# CONTENTS

- Executive Summary ........................................ 3
- Advantage India ............................................. 4
- Market Overview and Trends ............................. 6
- Porters Five Forces Analysis ............................ 26
- Strategies Adopted ........................................... 28
- Growth Drivers ............................................... 30
- Opportunities ............................................... 39
- Success Stories .............................................. 43
- Useful Information .......................................... 51
EXECUTIVE SUMMARY

Robust asset growth

- In FY16, value of public sector bank assets stood at USD1.4 trillion. Total Indian banking sector assets reached USD1.96 trillion in FY15 from USD1.3 trillion in FY10, with over 70 per cent accounted for by the public sector. Total Indian asset market size is expected to reach USD1.97 trillion in FY17.

Growing lending and deposit

- Total lending and deposits have increased at a CAGR of 6 per cent during FY11-15 and 12.9 per cent, respectively, during FY06-15 and are further poised for growth, backed by demand for housing and personal finance.

Higher ATM penetration

- By August 2016, total number of ATMs in India increased to 202,801 and is further expected to double over next few years, thereby leading to increase in the number of ATMs per million people in India from 105 in 2012, to about 300 by 2017.

Rising rural penetration

- As of March 2016, 56 regional rural banks are functioning in the country.
- Under 1st phase of FIP (2010-13), 74,000 villages, with population exceeding 2,000 people, were covered with 2,493 banking outlets.
- RBI has allowed, regional rural banks with net worth of at least USD15.28 million to launch internet banking facilities.
- Airtel payments bank opens over 1 lac accounts in UP, of which 60 per cent have been opened in rural areas.

Source: India Banking Association, Reserve Bank of India, TechSci Research
Notes: ATM - Automated Teller Machine, FIP – Financial Inclusion Plan, RBI – Reserve Bank of India
ADVANTAGE INDIA

BANKING
Growing demand

For updated information, please visit www.ibef.org

Source: IBA report titled “Being five-star in productivity - Roadmap for excellence in Indian banking”; TechSci Research
Note: NPA – Non Performing Assets, FY17: Till 29th December 2016

Robust demand
- Increase in working population and growing disposable incomes will raise demand for banking and related services
- Housing and personal finance are expected to remain key demand drivers
- Rural banking is expected to witness growth in the future

Innovation in services
- Mobile, Internet banking and extension of facilities at ATM stations to improve operational efficiency
- Vast un-banked population highlights scope for innovation in delivery

Business fundamentals
- Rising fee incomes improving the revenue mix of banks
- High net interest margins, along with low NPA levels, ensure healthy business fundamentals

Policy support
- Wide policy support in the form of private sector participation and liquidity infusion
- Healthy regulatory oversight and credible Monetary Policy by the Reserve Bank of India (RBI) have lent strength and stability to the country’s banking sector

FY17¹
Total asset size: USD1.97 trillion

FY25E
Total asset size: USD28.5 trillion

Advantage India
MARKET OVERVIEW AND TRENDS
• Closed market
• State-owned Imperial Bank of India was the only bank existing

1921

• RBI was established as the central bank of country
• Quasi central banking role of Imperial Bank came to an end

1935

• Imperial Bank expanded its network to 480 branches
• In order to increase penetration in rural areas, Imperial Bank was converted into State Bank of India

1936-1955

• Nationalisation of 14 large commercial banks in 1969 and 6 more banks in 1980
• Entry of private players such as ICICI intensifying the competition
• Gradual technology upgradation in PSU banks

1956-2000

• As per RBI, in February 2017, India recorded highest foreign exchange reserves of approximately USD363.14 billion.
• Also, on 29th April 2016, the country’s foreign exchange reserves, further increased to USD363.12 billion.
• In May 2016, RBI allowed foreign banks to invest in local private lenders and supranational institutions like LIC, up to a limit of 10 per cent.

2000 onwards

Source: Indian Bank’s Association, TechSci Research, BMI
Notes: RBI - Reserve Bank of India, FDI – Foreign Direct Investment, LIC – Life Insurance Corporation

For updated information, please visit www.ibef.org
THE STRUCTURE OF INDIAN BANKING SECTOR

Reserve Bank of India

Banks

Scheduled Commercial Banks (SCBs)
- Public sector banks (27)
- Private sector banks (20)
- Foreign banks (43)\(^2\)
- Regional Rural Banks (RRB) (56)
- Urban cooperative banks (1,589)\(^1\)
- Rural cooperative credit institutions (93,550)

Cooperative credit institutions

Financial Institutions

All-India financial institutions

State-level institutions

Other institutions

Source: Reserve Bank of India’s ‘Report on Trend and Progress of Banking in India’, TechSci Research

\(^1\) - Indicates data for FY14
\(^2\) - Indicates data for FY16

Note: Data on number of banks belongs to FY15
Credit off-take has been surging ahead over the past decade, aided by strong economic growth, rising disposable incomes, increasing consumerism and easier access to credit.

In March FY16, total credit extended surged to USD1016 billion.

Credit to non-food industries increased by 9.06 per cent reaching to USD1000 billion in March FY16, from USD983 billion during the previous financial year.

Demand has grown for both corporate and retail loans; particularly the services, real estate, consumer durables and agriculture allied sectors have led the growth in credit.

As of September 2016, the outstanding credit to NBFCs stood at USD 55.27 billion, growing at a rate of 25 per cent on Year on Year basis. Bank credit granted to Non-banking Finance Companies (NBFCs) has touched the highest in 3 years.

Source: Reserve Bank of India (RBI), TechSci Research
Notes: YoY – Year on Year
During FY06–17\(^1\), deposits grew at a CAGR of 12.03 per cent and reached 1.54 trillion by FY17\(^1\).

Strong growth in savings amid rising disposable income levels are the major factors influencing deposit growth.

Access to banking system has also improved over the years due to persistent government efforts to promote banking-technology and promote expansion in unbanked and non-metropolitan regions.

At the same time India’s banking sector has remained stable despite global upheavals, thereby retaining public confidence over the years.

