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AFFORDABLE HOUSING:INDIA'S METAMORPHOSIS

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Letter from the MD

The incumbent government seems to have taken up housing in a manner that no previous government in India has done before. It appears interested in using its ambitious Housing for All 2022 project as an 'agent of change' in transforming the Indian economic and social structure. Housing is known to provide manifold employment and economic growth, but the government might be looking at higher home ownership as a means of effecting (much-needed) social equality or minimizing India's terrible socio-economic disparity and also as a means for political mileage in the general elections in 2019.

Our cover story "Affordable Housing - India's Metamorphosis" evaluates whether the policy enablement is strong enough to bring down the gap in housing in LIG and MIG segments. Our analyst, Manish Agarwalla interacted with various stakeholders such as policy makers, builders, financiers, and end users of houses in order to understand their perspective on affordable housing. The government's subsidy scheme for EWS and LIG has improved the affordability of this segment and helped them come under the umbrella of formal lending institutes. Developers have begun flocking to the affordable space because of untapped demand, policy and fiscal benefits, and lack of demand in normal housing. Surge in demand for houses has created an opportunity for financiers. Although the overall housing-finance market has expanded due to increased affordability in the EWS and LIG segments, the number of housing finance players in the system have also increased.

Read on to find out how the governments housing for all 2022 scheme is likely to pan out over the next few years and how it will probably be intricately woven into India's political, economic, and social fabric much like MGNREGA (the employment guarantee scheme) did from 2005.

In addition to the cover story, we caught up with Mr R K Garg, who recently superannuated from Petronet LNG Ltd as Director Finance, after serving 16 years. He shared his memorable experiences as a core part of India's LNG revolution, and talked about what the future could hold for the company and the sector.

Best wishes

Vineet Bhatnagar

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Karrm Infra's project at Shahpur, near Mumbai. Karrm is a Mumbai-based affordable-housing builder with a portfolio under development of 15,000 units.



COVER STORY

BY MANISH AGARWALLA & KISHOR BINWAL

AFFORDABLE HOUSING: INDIA'S METAMORPHOSIS

India has a large need-based housing shortage, as estimated by the technical group. However, the government's priority is to address demand-based shortage first. Policy makers' initiatives involve increasing supply by providing fiscal sops to builders, reducing costs by providing extra FSI or by making land available at a reasonable cost, and increasing affordability for buyers. Given the huge demand-based shortage, affordable housing is a good way for policy makers to revive the economy and insulating it to an extent from global slowdowns. In this issue, GV looks at the efficacy of the government policies towards affordable housing and tries to get a holistic perspective by interacting with various stakeholders including financiers, policy makers, builders, and end users (buyers).

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Turning dreams into realty

Satyanand Kadam works as a mechanic in a motorrepairing shop in Ghatkopar, in central Mumbai. He has spent 20 years of his life winding copper wire and living in dilapidated housing conditions. He supports a family of three with an income of Rs 22-25,000 per month and rents a shanty in one of Mumbai's numerous slums. Since most properties in Mumbai are not below Rs 1mn, until recently, Satyanand could never hope to own an apartment. Of his total monthly income, he spends Rs 10-12,000 on food and about Rs 5-6,000 on rent. Even a Rs-1mn property would result in a monthly instalment of approximately Rs 9,000 after factoring in a 'margin' amount of Rs 100,000-150,000 – making it nigh impossible for people like Satyanand. But something has changed steadily in the last few years.

The magic of the CLSS scheme

Like Cinderella's fairy godmother, in comes the government swishing the magic wand of its creditlinked subsidy scheme (CLSS) under its 'housing for all mission 2022'. The CLSS provides borrowers with a one-time interest subvention of Rs 270,000.

Table 1: Housing benefits for various segments							
(Rs)	EWS	LIG	MIG-I	MIG-II			
Household income	300000	3-600000	6-1200000	12-1800000			
Average monthly income	12500	37500	75000	125000			
Maximum instalment	6250	18750	37500	62500			
Affordibility	600000	1800000	3600000	600000			
Home loan eligible for CLSS	600000	600000	900000	1200000			
Interest subsidy	6.50%	6.50%	4%	3%			
Tenure (years)	20	20	20	20			
Maximum dwelling unit carpet area covered	30 sq meter	60 sq meter	90 sq meter	110 sq meter			
Processing fee (Rs)	3000 to be	3000 for loan	3000 for loan	3000 for loan			
	given by govt	upto Rs6lac to be	upto Rs6lac to be	upto Rs6lac to be			
		given by govt and	given by govt and	given by govt and			
		above Rs6lac PLI	above Rs6lac PLI	above Rs6lac PLI			
		can charge from	can charge from	can charge from			
		borrower	borrower	borrower			
PV per Rs100 of loan	46	46	28	21			
Total interest subsidy (Rs)	273,140	273,140	252,129	252,129			
Interest subsidy % to loan	46%	15%	7%	4%			
Effective interest rate	NA	2.4%	3.8%	4.4%			
Total interest subsidy, Rs	273,140	273,140	252,129	252,129			
Interest subsidy as % of property value	46%	15%	7%	4%			
Effective interest rate	NA	2.4%	3.8%	4.4%			

GROUND VIEW

The CLSS scheme has provided a big boost to lots of prospective buyers with ticket sizes of less than Rs 2mn



The credit-linked subsidy meaningfully improves the affordability of prospective properties (please refer to table 1) for the economically weaker section (EWS) and low-income group (LIG). With the help of CLSS, the house, which Satyanand could ill afford until recently, becomes 27% cheaper. Consequently, his EMI falls to Rs 6,300 from Rs 9,000. The CLSS scheme has provided a big boost to lots of prospective buyers with ticket sizes of less than Rs 2mn.

Affordable segment (financing and construction) gaining momentum

The government's thrust has made affordablehousing a vibrant segment. Currently, real-estate

Most affordable projects have homes starting from Rs 0.9mn up to Rs 2mn. These projects usually come up on the outskirts of cities and provide amenities

developers, in collaboration with financiers provide faster and hassle-free loan-processing facilities to prospective buyers. In its field visits, Ground View's team saw developers and financiers providing housing loans even without income documents. For example, Xrbia has a 'no document' scheme, where buyers need not submit any income documents. Any prospective buyer with the following details can walk away with a home loan provided she has - (1) no default in home, auto, personal loan, (2) completes home / office verification successfully, (3) personal discussion, and (4) KYC and 12-month bank statements. However, for these schemes, the interest rate charged is usually higher - for example, Xrbia charges 11.9%. HDFC has a similar product, where it charges about 13% interest. Likewise, Karrm Infrastructure (a Mumbai-based affordable-housing builder with a portfolio under development of 15,000 units) provides buyers with loans and options of various insurance plans such as the option of an annuity-based insurance plan (which is added to the cost of the house), were the annuity is reinvested and a lump sum amount is paid on closure of the loan. The insurance scheme provides comfort to



Affordable housing loan book

Sales office of an affordable project near Vastral, Ahmedbad



financiers and acts as an incentive to the buyer for timely repayment of EMI.

