CFA Society India

FINTECH

NEWSLETTER

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I have two basic rules about winning in trading as well as in life.

1. If you don't bet, you can't win.
2. If you lose all your chips, you can't bet.

Larry Hite

INDEX

MESSAGE FROM THE BOARD

Chetan Shah, CFA
(Secretary, CFA Society India)

Change is the only constant. And continuous learning is the only way to keep up with change. Take the examples from the capital markets. A significant portion of the trades on exchanges are driven by algorithms with couple of dozen types of orders available to traders & investors from the exchanges, brokers & third parties just to buy or sell securities. Apart from the conditional and time bound orders these will include programs to execute butterflies and condors. Investors too are automating their decision making process based on valuation models of their individual sector analysts. These systems will incorporate latest financial announcement like earnings warnings or upgrades or other developments ranging from global supply chain disruptions, to political developments in key countries around the world & their impact on global trade, to aligning with themes like ESG and so on. Even the way financial metrics are presented need to be recalibrated to make economic sense as soon as they are released; what with companies taking advantage of flexibility provided to them for financial reporting purpose. Investment decision making functions have become 24x7 activities and encompass anything and everything. Those who can do it properly and at speed will have an edge.

Continuing Professional Development takes prominence across CFA Societies round the globe. India Society has already conducted around 120 events & webinars during the current financial year. Thanks to the passionate volunteers, most of the city chapters of IAIP have created an annual marque event or "property" around their regions. Following the lines of India Investment Conference held every January in Mumbai, Value Investors' Pioneer Summit, Fintech Conference and Corporate Governance Summit have become most sought-after conferences in New Delhi, Bengaluru and Pune respectively. The Chennai chapter added India Fixed Income Summit to this list recently. Without doubt members as well as non-member attendees get valuable insights at such events as well as opportunity to interact with industry leaders and network within their fraternity. It also increases visibility for CFA designation; thereby indirectly increasing the value of the charter.

Currently, we are around 3000 members. But looking at enrolments for the program, this number is going to increase dramatically over next 5 years. Hence it is imperative to institutionalise systems and processes across the organisation, building upon the culture of trust, mutual respect, teamwork and volunteerism. While we have come a long way in this journey, it is an ongoing process. One guiding principle for self-evaluation is asking if we are better than yesterday? The most likely answer is affirmative, but we should not stop there. With lot of labour and emotional capital invested by most of us over so many years, IAIP as an institution should remain stronger for generations to come.

CFA Society India

COVER STORY 1

FINTECH: THE GROWTH ENGINE

Jitendra Kumar, CFA
(Member, Public Awareness Committee - CFA Society India)

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Introduction

2019 was another strong year for the financial technology industry. Fintech startups garnered around $3.8 billion in 2019 in India, the highest private placement funding amount raised by any one sector. Though the Indian economy is going through a slowdown, fintech seems to be beating the trend by witnessing consistent increases in funding The increased focus on cashless transactions and the government's push towards a formal economy have opened a number of new opportunities in this space. India is on the cusp of a digital revolution.

So, how do you define Fintech? According to Financial Stability Board (FSB), "FinTech is technologically enabled financial innovation that could result in new business models, applications, processes, or products with an associated material effect on financial markets and institutions and the provision of financial services". So, under the umbrella of FinTech, with the help of technology, the startups and incumbent financial institutions are solving the age-old problems of banking and financial services industry with new products and services. As described above, the fintech space is attempting to solve multiple problems and they can be categorized into following broad categories:

Payments and money transfer

Mobile-based payments such as wallets, person-to-person (P2P) transfer apps and mobile point-of-sale (PoS) applications fall under this category. In 2019, Paytm alone raised $1 billion in November 2019 from US-based T Rowe Price, Ant Financial and SoftBank. According to data from Tracxn, payment-based startups collectively raised $1.68 billion over 29 fundraising rounds in 2019, 4x more than what the sector raised in 2018, when 28 transactions brought in $484 million. After government's demonetization drive in 2016, there was a phenomenal boost to the number of digital transactions. This was further complemented by other government's initiatives like 'Pradhan Mantri Jan-Dhan Yojana' (PMJDY), a scheme for financial inclusion by providing bank accounts to all. With Jan-Dhan accounts linked with Aadhaar and Mobile numbers (JAM trinity), Government is providing direct subsidies to underprivileged sections of society. It is believed that the removal of middle men has already saved thousands of crores.

Additionally, this has led to an exponential increase in digital transactions. National Payment Corporation of India (NPCI), an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA), is an umbrella organization for creating a robust payment and settlement infrastructure. Their products Rupay cards, Bharat Interface for Money (BHIM) and United Payments Interface (UPI) are already quite popular. The UPI system is used by several banks and mobile payment apps. NPCI has several other products and initiatives.

RegTech

Regulatory clouds are hovering over the industry in the face of growing availability of colossal volumes of data for large financial corporations. The big financial behemoths are expected to invest heavily in the new technology in coming years, not only to upgrade internal processes and operations but also to abide by increased regulatory compliance as well. The evolving technology has already helped in improving transparency and timely reporting. Now, the adoption of next gen technologies like cloud computing, big data, artificial intelligence and block chain will institute systematic changes across the board. They will help to monitor business processes, regulatory reporting, protecting customer interest and fraud detection. These technologies have advantages like shared utilities between firms, advanced analytics that can interpret large amounts of structured and unstructured data and interactive technology (Robo handbook) that allows firms to understand the impact of regulations on their systems and processes. The Indian startup space is expected to witness significant investments in this area.

For example, FixNix, an Indian firm that partners with RBI, offers solutions in the area of governance, risk and compliance (GRC) to institutions like co-operative banks, lending institutions and payment banks.

Alternative lending and capital raising

This is expected to be one of the most promising areas for growth in India. There is a huge unbanked population like small businesses whom the traditional banks do not finance. Additionally, there is a large number of SMEs and MSMEs who are credit hungry to meet their working capital needs and in need of short term financing. The alternative lending space is targeting to cater to this segment with effective use of technology. Peer-to-peer lending (P2P) and crowd funding are most prominent under this category. The P2P lending startups offer online platforms to match lenders with borrowers. While traditional banks rely on credit scores from the credit bureau, the P2P lending startups use algorithms and integration with India Stack and Aadhaar. The credit profiling by P2P lenders uses a lot more data points (like social media) than that of a credit bureau and tries to quantify not only the ability to pay but also intention to pay by the customer. Further, the entire credit profiling can happen in a matter of 30-45 minutes enabling quick customer onboarding.

The P2P lending is said to be a form of crowd funding, but along with debt financing, crowd funding platforms raise equity capital too for startups. The startups cover huge spectrum, from companies offering seasonal loans to companies extending loan for working capital, raw material, etc.

In October 2017, the Reserve Bank of India (RBI) released guidelines for NBFCs to operate P2P lending platform defining its scope of activities, transparency and disclosure requirements adding more clarity and legality to the business. This was further followed by increasing the limits imposed on peer-to-peer lenders to ₹50 lakh from ₹10 lakh earlier. The limit is what an investor can invest across all P2P platforms. As of Sep 2019, according to Tracxn, there are 484 alternative lending startups in India.

Wealth management

Post demonetization period, Indian household savings are seeing, to some extent, a shift from physical assets to financial assets. They are also witnessing a move from fixed deposits to mutual funds and (to a lesser extent) direct equities. As these shifts happen, more consumers are expected to adopt investment management platforms to execute/manage their investments across instruments and FIs. The wealth technology Industry in India is witnessing the emergence of startups with innovative technologies and business models. Growing personal wealth, increased adoption of mobile & digital channels, reduced asymmetry of information between small & large financial institutions and investors, are some of the factors propelling the industry forward.

There has never been a better time for wealth management advisors as both traditional and robo-advisory services have started gaining popularity. Traditionally, specialized investment advisory services were the preserve of only high net worth individuals. However, the emergence of tech-enabled wealth managers has made it possible to deliver highly-specialised investment advisory services targeting the mass segments. Robo advisory is no longer perceived as a disruptive threat to traditional wealth management practice and is rather seen as something that helps establish hybrid models by blending technology and human touch. As the demand for robo-advisory and technology-driven wealth and portfolio management tools grows, financial institutions are investing significant money and effort to integrate these offerings with their existing workforce. The hybrid model is meant to provide a level of comfort not seen before that uses only digital services while still catering to rising consumer interest in WealthTech.

Robo-advisory platforms can be designed to serve this huge market cost effectively by offering it as an added layer to existing services for mass-affluent, HNI and UHNI clients. Factors such as high smart phone and data penetration rates, the introduction of Aadhaar based e-KYC, Jan Dhan bank accounts for all and a big push to digital payments are paving the way for a more formal economy. Digital players like Paytm Money and others are eyeing significant penetration using their technological prowess to serve untapped segments with mutual fund SIPs of lower value.

There is enough scope for different business model to co-exist. A few companies that took the investment advisory route include Invezta, Zerodha, Orowealth, and Clearfunds, while others focusing on distribution include the likes of Scripbox & Funds India.

Pros and cons of using robo-advisors

Pros	Cons
Lower cost	Standardized offering
Lower asset thresholds	Lack of personalized advice
No errors, emotional bias and accurate – algorithm based	Incomplete Information (not meet high standard of care)
DIY appeals to Millennials & self-directed users	Lack of personal interaction
Greater Fee Transparency	Simplistic assumptions

Insurtech

The insurance technology sector is witnessing increasing interest from investors who are pouring money into new players, while incumbent insurers are offering technology-based solutions. Insurtech is leveraging on offering customizing insurance solutions and reducing insurers' costs. However, technologies like artificial intelligence (AI) and machine learning (ML), big data, analytics and blockchain can bring in efficiencies in terms of customer on-boarding, claim settlements.

This space is currently dominated by nascent startups which operate across various facets of the insurance life cycle – lead management, underwriting, sales and distribution, claims and renewal. Digital insurance advisors are web/application-based service providers who aggregate and sell product offerings of both traditional and new-age digital insurers on their platforms via a commission-based revenue model. The key value propositions offered to the customers are convenience to access and compare products from multiple insurers on the same platform, and an end-to-end, seamless digital experience across the insurance lifecycle.

Currently most funding in Indian insurtech startups are online insurance broking / aggregators. Startups like Policy bazaar and Coverfox fall in this category.

Banking technology

While traditional banks are still trying to acquire technology chops, the new-generation digital banks and fintechs are turning the table by disrupting the entire landscape. New digital forces, such as machine learning and AI, big data analytics, robotic process automation, open banking, blockchain, chat bots, and internet of things, have repositioned technology from being a business enabler to a business driver.

With technology eradicating physical boundaries, banks and financial institutions have also been able to supplement and boost services such as customer acquisition, online shopping, travel/entertainment services and more. This has led to the rise of AI-driven marketplaces where customers and banks are interacting in ways never seen before. We are experiencing a digital shift in all walks of life. As we progress, AI will ultimately drive this shift with the ultimate goal of improving customer engagement and overall experience. These are two crucial factors measuring business success, and they can be perfected by implementing AI to study historical data with regards to customer habits and preferences. These actionable insights into the evolving new-age customer enable the service provider to differentiate themselves from competition. Conversational AI (a chat bot that can interact at near human level) plays a key role here. What initially began as a simple customer response system has become a dynamic virtual assistant that every leading bank is implementing. HDFC Bank Chat bot EVA, SBI -SIA, YES mPower, YES Pay Bot and Digibank are just a few notable examples. Most of these are developed and managed by startups in this space.

Conclusion

As some sectors within fintech have reached some level of maturity there are other sectors that are still at a nascent stage and promise a huge opportunity in the Indian landscape. In 2018, India ranked second globally on fintech adoption, with its percentage of fintech users at 57.9%. Although India's adoption rate lags behind China's 83.5%, it has surpassed that of developed countries, which stands at 34.2%. The fintech innovations are expected to cause major disruptions in financial services industry. Some incumbent financial institutions view fintech startups as partners, while others see them as competitors. They are either collaborating with the startups or making technology investments themselves.

Mr. Umesh V. Kudalkar, CFA, Director at Multi-Act Trade and Investments opines, "I think smart fintech entrepreneurs might take off exponentially, leaving the incumbent bureaucratic financial services firms behind. 'Collaboration wins over competition' may be a politically correct statement, but [it] may not be a sustainable phenomenon. Smart fintech entrepreneurs may collaborate just for the sake of 'Proof of Concept' for raising venture capital funding. Remember how in 1980s ... startup Microsoft used incumbent IBM as a launch pad?".

It is with the innovation from the fintech sector, along with strong support from the Finance Ministry, regulators and the central bank, that real economic benefits can be brought to the Indian population.

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CFA Society India

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Jitendra is a CFA Charter holder from CFA Institute, USA, MBA from Alliance B School. He has more than a decade of experience in Investments management & Wealth management space. Currently he is working with HDFC Bank in Private Banking Group.

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Vivek works in the area of Forex Options Trading with Bank of America. He has 11+ years of industry experience. He is a Computer Science Engineering graduate, holds MBA from Institute of Management and is a CFA Charter holder

COVER STORY 2

WHAT CAN AI AND BIG DATA DO FOR FINANCE?

Larry Cao, CFA
Senior Director of Industry Research, CFA Institute
Author of AI Pioneers in Investment Management report from CFA Institute

AlphaGo brought artificial intelligence (AI) out of computer labs and into the living room.

From October 2015, when the AlphaGo AI first beat a professional human competitor, to January 2018, several months after it defeated Ke Jie, the top-ranked player in the world, AI's popularity had tripled as measured by Google Trends.

Investment professionals have watched all this from the sidelines with a mixture of excitement and anxiety: Will AI beat humans in investing too?

The AI Pioneers in Investment Management report from CFA Institute addresses this issue in detail by examining the trends and use cases of AI and big data in investments around the world.

Let me break down some of the report's major revelations.

What can AI and big data do?

AI and big data are enabling technologies. Together they help us accomplish two things:

- Process new data that we did not have access to or couldn't process before.
- Process data in ways that we weren't able to before.

Thanks to advances in natural language processing (NLP), computer vision, and voice recognition, we can now sort and analyze more and more text, imagery, and spoken language through automation. AI programs in these areas have already outperformed the average human.

So what can we extrapolate from these developments? That many repetitive and rudimentary tasks – transcription, for example – will increasingly be handled by AI programs.

Big data's popularity is very much a function of these advances and their expected evolution. AI programs target what's called unstructured data – social media postings, depersonalized credit card transactions, and satellite imagery, for example – that mainstream analysts rarely used before. This new, alternative data forms much of the new frontier in investment management.

By harnessing advances in machine learning and deep learning, we can find new and more accurate relationships from this data. Much of today's data analysis still relies on linear programming techniques that place constraints on the variables and their assumed relationships. Machine learning and deep learning have the potential to remove these barriers in many cases.

What can AI and big data do in investing?

AI and big data represent the future of investing. Their broad application is likely to usher in perhaps the most significant change in the history of the industry. Why? Because with AI and big data:

- Analysts will be able to perform more thorough analysis.
- Portfolio managers will make better informed decisions.

We now not only have access to more and different varieties of information, but also more timely – even real-time – information. Put another way, as analysts we no longer have to go the extra mile to turn over a rock. We can apply satellite data and look under many unturned rocks much more quickly.

