The capital markets 2020: In the eye of two storms

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When numbers matter

The capital markets are facing the confluence of two storms: global macroeconomics and geopolitics on one side and emerging technology on the other. We discuss the significant pressures both of these pose on market participants—and where the opportunities lie.

As the capital markets begin a new year, concerns continue regarding the disruptive effects of global macroeconomic volatility and geopolitical unrest and their ultimate impact on the global economy. At this same time, emerging technologies are becoming their own disruptive force in the markets, bringing about innovation and opportunistic transformation, but also, for institutions slow at adopting these technologies, harsher competitive conditions.

These twin storms of change—global instability and new strategic technologies—make this an especially interesting time for capital markets around the world. I suspect 2020 will be a year of massive adaptation to a rapidly evolving landscape. It will also be a year when capital markets firms should expect to be challenged from several angles, particularly in terms of figuring out their way forward.

For this discussion, I want to focus on these two forces, which I suspect will have the most influence on the capital markets ecosystem in the year ahead.

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The Global Macroeconomic and Geopolitical Scene

Are you familiar with the Butterfly Effect? It suggests that the disruption of butterfly flappings in one corner of the globe can set off a serious escalating event in another part of the world, such as when a butterfly beats its wings in New Jersey, it could eventually cause a hurricane in Thailand.

While it is difficult to find this conceivable, I do believe it serves as a powerful metaphor for how economic or geopolitical turmoil in one country or region, or between nations, could impact or even undermine financial stability in other areas of the world. What happens across the globe matters to the global capital markets.

Ongoing trade tensions, geopolitical uncertainty (e.g., Brexit), unpredictable policymaking, and the potential for war in the Middle East have become the new normal. It is quite possible the current environment will weigh negatively on the capital markets for the coming year.

So, we know the world is host to several serious hot spots and circumstances. Rather than state each, because there are many, I will focus on what I think are at the top of the list of disruptors that pose the potential greatest risks to the capital markets. These include:

Monetary Policy Uncertainty

One important consequence of the global slowdown in 2019 has been increased policy accommodation by central banks around the world, reversing actual and expected policy tightening. However, many governments may inevitably be forced to abandon their fiscal stimulus programs and raise interest rates. Monetary policy is now running low on credibility and major central banks have failed to hit their percent inflation targets, heightening the risk that prices will slip dangerously low should another global recession occur. On the other hand, raising interest rates could undermine a fragile stability and throw markets into a state of further volatility.

For the capital markets, an upward tick in interest rates presents a challenge to investment and banking firms that are highly exposed to interest rate risk. Interest rate risk reflects the extent to which a company's financial condition (e.g., its earnings and capital) is affected by changes in market interest rates, changes that have an impact on the value of a firm's assets, liabilities and future cash flows—in other words, the economic value of the firm. The risk contagion is that if the shock is substantial, everyone is exposed. In a more restrictive interest rate environment, firms have to astutely consider the most cost-effective techniques for hedging their interest rate risk.

Trade Wars

If you conduct enough thorough research on trade wars, you find one common opinion among economists: trade wars are bad and nobody wins. To be fair, a trade war may improve a nation's trade deficit in the short run, as tariffs are supposed to give a competitive advantage to domestic producers of a given product, but long term it reduces economic growth for all nations involved.

Since 2018, international trade tensions have afflicted the global economy as the United States has engaged in trade wars with a number of countries and regions. While there has been some measure of recent trade deals, much uncertainty remains. This ongoing uncertainty is likely to have a negative impact on investment and it also creates a fragile backdrop for the capital markets this year, and probably longer.

Protectionism, of which trade wars are a side effect, puts global cooperation under strain and could wreak serious damage to a nation's economy. For example, let's look at The Smoot-Hawley Act enacted in June 1930.

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At the time, America's tariffs were already high on foreign agricultural imports, and some other countries were already increasing their own. The Smoot-Hawley Act further increased import tariffs by an average of 40%. The purpose was to support U.S. farmers who had been ravaged by the Depression, and to also protect American jobs. Instead, the Act raised food prices and compelled other countries to retaliate with their own higher tariffs. Ultimately, this all forced a two-thirds decline in global trade. Additionally, two years after Smoot-Hawley was enacted, U.S. imports fell 40% while unemployment increased.

The bottom line: the current trade wars perhaps should be resolved soon before they create potential havoc on individual economies.

Brexit

Britain's exit from the European Union became a certainty after the European Parliament voted overwhelmingly on January 29, 2020 to approve the UK's departure from the EU, which became effective January 31, 2020. This is a historic step as the UK leaves the EU after 47 years as a member state. This, however, does not mark the total end of the Brexit story.

There is now a transition period that will last until December 31, 2020, during which the UK will continue to abide by the EU's rules and regulations and continue to pay into the EU's budget, while having no say in EU policy. Fortunately, this gives some time for the UK to negotiate its future relationship with Europe and to decide what sort of Brexit it wants for itself.