Most affordable projects have homes starting from Rs 0.9mn up to Rs 2mn. Given the high cost of land within city limits, these projects usually come up on the outskirts of cities and provide amenities such as schools, medical centres, market places, and play areas. These basic amenities are essential to convince buyers to shift to the outskirts, which There is no data on an all-India basis to quantify the progress made by private builders, but GV team's survey in Maharashtra and Gujarat suggests that encouraging progress has been made on the supply side

more often than not entails quite a bit of workrelated travelling. Buyers are usually willing to travel more if the housing schemes provide safety, security, hygiene, and amenities. In one of Karrm Infrastructure's completed project, the GV team visited a school affiliated to Maharashtra state board. Amenities, such as reputable schools for children is one of the main basis for people to shift to locations on the outskirts of cities.

PMAY – HFA by 2022 has gained momentum in FY17 with the sanction of government-approved projects growing rapidly. The total houses sanctioned under various government projects increased by more



In major cities, hoardings advertising affordable housing have mushroomed. The one above is at Asangaon railway station, central line, Mumbai

than 3x to 2.1mn units, involving a total investment of Rs 1tn. Similarly, projects by private builders in the affordable segment have also seen significant traction. There is no data on an all-India basis to quantify the progress made by private builders, but GV team's survey in Maharashtra and Gujarat suggests that encouraging progress has been made on the supply side. The outskirts of mega cities such as Mumbai have witnessed massive projects in areas such as Badlapur, Shahpur, Neral, and Vangani - along Mumbai's central railway line. Similarly, affordable projects are visible in Virar and Dahanu Road along the western side. A patch of 25km in Vastral (a city and a municipality in Ahmedabad district in the Indian state of Gujarat) is home to more than 250 affordable housing projects.

Table 2: PMAY - Progress report

Year	No. of houses sanctioned (mn dwelling units)	Project cost involved, Rs bn
Jul-17	2.1	1,111
Mar-17	1.8	957
Mar-16	0.4	201

Source: MHUPA

The buyers' profiles

Monthly household incomes of buyers of these projects ranges between Rs 25,000 and Rs 50,000. Families with monthly incomes of Rs 22,000-25,000 would typically look for homes with a ticket size of about Rs 800,000, while those with higher monthly incomes of Rs 30,000-35,000 usually peruse properties worth Rs 1.5mn. Families with even higher monthly incomes (Rs 45,000-50,000) usually look at properties worth about Rs 2mn.

The customer profile in the income bracket Rs 25,000-50,000 varies between salaried and selfemployed, usually 50:50. Salaried people are private company employees, government employees, or semi-government employees. In households seeking out affordable housing, usually, there are two or more earning members – in most cases, husband and wife are both gainfully employed. Therefore, builders and financial institutions have made coownership (husband-wife) mandatory, in order to avail government subsidy.

The demand for housing in the affordable segment has increased in cities due to a large migrant population

The nature of the demand – EWS, LIG, migrants to cities

The demand for housing in the affordable segment has increased in cities due to a large migrant population. The demand is higher in cities with more industrial belts such as Mumbai, Ahmedabad, Pune, Nasik, Surat, Indore, Coimbatore, and Chennai. Migrant workers who have settled in those areas for a while, want their families to come and live with them. A reasonable part of the demand in the lowticket segment comes from such migrant workers.

The report by The Technical Urban Group (TG-12), constituted by the Ministry of Housing and Urban Poverty Alleviation, pegs almost 96% of the housing shortage from the EWS and LIG segments. As per the government of India's latest definitions, EWS constitutes households with an annual income of up to Rs 300,000 and LIG as those with Rs 300,000-600,000. As a thumb rule, affordability is calculated at four times the annual income. Considering the shortfall, houses worth Rs 500,000 to Rs 2mn have always been in demand in urban centres. This demand has grown with the government of India's subsidy scheme, which has increased affordability in a meaningful manner.

96% of the housing shortage is from the EWS and LIG segments

Lenders' profiles and practices: Paradoxically costly

Many formal lending institutes provide loans above Rs 1mn, but very few provide loans between Rs 0.5mn and Rs 1mn. As per NHB data, in 2015, only about 15% of loans that were disbursed were in the less than Rs 1mn range. As per Jones Lang LaSalle's report on affordable housing, "The key

The interest rate for the affordable segment is high because of high operating expenses (lenders') and high risk of default (borrowers')

issue that deprives people from availing a home loan in the Rs 0.5-1mn bracket is the perceived high risk – apprehensions of loans turning into nonperforming assets and uneven payment patterns." These segments are economically weaker, and live in dilapidated housing conditions without proper sanitation and drinking water. The government is trying to address the issue of housing shortage in the EWS segment in cities by providing grants to dwellers under slum-area-redevelopment schemes in partnership with private builders. However, the pace of growth in addressing the issue of this segment is slow, resulting in a deep housing shortfall.

The lending rate in the affordable segment varies, depending on the customer profile. It starts with 8.6% for a salaried customer with a reputed organisation (can be government or private) to 13% for a self-employed person with no income proof. There are some financiers who even charge 15-16%, but those would be in very few cases. A processing fee of 0.75-1.00% is levied, unlike in the mid-income housing segment, where processing fee is waived by financiers in the wake of increased competition. The processing fee compensates the financier for the cost incurred in acquiring the customer. Cost of acquiring a customer is a referral fee paid to the direct selling agents. The interest rate in affordable segment is high due to factors such as high operating expenses and high risk of default (because of buyers' erratic cash flow, especially in self-employed segment).

ВНК	Carpet area, sq ft.	carpet rate Rs/ sq ft	Basic value, Rs	CDC , Rs	Actual value (Rs)	loan offered before sub- sidy (Rs)	LTV (%)	Loan after subsidy (Rs)	LTV (%)	Average monthly household income (Rs)
1RK	162	4,330	701,460	200,000	901,460	856,387	95	589,387	65	25,000
1BHK	252	4,800	1,209,600	200,000	1,409,600	1,339,120	95	1,072,120	76	35,000
2BHK smart	310	4,800	1,488,000	250,000	1,738,000	1,651,100	95	1,384,100	80	40,000
2BHK comfort	368	4,950	1,821,600	250,000	2,071,600	1,968,020	95	1,701,020	82	50,000

Table 3: Price list of Xrbia Vangani (Badlapur)

Sourfe: Xrbia, PhillipCapital Research

GV has tried to answer these questions in the following sections – Is the affordable segment being overcharged by financiers? Or, is the high interest rate necessary for financiers because of the low ticket value and vulnerability of default, in order to generate a reasonable internal rate of return?

Demand-based housing target likely to be half of need-based shortfall

Government to probably look at housing shortfall only for the homeless (about 10mn units vs. TG-12's estimate of 18.7mn)

In 2012, the technical group (TG-12) estimated that the need-based total housing shortfall in India in 2012 was 18.7mn dwelling units. The shortfall calculated by TG-12 captured a genuine demand for houses, but from the policy maker's point of view, the priority is to address the housing shortfall for the homeless - whether it is a single person, a couple, or a family. The actual housing need for the homeless was never done before. Hence, under the Pradhan Mantri Awas Yojna - Housing for All by 2022 programme, the Government of India initiated the mammoth task of estimating the exact number of houses needed for the homeless. This would depend on demand survey for which all states/ cities would undertake detailed demand assessment by integrating Aadhar number, Jan Dhan Yojana account numbers, or any such identification of the intended beneficiaries.

