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Banking Update

RuPay - Driving card penetration in India

RuPay cards, launched in 2012 by NPCI, have grown exponentially led by the Pradhan Mantri Jan Dhan Yojana, and now make up over 38% of the total issued 645mn debit cards in India. Cost effectiveness compared to peers, push from PSU banks and growing acceptance across merchant platforms (both online and offline) are the driving factors for RuPay's growth from 17mn in FY14 to nearly 247mn by Jan'16. Going ahead, with a) launch of marketing and promotion campaign to create a strong RuPay brand among the high spending urban consumers, b) roll-out of RuPay credit card by Sept'16, and c) bulk issuing opportunity by partnering with the incoming 11 payments and 8 Small finance banks, RuPay is set to gain market share in cards business from the longstanding market leaders.

- India offers huge card penetration opportunities; expansion of acceptance infrastructure is the key: With over 95% of total transactions estimated to be in cash, India remains a large opportunity for electronic/card based transactions. The card payment transactions (including debit and credit cards at both ATM and Point of Sale (PoS)) per capita in India is very low at 6.7 even compared among BRICs. While card transactions continue to grow in double digit consistently, sustenance of the trend requires strong expansion in acceptance infrastructure. RBI and GoI are working towards making India a 'less-cash' society which offers significant opportunities in our opinion.
- RuPay, Domestic alternate to Visa/MasterCard: RuPay, a new card network started by the NPCI in 2012, leverages the capabilities of NPCI in processing various types of retail payments on a large scale and differentiates itself with cost effectiveness vis-à-vis peers. Nearly 100% domestic coverage across ATMs, PoS and online merchants and strategic alliances with Discover financial services provides RuPay network with comparable domestic and international coverage. Pradhan Mantri Jan Dhan Yojana has been a game changer for RuPay with more than 170mn (out of 247mn) cards being issued under the scheme.
- RuPay Launch of credit card, brand building campaign and partnerships with new banks offer significant opportunities: RuPay has gained more than 1/3rd market share in total cards outstanding and 18% share in terms of volume of debit card transactions. Within a short span of time, it has gained over 20% market share in debit card based ATM transactions and 4% share in debit card based PoS transactions. Going ahead, a) increased marketing efforts to brand RuPay Platinum card, b) launch of RuPay credit card by Sep'16, and c) 11 payments banks and 8 small finance banks commencing operations over next 2 years and carrying a similar financial inclusion mandate of the regulator, RuPay has significant opportunity to scale up and grab a significant share in overall cards business from the existing market leaders.



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Source: NPCI, RBI, JM Financial

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- India remains a potentially large market for electronic payments; strong push to expand acceptance infrastructure is needed: While the use of electronic channels for accessing banking and payment services is on the rise, India is still a cash intensive economy with cash-to-GDP ratio of over 12%. As per various estimates c.95% of consumer transactions (volumes) and c.65% (value) in India are carried out in cash. This compares with 40-50% (volumes) and 10-20% (value) for advanced economies. Though there is significant increase in electronic transactions, the growth is not uniform across all segments of electronic payments nor is it visible at all locations across the country. Particularly, in the context of cards, while the card base is increasing rapidly, activation or usage rates are quite low, especially for purchase of goods and services. Card usage at ATMs, on the other hand, is quite high. Thus there is a need to ensure quick, equitable and sustainable growth in card acceptance infrastructure across the country. RBI and GoI are working on various initiatives in this regard which can offer significant growth potential for card industry in India.
- 'RuPay' is an Indian domestic card scheme conceived and launched by the National Payments Corporation of India (NPCI). It was conceived to fulfill RBI's vision to offer a domestic, open-loop, multilateral system which will allow all Indian banks and financial institutions in India to participate in electronic payments. 'RuPay' is the coinage of two terms Rupee and Payment.

Exhibit 2. Cross country comparison of per person card payment transaction



Source: CPMI- Red Book statistics; September 2015 (provisional), the Bank for International Settlements (BIS), JM Financial.

Retail payments - Moving towards non-paper clearing: As paper based transactions (cheques, DDs etc.) continue to fall, the retail payments sphere is turning to electronic based and card based transactions.

Exhibit 3. Composition of retail payments (Ex-Cash and Ex-ATM) in India by Volume and value of transactions.



