

Vakrangee: Potential to fortify Amazon's rural e-commerce presence

Industry Overview

Equity | 13 May 2016 Corrected

An innovative way to address non mobile users by Amazon

In our previous notes (Clash of the titans [part 1](#) and [part 2](#)), we had highlighted that the top 3 e-commerce companies – Flipkart, Amazon India and Snapdeal are looking to grow their GMV (Gross Merchandise Value) led by improving mobile internet penetration. In this note, we flag an innovative approach taken by Amazon India to expand its addressable market from current “urban mid-to-high-end consumers” to “non-mobile/non internet low-end consumers” by tying up with Vakrangee (by leveraging its 20K outlets in under- developed areas). Through this tie-up Amazon is able to expand its addressable market in a cost effective way and has potential to fortify its position in these rural areas. In this report we analyze **1)** Vakrangee's tie-up with Amazon; **2)** Highlights from our on-the-ground store visit feedback and **3)** Flag key takeaways from the Vakrangee management meeting.

Vakrangee at a glance: Strong network in rural areas

Vakrangee historically was acting as an e-Governance enabler. Though its various centers named as “Vakrangee Kendra” it provides various ancillary services to the rural population. Some of the services offered by Vakrangee are collection of bills, printing of voter ID cards, recruitment services, health initiatives etc. Currently, the company has a total of 20K outlets and wants to extend them to 75K outlets by 2020. In July'15 Vakrangee tied up exclusively with Amazon (Flipkart/Snapdeal cannot use these outlets). As part of the 5 year agreement, Amazon (Buy, US\$713.3) will use these outlets as physical ordering and collection points for Amazon India's products and will pay 4-15% of the GMVs as commission.

Key advantage for Amazon India vs competition

Key advantages for Amazon: **1) Gets stronger in under-developed areas:** The tie-up gives Amazon the potential to increase its presence in rural areas as against its current stronghold in urban areas; **2) Access to different subs-base:** The Vakrangee tie up gives Amazon access to a completely different and untapped customer base. Although early days, such stores are showing good traction with an avg of 20-25 orders/day and **3) Improve last-mile connectivity:** Going forward, Amazon and Vakrangee may also experiment with alternate delivery models which would see Vakrangee and its franchisees playing a deeper role in Amazon India's logistics chain. In our view, if the partnership with Vakrangee is successful, then Amazon India may accelerate the pace of growth and extend its market share in the ecommerce space.

Store visit takeaways: Momentum visible

1) At these outlets, consumers are assisted by outlet agents to order goods they want and are advised on pick-up date/time. There are no delivery charges for consumer and in almost all the cases it was cash-on-delivery; **2)** The key goods purchased in the stores most of the times were mobile phones, clothes and other day-to-day related items like shampoo, soaps etc. We found consumers well versed with the Amazon India value proposition and some stated they come to buy daily items as it is cheaper than buying in near-by offline shops; **3)** Stores we visited were getting 20-25 orders/day. The avg. Amazon India order ticket size for these stores is around Rs 350.

>> Employed by a non-US affiliate of MLPF&S and is not registered/qualified as a research analyst under the FINRA rules.

Refer to "Other Important Disclosures" for information on certain BofA Merrill Lynch entities that take responsibility for this report in particular jurisdictions.

BofA Merrill Lynch does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 14 to 15. Analyst Certification on page 12.

11632271

India
Internet

Sachin Salgaonkar >>

Research Analyst
DSP Merrill Lynch (India)
+91 22 6632 8667
sachin.salgaonkar@baml.com

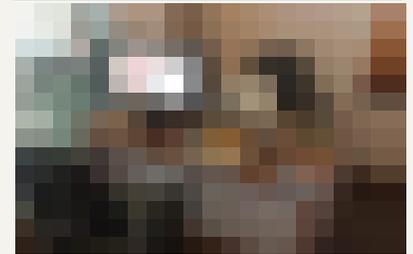
Karan Parmanandka >>

Research Analyst
DSP Merrill Lynch (India)
+91 22 6632 8654
karan.parmannandka@baml.com

Justin Post

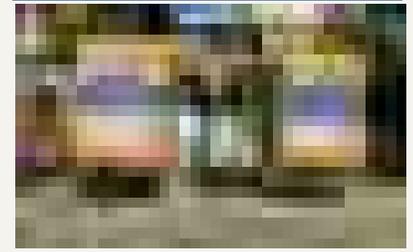
Research Analyst
MLPF&S
justin.post@baml.com

Exhibit 1: Assisted ordering model with dual screen with same displays



Source: BofA Merrill Lynch Global Research, Vakrangee

Exhibit 2: Localized marketing campaigns on mobile vans



Source: BofA Merrill Lynch Global Research, Vakrangee

Unauthorized redistribution of this report is prohibited. This report is intended for karan.parmannandka@baml.com.

Contents

What is Vakrangee?	3
Partnership with Amazon: A game-changer?	4
Vakrangee-Amazon store visit takeaways	6
Key takeaways from meeting with mgmt	8
Appendix: Vakrangee Kendra	9

What is Vakrangee?

Company background: Vakrangee is a US\$ 1.5 bn market cap company which was incorporated in 1990 by Mr. Dinesh Nandwana and owns close to 40% of the company. Apart from banking services, the company also provides various ancillary services to the rural population through its last mile network. It has mainly two lines of businesses – eGovernance enabler and Vakrangee Kendra (providing last mile connectivity for goods and services).

- **eGovernance:** Vakrangee offers system integration services, and provides services such as collection of bills, printing of voter ID cards, recruitment services, health initiatives etc. The projects it is currently working on include UID (Unique Identification Project), SSA (Sarve Shiksha Abhiyan), PDS (Public Distribution System), RSBY (Rashtriya Swasthya Bima Yojana) amongst others.
- **Vakrangee Kendras (V-Marts)** are small outlets primarily in rural areas, intended to provide last mile services to the remote regions of the country. The different services provided through the Vakrangee Kendras include Banking, Insurance, ATM, eGovernance and e-Commerce.