Though the survey is still ongoing in some states, GV's discussions with various government official suggests that the advance estimate of the housing shortfall only for the homeless is around 10mn.

GV's discussions with various government official suggests that the advance estimate of the housing shortfall for homeless is around 10mn (much less than the 18.7mn dwelling units that TG-12 estimated)

Therefore, it can be said that 'the housing for all by 2022' envisages building 10mn houses (not 18.7mn recommended by TG-12). Within these, 96% of the shortfall is in the economically weaker section and low-income group.

The technical group's estimates

The methodology that TG-12 adopted considers: (1) identification of households residing in dilapidated and non-serviceable houses, (2) households living in congested conditions, and (3) homeless households. The TG-12 report found that 80% of the shortage

Table 4: Housing shortage in urban India in2012 (mn units)

Households living in non-serviceable katccha	0.99
Households living in obsolescent houses	2.27
Households living in congested houses requiring new houses	14.99
Households in homeless condition	0.53
Total	18.78

Source: Report of Technical Urban group TG-12, MHUPA

Table 5: Economic-group-wise housingshortage

	Units, mn	%
Economically weaker section (EWS) – Annual HH income upto Rs0.3 mn	10.55	56.2
Low income group (LIG) – Annual HH income Rs0.3- 0.6 mn	7.41	39.5
MIG & above – Annual HH income > Rs0.6 mn	0.82	4.4
Total	18.78	100.0

Source: Report of Technical Urban group TG-12, MHUPA, HH: Household

emanated from congestion (need based). The manner in which it was calculated is – "couple or persons above 10 years of age who did not have their own room".

As per the TG-12 report, urban housing shortage is prominent across the economically weaker sections (EWS) and low-income groups (LIG), which together constitute over 95% of the total housing shortage. It estimated the housing shortage among the middleincome groups (MIG) and above at 4.38%.

State-wise housing shortage

State-wise distribution indicated that top-10 states (in terms of population) contribute to 76% of India's total housing shortage, with Uttar Pradesh's contribution among the highest at 16.5%. Various



The 10 most populated states contribute to 76% of India's total housing shortage; Uttar Pradesh is the highest

state governments such as Maharashtra and West Bengal have launched their own housing schemes to tackle the need in the EWS segment. Though they have made some progress, the gap is still too wide.

Increasing urbanisation to drive demand for housing

India's urban population is set to outpace its overall population growth. Over 2001-11, India's urban population CAGR was almost 3%, resulting in an increase in the urbanisation rate to 31.2% from 27.8%. Out of the 1.21bn people who live in India, 377mn are urban dwellers. Federation of Indian Chambers of Commerce (FICCI) estimates that by 2050, the country's cities will see a net increase of 900mn people! Over 2012-50, the urbanisation CAGR is likely to be 2.1%.

India's agriculture sector has a limited absorption capacity, so most of the growth in urbanisation is likely to be a consequence of a rural-to-urban migration. After India's economic liberalisation, its manufacturing and services sectors have seen an influx from rural youth (in terms of employment). With the country likely to witness rapid industrialisation, this migration trend (rural to urban) is likely to continue.

As per commercial property and investment management firm JLL, "The main reasons for rise in shortage in affordable housing on the supply side is lack of availability of urban land, rising construction costs and regulatory issues while lack of access to home finance for low-income groups are constraints on the demand side. Construction costs form nearly 50% to 60% of the total selling price in affordable housing projects while for luxury projects this figure is 18% to 20%. Moreover, majority of the loans disbursed by banks and housing finance companies are above Rs 1mn"



Slums require urgent upgradations (a demand-based shortfall)



shortage is estimated at nearly 18.78 million households in 2012.

It is apparent that a substantial housing shortage looms in urban India and a wide gap exists between the demand and supply of housing, both in terms of quantity and quality in India (Bridging the Urban Housing Shortage – KPMG NAREDCO report).

Source: PhillipCapital Research, MHUPA

Meanwhile, in urban India, the looming housing shortage and growing concentration of people has resulted in an increase in the number of people living in slums and squatter settlements. Skyrocketing prices of land and real estate in urban areas have induced the poor and the economically weaker sections of the society to occupy the marginal lands typified by poor housing stock, congestion, and obsolescence. According to a report submitted by a technical committee to the Ministry of Housing and Urban Poverty Alleviation (MHUPA), India's urban housing Need-based demand comes from congested living conditions such as in Mumbai's chawls - visible in the picture below



Managing perception and cost

Mr Sanjay Shah, the chairman and managing director of DBS Affordable Housing Strategy, in his book 'Pursuit of Affordable Housing', mentioned that the development of affordable housing by a private player is all about cash flows, volume, and passion – managing cash flows to complete construction and delivery on time, producing enough units to break even, sustaining in the market, and a passion to serve lower-income people against all odds – form the core of this business, he believes.

He goes on to say that, "There are many ways in which the affordable segment is fundamentally different. It has a lower rate of return due to low appreciation in the prices of units. A Rs 1mn dwelling is not likely to appreciate to Rs 2mn, because then it stops being affordable. Even if does appreciate, people with a capacity to purchase a Rs 2mn unit are unlikely to be compatible (socially and economically) with the people already residing in such housing. Appreciation in the real estate market is a different story altogether. Construction of a signature, 'limited edition' society in a posh area will ensure unlimited appreciation. This is the basic difference between regular real estate businesses and affordable housing."

Apart from a perception challenge, affordable housing also involves challenges related to supplying houses at a really 'affordable' cost, especially within city limits.

Some of the most common constraints that make houses unaffordable are:

Unavailability of land in urban areas

In urban areas, high population density has triggered huge demand. In such high-cost areas,

the number of projects completed or under construction (such as Maharashtra and Delhi) tend to be low, suggesting that availability of adequate land is a must. Reports by various consultancy firms suggest that without the government's support, limited availability of land in urban areas makes it unviable for developers to take up affordable housing projects. A KPMG report on the urban housing shortage in India says that substantial nonmarketable urban land that government-owned entities (such as railways) own, can be used more efficiently - a number of such land parcels are in centrally located areas. Through better monitoring, authorities can make more optimum use of these land parcels and prevent the on-going proliferation of slums and squatter settlements in these areas.

Delays in approvals and permission

Even though real estate and housing contribute significantly to India's economic growth, the sectors have "peculiar complexities that arise from uncertainties, inter-dependencies, and inefficiency in the operations of various process workflows and authorities," says a study by KPMG and NAREDCO. The building approval process in India is relatively slower and more expensive than in vs. several other countries. In India, various types of approvals are required at different stages by different authorities.

