicero Vieira of BVMF.

"There are some OMS that all the time go to Sinacor to check limits if a client can trade or not trade. This is never going to be acceptable for high frequency trading," Juan says. "Right now, it is all about technology and arriving first in the exchange."

Black, white, and grey

CMA is seeing a major shift in demand from black to white box solutions as asset managers show interest in creating their own algorithms in response to a tough trading environment in equities. "You have to develop your own algo to do a specific strategy right now. That is why we think it is growing so fast," he says.

But even as sophistication increases, and with it resulting demand, problems with HFT in the US are making some players in Brazil nervous. "We are seeing that some governments are putting limits for HFT," Juan says. "We know that BVMF has many risk controls, but we never know with the government here."