



INDIA

Indian Banks Returns – CMP vs. TP

	Reco	CMP (Rs)	TP (Rs.)	TSR (%)
Private banks				
AXSB IN	N	549	501	-7.6%
KMB IN	N	756	780	3.2%
YES IN	OP	1,236	1,325	8.2%
IIB IN	OP	1,178	1,290	10.0%
ICICIBC IN	N	242	262	10.5%
HDFCB IN	OP	1,240	1,500	21.7%
PSU banks				
PNB IN	UP	122	56	-53.9%
BOI IN	UP	109	53	-51.3%
UNBK IN	UP	127	82	-32.5%
CBK IN	UP	252	170	-30.9%
SBIN IN	UP	227	173	-22.3%
BOB IN	UP	149	120	-17.9%

Source: Bloomberg, Macquarie Research, August 2016
Note: Prices as of 5th August 2016

Indian Banks Valuations

Companies	FY18E	
	P/BV (x)	RoE (%)
Private banks		
AXSB IN	1.9	15.9
HDFCB IN	3.2	19.7
ICICIBC IN	1.3	12.6
IIB IN	3.0	17.0
KMB IN	3.2	13.9
YES IN	2.3	16.8
PSU banks		
BOB IN	0.9	9.4
BOI IN	0.4	0.4
CBK IN	0.5	5.8
PNB IN	0.6	5.6
SBIN IN	0.9	10.7
UNBK IN	0.4	7.6

Source: Company data, Macquarie Research, August 2016; Note: Prices as of 5th August 2016

Contribution from various channels for customer transactions

For FY2016	HDFCB	ICICI	Axis
Digital/Internet/Mobile	71%	63%	51%
ATM	15%	25%	36%
Branch	11%	6%	13%
Others	3%	6%	-

Source: Company data, Macquarie Research, August 2016

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Macquarie Capital Securities India (Pvt) Ltd

India Banks

NPCI – Revolutionising the digital space

Event

- **Meeting with NPCI CEO – potential is huge in the digital payments space:** We met with NPCI (National Payments Corporation of India) CEO Mr A.P. Hota ahead of its UPI (Unified Payments Interface) launch. UPI envisages a payment system architecture which is simple, completely interoperable and offers a push as well as pull platform. With the advent of UPI, we think it is clear that payment banks and mobile wallets' profitability/business models would be under pressure, but Mr Hota was of the view that they will supplement the wallets rather than pose a big threat.

Impact

- **What is the scope?** Considering the fact that there are about 150 million smartphone users in India today, and that the number is expected to rise to 500 million over the next five years, the UPI solution leverages the growing presence of mobile phones as acquiring devices and uses virtual addresses instead of physical cards, thus reducing cost of both acquiring and issuing infrastructure. The cash in circulation in India is closer to ~15% of GDP compared to say Brazil at around 6-7%.
- **What is the level of acceptance for UPI?** Banks meeting the criteria of 1,000 pilot customers, 5,000 transactions and 90% success ratio would have gone live by July 31st 2016. NPCI expects 15 banks to be fully ready and by the end of the year expects 50 banks to be fully on the platform.
- **What are the key challenges in payment systems?** Nearly 80% of the transactions today happen in cash in India vs. ~21% for developed markets. There is issue of tax incidence which is 3% vs. nil for cash usage. There are lower POS (point-of-sale) terminals at 1.3mn out of a total base of 35mn SMEs/14mn merchants. The main challenge as per Mr. Hota is building a technology infrastructure which is simple, cost-effective and convenient to use at the merchant level and so far he hasn't seen a lot of innovation happening at this end from the payment companies/wallets/banks etc.
- **Digital payments market to be a huge market by 2020:** As per the Google-BCG study ([Source: BCG Press Release](#)), the digital payments market will grow to US\$500bn by 2020 – almost 10x the current size and contributing 15% to India's GDP. Nearly half of India's internet users will use digital payments by 2020 and non-cash contribution in the consumer payments segment will double to 40%.
- **Blockchain technology:** Discussions are on whether blockchain can replace organisations like NPCI or whether NPCI can use it to develop more secure and better platforms. Regulatory approval is one of the key success factors of this technology adoption and RBI so far has set up a committee to understand the possibility of using blockchain technology. Blockchain could have the potential to transform the functioning of the back offices of banks, increase the speed and cost efficiency in payment systems and trade finance.