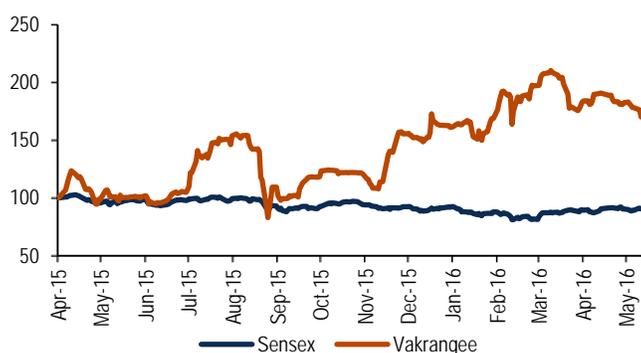
Under its e-Commerce initiative, Vakrangee has exclusively tied up with Amazon India to stock and deliver its products to Kendra's catchment area in return for commission. As of March, 2016, the company has a total of 20K Vakrangee Kendras in operation and wants to extend them to 75K outlets by 2020, by which time the company expects c. 90% of its revenues to come from the Vakrangee Kendras business.

Exhibit 3: Vakrangee divisional revenue break up

Segment	FY16 Revenue	FY20E Revenue	Area of Business	Type of service	Revenue model	Vakrangee Kendra Revenue split	
						Current	FY'20E
Vakrangee Kendra	53%	> 90%	Banking	Bank account opening Deposits, Retail loans, Direct Benefit Transfer, etc	Rs 20/ Account opening 48 bps of transaction size	30 - 35%	30%
			Insurance	Life/Non Life Insurance, Government schemes, Tie-up with Tata AIG to distribute product	10 - 25% commission	5 - 10%	5 - 10%
			E-Governance services	Card Enrolments, Utility Bills, Taxes, and Levies, etc Land records, Rail Tickets, Exam fee payments, etc	Varied based on type of service	10 - 15%	10%
			E-commerce	Mobile/DTH Recharge & bill payment, Education Exclusive tie up with Amazon India Other tieups - Redbus, Ricoh, M&M group	Mobile/DTH: 2 - 5% of Recharge Amazon: 4 - 15% of GMV	35 - 40%	45 - 48%
E-Governance	47%	< 10%	Legacy E-Governance project implementation	National E-Governance Plan (NEGP) projects like Unique Identification Project (UID), PDS, etc	Varied based on terms of contract		

Source: Vakrangee, including estimate figures given.

Chart 1: Vakrangee 1 year stock price performance vs Sensex



Source: Bloomberg

Exhibit 4: Vakrangee key financials

In USD mn	FY12	FY13	FY14	FY15	FY16
Revenue	206	235	297	422	484
Growth%	53%	14%	26%	42%	15%
EBITDA	37	59	82	110	125
EBITDA margin (%)	18%	25%	28%	26%	26%
Net Income	11	16	27	49	60
Net Income margin (%)	5%	7%	9%	12%	12%
ROE (%)	18%	22%	27%	32%	29%
ROIC (%)	11%	12%	16%	23%	23%

*Financials converted to USD mn using the exchange rate 1USD = INR 66

Source: Company report

Partnership with Amazon India: A game-changer?

Tie-up with Amazon: In July'15 Vakrangee tied up exclusively with Amazon India. As part of the 5 year agreement, Amazon will use V-Marts as physical ordering and collection point for Amazon's products and will pay 4-15% of the GMVs as commission to Vakrangee. Given its exclusive tie-up, Vakrangee will not be carrying products of competitors like Flipkart and Snapdeal. Vakrangee started rolling out stores facilitating Amazon since Nov-15. Currently it has c. 400 such stores.

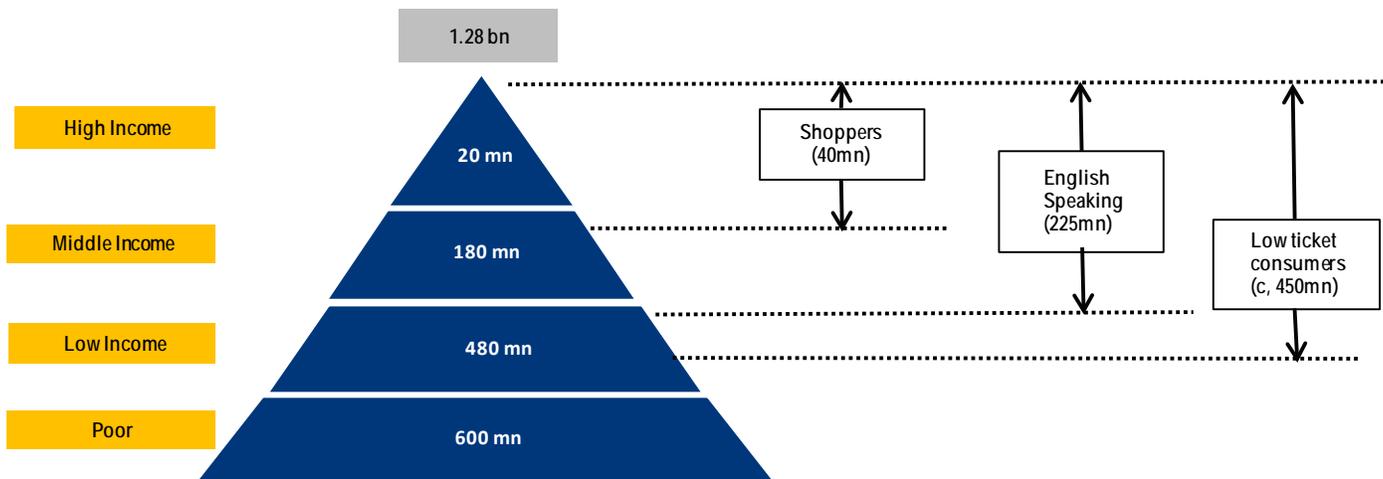
Tie-up post detailed due diligence by Amazon India: Before its tie-up with Vakrangee, Amazon India performed a lengthy due diligence process for about 18 months with PWC as the auditor, wherein they checked the corporate governance, labor policies among other things.