Deposits under Pradhan Mantri Jan Dhan Yojana (PMJDY), have also increased. As on November 9, 2016, USD6,971.68 million were deposited, while 255.1 million accounts were opened.

**Source:** Reserve Bank of India (RBI), TechSci Research; Notes: CAGR - Compounded Annual Growth Rate, FY17\(^1\) - Till December 29, 2016
Total banking sector assets have increased at a CAGR of 11.71 per cent to USD1.96 billion during FY13–15.

FY13-15 saw growth in assets of banks across sectors:

- Assets of public sector banks, which account for more than 70 per cent of the total banking assets, grew at a CAGR of 12 per cent.
- Private sector expanded at an CAGR of 13 per cent, while foreign banks posted a growth of 9 per cent.

Corporate demand for bank loans have grown due to continued infrastructure investments, and due to other policy decisions such as reducing oil subsidies, issuing of telecom spectrum licenses and the proposed abolition of penalty on loan prepayment.

Total assets of Public Sector Banks amounted to USD1384.31 billion in FY16.

Source: Reserve Bank of India (RBI), TechSci Research, Indian Banks Association; Notes: CAGR - Compounded Annual Growth Rate, FDI – Foreign Direct Investments FY16 data is only Available for Public Sector Banks.
During FY06–17¹, total money supply in the country increased at a CAGR of 9.92 per cent, reaching to USD1.8 trillion by the June end 2016.

Narrow money supply (M1) grew at a CAGR of 7.08 per cent while its components currency with public and deposit money of the public, grew at a CAGR of 10.1 per cent and 5.1 per cent, respectively, during FY06–16, and stood at USD397.37 billion by the end of June 2016.

During FY06-16, broad money supply (M2) grew at a CAGR of 12.2 per cent reaching to USD415.7 billion in June 2016.

Money supply (M3) grew at a CAGR of 15.7 per cent, during FY06-16, and stood at USD1.78 trillion by the end of June 2016.

During FY06–16, highest average growth in time deposits was witnessed at a rate of 12.41 per cent, with the value of time deposits reaching to USD1.38 trillion in June 2016.
BANKING

INTEREST INCOME HAS SEEN ROBUST GROWTH

- Public sector banks account for over 72.3 per cent of interest income in the sector in FY15
  - They lead the pack in interest income growth with a CAGR of 11.5 per cent over FY09-15
- Overall, the interest income for the sector has grown at 11 per cent CAGR during FY9-15
- Interest income of Public Banks was witnessed to be USD105.44 billion in FY16

Interest income growth in Indian banking sector (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Banks</th>
<th>Private Banks</th>
<th>Foreign Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>57.6</td>
<td>17.9</td>
<td>6.4</td>
</tr>
<tr>
<td>FY10</td>
<td>67.1</td>
<td>18.2</td>
<td>5.8</td>
</tr>
<tr>
<td>FY11</td>
<td>76.4</td>
<td>20.2</td>
<td>5.9</td>
</tr>
<tr>
<td>FY12</td>
<td>103.4</td>
<td>28.7</td>
<td>7.68</td>
</tr>
<tr>
<td>FY13</td>
<td>102.17</td>
<td>30.65</td>
<td>7.78</td>
</tr>
<tr>
<td>FY14</td>
<td>102.88</td>
<td>31.38</td>
<td>7.6</td>
</tr>
<tr>
<td>FY15</td>
<td>110.74</td>
<td>34.12</td>
<td>8.26</td>
</tr>
</tbody>
</table>

Source: Reserve Bank of India, IBA (Indian Banks Association), TechSci Research
Notes: CAGR - Compound Annual Growth Rate
Indian banking sector enjoys healthy Net Interest Margins (NIM) compared with global peers.

HDFC leads the large banks with a NIM of over 4.31 per cent in FY16.

Prominent Chinese banks have NIM’s between 2-3 per cent significantly lower than Indian peers.

Despite virtually zero cost funds, the banks in the US have NIM’s comparable to Indian peers.

Healthy net interest margins (FY16)

<table>
<thead>
<tr>
<th>Bank</th>
<th>NIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDFC</td>
<td>4.31%</td>
</tr>
<tr>
<td>ICICI</td>
<td>3.97%</td>
</tr>
<tr>
<td>Axis</td>
<td>3.49%</td>
</tr>
<tr>
<td>SBI</td>
<td>2.96%</td>
</tr>
</tbody>
</table>

*Source: Company Reports, TechSci Research*

Notes: HDFC – Housing Development Finance Corporation, ICICI – Industrial Credit and Investment Corporation of India, SBI – State Bank of India
GROWTH IN ‘OTHER INCOME’ ALSO ON A POSITIVE TREND

- Public sector banks account for about 57.65 per cent of income other than from interest (‘other income’)
- ‘Other income’ for public sector banks has risen at a CAGR of 5.7 per cent during FY09-15
- Overall, ‘other income’ for the sector has risen at 7.53 per cent CAGR during FY09-15
- Other income for Public banks increased from USD12.39 billion in FY15 to USD12.69 billion in FY16

‘Other income’ growth in Indian banking sector (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Banks</th>
<th>Private Banks</th>
<th>Foreign Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>8.9</td>
<td>3.1</td>
<td>2.4</td>
</tr>
<tr>
<td>FY10</td>
<td>3.7</td>
<td>4.3</td>
<td>1.8</td>
</tr>
<tr>
<td>FY11</td>
<td>4.3</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>FY12</td>
<td>4.3</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td>FY13</td>
<td>2.3</td>
<td>5.3</td>
<td>2.3</td>
</tr>
<tr>
<td>FY14</td>
<td>5.5</td>
<td>5.9</td>
<td>2.1</td>
</tr>
<tr>
<td>FY15</td>
<td>5.5</td>
<td>10.2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Source: Indian Bank’s Association, TechSci Research
Notes: CAGR - Compound Annual Growth Rate,
PRIVATE BANKS LEAD IN MAINTAINING LOWEST NPA LEVELS

- Despite the global financial crisis, net Non-Performing Assets (NPA) of Indian banking sector have declined over the past few years.
- Gross NPA to Gross Advances in public sector banks grew from 4.46 per cent in FY14 to 5.09 per cent in FY15.
- Private sector banks maintained lowest gross non-performing assets to gross advances at 2.16 per cent in FY15.
- Net NPA to Net advances by public sector banks increased from 2.92 percent in FY15 to 5.75 percent in FY16.