For the moment, though, it seems there is widespread belief that, regardless of any negotiated outcome, the UK leaving the EU will likely bring in a period of significant dislocation and uncertainty in the European capital markets, and lead to lower economic activity and less cross-border investment—and possibly cause economic damage to the wider world.

U.S.-Iran Conflict

When it comes to discussing global instability, the clear elephant in the room is the tension in the Middle East and the potential for sustained clashes between the United States and Iran. In fact, the obvious statement to make here is that a lengthy U.S.-Iran conflict could cause a major shock to the global economy. Moody's analyst Alexander Perjessy says, "A lasting conflict would have wide-ranging implications through broad economic and financial shock that significantly worsen operating and financing conditions."

What may be most important to the rest of the world, as the U.S. has become much less dependent on oil imports, would be the resulting surge in oil prices due to an escalating conflict, which would add immensely to the headwinds already facing the global economy.

Technology Innovation—A Solution that Matters

We see how political, policy and financial issues can impact global economic outcomes, and they can also disrupt the business, structure and competitive environment for financial institutions. Help in tackling the challenges presented by these global instability issues will require technology innovation. By bolstering their analytical, operational, transactional and client service capabilities, organizations will be able to use technology as a tool to better navigate through market pressures and opportunities and gain a competitive advantage. That can be why, in the capital markets, there is vast interest about the potential of several new technologies. This will be the next part of our discussion—the "other storm."

The Emerging Technology Scene

In my view, the innovation permeating the markets today is greater and more influential than it has ever been. On top of that, the pace of invention is accelerating and showing no signs of slowing. So, let's take a look at what I think are the principal technology-driven enablers and influencers that will reshape competition in the capital markets in the year—and years—ahead.

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Digital Is Becoming Mainstream, Almost

While the electronification of the markets is nothing new, and while the technology behind digitization cannot necessarily be called "emerging," the fact remains that electronification itself is emerging in different ways and at different levels across different asset classes. In some areas, the adoption of digitization is very low.

For example, while the electronification of the equity markets and a large part of the fixed income markets is now largely complete across the global capital markets, structured products are a laggard in going digital.

According to results of a Numerix webinar survey held in June 2019, only 7% of respondents have fully digitized their structured products activities, while 60% still rely on manual processes. I find the latter a bit surprising given the inherently complex nature of structured products.

Nonetheless, I believe electronification of structured products will start to quickly emerge as issuers start to see the benefits. A competitive edge can be attained by hosting a technology infrastructure that delivers speed, precision and flexibility from structuring and pricing to hedging, risk analysis and lifecycle management. Such a platform is one that would enable firms to produce tradeable real-time quotes, manage real-time market data, and produce real-time risk calculations in order to meet market demand for new product types with speed. Automation also eliminates manually intensive processes and frees up market participants to focus on their core business and more productive activities.

Cloud-Based Solutions

The last few years have seen a significant shift toward cloud-based computing, and it can no longer be labeled as something that is "just getting started." What I want to emphasize, though, is that many financial institutions historically used cloud applications for business processes that were considered non-core, but what is emerging today is that the cloud is starting to find acceptance for core needs, such as for improving access to and analysis of business-critical and market data. In addition, there is an ever increasing set of tools that make it much easier to build truly cloud-native applications that take full advantage of the cloud economic model.

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In one example shared in a recent WatersTechnology article, a large, Tier 1 global banking and financial services institution has started migrating data to a cloud-based data lake to be able to use it for a variety of use cases, such as to build a client intelligence utility on the cloud. The platform will use cleansed data, captured from trade repositories and external sources, to better understand the needs and requirements of its clients.

According to ComputerWeekly interviews with senior IT executives at 250 capital markets companies, ranging from small hedge funds to large banks, it was predicted that public cloud investments would end up consuming approximately 47% of IT budgets by the end of 2019. This compares with 30% in 2017. The interviews, carried out by data provider Thomson Reuters, also revealed that a quarter of the interviewed firms expect to mostly use public cloud for accessing market data within a year. Almost all (90%) said they would do so within four years.

85%

of capital markets participants plan to increase their spending on data management in the next 3-5 years.

In some cases, the cloud may also offer the ability to quickly gain access to massive amounts of compute power, and potentially without having to increase technology costs. Most firms will face a need for agility and horsepower to execute future strategic business initiatives. For those firms without huge technology budgets, they may have no choice but to seriously consider getting on the cloud.

Making the Most of Data

The capital markets industry is no stranger to data, and industry wide there is an increasing focus on data quality, management and analysis. Market leaders are investing more and more in data solution technologies that address accuracy, completeness, and timeliness. According to a Greenwich Associates report (December 2019), 85% of capital markets participants plan to increase their spending on data management in the next 3-5 years.

It is clear, however, that there is way too much data out there, and the challenge for financial firms is to convert insights gleaned from huge piles of data into genuine business advantages. Market participants are faced with having to crunch millions of data points regarding market performance, economic indicators, inventory information, and performance across asset classes. And they have to do so in order to make smarter and more informed decisions—and to better mitigate risk.