Advantages for Amazon India from tie-up:

- **Gets stronger in rural areas:** Since its inception, in the e-commerce domain, Amazon has been strong in urban areas like Mumbai/Delhi with its competitors like Snapdeal/Shopclues strong in rural areas. The tie-up with Vakrangee gives Amazon the potential to increase its presence in rural areas in a cost effective manner.
- **Access to different subs-base:** The Vakrangee tie up gives Amazon India access to a completely different and untapped customer base. Based on our retail checks, each V-Mart outlet is generating close to 20-25 orders per day for Amazon, with a ticket size of close to Rs. 350.
- **Improve last-mile connectivity:** Going forward, Amazon India and Vakrangee may also experiment with alternate delivery models which would see Vakrangee and its franchisees playing a deeper role in Amazon India's logistics chain.

How does it work? Under the arrangement, consumers within the V-Marts catchment area can approach the outlet, and order products on the website with the assistance of the booth attendant. Subsequently Amazon India delivers the products to the outlet, and collects back the returned goods. It saves costs of the last mile delivery and hence does not charge any delivery fees under the model.

Exhibit 5: Amazon can address mid to low-income consumers not using mobile/internet with tie-up with Vakrangee

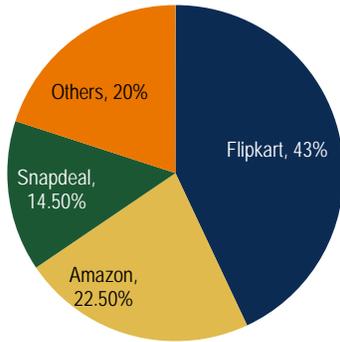


Source: BofA Merrill Lynch Global Research

Likely to help Amazon India expand the addressable market: In our view, with this kind of arrangement Amazon is able to expand its addressable market to consumers who do not own a mobile/smartphone and helps Amazon target mid-to-low-end income consumers.

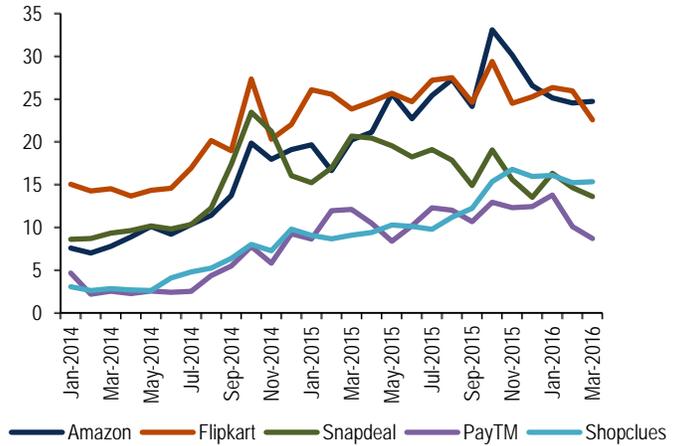
Furthermore, we note that Amazon India continues to show a strong business momentum in India. Recent unconfirmed media articles have suggested that Amazon has overtaken Snapdeal to become India's second-largest online marketplace. In our view, if the partnership with Vakrangee is successful, then Amazon may accelerate the pace of growth and extend its market share in the ecommerce space. For details pls click [here](#).

Chart 2: GMV share of India ecommerce market



Source: Economic Times

Chart 3: Monthly unique visitors ('000) for leading e-commerce firms



Source: Comscore

In line with management's target of 20k Amazon India outlets (by Mar'17), and discussions with stores of a rise in number of orders to 40 in a few years timeframe, we run a sensitivity on the total GMV (Gross Merchandise Value) Amazon India can realize out of the Vakrangee outlets. At 40 orders per day and order size of Rs. 350 per order, Amazon is likely to derive c. \$1.5bn of annual GMV through these outlets over the medium term.

Exhibit 6: GMV sensitivity to change in order ticket size

Sensitivity to Amazon GMV	I	II	III	IV	V
Amount per order (Rs.)	150	250	350	450	550
Number of orders per day	40	40	40	40	40
Number of stores	20,000	20,000	20,000	20,000	20,000
GMV contribution (Rs. Mn)	43,200	72,000	100,800	129,600	158,400
GMV contribution (USD Mn)	655	1,091	1,527	1,964	2,400

Source: BofA Merrill Lynch Global Research, Company Data

Exhibit 7: GMV sensitivity to change in number of daily orders per store

Sensitivity to Amazon GMV	I	II	III	IV	V
Amount per order (Rs.)	350	350	350	350	350
Number of orders per day	30	35	40	45	50
Number of stores	20,000	20,000	20,000	20,000	20,000
GMV contribution (Rs. Mn)	75,600	88,200	100,800	113,400	126,000
GMV contribution (USD Mn)	1,145	1,336	1,527	1,718	1,909