Gross NPAs to gross advances (FY15)

<table>
<thead>
<tr>
<th>Bank Type</th>
<th>Gross NPA (FY15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Sector Banks</td>
<td>9.39%</td>
</tr>
<tr>
<td>Private Sector Banks</td>
<td>2.16%</td>
</tr>
<tr>
<td>Foreign Sector Banks</td>
<td>3.30%</td>
</tr>
</tbody>
</table>

Net NPA to Net Advances over the years (In per cent)

- Public Sector Banks: 2.01%, 2.56%, 2.92%
- Private Sector Banks: 1.01%, 1.09%, 0.89%
- Foreign Sector Banks: 0.52%, 0.66%, 0.54%

Source: Reserve Bank of India (RBI), IBA, TechSci Research
Notes: ¹ indicates values for FY16
RETURN ON ASSETS AND LOAN-TO-DEPOSIT RATIO SHOWING AN UPTREND

- Loan-to-Deposit ratio for banks across sectors has increased over the years
- Private and foreign banks have posted high return on assets than nationalised and public banks
- This has prompted most of the foreign banks to start their operations in India

**Return on assets**

**Loan-to-deposit ratio**

Source: Reserve Bank of India (RBI), TechSci Research

Note: Data for Return on Assets and Loan to Deposit Ratio is in percentage
PRIVATE BANKS ARE AGGRESSIVELY INCREASING THEIR PRESENCE

- Share of public sector banks in total deposits have declined from 77.30 per cent in FY13 to 76.6 per cent in FY15.
- This is largely due to the fact that private banks are rapidly capturing share in savings deposit.
- Total bank deposits by Public Sector banks amounted to USD1,145 billion in FY16.

Market share of bank groups by deposits

- Public Sector: 77.30%, 77.20%, 76.60%
- Private Sector: 18.80%, 18.70%, 19.00%
- Foreign Sector: 3.90%, 4.10%, 4.38%

*Source: IBA, TechSci Research*
In September 2015, RBI approved 10 applicants to set up small finance banks, this approval will be valid for 18 months to comply with the guidelines and conditions stipulated by RBI. After fulfilment of requirements, RBI would grant banking license to the selected applicants.

By February 2015, The Reserve Bank of India (RBI) has received 72 applications for small finance banks and 41 applications for payments banks. Some of the major applicants for small finance banks are: IIFL Holdings Limited, Indigo Fincap Private Limited, Sahara Utsarga Welfare Society, etc., while for payments banks major players are: Reliance Industries Limited, Tech Mahindra Limited, etc.

In April 2016, India’s first small finance bank was launched with its 10 branches spread over Punjab, India. Capital Small Finance Bank expects to add 9 more branches by the end of FY17 in the country.

By April 2014, Reserve Bank of India (RBI) has issued two licenses (IDFC and Bandhan) of the 25 applicants in the fray for banking permits.

Some of the twenty-five applicants are - Aditya Birla Nuvo, India Infoline, Muthoot Finance, Reliance Capital, TATA Sons, etc.

RBI requires the promoter of new bank to hold at least 40 per cent of equity capital for first 5 years, which can be reduced to 15 per cent within 12 years. The new bank must list equity shares within 3 years of the commencement of business. Furthermore, it must open at least 25 per cent of its branches in unbanked rural centres and comply with priority sector lending target.

The advent of meeting Basel III requirements and opening of new banks, will create demand for additional capital.

In November 2016, RBI granted approval for issuing a license to Utkarsh Micro Finance Pvt. Ltd., permitting them to setup small finance bank.

Ujjivan Small Finance Bank, has launched its operations with 5 pilot branches pan India, eyeing to become a leading mass market retail bank in next 5 years, having a customer base of 35 lakh customers.
**NOTABLE TRENDS IN THE BANKING INDUSTRY SECTOR … (1/3)**

### Improved risk management practices

- Indian banks are increasingly focusing on adopting integrated approach to risk management.
- Banks have already embraced the international banking supervision accord of Basel II; interestingly, according to RBI, majority of the banks already meet capital requirements of Basel III, which has a deadline of 31 March 2019.
- Most of the banks have put in place the framework for asset-liability match, credit and derivatives risk management.

### Diversification of revenue stream

- Banks are laying emphasis on diversifying the source of revenue stream to protect themselves from interest rate cycle and its impact on interest income.
- Focusing on increasing fee and fund based income by launching plethora of new asset management, wealth management and treasury products.

### Technological innovations

- Indian banks, including public sector banks are aggressively improving their technology infrastructure to enhance customer experience and gain competitive advantage.
- Internet and mobile banking is gaining rapid foothold.
- Customer Relationship Management (CRM) and data warehousing will drive the next wave of technology in banks.
- Indian banks are rapidly focusing on SMAC (Social, Mobile, Analytics and Cloud) techniques to reach new customers.