The KPMG-NAREDCO study says, "Development authorities allocate approvals based on land use and zoning regulations, while municipal corporations are responsible for the enforcement of building regulations as stipulated by the 'NBC'. Additionally, several non-planning permissions are also required to be obtained from various authorities such as the

Table 6: Time taken for various approvals

Approvals	Maharashtra	Gujarat	Orissa	Tamil Nadu	Haryana
NA Permission/ Land conversion	3 months +	2 months	3-6 months	9 months	6 months
Ownership certificate	15 days	60 days	6-12 months	12 months	3 days
Building layout approval	1 month	6 months	6-12 months	45 days	6 months
Commencement certificate	15-30days	2-3 months	6 months	1-4 months	6-9 months
ASI	6 months	over 1 year	3-24 months		2 months
AAI	3-4 months	6 months	6-12 months	1-2 months	3 months
Environment	3 months +	1 year	30days to 12 months	4-8 months	2 years
Building completion certificate	30 days	3-4 months	6-12 months	3-6 months	6 months
Occupancy certificate	60days				6 months

Table 7: Findings of the World Bank report on dealing with construction permits

	Mumbai	Delhi	India	South Asia	OECD high income
Procedures (numbers)	42	29	35	16	12
Times (days)	164	213	190	196	152
Cost (% of warehouse value)	25	27	35	17	2
Building quality control index (0-15)	12	11	11	9	11

Source: World Bank

Traffic and Coordination Department, Airport Authority of India (AAI), Coastal Regulatory Zone (CRZ) authorities etc., as an assurance that buildings do not adversely affect their surrounding areas. Permits are also needed from utilities departments such as water and sewerage departments, electricity boards, etc." A FICCI research report titled 'Streamlining Approval Procedures for Real Estate Projects', which surveyed five states, suggests that in India, it takes anywhere between 2.5-4.0 years, on an average, to receive necessary building approvals.

As per the 'World Bank Group Report – 14', in terms of ease of dealing with construction permits, India is #185 in a ranking of 190 economies. The report highlights that in India, an average of 35 procedures are needed over a period of 190 days for obtaining construction permits (12 approvals over an average of 152 days in the OECD region, 16 approvals over an average of 196 days in the South Asia region).

Poor fund availability to builders

Real-estate developers are grappling with funding challenges. Banks have curtailed their exposure to real estate (citing caution), leaving the developer segment with high-cost finance options such as Non-banking Financial Companies (NBFCs) and Private Equity (PE) funding. Moreover, the high cost of finance, coupled with waning demand, has disrupted

developers' cash flows, leading to deferred project launches and a change in the slated supply. For affordable housing developers, the funding situation is even grimmer.





Source: PhillipCapital Research

PRADHAN MANTRI AWAS YOJNA -Housing for all by 2022



Targets urban areas with following components/options for states/union territories and cities:

- Rehabilitation of slum dwellers with participation of private developers using land as a resource
- Promotion of affordable housing for weaker sections through credit-linked subsidy
- Affordable housing in partnership with public and private sectors
- Subsidy for beneficiary-led individual house construction or enhancement

Features

- Central grant of Rs 100,000 per house, on an average, available under the slum rehabilitation programme. State
 governments would have flexibility in deploying this grant to any slum rehabilitation project (that uses land as a resource for providing houses to slum dwellers).
- Under the Credit-Linked Interest Subsidy component, an interest subsidy of 6.5% (on housing loans up to a tenure of 15 years) will be provided to EWS/LIG categories, wherein the subsidy payout on an NPV basis would be about Rs 230,000 per house, for both categories.
- Central assistance at the rate of Rs 150,000 per house for EWS will be provided under 'affordable housing' in partnership and beneficiary-led individual house construction or enhancement.
- State governments or urban local bodies (like housing boards) can take up affordable housing projects to avail

the central government's grant.

- Will be implemented as a Centrally Sponsored Scheme except the credit-linked subsidy component, which will be implemented as a Central Sector Scheme.
- The mission prescribes certain mandatory reforms for easing up the urban land market for housing, to make adequate urban land available for affordable housing. Houses constructed under the mission would be allotted in the name of the female head of the households or in the joint name of the male head of the household and his wife.
- The scheme will cover the entire urban area consisting of 4,041 statutory towns with an initial focus on 500 Class-1 cities and it will be implemented in three phases:
 - Phase-I (April 2015 March 2017) to cover 100 cities to be selected from States/UTs as per their willingness.
 - o Phase 2 (April 2017 March 2019) to cover additional 200 cities.
 - o Phase-3 (April 2019 March 2022) to cover all other remaining cities.
- However, there will be flexibility in covering number of cities in various phases and inclusion of additional cities may be considered by the Ministry of Housing & Urban Poverty Alleviation in case there is demand from states and cities, and there is capacity to include them in earlier phases.
- Credit-linked subsidy component of the scheme would be implemented across the country in all statutory towns from the very beginning.

Implementation:

 Dimension of the task at present is estimated at 20mn houses. However, the exact number of houses would depend on a demand survey, for which all states/ cities will undertake a detailed demand assessment and assess actual demand by integrating Aadhar number, Jan Dhan Yojana account numbers, or any such identification of intended beneficiaries.

- A Technology sub-mission under the Mission would be set up to facilitate adoption of modern, innovative, and green technologies, and building material for faster and quality construction of houses. It will:
 - Facilitate preparation and adoption of layout designs and building plans suitable for various geoclimatic zones.
 - o Assist states/cities in deploying disaster resistant and environment friendly technologies.
 - Will coordinate with various regulatory and administrative bodies for mainstreaming and up-scaling deployment of modern construction technologies and material in place of conventional construction.
 - Coordinate with other agencies working in green and energy efficient technologies, climate change, etc.
 - Will also work on the following aspects: (1)
 design and planning, (2) innovative technologies
 and materials, (3) green buildings using natural
 resources, and (4) earthquake and other disaster
 resistant technologies and designs.

In the spirit of cooperative federalism, the mission will provide flexibility to states for choosing best options among the four verticals of the mission, to meet housing demand in their states. The process of project formulation and approval in accordance with 'mission guidelines' would be left to the states so that projects can be formulated, approved, and implemented faster. The mission will provide technical and financial support in accordance with the 'guidelines to the states' to meet the challenge of urban housing. The mission will also compile best practices in terms of affordable housing policies of the states/UTs designs and technologies adopted by states and cities with an objective to spread best practices across states and cities, and foster cross learning. The mission will also develop a virtual platform to obtain suggestions and inputs on house design, materials, technologies, and other elements of urban housing.

Central and state grants and incentives + local bodies

In order to incentivise borrowers and generate demand for housing, Government of India has provided various incentives and grants. For the EWS segment, it provides a (per dwelling) central grant of Rs 150,000 where the unit cost is around Rs 500,000. Apart from the central government, state governments and urban local bodies have various schemes with grant amounts of Rs 150,000-250,000. Due to the existence of both central and state grants, the beneficiary contribution tends to be minimal or nil in the EWS segment.

In order to incentivise the LIG and MIG segments, the government launched the credit-linked subsidy scheme (CLSS). It provides an interest subsidy of 6.5% in the LIG segment for loans up to Rs 600,000. Similarly, the interest subsidy available for MIG-1/2 (MIG 1: Household income Rs 0.6-1.2mn; MIG 2: Rs 1.2-1.8mn) is 4%/3%. The present value of the subsidy amount is reduced from the principal component, which brings down the cost of the dwelling unit. For the LIG segment, the subsidy benefit for a dwelling unit costing Rs 1.8mn translates to 14%. Similarly, the average benefit in MIG-1/2 works out to 7%/4%. Income tax benefits provided to home-loan borrowers, along with subsidy schemes, brings down the effective interest costs of home loans to as low as 2.4% for LIG, which is similar to rental yields in India, while for MIG-1/2, the costs come to 3.8%/4.4%.