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Credit card issuance gaining traction; PMJDY drove significant debit card surge: While debit card issuance witnessed a substantial surge in FY15 led by over 100mn RuPay cards issued under Pradhan Mantri Jan Dhan Yojana (PMJDY), the growth in cards issued in 9MFY16 was lower due to this high base effect. Notable trend is that credit cards issuance is gaining traction FY15 onwards and 9MFY16 (annualized) saw the momentum continuing. Further, PSU banks have been contributing to the growth through increasing proportion of not just cards but PoS machines as well (Exhibit 5 and 6).





Source: RBI, JM Financial

Exhibit 5. Trends in Card issuance by PSU/Private banks						
	Debit cards (mn)			Credit cards (mn)		
	Oct '13	Oct '14	Oct '15	Oct '13	Oct '14	Oct '15
Public Sector Banks	299.3	356.9	513.3	3.7	4.0	4.7
Private Sector Banks	71.5	81.5	99.0	10.1	11.3	13.4
Foreign Banks	3.4	3.2	3.1	4.8	4.7	4.7
Total	374	442	615	19	20	23
Mix (%)						
Public Sector Banks	80%	81%	83%	20%	20%	21%
Private Sector Banks	19%	18%	16%	54%	57%	59%
Foreign Banks	0.9%	0.7%	0.5%	26%	24%	21%
Total	100%	100%	100%	100%	100%	100%

Source: RBI, JM Financial # Annualized rate

However, rapid expansion in card acceptance infrastructure is needed: In India, even though card penetration is fast growing with total issued cards crossing 600mn in FY15, it is way lower in comparison with the 4.2bn cards issued in China. Underdeveloped acceptance infrastructure is a major hurdle for faster growth in card penetration. The number of PoS devices in India stands at 1.2mn for more than 14mn estimated merchants, rendering over 90% of them without a medium to collect payments electronically. RBI has indicated that India would need to set up close to 20mn PoS devices in the country to create a card acceptance infrastructure that is equal in size to other BRIC countries.

While almost every bank is a card issuer, very few banks are engaged in the activity of merchant acquiring and setting up of card acceptance infrastructure. Thus, there is concentration in acquiring business with the top 5 acquirer banks, accounting for nearly 81% of the POS infrastructure. At the same time, the share of these banks in terms of their debit card issuance was around 41% (top 5 acquirer banks).

Exhibit 6. Trends in PoS/ATM terminals by PSU/Private banks	

	ATMs			F	5	
	Oct '13	Oct '14	Oct '15	Oct '13	Oct '14	Oct '15
Public Sector Banks	85,748	1,22,324	1,36,682	1,76,349	2,55,649	4,06,373
Private Sector Banks	46,334	50,229	53,108	7,32,443	8,02,236	7,81,763
Foreign Banks	1,231	1,144	1,069	54,699	53,691	48,797
Total	1,33,313	1,73,697	1,90,859	9,63,491	11,11,576	12,36,933
Mix (%)						
Public Sector Banks	64%	70%	72%	18%	23%	33%
Private Sector Banks	35%	29%	28%	76%	72%	63%
Foreign Banks	0.9%	0.7%	0.6%	6%	5%	4%
Total	100%	100%	100%	100%	100%	100%