<table>
<thead>
<tr>
<th>Focus on financial inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>• RBI has emphasised the need to focus on spreading the reach of banking services to the unbanked population of India</td>
</tr>
<tr>
<td>• Indian banks are expanding their branch network in the rural areas to capture the new business opportunity. According to RBI, 490,000 unbanked villages were identified and allotted to banks for coverage under second phase of Pradhan Mantri Jan Dhan Yojna</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Derivatives and risk management products</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The increasingly dynamic business scenario and financial sophistication has increased the need for customised exotic financial products</td>
</tr>
<tr>
<td>• Banks are developing Innovative financial products and advanced risk management methods to capture the market share</td>
</tr>
<tr>
<td>• Bank of Maharashtra tied up with Cigna TTK, to market their insurance products across India.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consolidation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• With entry of foreign banks competition in the Indian banking sector has intensified</td>
</tr>
<tr>
<td>• Banks are increasingly looking at consolidation to derive greater benefits such as enhanced synergy, cost take-out from economies of scale, organisational efficiency, and diversification of risks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demonetization</th>
</tr>
</thead>
<tbody>
<tr>
<td>• RBI Deputy Governor, said that since demonetization the Central Bank has collected over USD 185.81 billion in demonetized notes from various bank branches</td>
</tr>
<tr>
<td>• The effects of demonetization are also visible in the fact that bank credit plunged by 0.8 per cent from November 8 to November 25, as USD 9.85 billion were paid by defaulters. As per RBI, a total of USD 125.53 billion was deposited in banks till November 27, 2016</td>
</tr>
</tbody>
</table>

Source: Indian Bank's Association, Indian Banking Sector 2020, TechSci Research
Focus towards Jan Dhan Yojana

- Key objective of Pradhan Mantri Jan Dhan Yojana (PMJDY) is to increase the accessibility of financial services such as bank accounts, insurance, pension, credit facilities, etc. mostly to the low income groups.
- Under the Jan Dhan Yojana, as on November 9, 2016, 255.1 million new accounts were opened & around USD6,971.68 million were deposited with the banks under this scheme.
- As on November 9, 2016, 194.4 million ‘Rupay’ debit cards were issued to users.

Wide usability of RTGS and NEFT

- Real Time Gross Settlement (RTGS) and National Electronic Funds Transfer (NEFT) are being implemented by Indian banks for fund transactions.
- Securities Exchange Board of India (SEBI) has included NEFT and RTGS payment system to the existing list of methods that a company can use for payment of dividend or other cash benefits to their shareholders and investors.

Know Your Client

- RBI mandated the Know Your Customer (KYC) Standards, wherein all banks are required to put in place a comprehensive policy framework in order to avoid money laundering activities.
- The KYC policy is now mandatory for opening an account or making any investment such as mutual funds.

Source: Indian Bank's Association, Indian Banking Sector 2020, Pradhanmantri Jan Dhan Yojna, Business India, TechSci Research
BANKS REAPING BENEFITS FROM INCREASED USAGE OF TECHNOLOGY

Increasing usage of technology

- In the last few years, technology is being increasingly used by Indian banks
- Banks are using technology at various levels such as, back-office processing, convergence of delivery channels, IT-enabled business process reengineering as well as communication with customers
- Indian banks currently devote around 15% of total spending on technology
- Spending on technology is expected to increase at an annual rate of 14.2 per cent
- Banks in the country are set to benefit further as they move ahead in implementing additional technological advancements
- Indian banking and securities companies will spend USD8.89 billion on IT products & services in 2015, an increase of nearly 15.2 per cent over 2014

- Technology has allowed banks to increase their scale rapidly and manage increased business and transactions volume with lesser man power and reduced costs (at the operational level)
- Digital analytics is providing deeper insights into customer needs and enabling banks to offer highly targeted products and services; this is likely to pick up pace in the coming years
- New channel-integration technologies are enabling a more seamless end-to-end experience for banking customers
- Offering new opportunities to engage and interact with customers and thereby build relationship and grow revenues; social media has a crucial role to play in this

The wide scope and ease of online banking has led to a paradigm shift from traditional branch banking to net banking.

Around 44 per cent people are using Net banking, which remains the most favourite mode of payment among internet users in India.

Extensions for facilities such as fund transfer, account maintenance and bill payment at ATM stations have reduced branch banking footfall.

The increase in number of ATMs would lead to an increase in the number of ATMs per million population from 205 thousand units\(^1\) in 2016 to about 300 thousand units by 2017.

Post the announcement of demonetisation drive by the Central Government on 8\(^{th}\) November 2016, banks all over the country witnessed a surge in card usage, especially debit cards, for purchasing and making payments.

**Growth in ATMs (000’ units)**

**CAGR: 24.82\%**

Source: IBA statistics, Reserve Bank of India (RBI), TechSci Research

Notes: \(^1\) Data till October 2016
A PARADIGM SHIFT: ONLINE AND ATMs USAGES … (2/2)

- Deposit of cash
- Withdrawal of cash
- Mini-statement
- Balance Inquiry
- Coupon Dispensing
- Fulfilling request from customers
- Account transfer
- Touch screen menus
- Bill payment
- Mobile recharging
- Check deposit facility with scanning
- Customised ATMs
- In 2016, RBI announced to migrate all ATM machines from magnetic stripe based to EMV chips by September 2017.
- After 5 free transaction ATMs charges for non-bank customer - Rs 20 for each cash withdrawal & Rs 9 for non-cash transactions

Source: IBA statistics, RBI TechSci Research
PORTERS FIVE FORCES ANALYSIS
PORTERS FIVE FORCES ANALYSIS

**Competitive Rivalry**
- At present public sector banks, led by SBI & associates, control 77.3 per cent of the banking sector
- Rivalry is much aggressive in metropolitan areas
- Issuing of new licenses will increase competitive rivalry in rural areas over medium to long term

**Threat of New Entrants**
- High entry barriers, as RBI and Central Bank control the issuance of licenses
- New licenses may reduce market-share of public banks

**Substitute Products**
- For deposit substitutes include investment in gold, real estate, equity etc.
- For advances substitutes include, bonds, IPO/FPO\(^1\), etc

**Bargaining Power of Suppliers**
- Largely, customers prefer banks for its reliability
- Gradually, customers have hedged inflation by investing in other riskier avenues

**Bargaining Power of Customers**
- Nascent debt market and volatile stock market, are less opted
- Banks are an indispensible source of fund in India

Notes: \(^1\) IPO – Initial Public Offering
\(^1\) FPO – Follow-on Public Offering
STRATEGIES ADOPTED
**Strategies Adopted**

- **Increased use of technology**
  - In March 2016, ICICI Bank launched Host Card Emulation (HCE) for its debit & credit card holders, to make contactless payments at stores by waving their phones across NFC enabled machines.
  - Similarly, State Bank of India unveiled ‘SBI Mingle’, as social media banking platform for Twitter & Facebook users.
  - Banks protect margins by promoting usage of efficient technologies like mobile and internet banking
  - State Bank of India is planning to launch SBI Digi Bank, where end to end digitalisation of all products and services would take place.