Under CLSS, the present value of the subsidy amount is reduced from the principal component, which brings down the cost of the dwelling unit

Global experience in affordable housing

The success stories globally in affordable housing have some things in common, which can be well replicated in India. Land has always being an issue within city limits. In most of the global success stories, the government has made land available. In India, today, government or semigovernment bodies (such as railways, defence, and state transport authorities) own large land parcels. These land parcels can be effectively used for affordable housing at low costs. Similarly, there is a concept of rental homes provided by local authorities, which would help address the issue of down payments. Redevelopment of existing slums is a major hurdle in cities such as Mumbai due to relocation policies. Therefore, a welcome move would be policies (such as higher FRA/FSI) that support redevelopment without too much inconvenience to developers.

Singapore affordable housing:

The government develops and manages a large part of the residential housing in Singapore. Around 75% of the housing stock in the country is built by The Housing & Development Board (HDB), Singapore's public housing authority. The primary objective of HDB is to provide affordable housing for the poor. The purchase of these flats is financially aided by the Central Provident Fund (CPF). Because of effective policies, the country's home ownership rate at 90% is one of the highest globally. Currently, Singaporeans who have a family income of less than SG\$ 12,000 a month qualify for an apartment. Among resident employed households, the 2014 median household income from work was SG\$ 8,292 per month. The median house type is a four-room flat sold by the Housing & Development Board (HDB), on a 99-year leasehold basis.

Government provides support for HDB in the form of: (1) annual grants from the current budget to cover its deficits incurred for development, maintenance, and upgrading of estates, (2) loans for mortgage lending and long-term development purposes, and (3) land allocation for HDB housing and comprehensive HDB town planning. The Singapore affordable model has been a great success – 82% of the resident population lived in such accommodation as on 31 March 2015. The HDB brought about a transformation on the housing-supply side, leading to higher homeownership rates, which doubled to 59% in 1980 from 29% in 1970 and reached 90%+ in 2017.

Eligibility criteria for various dwelling types

- HDB rental and direct purchases are restricted to citizens, with current monthly gross household income caps at SG\$ 1,500 for rental and SG\$ 12,000 for direct purchase, respectively.
- The Executive Condominium scheme, a hybrid publicprivate housing scheme for citizen households, has a household income cap of SG\$ 14,000.
- The resale HDB sector is available to citizens and Singapore permanent residents (SPRs). However, HDB housing grants are made taking into account citizenship, marital status, and household income of purchaser households.
- The private housing sector is dominated by transactions of higher-income Singapore citizens, SPRs, expatriates, and foreign investors.

Central Provident Fund used as a vehicle for housing finance

 In 1968, the government allowed withdrawals from the CPF fund to finance the purchase of housing sold by the HDB. Both employers and employees contributed a certain share of the individual employee's monthly salary toward the employee's personal and portable account in the fund. When the CPF was established in 1955, the contribution rate was 10% (5% each by employees and employers) of the monthly salary. These rates were raised gradually to 25% of wages in 1984. At present, these are 20% of salary for employees and 17% of salary for employers, up to a monthly salary ceiling of SG\$ 6,000.

Singapore follows a progressive subsidy and tax structure – wealthy property owners and investors are taxed and the receipts are used to subsidise homeownership of lowerincome groups.

Hong Kong affordable housing

The Hong Kong Housing Authority (HKHA) and The Hong Kong Housing Society (HKHS) are two statutory bodies that are responsible for implementing most of Hong Kong's public housing programmes. Hong Kong's Long-Term Housing Strategy (LTHS) has three major directions:

- To build more public rental housing (PRH) units and to ensure the rational use of existing resources; these units are rented at discounted rates to low-income residents
- To provide more subsidised sale flats, expand the forms of subsidised home ownership, and facilitate the market circulation of existing stock. These categories of houses are assigned for sale to low-income qualifiers at prices that are significantly lower than market value, and the land value is similarly subsidised. The mortgage and resale of these units in the second-hand market are likewise restricted to eligible low-income residents.
- To stabilise the residential property market through steady land supply and appropriate demand-side management measures, and to promote good sales and tenancy practices for private residential properties.

As of 31st March 2016, about 30% of the population lived in PRH flats and 16% lived in subsidised sale flats; the rest 54% were residing in private permanent houses. Because of the focus on rental housing, home ownership rate in Hong Kong remained relatively lower at about 50%.

Shanghai affordable housing

The Shanghai affordable housing model is based on four approaches:

- Low-rental housing for extremely poor families who otherwise find it difficult to be included in the formal housing sector
- Public rental housing for the working population with stable incomes
- Shared ownership housing with the government
- Housing for those who need to be relocated from their old shaky buildings

Shanghai has set up a housing provident fund to fund low-cost housing. The government introduced the Housing Provident Fund in Shanghai in 1991, requiring all employees of state-owned enterprises to contribute a proportion of their salaries to the fund – with employers contributing a similar amount. Workers are allowed to withdraw their savings from the fund when they retire; alternatively, they can use the money to purchase homes in the private housing market. They can also apply for low-interest loans from the fund to buy property. Because of the effective affordable housing policy, homeownership in Shanghai has more than doubled to 85% from 36% in 1997.

Economically affordable housing





20 building complexes in Shanghai, which includes a mix of 5- and 14-storey buildings. Approximately 60 sqm per apartment, comprising living room, two bedrooms, kitchen, and bathroom

Subsidy scheme gaining traction

The government strongly inclined to become an 'enabler' vs. being a provider earlier, but...

GV team's discussion with various stakeholders (financiers, builders, policy makers) indicated a strong commitment by the government towards addressing India's housing shortage. In order to incentivise borrowers and generate demand for housing, the government has taken on the role of an 'enabler', by providing various incentives and grants.

...will it put its money where its mouth is?

The housing shortfall of 10mn houses would require central government support (grant and subsidy) of Rs 1.8tn. However, the allocation in the previous four years has been low, and the worst part is that the utilisation of the allocated amount was even poorer. The GOI allocated only Rs 200bn in the FY15-18 union Budgets and utilisation was poor at 15% in the initial two years. Allocation towards urban housing in the FY17-18 Union Budget was only Rs 60bn.

Looking at this meagre annual allocation number, is it likely that the government will have resources to fund affordable housing? Given the poor past track record, can utilisation of the allocated amount improve? From GV's discussions with government officials it appears that resources

The housing shortfall of 10mn houses would require central government support (grant and subsidy) of Rs 1.8tn

are not constrained. For FY17-18, it seems that almost 80% of the money allocated towards urban housing schemes has already been used up (within three months) and the ministry is 'contemplating' additional fund allocation under supplementary



Table 8: Gol investment under Pradhan Mantri Awas Yojna, RBI

Unit in Rs bn Year		PMAY-Rural		PMAY-Urban
	Allocation	Utilisation	Allocation	Utilisation
2018	230.0		60.4	
2017	150.0		50.8	
2016	100.0	101.2	46.3	14.9
2015	159.8	111.0	31.0	10.9
Source: IndiaBudget nic in				

State-wise progress of PMAY at the end of March 2017

Stakeholders are enthusiastic about the government's housing mission

Builders are delighted with the credit-linked subsidy scheme, as it has acted as a catalyst in boosting the demand for houses, especially in the small-ticket segments. Moreover, the income-tax benefit for affordable housing projects has pushed developers to take a plunge into this segment, given that midincome or high-income house projects have been seeing a slowdown.