Source: BofA Merrill Lynch Global Research, Company Data

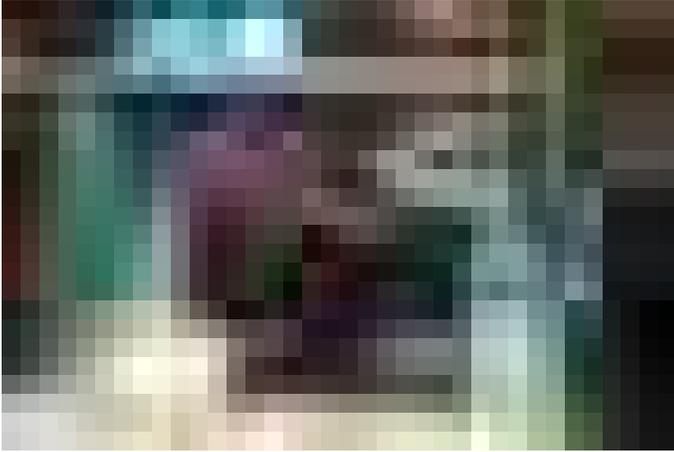
Vakrangee-Amazon India store visit info

We visited 2 Vakrangee Kendras in Mumbai (mainly located in rural pockets). Below are a few observations from our visits:

- **Stores open for 12 hrs; Need low man-power:** The stores are open from 9 am to 9 pm every-day and 11 am to 9 pm on Sundays. The man-power in each of the stores was restricted to 2-3 people working on Amazon. The Amazon delivery staff came twice a day: once at 9.30 am and then at evening 7 pm. They handle reverse logistics, payment collection etc.
- **Assisted model for ordering:** A consumer comes and sits in front of a computer screen. The contents of the screen are shared with the Vakrangee representative. The representative orders all the contents the consumer wants and is later advised on pick-up date/time. There are no delivery charges for consumer and in almost all the cases it was cash-on-delivery. The consumer is encouraged to open the pack at the Kendra to check if it is damaged or in-line with expectations.
- **Key goods purchased:** The key goods purchased in the stores most of the times were mobile phones, clothes and other day to day related items like shampoo, soaps etc. When we visited, we found unique things like “Roti makers” being sold. We found consumers well versed with Amazon India value proposition and noted that they come to buy daily items as they viewed them as cheaper than buying in near-by offline shops.
- **Peak hours/Order sizes etc.:** The peak hours for these Kendras starts from 6 pm in evening where consumers come post their work hours to order. The stores we visited stated that when they opened, they were getting 10 orders/day but overtime with word-of-mouth publicity they are now getting 20-25 orders/day. The average ticket size of these stores is around Rs. 350. Based on our discussions with management, the centers achieves an avg. of 6-7% of commission.
- **Marketing done by Amazon India :** All marketing related activities are done by Amazon with Kendras not bearing any expenses. Mainly these are localized with “feet on the street” campaigns and pamphlets in local language with address of the Kendra. During key sales/promotions, the marketing activities pick-up with special banners in front of the Kendra.

We believe that overtime, Vakrangee has potential to fortify Amazon India’s presence in rural markets and amongst low-income groups by improving the addressable market for Amazon India. We note that currently Vakrangee has c. 400 stores and intends to increase the number of stores to 1,000 by June-16. By end of next year, Vakrangee intends to open 20k such stores.

Exhibit 8: A Vakrangee Kendra: Co-branded with Amazon



Source: BofA Merrill Lynch Global Research, company reports

Exhibit 9: Localized marketing campaigns on mobile vans



Source: BofA Merrill Lynch Global Research, company report

Exhibit 10: Assisted ordering model with dual screen with same displays



Source: BofA Merrill Lynch Global Research, company report

Exhibit 11: Storage area: CCTV secured place to store customer parcels



Source: BofA Merrill Lynch Global Research, company report

Exhibit 12: Feet on the street ads: Carrying banners on their backs



Source: BofA Merrill Lynch Global Research, company report

Exhibit 13: Vakrangee/Amazon print ad in local languages



Source: BofA Merrill Lynch Global Research, company report

Key takeaways from meeting with mgmt

Mentioned below are key takeaways after our meeting with Vakrangee management

- Management believes that the two most favorable things in their model are 1) The asset light model, which will see them being able to expand fast, and 2) The tie up with Amazon which is expected to contribute to an increasingly larger share of revenues going forward.
- For the next 4-5 years, management expects the ecommerce/telephone and DTH recharges segment to continue to increase in revenue share aggressively on the back of Amazon's partnership and other new initiatives. While other revenue streams like banking and insurance are also expected to grow in absolute terms, however, they may be stable in terms of revenue share.
- The company plans to gradually eliminate revenues from the eGovernance verticals. While they plan to honour their ongoing commitments, the company will not seek extension of contracts.
- The overall company EBITDA margins are currently at close to 26%. The margins for Vakrangee Kendras are slightly lower at 21%. The company expects these margins to gradually come down further to 17%.
- Even though Vakrangee Kendras are a slightly lower EBITDA margin business, because of their asset light model, they have a higher PAT margin at 11% compared to the company's legacy revenue margin of 7%.
- The new model focused on franchisee driven outlets will be capex light, allowing the company to increase their return on equity when compared to the legacy model, which is relatively more capital heavy.
- The company has been steadily reducing its working capital requirements, which has come down significantly in this fiscal year. Earlier the working capital cycle was for 150 days, but has been reduced to the current 60 days.
- The company is also venturing into the ATM business. The capex per ATM would be Rs. 300k. The company expects their ATM costs to be almost half of the normal ATMs as it will be a shared ATM with the Kendra, resulting in sharing of overhead expenses.
- The government has recently expanded the scope of DBT (Direct Benefit Transfer) scheme like MGNREGA, NSAP, PAHAL etc. This is likely to increase the scope of banking transactions at Vakrangee Kendras, leading to robust growth of banking services.
- For FY'16, the management declared a dividend payout which was 20% of the net income of the company. However, from FY'17 onwards, the board has approved to maintain a dividend payout in the range of 15-25% of net profits.