Therefore, the issue is not about being able to collect a lot of data. It's about being able to effectively analyze it to get the most value out of it. Making the best sense of all the data out there will require a coherent data strategy and a strong data management framework with cutting-edge analytical tools to identify clear signals through the noise and enable investment managers to increase their effectiveness and efficiency.

Unfortunately, there are still many firms that do not have the technology infrastructures in place to quickly pave the way to the maximum and most efficient adoption of data.

44%
of capital markets professionals globally say their firms are already using artificial intelligence in their trading processes.

Artificial Intelligence Can Remake Portfolio and Risk Management

While artificial intelligence (AI) is still very much a maturing industry, it is quickly gaining traction in the capital markets space. According to October 2019 data from Greenwich Associates, 44% of capital markets professionals globally say their firms are already using artificial intelligence in their trading processes. Greenwich Associates also states that another 17% of reporting professionals have plans to implement AI in trading in the next 12-24 months.

It appears that AI will soon be used by a majority of market participants. But those participants who still remain skeptical may ask, "Is there any way to validate whether AI is really the future of financial services?" Let's consider a few other numbers. According to a Deloitte study published in August 2019, AI Leaders In Financial Services, Common Traits of Frontrunners in the Artificial Intelligence Race, financial services organizations that are frontrunners in using AI are achieving company-wide revenue growth of 19% directly attributable to their AI initiatives, much greater than the 12% follower firms achieve. Also, 45% of AI frontrunner firms are investing over $5M in AI initiatives today, three times the level of starters or late adopters. In term of planning for AI, 49% of frontrunners indicated they have a comprehensive strategy in place for AI adoption, which they expect may give them immediate scale and speed over rival firms.

The most important application of AI in the financial services sector may be risk management.

AI seemingly promises to provide numerous benefits to any financial services firm that embraces it. The potential advantages include improved operational and cost efficiencies, enhanced client services, improved data and analytics, as well as increased profit and revenue generation. For portfolio managers, adding AI's high level of computational and algorithmic complexity to portfolio management, including for trade decision making and execution, means they may ultimately use AI to find alpha, build custom portfolios, improve portfolio allocation, rebalance portfolios, and mitigate risk.

It is the risk management factor that I wish to focus on, and the reason being that I believe probably the most important application of AI in the financial services sector may be risk management. AI could be a game changer for risk management. The capital markets have been hammered with a regulatory tsunami since the financial crisis and, as a result, a more stringent and prescriptive regulatory environment is having a significant impact on front office risk management technology. So, what we are seeing today is that some institutions are deciding to put artificial intelligence to work to augment their current front office risk management processes.

This where machine learning, a type of AI, comes into play. Machine learning models have the ability to crunch enormous calculations and analyze huge amounts of data with more granularity and deeper analysis, which can potentially greatly improve analytical capabilities in risk management and compliance. This can help traders make more informed decisions at not only a securities level, but across their entire derivatives book of business. By incorporating a broader set of financial, non-financial and behavioral data, AI applications in risk management could include specific functions such as identifying the right counterparty with whom to trade, discovering potential counterparty risks, unveiling additional costs within a portfolio, or identifying new trading patterns that could be used to adjust trading strategies—all in more efficient and automated ways.

Above all, throughout 2020, I think we will see artificial intelligence quickly become a much more integral part of business processes at financial institutions.

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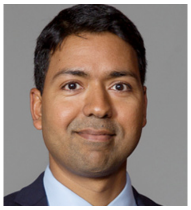
The Bottom Line: Be Proactive, Agile and Resilient

It is my strong opinion that to remain competitive in 2020 and beyond, proactivity, agility and resilience must be built into both the business and IT structures of an organization. A firm has to be able to adapt with speed and a robust sense of purpose to changing market circumstances. It also takes being tough—a few blows may come along the way. However, as long as an institution takes a proactive stance built upon the adoption of the latest in innovative and intelligent technology, it will have much better odds of succeeding.

Change is disruptive and uncomfortable, but as a growing number of market participants believe, change is essential to the continued vitality, effectiveness and performance of the capital markets. Embrace it and win.

ABOUT THE AUTHOR



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Mr. Kancharla, as Chief Strategy Officer and Executive Vice President, is responsible for corporate strategy and currently heads the Client Solutions Group at Numerix. This group is responsible for Product Management, Financial Engineering and Business Analysis. Prior to this, he has served in various roles in Quantitative Software Development, Financial Engineering and Client Services at Numerix. Before transferring to Numerix in New York City, he was the CTO for Numerix Japan LLC in Tokyo, heading the Pre-Sales and Financial Engineering teams for Asia. Prior to joining Numerix in 2003, Mr. Kancharla also worked with Merrill Lynch and GE Capital in Quantitative Finance and Product Development roles.

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