Outlook

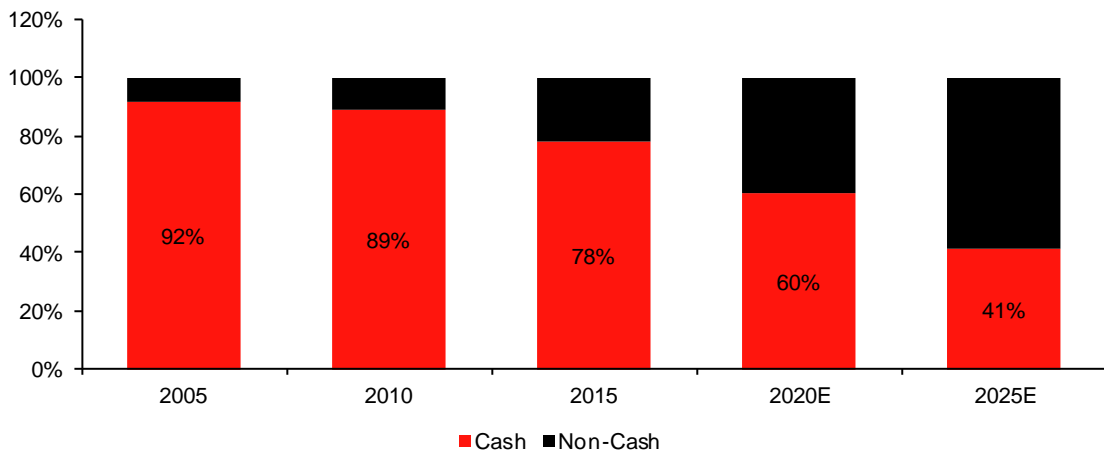
- **New generation private sector banks are the best in digital banking:** Most new generation private sector banks are good but HDFC Bank stands out when it comes to contribution from digital/internet/mobile banking channels with nearly ~70% of customer transactions coming from this channel compared to 63% for ICICI and 51% for Axis in FY2016.

Scope for expansion of digital banking is enormous

As per the [Google-BCG study](#), the digital payments market will grow to US\$500bn by 2020 – almost 10x the current size and contributing 15% to India’s GDP. Nearly half of India’s internet users will use digital payments by 2020 and non-cash contribution in the consumer payments segment will double to 40%. Currently nearly 78% of the payments that happen in India are through cash. The number is way higher than the developed markets which are around 21% and other emerging markets which are around 55% on an average.

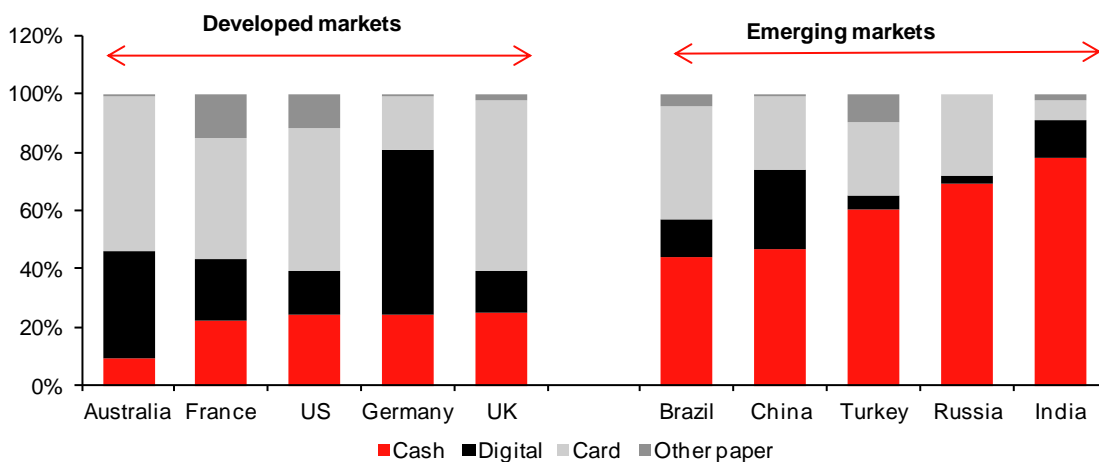
As the customers shift towards the non-cash channels, the scope for expansion of digital payments is enormous.

Fig 1 Share of cash transactions likely to come down rapidly



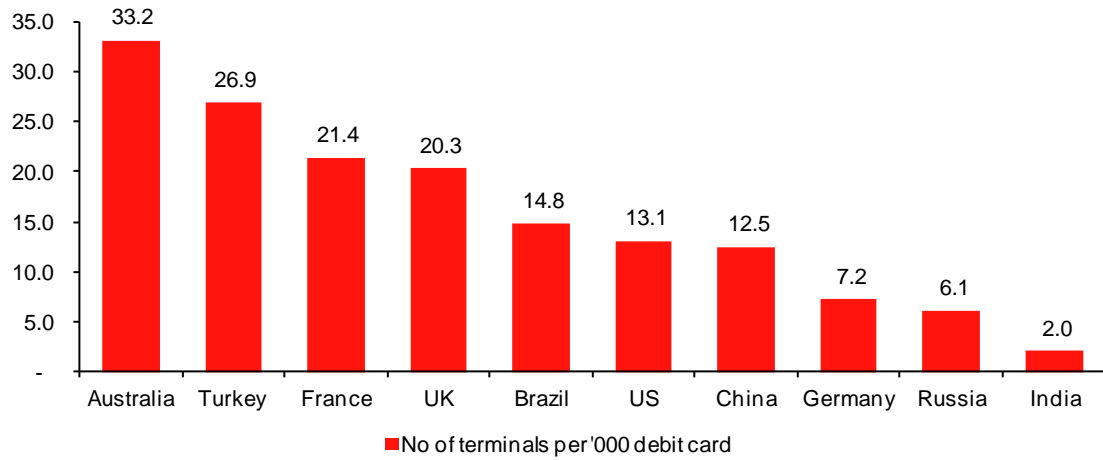
Source: [Business Standard](#) and [Mint Newspaper](#), [Google-BCG Report](#), Macquarie Research, August 2016