Appendix: Vakrangee Kendra

Origination of Vakrangee Kendra: In 2011, under its financial inclusion plans, the government of India invited tenders for opening brick and mortar Business Correspondent (BC) branches, which would act as a remote extension of the public sector banks. As an added incentive, the government decided to allow the BCs to undertake ancillary activities in order to aid the financial viability of the outlets. Vakrangee won rights to rolling out outlets in 2 out of 20 clusters. As of December'15, Vakrangee has rolled out a total of 18k outlets and plans to have 75k outlets by FY'20 (50k rural and 25k urban centers). For statewise breakup of outlets, Vakrangee plans to have 13.5k outlets in Maharashtra, 11.5k outlets in Rajasthan and balance 50k outlets in other states.

Franchisee model for Vakrangee Kendras: Vakrangee follows a franchisee model for its outlets in order to reduce capex spends and grow faster. On every outlet, Vakrangee spends a capex of about 20k, post which all the expenses are borne by the franchisee. Under the terms of the agreement, the company has an 80:20 revenue sharing deal, under which the company takes 20% of the total revenues generated by the outlet. Earlier, the sharing arrangement used to be 65%:35%, but the company has scaled down its share in order to make the proposition more lucrative for franchisees.

Maturity of outlet within 6-9 months: For the franchisee, the capex for a rural outlet without ATM is approx. 125-150k, and increases to approx 425-450k in case the outlet is opened along with an ATM. Capex for a semi urban/urban outlet with ATM varies between Rs. 550-700k (including Rs. 300k as upfront franchisee fee for ATM and interior for outlet). In terms of working capital requirement, it varies between Rs. 50-100k for a rural outlet to Rs.750-850k for an urban outlet with ATM. Currently, in terms of revenues, the collections are 75k per month for rural outlet and 200k per month for urban outlets. As per the management, a franchisee typically reaches maturity within 6-9 months.

Exhibit 14: Typical cost structure for a Vakrangee outlet

	Rural Outlet w/o ATM	Rural Outlet with ATM	Semi-urban/Urban Outlet with ATM
Capex for Franchisee: Initial one time set up cost (INR)	Approx. Rs 1,25,000 to Rs 1,50,000	Approx. Rs 4,25,000 - Rs 4,50,000 (Including 3,00,000 as Upfront Franchisee Fee for ATM)	Approx. 5,50,000 - 7,00,000 (Including 3,00,000 as Upfront Franchisee Fee for ATM and as well as Interior for Outlet)
Working Capital for Franchisee (INR)	Approx. Rs 50,000 to Rs 1,00,000	Approx. Rs 2,50,000 - Rs 5,00,000 (Including ATM working capital)	Approx. Rs. 7,50,000 to Rs. 8,50,000 (including ATM working capital)
Total Number of Outlets planned for FY2020	49,000	1,000	25,000
State wise break up of Planned Rollout of Outlets by FY2020	Break up of 50,000 Rural outlets State wise: Maharashtra: 11,000 Rajasthan: 9,000 Other states: 30,000		Break up of 25,000 Semi-urban/Urban outlets: Maharashtra: 2,500 Rajasthan: 2,500 Other states: 20,000

Source: Company Data

Exhibit 15: Vakrangee: Evolution of business

Business Evolution (E-Governance)	
1990	Company Incorporation
1993	Computerisation of Central Election Commission
2005	MCA 21 Project - Ministry of Corporate Affairs
2007	Land Record Digitization in UP
2007	RSBY (Smart Card Project) – UP, Haryana & Rajasthan
2009	Land Record Digitisation for Govt. of Philippines
2010	Passport Seva Kendra Project & CSC Project in Punjab
2010	Sarva Shiksha Abhiyan
2011	UID Enrollments
2011	UID linked Haryana PDS
2013	IGRS
2013	National Population Register
2013	CSC Project in Rajasthan
Business Transformation (Vakrangee Kendra)	
2013	Financial Inclusion Project – MoF & RBI
2014	WLA License – RBI
2015	Foray into E-Commerce

Source: Company Data

Exhibit 16: Statewise distribution of Vakrangee Kendras as of March'16

States	Rural Branches	Urban Branches	Total
Rajasthan	8,066	2,097	10,163
Maharashtra	3,285	1,655	4,940
Uttar Pradesh	3,283	405	3,688
Gujarat	178	179	357
Madhya Pradesh	526	289	815
Punjab	50	151	201
Haryana	82	82	164
Bihar	95	22	117
Chhattisgarh	40	22	62
Goa	19	9	28
Himachal Pradesh	8	5	13
Delhi	1	29	30
Orissa	18	40	58
Jharkhand	12	14	26
Uttarakhand	8	6	14
Chandigarh	0	1	1
Total	15,671	5,006	20,677