- **Cross-selling**
  - Major banks tend to increase income by cross-selling products to their existing customers
  - Foreign banks have been able to grow business, despite a much lower customer coverage

- **Capture latent demand**
  - Expansion in unbanked rural regions helps banks to garner deposits
  - Increasing tele-density, and support of regulators have aided rural expansion

- **Overseas expansion**
  - In 2015, IDBI announced its plan for overseas expansion and development finance institution and government will hold 51 per cent equity in new entity.
  - Although at a nascent stage, private and public banks are gradually expanding operations overseas
  - Internationally, banks target India-based customers and investors, settled abroad
BANKING

GROWTH DRIVERS
Economic and demographic drivers

- Favourable demographics and rising income levels
- Strong GDP growth (CAGR of 7 per cent expected over 2012–17) to facilitate banking sector expansion
- The sector will benefit from structural economic stability and continued credibility of Monetary Policy

Policy support

- In October 2016, RBI decided to further cut repo rate by 25 bps to 6.25 per cent which would reduce the interest rate on home loans.
- Extension of interest subsidy to low cost home buyers
- Simplification of KYC norms, introduction of no-frills accounts and Kisan Credit Cards to increase rural banking penetration
- RBI is considering giving more licenses to private sector players to increase banking penetration

Infrastructure financing

- India currently spends 6 per cent of GDP on infrastructure; Planning Commission expects this fraction to grow going ahead
- Banking sector is expected to finance part of the USD1 trillion infrastructure investments in the 12th Five Year Plan, opening a huge opportunity for the sector

Technological innovation

- Technological innovation will not only help to improve products and services but also to reach out to the masses in cost effective way
- Use of alternate channels like ATM, internet & mobile hold significant potential in India
- Now cloud technology & analytics also gaining ground

Notes: GDP - Gross Domestic Product, KYC - Know Your Customer, RBI - Reserve Bank of India, ATM - Automated Teller Machine
Bps: Basis Points

For updated information, please visit www.ibef.org
### NEW SCHEMES BY GOVERNMENT

#### Pradhan Mantri Suraksha Bima Yojana
- This scheme is mainly for accidental death insurance cover for up to Rs. 2 lakh.
- Premium: Rs. 12 per annum.
- Risk Coverage: For accidental death and full disability - Rs. 2 lakh and for partial disability – Rs. 1 lakh.

#### Pradhan Mantri Jeevan Jyoti Bima Yojana
- This scheme aims to provide life insurance cover.
- Premium: Rs. 330 per annum. It will be auto-debited in one instalment.
- Risk Coverage: Rs. 2 lakh in case of death for any reason.
- As of FY16, almost 29.8 million Pradhan Mantri Jeevan Jyoti Bima Policies have been done in India.

#### Atal Pension Yojana
- Under the scheme subscribers would receive the fixed pension of Rs. 1,000, 2,000, 3,000, 4,000 or 5,000 at the age of 60 years (depending on their contributions).
- The Central Government will also co-contribute 50 per cent of the subscriber’s contribution or Rs. 1,000 per annum, whichever is lower, to each eligible subscriber account, for a period of 5 years.
- As on November 9, 2016, 255.1 million accounts were opened in India.

#### Pradhan Mantri Jan Dhan Yojana
- Under the scheme, each & every citizen will be enrolled in a bank for opening a Zero balance account.
- Each person getting into this scheme will get an Rs. 30000 life cover with opening of the account.
- Overdraft limit under such accounts is Rs.5000
Rapid urbanisation, decreasing household size and easier availability of home loans has been driving demand for housing.

Personal finance, including housing finance provide an essential cushion against volatility in corporate loans.

The recent improvement in property value have reduced the ratio of loan to collateral value.

Credit to housing sector increased at a CAGR of 9.87 per cent during FY09–FY17, wherein, value of credit to housing sector increased from to USD114.1 billion in FY16 to USD114.5 billion in FY17. 

Demand in the low and mid-income segments exceeds supply three- to four-fold.

This has propelled demand for housing loan in the last few years.

**Source:** Reserve Bank of India (RBI), TechSci Research

Notes: CAGR - Compound Annual Growth Rate, FY13: Data as on 22 March 2013, FY14: Data as on 21 March 2014, FY15: Data as on 20 March 2015, FY16: Data as on 18 March 2016, FY17: Data as on 27 May 2016
**Growth in disposable income has been encouraging households to raise their standard of living and boost demand for personal credit**

**Credit under the personal finance segment (excluding housing) rose at a CAGR of 7.57 per cent during FY09–FY17, and stood at USD98 billion in FY17**

**Unlike some other emerging markets, credit-induced consumption is still less in India**

*Source: Reserve Bank of India (RBI), TechSci Research*

*Notes: CAGR - Compound Annual Growth Rate*

FY13: Data as on 22 March 2013,
FY14: Data as on 21 March 2014,
FY15: Data as on 20 March 2015,
FY16: Data as on 18 March 2016,
FY17*: Data as on 27 May 2016, Value for FY17 declining due to exchange rate fluctuation
Rising per capita income will lead to an increase in the fraction of the Indian population that uses banking services.

Population in the 15-64 age group is expected to grow strongly going ahead, giving further push to the number of customers in the banking sector.