Fig 2 India has one of the highest proportion of cash transactions relative to other markets



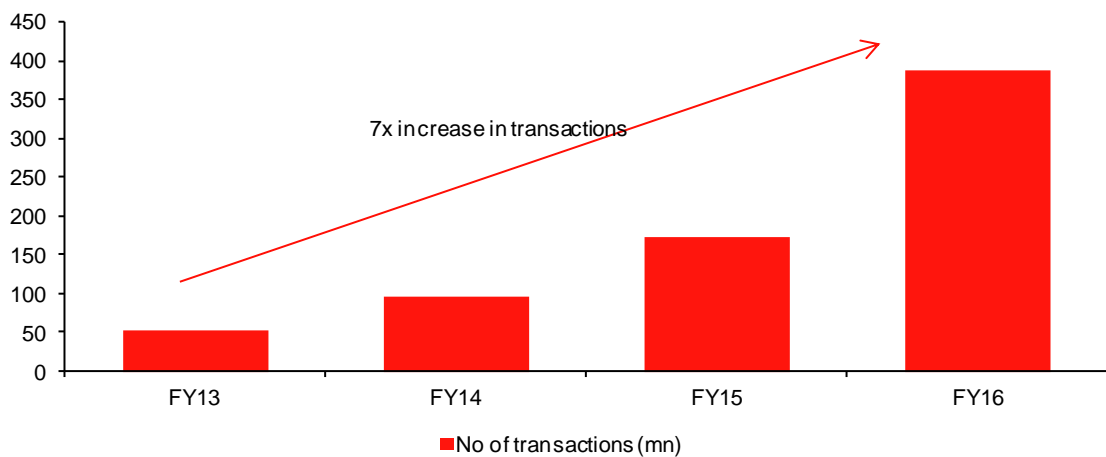
Source: [Business Standard](#) and [Mint Newspaper](#), [Google-BCG Report](#), Macquarie Research, August 2016

Fig 3 POS terminal penetration across countries



Source: [Business Standard](#) and [Mint Newspaper](#), [Google-BCG Report](#), Macquarie Research, August 2016

Fig 4 Mobile banking: Transactions have been increasing at an alarming pace



Source: RBI, Macquarie Research, August 2016

Fig 5 Mobile banking: Both transactions as well as value per transaction has been increasing

	No of transactions (mn)	Value (Rs bn)	INR/Transaction
FY13	53	60	1,132
FY14	95	224	2,358
FY15	172	1,035	6,017
FY16	387	4,018	10,382
FY16/FY13	7.3x	67.0x	9.2x

Source: RBI, Macquarie Research, August 2016

The Government along with RBI and SEBI are progressively supporting the ambition of Indian economy to be a cashless digital economy. Following are some important steps taken in this regard:

- Jan Dhan Yojna: Over 200 million new accounts opened for the unbanked individuals thereby fostering financial inclusion.
- Aadhar (which is a unique identification system) has been extended for pension, provident fund and Jan Dhan Yojna.
- Tax rebates for merchants accepting more than 50% of their transactions digitally.
- Surcharge on online and card payments for availing of government services proposed to be withdrawn by the Ministry of Finance.

NPCI – A brief background of the company

National Payments Corporation of India (NPCI) is an umbrella organization for all retail payments system in India. It was set up with the guidance and support of the RBI and Indian Banks' Association (IBA).

The RBI, after setting up the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS) in 2005, released a vision document incorporating a proposal to set up an umbrella institution for all the retail payment systems in the country. The core objective was to consolidate and integrate the multiple systems with varying service levels into nation-wide uniform and standard business process for all retail payment systems. The other objective was to facilitate an affordable payment mechanism to benefit the common man across the country and help financial inclusion.

NPCI was incorporated in December 2008. The main aim is to create infrastructure of large dimension and operate on high volumes resulting in payment services at a fraction of the present cost structure. NPCI has ten promoter banks namely, State Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda, Union Bank of India, Bank of India, ICICI Bank, HDFC Bank, Citibank and HSBC. The Board comprises Mr. Balachandran (Former CMD of BOI) as the Chairman, Nominee from RBI, Nominees from ten core promoter banks, two Independent Directors and Shri A. P. Hota, Managing Director and Chief Executive Officer, NPCI.

During the last five years, the organization has grown multi-fold from 2 million transactions a day to 20 million transactions now. From a single service of switching of inter-bank ATM transactions, the range of services has grown to Cheque Clearing, Immediate Payments Service (24x7x365), Automated Clearing House, Electronic Benefit Transfer and a domestic card payment network named RuPay to provide an alternative to international card schemes. As of end-June 2016, over 280m Indians owned a RuPay card.

Fig 6 NPCI – Stellar growth in payments

Product Name	Volumes/issuances as on July 2016	Volumes/Issuances as on July 2015	% Growth
RuPay ATM	8,32,02,247	4,43,69,503	88%
RuPay POS + ECOM	95,95,626	19,78,134	385%
IMPS Txns	3,21,80,220	1,55,98,608	106%
AEPS (OFFUS+ONUS)	2,29,24,552	62,65,051	266%
NACH (All Products)	18,28,28,859	10,11,00,259	81%
NFS	35,02,89,410	29,73,38,653	18%
Rupay Card Issuance* (Jun vs Jun)	28,33,40,742	17,71,22,472	60%

Source: NPCI, Macquarie Research, August 2016

Unified Payment Interface – Simplifying it

The Unified Payment Interface (UPI) envisages a payments architecture that is directly linked to achieving the goals of universal electronic payments, a less-cash society, and financial inclusion, using the latest technology trends.