For example, in the old days, if we wanted to independently verify a store's performance, we might sit in the parking lot and monitor car and foot traffic. In some ways, that approach went too far. In others, it didn't go far enough. After all, we can only sit in so many parking lots. But big data gives us efficient ways to maximize firsthand data. Rather than staking out car parks, we can buy satellite imagery of lots of store parking lots – indeed, as many as we can afford.

While Tesla's production information may not be available until its official release, we can estimate staffing levels based on publicly available cell phone data. In fact, that's precisely what Thasos Group did. By gauging the number of cell phones present near Tesla's plant, they independently verified that Tesla was running around the clock with three full shifts.

Elsewhere, analysts at Goldman Sachs overlaid publicly available labor information on top of the geometric data of production sites to estimate the market power of manufacturers in aggregate.

Add machine learning and deep learning to big data, and we can now crunch the data in countless new ways. This has vastly expanded the applications of traditional quant methods. We can feed the model input, and the model gives us an output.

Of course, we need to set the parameters properly, but the process makes it possible to capture relationships that might previously have been unknowable. On the downside, there can be a problematic black box effect: The analysis may not yield a true window into the relationships between the input and the output.

How should investment professionals respond?

Having read all that, should we now go freshen up our computer programming skills?

It would be commendable. But we're probably better off prioritizing two things:

- Taking our investment skills up a notch.
- Developing a sufficiently broad knowledge base to work well with colleagues/collaborators in technology.

Why? Because the successful investment professionals and teams of the future will be strong in both artificial intelligence and human intelligence. These teams will have both an investment and technology function as well as an innovation function.

The world is getting increasingly complex and specialized. The days of multi-talented operators who do everything on their own are largely over. The expectation for future investment professionals is that they will need T-shaped skills – specialized investment knowledge along with enough technology and "soft" skills to work with the data scientists on their teams. Tech professionals on the investment team will also need to know about investing.

Of course, if you're the rare talent with sophisticated knowledge of both investments and technology, more power to you. Just remember that you'll need to spend twice as much effort recharging yourself with continuous professional development.

The main takeaway is clear: AI will transform investment management, but it is not the mass extinction event for human investment managers that many fear. Rather, those investment teams that successfully adapt to the evolving landscape will persevere. Those that don't will render themselves obsolete.

The future is here. And it is in our hands.

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Download the report - https://www.cfainstitute.org/en/research/industry-research/ai-pioneers-in-investment-management

About Larry Cao, CFA
Larry Cao, CFA, senior director of industry research, CFA Institute, conducts original research with a focus on the investment industry trends and investment expertise. His current research interests include multi-asset strategies and FinTech (including AI, big data, and blockchain). Larry has more than 20 years of experience in the investment industry. Previously, he has served at HSBC, People's Bank of China, Munder Capital Management and Morningstar. Cao was a visiting scholar at the MIT Sloan School of Management and holds an MBA from the University of Notre Dame.

INDUSTRY SPEAK

AI PIONEER IN INVESTMENT MANAGEMENT

Industry Expert: **Satish Betadpur, CFA**
(Managing Director, Head of Investments at State Street Global Advisors)

Interviewed By: **Shivani Chopra, CFA**
(Member, Public Awareness Committee- CFA Society India)

Asset management industry is in a period of rapid change. Various factors like change in investor preferences, regulatory developments, fee compression, evolution of fintech, etc. are driving this change. In order to gain more insights on the latest trends in integrating AI in financial services industry, we reached out to Mr. Satish Betadpur, CFA who is currently leading the investment research and other investment related functions in Bangalore office of State Street Global Advisors and is also collaborating actively with investment teams and CIOs globally. Read on below for this alluring conversation:

Shivani Chopra: State Street Corporation was featured in a recent CFA Institute Report as one of the "AI Pioneers in Investment Management". How exactly does identifying high impact applications of AI and integrating them in its current processes help State Street Corporation?

Satish Betadpur: State Street Corporation is one of the largest providers of custody services to the asset management industry. In addition, it is also one of the largest asset managers in the world. Thus, the company is uniquely placed in the financial services industry to differentiate itself by providing leading edge technology on a global scale.

We pride ourselves as a leading technology company. We need to provide data to our customers that should be useful to them in their investment process. We believe that the technology we have will help investment managers make better decisions, mitigate risk and generate alpha.

We utilize AL applications in multiple areas of our business and use predictive analytics to analyze investment strategies. In some of our strategies we utilize natural language processing to generate signals. Similarly, we use AI techniques to generate signals that augment traditional strategies leading to better alpha generation.

State Street Corporation uses AI applications to deliver custom news feed to portfolio managers. In the ESG space, State Street Corporation has utilized AI and machine learning (ML) to improve measurement of corporate ESG risks, ultimately to enhance investment portfolio performance.

In the securities lending area, the company has utilized ML models to optimize the business. Ultimately, State Street believes the technology will help investment managers make better decisions, mitigate risk and generate alpha.

Shivani Chopra: Fintech in Global Banking has gained a lot of importance since it promises to revolutionize the way traditional banking works. Our understanding is that rather than resting on the laurels of its 224 year history, State Street is also keen to be a "Fintech asset service". What are the steps taken so far to achieve the desired objectives?

Satish Betadpur: FinTech means innovation that leads to disruption and transformation. New technologies need to be embraced to deliver top-tier services to clients. State Street Corporation has been on the forefront of embracing new technology throughout its history. We believe that our industry is at a tipping point where one needs to focus on innovation or risk falling behind. State Street Corporation has taken many steps to help our clients thrive by way of adopting the latest technologies. I have highlighted a few below:

We have adopted blockchain and distributed ledger technologies to enhance processes in the banking industry and create efficiencies. To cut through reams of data, ML technology has been utilized. This supports the investment professional with augmented intelligence and helps in ingesting data that would be otherwise impossible.

Shivani Chopra: According to a CFA Institute survey, relatively few investment professionals are currently using AI/big data techniques in their investment processes. Why are industry professionals being slow in adopting new technologies?

Satish Betadpur: While our industry is adopting new technologies, the pace appears to be slow. There are multiple reasons for this. The asset management industry is coping with multiple headwinds – the move from active to passive management, compression of fees, the increasing concentration of assets among the larger firms, among others. New technologies need funds for developing and deploying. This fund requirement is a tough ask in these turbulent times. So firms are taking measured steps in embracing new technologies.

Many new technologies that are being deployed are focused on improving client experience such as smoother client onboarding. In addition, the technology focus has been on regulatory areas such as KYC, anti-money laundering and data privacy.

Deployment of mobile friendly client experience is another area of adoption of new technology. Technologies for front office that can help in delivering sustainable alpha are always being evaluated. These are generally not discussed openly. Quantitative investment professionals are more at the forefront of the use of technologies compared with traditional fundamental investors.

Shivani Chopra: How do you view the Asset Management Industry in regard to its scope, growth and job prospects?

Satish Betadpur: The Asset Management industry is dynamic and always requires talented folks to serve the requirements of multiple constituencies. The work we do in our industry provides direct benefits to individuals, societies and nations in general.

While the work is challenging, the rewards are equally good both from an emotional and financial perspective. The asset management industry will grow at a certain multiple of the GDP. So for emerging economies, such as ours, the industry will always grow at robust rates. Even as assets under management would continue to grow as the economy grows, the margins for asset management companies will continue to shrink as well. The margin shrinkage will happen due to multiple trends in the mid to long term. The movement towards passive investments that mimic indices will continue to gain strength in the absence of true alpha generation capabilities of asset managers. In addition to plain-vanilla passive investing, other hybrid forms of passive investing such as tilt and factor strategies should see further growth as well. The search for alpha will lead fund managers to aggressively look at alternative investments such as private equity, real estate, commodities and other asset classes.

Shivani Chopra: How can CFA candidates and aspiring asset managers take advantage of these developments?

Satish Betadpur: These trends are positive to the growth and job prospects of CFA candidates and charterholders. As far as the industry is concerned, CFA candidates and charterholders coming from diverse backgrounds with strong problem solving skills are needed. The old model of an accountant who doubles up as an asset manager will not work any longer. We need forward-looking employees who can interpret future trends. We need people who are good with abstract concepts in addition to being number crunchers. To generate alpha, we need to move from counting widgets to understanding potential seismic changes in behaviours. Also, in addition to traditional data in income statements, balance sheets and cash flow statements, alternate data sources need to be mined constantly to keep oneself ahead of the curve. This requires skills in statistical analysis and data modelling. In the passive-investment field, we need quantitative investment analysts (quants) who can work with large data sets. This requires in-depth knowledge of programming in R, Python, MATLAB and other such systems. In addition, this industry needs people who have strong communication skills.

Conclusion

AI/ML applications have the potential to revolutionize financial services industry at a breakneck speed. State Street Corporation has realized this potential early on and has been on the forefront of embracing new technologies and believes that the industry is at a tipping point where one needs to focus on innovation or risk falling behind. However, most of the players are being slow to adopt to these new changes given certain headwinds- shift from active to passive, fee compression, etc.

About Satish Betadpur, CFA

Satish has over 25 years of investment industry experience working in the United States and India. Satish worked at TIAA-CREF for over 15 years in New York and San Francisco in various portfolio management roles covering emerging markets, Japan, European equities and later as their head of global technology research. After his tenure at TIAA, Satish set up and managed research, advisory and investment management firms. Satish has dual masters in Computer Science and Mechanical Engineering from Missouri University of Science & Technology and an MBA in Finance from the University of Illinois, Urbana-Champaign. Satish also holds the Chartered Financial Analyst® designation

About Shivani Chopra, CFA

Shivani has more than 12 years of experience across private equity, investment management, corporate finance and training and has worked with corporates like Genpact and Copal Partners. A CFA Charterholder and Masters in Economics, she is presently a financial consultant at pharma startup named EOS Pharmaceuticals and also a trainer for various finance related courses.

THE ESSENTIAL GUIDE TO ROBO-ADVISORY SYSTEMS

Industry Expert: **Ravi Dasika, CFA**
(Founder, Tavaga)

Interviewed By: **Jyoti Soni, CFA**
(Member, Public Awareness Committee - CFA Society India)

Robo-Advisors have disrupted the Global Wealth Management market in the past decade. Robo-advisors are becoming famous in providing tech-enabled, user-friendly, highly personalized and affordable wealth management services to the masses. Robo advisory platforms are adopted by tech savvy investors for their completely digital and personalized services with zero balance requirement and low service cost. These platforms also provide freedom to investors to make portfolio of their choice and control it completely. Let's get some more insights about the dynamics and challenges of Robo advisory from Mr. Ravinath Dasika, Founder of Tavaga, a robo-advisory firm.

Jyoti Soni: Today, Robo-Advisory has become an indispensable part of wealth management services. How are companies like Tavaga impacting the life of an individual investor?

Ravi Dasika: Robo-advisory is the natural evolution of financial advisory services as a result of advancement in technology. As the CFA curriculum reflects, sound financial advice is about understanding the goals of an individual and matching these with the most appropriate financial instruments available. This matching process is largely rules based. An individual CFA charterholder can at best advice a few hundred customers. This limitation makes professional human advice very expensive and restricts access to only the rich who can afford it.

However, codifying the wealth advisory knowledge can take professional advice much lower down the pyramid. All Robo-advisors, in some form or the other are delivering greater quality of advice to their customers compared to the unqualified, low quality, trail fee driven salesmen they were dealing with before. This improvement in quality of advice is the greatest value that Tavaga and everyone else in the industry is delivering today.

Jyoti Soni: How Indian Robo-Advisory market is characterized in terms of customer Segments, products and scope of services?

Ravi Dasika: Robo or otherwise, all financial advisory is about helping customers achieve their financial goals. From the customer perspective there are broadly two philosophies - wealth maximisation and goal based advisory. Historically, wealth maximisation (or chasing highest returns) has been the dominant strategy pushed to customers. This style is very abstract and has failed to attract risk averse individuals who are not comfortable with the idea of risky investments.

However, with time both investors and advisors are pivoting towards a goals based approach, that allows the advisors and their customers communicate in a language they both understand.

From a product perspective, mutual funds have over the last decade emerged as the dominant instrument outpacing stock portfolios. However, this growth came at a heavy price in the form of exorbitant expense ratios. A large number of investors who have experienced the track record of several of these active funds, are now questioning these charges. As a result, of the last 2-3 years, there has been a steady growth in the passive investing products, both in the form of index funds and ETFs.

In terms of delivery of the service, there are broadly 3 models. Human only, hybrid and digital. The human only model is dominated by individuals, mostly selling regular mutual funds. The hybrid segment dominated by banks is still the largest and most profitable model. The digital only players are popularly called Robo-advisors and is the emerging segment.

Customers can be segmented into three buckets. The ones investing INR 10,000 - 50,000 a month, INR 50,000 - 100,000 a month and the ones investing over 100,000 a month. Robo-advisors are primarily focused in the first two.

Jyoti Soni: What's the competitive landscape for Robo-Advisory in India? How niche players like Tavaga, Scripbox are making space for themselves in the market, where big players like PayTM Money, ET Money have deep pockets in terms of customer's data, reach and Capital resources?

Ravi Dasika: I don't believe that the industry is in a state where Robo-advisors need to consider each other as competitors. The Indian investing space is severely underpenetrated. Considering the current average household incomes, India should have 5-7x the number of individual investors as we have today. And all of Robo-advisory, is still a single digit percentage of the market. There is space for a 100 more Robo-advisors.

And, from a customer's perspective, this is still a new space. There is little loyalty that anyone in the space commands. Most customers are today trying out multiple Robo-advisors. In this over extended bull run, it is difficult for customers to differentiate between the advisors. However, when the inevitable crash comes, customers will be able to clearly compare both the performance and the advice provided by different Robo-advisors, leading up to and during the downturn. Marketing can buy transactions, but loyalty in this business can only be earned through performance.

Jyoti Soni: What is Tavaga's Business Model? How have you created differentiators in your business?

Ravi Dasika: Tavaga's biggest differentiator is its investment philosophy. We genuinely believe that the future can't be predicted. However, we do believe that risk is real and it can be modeled and managed. So, as long as a customer's portfolio reflects their risk tolerance, they can reach their financial goals in a predictable manner.

Putting these together, we've built an app that is driven by the customer's goals and when they want to get to them. We consider ourselves successful when our advice gets out customers to their goals within their timeframe.

Our natural choice of product therefore are ETFs as opposed to active funds. And we deliver on our core value through a combination of optimal diversification and glide path investing.

Jyoti Soni: In your kind of set up, does human assistance still play a vital role for customer acquisition and satisfaction?

Ravi Dasika: There are several phases in a customer lifecycle in investing, from marketing, sales, to onboarding, advice, account management. About 90% of all tasks that hybrid advisors like banks perform are automated. There is still some human intervention because of the unique needs of some customers. Satisfying these through technology is not commercially viable. So, we retain human intervention there. But, whenever we see a large number of customers needing human intervention for a specific need, we then develop technology that can perform the task.

While automating customer interfaces is a goal, there is a lot of work that we do in the background, like portfolio analytics, that are mostly human.

Jyoti Soni: Please share your journey as a founder of Tavaga. What are the major challenges you faced?

