# Looking ahead– securities & capital markets in 2020

The global securities and capital markets industry in 2018 was a $671 billion[1] business across the buy side, sell side, and market infrastructure firms. Capital markets, across equity and debt, fund over 50% of the economic activity for most developed markets, with the size exceeding GDP (Gross Domestic Product) for many of these countries. The sell side, comprised of mainly investment banks, accounted for 33% of the revenue in comparison to 53% in 2006, while the buy side comprised of asset managers, hedge funds, and private equity, accounted for 49%. Market infrastructure comprising exchanges, custody, clearing and data and analytics accounted for the rest. The sell side market share is expected to further decrease to 31% in 2020, while the buy side will be 45%. Market infrastructure firms like exchanges, clearing houses and data providers are expected to capture 19% share, led by the growing transition to electronic exchange trading and centralized clearing for all asset classes. The definition and scope of market infrastructure is changing in line with the growth opportunity, with many firms venturing into adjacent areas like data analytics, as well as providing utility offerings in client onboarding, reconciliation, regulatory reporting, and data management.

Investment banking revenues have been in continuous decline over the last decade while buy side and market infrastructure firms have seen an increase in their market share and revenues. Average margins at a product level continue to be under pressure across the industry, irrespective of the type of firm. Top 10 investment bank profitability[2] has shown some recovery due to the sustained cost reduction initiatives. Return on Equity (RoE) is, however, lagging far behind with average ROE in 2015 measured at 10% as compared to near 20% levels prior to 2008. Asset manager profitability has remained flat as percentage of AUM (Assets under Management) for the past 5 years even as AUM has grown consistently over the last 10 years since 2007 to reach a record $79 trillion[3] in 2018.

The industry has been reshaped by several market forces across the economy, geo-political environment, business models, M&A, regulation, technology change, and competition. Technology driven by digitalization and modernization across industries is a common denominator for the sweeping transformation. Disruption will be a key factor, with mainstream adoption of blockbuster emerging fintech themes leveraging AI/ ML, blockchain and crypto assets, and APIs. Firms that understand market forces, their implications, and respond assertively to key imperatives will be able to adapt the most to the new age that beckons securities and capital markets in 2020 and beyond.

## Securities and capital markets industry – Market forces

The Securities & Capital Markets industry is undergoing sweeping change with several key forces impacting the key industry participants across the buy side, sell side, and market infrastructure which are fundamentally altering the landscape.