On affordable housing developers, HDFC's annual report says, "While the demand for affordable housing remained robust, there was a slowdown in sales of high-end luxury apartments in certain pockets of the country. However, with the boost given to affordable housing, more developers are recognising the benefits of increasing supply in this segment – where the real demand lies. Affordable housing projects typically work on lower margins, but higher volumes; sales tend to be swift in this segment. With many developers not keen on holding large stocks of unsold inventories, the affordable housing space has become more attractive."

Financiers are also optimistic about the demand for home loans in the affordable segment. As per Mr Sudhin Chokshey, Managing Director of GRUH Finance, "Many budgetary announcements aimed at the affordable housing sector, and particularly the infrastructure status for developers operating in this space, are likely to improve the supply. The creditlinked subsidy scheme is likely to push up demand." According to Mr Chokshey, CLSS announced for MIG-segment families in the income segment of up to Rs 1.8mn for a one-year period up to December 2017 is debatable as this segment do not require interest subsidy. "What they require is better supply," he concludes.

In its annual report, Dewan Housing Finance says, "For LIG, an affordable house would cost (on the higher side) Rs 2.5mn, approximately five-times the annual gross income of the LIG income group – making it, in fact, not very affordable. This would result in rising dependence on either subsidies or government construction as a means of bridging the ever-increasing affordable housing gap."

As per the KPMG – NAREDCO report on affordable housing - "A thrust on encouraging private sector participation in affordable housing, traditionally the domain of the government, could provide the answer to India's urban housing predicament. However, as things stand, affordable housing remains a challenging proposition for developers. Issues continue to persist in terms of land availability and pricing, the project approval processes, and other areas, which make low-cost housing projects uneconomical for private developers. Making affordable housing work in India necessitates the active involvement of all stakeholders concerned. Radical thinking on the part of the government can provide a much-needed fillip to affordable housing development in the country. Steps such as establishment of a single window clearance system, formulation of innovative micro mortgage lending models and tax subsidies would encourage private sector involvement. The developers, on their part, need to adopt innovative and low-cost technologies, which could enable them to deliver affordable houses quickly and cost-effectively."

Rising competitive intensity – good/ bad?

The Lehman crisis is still too fresh to be ignored

Although financiers are optimistic about the government's efforts in affordable housing finance, they are equally concerned about the rising competition in the space. Gruh Housing Finance, in its FY17 annual report mentions that -"The MCLR-linked lending rates offered by banks resulted in a price war in the market and overall lending rates have come down substantially. The effective rate of interest for customers is less than 3%, an all-time low considering interest subsidy and tax sops. However, this is likely to impact the interest spreads for many players, particularly housing finance companies who are intermediaries and not direct beneficiaries of excess liquidity. While the industry continues to grow at around 16%, albeit at a rate lower than the previous year, the poor offtake in credit has compelled lenders to resort to loan takeovers, which are expected to constitute 20-30% of the incremental disbursements".

New entrants in affordable lending need best practices

One financier (who did not wish to be named) said that lending practices of some of the players were too aggressive. These players factor the credit-linked subsidy component into their calculation of loan-to-value (LTV) ratio, which means that in case subsidy is not approved, LTVs can actually end by being more than 100%! Direct selling agents in Mumbai and Gujarat revealed that new entrants in affordable housing are dishing out huge referral fees – ranging from 1.0%-1.5% of the amount disbursed.

The customer profile in affordable segment is very vulnerable, characterised by erratic cash flow. Collection efficiency is low and cases of cheque bouncing are as high as 15%. Hence, operating expense in this segment is bound

Lending practices of some of the affordable housing players are very aggressive

Lending in affordable segment characterised by low collection efficiency, high instances of cheque bouncing, and higher operating expense vs. midincome or high-income segments

to be high compared with the mid-income or high-income segments. The dynamics of affordable housing are different from the mid-income/high-income housing segments. GV team's field visit and discussion with various affordable builders and financiers including Xrbia, Karrm Infrastructure, DBS Infra, Nila Infra, Gruh Finance, LIC HF, HDFC, and Aspire Home Finance threw some light on key features of the affordable housing finance segment:

- Cost of customer acquisition is high because of lower ticket sizes. It can range between 1% to 1.5% of the loan size.
- Cancellation rate after property booking is generally high. Given erratic cash flow, unbudgeted expenses could provoke the buyer to cancel the booking.
- Pre-EMI (equated monthly instalment) amount is a key in booking affordable flats. Many prospective buyers fail to rustle up the booking amount (or pre-EMI amount) and have to drop out of buying the property. It is generally believed that faster execution of projects will bring down costs and are hence beneficial to buyers, but some of the builders believe that in the affordable housing, very fast execution may not work as buyers need time to accumulate booking amounts. In most cases, the booking

Customer profile in affordable lending is characterised by erratic cash flow, economic vulnerability

Many prospective buyers of affordable housing fail to come up with the booking amount

amount is also collected in instalments.

- Due to their poor collection efficiency, servicing costs of affordable housing loans are high vs. mid-income housing loans while operating cost per annum works out to 1% of the loan amount.
- The industry does not have proper history of credit risk involved in the segment. Hence, the adequate pricing of loans is very important.
- The target customers are not well versed with the concept of interest rates. What matters to them is the EMI (equal monthly instalments). These customers are more comfortable with a structure that suits their income flow.

Housing companies have mushroomed in the last two years

The challenging dynamics of affordable housing finance (high acquisition cost, high operating expenses, and risk of higher credit costs) warrants adequate pricing, but the sudden rise in the number of housing-finance companies is making competition unhealthy. Until 2015, the growth in the number of housing-finance companies was steady (about 10 players added in five years) and totalled 64, but this number increased significantly to 85 in 2017. Industry players view this sudden rise as detrimental. The policy push towards housing has created an enabling environment, which has attracted many new players into this space. These players are often backed by private-equity investments, which have increased manifold into the BFSI sector in the past few years (almost US\$ 4bn per annum).

Some undesirable practices have crept in

Some of the housing-finance players are resorting to either unreasonable pricing or going overboard in terms of loanto-value ratio (LTV). Given heightened competition, at times, the referral fee is high and loan takeover has become a more prevalent practice. GV tried to understand the cost dynamics in the affordable segment with ticket sizes of Rs 1-2mn. In order to maintain internal rate of return (IRR) above the cost of fund, the minimum spread required is between 2.5-3.0%, factoring gross non-performing asset (GNPA) of ~3% and operating cost of 1%. In case of a rise in GNPA beyond 3%,

Table 9: Number of HFCs

	Total
2017	85
2015	64
2014	58
2013	56
2012	54
2011	53
Source: NHB	

ource: NHB

Table 10: Private equity deals in India

BFSI	India (Total)
0.9	10.2
1.2	11.8
1.9	15.2
4.0	22.9
3.6	16.8
	BFSI 0.9 1.2 1.9 4.0 3.6

Source: Bain capital

the spread of 2.5-3.0% may not be able to generate an IRR that would cover the cost of funds.