Ravi Dasika: The challenges I faced starting Tavaga are perhaps very similar to the challenges most Indian founders face. Running a company in India comes with the burden of dealing with the government and bureaucracy, which remains a major impediment to starting up.

In addition, Robo-advisory is ultimately a relationship business, with thin margins. Burning cash on customer acquisition doesn't bring the same kind of scale as it does with 'instant gratification' businesses. These aspects make raising VC money a challenge as they typically have 5-7 year investment cycles for their own funds.

Another unique issue with running a Robo-advisory in India is the lack of regulatory clarity. We started at a time when there was no clear regulatory guidance and since the first set of regulations were notified, there have been 3 or 4 revisions. Lack of clarity from the regulator is a major challenge we and everyone else in this space face.

Jyoti Soni: Please advise, how can young Fintech enthusiasts prepare themselves to become a best fit resource in this industry? Which are the important tools they should learn and skills they should acquire?

Ravi Dasika: Finance is still finance even in the Fintech world. But what constitutes technology has changed. A decade ago being handy with Excel was deemed sufficient. However, anyone aspiring to build a career in this space today needs to understand digital products, how a customer interacts with these products and how the same finance from the analog world needs to be moulded to fit the needs of future generations.

Conclusion

Robo-advisors are providing wealth management services to masses, which are in the lower pyramid of the investible income. Tavaga is helping their clients in achieving their investment goals at an affordable cost. The company hopes to command customer loyalty and retention by customized advice and portfolio performance.

About Ravinath Dasika, CFA
Ravinath Dasika, CFA, is the Founder of Tavaga and Scholar Finance. Tavaga is India's first passive investment platform. Ravi has also worked as an AI product owner, a FinTech consultant and a derivatives trader. Ravi is an IIT Bombay (B Tech) and London Business School (MBA) graduate with over 10 years of experience across equity and credit markets, with Deutsche Bank, Credit Suisse and Barclays.

About Jyoti Soni, CFA
Jyoti Soni CFA is an investment banker, currently working on start-up fund raising and secondary transactions advisory with Birbal Strategic Consultants, Delhi. She had earlier worked with KPMG & Value Prolific Consulting, Delhi, from where she acquired wide variety of experience including Merger & Acquisition, Foreign Investments, venture capital and private equity transaction. She is an Engineer and MBA.

GETTING SMART WITH FINTECH IN TAXATION

Industry Expert: **Siddharthan Panneerselvam**
(Co-founder of ThoughtBit Technologies, Inc)

Interviewed By: **Parvez Abbas, CFA**
(Member, Public Awareness Committee - CFA Society India)

Goods and Services Tax (GST) was introduced in July 2017. It is not easy for businesses, especially the small and medium enterprises to adopt a new tax system. More often than not, these enterprises find it difficult to remain tax compliant. Technology is acting as an enabler in the indirect taxation space, so these businesses can focus on their core operations. To shed more light on this, we interviewed Siddharthan Panneerselvam – co-founder of ThoughtBit Technologies, Inc. ThoughtBit was founded with a vision to ease the cumbersome process of GST filing and help businesses remain tax compliant.

Parvez Abbas: Please tell us about ThoughtBit Technologies and how did the idea of creating a solution for GST strike you?

Siddharthan Panneerselvam: ThoughtBit Technologies was founded with the vision to offer cutting-edge, data-driven FinTech solutions for businesses, especially Small and Medium Enterprises (SMEs). We focus on Compliance across industry verticals. ThoughtGST, our proprietary software, enables complete GST Compliance and increases Cashflow of businesses. SMEs are short of in-house talent and proper tools to stay compliant as per Tax and Regulatory requirements. With the advent of GST, we met a large number of such businesses and gathered exhaustive intelligence on the exact nature of challenges. A clear gap in the solutions offered by existing products in the market was felt. The need of the hour was a comprehensive compliance platform. Armed with market insights, ThoughtGST was built with the customer in mind every point of the way. Today, the platform enables many enterprises to stay compliant at the click of a few buttons. It is most beneficial for businesses with a relatively high volume of invoices.

Parvez Abbas: How does ThoughtBit differentiate its product offering?

Siddharthan Panneerselvam: Most GST software focus on creating GST invoices and filing GST returns. Quite early, we realised that there is significant amount of complexity in the area of reconciliation and Input Tax Credit (ITC). This is the tax businesses pay on purchases that can be used to reduce tax liability on sales. A critical rule is that ITC can be claimed only if the supplier has uploaded the invoice to government portal and paid GST to the government. To address this, we build a couple of novel features:

- ITC CORNER gives a summary view of differences between our client's data (GSTR-3B) and their supplier's data (GSTR-2A) in an instance, for any period since launch of GST till date.
- SMART RECON does in-depth comparison of supplier data against company's own Purchase Register. Detailed reports are generated with classification of matches, mismatches and missing invoices. Advanced features like supplier notification are included. With our ThoughtAI engine, thousands of invoices can be processed

in seconds. In-built fuzzy logic increases the possibility and accuracy of invoice matches even when there are differences in entries between the two parties.

Now, many software providers have introduced the recon functionality. To continuously differentiate ourselves, we are introducing the next stream of features such as bulk GST Identification Number (GSTIN) validation, Supplier GST Rating, etc.

Parvez Abbas: GST is a new and complicated tax process with various changes being done by the GST council from time to time. Since majority of the customers are from the SME sector, how do you educate your customers of the new changes in ThoughtBit's products and any changes in the tax compliance?

Siddharthan Panneerselvam: SMEs employ around 40% of workforce and contribute to 45% of manufacturing outputs. Yet they face many problems on daily basis. SMEs need holistic strategy and execution that encompasses all aspects of their business. But this segment with huge potential has got limited technology adoption till date. We are bridging this gap by offering a technologically advanced product at affordable cost. A simple and intuitive User Interface guides our customers to perform complex tasks like invoice matching and reconciliation with ease. Our cloud-hosted online subscription model makes it possible to deploy upgrades to all our clientele from our central server. Our GST experts interact with our clients on a regular basis to communicate the latest in GST space as well as gather feedback. Accounting teams of SMEs have often seen multiple regimes of tax compliance, and they are extensively knowledgeable. Rather than simply delivering our messages to them, this two-way communication enables us to continuously upgrade our product to suit market needs.

Parvez Abbas: While many companies outsource their GST related work to their local CA firms, how do you partner with the prospective customers?

Siddharthan Panneerselvam: We act as compliance partner to our customers, rather than service providers. We combine software and services to assist our clientele with a comprehensive one-stop solution. While our technical team provides software support, our in-house GST Practitioners assist in staying compliant as per the latest updates in rules and regulations as well as dealing with GST complexities impacting business. CAs and Tax Practitioners too use our platform extensively. The high level of automation in areas like reconciliation enables them to increase their business volume and amplify their work efficiency manifold. GST work of all their clients are handled under one roof with seamless process flow.

Parvez Abbas: What are your company's plans of scaling up? What other solutions you are targeting and any cross-selling opportunities?

Siddharthan Panneerselvam: The devil is in the data! ThoughtBit, at its core, is a data-driven intelligence agency. There is research underway in solutions such as SME business planning through in-depth Analytics. We are strengthening Machine Learning capabilities of our ThoughtAI engine to enable complete compliance across the organization. Another new area we are exploring is SME Financing. ThoughtAI-powered dynamic invoice discounting will be a boon for businesses to deal with working capital woes.

Parvez Abbas: Tax filing is often considered a mundane back-end task. How can fintech companies like ThoughtBit make an impact on core business metrics?

Siddharthan Panneerselvam: Significant level of automation will make compliance easy and error-free. For instance, we have identified revenue leakage of 1% on average with manual process of reconciliation. 20% – 25% of ITC claims end up with some form of error. This will directly affect the working capital of businesses, either through higher tax outflow or triggering notifications from the GST department. Another possibility that the market is observing today is the use of GST data to validate SME credentials for loan approvals. Banks and NBFCs are exploring this as an additional metric, but with the increasing reliability of GST data this could be the way of the future.

Parvez Abbas: How is technology acting as an enabler for the start-up ecosystem? What are the recent trends and developments in the fintech in taxation space?

Siddharthan Panneerselvam: The five largest public companies in the world are all technology firms that started out with disruptive ideas (Amazon, Apple, Facebook, Google and Microsoft). Start-ups appear to be better positioned at disruptive innovation compared to large enterprises. With rapid adoption of technology, they turn out to be trendsetters in pioneering a complete overhaul of entire sectors. Since the advent of GST, the taxation space has been undergoing myriad changes with new fintech players emerging. The GST Council has recently approved the proposal to introduce 'E-invoice' or 'Electronic Invoice' in a phased manner for reporting of business to business (B2B) invoices to GST System. Under this process, invoices must be reported to an Invoice Registration Portal (IRP) which will validate the invoices and return back with Invoice Reference Number (IRN) making it easier for all stakeholders to track sales and purchases.

Conclusion

Since the advent of GST, the taxation space has been undergoing myriad changes with new fintech players emerging. The GST Council has recently approved the proposal to introduce 'E-invoice'. It will improve efficiency of tax administration and reduce tax evasion. This will require changes to ERP systems via upgrades or plug-ins. While existing players will adapt to the new system, start-ups can use this opportunity to transform the way accounting and taxation is handled by businesses across India.

About Siddharthan Panneerselvam

Siddharthan Panneerselvam (Sid) is the Co-Founder and CEO of ThoughtBit Technologies, a firm that offers Tax and Regulatory Compliance Software for businesses, especially Small and Medium Enterprises. Sid is a veteran in Information Technology with close to two decades of industry expertise. Sid has worked with Tech Mahindra and Cognizant Technologies in the past. His clients include many Fortune 500 companies across the globe. He has headed large-scale strategic programs including Core Banking Transformation, Internet Banking Modernisation, Financial Services Centre of Excellence and Payments Innovation.

Sid was runner-up of Economic Times Young Leaders 2011. Sid holds a Bachelor's Degree in Electronics & Communications Engineering from Coimbatore Institute of Technology and a Post-Graduate Diploma in Management from Indian Institute of Management Ahmedabad.

About Parvez Abbas, CFA

Parvez Abbas is a finance professional with more than 11 years of experience spanning across investment advisory, lending solutions and credit risk. Currently, he is working for Acuity Knowledge Partners in their commercial lending vertical. In the past, he has worked for Genpact and American Express. He is an MBA finance and a CFA charterholder.

DISRUPTIVE INNOVATIONS IN PROPTECH

Industry Expert: **Ashwin Chawwla**
(Founder & CEO at Escrowffrr)

Interviewed By: **Rajni Dhameja, CFA**
(Member, Public Awareness Committee - CFA Society India)

The Fintech industry as a whole is changing our lives for better in many ways. Slowly and gradually it is trying to transform the otherwise widely accepted ways of doing certain things. One example here is that we as retail consumers make huge payments for transactions for which execution is contingent, for example, any asset purchase transactions. We make payment with execution risk considering it as a usual way of doing business. Escrowffrr, a Gurugram based fintech start-up is transforming property transactions by retail consumers with an interesting concept of using an escrow mechanism. To understand this further, we got an opportunity to interview Ashwin Chawwla, Founder & CEO at Escrowffrr. The key highlights of the interview are:

Rajni Dhameja: Tell us about fintech in payments in general and Escrowffrr in particular?

Ashwin Chawwla: The Indian fintech ecosystem is an exciting and vibrant one growing rapidly, triggered by the intersection of smart emerging technologies, widespread digital adoption and a proactive regulatory push. With over a billion mobile phones and over 500 million internet users fintech continues to revolutionise and redefine the way Indians borrow, insure, bank and pay. India is forecasted to see the fastest growth in digital payments transaction value between 2019 and 2023, with a CAGR of 20.2%, ahead of China and the US. The transaction value of the Indian fintech sector is growing hugely and is estimated to reach $73 billion by next year. We at Escrowffrr are pleased to be part of this growing ecosystem offering an escrow focused digital payments platform that helps individuals and businesses move their money smarter, faster and safer. Operating in the niche escrow led contingent transactions space, our platform allows users to seamlessly set up and transact in a safe and secure manner using a convenient digital escrow account in minutes. The platform is powered by leading banks such as ICICI bank and Axis Bank. We are currently focused on real estate and plan to soon grow the business to other asset classes as well.

Rajni Dhameja: How did you come up with the idea to conceptualize Escrowffrr and what problem does it try to address?

Ashwin Chawwla: As you know escrow per se is not a new concept, globally it has been in use for over 150 years and specifically for big ticket transactions in the M&A, cross border contingent based transactions. However, use cases in the retail space are far and few. There were two specific triggers that prompted me to start scribbling the blueprint that could potentially "democratize" escrow based payments. One was when as a real estate transaction advisor I was advising and executing the largest land transaction in Mumbai between DLF and Lodha group. An escrow account was used in this deal owing to the sheer size and contingent nature of the transaction and the broader "trust deficit" between the parties involved. The second trigger was when I was buying my home and was asked to cough up a large down payment to an unknown seller. Seeing no other option, I made the payment but the risk stayed till the execution documents of the property weren't completed. Both triggers prompted me to think that there was a crying need for offering a platform for escrow led payments. This belief was further strengthened when I saw that the existing banking system was unable/didn't offer escrow at the retail level, which had to be seamless, convenient, easy to set up and transact at a minimal cost. Thus, the Escrowffrr idea was born, which is now on a mission to "take the fear out of transactions". Powered by and riding on the backbone of leading banks, Escrowffrr allows users to set up a digital escrow account in minutes in a hassle free and convenient manner without having to visit a physical bank branch. It allows users to transact with KYC verified users, provides them with user friendly transaction dashboards and work around the problem of fear and anxiety in contingent based transactions at a very minimal cost.

Rajni Dhameja: Currently property transactions are key use case for the technology developed by Escrowffrr, what are the other areas where Escrowffrr technology can be used?

Ashwin Chawwla: We are currently focused on resale property transactions and are soon rolling out our offering for rentals. However the long term plan is to build a broader and deeper ecosystem around digital escrow payments for various types of contingent based transactions in categories and use cases such as used automobiles, angel investments, ecommerce, hospitality, professional services, SME procurements government etc.

Rajni Dhameja: Does Escrowffrr uses Blockchain for record retention?

Ashwin Chawwla: While we currently don't use blockchain it is part of our strategic plan in the near to mid-term.

Rajni Dhameja: How is the banking ecosystem where traditional escrow accounts are offered is viewing the technology developed by Escrowffrr? How is this technology complementing the existing system?

Ashwin Chawwla: Banks have welcomed the offerings of Escrowffrr as it services the small value segments. Escrowffrr operates in niche segments where banks currently do not have a presence. Many banks are in discussions with us to explore the possibility of us licensing our technology to them, while they continue to focus on their core businesses. As a new age, digital first neo banking platform, we see ourselves as being complementary to the banking platforms.

Rajni Dhameja: Your team has achieved 500+ accounts, 600+ users and 400+ agents. Tell us your experience when you achieved first few initials ones of the above ?

Ashwin Chawwla: Escrow is a new terminology for India specially for the retail real estate transactions. The government has added escrow under RERA for real estate. Initially, the push back came from all sides including buyers, sellers and brokers. Indians are fast learners and that has helped us onboard customers and brokers on the platform. We continue to evangelize the category and as part of our initiatives we also released a white paper in association with FICCI & Grant Thornton capturing our recommendations to the government to make escrow use mandatory for resale transactions.