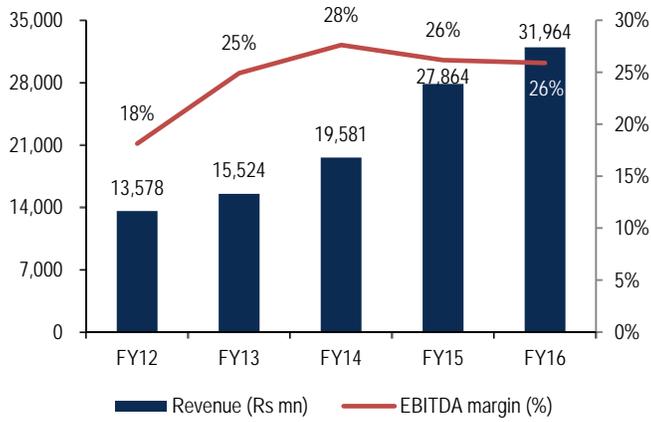
Source: Company Data

Exhibit 17: Key personnel

Name	Designation	Profile
Dinesh Nandwana	Managing Director and CEO	25 years business experience. Main responsibility include policy formulation and decision making. Bachelor's degree in commerce and certified Chartered Accountant.
Sumit Jain	CEO - eCommerce	Mr. Sumit Jain joined Vakrangee as Sr. Vice President and is heading the eCommerce vertical. MBA from Stern School, B.Tech from IIT Bombay
Rajeev Ranjan	CEO - eGovernance	Mr. Rajeev Ranjan was a former Chief Executive Officer, with Vakrangee e-Solutions INC. at Manila Mr. Ranjan is a Post-graduate and former Tata group senior executive
Rahul Dev Pal	CEO - Banking Business	Rahul Dev Pal is an economics graduate with experience of almost 26 years in the field of sales and marketing Starting his career with HCL he worked with companies like Xerox, Pertech Computers, BPL and Godrej.
Nitin Sharma	CEO - ATM Business	Over 17 years of cross-cultural experience in Operations, Implementation, Retail and Project Management. MBA Degree from IIM Kolkata and Masters in Operations, IR and Social Work from Premier Institute, Udaipur
Nishikant Hayatnagarkar	Director - R&D	24 years of business experience in IT. Main responsibility include software development, IT compliance and technical support Holds a Doctorate in Computer Science from the Indian Institute of Technology, Mumbai
Vinay Bhartia	CEO - Logistics	Setup and ran successfully 3 business's in international trade with trade Logistics with over 10 countries. Graduate from Purdue University, founded MYPACCO in September 2014 - a home to home online courier offering

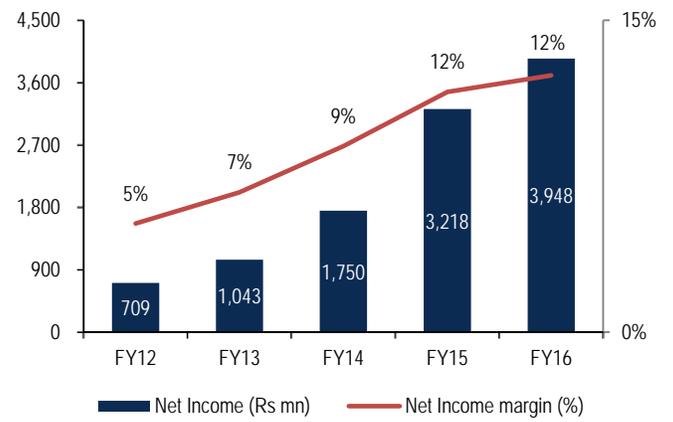
Source: Company Data

Chart 4: Vakrangee: Revenue and EBITDA margin



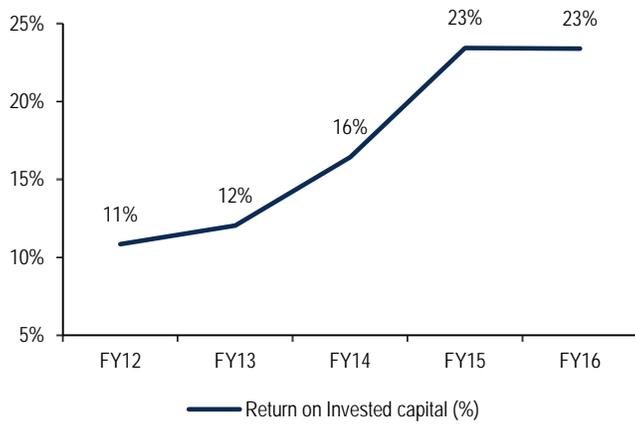
Source: Company Data

Chart 5: Vakrangee: Net Income and net income margin (%)



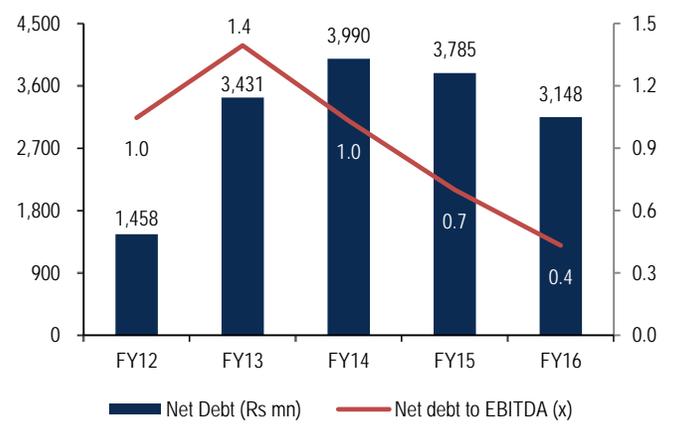
Source: Company Data

Chart 6: Vakrangee: Return on Invested Capital



Source: Company Data

Chart 7: Vakrangee: Net Debt and Net Debt to EBITDA



Source: Company Data

Exhibit 18: Vakrangee Profit & Loss statement

Income Statement (Rs mn)	FY11	FY12	FY13	FY14	FY15	FY16
Total Revenue	8,903	13,578	15,524	19,581	27,864	31,964
Growth%		53%	14%	26%	42%	15%
Operating expenses	(7,107)	(10,920)	(11,510)	(13,550)	(20,226)	(23,265)
Change In Inventory	35	51	292	(137)	46	56
Employee Benefit expenses	(265)	(125)	(285)	(314)	(196)	(254)
Other Expenses	(171)	(123)	(153)	(173)	(196)	(225)
Total Expenses	(7,509)	(11,117)	(11,657)	(14,173)	(20,573)	(23,687)
EBITDA	1,394	2,462	3,867	5,408	7,291	8,277
EBITDA margin%	15.7%	18.1%	24.9%	27.6%	26.2%	25.9%
Growth%		77%	57%	40%	35%	14%
Depreciation and Amortization	(550)	(874)	(1,571)	(1,809)	(1,649)	(1,640)
Finance Costs	(176)	(558)	(860)	(779)	(749)	(560)
Profit before tax	668	1,029	1,437	2,820	4,893	6,076
Tax Expense	(187)	(320)	(394)	(1,070)	(1,675)	(2,128)
Minority Interest	0	(0)	0	1	0	0
Net Income	481	709	1,043	1,750	3,218	3,948
Net Income margin%	5%	5%	7%	9%	12%	12%
Growth%		47%	47%	68%	84%	23%
Basic EPS	1.07	1.42	2.08	3.48	6.39	7.59
Growth%		33%	46%	67%	84%	19%
Diluted EPS	0.97	1.40	2.04	3.44	6.06	7.44