Credit and operating costs need to be adequately priced for long-term healthy viability

The interest rate charged to customers in the segment varies widely between 8.6% and 13%. While a salaried person with a reputed organisation would be charged 8.6%, a person without any income proof could be charged as high as 13%. Are these interest rates unreasonably high or does the risk involved warrant them? Before finding an answer, here are the perspectives of various stakeholders (policy makers, lenders, and borrowers).

Policy makers are in favour of formal loans to lowerincome groups at competitive rates

Making loans available to the affordable segment at a reasonable cost is the foremost agenda of policy makers. In order to ensure this, they would always like to make the industry competitive by allowing more players. This has been playing out in the housing-finance industry in the last few years – the numbers of players have increased to 85 from 64.

Borrower's delight

Borrowers will always prefer easy availability of credit at low cost. Recently, more financiers have positioned themselves in the affordable segment, given higher competition in the mid-income salaried segments. The flow of credit into the affordable segment has improved, with ticket sizes at Rs 1-2mn; there are encouraging flows of credit in the Rs 0.5-1mn ticket size as well.

Financier's predicament

For housing-finance companies in the affordable segment to flourish in the long run, it is very important that credit costs and other operating costs are adequately priced, so that in a downturn, lenders have enough cushion to absorb losses without stopping the flow of credit to the segment, which actually magnifies the problem and derails the economy. The experience of the banking industry after the Lehman crisis has necessitated the Basel committee to mandate a counter-cyclical provision buffer, so that in a downturn, credit flow does not stop for want of capital. Though competition is necessary, unhealthy competition is dangerous for long-term growth. Some practices – such as high LTVs and predatory pricing – do not adequately factor the risk involved in the segment, especially as this segment does not have a credit history.

For housing-finance co. in the affordable segment to flourish in the long run, it is very important that credit costs and other operating costs are adequately priced

Housing Finance Companies

1	Aadhar Housing Fin. Pvt. Ltd	29	Habitat Micro Build India Housing Fin. Co. Pvt. Ltd.	57	Muthoot Homefin (India) Ltd.
2	Aavas Financiers Ltd.	30	Hinduja Housing Fin. Ltd.	58	Muthoot Housing Fin. Co. Ltd
3	Aditya Birla Housing Fin. Ltd.	31	Home First Fin. Co. India Pvt. Ltd	59	National Trust Housing Fin. Ltd.
4	Akme Star Housing Fin. Ltd.	32	Homeshree Housing Fin. Ltd.	60	Navarathna Housing Fin. Ltd.
5	Altum Credo Home Fin. Pvt. Ltd.	33	Housing and Urban Development Corp. Ltd.	61	New Habitat Housing Fin. and Development Ltd.
6	Anand Housing Fin. Pvt. Ltd.	34	Housing Development Fin. Corp. Ltd.	62	Nivara Home Fin. Ltd.
7	Aptus Value Housing Fin. India Ltd	35	ICICI Home Fin. Co. Ltd.	63	North East Region Housing Fin. Co. Ltd.
8	ART Affordable Housing Fin. (India) Ltd.	36	IKF Housing Fin. Pvt. Ltd.	64	Orange City Housing Fin. Ltd
9	Aryarth Housing Fin. Ltd.	37	Ind Bank Housing Ltd	65	Panthoibi Housing Fin. Co. Ltd.
10	Aspire Home Fin. Corp. Ltd.	38	India Home Loan Ltd.	66	PNB Housing Fin. Ltd.
11	Aviom India Housing Fin. Pvt. Ltd.	39	India Infoline Housing Fin. Ltd. (IIHFL)	67	Prosper Housing Fin. Ltd.
12	Bajaj Housing Fin. Ltd.	40	India Shelter Fin. Corp. Ltd.	68	Reliance Home Fin. Ltd.
13	Bee Secure Home Fin. Pvt. Ltd.	41	Indiabulls Housing Fin. Ltd.	69	Religare Housing Development Fin. Corp. Ltd.
14	Can Fin Homes Ltd.	42	IndoStar Home Fin. Pvt. Ltd.	70	REPCO Home Fin. Ltd.
15	Capital First Home Fin. Ltd.	43	Khush Housing Fin. Pvt. Ltd.	71	Rose Valley Housing Development Fin. Corp. Ltd
16	Capri Global Housing Fin. Ltd.	44	KIFS Housing Fin. Pvt. Ltd.	72	SEWA Grih Rin Ltd.
17	Cent Bank Home Fin. Ltd.	45	L&T Housing Fin. Ltd.	73	Shriram Housing Fin. Ltd.
18	Centrum Housing Fin. Ltd.	46	LIC Housing Fin. Ltd.	74	Shubham Housing Development Fin. Co. Ltd.
19	Dewan Housing Fin. Corp. Ltd.	47	Lodha Housing Fin. Pvt. Ltd.	75	SRG Housing Fin. Ltd.
20	DHFL Vysya Housing Fin. Ltd.	48	Magma Housing Fin.	76	Sundaram BNP Paribas Home Fin. Ltd.
21	DMI Housing Fin. Pvt. Ltd.	49	Mahindra Rural Housing Fin. Ltd	77	Supreme Housing Fin. Ltd.
22	Edelweiss Housing Fin. Ltd	50	Mamta Housing Fin. Co. Pvt. Ltd.	78	Swagat Housing Fin. Co. Ltd.
23	Essel Fin. Home Loans Ltd.	51	Manappuram Home Fin. Pvt. Ltd.	79	Swarna Pragati Housing Micro Fin. Pvt. Ltd
24	Fasttrack Housing Fin. Ltd.	52	Manibhavnam Home Fin. India Pvt. Ltd.	80	Tata Capital Housing Fin. Ltd.(TCHFL)
25	Five-Star Housing Fin. Pvt. Ltd.	53	Manipal Housing Fin. Syndicate Ltd.	81	Ummeed Housing Fin. Pvt. Ltd.
26	Fullerton India Home Fin. Co. Ltd.	54	MAS Rural Housing and Mortgage Fin. Ltd.	82	Vastu Housing Fin. Corp. Ltd.
27	GIC Housing Fin. Ltd.	55	Mentor Home Loans India Ltd.	83	Vishwakriya Housing Fin. Ltd.
28	GRUH Fin. Ltd.	56	Micro Housing Fin. Corp. Ltd. (MHFCL)	84	VIVA Home Fin. Ltd.
				85	West End Housing Fin. Ltd.

A tool to boost the economy

As per India Ratings' estimates, the housing-for-all scheme has the potential to push up India's economy by 3.5% by 2022, with sectors supplying crucial inputs to the construction industry being the biggest beneficiaries. Sectors such as cement, iron, and steel – crucial inputs in construction – are likely to be the biggest beneficiaries of the HFA programme.