India’s working age population (in million) and GDP per capita (USD)


Notes: E - Expected, F - Forecasted, GDP - Gross Domestic Product
STRONG ECONOMIC GROWTH TO PROPEL BANKING SECTOR EXPANSION … (2/2)

- Strong GDP growth will facilitate banking sector expansion
- Total banking sector credit is expected to increase at a CAGR of 1.7 per cent during FY11 to FY17 to USD990.61 billion in FY17
- During FY16, USD1 trillion was the total value of bank loans in India
- The sector will also benefit from economic stability and credibility of the monetary policy

**Total loans: Growth forecast over 2011-17 (USD billion)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Loans (USD billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY11</td>
<td>896</td>
</tr>
<tr>
<td>FY12</td>
<td>916</td>
</tr>
<tr>
<td>FY13</td>
<td>991</td>
</tr>
<tr>
<td>FY14</td>
<td>1025.9</td>
</tr>
<tr>
<td>FY15</td>
<td>999.4</td>
</tr>
<tr>
<td>FY16</td>
<td>1015.9</td>
</tr>
<tr>
<td>FY17</td>
<td>990.61</td>
</tr>
</tbody>
</table>

Source: Reserve Bank of India, Business Monitor International Ltd (BMI), TechSci Research
Notes: CAGR - Compound Annual Growth Rate
FY17¹: Data as on 27 July 2016
LOW BANKING PENETRATION INDICATES HUGE LATENT DEMAND … (1/2)

* Despite healthy growth over the past few years, the Indian banking sector is relatively underpenetrated

* Government Debt-to-GDP ratio is low (66.1%) relative to many of its emerging markets peers as well as developed economies such as the US & UK

![Government Debt as % of GDP](source: Ministry of Finance (2014), Government of India, TechSci Research)
LOW BANKING PENETRATION INDICATES HUGE LATENT DEMAND … (2/2)

* Limited banking penetration in India is also evident from low branch per 100,000 adults ratio

Commercial Bank Branches per 100,000 adults in India (2015)

<table>
<thead>
<tr>
<th>Country</th>
<th>Branches per 100,000 adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>13.5</td>
</tr>
<tr>
<td>South Africa</td>
<td>10.5</td>
</tr>
<tr>
<td>Brazil</td>
<td>20.7</td>
</tr>
<tr>
<td>Poland</td>
<td>31.1</td>
</tr>
<tr>
<td>Turkey</td>
<td>19.1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>10.7</td>
</tr>
<tr>
<td>US</td>
<td>32.9</td>
</tr>
<tr>
<td>Ireland</td>
<td>20.1</td>
</tr>
<tr>
<td>Austria</td>
<td>13.9</td>
</tr>
<tr>
<td>Belgium</td>
<td>38.5</td>
</tr>
</tbody>
</table>

RISING RURAL INCOME PUSHING UP DEMAND FOR BANKING

- The real annual disposable household income in rural India is forecasted to grow at a CAGR of 3.6 per cent over the next 15 years.
- The Indian agriculture, forestry & fishing sector has grown at a fast pace, clocking a CAGR of 8.13 per cent over FY09-FY16¹.
- Rising incomes are expected to enhance the need for banking services in rural areas and therefore drive growth of the sector. Programmes like MNREGA have helped in increasing rural income, which was further aided by the recent Jan Dhan Yojana.

GDP of agriculture, forestry & fishing sector, at current prices (USD Billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>141.77</td>
<td>139.39</td>
<td>157.35</td>
<td>160.8</td>
<td>140.71</td>
<td>132.71</td>
<td>259.46</td>
<td>245.04</td>
</tr>
</tbody>
</table>

Rising RURAL INCOME PUSHING UP DEMAND FOR BANKING

- The real annual disposable household income in rural India is forecasted to grow at a CAGR of 3.6 per cent over the next 15 years.
- The Indian agriculture, forestry & fishing sector has grown at a fast pace, clocking a CAGR of 8.13 per cent over FY09-FY16¹.
- Rising incomes are expected to enhance the need for banking services in rural areas and therefore drive growth of the sector. Programmes like MNREGA have helped in increasing rural income, which was further aided by the recent Jan Dhan Yojana.

Real disposable household income in rural India (USD)

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1,875</td>
<td>2,167</td>
<td>2,667</td>
<td>3,229</td>
</tr>
</tbody>
</table>

CAGR: 3.6%

Notes: CAGR – Compounded Annual Growth Rate
FY16¹ – Provisional Estimates

For updated information, please visit www.ibef.org
MOBILE BANKING TO PROVIDE A COST EFFECTIVE SOLUTION … (1/2)

* Agriculture requires timely credit to enable smooth functioning. However, only one-eighth of farm households avail bank credit

* Local money-lending practices involve interest rates well above 30 per cent therefore making bank credit a compelling alternative

Banking penetration in rural India picking pace

- Of the 600,000 village habitations in India only 5 per cent have a commercial bank branch
- Only 40 per cent of the adult population has bank accounts
- Debit card holders constitute only 13 per cent of the population & only 2 per cent have a credit card
- 51.4 per cent of nearly 89.3 million farm households do not have access to any credit either from institutional or non-institutional sources
- Only 13 per cent of farm households are availing loans from the banks in the income bracket of < USD1000

* Tele-density in rural India soared at a CAGR of nearly 71 per cent during 2007 to 2016\(^1\).

* Banks, telecom providers and RBI are making efforts to make inroads into the un-banked rural India through mobile banking solutions

Soaring rural tele-density opens avenue of mobile banking (Million Units)

Source: TRAI, TechSci Research
\(^1\) Indicates as on January 2016
Evolution of mobile banking

- Mobile banking allows customers to avail banking services on the move through their mobile phones. The growth of mobile banking could impact the banking sector significantly.
- Mobile banking across the world is still at a primitive stage with countries like China, India & UAE taking the lead.
- Mobile banking is especially critical for countries like India, as it promises to provide an opportunity to provide banking facilities to a previously under-banked market.
- RBI has taken several steps to enable mobile payments, which forms an important part of mobile banking; the central bank has recently removed the transaction limit of INR50,000 & allowed banks to set their own limits.
- In adoption of mobile banking, India holds 4th rank across the globe.
- Mobile banking transactions in India will cross 340 million by 2015 & would result in cost savings of approximately INR11 billion (USD230 million).