Source: Company report

Analyst Certification

I, Sachin Salgaonkar, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

Special Disclosures

In accordance with the SEBI (Foreign Portfolio Investors) Regulations, 2014 and with guidelines issued by the Securities and Exchange Board of India (SEBI), foreign investors (individuals as well as institutional) that wish to transact the common stock of Indian companies must have applied to, and have been approved as per SEBI (Foreign Portfolio Investors) Regulations, 2014. Each investor who proposes to transact common stock of Indian companies will be required to obtain Foreign Portfolio Investor (FPI) registration as per SEBI (Foreign Portfolio Investors) Regulations, 2014. Certain other entities are also entitled to transact common stock of Indian companies under the Indian laws relating to investment by foreigners. BofA Merrill Lynch reserves the right to refuse to provide a copy of research on common stock of Indian companies to a person not resident in India. American Depositary Receipts (ADR) representing such common stock are not subject to these Indian law restrictions and may be transacted by investors in accordance with the applicable laws of the relevant jurisdiction. Global Depository Receipts (GDR) and the Global Depository Shares (GDS) of Indian companies, Indian limited liability corporations, have not been registered under the U.S. Securities Act of 1933, as amended, and may only be transacted by persons in the United States who are Qualified Institutional Buyers (QIBs) within the meaning of Rule 144A under the Securities Act. Accordingly, no copy of any research report on Indian companies' GDRs or GDSs will be made available to persons who are not QIBs.

DSP Merrill Lynch Limited (DSP Merrill Lynch) DSP Merrill Lynch provides the following services in India: Research, Equity Sales & Trading, Futures & Options, Electronic Trading, Equity Capital Markets, Debt Capital Markets and M&A. SEBI Regn Nos. Research Analyst: INH000000503, Stock Broking: INB/INF 011348134, INB/INF 231348138, Merchant Banker: INM000011625 and Depository Participant: IN-DP-NSDL-223-2001. Address: Express Towers, 16th Floor, Nariman Point, Mumbai, India. 400 021 Tel: +91 22 6632 8000.

Disclosures

Important Disclosures

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. **VOLATILITY RISK RATINGS**, indicators of potential price fluctuation, are: **A - Low, B - Medium and C - High.** **INVESTMENT RATINGS** reflect the analyst's assessment of a stock's: (i) absolute total return potential and (ii) attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). There are three investment ratings: **1 - Buy** stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; **2 - Neutral** stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and **3 - Underperform** stocks are the least attractive stocks in a coverage cluster. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster*
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

* Ratings dispersions may vary from time to time where BofA Merrill Lynch Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

INCOME RATINGS, indicators of potential cash dividends, are: **7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend.** Coverage Cluster is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Merrill Lynch report referencing the stock.

BofA Merrill Lynch Research Personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

Other Important Disclosures

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

From time to time research analysts conduct site visits of covered issuers. BofA Merrill Lynch policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.

BofA Merrill Lynch Global Research policies relating to conflicts of interest are described at <http://go.bofa.com/col>.

"BofA Merrill Lynch" includes Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") and its affiliates. Investors should contact their BofA Merrill Lynch representative or Merrill Lynch Global Wealth Management financial advisor if they have questions concerning this report. "BofA Merrill Lynch" and "Merrill Lynch" are each global brands for BofA Merrill Lynch Global Research.

Information relating to Non-US affiliates of BofA Merrill Lynch and Distribution of Affiliate Research Reports:

MLPF&S distributes, or may in the future distribute, research reports of the following non-US affiliates in the US (short name: legal name): BAML I Paris: Bank of America Merrill Lynch International Limited, Paris Branch; BAML I Frankfurt: Bank of America Merrill Lynch International Limited, Frankfurt Branch; Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd.; Merrill Lynch (Milan): Merrill Lynch International Bank Limited; MLI (UK): Merrill Lynch International; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited; Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd.; Merrill Lynch (Canada): Merrill Lynch Canada Inc; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa; Merrill Lynch (Argentina): Merrill Lynch Argentina SA; Merrill Lynch (Japan): Merrill Lynch Japan Securities Co., Ltd.; Merrill Lynch (Seoul): Merrill Lynch International Incorporated (Seoul Branch); Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd.; DSP Merrill Lynch (India): DSP Merrill Lynch Limited; PT Merrill Lynch (Indonesia): PT Merrill Lynch Indonesia; Merrill Lynch (Israel): Merrill Lynch Israel Limited; Merrill Lynch (Russia): OOO Merrill Lynch Securities, Moscow; Merrill Lynch (Turkey I.B.): Merrill Lynch Yatirim Bank A.S.; Merrill Lynch (Turkey Broker): Merrill Lynch Menkul Değerler A.Ş.; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch); MLPF&S (Zurich rep. office): MLPF&S Incorporated Zurich representative office; Merrill Lynch (Spain): Merrill Lynch Capital Markets Espana, S.A.S.V.; Merrill Lynch (Brazil): Bank of America Merrill Lynch Banco Multiplo S.A.; Merrill Lynch KSA Company, Merrill Lynch Kingdom of Saudi Arabia Company.

