The world is witnessing a major shift in financial services.

A combination of factors is at play. Reduced trust in the global banking system, low interest rates, data flows, analytics and the growth of smartphones – all of these have created the enabling conditions for start-ups to attack the traditional financial sector. Backed by venture financing, many of these companies are causing a massive disruption in financial services. The bank is being systematically unbundled, and new players are attacking every segment of the market. These companies have improved service levels, reduced costs and dramatically improved the user experience. Term loans in the US are possible within a day, and one no longer needs to be an HNI for investment advisory services. $ 12 Bn poured into the sector last year (in the US alone), which also witnessed several Fintech IPOs. The Economist, rarely given to hyperbole, has called it the Fintech revolution. In June, Goldman Sachs considered the movement real enough to set up an online consumer loans business.

Closer to home, the penetration of digital banking is an undercurrent that may leave most people surprised – or shocked. We see the tipping point to be in 2017, when internet penetration in the country crosses 30%. By 2020, digital transactions are likely to account for more than a quarter of transactions in the banking sector. By 2022, digital banking will have more than 50% penetration levels. Mobile banking adoption rates are already outpacing web banking. The conditions are ripe. Across segments, there are new companies emerging. What may today appear like a couple of pin-pricks in the financial services landscape, have the potential to cause massive disruption. With the process of disruption and re-creation happening simultaneously, the competitive landscape is evolving rapidly. As an incumbent, should one worry about the tech-forward banks, the well funded mobile-first startup, the e-commerce players entering finance, or the emerging online financial supermarkets? Correspondingly, should one’s talent agenda be focused on financial professionals, or on engineers and product managers?

This document is meant to provide a short overview of trends we see in the Fintech space. It is based on MXV’s proprietary research, projects and advisory relationships in the sector. Hopefully, it will give you cause for reflection, and insights for how your business, or portfolio, is likely to be impacted. We look forward to a continued dialogue as the brave new world of Fintech dawns upon us.

Amit Garg
Founder, MXV Consulting
THE WORLD IS WITNESSING A MASSIVE SHIFT IN FINANCIAL SERVICES

<table>
<thead>
<tr>
<th>ENABLERS</th>
<th>THE NEW NORMAL</th>
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<tbody>
<tr>
<td>• Traditional financial services firms have lost their pre- eminent position</td>
<td>• Rapid unbundling of services</td>
</tr>
<tr>
<td>• Increased customer comfort with technology driven models</td>
<td>• Democratization of information and services</td>
</tr>
<tr>
<td>• Reduced barriers to entry</td>
<td>• Uber-ification of the customer experience</td>
</tr>
<tr>
<td></td>
<td>• Dramatic increases in speed</td>
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</tbody>
</table>
NEW ENTRANTS ARE BEING SEEN IN EVERY SEGMENT

Source: Company reports; MXV research

<table>
<thead>
<tr>
<th>Wallets</th>
<th>Crowd funding</th>
<th>Remittances</th>
<th>Asset Management</th>
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<tbody>
<tr>
<td>MCX</td>
<td>KICKSTARTER</td>
<td>azimo</td>
<td>wealthfront</td>
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<tr>
<td>yoyo wallet</td>
<td>SoMoLend</td>
<td>worldremit.</td>
<td>SIGFIG</td>
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<tr>
<td>kuapay</td>
<td>SEEDRS</td>
<td>TransferWise</td>
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<tbody>
<tr>
<td>Kabbage</td>
<td>Square</td>
<td>PROSPER</td>
<td>what mint</td>
<td>e.toro</td>
</tr>
<tr>
<td>OnDeck</td>
<td>Apple Pay</td>
<td>Lending Club</td>
<td>iMoney GROUP</td>
<td>BUX</td>
</tr>
<tr>
<td>Funding Circle</td>
<td>PayPal</td>
<td>boro</td>
<td>Selector</td>
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</tr>
</tbody>
</table>

Betterment and Wealthfront enable better investment management with portfolio and automated investing tools.

Kabbage provide business loans and cash advances for small businesses.

OnDeck provides 2 yr term loans to businesses in 24 hours.

Square allows small businesses to accept payments with significantly lower fees.