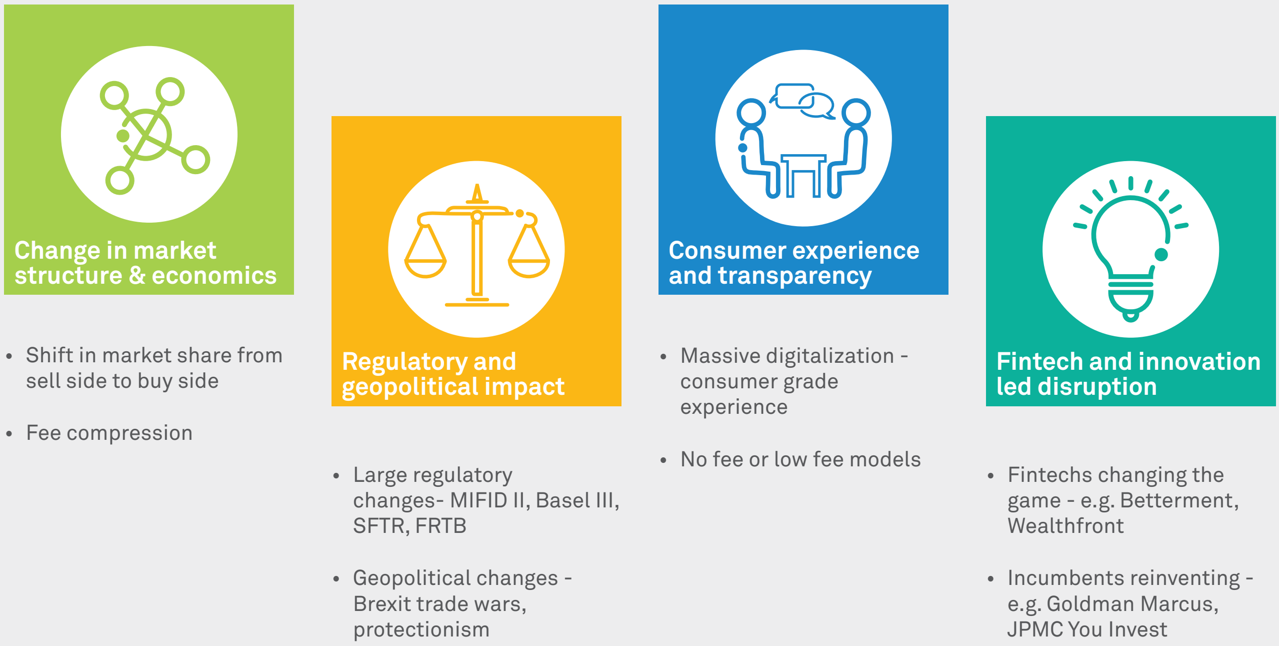


Figure 1- Wipro POV: 4 key forces impacting securities & capital markets

## Implications from the market forces

### Change in the market structure and business economics

The securities and capital markets industry has been reshaped by a combination of several events following the 2008 financial crisis. The sell side has seen destruction of the existing revenue pools and compression in fees as the markets have moved towards electronification and dealing with increased customer expectations, while the sell side market share[1] has reduced from 48% in 2006 to 33% of capital markets revenue in 2017. The above has been driven by a combination of shrinking business lines, reduction in capital intensive activity, consolidation through mergers and acquisitions, and fee compression. The buy side has been impacted by the fee compression as well with the shift in product mix towards passively managed index funds as opposed to actively managed funds which relied on alpha. The massive liquidity in global financial markets due to the quantitative easing (QE) strategy adopted by the US Fed resulted in the continued outperformance of many global markets and indices, feeding into this trend. However, the buy side has increased its market share to 49% in 2017 from 39% in 2006.

**Trading revenue at Barclays and Deutsche Bank, two of the largest European investment banks in 2008, continues to be significantly lower[4] in 2018 compared to the peak levels even 10 years after the crisis. Barclays' revenue from fixed income, currency and commodity (FICC) trading in 2018 is expected to end up at 78% of its peak in 2009.**

The implications of this fundamental shift in the market pecking order are enormous.

1. Investment banks need to focus on **product innovation** to retain and to expand their market share within reduced revenue pools
2. Leverage **utilities for non-core business functions including post trade** processes to be more cost competitive and agile

3. Change **operating models to be more lean and agile** embracing digital capabilities and client-centric offerings

4. Transition to an **information and intelligence driven business** to identify and target profitable market opportunities (revenue pools) at a granular level

## Regulatory and geopolitical changes

Regulatory and geopolitical impacts on the banking and securities and capital Markets industry have increased significantly over the past decade. EU regulation has continued its relentless pace while the US political environment has resulted in some pause for institutions. Regulations like Basel III, FRTB (Fundamental Review of Trading Book), MiFID II (Markets in Financial Instruments and Derivatives), SFTR (Securities Financing Transactions Regulation), and GDPR (Global Data Privacy Regulation) have raised the stakes for all global financial institutions across the board. Regulators are also trying to create a common framework through organizations like the Financial Stability Board (FSB) for regulatory supervision and banking standards, which will help in harmonizing the rules and reporting/ data formats.

Geopolitically-driven changes in regulation like those caused by Brexit and the protectionism trigged by trade wars between the US and China could greatly alter the momentum and business prospects for all financial services firms through their impact on global asset values, cross border trade, and flow of capital. The growth of China and its influence on the global financial sector is another market dynamic that has not yet fully unraveled, given the vast equity and debt capital markets holdings of the Chinese sovereign and state-sponsored companies. This is not to discount the impact that the Chinese capital markets can have on global financial stability, given their position as the 2nd largest globally despite limited foreign participation and underdeveloped market infrastructure and regulatory standards.

**Example - MiFID II regulation while increasing the transparency for clients/ investors is expected to raise costs for banks, asset managers and funds, even as margins are getting squeezed by the trend towards passive assets. A survey of members of the CFA Institute, the premier global association for investment professionals, in November showed respondents expected to pay a median of 10 basis points of assets under management for research each year. This equated to $1m costs for every $1bn of assets.**

Regulatory impact has been a constant in the industry and therefore the implications are hard to ignore even for the boldest.