This research report has been approved for publication and is distributed in the United Kingdom to professional clients and eligible counterparties (as each is defined in the rules of the Financial Conduct Authority and the Prudential Regulation Authority) by Merrill Lynch International and Bank of America Merrill Lynch International Limited, which are authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, and is distributed in the United Kingdom to retail clients (as defined in the rules of the Financial Conduct Authority and the Prudential Regulation Authority) by Merrill Lynch International Bank Limited, London Branch, which is authorised by the Central Bank of Ireland and subject to limited regulation by the Financial Conduct Authority and Prudential Regulation Authority - details about the extent of our regulation by the Financial Conduct Authority and Prudential Regulation Authority are available from us on request; has been considered and distributed in Japan by Merrill Lynch Japan Securities Co., Ltd., a registered securities dealer under the Financial Instruments and Exchange Act in Japan; is distributed in Hong Kong by Merrill Lynch (Asia Pacific) Limited, which is regulated by the Hong Kong SFC and the Hong Kong Monetary Authority is issued and distributed in Taiwan by Merrill Lynch Securities (Taiwan) Ltd.; is issued and distributed in India by DSP Merrill Lynch Limited; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch International Bank Limited (Merchant Bank) and Merrill Lynch (Singapore) Pte Ltd. (Company Registration No.'s F 06872E and 198602883D respectively). Merrill Lynch International Bank Limited (Merchant Bank) and Merrill Lynch (Singapore) Pte Ltd. are regulated by the Monetary Authority of Singapore. Bank of America N.A., Australian Branch (ARBN 064 874 531), AFS License 412901 (BANA Australia) and Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this report in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of BANA Australia, neither MLEA nor any of its affiliates involved in preparing this research report is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this report in Brazil and its local distribution is made by Bank of America Merrill Lynch Banco Multiplo S.A. in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the Dubai Financial Services Authority (DFSA). Research reports prepared and issued by Merrill Lynch (DIFC) are prepared and issued in accordance with the requirements of the DFSA conduct of business rules.

BAML I Frankfurt distributes this report in Germany. BAML I Frankfurt is regulated by BaFin.

This research report has been prepared and issued by MLPF&S and/or one or more of its non-US affiliates. MLPF&S is the distributor of this research report in the US and accepts full responsibility for research reports of its non-US affiliates distributed to MLPF&S clients in the US. Any US person receiving this research report and wishing to effect any transaction in any security discussed in the report should do so through MLPF&S and not such foreign affiliates. Hong Kong recipients of this research report should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities. Singapore recipients of this research report should contact Merrill Lynch International Bank Limited (Merchant Bank) and/or Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this research report.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Merrill Lynch.

This research report provides general information only. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This report is not intended to provide

personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of any specific person. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this report.

Securities and other financial instruments discussed in this report, or recommended, offered or sold by Merrill Lynch, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Merrill Lynch is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

UK Readers: The protections provided by the U.K. regulatory regime, including the Financial Services Scheme, do not apply in general to business coordinated by BofA Merrill Lynch entities located outside of the United Kingdom. BofA Merrill Lynch Global Research policies relating to conflicts of interest are described at <http://go.bofa.com/coi>.

Officers of MLPF&S or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

MLPF&S or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. MLPF&S or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Merrill Lynch, through business units other than BofA Merrill Lynch Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented in this report. Such ideas or recommendations reflect the different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Merrill Lynch is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this report.

In the event that the recipient received this report pursuant to a contract between the recipient and MLPF&S for the provision of research services for a separate fee, and in connection therewith MLPF&S may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom MLPF&S has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by MLPF&S). MLPF&S is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities mentioned in this report.

Copyright and General Information regarding Research Reports:

Copyright 2016 Merrill Lynch, Pierce, Fenner & Smith Incorporated. All rights reserved. iQmethod, iQmethod 2.0, iQprofile, iQtoolkit, iQworks are service marks of Bank of America Corporation. iQanalytics®, iQcustom®, iQdatabase® are registered service marks of Bank of America Corporation. This research report is prepared for the use of BofA Merrill Lynch clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Merrill Lynch. BofA Merrill Lynch Global Research reports are distributed simultaneously to internal and client websites and other portals by BofA Merrill Lynch and are not publicly-available materials. Any unauthorized use or disclosure is prohibited.

Receipt and review of this research report constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained in this report (including any investment recommendations, estimates or price targets) without first obtaining expressed permission from an authorized officer of BofA Merrill Lynch.

Materials prepared by BofA Merrill Lynch Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Merrill Lynch, including investment banking personnel. BofA Merrill Lynch has established information barriers between BofA Merrill Lynch Global Research and certain business groups. As a result, BofA Merrill Lynch does not disclose certain client relationships with, or compensation received from, such issuers in research reports. To the extent this report discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this report. BofA Merrill Lynch Global Research personnel's knowledge of legal proceedings in which any BofA Merrill Lynch entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this report is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Merrill Lynch in connection with the legal proceedings or matters relevant to such proceedings.

This report has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of MLPF&S, any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Merrill Lynch Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Merrill Lynch and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This report may contain links to third-party websites. BofA Merrill Lynch is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this report and is not incorporated by reference into this report. The inclusion of a link in this report does not imply any endorsement by or any affiliation with BofA Merrill Lynch. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Merrill Lynch is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and BofA Merrill Lynch policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

Certain outstanding reports may contain discussions and/or investment opinions relating to securities, financial instruments and/or issuers that are no longer current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with MLPF&S or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Merrill Lynch nor any officer or employee of BofA Merrill Lynch accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this report or its contents.