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## Capital Markets: Responsibilities, Challenges and Solutions

**Interview with Albert Menkveld, Professor of Finance, Vrije Universiteit Amsterdam**

In the early seventeenth century the Amsterdam Bourse enabled the Dutch East India Company to send out its ships for long and treacherous journeys bringing wealth and prosperity to a young, Dutch republic. But gone are the days when a Dutch exchange dominated securities trading in western Europe. Today's exchanges remain important providers of capital for new businesses. The order books are now filled electronically, the timespan to fill them has been reduced to sub microseconds and the exchanges themselves are interlinked by a vast array of financial instruments.

Historic dangers of navigating the seas to trade and search for fortune have been reduced by access to accurate time devices, compasses, maps, the establishment of international laws and their enforcement by authorities. Capital markets have seen their fair share of storms and abuse as well, especially in the new

twenty-first century. What is the key to the continued success of capital markets and to what dangers are its participants exposed?

Albert Menkveld, Professor of Finance at VU Amsterdam, is an international authority in this field. Compact has interviewed him to find out more about the capital markets' current and future opportunities, dangers and possible solutions.

*Mr. Menkveld what was the most significant capital markets' event in the last five years and why?*

In my opinion it is the sovereign debt crisis. This crisis was huge and it is still not completely resolved. Banks were allowed to fill their books with Greek debt which regulators and rating agencies perceived to be safe. However, this opinion was not reflected by the markets. It is an example of a wedge between regulation and markets. The yield was excellent, capital requirements low,

the official rating good (AAA) but the real risk high. An explosion that was waiting to happen and did happen. The solution to offload the debt to the ECB may have been good from a national regulators' perspective or for individual EU member states but not for the EU itself and therefore we are all worse off because of this individual optimal behavior.

*Is the current division of responsibilities, "prudential" control by the ECB and "market abuse" control by national competent authorities, the right approach?*

Prudential controls, such as solvency and liquidity controls, are ex-ante measures to prevent trouble in the future, if we have enough money in our pockets we can buffer a shock. There is a clear role for the ECB to control these quantitative indicators in collaboration with the national central banks. In a way the collaborative structure between the

ECB and the central banks can be seen as a single entity.

Market abuse is something entirely different. Securities markets have a set of rules by which you are allowed to trade on these markets. If you do not obey these rules, if your aim is to manipulate prices, initiating a trade or signaling interest in a trade in some direction for no other reason than to mislead the market, then this is illegal behavior, which somebody needs to monitor. The flash crash and the financial trader accused of contributing to this event are examples of what can go wrong.

*The LIBOR and other benchmark manipulations show that market abuse is not just the illegal behavior by individuals but has become more organized and is carried out by communities of people. What could be the cause of this trend and what can be done about it?*

My suspicion is that whenever you put a set of humans in the middle of an opaque market, there will be some who will try to get rich quickly in any way they can, including collusion. This seems to be true for any industry, not just securities markets. Collusion is illegal and we must avoid it.

Transparency is forever a struggle between regulators and the industry at large. Intransparency is in the interest of the sector and there are costs to transparency. However, the benefits of transparency are huge. In particular, because transparency allows the end-users, the clients, to check if they did get a reasonable execution or if the benchmark they received was truly a benchmark.

The markets can solve market abuse issues themselves if they let a little bit of light in. Micro-management by the regulator, drawing up

larger and larger regulations does not work. This type of regulation costs enormous amounts of money to develop, to communicate and implement. Furthermore, many will look for holes in regulations and it becomes a vicious circle with little real value being produced.

A consolidated trade tape is a good transparency example of what should be but is still not available in Europe. A consolidated trade tape distributes in real time what has been traded in a particular financial instrument, the quantity, the price and the time of trade. This information allows the end-user to judge if his broker-dealer has done a good job. Currently, regulators are discussing a reasonable price to distribute this trade tape information. I would be happy to let the government spend my tax money to allow an independent organisation to distribute a trade tape that allows all end-users to validate the quality of the execution received.

*Are there, in addition to transparency, other necessary conditions for well-functioning securities markets?*

Another necessary condition is competition in the intermediation sector. There needs to be a number of broker-dealers and competitive pressure to provide and improve the services offered. The same is true for exchanges and I am happy to see that there are multiple exchanges that allow its participants to trade the same securities.

A third element is the ability to monitor the net exposures of all systemically important financial institutions (SIFIs). They don't need to publicize their position, it is sufficient if the SIFIs report their position to their regulator. This is

necessary because a scenario whereby all SIFIs load up on the same bet is potentially very dangerous as the concentration exposure becomes unhealthily large. I call this type of exposure the "crowded trade risk". It happened for example in US mortgages before and during the financial crisis in 2007. If one can identify this concentration exposure early on, one can start charging for putting an extra euro in that position because of the systematic risk it poses.

The identification of the "crowded trade risk" and the methodology I developed to charge more for putting an extra euro on this bet (the Margin A methodology), arose after I talked to EMCF, a large Dutch clearing house, about all its significant risks in its role of central counterparty (CCP). I also developed a new overall risk indicator for CCPs called Crowd-Ix. Margin A and Crowd-Ix allow not only for the quantification of the size of the "crowded trade risk" but also for the identification of those clearing members that contribute most to the risk. As such, low frequency margin adjustments, once every quarter, can be made for these identified clearing members and reflect their contribution to systemic risk without adding fuel to the identified risk itself.