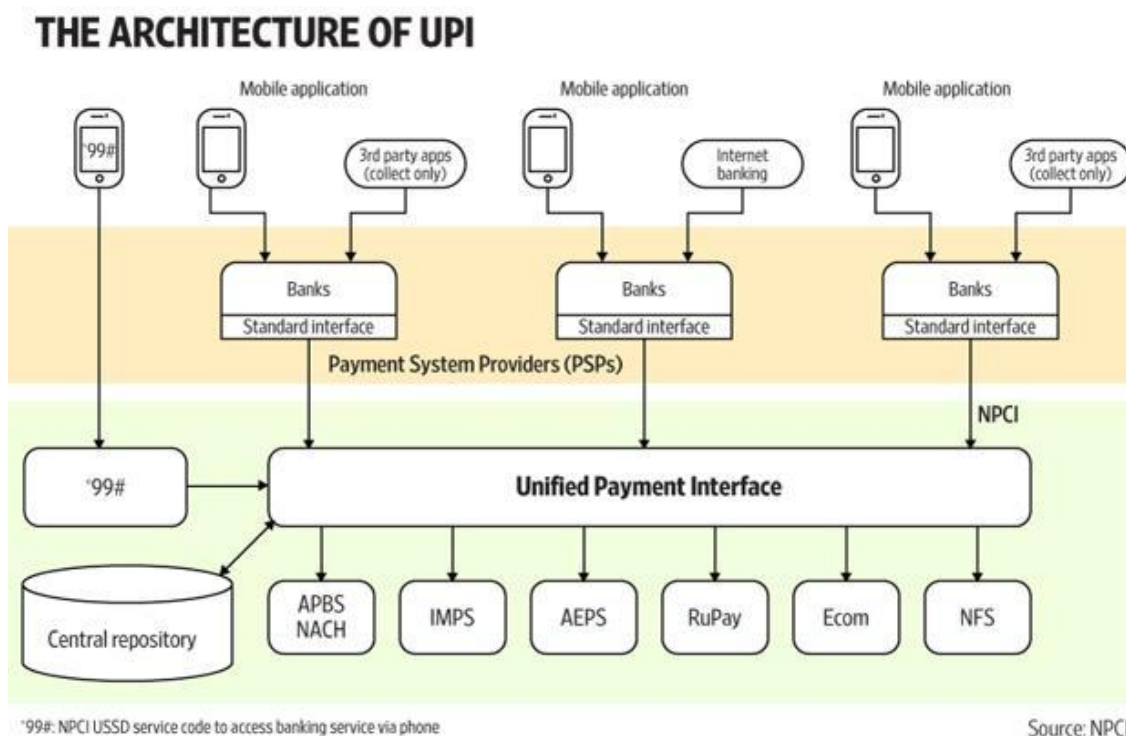
What is UPI and how does it help?

UPI is a cheap, secure, reliable, mobile-first, interoperable, open-source, instantaneous settlement and both pull and push platform. It means payments can be initiated by both sender (payer) and receiver (payee). For example a pay request is a transaction where the customer is pushing funds to the intended beneficiary while collect request is a transaction where the customer is pulling funds from the intended remitter by using a virtual address.

Moreover, while pre-paid wallets can't do more than Rs.10,000 worth of transactions without KYC (know your customer) requirements in a given month, a UPI-enabled platform bank account can transfer up to Rs.1 lakh instantaneously. Besides, the cost of each transaction is going to be less than Rs0.45, and one can also factor in all the savings from, and to, bank accounts.

One can use virtual/disposable accounts to do transactions generated right from the bank app. Pull and Push amount can be requested from a certain account or paid into some other account. It's one of the few systems in the world designed for the new mobile age, helping with easy integration across various platforms. Interoperable OTP (one-time password) generated on one bank app can be used across another for transaction authentication. Also, **multiple level of identifiers** can be used (**bank account, Aadhaar number, virtual identifier, mobile number, etc**) to send or receive money.

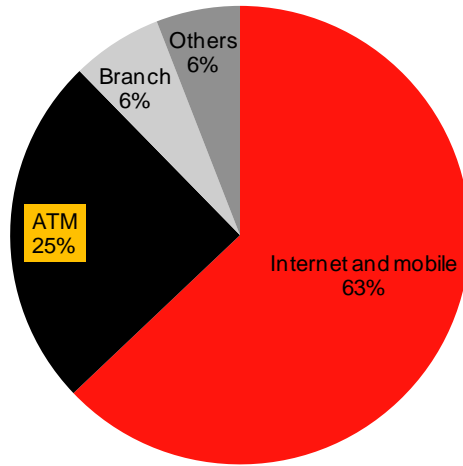
Fig 7 Architecture of Unified Payment Interface (UPI) by NPCI