Source: RBI, JM Financial

- RBI/GOI is further incentivizing non-cash transactions: RBI has released its concept paper in Mar'16 to improve acceptance infrastructure in the economy and is mulling 1) setting up of a Acceptance development fund, 2) Policy reform to mandate card issuers to set up PoS terminals as per their market share, and 3) rationalization of merchant discount rates (MDRs). On the part of GoI, Cabinet, during the budget session, has announced waiver on convenience charges, surcharge and service charge on digital payments by various government departments and organisations. Many countries have introduced measures to provide incentives to merchants towards digital transactions. South Korea (which has among lowest cash usage in the world) and Brazil provide tax breaks on the amount of payments accepted digitally; France, Italy and Spain, among a few other European nations, have set limits on cash transactions and introduced fines for crossing these limits.
- Card transactions and frequency of usage is on the rise: Cards business in India is witnessing consistent double-digit growth in both value and volume of transactions. Within Cards, credit cards constitute less than 4% of total issued cards, but still make up for nearly 40% of total PoS transactions in the economy and account for almost 60% of total value of card based PoS transactions. Frequency of card usage has also improved over FY12-9MFY16 as number of transactions per PoS terminal has grown for both credit and debit cards consistently. Surprisingly, debit cards have not had a significant dip in Average Ticket Size (ATS) on PoS and ATM even after the huge increase in number of cards on account of PMJDY. Amidst growing use of non-card electronic payments (e.g. digital wallets), both credit and debit cards have managed to post robust growth due to strategic integration with established online players across all online platforms and continuous product innovation (e.g. m-visa). Considering the size of a massive untapped market and low PoS penetration to tier III and tier IV towns, cards business can sustain the current growth levels.
- E-Commerce in Tier-2 and Tier-3 towns to drive usage further: Card usage for online transactions has been steadily increasing in Tier 2 and Tier 3 towns led by increasing e-commerce penetration in the country. India's leading e-commerce players get more than half of their sales from Tier 2 and 3 towns as reported by Amazon India and Snapdeal. Card usage ex-ATM was lower in these places due to lack of adequate network of physical acceptance infrastructure (PoS terminals) which has been addressed by smartphones and internet penetration.

Debit cards usage at PoS machines: Almost 90% by volume and 95% of the total value of debit card transactions are at ATMs. At PoS terminals, debit cards witnessed surge in growth during 9MFY16 in both volume and value of card transactions. This signals debit cards are being increasingly used for PoS transactions and not limited to ATM cash withdrawals. Number of transaction per PoS terminal for debit cards is growing at an accelerated pace post FY15 on the back of 40% growth in card issuance in FY15 led by PMJDY.

Debit card	FY12	FY13	FY14	FY15	9MFY16
Number of PoS terminals (in '000)	661	854	1,066	1,127	1,245
- Growth		29%	25%	6%	18%
Number of Debit Cards (mn)	278	331	394	553	637
- Growth		19%	19%	40%	27%
No. of transactions -Volumes at POS (mn)	328	469	619	808	846
- Growth		43%	32%	31%	43%
Value of transactions at POS - (₹bn)	534	743	955	1,213	1,179
- Growth		39%	28%	27%	29%
No. of transactions per PoS terminal	521	619	645	737	945
Average Ticket Size (₹)	1,631	1,585	1,542	1,502	1,394
No. of transactions per card	1.29	1.54	1.71	1.71	1.84

Source: RBI, JM Financial.

Credit cards usage at PoS machines: Number of transactions per credit card has almost doubled from 18 in FY12 to 35 in 9MFY16 while average ticket size of credit cards (twice of debit cards) has been stable over FY12-9MFY16. Number of transactions per PoS terminal using credit cards has also been growing steadily and saw a double digit growth in 9MFY16 for the first time since FY12.

Exhibit 8. Trends in Credit cards Issuar	ice and Usage at Po	os machines			
Credit card	FY12	FY13	FY14	FY15	9MFY16
Number of PoS terminals (in '000)	661	854	1,066	1,127	1,245
- Growth		29%	25%	6%	18%
Number of Credit Cards (mn)	18	20	19	21	23
- Growth		11%	-2%	10%	12%
No. of transactions -Volumes at POS (mn)	320	397	509	615	577
- Growth		24%	28%	21%	27%
Value of transactions at POS - (₹. bn)	966	1,230	1,540	1,899	1,762
- Growth		27%	25%	23%	27%
No. of transactions per PoS terminal	509	523	530	561	639
Average Ticket Size (₹)	3,019	3,100	3,025	3,088	3,055
No. of transactions per card	17.9	21.3	26.3	30.5	35.1

Source: RBI, JM Financial.

Debit cards usage at ATMs: The number of transactions done using debit card on ATMs per card has been on a continuous decline and has come down to 12.7 transactions in 9MFY16 from 20.1 in FY12 which augurs well for noncash payments in the system.