1. **Deep knowledge and expertise** needed to keep track and respond to the continuous stream of regulatory changes and requirements

2. Adoption of platforms that **incorporate key reporting / disclosure requirements**

3. Leverage **data and insights** at scale using new age technologies and expertise to drive the risk and compliance agenda

4. **Digital driven business models** to mitigate the risk involved in working with inflexible and opaque legacy environments

## Expectations on consumer experience and transparency

Consumers expect frictionless transactions and personalized interaction delivered in a unified way across channels. The expectation has been shaped by the trend of digitalization across industries and demographic shifts towards millennials who are more adept at leveraging online and mobile channels. Securities and capital market firms are by no means immune to this expectation, with a growing population of users measuring their interaction with brokers, wealth managers, and financial advisors based on their experience with online retail shopping at Amazon or travel booking on Expedia. The institutional side is seeing a similar shift in expectations in tune with the changing demographic of traders, portfolio managers, compliance teams, financial advisors, and research analysts.

**Example - Goldman Sachs has merged its digital retail banking platform, Marcus, with its investment management unit. The bank is thought to be considering the creation of a digital wealth management product to appeal to millennials and mass market customers. Marcus differentiates with its digital centric experience, use of AI to drive value, and platform-based approach to banking.**

The change in expectations is driving a transformation across all the participants with implications across business and technology.

1. **High level of client centricity** as opposed to product centric approach of the past
2. **New business models driven** by technology and digital offerings that appeal to millennials and digitally savvy stakeholders
3. **Modernization of legacy platforms** to enable more agile business with sell side leveraging market infrastructure and technology/ data providers while buy side aggressively renovates existing outdated core systems
4. **Low fee or no fee models becoming popular** in contrast to high touch high fee premium
5. **Platform based models** where clients get the benefit of transparent pricing, menu-based offerings and retail shopping experience for financial products
6. **Data and insights** being used to drive client experience

## Fintech and innovation led disruption

Innovative and agile new technology-led offerings have reinvented financial services with unconstrained and customer-centric capabilities. Fintechs (aka insurgents) have raised the bar for incumbents with low to no fees, mass market product appeal, and differentiated product-service experience delivered on platforms centered on digital, cloud, analytics, blockchain, and AI/ ML. Blockchain is an exemplar, holding out vast possibility for disruption — with the promise of real time settlements, immutability of the data, and greater security for all participants. The impact of blockchain applications is far from mainstream, but the range of use cases and their applications has been growing in proportions. For example, innovative solutions like Securities Token Offerings (STOs) and Initial Coin Offerings (ICOs) threaten to undermine and bypass traditional exchange ecosystems and funding models with blockchain as the fundamental ingredient. The use of technology as an enabler is fundamental to the new-age market disruptors and they are quickly rewriting the rules of the game even as regulators grapple with supervision of shadow banking. Incumbents are struggling to follow suit, hobbled by their inflexible legacy architectures and traditional workforce models. However, these traditional firms are gradually making progress with fintech-inspired offers and some are even partnering with the insurgents while others are aggressively shopping for acquisitions.

**Example - Robinhood, the commission free stock trading app launched in 2015 has already surpassed E-Trade, a brokerage giant in the US, in number of users with 5 million plus accounts. Robinhood has used its innovative business model with mobile only digital user experience and no commission trades to disrupt the retail brokerage industry. JP Morgan has followed suit with a new service "Your Invest" to its 47 million mobile and online customers offering 100 free trades a year and free research from its investment banking arm.**

Fintechs and the wave of innovation they ushered in pose an existential question to incumbents. Implications can be ignored only at great peril to their business and stakeholders.

1. **Creation of internal innovation organizations** ring-fenced from traditionalists
2. **Implementing new ways of working** across the organization
3. **New business models driven** by technology and digital offerings that appeal to millennials and digitally savvy stakeholders
4. **Extended ecosystem** leveraging APIs to integrate with fintech offerings and provide choice to existing customers while attracting new customers
5. **Acquisition of fintechs by incumbents**
6. **Partnership / consortium** to mitigate the threat and counter the success of fintech platforms

## Perspective on the key imperatives

The 4 forces in securities and capital markets and their implications to firms require a complete rethink for several industry participants, while others will need significant course correction. Maintaining status quo, keeping the lights on, and traditional siloed approaches will no longer suffice for long term sustenance and leadership. The following is a perspective on the key imperatives for firms operating in this dynamic environment.