Source: NPCI website, Macquarie Research, August 2016

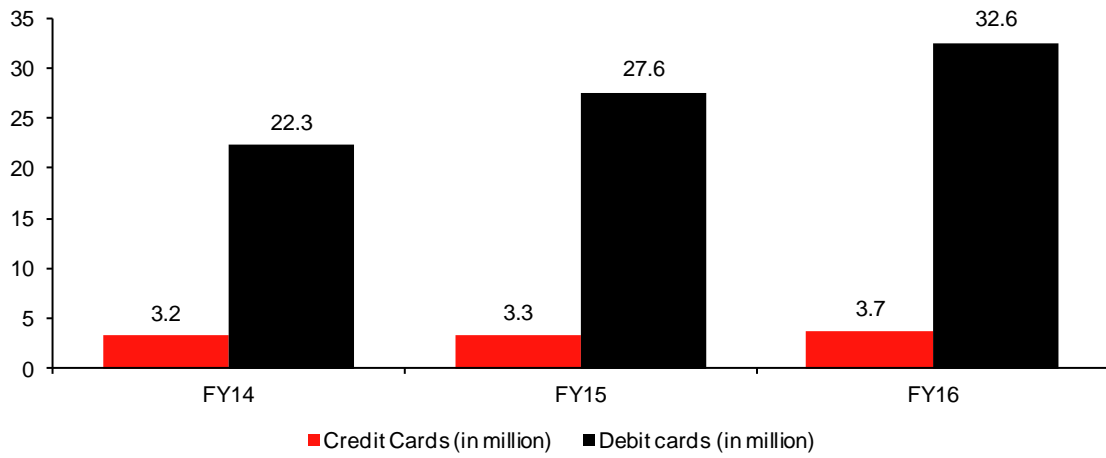
ICICI Bank

Fig 8 Customer transactions through various channels



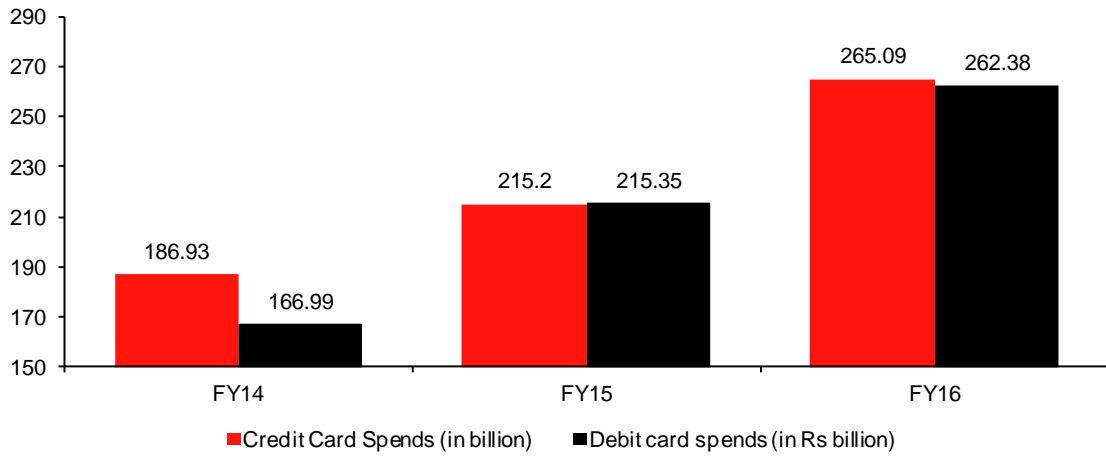
Source: Company data, Macquarie Research, August 2016

Fig 9 Number of credit and debit cards



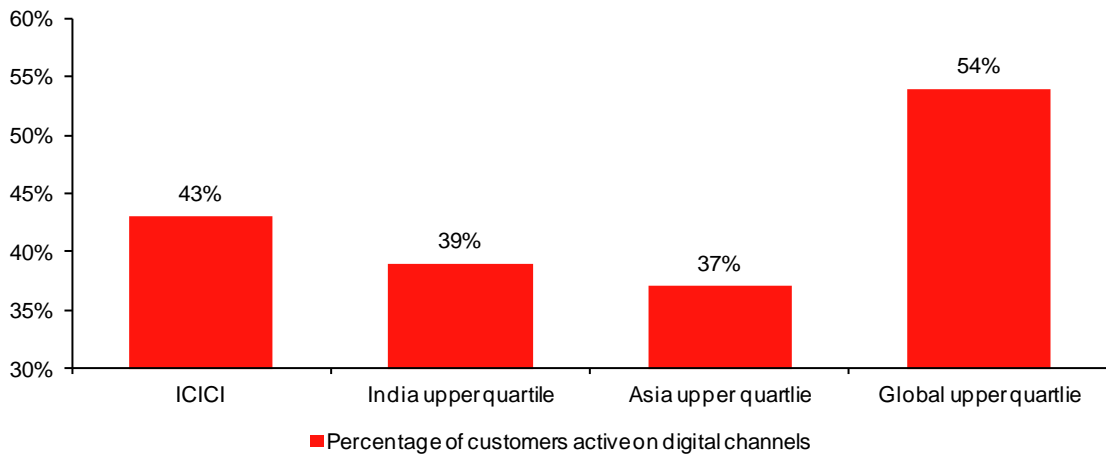
Source: Company data, Macquarie Research, August 2016