ATM transactions	FY12	FY13	FY14	FY15	9MFY16
Number of ATMs (in '000)	96	114	160	181	194
- Growth		19%	40%	13%	10%
Number of Debit Cards (mn)	278	331	394	553	637
- Growth		19%	19%	40%	27%
No. of transactions -Volumes at ATMs (mn)	5,082	5,308	6,088	6,996	5,940
- Growth		4%	15%	15%	14%
Value of transactions at ATMs - (₹ bn)	14,010	16,698	19,665	22,303	18,825
- Growth		19%	18%	13%	13%
Nos. of transactions per ATM	59,323	50,628	44,427	40,981	42,021
Average Ticket Size (₹)	2,757	3,146	3,230	3,188	3,169
No. of transactions per card	20.1	17.4	16.8	14.8	12.7

'Rupay' - India's own card

- RuPay Domestic alternate to Visa/MasterCard: RuPay is an Indian domestic card payment network launched in 2012 by the National Payments Corporation of India (NPCI). It was conceived to fulfill RBI's vision to offer a domestic, openloop, multilateral system which will allow all Indian banks and financial institutions in India to participate in electronic payments. 'RuPay' is the coinage of two terms Rupee and Payment. Currently, NPCI offers only Debit card in two variants RuPay Global Classic Debit Card & RuPay Global Platinum Debit Card. It also offers co-branded Debit Card. As of Feb'16, there are 247mn outstanding RuPay debit cards with a market share of 38%. NPCI plans to launch its Credit Card variant in Sept'16. NPCI has leveraged its existing capabilities in payment systems (such as National Financial Switch) and built new ones to create a domestic and cost-efficient alternative card network to Visa/MasterCard.
- Strong pipeline of roll-outs and a defined long term plan: RuPay is currently capable to support issuance of debit and prepaid cards by banks in India and aims to launch its credit card by Sep'16. RuPay is simultaneously working towards enhancing the acceptance ecosystem in the country and exploring innovative payment opportunities (EMV, Contactless) to increase small ticket electronic payments. RuPay recently launched its Platinum card for the premium segment spenders amidst a full-fledged marketing campaign. It also has a prepaid card scheme with IRCTC and a RuPay Mudra card which allows for withdrawing loan amounts sanctioned under the MUDRA scheme of Central Government.



Favourable external environment and credit card roll-out to support RuPay in scaling-up: Going ahead, a) increased marketing efforts to brand RuPay Platinum card, b) launch of RuPay credit card by Sep'16, and c) 11 payments banks and 8 Small finance banks commencing operations over next 2 years and carrying a similar financial inclusion mandate of the regulator, RuPay has significant opportunity to scale up and grab a significant share in overall cards business from the existing market leaders.



Can RuPay pull off a China UnionPay?

China's UnionPay was launched in 2002 and has grown exponentially to become the third largest payment network worldwide in terms of transaction values processed and a presence across 145+ countries globally. This exponential growth has been fuelled by local restrictive laws making it the only network that was allowed to process Yuan-denominated card transactions in China upto 2015, when international courts intervened. All Visa/Mastercard based card payments had to pay commission to UnionPay for Yuan-denominated transactions in China.

UnionPay numbers are also driven by strong adoption of Card based payment for retail purchases. In 2002 only 1-2% of retail payments were made card based as against 30-35% in 2013. Similar to what we are witnessing in RuPay, UnionPay growth has been debit card driven with $2/3^{rd}$ of transaction value processed being contributed by debit cards. However, Can RuPay pull off a UnionPay in our cash loving and (relatively) free market economy?

RuPay gaining market share but still has long way to go: As of Jan'16, out of 645mn debit cards in India, 247mn (38%) were RuPay enabled debit cards. However, for the month of Feb'16, RuPay's market share by number of transactions is only 20.4% on ATM transaction and 4.1% on PoS transactions. Over FY14-16, RuPay's market share in terms of volume of transactions processed has been rising continuously as the network and acceptance coverage increased. The issue at hand for RuPay is that Jan Dhan Bank accounts which make up 172mn of the total cards issued, have shown very less transactions, as most of the people who have opened Jan Dhan belong to rural areas and lower income groups. However, the situation is gradually improving as share of zero balance accounts has slid to 29% in Feb'16 from 77% in 1HFY15 and cumulative balance in these accounts have crossed ₹335bn. With Direct Benefit Scheme of Central government being extended to various schemes, this balance could substantially rise in coming years and will gradually translate to card based spending. Till then, credit card issuance and product branding to attract high spending urban consumers will help RuPay gain market share in value terms.