Figure 2 - Wipro POV: 5 key imperatives for securities and capital markets

## Customer journeys, digitalization, and cloud

Firms that are embracing digitalization need to start with customer journey mapping to drive client centric offerings and consumer experience in line with best-in-class consumer digital offerings. Digitalization cuts across front, middle and back office and across buy side, sell side and market infrastructure. It involves the use of strategic design capabilities, new ways of working, UI/ UX (user interface/ user experience) design, integration of data sources and insights to drive contextual responses, use of AI (Artificial Intelligence) and RPA (Robotic Process Automation) for intelligent interactions, and omnichannel delivery. Modernization of legacy platforms and architecture to support digitalization is yet another strategic imperative for incumbents steeped in these environments over last few decades. Digitalization with journey mapping will drive consumer grade experience, new disruptive offerings, expand market access, and help drive customer centric culture.

**Case in Point - Designit, a Wipro company, helped Bank Leumi, Israel's largest bank, launch a mobile only digital bank in Israel, Pepper Bank, with its human-centric design capabilities. Pepper Bank has set the standard for next generation banking acquiring over 100,000 users within a year of its launch. The product plans to add a new feature, Pepper Invest, making investing just as easy as shopping.**

The cloud is a key enabler for delivering new age consumer experience through its inherent capabilities to support digital platform development, on demand and always on features, and deployment in a continuous delivery model. Prominent cloud platforms for IaaS and PaaS come with the ability to deploy on demand infrastructure and are amenable to modern agile development and application management processes. While shared functions and non-core applications in areas like post trade are strong candidates for moving to public cloud, core solutions in trading, portfolio management and risk management can move in a phased manner based on the institution size and maturity. **The cloud helps firms scale up and scale down faster, deliver user-centric innovation faster in rapid iterations, and reduce management and change costs drastically for all institutions.**

**Case in Point - Wipro is helping a large retail brokerage with its modernization and cloud journey by implementing a microservices based approach with containerized deployment of workloads on Pivotal Cloud Foundry. The initiative includes the development of the cloud operations layer and adoption of new engineering practices for Agile DevOps CI CD. Outcomes have been strong with 100% uptime on the platform in the first year and 50% improvement in IT operations efficiency.**

## Amalgamation of Data, AI and RPA

Regulatory mandates and the digital transformation imperatives have resulted in a massive increase in data stored across the organization. Asset managers, investment banks, and market infrastructure firms are heavily reliant on capabilities to store, manage and take advantage of the intelligence that can derived from the vast data on customers, products, and transactions. This requires advanced solutions around big data platforms, analytics driven by data signals, AI / RPA solutions that use the data and associated patterns. Firms need to focus on data governance and data quality management to ensure that data is kept up to date and reliable for delivering analytics and AI/ ML based propositions. This is important in order to address regulatory reporting requirements, managing risk and compliance, and shaping customer experience.

**The amalgamation of data, AI and RPA helps clients with faster processing, value addition through AI / robo-advice suggestions, reduced errors and better user experience.**

**Case in Point - Wipro has implemented a POC for leading investment banking using the Wipro Holmes AI platform for corporate actions income processing. The solution leverages Holmes bots to extract actions data and contextualize the processing of corporate actions using Natural Language Processing (NLP) capabilities. The solution has helped with 40% operations cost reduction with additional interest cost savings by preventing delays in processing.**

## Building trust and resilience

The market forces on consumer experience and regulatory impact make for an odd couple when it comes to shaping the landscape for trust and resilience. Firms embarking on digital transformation and cloud migration need to be deeply aware of cybersecurity threats, regulatory mandates, and macro changes. They must develop a comprehensive approach to mitigate the issues and challenges while standing astride the technology and user experience evolution.

**Building trust helps in reducing the security TCO, lowers the risk level in the organization, strengthens security posture, and delivers more predictability in managing the evolving security threat environment.**

Regulations like GDPR in the UK and NYCRR (NY DFS Cybersecurity Regulation) in the US reinforce the message of building cyber-resilience. Cyber-threats may lead to leakage of customer data/PII, compromise of trading systems, and deterioration of market infra performance and availability resulting in massive direct and indirect damages. To manage cybersecurity, the imperative is to create a multi-disciplinary approach that combines risk and compliance, IT, and security capabilities and deliver platforms that address the broad security needs. Firms need to have access to deep specialization in each of the security domains like identity management and Data Leakage Protection (DLP) along with integrating to risk and compliance systems.

