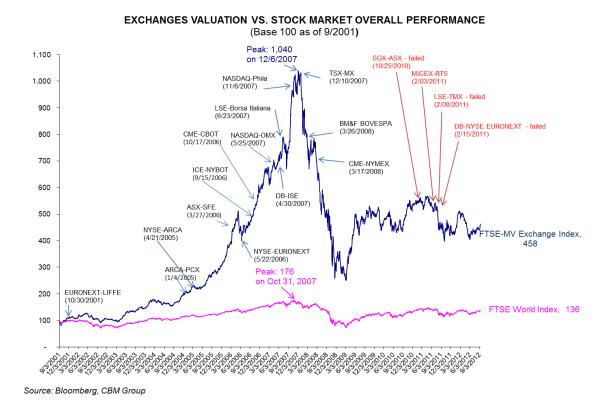
EXCHANGE CONSOLIDATION: SCENARIOS FOR EASTERN EUROPE

By André Cappon and Stephan Mignot The CBM Group, Inc. October 7 2012

"Merger fever" among stock and derivatives exchanges has been top of the news since the late 1990s.

It peaked around 2007-2008 at which point exchange valuations became sky-high; The deal flow subsequently stalled during the financial crisis; it restarted since 2011.

However, several prominent proposed deals – Singapore – Australia, Deutsche Borse – NYSE Euronext, London Stock Exchange – Toronto – failed to close. The consolidation process may be nearing the "endgame", at least for the major global deals.



However, the consolidation process has yet to play out in a few emerging market regions, such as Latin America ex-Brazil, Southeast Asia, Eastern Europe/Balkans and Africa.

Eastern Europe and the Balkan region exchanges, in particular, face a number of interesting choices in the years ahead.

Exchange Consolidation – Overview

The exchange consolidation process has been driven by a sequence of developments.

Historically, exchanges were established as membership organizations, similar to clubs or mutual/cooperative institutions. Their business model was quasi non-profit, their governance was "political" primarily driven by many member committees. Their objective was to promote members' interests. Since most of the members made their living on the trading floor, protecting the "floor community" (and open outcry before electronic trading became the rule) and minimizing trading costs were paramount objectives.

Things changed in the late 1990s and the first years of the new century. Electronic trading, rapid growth of trading volumes for securities and derivatives, the challenge of the over-the-counter "OTC" markets, the growing importance of highly active traders e.g. hedge funds needing super quick execution in multiple asset classes and of passively managed funds needing very low-cost execution, forced exchanges to evolve.

Most exchange have demutualized and become shareholder owned, for-profit firms. "Membership rights" have been unbundled from ownership rights.

It is clear that exchanges are attractive marketplace utility businesses: their revenues are driven by trading volumes, which tend to keep growing over time, while their costs are pretty much fixed. Exchanges produce healthy profit margins. In addition, since liquidity attracts liquidity, exchanges enjoy so-called "network externalities" and become de facto monopolies.

As profit-driven firms, demutualized/privatized exchanges now must pursue growth and shareholder value.

Their goal is to evolve towards global electronic markets supporting one-stop shopping for securities and derivatives, financials and commodities.

This can be achieved via organic growth and mergers. Mergers are the fastest way to get there...

The merger logic is business growth through integration, supported by common technology platforms

- Acquire and integrate exchanges across geography and time zones
- Integrate across asset classes: equities, interest rates, FX, credit and commodities; cash and derivatives markets; listed and over-the counter markets to offer one-stop-shopping to investors
- Integrate along the STP ("straight-through-processing") value chain: pretrade; trade; after-the-trade (clearing, settlement, custody) to achieve lower costs

....with the objective of maximizing shareholder value

- Consolidators must ensure they have strong "acquisition currency" to buy target exchanges
- After the deals are done, consolidators must achieve cost reductions and revenue synergies to justify the acquisition premiums paid

A historical perspective (see chart below) suggests several stages in the consolidation process:

| | Mid-1990s | 2000-2006 | 2007-2009 | 2010-2012 |
|---|---|---|---|---|
| In-country exchange consolidations: building "national fortresses" | ➤ Sweden ➤ Germany ➤ France | > Spain > Italy > Hong Kong > Singapore > Greece > Korea > Australia > CME-CBOT > ICE-NYBOT | NASDAQ-PHLX BM&F and Bovespa (Brazil) individual IPO BVC(Colombia) IPO TSX-HW, =TMX (Canada) BM&F-Bovespa (Brazil) NYSE-Euronext – AMEX CME Group + NYMEX BMV (Mexico) IPO NASDAQ+BSE | Russia: MICEX+RTS Canada: Maple in-country vertical consolidation Japan (TSE – OSE Merger) China? Romania: BVB + SIBEX? Bombay SE and National SE (India) IPO? US & Europe as the exceptions with several exchanges |
| Regional Consolidation | Attempted link ups France- Germany | Euronext (France- Netherlands-Belgium- Portugal- LIFFE- LCH- Euroclear-MTS) Deutsche Borse — Clearstream Nordic alliance (Sweden- Finland-Denmark) Attempts by OM, Deutsche Borse to acquire LSE Vienna-Budapest Nordic Alliance: OM acquires LCH+Clearnet SAICEX | LSE-Borsa Italiana ICE+TCC +Creditex Vienna: stakes in Ljubljana, Sofia & Prague SE's Spain (BME) stakes in Latin America (BMV & CRCC) Switzerland: SIX Group merger (SWX Group+SIS Group+Telekurs Group Major European exchanges launch pan-European trading platforms (NYSE ARCa Europe, LSE Baikal+Turquoise, NASDAQ OMX Europe, DB Xetra) Nasdaq - Nordpool | ➤ Warsaw demutualization & IPO ➤ Bucharest demutualization & IPO MILA ➤ ASEAN link ➤ Central Europe |
| Global alliances/mergers of exchanges and OTC/Interdealer Brokers | ➤ Euronext-CME (Globex) Alliance ➤ Latibex | DB - Eurex attempts on CBOT (unsuccessful) NYSE-Euronext | Deutsche Borse-ISE NASDAQ-OM Borse Dubai: 20% NASDAQ-OM & 20% of LSE-Borsa Italiana Qatar: stake in LSE NYSE Euronext: Liffe US IDB ICAP buys Link Asset & Securities for £250 mil IDB Tullett Prebon acquires Primex for \$40 mil eSpeed+BGC = BGC Partners, Inc. (IDB) | ➤ SGX + ASX failed combination ➤ LSE + TMX failed combination ➤ Deutsche Borse + NYSE Euronext combination? (failed Nasdaq-ICE-NYSE bid) ➤ LME-HKX |
| Sell-side reaction | | Philadelphia Exchange Boston Equities Exchange Chicago Stock Exchange National Stock Exchange Mann Financial-Eurex USA BIDS (Block Interest Discovery Service) ICAP-Altex ATS (to compete with Euronext- Liffe) | BATS ATS: Alpha Trading System (Canada) Chi-X (Instinet/Nomura: Europe, then Australia, Canada) ELX Electronic Liquidity Exchange (will initially trade US Treasuries futures) Turquoise: Sell-side-owned pan-European equities trading platform AXE-ECN: Australia Project Rainbow: European Futures Exchange (to compete with Liffe and Eurex): initiative => launch?? BATS Europe ELX Futures LSE acquires Turquoise | ➤ 35+ stock trading venues in the US ➤ Multiple pan-European trading platforms BATS acquires ChiX ➤ BATS failed IPO |
| Buy-Side initiatives | | Liquidnet (Buy-Side only block trading platform) | | |

<u>"In-country"</u> consolidation: it aims to achieve cost reduction, economies of scale, one-stop-shopping platforms and revenue synergies. Another key objective is to achieve a larger critical mass, higher valuations and stronger bargaining power in subsequent rounds of consolidation. Most countries have already had in-country mergers.

Regional consolidation: it usually aims to create a common market in a natural region, e.g. Scandinavia, Europe, Southeast Asia, the Andean region Regional mergers also seek cost reductions and synergies, the creation of a regional asset class (e.g. Southeast Asian equities, indexes, ETFs, derivatives), and more generally building up muscle in anticipation of subsequent consolidation.

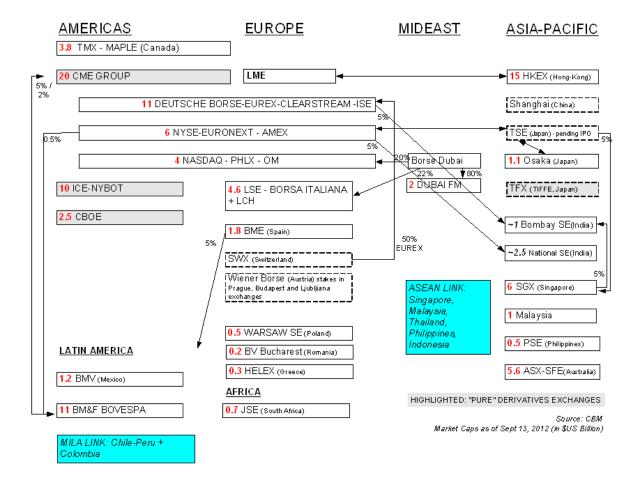
<u>Global mergers</u>, across regions and time zones. These mergers seek to get to the ultimate vision of global exchanges. NYSE Euronext, NASDAQ OM, Deutsche Borse ISE, Hong Kong Exchanges LME are the obvious examples.