Source: RBI, JM Financial

RuPay's share in online transactions (Feb'16 - 1.6%) is still low owing to RuPay's user profile but is growing as tier 2 and tier 3 towns increase online spending. As regards to the product offering, RuPay has a near 100% coverage for all types of online payments.



Source: NPCI, JM Financial.

Average ticket size (ATS) of RuPay is gradually becoming comparable: Average ticket size for RuPay based transactions on ATM and POS is comparable to peers while that on online is still lower. Increasing ticket size in PoS transactions by RuPay card holders will be amplified as RuPay's market share in number of transactions increase.



Source: NPCI, RBI, JM Financial.

- RuPay's acceptance across mediums driving growth: Card networks are intermediaries which facilitate payments between numerous card issuing and transaction originating financial institutions. Broadly, the type of transactions can be classified into a) ATM transactions, b) Physical PoS transactions, c) online/e-commerce transactions. With National Financial Switch (NFS) under NPCI's proprietary capability, RuPay cards can function on all ATMs across India. RuPay acceptance at physical PoS transactions depends on the number of merchant acquiring banks on the card network. Here too, RuPay has 32 out of the 33 acquiring banks in India which pegs RuPay acceptance at more than 1.2mn PoS terminals that make up for more than 98% of PoS terminals in the country.
- International coverage is on the rise: To offer a complete bouquet of card payment services at par with leading International Card Schemes, in March'12, NPCI had formed global alliance with Discover Financial Services (DFS), USA which has a strong global network. NPCI is further strengthening their network capabilities by creating global network alliances with key players like Japan's JCB International & China's UnionPay International over FY2016-17.
- Cost-effectiveness is added advantage: As per reports, MasterCard/Visa charge around \$30k -50k as one-time fee and around \$10k-30k quarterly fees to banks, both of which have been waived off by RuPay. On a transactional level, Visa and MasterCard charges can go higher than the flat 45 paisa per ATM transaction charged by RuPay. With regards to ecommerce and PoS transactions, whereas Visa and MasterCard charge a variable fee on ad valorem basis, RuPay charges a fixed fee of 90 paisa for every transaction: 60 paisa from the issuing bank, and 30 paisa from the acquiring bank. For Debit cards, RBI has capped the Merchant Discount Rate to 0.75% for transactions upto ₹2,000 and 1% for those above it.

Exhibit 13. RuPay's cards issued under PMJDY and % of zero balance a/c				
Transaction charges for PoS & Online (Amount in ₹)	RuPay	Peers		
Acquiring Bank	0.3	Ad valorem		
Issuing Bank	0.6			
Source: NPCI, JM Financial.				







Private Banks are joining the party: Currently, RuPay cards are being issued largely by public sector banks as most private banks have kept the pace gradual in light of a) the long duration contacts in place with the existing card players, b) inadequate branding of the RuPay card as compared to peers. As these issues are addressed, RuPay can better compete for a slice of the high spending credit card customers of these banks. The role of card network's brand on card sales of the bank is yet to be discovered domestically in the absence of a parallel. Barring those doing recurring international transactions (both online and offline), consumers might be indifferent towards similarly perceived card networks as the nature of offering is highly commoditized. If NPCI's ongoing branding campaign for Platinum card on traditional and digital media resonates with the urban consumers, it will improve RuPay's share in card issuance by private banks to premium customers.



HDFC Bank's RuPay Platinum card

Exhibit 14. RuPay's cards issued bank-group wise	and PMJDY card stat	istics		
Cards Issuance - As on Jan '16	RuPay cards issued	Cards issued under PMJDY	Balance in PMJDY A/Cs (₹ bn)	Zero balance PMJDY A/c
Issued by Public Sector Banks	189	139	243	31.7%
Issued by Private Banks	23	7	12	39.7%
Issued by Regional Rural Banks & Co-operative Banks	36	26	54	26.0%
Total	247	172	308	

Source: NPCI, RBI, JM Financial.