BANKING

SUCCESS STORIES
SUCCESS STORIES IN THE INDIAN BANKING SECTOR: HDFC BANK … (1/2)

**HDFC Bank**

- Established in 1994, HDFC Bank is the 2nd largest private sector bank in India. HDFC was amongst the first to receive an 'in principle' approval from the RBI to set up a bank in the private sector.
- **Divisions** – Retail banking, Wholesale banking and Treasury operations.
- **Size** – Number of branches & extensions (FY16): 4,520
  - Number of ATMs: (FY16) 12,000
  - Number of Employees (FY16): 87,555
  - Total Assets (FY16): USD108.29 billion
- **Recognition** –
  - In 2016, HDFC bank was awarded “NABARD Award for the Best Bank”
  - In 2015, HDFC Life (Finance, Banking, Insurance) received Porter Prize.

**Net profit USD (millions)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit (USD millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>486.6</td>
</tr>
<tr>
<td>FY10</td>
<td>621.8</td>
</tr>
<tr>
<td>FY11</td>
<td>860.7</td>
</tr>
<tr>
<td>FY12</td>
<td>1102.2</td>
</tr>
<tr>
<td>FY13</td>
<td>1238.5</td>
</tr>
<tr>
<td>FY14</td>
<td>1406.5</td>
</tr>
<tr>
<td>FY15</td>
<td>1775.1</td>
</tr>
<tr>
<td>FY16</td>
<td>1878.4</td>
</tr>
</tbody>
</table>

* **CAGR: 21.28%**

**Source:** Company Annual Reports, TechSci Research

**CAGR** - Compound Annual Growth Rate

---

- HDFC Bank is planning to set up 10 new branches in Madhya Pradesh, as a part of its expansion plans. As of 2016, the bank has 130 branches in MP & 8-10 new branches have been planned to be opened in the state, till the end of current financial year.

- In January 2017, HDFC bank reduced interest rate by 125 bps to 5 per cent on deposits of over USD 76 million.
SUCCESS STORIES IN THE INDIAN BANKING SECTOR: HDFC BANK … (2/2)

Income break-up (FY16)

- 72% Other Income
- 28% Net Interest Income

Advances and deposits (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Advances</th>
<th>Deposits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>21</td>
<td>31</td>
</tr>
<tr>
<td>FY10</td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td>FY11</td>
<td>35</td>
<td>42</td>
</tr>
<tr>
<td>FY12</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>FY13</td>
<td>53</td>
<td>55</td>
</tr>
<tr>
<td>FY14</td>
<td>50</td>
<td>61</td>
</tr>
<tr>
<td>FY15</td>
<td>61</td>
<td>75</td>
</tr>
<tr>
<td>FY16</td>
<td>79</td>
<td>86</td>
</tr>
</tbody>
</table>

Source: Company Annual Reports, TechSci Research
**SUCCESS STORIES IN THE INDIAN BANKING SECTOR: AXIS BANK … (1/2)**

### Axis Bank

- **Established in 1994, Axis Bank is the 3rd largest private sector bank in India.** The Net Interest Income of the bank in FY16 was USD1256.3 million with Foreign investors constituting 41.25% as on 31st March, 2016.

- **Divisions** – Treasury, retail banking, corporate/wholesale banking and other banking business.

- **Size** – Number of branches & extensions (FY16): 2,904
  - Number of ATMs (FY16): 12,743
  - Number of Employees (FY16): 50,135
  - Total Assets (FY16): USD80.27 billion

- **Recognition** –
  - Axis Bank was awarded the “Best Performing Private Bank” at Financial Advisor Awards 15-16.
  - The Bank was also accredited with “Best Loyalty Program of the year” as well as “Best Reward Program of the year” at 9th Loyalty Awards 2016.

### Net profit USD (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Profit (USD millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>393.4</td>
</tr>
<tr>
<td>FY10</td>
<td>530.3</td>
</tr>
<tr>
<td>FY11</td>
<td>742.8</td>
</tr>
<tr>
<td>FY12</td>
<td>904.9</td>
</tr>
<tr>
<td>FY13</td>
<td>953.6</td>
</tr>
<tr>
<td>FY14</td>
<td>1031.5</td>
</tr>
<tr>
<td>FY15</td>
<td>1235.6</td>
</tr>
<tr>
<td>FY16</td>
<td>1256.3</td>
</tr>
</tbody>
</table>

CAGR: 18.04%

*Source: Company Annual Reports, TechSci Research*

IDBRT: Institute for Development and Research in Banking
SUCCESS STORIES IN THE INDIAN BANKING SECTOR: AXIS BANK … (2/2)

Income break-up (FY16)

- Net Interest Income: 36%
- Other Income: 64%

Advances and deposits (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>Advances</th>
<th>Deposits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>18</td>
<td>25</td>
</tr>
<tr>
<td>FY10</td>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>FY11</td>
<td>31</td>
<td>41</td>
</tr>
<tr>
<td>FY12</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td>FY13</td>
<td>36</td>
<td>47</td>
</tr>
<tr>
<td>FY14</td>
<td>38</td>
<td>47</td>
</tr>
<tr>
<td>FY15</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>FY16</td>
<td>52</td>
<td>55</td>
</tr>
</tbody>
</table>

Source: Company Annual Reports, TechSci Research
**State Bank of India**

- Established in 1955, State Bank of India is the largest public sector bank in India. The Net Interest Income of State Bank of India in FY16, was USD8.7 billion.

- Divisions – Treasury, retail banking, corporate/wholesale banking and other banking businesses

- Size – Number of branches & extensions (FY16): 16,784
  - Number of ATMs (FY16): Over 59,000
  - Number of Employees (FY16): 207,739
  - Total Assets (FY16): USD345.11 billion

- Recognition
  - In FY16, SBI was recognised as “Best Central PSU Financial Service” by the 7th India Pride Awards.
  - During the same year, SBI was also awarded “The Best Fund House in India” award by the Asian Investor.