Lending Club matches investors with individuals who are looking to borrow money to refinance personal loans.
Funding activity in Fintech (USA)

2014: A landmark year for Fintech companies
- $12 Bn funding in 2014: 3 times the money raised in 2013 and more than the total funding between 2010 and 2013
- Lending Club and OnDeck had wildly successful IPOs, raising $1 Bn and $200 Mn respectively
- Square raised $150 Mn at a valuation of $6 Bn

Source: Silicon Valley Bank; MXV analysis
INDIA HAS ALL THE INGREDIENTS FOR A FINTECH REVOLUTION

- Across most categories of financial services, India remains under-penetrated
- Even for the financially included, service levels remain low
- Significant government push for greater inclusion – feasible only with the adoption of technology led models

An under-penetrated and under-served financial services standpoint

- Internet penetration has increased dramatically over the last five years
- E-commerce growing rapidly; driven by proliferation of mobile internet
- Smartphones have penetrated approximately half of the banked population

A large and growing digital populace

- Start-ups now part of the culture; increased appetite for risk taking
- Significantly higher levels of venture and growth capital; investors have had successful exits and capital appreciation

A thriving start-up community

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THE COUNTRY HAS AMONG THE HIGHEST NUMBER OF INTERNET USERS IN THE WORLD

Active internet user base in India

- 
  CAGR of 31% between 2009 and 2014
- Around 50 – 60% of users access internet on their mobile device
- Internet population to soon exceed that of the US

<table>
<thead>
<tr>
<th>Year</th>
<th>Active internet users</th>
<th>Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>61</td>
<td>5%</td>
</tr>
<tr>
<td>2010</td>
<td>90</td>
<td>8%</td>
</tr>
<tr>
<td>2011</td>
<td>123</td>
<td>10%</td>
</tr>
<tr>
<td>2012</td>
<td>156</td>
<td>13%</td>
</tr>
<tr>
<td>2013</td>
<td>189</td>
<td>15%</td>
</tr>
<tr>
<td>2014</td>
<td>232</td>
<td>18%</td>
</tr>
<tr>
<td>2015E</td>
<td>283</td>
<td>22%</td>
</tr>
<tr>
<td>2016E</td>
<td>345</td>
<td>27%</td>
</tr>
<tr>
<td>2017E</td>
<td>418</td>
<td>32%</td>
</tr>
<tr>
<td>2018E</td>
<td>501</td>
<td>38%</td>
</tr>
<tr>
<td>2019E</td>
<td>602</td>
<td>45%</td>
</tr>
<tr>
<td>2020E</td>
<td>722</td>
<td>53%</td>
</tr>
</tbody>
</table>

Internet users by country - 2014

- China: 641
- US: 279
- India: 232
- Japan: 109
- Brazil: 107
- Russia: 84

Source: Worldbank; IAMAI; Comscore; Morgan Stanley; MXV Analysis

Age-profile of internet users in India

- 25 – 34: 39%
- 35 – 44: 16%
- 45 – 54: 6%
- < 55: 3%
- 15 – 24: 36%

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ONLINE COMMERCE IS BOOMING E-TAILING TO ACCOUNT FOR 5-6% OF THE RETAIL MARKET IN 2020

E-commerce market size in India (USD Bn)

- Makemytrip files for an IPO on the NASDAQ and closes 89% up on its debut
- Flipkart pioneers COD model
- Flipkart becomes the first Indian internet company to sport a billion dollar valuation
- Amazon enters India through junglee.com
- Flipkart’s GMV hits a run rate of USD 1 Bn; acquires Myntra for USD 340 Mn
- Flipkart raises $1 Bn, Snapdeal raises $0.6 Bn, Amazon announces $2 Bn in investments
- Paytm surpasses IRCTC in transactions and crosses USD 600 Mn in GMV
- PayTM enters e-commerce
- Myntra goes mobile only
- Snapdeal acquires Rupeepower and Freecharge
- Mary Meeker report puts India at highest level of m-commerce
- Infibeam files for IPO

Source: MXV Analysis

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DIGITAL BANKING IS RISING DRAMATICALLY
Penetration Levels To Cross 50% By 2022

**Penetration of Digital Banking (%)**

Penetration in 2014

- Japan: 83%
- UK: 77%
- US: 75%
- China: 57%
- Germany: 50%
- India: 15%

Source: RBI; Literature review; MXV Analysis
LED BY GROWTH IN MOBILE BANKING, MORE THAN 25% OF BANKING TRANSACTIONS WILL BE DIGITAL BY 2020

Transactions by channel (Bn)

Conservatively, digital transactions will account for 27% of total transactions by 2020

* Including cash and ATM transactions
Source: RBI; FIBAC, MXV Estimates and Analysis
# Indian FinTech Companies Emerging Across Segments

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<td>InstaRem</td>
<td>Aditya Birla Money</td>
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<td>MobiKwik</td>
<td>Wishberry</td>
<td>EKO Zero</td>
<td>MyUniverse</td>
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<td>Oxigen</td>
<td>Catapool 0t</td>
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<td>scripbox</td>
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<td>policybazaar.com</td>
<td>ZERODHA</td>
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<td>PayUmoney</td>
<td>Capital Float</td>
<td>Coverfox</td>
<td>The Discount Brokerage</td>
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<td>freecharge</td>
<td>SME Corner.com</td>
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<td>Finvasia</td>
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<td>bankbazaar.com</td>
</tr>
<tr>
<td>FAI+CENT.com</td>
<td>paisabazaar.com</td>
</tr>
<tr>
<td>INDIA LENDS</td>
<td>RangDe</td>
</tr>
<tr>
<td>APNA PAISA</td>
<td>get smart!</td>
</tr>
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</table>