<u>Sell-side reactions</u>: as "super exchanges" emerge, they begin to compete with their former members, the broker-dealers or "sell-side". Super-exchanges may achieve some powerful market dominance. Sell-side players seek to counter this threat by establishing their own "club" exchanges (often. acquiring smaller exchanges) and/or alternative trading systems (e.g. Chi-X in Europe, Alpha in Canada). These exchanges create competition for the established exchanges and also offer opportunities for high-frequency trading. These types of exchanges have emerged in the larger markets (North America, Europe)

<u>Buy-side reactions</u>: creation of buy-side only platforms that disintermediate the sell-side. Such platforms enable institutions to arrange trades directly with each other, without the help of brokers or exchanges. Liquidnet is the best example.

The "end game" of exchange consolidation will be played out in the next few years. We anticipate the global exchange industry structure will eventually include:

- A few global exchanges e.g. NYSE Euronext, NASDAQ OM, Deutsche Borse ISE, CME, ICE and HKEX
- Some regional coalitions, e.g. ASEAN Link in Southeast Asia, Mercado Integrado Latinoamericano (MILA) in the Andean region.
- Some niche players perhaps at country level (for countries too nationalistic, too small or too isolated from the global capital markets, due to currency controls for example) or focused on a narrow product range.



Eastern Europe and the Balkans – Possible Scenarios

The Eastern Europe and Balkans capital markets remain mostly "frontier markets", for several reasons:

- The post-Communist transition has taken longer than expected and capitalist institutions are not yet mature.
- Although there has been economic recovery, most of the countries in the region, apart from Poland, have not experienced a confidence-building, sustained period of prosperity.
- The level of savings and investment remains relatively low.
- Institutional investors remain fairly embryonic; there are relatively few retail investors.
- The national financial systems are bank-dominated and bank-centric, rather than market centric.

There are stock exchanges in each country, but all of them suffer from the classic emerging markets challenges. Market capitalization remains low relative to the size of the economy, liquidity is low and trading volumes are concentrated in a handful of stocks. Derivatives markets are still embryonic. Simply put, the markets of Easter Europe

resemble Latin American emerging markets of some 20 years ago. Today, these markets e.g. Brazil, Mexico and Chile are thriving.

There should be tremendous opportunities for growth and development of exchanges in the Eastern Europe and Balkans region.

This opportunity is clearly perceived by two exchanges that are aspiring to take a leadership – Vienna and Warsaw.

Since 2004, Wiener Borse has been patiently crafting the Central and Eastern European Stock Exchange Group. It acquired majority stakes in the Budapest Stock Exchange, the Ljubljana and Prague exchanges. It is cementing these acquisitions by implementing a common trading platform (XETRA, the German technology), offering crossmemberships and establishing a joint clearing system. More broadly, CEESEG has entered into cooperation agreements, typically in the areas of index building and vending and market data services with the exchanges of Russia, Poland, Slovakia, Romania, Bulgaria, Serbia, Bosnia Herzegovina, Croatia Vienna's footprint is looking suspiciously like the old Austro-Hungarian empire!!!



Source: CEE SEG H1 2012 Presentation

Warsaw Stock Exchange has been one of Europe's most dynamic stock and derivatives markets. Taking advantage of Poland's strong economy, in recent years, the exchange has issued 500+ IPOs. It has built a vibrant small and medium capitalization market, the strongest derivatives market in Central and Eastern Europe, a fixed income trading platform, In 2010, Warsaw entered into a strategic cooperation agreement with NYSE Euronext, including common technology and a number of new business initiatives in the CEE region. In particular, Warsaw Stock Exchange has acquired a small stake in Romania's SIBEX and is offering dual listing for Romanian stocks.

Clearly, Vienna and Warsaw have positioned themselves as consolidators or leaders in the CEE exchange space.

The smaller bourses in the region have several options in front of them. These are:

- Remain independent. This is acceptable in the short to medium term, but might lead to isolation in the longer run
- Join one of the likely consolidators, the Wiener Borse CEESEG coalition or the Warsaw group.
- Try to form an alternative "federation" of Eastern European / Balkan bourses. Such a federation might be an interesting idea, but it would need a leader exchange. Who could that be? Athens could have been a possible candidate, but the current Greek crisis would probably preclude it. Could Romania take the leadership role?

In any case, it is imperative for the bourses in the region to prepare themselves for some regional consolidation. Their priority should be to strengthen themselves as much as possible in anticipation of the consolidation. An in-country merger would be a rational step in this direction, especially for Romania.

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