Rajni Dhameja: What are the key challenges you faced during the Escrowffrr journey?

Ashwin Chawwla: Stitching up the partnerships with banks was the most difficult task. The compliances around setting up escrow and KYC was a huge challenge. Government moves like simplifying KYC process, encouraging digital payments, removing MDR charges, 24 hour NEFT payments, TDS tracking on payments, Digilocker, e-signatures etc has made it much easier for us. The forward looking and encouraging policy framework of the government has been a blessing and provided us with the much needed impetus in our journey so far.

Rajni Dhameja: Is the Indian customer willing to experiment with innovative solutions like yours?

Ashwin Chawwla: Escrow is a product that adds trust and transparency to transactions. Escrow is being used around the world for over 150 plus years but is new for India specially in small transactions. To start with adoption could be measured but once they see value Indian consumers are willing to embrace technology that could potentially change their lives for the better.

Rajni Dhameja: What role has the government regulations played? Do you think they have been supportive or constrictive?

Ashwin Chawwla: As mentioned the forward looking policies of the government have provided us with a much needed impetus. Moves like simplifying KYC processes, encouraging digital payments, removing MDR charges, 24 hour NEFT payments, TDS tracking on payments, Digilocker, e-signatures etc have all been a blessing for our model.

Rajni Dhameja: What advice would you like to give to people who aspire to become Fintech entrepreneurs?

Ashwin Chawwla: The ecosystem is vibrant and continues to grow at a rapid pace. While a lot of players have entered this space and continue to enter various segments, there are interesting niche spaces available for new players to carve out an interesting and compelling value proposition for consumers. Also I would say whatever you do stay focused on the customer, simplifying their journey and invest time and energy in the ecosystem to collaborate and create shared value.

About Ashwin Chawwla:
Ashwin Chawwla, Founder & CEO at Escrowffrr has over 20 years of entrepreneurial experience in transaction advisory services. His vision is to democratize digital payments and helping the Government in its Digital India mission, thereby doing his bit for nation building. Acknowledged as a notable industry thought leader he has shared his valuable insights at multiple industry forums and through incisive whitepapers etc. He was part of the prestigious and exclusive CEO delegation to Germany, led by Prime Minister Shri Narendra Modi and also part of the exclusive trade delegation to Netherlands in 2019, which was a by invitation government initiative for innovative technology startups and fintech companies.

About Rajni Dhameja, CFA
Rajni Dhameja is a finance professional with a career spanning across 13 plus years in banking and capital markets. Currently she is working with ICICI Bank Ltd., where she is responsible for origination and structuring of credit bonds for corporates. Prior to this she has worked across valuation, market risk management and analytics functions in fixed income, equity and equity derivatives space. She is a Chartered Accountant and a CFA charterholder.

MARCUS BY GOLDMAN SACHS
DIGITALLY DISRUPTING CONSUMER BANKING

Industry Expert - **Sunil Shirguppi**
(Head of Engineering for Consumer Business, Goldman Sachs)

Interviewed By - **Barun Mahipal**
(India Head of Collateral Management, Deutsche Bank)

Over the last few years technology has been the most disruptive force in the financial services sector. From the new age Fintech start-ups to traditional banking giants everyone has woken up to the need of offering a digital platform to the consumers to conduct their business with them. Goldman Sachs, one of the world's largest Investment banks, decided to join this race by launching their first consumer banking product, Marcus. Named after its founder, Marcus Goldman, has acquired 5 million customers, since its launch in 2016. Sunil Shirguppi, Head of Engineering for Consumer Business at Goldman Sachs, provides insights on Marcus.

Barun Mahipal: Traditionally Goldman Sachs has worked with ultra-HNIs and large corporates. So, what prompted Goldman to start Marcus, which is primarily a retail offering?

Sunil Shirguppi: The idea to enter the consumer banking space first started in 2014. Leadership recognized that while Goldman Sachs became a bank in 2008, we weren't fully utilizing the platform or capabilities that were provided to us. This was an opportunity to leverage those capabilities to serve retail consumers for the first time in nearly 150 years of business.

Entering the consumer space was attractive for a few reasons. First, it's a large market with large revenue pools – capturing even a small share of the market can lead to a sizeable business. Second, Goldman Sachs has a competitive advantage with risk management expertise, strong firm relationships, and a powerful brand. And finally, we recognized there were significant consumer pain points in financial services, including hidden fees and confusing terms. This was a chance to truly redefine the distribution and consumption of financial services in a consumer-centric way.

Barun Mahipal: Can you elaborate on the products offered by Marcus and the key customer segment Marcus is focusing on?

Sunil Shirguppi: We are building the consumer bank of the future to address the saving, spend, and borrowing needs of millions of consumers and help them take control of their financial lives. As of 2019 year-end, we have $60 billion in deposits across the U.S. and the U.K., and $5 billion in unsecured personal loan balances. We also offer free financial tools and insights as well as Apple Card, in partnership with Apple.

We are primarily focused on mass affluent consumers in the U.S. and the U.K., and today, we have 5 million customers across our products.

Looking ahead, we recently announced our plans to offer Marcus-branded checking accounts and investment capabilities in the coming years. With every new product offering and partnerships, we strive to be on the side of the customer always, offering them value, simplicity, and transparency.

Barun Mahipal: What differentiates Marcus from digital offerings from traditional commercial banks like JPM and Citi?

Sunil Shirguppi: As a "start-up with 150 years of experience," we are uniquely positioned to disrupt consumer financial services. Being part of Goldman Sachs, we have capital to invest in growing this new business and strong brand, which are valuable competitive advantages. Yet, unlike other players in the space, we have no legacy consumer businesses or technology, so we were able to start with a blank sheet of paper. This enabled us to create technology infrastructure that was scalable and fast and products that were designed with the customer in mind.

Barun Mahipal: What have been the key learnings from the initial years of Marcus?

Sunil Shirguppi: While we have made significant progress over the past three years since launch, we are still in the early days of building the business. We are a digital business, and therefore we have learned to operate 24/7, 365 days a year because consumers are "always on." We have also focused on building platforms for scale and resiliency, so we can better serve the 5 million customers we have today.

Barun Mahipal: Are there plans of launching Marcus in India and China where a lot of fintech innovations are happening?

Sunil Shirguppi: We are currently focused on growing our business in the U.S. and the U.K. There is a team of around 200 individuals located in the Goldman Sachs Bengaluru office who support the global Consumer team on a variety of projects across our lending, savings, and card products. This team is an integral part of the global Marcus' success, and we will continue to grow the team over the coming years.

Barun Mahipal: How much of the firm's revenue or profit can be attributed directly or indirectly to Marcus and where do you see that number in 3-years from now?

Sunil Shirguppi: In 2019, our business earned $864 million in revenue. We are focused on driving revenue growth across our products, and in the long-term, we expect to grow our contribution to the firm's revenue and create an attractive business for Goldman Sachs and its shareholders.

Barun Mahipal: What impact do you think fintech will have on the overall consumer business?

Sunil Shirguppi: Technology, data, and design are important core capabilities that are transforming consumer financial services. However, we recognize that what we are doing in fintech is not about technology, but rather about consumer centricity. It's how we put that technology to work to help meet consumer needs that matters.

About Sunil Shirguppi

Sunil Shirguppi is the head of Engineering for Consumer Business (Marcus) in Bengaluru at Goldman Sachs. He is responsible for overseeing the Bengaluru team's effort around development and execution of the firms' loans, deposits and credit card platforms. Sunil is also an active member of Tech Fellow community at Goldman Sachs. Sunil has over 20 years of experience in Analytics, Platform Engineering, Consumer Tech and Data Engineering. Prior to joining the firm, he worked at several firms including LinkedIn, Electronic Arts, Ola, Sybase and 3COM.Sunil earned a bachelor's degree in Electronics and Communication from Karnataka University and an MBA from San Jose State University, California.

About Barun Mahipal

Barun Mahipal is the India Head of Collateral Management for Deutsche Bank's CB, IB and CRU Business lines. He is also the Global Head for Collateral Dispute Management function. He oversees a team of over 100 collateral management professionals across Deutsche Bank's offices in Bengaluru and Jaipur, helping the Bank manage it's counterparty credit risk. Barun has over 15 years of experience across consulting and Investing Banking operations and have worked with firms like Mckinsey & Co, HSBC and Goldman Sachs. He holds a Bachelor's degree in Accounting from Calcutta University and has also cleared all three levels of CFA.

GAZING AT THE CRYSTAL BALL
FINTECH INVESTOR PERSPECTIVE

Industry Expert - **Parag Dhol**
(Managing Director at Inventus India)

Interviewed By - **Richa Sethia, CFA**
(Member, Continuing Professional Development Committee - CFA Society India)

Despite a slowing consumption economy and an ailing financial sector, India saw a record-breaking \$3.8 billion of FinTech funding in 2019, making India the world's 3rd largest FinTech centre – behind only the USA and UK (source: KPMG report – Pulse of FinTech 2019).

The vast majority of funds raised in 2019 went into payments, with PayTM raising \$1.7 billion, followed by Policybazaar.com raising \$282 million. We hear from Parag Dhol, investor in Policybazaar.com on his views as an investor in the Indian FinTech space.

Richa Sethia: How has the Indian fintech space evolved in your view and where is it headed?

Parag Dhol: I would break up the response into the following segments:

- Payments: Made immense progress – thanks to UPI in particular. Yet, the monetisation layer, leveraging payments has still proven to be largely elusive. Some payment gateways/ merchant POS companies have achieved scale and, arguably, a path to profitability, as well. Yet, the promised "data plays" are still nascent
- Lending: Digital exhaust of consumers / availability of transaction level data for SMEs led to formation of many fintech lending companies. Credit skills tends to be the Achilles heel. Yet, I would wager that a few great companies (the next Bajaj Finance) will emerge from amongst this group
- Neo Banks: More hype than substance here, currently, IMHO. Regulation and the bargaining power of banks are the key barriers here

Richa Sethia: Some of your outstanding investments over the last decade include marquee fintechs like Policybazaar.com & FundsIndia. What have been your key focus areas when evaluating business models of fintech investment opportunities?

Parag Dhol: Those are investments from 2013 and 2010, respectively. Tells you that we are focussed on technology, not "just fintech", investors.

Those are both aggregator examples. The hypothesis, then, was the distribution enablement that comes along with that general purpose technology (GPT), the Internet. We made sure to back folks with the right DNA (constitutionally unable to mis-sell). While there were differences in the two models (take rates, annuity/otherwise), the secular change in behaviour (online vs. offline) helped both companies scale. Proud to be part of those journeys - have (largely) enjoyed the ups (and, the inevitable downs) of the respective rides.

Richa Sethia: What have been your major learnings as an institutional venture investor in the Indian start up space over the last 25 years of your career?

Parag Dhol:

- Making investments is vanity, scoring exists is reality

- Capital efficiency enhances one's chances of chalking up high multiples (multiples is what we VCs live and die for)
- A good nervous system is essential to be a good, long-term investor (smarts is a necessity, not sufficient)
- Humility. Most pertinent being Gandhiji's quote/ paragraph "A customer is the most important visitor on our premises…". Replace customer by entrepreneur, in our case

Richa Sethia: What trends are you most excited in fintech in the coming decade from an investing perspective?

Parag Dhol: As alluded to earlier, we tend not to be top-down investors (are bottoms-up, technology investors). The entrepreneur is the expert – why put the cart before the horse? As long as their vision matches our intuition, we invest.

Richa Sethia: How can we as investment professionals/CFA charterholders partake in this trend for professional success?

Parag Dhol: Wrong guy to ask! Did begin on the journey (a decade plus ago) but lacked the patience to complete.

Yet, like going to a good college, it is not just about what is "taught". The people you associate with is the key perk that comes along. As is said, "You are the average of five people around you".

About Parag Dhol

Parag Dhol is a Managing Director at Inventus India, a venture firm that invests in entrepreneurs building tech-focused companies in India. At Inventus India, Parag is/was a Board Director at redBus (acquired), FundsIndia, Vizury/Lemnisk, eTechies (buyback), Power2SME, PolicyBazaar (partially exited), Avaz (buyback), peel-works, Tricog and worxogo. He is based out of Bangalore.

Parag made a foray into venture capital after his MBA in 1993. He started off with ICICI Venture (in Bangalore) and followed that up with stints at GE Equity (in Gurgaon) and Intel Capital (in Bangalore). Parag also worked, for two years, with Genpact in a commercial role. Parag has a B. Tech. (Mech. Engg.) from IIT, Delhi and is an MBA from IIM, Bangalore.

About Richa Sethia, CFA

Richa Sethia has diverse experience across sectors including Alcobev, Oil & Gas & FMCG. Currently, she is responsible for product pricing at United Spirits Limited (Diageo Group Company), with earlier stints including roles in corporate finance, commercial finance, financial and strategic planning, business performance management, cost control, marketing finance, inventory control and new business feasibility. Previously, she has worked with one of the world's largest Oil & Gas majors, Royal Dutch Shell and India's leading conglomerate ITC Limited.

Richa is a CFA® Charterholder, she earned her PGP from the Indian School of Business, and graduated in BBA (Finance) from St. Xavier's College, Kolkata.

A ROADMAP FOR FINTECH IN COLLECTIONS

Industry Expert - **Vaibhav Dobriyal**
(Co-Founder and CTO of Origa.ai)

Interviewed By - **Siddharth Gupta, CFA**
(Member, Public Awareness Committee - CFA Society India)

Financial Inclusion has been one of the key megatrends shaping India in the past decade, and very likely in the next decade as well. Newer forms of credit (and creditors) are gaining foothold, even as existing products continue to grow much faster than overall economic growth. While access to credit is a much thought upon and talked about issue among lenders and policy makers, post disbursement processes such as servicing and collection could prove to be a differentiating factor. Focussing on the collections space is Origa, providing smart ‘Collections as a service’. We caught up with Origa’s CTO, Mr. Vaibhav Dobriyal, to understand more about the space and what lies ahead.

Siddharth Gupta: Why have you targeted the collections space, and what is it about the current environment that encourages you to move forward?

Vaibhav Dobriyal: India is currently experiencing a credit boom like never before. The retail and micro-business loan book has reached USD 686Bn and expected to grow to USD 1.4Tn by 2024. The landscape is changing rapidly with ticket sizes becoming smaller, deepening semi-urban/ rural penetration and targeting for first time borrowers (aka New to Credit or NTC). Credit is slowly embracing the 3-1-0 model. The model enables borrowers to complete their online loan applications in 3 minutes, obtain approval in 1 second with 0 human touch. For every loan that gets disbursed collections or loan-servicing is the next step. Industry estimates peg that 20% of borrowers miss the monthly timeline and enter the collections process. Imagine the kind of pressure this builds up on the collections. Retail Collections is historically a diverse market with more than 15,000 agencies employing more than half a million collectors. Traditional “days past due” based classification and excel sheets, WhatsApp and printouts are the pillars on which collections ecosystem is standing today. The lack of smart technology destroys a seamless flow of information, hinders transparency and encourages middlemen (agency managers and agency owners) who consume resources from both lenders and collection agents while providing negligible value.