Based on a one year dataset and using the Crowd-Ix indicator I have identified two time points where excessive "crowded trade risk" occurred. The first event happened when the EU created the European Stability Fund, right after the first bail-out of Greece. The second occurrence could not be identified by macro news but was due to a first quarter announcement by Nokia which was 10 % below expectations. At that time, there was so much

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money in the Nokia position, that any additional issue at Nokia would have put over half of the clearing community at serious risk, essentially a systemic risk. It shows the power of the CrowdIx indicator.

*Are there any measures that can prevent market abuse completely? Have current market abuse initiatives such as the transaction reporting duty been successful?*

Stopping trading altogether will prevent market abuse. People have to realize that there is a balance. It is costly to have absolute safety. As an economist, if I want my Dutch institutions to be absolutely safe, I should demand an absurd amount of collateral, but that means that we need to save even more for our pensions as they can only initiate small, low-risk bets, earning almost nothing. So there is a balance.

The “Margin A” methodology doesn’t prevent financial institutions entering into high-risk bets, but allows them to reconsider the risk and, when they decide to go ahead, to pay for it. The risk taker pays, more so for systemically risky bets.

Regarding transaction reporting. It is still early days, regulators are compiling and cleaning up the data so as to assure the quality of the reports. From my own experience I know how much effort goes into this, such that the conclusions are not garbage in, garbage out. There is an active dialog between academia and regulators to address issues such as these. Academia is a profession of collaboration; we let ourselves be inspired by the each other’s thinking and that of the regulators. And, vice versa, regulators are inspired by

our feedback. Throughout the year conferences organized by numerous organizations such as BIS and ECB take place, where academia and regulators meet.

*During the last couple of years so-called High Frequency Trading and Algorithmic Trading has been in the news. Is it possible to regulate these forms of trading and ensure they do not abuse the market?*

I am not in favor of regulators actively validating algorithmic trading strategies. Exchanges do and must play a major role in controlling their own markets. Currently, when an exchange sees that a single point of entry generates an enormous volume of messages, there is an automatic, temporary pause. If the volume continues, the algorithmic trader is disconnected. This is not controversial; exchanges are happy with algorithms, but intervene if extraordinary message traffic is clearly due to a rogue algorithm, and thus protect *all* the market participants, including the one with the out-of-control algorithm. This is an existing measure. Since there is an economic incentive for the participants to stop bad algorithms, I do not worry and do not think that we need regulatory efforts in this area. We do need regulatory effort to identify the systemic risk associated with the culmination of trading strategies. The regulators should put regulation in place to tackle this type of risk. Overall, I am happy with electronic trading. Computers are cheaper than humans and have led to far lower fees and commissions.

My own research in this area focuses more on the question “do electronic exchanges need more speed or is there an optimal speed threshold for exchanges”. My model recognizes three types of exchange

participants: (1) the High Frequency Marketmaker (HFM), providing bid/ask quotes, (2) the High Frequency Bandit (HFB), “hitting” the quotes based on current news and (3) the Liquidity Trader (LT), the regular traders. Intuition tells us that above a certain speed threshold regular traders can’t keep up anymore and trading becomes a duel between the High Frequency participants only. If an exchange is not responsive to all participants, keeps speeding up its matching engine and as a result the bid/ask spread might widen, it will chase away the natural flow. This is not to the benefit of any of the participants. In our research, Marius Zoican and I do not advocate radical change by exchanges but calls for exchanges to recognize that there is a negative effect to metaphorically speaking “changing the processor to an absurdly fast one”.

*What is the future of centralized securities exchanges taking new developments such as the distributed ledger / block chain technology into account that allows for decentralized trading and clearing and what is the impact on surveillance / regulation.*

If you take a step back, what we have seen is a migration in the other direction. Decentralized trading was very common for many centuries, people traded everywhere in all kinds of products and services. The benefit of technology is that centralization is now much cheaper. An example is eBay, a centralization point where we indicate our interest to buy or sell for everybody else to see. In economics we call this a network externality. Such a network not only benefits ourselves but everybody who is already on the network.

There is still decentralization due to multiple exchanges and multiple central counterparties. Overall, this type of competition is good and is one of my overarching principles for a well-functioning market. However, I am worried if we have a very large number of markets, e.g. the number of equity markets in the US. The US regulators have headaches when compiling the data and have started a new initiative (rule 613 overhaul) where at the level of exchanges every member of the exchange needs to have a single identifier such that data can be consolidated.

My main worry is a scenario where a regulator cannot overview all transactions, make sure existing rules are adhered to or recognize new risks. If we don’t trust the market place we will all put our money in our socks and not expose it to the right risks, in particular new business ventures. The reality is that we operate on multiple exchanges and across different countries. However, we still have national regulators, a situation I am not comfortable with. Consolidation (of regulators) does take place but is very slow and as usual the markets are ahead of the regulators.

**Albert Menkveld** is Professor of Finance at VU Amsterdam and Fellow at the Tinbergen Institute. In 2002, he received a Tinbergen PhD from Erasmus University Rotterdam. He was on visiting positions at various U.S. schools: Wharton in 2000, Stanford in 2001 and NYU in 2004-2005 and in 2008-2011. Albert’s research agenda is focused on securities trading, liquidity, asset pricing and financial econometrics. He has published in various journals, for example, the Journal of Finance, the Journal of Financial Economics and the Journal of Business and Economic Statistics.  
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