Source: MXV Project Database
WHILE SOME AREAS ARE IN EARLY STAGES OF ADOPTION, OTHERS HAVE ALREADY GAINED WIDE ACCEPTANCE

Note: Relative positions are illustrative, and not to scale
Source: MXV research
MOST SEGMENTS PROVIDE CONTINUED GROWTH OPPORTUNITIES FOR SEVERAL YEARS

Market structure (2014)

- Loans
- Insurance
- Mutual funds
- Bill payments
- Share trading

Overall penetration

Average growth

Category penetration (%)

Growth rates (%)

Note: Bubble size represents 2014 market size
Source: MXV Project Experience and Analysis

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**Opportunity size of Financial services (Rs.Cr)**

<table>
<thead>
<tr>
<th>Service</th>
<th>2014</th>
<th>2020</th>
<th>CAGR (2014-20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td>2,686</td>
<td>4,519</td>
<td>55%</td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>736</td>
<td>3,758</td>
<td>42%</td>
</tr>
<tr>
<td>Bill payments</td>
<td>205</td>
<td>2,837</td>
<td>31%</td>
</tr>
<tr>
<td>Insurance</td>
<td>484</td>
<td>4,597</td>
<td>46%</td>
</tr>
<tr>
<td>Total Others</td>
<td>150</td>
<td>1,890</td>
<td>26%</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4,306</td>
<td>17,782</td>
<td></td>
</tr>
</tbody>
</table>

* Not including payments and remittances

Source: MXV Analysis

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THREE FORCES DRIVING THE EVOLUTION OF FINTECH

1. UNBUNDLING OF BANK SERVICES
   - Loans
   - Insurance
   - Investments
   - Payments
   - Remittance

2. CREATION OF ONLINE FINANCIAL SUPERMARKETS
   - Bill payments
   - Payments
   - Credit products
   - Asset management
   - Insurance

3. MEETING OF E-COMMERCE AND FINTECH

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1. EROSION: AS SERVICES ARE UNBUNDLED, BANKS ARE BEING FORCED TO DEFEND SEVERAL FRONTS SIMULTANEOUSLY
2. AGGLOMERATION: TRACTION IN ANY SEGMENT CAN LEAD TO A NETWORK OF CONNECTED SOLUTIONS

- **Wallets**
  - Alipay
  - Insurance: Zhong An
  - Lending: Ant Credit
  - Crowdfunding: Zhao Cai Bao
  - Payments & Remittances
  - Asset Management: Yu’e Bao

- Co-owned by Jack Ma
- Part of Ant Financial services

Source: MXV research
3. CONVERGENCE: E-COMMERCE AND FINTECH ARE COMING TOGETHER

Source: Company reports; MXV research
**India is ripe for a Fintech revolution**

- The third highest number of internet users in the world; e-commerce booming
- 50% penetration of digital banking by 2022; more than a quarter of banking transactions to be digital by 2020
- Continued governmental push for financial inclusion. Low cost inclusion will required the adoption of technology driven models
- Rapid dissemination of ideas from the US – where the Fintech revolution is well and truly underway

**A host of start-ups are already making their mark**

- Fintech startups in India are moving into every segment
- While overall adoption levels vary, almost every segment is growing rapidly
- The situation is complicated by the convergence of e-commerce and Fintech
- Success in any one segment can enable a player to enter other segments and create an online financial supermarket. There is already some evidence of this

**Traditional financial services companies risk being “stuck-in-the-middle”**

- While individual start-ups may appear tiny compared to the institutions, they are also nimble, tech-savvy and well funded - with a different profit horizon. They will force institutions into guerilla battles and head-on fights on multiple fronts
- The biggest risk faced by banks is the loss of share for their most profitable products – where the value of disintermediation is the highest. Automation and analytics will also help start-ups serve customers otherwise considered unprofitable
MXV Consulting (www.mxv.in) is a strategy and management consulting firm based out of Bangalore in India. Our focus is on building sustainable competitive advantage for our clients and helping them become industry leaders.

We have the experience of working across multiple industries and functional areas - enabling us to bring in fresh ideas and a strategic perspective to every engagement. Our insights are backed up by a rigorous process of analysis and solution development. This ensures that our recommendations are well researched, practical and tailored to an organisation’s requirements. In many instances, we also take on the role of implementation managers.

Our clientele includes leaders across various industries. We believe in long term relationships with our clients, and have worked on multiple engagements with most of them.

MXV has worked on more than a 150 assignments till date. Our clients are global in nature – including India, the US, Middle East, Europe and Asia Pacific.

In 2014, MXV Consulting was listed among the most promising business consultants in India.
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