To summarise it all, the opportunity in collections today stands at almost USD 9Bn and expected to grow to USD 25Bn by 2024. Traditional collection approach is proving to be a bottleneck in terms of ability to scale, customer centricity and sensibility. We believe a data driven transform is much needed and required to complete the cycle of digital transformation that started with Credit.

Siddharth Gupta: What is Origa.ai? How does Origa solve the collection problem, and what’s in it for everyone?

Vaibhav Dobriyal: Origa.ai is India’s next-generation full-service tech platform which allows fintech and traditional lenders to intelligently manage their collections operations and repayment analytics. The platform leverages proprietary technology & data science insights to optimize and accelerate collections thereby improving the experience for borrowers, lenders, and collection agents. To provide last mile collection, Origa.ai is enabling a distributed network of partners on its platform, bringing unprecedented organization and efficiency to the legacy industry. Origa.ai aims to improve the efficiency of the collection ecosystem and bring the much required digital transformation. For agents Origa.ai enables access to lenders and transparency across sourcing to payouts. Lenders on the other hand get instant access to state of the art tech platform to run their collections and repayment analytics along with a network of agents to execute. Lastly for the borrowers, we plan to extend services to help them manage their debt efficiently and facilitate credit repair. Origa is modernizing a critical puzzle-piece of India's credit industry with world-class Tech for the important leg of the loan thereby completing the overall transformation.

Siddharth Gupta: How has the market responded so far?

Vaibhav Dobriyal: We are focused in South India (currently) and aim to expand our reach to deeper tiers across Pan-India. Ever since we started reaching out to the market (Dec '18), we have on boarded 30+ clients. Our current base is a mixed spectrum of Fintechs, NBFCs, ARCs, and banks. It includes traditional lenders as well as new-age companies. We have also discovered a strong fitment of the product with customers outside lending like rental and trade receivables. The churn has been negligible and we are offered multiple different portfolios by same lenders. We continue to add value in terms of service followed by tech. AI/ML has a lot of potential - what prevents it from being a superstar?

Siddharth Gupta: What role does AI/ML play in Origa.ai?

Vaibhav Dobriyal: This is indeed a great question. The challenge that the industry faces today is gaps in understanding the data paradigm, skillset, and competence of building these "data products". Let us spend a minute on how the journey typically starts - gather some data, hand it over to the data scientists and they build a model and run it. In trials, where the model results are promising the business wants to move the model to production. The challenge is data scientists, more often than do not have data engineering or software development skills to enable a smooth human-model interaction. This derails the value realization and is a major roadblock. The second challenge is governance of the model if at all is often an afterthought. In order to generate substantial value from the model, it needs to be encapsulated in a framework where it allows model monitoring, training, curation, frameworks for model validation, versioning and A/B testing. Additionally, the model needs to be deployed on an elastic architecture where it is able to generate predictions at scale. Lastly, managing the underlying data requires exposure to big data, otherwise, data collection and managing features itself becomes a nightmare. The understanding of the above and having skills internally (or identifying implementing partners) is a must and often the missing ingredient. We at Origa.ai have a strong background in building data products. The team behind Origa.ai has spent the last 6 years of building data products. We have understanding and experience across data engineering, ML/ DEv ops, and data science. For data collection, we are focussed on perfecting our orchestration tools and ensuring all feedback and agent activity gets captured. We also collect data points across customer behaviour - how long was the call, language, time of the call, meeting point, address, availability, payment behaviour, mode of payment to name a few. We also gather inputs loan sourcing and service records to complete the profile.

We follow an evolution friendly - experiment lead approach where we quickly build small solutions, test them out and scale the successful experiments quickly. Some of the themes include recommendation engines that predict generate a strategy, channel, content, tone, language, timing and resources. Collection engines predict the likelihood of flow and the probability of collection. Audit engines aim to monitor the voice conversations to identify tonality and abuse. Fraud and risk engines run geo-analytics and anomalous transaction detection based on deviations from normal trends. As a parting thought, I would like to share that our whole philosophy to data science or AI/ML is around building solutions and apps rather than just the models. This holistic approach we believe will allow us to generate value for all our partners, customers and ourselves.

Conclusion

Better use of technology in collections is bound to improve the collection efficiency and speed, and bring down costs. Change is the only constant, and it seems collections will also see a sea change, one way or the other. Financial penetration in India still has much farther to go, and technology enablement should help us reach desired goals much faster.

About Vaibhav Dobriyal
Vaibhav Dobriyal is Origa.ai's Co-founder and CTO. He holds an MTech from IIT Kanpur. He has spent the last 15 years of his career building and implementing enterprise data products. His career started with building ERP's ground up for a startup in Singapore and implementing them for global retailers. Post that, he was part of i2 Technologies consulting team wherein he focussed on implementing supply chain products and ensuring value realisations for end customers. Immediately prior to Origa.ai, Vaibhav was part of Lumiq.ai building data products where the cornerstone of his role was industrialising AI/ML and enabling meaningful human-machine interaction.

About Siddharth Gupta, CFA
Siddharth Gupta, CFA works with ICICI Securities as part of the Institutional Equities Research team. He currently serves as a volunteer on the Public awareness committee, CFA Society India. He's a Chartered Accountant, and a commerce graduate from Narsee Monjee CCE, Mumbai.

WOMEN IN FINANCE

The ideal zone for career women should be "work life excitement" and not just "work life balance"!

Industry Expert - **Jyotsna Krishnan, CFA**
(Managing Director at Elevar Equity)

Interviewed By - **Richa Sethia, CFA**
(Member, Continuing Professional Development Committee - CFA Society India)

Helping rewrite the narrative for the contemporary Indian women, who not only inspire the world today, but also play a critical role in transforming the destiny of our great nation, Jyotsna Krishnan speaks about how it is essential for women to have honest conversations and draw inspiration from other women to enable oneself for success professionally and personally. She epitomises Ralph Waldo Emerson's words, which I take the liberty to tweak, "The world makes way for the (wo)man who knows where (s)he is going".

Richa Sethia: What are your important tenets of leadership which have helped you succeed?

Jyotsna Krishnan: Success is a relative term - having firm belief that personal passion can come together with professional pursuits led to career choices that led me to Elevar - where a key part of our core value systems is about finding that zone where you can 'be the best version of you'. When one's passion is clear, it is easier to be demanding and seek excellence with authenticity and the rest follows.

Richa Sethia: Success for women is known to come with its trade-offs. Women professionals across the world admit that there are numerous demands to juggle, conciliations to be made and sacrifices to consider and weigh on a daily basis. This has even led Indra Nooyi to assert that "Women cannot have it all". What has been your experience and what helps you with the balancing act?

Jyotsna Krishnan: There is a lot of discussion and debate about gender diversity at leadership levels and women at work - however, I feel there are two aspects that are not discussed enough. First is about the importance of this discussion at home and the action that needs to be taken by family members. It is far from easy for families to manage multiple careers. In my case, as a couple, we took a call to live in a joint family set up after we had a baby. My in-laws have played a critical role in both of us being able to pursue our careers. At work, I had the flexibility to work through schedules, bring my baby in to work through the early years with the help of a nanny when required but more importantly - was encouraged strongly not to slacken, and received the support from my colleagues to achieve what was my own ambition. This led to what I believe is the ideal zone for career women - "work life excitement" and not just "work life balance"… because if one is just about managing work and home, it is very tiring and barely sustainable, whereas having a long term collective path to pursue the ambition on both fronts infuses energy. The conversation and clarity to pursue this path has to start with the closest people in life and that has to empower how challenges are dealt with at the workplace when life gets more demanding through early motherhood, etc. The second aspect that does not get enough attention is women in low-income communities working in the informal segment. The reality is, they don't have the luxury of choice in these matters, nor are they protected by 'employment benefits' - they are back at work without much of a break. Having had a chance to engage with them closely across geographies and over the years, I admire that resilience and have personally drawn a lot of inspiration from them.

So to sum it up - with some honest conversations with immediate family and a two way commitment to that ambition at work (both from women that aspire to grow and the leadership teams welcoming women on board), I believe women aspiring for growth have a fairly decent chance of finding that zone of feeling great about their life at work, and at home.

Richa Sethia: What is your advice to CFA Charter holders preparing for a career in the investment industry?

Jyotsna Krishnan: I found the CFA program to be a great intellectual challenge and the network you join is valuable - becoming a Charter holder does place you in a category that is recognized globally. However, it is important to think through how the CFA is complemented by skills, interests, experience, etc - and most importantly prioritise quality of work experience early in one's career over all other factors - it pays off in the long run on multiple fronts.

About Jyotsna Krishnan, CFA

Jyotsna joined Elevar in 2011 and leads Elevar's investing team in India. She believes that "An enormous amount of opportunity resides in communities that do not have access to the formal ecosystem. The very idea of being able to partner with these communities, with their wealth of experience, innovative mindset and resilience, through efficient business models is inspiring." Jyotsna has over 15 years of experience in retail financial services, business operations and analytics, and investing in early stage ventures. In particular, she has spent considerable time with low income communities and has translated her admiration for these communities into concrete observations that formed the basis for Elevar's investments in companies such as Varthana (a lender to affordable private schools), Samunnati (a provider of loans and intermediation services catalyzing agriculture supply chains) and Credit Mantri (a platform enabling lending to those with limited or no credit history), all of whom are providing specialized services to distinct customers who do not have access. Jyotsna currently sits on the boards of WheelsEMI, Origa, Varthana, Credit Mantri and Samunnati. Prior to Elevar, Jyotsna was at HSBC and worked across multiple roles in retail banking – including sales, operations, HR, strategy, finance and business intelligence.

About Richa Sethia, CFA

Richa Sethia has diverse experience across sectors including Alcobev, Oil & Gas & FMCG. Currently, she is responsible for product pricing at United Spirits Limited (Diageo Group Company), with earlier stints including roles in corporate finance, commercial finance, financial and strategic planning, business performance management, cost control, marketing finance, inventory control and new business feasibility. Previously, she has worked with one of the world's largest Oil & Gas majors, Royal Dutch Shell and India's leading conglomerate ITC Limited. Richa is a CFA® Charterholder, she earned her PGP from the Indian School of Business, and graduated in BBA (Finance) from St. Xavier's College, Kolkata.

CFA Society India

INSIGHTS FROM CFA SOCIETY INDIA EVENTS

(To read all event notes, visit - http://cfasocietyindia.com)

IIC MUMBAI, 2020

SESSION 1: "UNEXPECTED PLACES TO UNDERSTAND RISK"

Speaker: **Allison Schrager**

Moderated by: **Sunil Singhania, CFA, Founder - Abakkus Asset Manager LLP**

Contributed by: **Siddharth Gupta, CFA**

The *10th India Investment Conference* opened with a session by Allison Schrager, titled "Unexpected places to understand risk". Allison Schrager is an Economist and Journalist, writing for *Quartz*, and author of "An Economist Walks into a Brothel". The session was moderated by Mr. Sunil Singhania, CFA, founder of Abakkus Asset Manager LLP.

Allison's talk was stimulating, and gave a differentiated look at Risks faced and the ways they're mitigated by people outside the financial world. *Freakonomics* for finance would be an appropriate analogy of Allison's talk, with seemingly unrelated examples from the real world revealing wisdom pertinent for finance professionals.

Allison highlighted issues faced in retirement finance due to lower 'risk-free' rates, which is akin to paying a lot for low risk, and how that is pushing portfolios towards riskier assets in order to generate portfolio returns.

For the first unexpected place to understand risk, Allison spoke of the case of brothels. While the business isn't legal in most states in the USA, Nevada is one of the states where it is legal, albeit with heavy regulation. The setup she first visited in Nevada had each worker negotiating the rate with each customer individually. The brothel in fact gave special negotiation training to its workers, which Allison attended. There were some interesting takeaways, such as the average brothel worker charging $1000 per hour, vs the national average of $300, with one of the top employees making a million dollars last year!

The key takeaway, was that 50% of the earnings went to the brothel administration, for carrying out a licensed, regulated set-up. Allison highlighted how the workers were willing to pay up such a high share, despite having the option of running their own unregulated set-up, purely because the set-up was regulated and was considered safer. Customers also preferred the organised set-up, as it minimised risks and hassles for them, despite having to pay ~3x the National average amount charged. These financial trade-off decisions were being made by customers and brothel workers every day, prioritising risk minimisation over high cost, and this was akin to the current environment of lower risk free rates.

Continue Reading at: https://wordpress.com/post/cfasocietyindia.com/10889

SESSION 2: "GLOBAL TRENDS AND DISRUPTIONS FOR FINANCIAL INSTITUTIONS OF TOMORROW"

Speaker: **Howard Davies**

Moderated by: **Navneet Munot, CFA, Chairman - CFA Society India and CIO, SBI Funds Management Pvt. Ltd.**

Contributed by: **Ritika Mankar, CFA , Director - CFA Society India and a Director at Ambit Capital**

Session Notes

Can the current recovery give way to a recession?

- Even as the world economy has maintained an average growth rate of 3.8% for a decade; he was of the view that despite this, a recession can be largely ruled out.
- What is likely to follow is a period of moderately lower growth and not drastically lower growth.
- It is easiest for a bank to make money when the yield curve is upward sloping since you can borrow short and lend long. Despite the prospects of low GDP growth (and not no GDP growth), developed country banks now have a problem at hand since the yield curve in no longer upward sloping.
- Hence it is no surprise that most banks in Europe today are trading at a P/BV of close to 0.5x and in some cases even lower!

So what could be the reasons behind this situation?

- Potential reason 1: Whilst traditionally central banks (CBs) would only intervene at the shorter end of the yield curve, now CBs are operating all over the place!
- Potential reason 2: Has the demand for low risk assets begun to exceed the supply?
- Potential reason 3: Low productivity is acting as a disincentive for investments?
- Potential reason 4: Investment intensity has declined globally – since Apps are way cheaper to build than say a bridge!
- Potential reason 5: Over-regulation of the banking sector?

Regulation of traditional Banks in the developed world is rapidly increasing!

- The re-regulation of traditional financial firms since the crisis has been dramatic.
- Higher capital ratios for banks and tighter solvency rules for insurers. And there is still pressure for more capital and tighter consumer protection rules.
- Does this increased regulatory burden risk making conventional financial institutions uncompetitive? The low valuations of banks, especially in Europe, suggest that many investors think so.
- The said expert worries that the more you squeeze the formal financial sector through tighter regulation, lending will migrate to shadow banking where the risk management systems are significantly poorer than that for traditional banks.

Continue Reading at https://wordpress.com/post/cfasocietyindia.com/10857

SESSION 3: "PORTFOLIOS FOR THE FUTURE – THE NEW NORMAL IS HERE"

Speaker: **Virginie Maisonneuve, CFA**

Moderated by: **Mr Aditya Narain (Head of Equity Research at Edelweiss, India Equity Strategist)**

Contributed by: **Vikrant Warudkar, CFA**

Among other eminent speakers and moderators at the flagship event of CFA India Society, Virginie Maissonneuve, CFA (member of the CFA Institute Future of Finance Council) spoke on"Portfolio for the Future, the new normal is here". Virginie Maisonneuve (VM), had firstly invested in India in 1990's, for one of the first foreign investment fund in India.