Fig 10 Spends in credit cards and debit cards



Source: Company data, Macquarie Research, August 2016

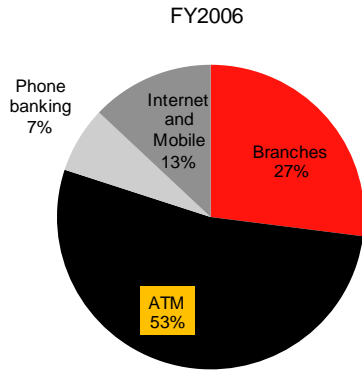
Fig 11 ICICI vs. others in usage of digital banking channels



Source: Company data, Macquarie Research, August 2016

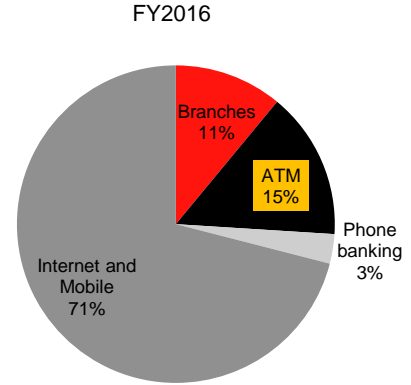
HDFC Bank

Fig 12 FY2006: Customer transactions through various channels



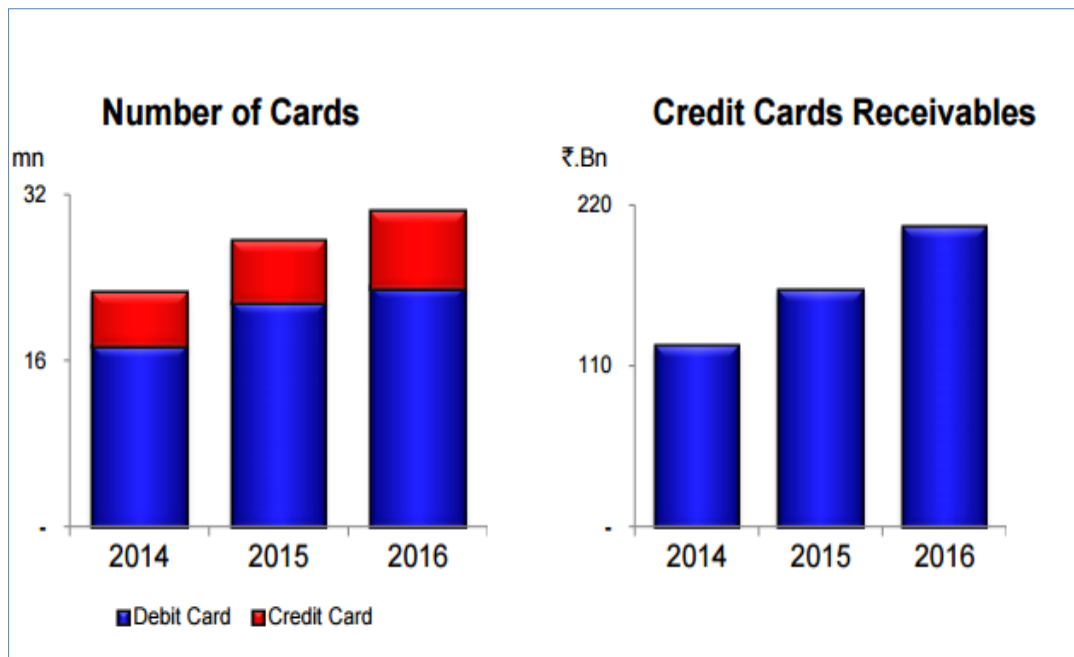
Source: Company data, Macquarie Research, August 2016

Fig 13 FY2016: Customer transactions through various channels



Source: Company data, Macquarie Research, August 2016

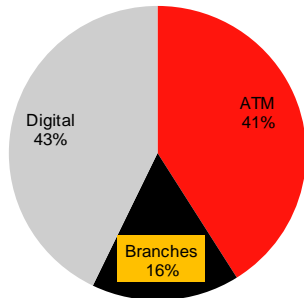
Fig 14 No of cards issued by HDFC Bank over the years