**Case in Point - Wipro implemented a managed services security solution for a leading capital markets firm for the IDAM (Identity and Access Management) and Advance Authentication platform. This involved an integrated approach across key technology components delivered through an SLA driven managed services model. The approach delivered significant efficiencies and help free up client resources for improved operational capabilities.**

**Resilience is a key characteristic for businesses as evidenced by the 2008 financial crisis and its aftermath. It continues to hold center stage as regulation, global, political and economic changes swirl around in a heady cocktail.**

The process of globalization has undergone fundamental changes as countries stumbled through trying times in the decade after the financial crisis. Many of them have turned to protectionism under the persistent shadow of trade wars along with changing political and governance doctrines in key economies. Brexit has been looming large on the EU and British economies. Regulation continues to be complex with a panoply of new rules and amendments. As Stephen Covey said, “If there is one thing that is certain in business, it’s uncertainty.” Nothing exemplifies this more than global environment in this age. Capital market firms need to be fully cognizant of the impact of this environment on their operating models and business outcomes. They need to have an integrated view of the impact and develop action plans that can be executed rapidly based on different scenarios to maintain their business resilience.

**Case in Point - Wipro helped a leading market infrastructure firm with specialized skills and compliance testing processes to comply with MiFID II (Markets in Financial Instruments and Derivatives) rules for LEI (Legal Entity Identifier) usage within the timeline. We are also supporting the client with the next stage of the MiFID compliance journey with additional compliance testing.**

## Utilities and managed services

The securities and capital markets industry is seeing adoption of utility and "as a Service" propositions to help drive cost savings through mutualization, flexibility through as a service, and value unlocking from legacy platform monetization. The change in the market structure and economics in capital markets is a big contributor. The trend is towards the outsourcing of vertically integrated platform and process capabilities in areas like post trade, where the differentiation is limited, while legacy platform investments drain resources and impact business resilience. Examples of existing and potential utilities/ "as a service" offerings include post trade services, client onboarding, data management, collateral management, and research. Market utilities require the participation of several parties including the industry players, technology platforms, and service/market infrastructure providers. Managed services models, on the other hand, can be delivered through a trusted partner in a bilateral construct. This is a two-way push for capital market firms as they consume more services in "As a Service" and at the same time offer similar propositions to their end customers.

**Utilities and managed services models improve operations through faster, more accurate processing, economies of scale, variable cost model, sharing of change costs, and quicker adoption of emerging technologies.**

**Case in Point - Wipro guided the implementation of an enterprise reconciliations utility for a leading investment banking client. This involved creation of the utility blueprint, demand-supply management, governance and chargeback process, and technical leadership for implementation of the utility components. The solution resulted in 30%-unit cost savings and increased auto matching rates by 200%.**

## Creating an innovation ecosystem

Fintechs have led with digital and mobile first propositions to break into traditional business centers in capital markets like asset management and retirement solutions (e.g. Betterment, Wealthfront), brokerage (Robinhood in the US, Folio in Japan, TigerBrokers in China), alternative investments (e.g. Artivest), and sell side research (e.g. Contix). Aside from fintechs, other innovative startups with technology propositions based on digital, cloud, big data, AI/ ML, RPA, blockchain, and APIs/Open source are rapidly changing the technology landscape and the rules of the game. Capital market firms are adapting to the new world with a combination of different strategies: strategic and minority investments in fintechs/tech startups, acquisition of fintechs, creating their own innovation centers and fintech-inspired offerings with ring-fenced talent and branding, workforce transformation to retrain existing teams, and partnering with fintechs/startups to integrate their solutions in existing products or new ones. Crowdsourcing is growing in popularity to access the talent that is needed to drive innovation and solutions based on emerging fintech themes. Capital market firms are looking at hybrid crowd models in particular to accelerate their business reimagination and act more like the nimble startups and fintechs they are competing with.

**Creating an innovation ecosystem will result in shortening the innovation cycle time, expanding market access for existing products to new customers, offering fintech solutions to existing customers, and avoiding risk of complete disruption by insurgents.**

**Case in Point - Wipro has partnered with a leading global investment and private bank to implement a crowdsourcing program across development, analytics and design initiatives. We have integrated our Topcoder crowdsourcing platform into the innovation and change agenda at the bank, accelerating a range of programs across big data, data sciences, testing, and UI/ UX design and development.**


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