The presentation carried theme of importance of the ESG factor in portfolios and about climate change, the evolving new normal. It shed light on enough facts and figures, supporting the hypothesis that 'the climate change is a long-term trend in which companies and governments are evolving'. The presentation discussed purpose of asset management, Disrupters or Shapers having tipping points, and culmination of these disrupting trends shaping decisions of investment managers in portfolio construction. At the start of the presentation, VM urges audience to appreciate the importance of climate change. She also argues that in future, investment management industry have to give options with ESG factors to its clients.

She started the presentation with basic of the Asset Management Industry (AM), where clients seek assistance to achieve their financial goals given the risk. Ethic, trust, sustainability and clarity are additional factors clients seek. Inability of AM to produce alpha at large has paved the way for ETFs, which are now gaining traction in India as well. ETFs are set to cause disruption in the AM ecosystem. Other disrupters mentioned were asset management fees, rate of return (lower for longer), regulation, mass customisation, and 'Shapers'. VM defines 'Shapers' as long term trends having tipping points.

A Tipping points is the critical point in an evolving situation that leads to a new and irreversible development. It is the point at which a series of small changes or incidents becomes significant enough to cause a larger, more important change. Tipping points are difficult to notice or identify since the underline changes are small and gradual. For example, the emergence of China as economical prowess over the decades. The most important tipping point we are facing today is gradual rise in the temperature of atmosphere on the Earth. After industrialisation, the rise in temperature has resulted in the climate change, impacting us significantly. For investors, it warrants inclusion of ESG factors in portfolio construction.

The disruptor's list also entails technological advances like Artificial Intelligence and Robo Banking. For the coming decades combination of the 'Shapers' like Demographics, Climate Change, Technology and share of EM's in world will continue to shape the world economy. Value creation will come from sustainability and riding the disruption. Asia can remain the centre of the world for coming decades. The growth in the past decades was more based on carbon emission, which is not sustainable, underpinning the need for new growth models. There is consensus among population at large about importance of ESG, and Asia becoming a centre of influence. But positive impact of AM on society has been denied.

Continue Reading at: https://wordpress.com/post/cfasocietyindia.com/10934

Watch video: https://www.youtube.com/watch?v=k57THkc04nc

SESSION 4: "THE LONG AND SHORT OF BAD CREDIT.. AND BAD CREDIT ANALYSIS"

Speaker: **Joel Litman**

Moderated by: **Satish Betadpur, CFA (Managing Director, Head of Investments, State Street Global Advisors)**

Contributed by: **Vivek Rathi, CFA**

Joel Litman (President and CEO, Valens Research) started his session with a gracious photo of outstanding investors of last century. May be one of the few photos where we can see Warren Buffet, Benjamin Graham, Charlie Munger, Tom Knapp, ED Andersen, Walter Schloss (WJS parner) William Raune (Raune Cuniff, Sequoia fund),etc. together. The underlying philosophy was to show the amazing investment record of these market masters. Most of these legends have consistently generated high Alpha over long period of time. Warren Buffet have generated over 12% Alpha for over 40 years, Charlie Munger had generated consistent alpha ranging around 15% before joining Warren Buffet. He continues with highlighting the contribution of Prof. Benjamin Graham in the field of Valuation and Analysis. In fact, the origins of CFA certification are also traced to Prof. Graham's efforts to formalise certification for security analysis way back in 1940's (though CFA program finally took off in 1963). Finally, he stresses on the importance debit/credit in Analysis and valuation, these terms appears more than 400 times in Prof. Benjamin Graham's Books (Security Analysis and Intelligent Investor).

As popularly said, history does not repeat its rhymes and it is amply clear in financial markets. He describes how global crisis of 2008 were similar to crisis of 1908. He goes on to explain the effect of interest rates on credit cycle. He further explains that the rising interest rates are not same as high interest rates. High interest rates are a problem but rising rates may not be bad. Finally, he completes by showing how high interest rates may lead to credit crisis which in turn would drive collapse in equity market. The pattern was same for most of the crisis over last decade. Almost all of them were preceded by squeeze in availability of credit (Panic of 1907, The great depression of 1929, The Roosevelt recession of 1937-38, Dot com bubble of 2000, The global crisis of 2008, etc.)

He further talks on evolution of accounting, for example, the cash flow statement went through 7000 amendments before getting accepted in late 1880's. At that point he highlights the loop holes in GAAP and IFRS accounting. According to him, the GAAP reported earnings do not give the correct picture, the earnings are distorted. He cites the opening remark of Warren Buffet in 2018 and 2019 Berkshire Hathaway Annual Shareholders meeting to substantiate his point on GAAP reported earnings. In 2019, Warren Buffet said "GAAP Rules.. I've warned you about the distortions. The bottom line figures.. totally capricious. It's really a shame". For example, on valuations using EBITDA, he quotes Warren Buffet, who believes it may not be a good measure to value a company (as depreciation is real expense, omitting it in valuation will not give correct picture). Similar observations were made by Charlie Munger and Seth A. Klarman. He cites distortion in Amazon.com GAAP reported earnings to support the above points on GAAP.

Continue Reading at: https://wordpress.com/post/cfasocietyindia.com/10905

Watch video: https://www.youtube.com/watch?v=7kK1QqI6tY4

SESSION 5:"TAMING UNCERTAINTY"

Speaker: **Ralph Hertwig**

Moderated by: **Madhu Veeraraghavan (Director and T.A. Pai Chair Professor of Finance, T.A. Pai Management Institute)**

Contributed by: **Rajni Dhameja, CFA**

The 10th India Investment conference hosted one session on "Taming the Uncertainty" by Ralph Hertwig. He is a director of the Centre of Adaptive Rationality at the Max Planck Institute for Human Development at Berlin.

The contours of the session were designed around how the uncertainty is different from risk and how in real life we deal with uncertainty more often than not. The hypothesis was that considering the fact that people are not fully rational as assumed by financial models, can we invest more time and effort to understand how people take decisions and train the models accordingly. Hence it is an attempt to consider the approach of "moving from people to models as against the existing approach of models to people".

Uncertainty is a human condition. It is a space where outcomes of a particular event are either not known or incompletely known hence the surprises can happen. For instance climate change in an uncertain situation rather than risky situation because full impact of climate change is unknown to a large extent. Following are few real life examples depicting uncertainty and the way people deal with it:

1. Miracle of Hudson river in 2009, wherein plane was stuck above the water due to some issue in the engine. Between the choices of going back to the starting point and landing over the water, pilot made the less popular choice of landing over the water. In hindsight, pilot explained that for this decision pilot relied only on one piece of information i.e. direction of movement of windshield which indicated that if pilot attempts to land he will be able to do so.
2. Decision making by cab drivers in the city of New York (approximately 6000 times in year) as to

who they can let inside the cab so that they do not let any unwanted person inside the cab. Their decision making is based on simple heuristics of preference towards women over men, individuals over group, older people over younger ones etc.

3. 80% of decision making by firefighters is in less than 1 minute

The above three completely different examples of uncertain situations point out to one common thing i.e. way of decision making in these situations. Decision maker's reliance on simple heuristics rather than complex algorithms.

Continue Reading at https://wordpress.com/post/cfasocietyindia.com/10944

SESSION 6: "KEY ECONOMIC CHALLENGES OF OUR TIMES"

Speaker: **Nouriel Roubini**

Moderated by: **Ridham Desai, MD, Morgan Stanley**

Contributed by: **Jainendra Shandilya, CFA, CAIA**

The last session of the 10th India Investment Conference, drew huge crowd to listen to the keynote speaker of the event. Nouriel Roubini, renowned economist, author and global strategists, spoke on "Key Economic Challenges of Our Times".

Roubini outlined four scenarios for the current states of the global economy and went on to elaborate each of these four situations. The global economy, as it stands today, can have the four possible paths:

1. Return to expansion (3.4% growth globally)
2. Continuation of current slowdown (3.0%)
3. Further slowdown (2.8%)
4. Global Recession (growth <2.5%)

During 2017 the global growth was above trend and the world economy grew to 3.8% wherein most of the global economies were growing in a synchronized fashion. In 2018, the global economy was still positive but it started showing signs of slowdown as the growth descended from 3.8% to 3.4%. Firms were worried about future and they stopped spending on capital expenditures. As a result, in the 4th quarter of 2018, the US broad market was down by about 20 percent. This was a case of synchronized slowdown.

Dwelling on scenario 1, i.e. the situation of moderate expansion of 3.4%, Roubini cited various reasons for the same: the phase I deal between USA and China, recovery of capex, Brexit is now certain and going to be soft and possible massive easing of monetary policy. Scenario 4 of global recession is much less likely with a caveat of Iran & US going to war and that may change the whole situation. Scenario 2 of continuation of slowdown (growth of around 3%) is much more likely according to Roubini.

In November 2015, a delegation of USA and European countries went to Beijing and they heard the Chinese Premier Xi Xinping quoting 'Thucydides Trap' – Coined by Harvard professor Graham Allison to capture the idea that the rivalry between an established power and a rising one often ends in war[1]. According to Xi, every time a power rose, someone else challenged it and the transition was very painful. For China, fortunately, there has not been much opposition. This situation was pre-Donald Trump election. The situation, however, turned out to be very different after Trump came to power. What we are witnessing in today's world between China and USA is decoupling from globalization. The 5G argument of USA for not allowing China will lead to balkanisation of global economy. Going forward, with the advent of internet of things (IOT), every gizmo that we will be using will be having chip that will be connected to internet. That particular machine may be of Chinese origin and even if it is powered by technology coming from elsewhere, the Chinese company may still get to know the relevant information about the supply chain. Hence, there is no way for the world to go back from here.

Continue Reading at https://wordpress.com/post/cfasocietyindia.com/10879

SECURITY & FRAUD IN FINTECH

Srividhya Venkatesan, CFA
(Member, Public Awareness Committee - CFA Society India)

Fintech has been a disruptive innovation in recent times, challenging the traditional financial industry by transforming services and offering more convenient and affordable solutions to both banked and unbanked consumers. Spanning banking, broking, blockchain and cryptocurrency, fund management, insurance, lending platform, mobile wallet, neobanking, transfer and payments, wealth management etc. - fintech covers newer technologies and platforms across the financial services value chain. However, it comes with some unique set of challenges and vulnerabilities, specifically pertaining to the sensitive data that forms the very core of our financial services industry.

The first time the world realized the grave dangers posed by privacy and data breach issues was in the year 2016 when the Cambridge Analytica scandal got exposed. While in the said case, personal data was used for psychographic profiling in a political campaign, sensitive data leakages in financial frauds could have more dire consequences.

Magnitude of risks involved

Very recently, Paytm, one of the most funded fintech companies[1] in the country, was subject to a scam attack. As reported by a reputed business daily, several Paytm subscribers were duped by scamsters posing as Paytm employees. The customers were asked to download a mobile or desktop application to complete their KYC process. With the help of this application, the scamsters got hold of the pin generated on the customer's device and siphoned off funds from the customer's bank account linked to the mobile wallet.

Some of the other prominent fraud cases in recent times include: Mauritius Banking group SBM Holding's Indian operations suffered a potential loss of around $14 million in cyber fraud after unknown fraudsters hacked into its server and illegally accessed various accounts to transfer money outside the country; similar hacking of the Cosmos Bank's system caused siphoning of around INR 944 million through withdrawals across multiple countries[2].

With 451 million monthly active internet users at the end of the financial year 2019[3], India is at the forefront of fintech adoption and also the associated risks. Digital payments in India have seen one of the swiftest rises in the past few years. The year 2019, registered a 9x growth in digital transactions per capita per annum in India – from 2.4 in 2014 to

1 https://bfsi.economictimes.indiatimes.com/news/fintech/top-20-indian-fintechs-raised-rs-12000-cr-in-2019/73063865

2 https://www.techcircle.in/2019/01/03/indian-banks-record-spike-in-cyber-fraud-cases

3 Report by the Internet and Mobile Application of India https://economictimes.indiatimes.com/tech/internet/india-has-second-highest-number-of-internet-users-after-china-report/articleshow/71311705.cms

about 22 in 2019. This is further expected to grow 10x to 220 by March 2021[4].

Fintech companies must be ready to meet the cybersecurity challenges to ensure the sanctity of transactions and protect confidential data of its customers. ATM thefts (using skimmers and keyboard cameras), account impersonation, cross-site scripting, identity theft, malware and viruses, phishing, sensitive data exposure, security misconfiguration, are some of the many frauds that have plagued the fintech industry today. The companies must promptly adopt comprehensive fraud prevention policies to mitigate the risks involved.

So, what can Fintechs do to combat these frauds?

(a) Most are supplementing their traditional risk programs with Machine Learning (ML) and Artificial Intelligence (AI) algorithms that analyze user behaviour on a real-time basis and improve detection accuracy. It is being used in several aspects like account opening, checkout scoring, merchant underwriting, marketplace, payment authorisation to name a few, to combat frauds. For example – MasterCard uses an integrated ML and AI process to track factors like device used, location, transaction size and time in each operation and do a real time judgement on whether the transaction is fraudulent.

A leading global technology company claims that fraud detection systems using machine learning and analytics can minimize fraud investigation time by 70 per cent and improve detection accuracy by 90 per cent. Several companies are offering these ML/AI solutions like Capgemini, FirstData, Simility, Infosys, TCS to name a few.

Also, multiple tools are being used to counter cyber frauds like:

4 Funding Report – Indian Startup Ecosystem Jan-Sept 2019 YourStoryResearch

Tools available	Function	Software/Service Provider
Mobile App Security Testing Tools	Platforms that scan mobile apps to prevent fraud attacks, virus or malware, security breach etc.	ImmuniWeb® MobileSuite, Zed Attack Proxy, Kiuwan, QARK (Quick Android Review Kit)
Firewall and Antivirus Software	Security System that provides real-time protection against unauthorised access by external networks and external threats	Norton, McAfee, Cisco, Quick Heal
Cognitive and Behavioral Biometrics	Use of biometrics (like facial recognition, fingerprint scanning etc), one-time passwords and code generating apps to bypass conventional methods like passwords and security questions	Google Authenticator, Buguroo, Fingpay, FinoPay Tech
CASB (Cloud Access Security Broker)	Identify anomalies and patterns of fraud across cloud applications	McAfee Mvision Cloud (formerly Skyhigh Networks), Symantec, Cisco Cloudlock, Bitglass Cloud Security, Netskope

Note: The above is a representative and not a comprehensive list of Players or Tools available to counter cyber fraud

(b) A single regulatory body with specific set of guidelines, which are standardised and unambiguous, could also go a long way in reducing the risk incidents. Currently, there is no universal regulatory body for fintech entities in India. Depending on the product/service proposition, the regulatory body governing such vertical, regulate the specific fintech. These are mainly the RBI, SEBI, the Ministry of Electronics and Information Technology, the Ministry of Corporate Affairs and IRDAI. While RBI has already begun regulating some verticals like e-wallets, payment gateway services and P2P lending; a unified regulator and regulation is the need of the hour.

In August 2019, RBI, SEBI and IRDAI published draft frameworks for regulatory sandbox. The regulatory sandbox would allow live testing of new products or services in a controlled or test regulatory environment. This initiative will enable regulators to experience the outcome of the technology, with an eye on possible risks. The product can be tested in a smaller group before being rolled out in the broader market putting a close check on the risks involved.