Source: Company data, Macquarie Research, August 2016

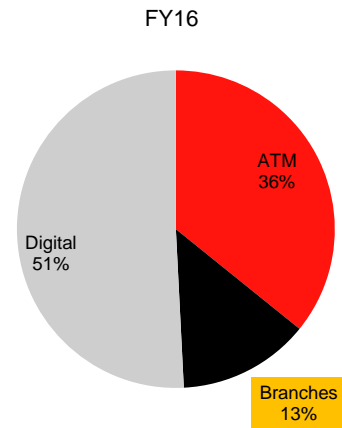
Axis Bank

Fig 15 FY2015: Customer transactions through various channels



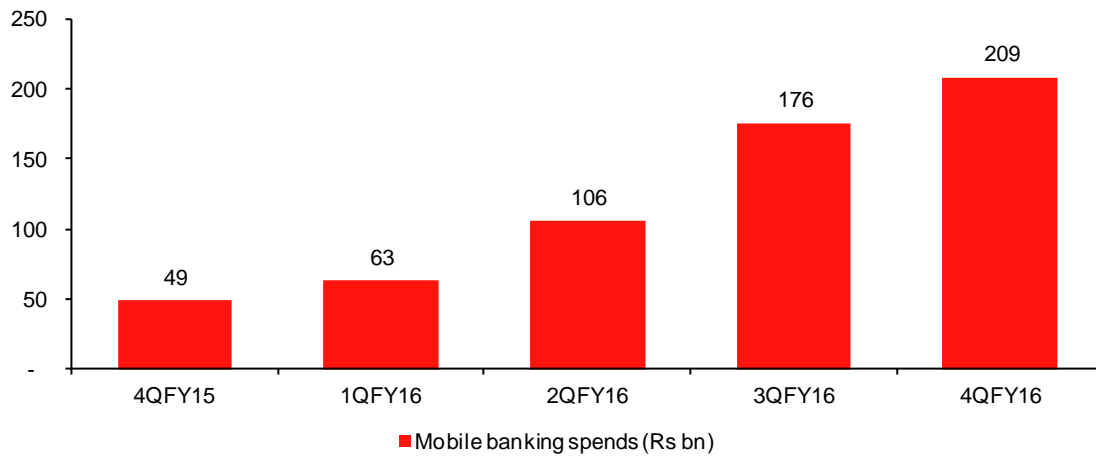
Source: Company data, Macquarie Research, August 2016

Fig 16 FY2016: Customer transactions through various channels

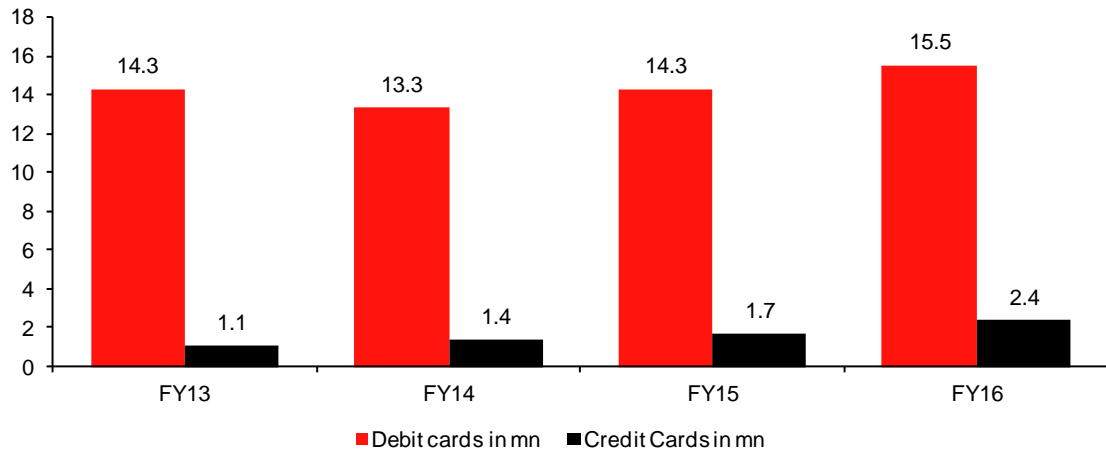


Source: Company data, Macquarie Research, August 2016

Fig 17 Mobile banking spends trends



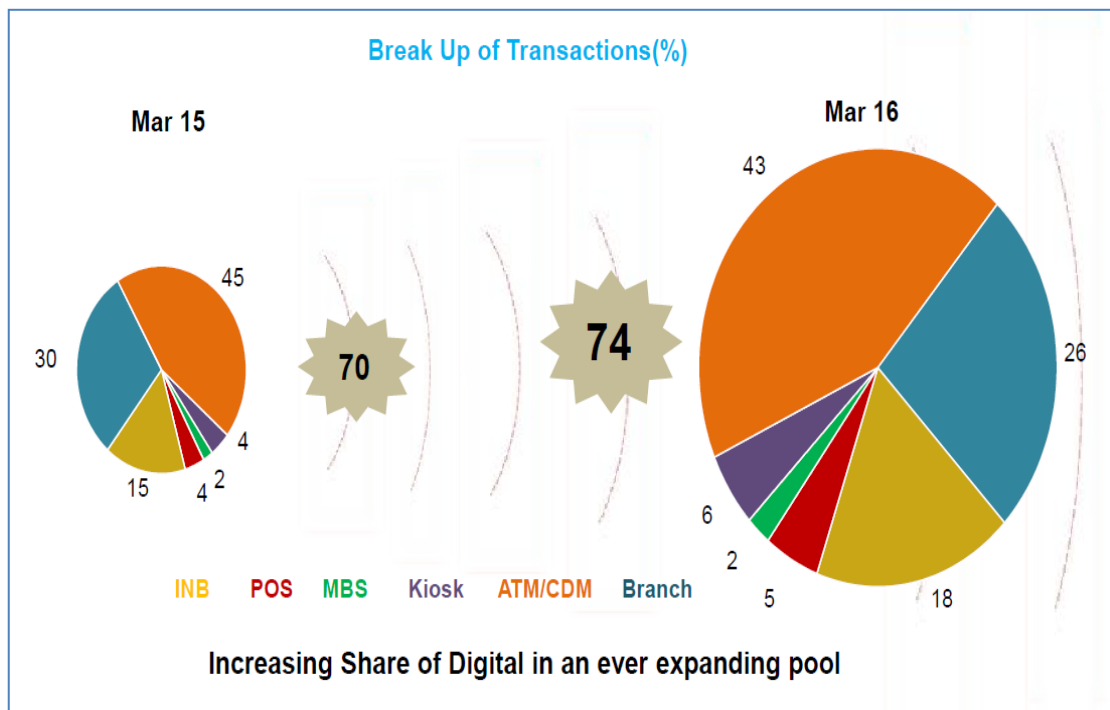
Source: Company data, Macquarie Research, August 2016