---

**Net profit (USD billions)**

<table>
<thead>
<tr>
<th>Year (FY)</th>
<th>Profit (USD billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>2.0</td>
</tr>
<tr>
<td>FY10</td>
<td>1.9</td>
</tr>
<tr>
<td>FY11</td>
<td>1.8</td>
</tr>
<tr>
<td>FY12</td>
<td>2.5</td>
</tr>
<tr>
<td>FY13</td>
<td>2.6</td>
</tr>
<tr>
<td>FY14</td>
<td>1.8</td>
</tr>
<tr>
<td>FY15</td>
<td>2.2</td>
</tr>
<tr>
<td>FY16</td>
<td>1.5</td>
</tr>
</tbody>
</table>

*Source: Company Annual Reports, TechSci Research*

Notes: CAGR - Compound Annual Growth Rate,
The bank plans to raise USD 746.82 million by issuing long term bonds in domestic and foreign markets to finance infrastructure development and provide affordable housing, during the current fiscal year.

Source: Company Annual Reports, TechSci Research
SUCCESS STORIES IN THE INDIAN BANKING SECTOR: FINANCIAL INCLUSION PLAN

- The RBI has aimed to provide banking services through a banking branch in every village having a population of more than 2000
- Financial inclusion has permitted banks to utilise the services of Non-Governmental Organisations (NGOs), micro-finance institutions (other than Non-Banking Financial Companies) and other civil society organisations as intermediaries in providing financial and banking services to all sections of the society, mainly the weaker sections and lower income groups
- The Financial Inclusion Plan (2010–15) has increased the penetration of banking services in rural areas

### Banks in Rural and Semi Urban Areas
- 132700 bank branches are there across the country as on 31 March 2016, out of which 86425 branches are in rural and semi urban areas.

### Increase in Public Sector ATM’s
- Number of Public sector ATM’s increased from 122,895 in 2015 to 201,861 in March 2016

### Basic Savings Bank Deposit Accounts (BSBDA)
- Total number of BSBDA reached 398 million. During 2014-15, around 155 million basic savings deposits accounts were added

### Kissan Credit Cards and General Credit Cards
- During 2014-15, 2.6 million Kissan credit cards have been issued. During the same period, 1.8 million General Credit Cards have been issued

### Financial Inclusion Plan (2013 – 16)
- The plan includes self-set targets for opening rural brick and mortar branches, employing Business Correspondents, covering unbanked villages through branches, Business Correspondents and other modes; and opening no-frills accounts to cater to the financially excluded segments.

Source: Company Annual Reports, TechSci Research

For updated information, please visit [www.ibef.org](http://www.ibef.org)
Indian Banks’ Association
World Trade Centre, 6th Floor
Centre 1 Building,
World Trade Centre Complex,
Cuff Parade, Mumbai - 400 005
India
E-mail: webmaster@iba.org.in
**ATM**: Automated Teller Machines

**CAGR**: Compound Annual Growth Rate

**FY**: Indian Financial Year (April to March)

**GDP**: Gross Domestic Product

**INR**: Indian Rupee

**KYC**: Know Your Customer

**NIM**: Net Interest Margin

**NPA**: Non-Performing Assets

**RBI**: Reserve Bank of India

**USD**: US Dollar

Wherever applicable, numbers have been rounded off to the nearest whole number.
## Exchange Rates

### Exchange rates (Fiscal Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004–05</td>
<td>44.81</td>
</tr>
<tr>
<td>2005–06</td>
<td>44.14</td>
</tr>
<tr>
<td>2006–07</td>
<td>45.14</td>
</tr>
<tr>
<td>2007–08</td>
<td>40.27</td>
</tr>
<tr>
<td>2008–09</td>
<td>46.14</td>
</tr>
<tr>
<td>2009–10</td>
<td>47.42</td>
</tr>
<tr>
<td>2010–11</td>
<td>45.62</td>
</tr>
<tr>
<td>2011–12</td>
<td>46.88</td>
</tr>
<tr>
<td>2012–13</td>
<td>54.31</td>
</tr>
<tr>
<td>2013–14</td>
<td>60.28</td>
</tr>
<tr>
<td>2014–15</td>
<td>61.06</td>
</tr>
<tr>
<td>2015–16</td>
<td>65.46</td>
</tr>
<tr>
<td>2016-17 (E)</td>
<td>66.95</td>
</tr>
</tbody>
</table>

### Exchange rates (Calendar Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>INR equivalent of one USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>43.98</td>
</tr>
<tr>
<td>2006</td>
<td>45.18</td>
</tr>
<tr>
<td>2007</td>
<td>41.34</td>
</tr>
<tr>
<td>2008</td>
<td>43.62</td>
</tr>
<tr>
<td>2009</td>
<td>48.42</td>
</tr>
<tr>
<td>2010</td>
<td>45.72</td>
</tr>
<tr>
<td>2011</td>
<td>46.85</td>
</tr>
<tr>
<td>2012</td>
<td>53.46</td>
</tr>
<tr>
<td>2013</td>
<td>58.44</td>
</tr>
<tr>
<td>2014</td>
<td>61.03</td>
</tr>
<tr>
<td>2015</td>
<td>64.15</td>
</tr>
<tr>
<td>2016 (Expected)</td>
<td>67.22</td>
</tr>
</tbody>
</table>

Source: Reserve Bank of India, Average for the year
For updated information, please visit [www.ibef.org](http://www.ibef.org)
India Brand Equity Foundation ("IBEF") engaged TechSci to prepare this presentation and the same has been prepared by TechSci in consultation with IBEF.

All rights reserved. All copyright in this presentation and related works is solely and exclusively owned by IBEF. The same may not be reproduced, wholly or in part in any material form (including photocopying or storing it in any medium by electronic means and whether or not transiently or incidentally to some other use of this presentation), modified or in any manner communicated to any third party except with the written approval of IBEF.

This presentation is for information purposes only. While due care has been taken during the compilation of this presentation to ensure that the information is accurate to the best of TechSci and IBEF’s knowledge and belief, the content is not to be construed in any manner whatsoever as a substitute for professional advice.

TechSci and IBEF neither recommend nor endorse any specific products or services that may have been mentioned in this presentation and nor do they assume any liability or responsibility for the outcome of decisions taken as a result of any reliance placed on this presentation.

Neither TechSci nor IBEF shall be liable for any direct or indirect damages that may arise due to any act or omission on the part of the user due to any reliance placed or guidance taken from any portion of this presentation.