(c) Risk tolerances must be established within fintech companies and communicated throughout the organization so that all stakeholders are held responsible for meeting those guidelines. Further, companies must keep educating their clients about the potential risks and ways to stay vigil. Most of the new entrants to the Indian Internet space are from the middle or bottom of the pyramid who are not fully aware of the potential dangers. Frequent training and education could act as an effective self-monitored risk-prevention mechanism.

To conclude, fintech is redefining the financial services today and would become a crucial part of our ecosystem in the next couple of years. To maintain trust and achieve a broader financial inclusion, it is imperative that fintech companies work on strengthening cybersecurity, control fraud and prevent money laundering, while focusing on their business growth.

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REVOLUTION IN LIFE INSURANCE

Contributed By: **CA Navin Agarwal, CFA**
(Manager at Citi India, Wealth Management Division)

Banking industry has taken big steps in Innovation, Technology and Fintech. However, Insurance industry is yet to evolve with the various Fintech opportunities and the challenges it faces.

Changing and dynamic customer expectations have led to huge opportunities through various new business models and technologies that can drastically transform Insurance business. Consumers, with all their different expectations, complexity and requirements are in the driver's seat. There are new emerging technologies like Robo-Advisory, Big Data, Machine Learning, Artificial Intelligence, Block chain and Smart contracts, etc. which will be at the forefront of Fintech developments. New business models like Peer-to-peer, usage based insurance and on-demand insurance can be seen in the near future in insurance industry.

Fintech will see newer innovations resulting in efficiency improvements and cost reductions in insurance sector. Different product development opportunities with improved risk assessment are possible due to Insurtech. Engagements with customer will get easier leading to superior customer experience. However, with various advanced technological innovations, regulatory oversight may decrease. With changes in current business models, their inherent strength may take a hit. With more and more data being generated, there is a possibility of potential increase in the risk of consumer data protection.

The most important trend which shows the importance of Insurtech is Do or Die in digitization. Insurtech companies are building platforms and innovating technologies which were earlier unthought-of. Traditional Insurance Models must actively build innovative technology platforms and probably partner with Insurtech companies instead of seeing them as competitors. Increasing digital payments ecosystem has made it a compulsion to develop sound micropayment systems. It will help to unlock sections of the developing markets that have low current levels of insurance penetration. Insurance companies have been slow to realize the shift in consumer behaviour (usage of phone by modern consumers). They must have meaningful engagement with their customers at regular intervals, rather than just at time of renewal. With the amount of data being generated, insurance companies will have to find new solutions to safeguard the data for their business. Apart from assisting in pricing and underwriting, Data is the very DNA of 21st-century. Artificial Intelligence and machine learning is the cutting edge solution that may prove to be the biggest driver of efficiency. Companies that lack data or data partners will find their business models severely challenged. The rise of wearable technologies and smart devices in home is altering consumer expectations and creating new models for lifestyle-related behaviours and insurance.

With all the technological innovations and trends seen in insurance industry, changing the channel of insurance penetration is a possible development. Insurers can improve their customer-facing digital experiences by becoming more integrated with other products. Recently, a telecom company has started offering life insurance by a partner when their customers recharge. Underwriting can become more complicated and dependent on AI. Third-party underwriting (for AI expertise) can become the industry standard. Customer satisfaction and retention will be a more important key performance indicator (KPI) than operational efficiency. Incumbent insurers must fundamentally change their business models, and this requires cultural change and a focus away from product to the customer, their experience and outcomes. Among the mature insurance markets, the successful incumbents will likely be the ones who learn from them, adapting and adopting their tech where appropriate. Claims settlement is expected to become one of the most important elements of customer engagement as speedy settlement creates a rewarding experience for customers.

To conclude, Insurtech is the new norm of industry. While the scope and opportunities are tremendous, it will be exciting to see how the market actually evolves over the next couple of years.

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EXPRESS

INVESTING IN GREENER PASTURES

Contributed By: **CA. Nishit Vyas**
Market Risk, Axis Bank.

When the European Investment Bank issued the first "Climate Awareness bond" in June 2007, investors deemed it to be another marketing gimmick by the West. In January 2020, the World Economic Forum listed climate change related risks as the top five long term risks facing the global economy in terms of likelihood and severity. In a separate report, the Bank of International Settlement stated the "Green Swan Risk" to be the next big event that would disrupt financial markets and cause the next systemic financial crises. Various scientific studies have shown that climate change, if blithely disregarded, would cause irreversible chain reactions resulting in loss of bio-diversity, affecting human productivity and causing mass migration. While the Government may impose Pigovian taxes, subsidize renewable energy and incentivise low carbon industries, it is imperative for all stakeholders to come together and work collectively to resolve this global problem.

Today, most companies do not report on their carbon emissions and those who do, use varying methodologies and assumptions. Lack of a common yardstick to gauge and report carbon footprint, acts as a major impediment for taking corrective action. The efforts of the task force on Climate related financial disclosures (TCFD) were a step in the right direction but the voluntary nature of such disclosures truncates its intended purpose. Climate related disclosures are indispensible for investors, insurers and lenders which help ensure that climate related risks are adequately priced and managed. However, the increasing rhetoric in favour of nationalism and de-globalisation further inhibits collective action by governments against climate change. Therefore, we, the investing community, must do our part of the job and help the state resolve this impending problem.

Investments can be channelized to buy "Green bonds" issued by companies, the proceeds of which would be used to invest in green technology and facilitate the transition from fossils to renewables. Clients need to be educated about the role that ESG plays in long term value creation and a smidgen of the portfolio may be allocated to ESG funds or ESG based thematic strategies. Top Institutional investors should pressurise the managements to improve their environmental performance and objectively disclose their climate related risks. Managements that are oblivious to the negative climate externalities caused by their strategic decisions must be voted out in favour of managements that are conscious of the environmental impact of their decisions. Companies that are carbon negative may be stripped of their investment grade rating, which will have a direct bearing on their ability and cost of raising funds. Lenders may also incorporate ESG rating of the borrower into the pricing of loans and reduce the spreads charged if the funds are used for green transition or to create green infrastructure. ING – Phillips has an agreement in place for a EUR 1 Bn loan where if Phillips ESG rating improves, the

INDEX

interest rate declines. The fact Saudi Aramco's strong fundamentals were not enough to garner foreign interest in its IPO is a testimony to the increasing investor awareness and a swingeing behavioural shift in the investor decision making process.

The urgency to act on the imminent climate change crisis has led major industry players to make a conscious attempt to decarbonise their portfolios ie: Portfolio decarbonisation (PDC). PDC includes efforts to reduce the carbon footprint on the investment portfolios by divesting from high carbon producing industries and increasing investments in renewable technologies. Such portfolios create tremendous long term value by reducing the left tail risk of portfolio impairment because of a change in environment related regulations and increasing exposures to entities that are likely to be the beneficiaries of a low carbon economy. Coherent strategies for PDC include using negative screening to exclude fossils from investment portfolios, development of green bond markets and developing low carbon indices (Eg: MSCI low carbon leaders index). Below are a few examples set by industry leaders*:

- Kommunal Landspensjonskasse (KLP, Norway with AUM $ 70 Bn) would divest from coal companies by excluding companies that derive more than 30% of its revenues from coal based activities to reduce the fund's carbon footprint.
- The Environmental Agency's Pension Fund (EAPF, UK with AUM $ 3.9 Bn) has pledged to invest 15% of its funds in low carbon, energy efficient sectors to decarbonise its portfolios by 90% for coal by 2020 and support progress towards a low carbon economy.
- BNP Investment Partners (BNPIP, France with AUM $ 598 Bn) has developed a system that helps its fund managers know in real time the impact on their portfolio's carbon footprint by choosing one stock over other.

The extent to which such PDC strategies will precipitate down the real economy is still unknown. This is because divesting from high carbon emitting companies and investing in renewable industries would certainly improve the carbon footprint of the portfolio but might not necessarily translate to lower carbon emissions if such companies have adequate reserves or find alternative sources of financing. Thus asset managers must also collaborate with regulators to frame regulations that curtail the flow of credit/ capital to such industries. In the absence of adequate sources of financing, the industries will be compelled to make the green transition which shall benefit not only the company but also the society.

Today, the world stands at crossroads and the non state actors, including investing fraternity must ensure that we make choices that lead to sustainable development. In an era when economic growth takes precedence over environmental conservation, we must realise that the cost of inaction far exceeds the cost of action. We must continue to remain amenable to new ideas that would help facilitate this green transition because "our house is burning" and it is surely now or never for all of us. The challenge is not insurmountable but we must act, act now and act fast.

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About CA Nishit Vyas

CA. Nishit Vyas is currently with Axis Bank, Mumbai, in the market risk domain. A Chartered Accountant and a CFA Level III candidate, Nishit has a keen interest in economic research and global risk management practices for banks. An avid sports enthusiast and marathoner, Nishit regularly contributes to various journals and publications in the field of finance and economics.

EXPRESS

MARKET OUTLOOK - MARCH 2020

Contributed By: **Navneet Munot, CFA**
(CIO, SBI Funds Management Pvt Ltd and Chairman, CFA Society India)

Coronavirus dominated headlines through the month and global risk assets sold off sharply as the spread of the disease outside China led to fears that disruption for the global economy could be more severe than earlier estimated. The long-dated US bond yields have plunged to record lows consequently. The 30-year US treasury yield at 1.67% now is almost 100 bps lower than the level touched in December 2008!! Financial markets globally had so far been helped by concerted monetary accommodation from central banks even as the economy had yet to show signs of meaningful pickup. The Coronavirus shock perhaps just acted as a trigger for a market anyway waiting for correction. While it is too early to estimate the exact impact, it is very likely that policy action will have to stay very growth supportive. Yet growth continuing to struggle even with all the monetary accommodation only suggests that monetary policy has hit its limits. This only reaffirms our belief that fiscal policy will have to play a major role going forward to take the global economy out of this prolonged slump.

Looking beyond the short-term, this episode may just add to the list of reasons for the rest of the world to reduce over-reliance on China. While there has been truce of sorts between US and China of late, it is highly unlikely that the trade wars and tech wars will deescalate meaningfully. Moreover, demographics will continue to deteriorate for China and put pressure on the availability and cost of labour. This implies that global supply chains will have to readjust, and manufacturing should shift away from China to other countries. While India isn't the only choice, and there are strong contenders in Vietnam, Thailand and Bangladesh amongst others, India should fancy its chances as an alternative to China given the many unique advantages it has. In that context, US President Trump's recent visit to India holds immense symbolic value even as nothing concrete may have come out of it immediately.

Size works in India's favour. India provides a large supply of cheap labour and is a big local market at the same time. Yet we can't just count on size and demographics as panacea to all our problems. Countries that do well tend to have three things in common first, a strong institutional framework that deals with sanctity of contracts, dispute resolution, enforcement of law and the likes. Second, strong focus on innovation and education, and third, a robust social security net. Of these, we are making significant progress on the third point but need to do a lot more on the first two.

A lot of financial resources are needed for continued social welfare spends which will have to be garnered through focus on the first two points. We need to keep pushing the envelope lest we fall in the middle-income trap. We need to ensure that we have adequate institutional capacity, on judicial, administrative or regulatory fronts, to match our growth ambitions. The developments around GST, IBC, the significant improvement in ease of doing business, etc are in the right direction but we need to do a lot more on execution and dispute resolution. The troubles of the telecom sector, with Vodafone Idea still struggling for survival, are far from over as remains the case with stressed NBFCs too. We need speedy and decisive resolution to these issues to revive confidence amongst foreign investors on our institutional capacity.

We also need to up our game on innovation and education. Not just is our R&D expenditure meagre at 0.6%-0.7% of GDP, we also need more coordination between business, academia and government agencies on research. As the quest for global supremacy leads to a race to indigenize technology, particularly between the US and China, the world could be staring at this century's 'Sputnik' moment. The pace of technological evolution and consequently disruption could increase manifolds. Action on climate change risk will potentially lead to more innovation too. It becomes imperative against this backdrop for India to keep pace. Following China's example, we should incentivize Indian talent abroad to return to the country. Right education and skill development similarly are vital to reap the demographic dividend and assume even more significance in the wake of the ongoing tech revolution.

All this being said, we have indeed travelled quite a distance over the past few years in putting the right framework to build on. Post GFC, there was a prolonged period of persistent negative real rates, with the latter part of this period marked by excessive capacity creation, rampant lending by banks coupled with heightened policy uncertainty. This lay the seeds of a macro-economic crisis which hit a climactic peak in 2013, with the trough on economic activity recorded that year too.

To correct this, we did an administrative, regulatory and judicial overreach, kept real rates high for too long, embarked on fiscal tightening, acted to clean up the economy all at the same time. We also undertook structural reforms such as GST and IBC during this period which had a bearing on near term growth. A related consequence was a slowdown in the real estate sector which in turn impacted growth through both job creation as well as wealth effect. And to top it all, all this coincided with global slowdown and severe technological disruptions. It is therefore no surprise that we landed in the situation we are in today. GDP growth data (Q3FY20 at 4.7%) and fiscal deficit numbers for the period Apr-Jan 20 (128.5% of budgeted for 2019-20) released yesterday point to an extremely challenging state of affair. Yet, we shouldn't get overly pessimistic about the current slowdown. Just as the blind optimism on continued 10% GDP growth a decade ago proved unfounded, we believe the current pessimism may turn out to be excessive and misplaced too.

We have achieved macro stability with current account and fiscal deficits under control, rupee largely stable and foreign reserves comfortable and rising. Inflation expectations are down, and cost of capital has declined too as manifested in the continued decline in g-sec yields. Banking system has been repaired with NPA clean-up, PSU bank recapitalization and consolidation, and most importantly the IBC framework in place for stress resolution. There were pockets such as NBFCs where there was a bit of bubble creation but now that space is getting cleaned up too. Both availability and cost of capital should therefore improve. In addition, steps such as global bond index inclusion, full tax exemption to sovereign funds for infrastructure investments, etc should continue to attract foreign capital.

On the other side, reforms such as GST and corporate tax cuts, improvement in ease of doing business, and the formalization of the economy and financialization of savings should all help the supply side too. Similarly, we have also made significant strides on food production. Public sector units haven't done well but with the government now intent on strategic divestment, they can turn value creators over time. The government's focus on supply side reforms has allowed the RBI to be more accommodative to revive demand. Recent moves such as Operation Twist, sector specific relaxations for Real Estate and MSMEs, and long-term repo operations (LTROs) suggest the RBI has taken a leaf out of global central banks' book and is intent on doing 'whatever it takes' to revive the economy.

In the near term, in addition to the various policy measures for reviving growth, a pick-up in rural economy, aided by better acreage and rise in global food prices, should help too. Gold price rise will help with positive wealth effect as should financial markets even as real estate continues to be a dampener. While job creation and income growth through supply side measures will happen at its own pace, focussed approach on real estate and infrastructure is vital for near-term demand revival. A scrappage policy for the Automobile sector will likely be a big boost. More importantly, after the reforms of the past few years, we need to avoid any further disruptions or friction of any sort to ease the economy and businesses into adjusting to the new way of doing things. Issues such as in those in the telecom sector should be quickly resolved.