Fig 18 Debit cards and credit cards in issuance

Source: Company data, Macquarie Research, August 2016

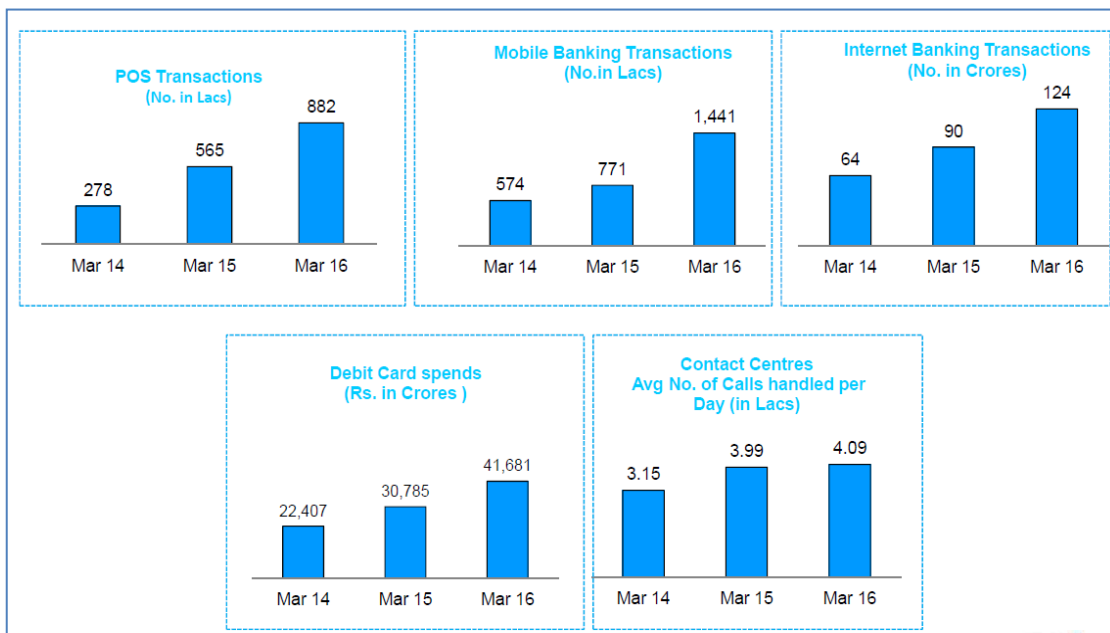
SBI

Fig 19 Share of various channels in customer transactions



Source: Company data, Macquarie Research, August 2016

Fig 20 Alternate channels performance



Source: Company data, Macquarie Research, August 2016

Fig 21 Alternate channels market share

Channel	Market Share (%)
Number of ATMs	25.09
ATM : Amt of Txns	42.66
Number of Debit Cards	28.40
Debit Card Spends	22.75
Number of PoS Terminals	21.85
PoS: Value of Txns	13.10
Mobile Banking: Number of Txns	35.46
Mobile Banking: Value of Txns	32.01

Source: Company data, Macquarie Research, August 2016

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand

Outperform – return >3% in excess of benchmark return
Neutral – return within 3% of benchmark return
Underperform – return >3% below benchmark return

Benchmark return is determined by long term nominal GDP growth plus 12 month forward market dividend yield

Macquarie – Asia/Europe

Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie – South Africa

Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Canada

Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie - USA

Outperform (Buy) – return >5% in excess of Russell 3000 index return
Neutral (Hold) – return within 5% of Russell 3000 index return
Underperform (Sell) – return >5% below Russell 3000 index return

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high-highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low-medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.

* Applicable to Asia/Australian/NZ/Canada stocks only

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:

Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / epowa*

ROA = adjusted ebit / average total assets

ROA Banks/Insurance = adjusted net profit / average total assets

ROE = adjusted net profit / average shareholders funds

Gross cashflow = adjusted net profit + depreciation

*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 30 June 2016

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	45.17%	56.00%	36.36%	43.16%	63.39%	45.91%	(for global coverage by Macquarie, 6.27% of stocks followed are investment banking clients)
Neutral	36.21%	28.59%	40.26%	50.38%	29.46%	36.96%	(for global coverage by Macquarie, 6.33% of stocks followed are investment banking clients)
Underperform	18.62%	15.41%	23.38%	6.46%	7.14%	17.12%	(for global coverage by Macquarie, 5.38% of stocks followed are investment banking clients)

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