- RRB and Co-operative banks offer opportunity in untapped markets: Regional rural banks (RRB) and co-operative banks have given access to cards networks in Tier 2 and Tier 3 towns and ex-ATM average ticket sizes for such cards are already catching up with that of their urban peers, led by the Ecommerce boom. As of Feb'16 data, RRBs have issued 15.3% (26.7mn) of the total debit cards under PMJDY and the proportion of zero balance accounts with RRBs is much lower (24.5%) as compared to PSB (29.4%) and Private banks (38.8%). As the profile of these users mature, acceptance infrastructure reach continues expanding and e-commerce penetrates into Tier 2 and Tier 3 town, cards business will see growth from these erstwhile untapped markets.
- RuPay PaySecure improving online network: With RuPay PaySecure solution, anyone having RuPay cards can instantly make payments online for reservations, booking, ticketing, shopping, utility bill payments etc. RuPay PaySecure offers its customers access to more than 50k websites online. As of Feb'16, 105 banks including almost all major commercial banks have already enabled their RuPay cards for online e-commerce transactions. From a small volume of 0.2mn monthly online transactions using RuPay in Apr'15, the number has reached 1.4mn monthly transactions in Jan'16 and is simultaneously growing rapidly in value terms. RuPay Paysecure is also bringing untapped customers to online transaction space as most of the 30 banks which went live on it in January'16 were from co-operative sector.





Source: RBI, JM Financial.

Foray into premium segment creating strong brand

Platinum card to create the RuPay brand: RuPay has launched a RuPay Platinum card which caters to the premium segment (average quarterly balance > ₹50k) and offers value added benefits such as 5% cash back on utility bills, complimentary airport lounge access, personal accident death and permanent total disability insurance cover of ₹0.2mn, among others. Platinum card is the first step by RuPay in building a strong brand comparable to its global peers. Since card networks cater to diverse consumer segments, RuPay strategy is well placed to better understand and effectively target the high-spending card customers.



Source: NPCI, JM Financial.



Features & Benefits Of RuPay Platinum

- Lounge access at domestic airports
- Personal Accident Insurance cover
- Unique concierge services
- 5% cashback on utility bill payments
- Up to 1% surcharge waiver on fuel
- Rs 25 cashback on train ticket booking through irctc.co.in
- 15% discount on minimum billing of Rs. 300 on food and beverage at Café Coffee Day



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Financial inclusion continues to provide opportunities

- Financial Inclusion to drive next wave of growth: As a part of the financial inclusion drive and paving the way for revolutionizing cashless payments services in the country, the Reserve Bank of India has granted payment bank licenses to 11 firms. RuPay has also initiated new products to further financial inclusion like Cash@PoS through business correspondents and is already running a pilot. Further, RBI has granted licenses to 10 applicants to set up small finances banks (SFBs), which will provide basic banking to unserved and underserved sections. The core aim of financial inclusion of payment banks and SFBs is rightly aligned with the objectives and capability of RuPay and none of them have any existing relationships with the incumbent card schemes. Thus, as these banks become functional over the next 18 months, a huge potential exists for another wave of growth for RuPay.
 - 1) Payment banks: RuPay has been talking to all 11 license winners and has held several rounds of discussion—in groups and one-on-one. Payments banks differ from conventional banks as they can issue debit cards and offer internet banking but are not allowed to lend to customers or issue credit cards. They can accept deposits of up to ₹0.1mn and can offer current and savings account deposits. As these banks will target small account holders in the existing system as well as the unbanked rural customers, RuPay can have a backdoor entry to cross over MasterCard and Visa's existing relationships with private banks. However, selection of cards scheme would be based on interoperability and acceptance. RuPay has to upgrade its transaction capabilities in terms of acceptance reach across mediums as compared to its peers, especially its online products.
 - 2) Cash@PoS: Using RuPay debit cards, withdrawal of up to ₹2k is allowed through merchants using PoS terminals. This Product can be a boon in rural areas without ATMs and RuPay is already clocking over 3000 transaction per day with substantial success in states like Orissa. However, the existing PoS terminals need to be updated for this facility and banks are currently in the process of doing the same. From certification point of view, all acquiring banks are certified for RuPay Cash@PoS services as per RBI guidelines.



Transaction flow in four-party model of card Networks

APPENDIX I

JM Financial Institutional Securities Limited

(Formerly known as JM Financial Institutional Securities Private Limited)

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Sell	Price expected to move downwards by more than 10%			

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