Overall, developments around the extent of spread of Coronavirus, and the economic disruption it causes will continue to keep financial markets volatile, both globally and in India. Yet eventually this could prove a blessing in disguise for India as the disease forces a quicker rethink on global supply chain reorientation in a bid to reduce over-reliance on China. India stands ready to benefit from this shift given the strong reforms of the past few years, provided we continue following up with policy certainty, adequate institutional capacity and right execution.

While the global situation is worrisome, we hope mankind to quarantine any differences and inertia and work together with a much bigger zeal to not only overcome the current challenge but also achieve the ambitious Health and well-being goals for 2030 as set out in UN SDG 3.

Amidst heightened volatility, words of wisdom from the sage of Omaha are pertinent for investors- Be fearful when others are greedy. Be greedy when others are fearful.

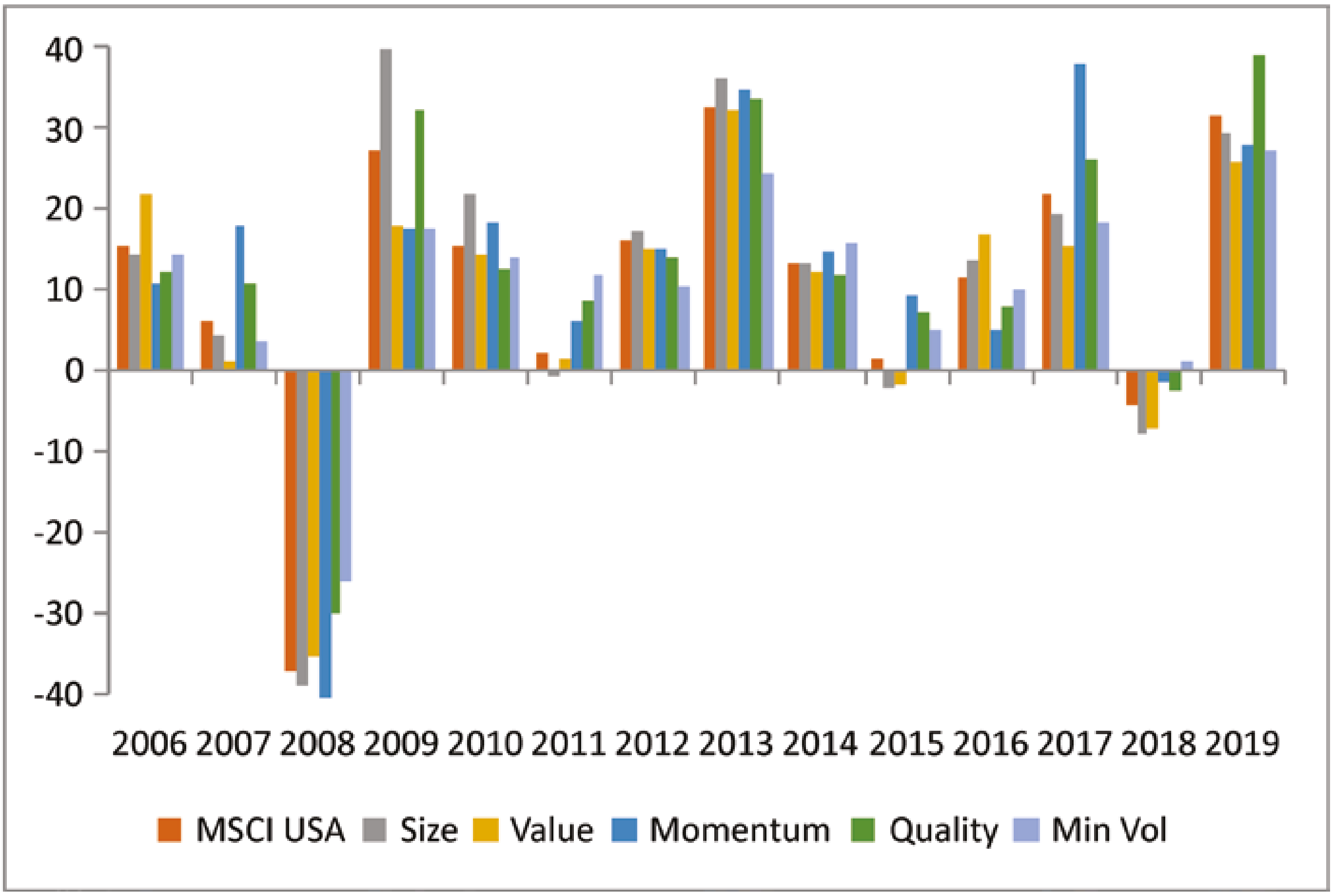
RESEARCH: DIMENSIONS OF VALUE FACTOR

Rajeeb Bharali, CFA
(Member, Public Awareness Committee - CFA Society India)

Rajnish Kumar, PhD

Introduction

Benjamin Graham is considered as the "Father" of Value Investing and his book "The Intelligent Investor" is lauded as the most influential book ever written on value investing. A value investing strategy implies buying stocks whose intrinsic value is greater than its market price. In one of the most pioneering works, Basu (1977) empirically tested the concept of value investing by examining



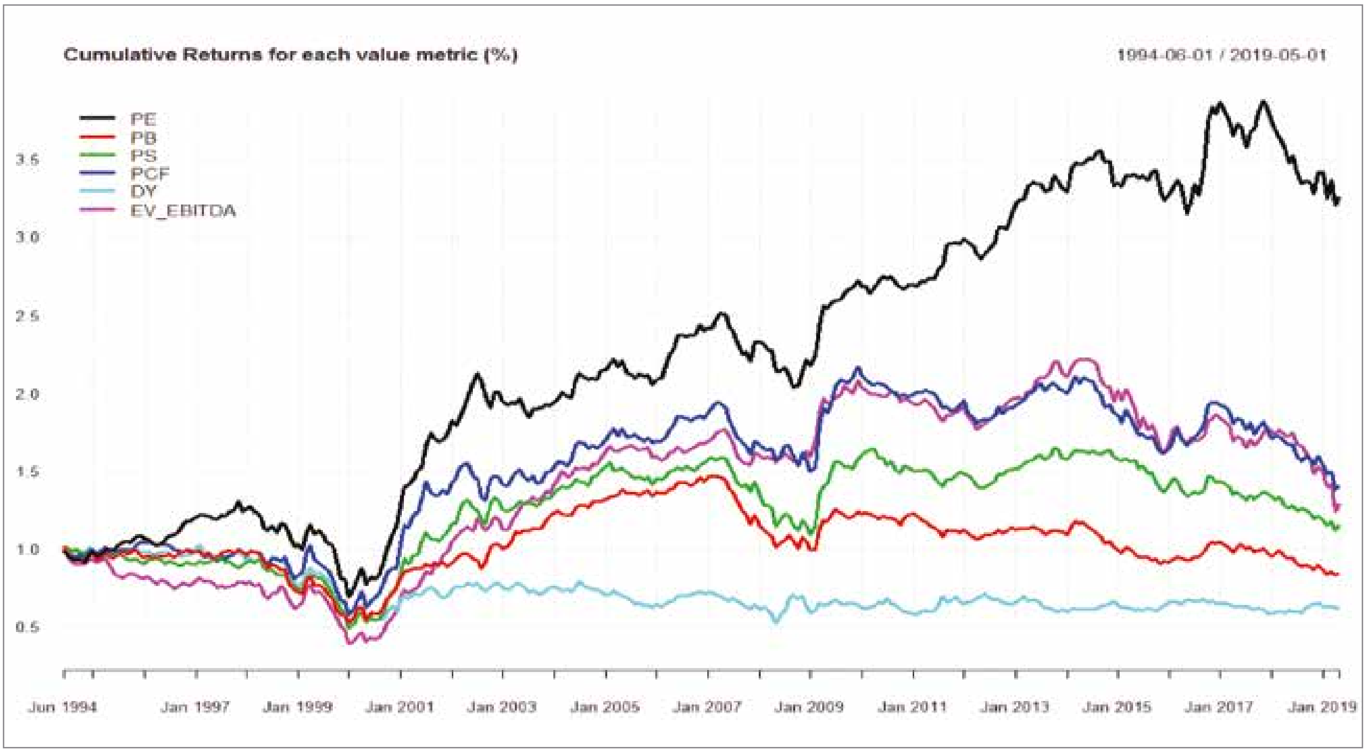
Source: MSCI

price-earnings (P/E) ratios as leading indicator of future investment performance. This was followed up with the seminal paper by Fama-French (1992) where they used book-to-price to represent the value factor and that laid out the path for a quantitative way to capture the value premium as has been exemplified in the following years, perhaps decades, in the asset management industry.

To a keen observer, this begs the reader to ask 3 questions: 1. Is the Price to Book the most effective way to capture the value premia? 2. Is it wise to apply a standard set of valuation multiples uniformly across sectors/industries? 3. Why did the world of finance ditch Basu's Price to Earnings in favor of Fama-French's Price to Book ratio as the apt measure of Value? This article is the first of a series of 3 short articles which will try and address the above questions in the sequence stated.

The Value Premia

Over the last 12 years, value factor has under-performed the broad market. Numerous reasons have been cited to explain this underperformance. A low rate environment and substantially long expansionary phase leading to outperformance of growths stocks over value has characterized the past decade. At the same time, questions have been raised on the adequacy of valuation parameters used in capturing the value premia, especially with regards to growing intangible assets. A comparative analysis of total returns of different style factors shows that value factor has consistently underperformed the rest.



With changing dimension of industry, asset quality and performance of value factor, it is imperative that we examine the effectiveness of other price ratios in exploring other dimension of value factor. Academia as well as practitioners use different price ratios as a representation of value such as price-to-book, earnings yield, cash flow yield, dividend yield, price-to-sales, EV-to-EBITDA and different variants of which is either historical, forecasted or average value of fundamental variables in the price ratios. As stated earlier, price to book are dividend yield are the favourites, especially amongst quants trying to exploit the value premia. But can these 2 variables capture the value premia in its entirety. To ascertain this we set out to assess each valuation multiple in isolation and see its efficacy over time.

As a starting point, we consider MSCI USA Index as our base universe and consider data from June 1994 till May 2019. We collate the valuation data for each of the securities forming part of the universe across the mentioned time period. As part of the outlier treatment, we winsorize the data on both ends (remove top and bottom 2% of the universe by each metric). Using each valuation multiple, we then divide the data set into quintiles. For example, based on Price to Earnings multiple, we rank the universe of stocks in ascending order and quintile it so that the top quintile (Q1) contains the stocks with the lowest PE multiple (value) and the bottom quintile (Q5) has the highest PE multiple (growth) stocks. In order to generate the pure price to earnings return stream, we calculate the return spread between Q1 and Q5. Similar exercise was done for all the other valuation metrics under consideration – Price to Book (PB), Price to Sales (PS), Price to Cash Flow (PCF), Price to Dividend (1/DY) and EV to EBITDA (EV_EBITDA)

The cumulative returns of these hypothetical long short portfolios (by multiples) are shown below. As can be seen, there has been a wide and growing disparity between PE and PB (or DY). In fact, for the period considered, DY has been negative and PB being close to neutral. PE has outperformed all other metrics hands down. Also to note is the fact that each valuation multiple has led to different outcomes, although correlated to a large degree.

While the above chart implies dominance of PE multiple, it is also worthwhile exploring its performance on a risk adjusted basis. The below table shows the performance analytics of different valuation measures (Sharpe Ratio is calculated assuming risk free rate of 0%):

Statistics	PE	PB	PS	PCF	DY	EV/EBITDA	MSCI USA Value
Ann. Return	4.84%	-0.67%	0.59%	1.39%	-1.90%	1.05%	6.87%
Ann. Std.	11.35%	10.99%	12.04%	12.73%	11.88%	12.95%	18.14%
Sharpe Ratio	0.43	-0.06	0.05	0.11	-0.16	0.08	0.38

Consistent with cumulative returns chart, Price to Earnings looks more attractive as compared to other valuation metrics. Price to Earnings also performs better on a risk adjusted basis as compared to MSCI USA Value.

Conclusion

While the academic literature gravitated towards a single measure of value, Price to Book, and was ably mimicked by practitioners (mostly quants), it is, by no means, a complete measure of value factor premium. Although, many still use a composite value scoring methodology, encompassing most of these valuation parameters, it raises questions on a blanket approach being adopted across sectors/ industries. For example, Price to Book may be an excellent measure for Financials; it is of limited use in the Technology sector. Efficacy of either PB or DY also raises the fundamental question of whether it takes into account the earnings power of a firm. A stock may have a very attractive PB or DY multiple but if it has a low or even negative earnings (historical or forecasted), it is best to stay away from such stocks and avoid value traps.

In our next article, we will assess the sector specific valuation multiples. We will create a new composite value indicator which incorporates sector relevance and compare it with an equal weighted composite of all metrics applied uniformly across sectors. It is very important to accurately define factors which capture the essence of the premia in its true sense, in times of changing economic environment.

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Rajeeb is a seasoned investment professional with ~9 years of experience in the field of investment management. His primary area of work is into asset allocation/portfolio construction for Fund of Funds (FoF) and investment manager research and selection. Rajeeb holds a BS in Engineering from Birla Institute of Technology, Mesra, graduating in 2008 and is an active member of the CFA Institute as well as the CFA Society India.

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Rajnish Kumar has over 8 years of experience in factor research across equity and fixed income. His area of interest includes ESG, smart beta, portfolio construction and risk-return attribution analysis across different asset classes. He has publications in top tier journals. He holds PhD in Economics from Indira Gandhi Institute of Development Research, Mumbai.

CAREER INSIGHTS

7 Creative Tips for Hosting a Productive Business Meeting

Michael Mankins at Bain & Company studied online calendars at a large company to determine how much time employees spend in meetings. The organization in this study held an executive committee every week, which created an unintentional ripple effect: managers and division heads set up additional meetings to prepare presentations for the executive committee. Cumulatively, this approach resulted in an astonishing 300,000 hours a year and cost about $37 billion nationwide. Only about a third of those meetings were productive.

It's not that meetings aren't necessary. With the right approach, they can be helpful – but poorly planned and executed meetings don't lead to consistent or profitable results.

If you want to make sure your meetings are productive, here are seven things you need to set the stage.

How to Host a Business Meeting (Without Wasting Time)

1. Invite the right people

Don't invite people just because of their titles. Instead, ask colleagues to attend who can provide relevant information and input. If they aren't necessary to the discussion, don't make them show up. Wasting someone's time will hurt morale and productivity.

Large meetings tend to be the least productive. The CEO of Amazon Jeff Bezos has what he calls the "two-pizza rule." If the organizer needs more than two pizzas to feed everyone in attendance, he won't go to the meeting.

2. Develop a written agenda

A formal agenda sends a message: this meeting is significant and warrants everyone's attention. To read further: https://www.ivyexec.com/career-advice/2020/7-creative-tips-for-hosting-a-productive-business-meeting/

ON THE LIGHTER NOTE

- Financial advisor will know tomorrow why the things he predicted yesterday didn't happen today.
- The trading floor of an exchange is an environment wherein a higher concentration of people are subjected to more incomplete information bits flying around than anywhere else.
- Markets are the places where two types of people meet up in the morning: Those with experience and those with money. Towards the end of the day, they exchange their assets and go home.
- A stockbroker was in the hospital, when the nurse took his temperature he asked "how much it is?" "102, sir." He replied "Sell it when it gets to 103."

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