In its study on the impact of housing on India's GDP, National Council of Applied Economic Research had highlighted the following findings:

- Residential construction (housing sector) accounts for (1) 1.24% of the total output of the economy (total construction sector is 11.39%). (2) 1% of GDP (total construction sector is 8.2%), (3) 6.86% of employment (total construction sector is 11.52%).
- Housing is the fourth-largest employment-generating sector in India.
- 99.41% of jobs in the housing sector are informal.
- Its labour-to-output ratio, i.e., the number of persons employed to produce 100,000 units of output, is 2.34, the highest among all sectors.
- The type-1 output multiplier for the housing sector is 2.33 and type-2 is 5.11, i.e., an increase of one unit in the final demand for housing translates into induced cumulative revenues of 5.11 units in the economy.
- For every Rs 100,000 invested in the housing sector, 2.69 new jobs (2.65 informal and 0.4 formal) are created in the economy. With induced effect, the number of jobs created would be 4.06 (3.95 informal and 0.11 formal).
- For every investment in the housing sector, household income increases by Rs. 0.41. With induced effect, this is estimated to be Rs. 0.76.
- For every unit of housing created, household income increases by 0.41 units. With induced effect, this is estimated to be 0.76 units.
- Type-1 income multiplier for housing sector is 1.54 and

type-2 is 2.84. This would mean that a unit of increase in the final expenditure in this sector would generate additional income as high as 3 times the income generated within the housing sector itself.

- Every additional rupee invested in the sector will add Rs 1.54 to the GDP, and with household expenditure considered, it will add Rs 2.84.
- For every rupee invested in creating housing, Rs 0.12 is collected as indirect taxes.

The impact of housing is visible in other segments too. GV tried to look at the beneficiaries of the housing boom in other sectors. Cement is a direct play in housing. Developers use portable grade-53 cement in construction and beneficiaries are branded cement players, as this is not a fragmented industry. However, the benefits can vary from area to area, depending on the shortfall. Out of the total short-fall calculated by the TG-12 group, Uttar Pradesh constitutes the largest at 3.1mn units. With the centre and state government aligning with each other, major investment can flow towards housing in Uttar Pradesh, which until now was absent. Hence, north-based cement players could turn out to be key beneficiaries.

In affordable housing, other inputs such as tiles, ceramics, paints, wire & cable, and PVC pipes are dominated by unbranded players due to prevalent cost benefits. On the services side, lenders make term and property insurance mandatory (for homes loan) in order to protect their exposure. Hence, penetration of financial services should see a significant jump in the next five years.

The housing-for-all scheme has the potential to push up India's economy by 3.5% by 2022, with sectors supplying crucial inputs to the construction industry being the biggest beneficiaries

CONCLUSION

lobal economic activity is picking up with a long-awaited cyclical recovery in investment, manufacturing, and trade. According to IMF, world growth is likely to rise to 3.5% in 2017 and 3.6% in 2018 from 3.1% in 2016. India is also seeing a similar trend, but challenges remain, considering that private investment is absent. GST roll out can be disruptive in the short term. To add to India's challenges is rising social inequality, which is a bigger cause for worry among policy makers.

Housing, especially affordable housing, can address some of these challenges. It not only has a multiplier impact on GDP, but addresses a social cause by reducing inequality. Every additional rupee invested in the housing sector will add Rs 1.54 to the GDP, and with household expenditure considered, it would add Rs 2.84. The maximum housing shortfall is in the economically weaker section and low-income group. These segments utilise 30-40% of their household income on rent, leaving them with a small portion of savings. The government tries to act as an enabler to encourage home-ownership in these segments, which not only addresses a social cause, but also earns political goodwill.

As an enabler, the government is trying to raise the affordability of the borrower by

providing subsidy. The sudden improvement in affordability has translated into a surge in demand for affordable houses. Though the demand was always present, what lacked was supply. The policy has tried to address this through policy and fiscal benefits to builders. Developers have begun flocking into the affordable space because of untapped demand, policy and fiscal benefits, and lack of demand in normal housing.

Surge in demand for houses has created an opportunity for financiers. The overall housing-finance market has expanded due to increased affordability in the EWS and LIG segments; at the same time, the number of housing finance players in the system have also increased. This sudden increase has made rates competitive. However, some of their practices are not healthy for the sector. In order to ensure continued flow to affordable housing, lending practices need to be healthy enough for lenders to make positive IRRs.

Thrust on affordable housing is the need of the hour. It can provide a thrust to the economy by way of capital investment to the tune of ~Rs 1.00-1.25tn pa incrementally, generate 27-34mn jobs, and have a direct and indirect impact on other sectors – translating into ~1.5% of GDP.

Living the Indian LNG revolution An interview with Mr R K Garg

PhillipCapital's Oil & Gas analyst, Sabri Hazarika, caught up with LNG veteran Mr R K Garg who recently superannuated from Petronet LNG Ltd as Director Finance, after serving 16 years. He shared his memorable experiences as a core part of India's LNG revolution, and talked about what the future could hold for the company and the sector.

Q. Having worked in Steel Authority of India for almost two decades, what prompted you to consider Petronet LNG, which was totally uncharted territory for you and almost everyone involved back then?

A: It is true that compared to a well-established entity such as SAIL, Petronet would have been viewed as a start-up back then, in an industry that our country by and large had no experience in. To be honest, I applied without too much deliberation, and was not very sure about the future. Many people told me not to risk it, but I sought the opinions of seniors and industry veterans and received solid advice from the first chief of Petronet, Mr Suresh Mathur, who told me about Petronet's vision of becoming a leader in the promising gas industry. Since I was a finance and commercial person, technology was not an issue. Petronet was backed by strong oil and gas PSUs and the role was a much bigger one than what I was playing in an already large company, SAIL – therefore, I decided to give it a go.

Q. Can you tell us what challenges Petronet faced and how you were able to overcome them in the initial years?

A: Petronet was a totally new venture - so whatever we were doing was for the first time in our country. There were the usual challenges of signing gas-sales agreements with RasGas, off-take agreements with customers, and moving ahead with the Dahej project effectively. Imported LNG cost was almost double domestic APM gas back then, so there was a concern whether it could be marketed in India at all. Not only was the ability to efficiently operate an LNG terminal not a given, project financing was also impacted by issues at Enron who was developing the Dabhol LNG terminal. In fact, promoters were not willing to guarantee the funding. We were not able to finalise the equity too, as it was clear that Petronet would be a private entity and we were not able to get other stakeholders guickly. However, there was a strong desire to excel under these circumstances. Promoters, authorities, and other stakeholders provided a lot of support. We were able to rope in ADB financing, thanks to the pro-activeness of our then Director Finance, Mr Prosad Dasgupta, who later became the MD. GDF had also bought 10% stake in the company. Hence, one by one, we were able to overcome the many hurdles.

Q. Any particular moment or instance during that time, which really tested you and the company?

A: There were many major challenges, but an interesting one, I want to mention was about equity funding. We had a nominal share capital of Rs 3,600 which represented 60% stake of the promoters and GDF, while the remaining 40% was allotted in the name of four promoter group employees. When the Companies Act was amended in 2002 with a minimum Rs 5 lakhs (Rs 500,000) share capital, we could not take more than Rs 3 lakhs from the promoters and GDF, as that could make Petronet a PSU. So, their remaining amount was share money pending allotment. We still had to tie up Rs 2 lakhs. Ultimately, five senior Petronet employees were asked to contribute Rs 40,000 each, which we agreed to, despite being unsure of the company's future at the time.

Q. When did the company move on to a stronger footing in terms of project financing and equity capital?

A: We were able to tie up 65% of equity funding from the promoters, GDF and ADB but for the remaining 35% we decided we would go for an IPO. While the IPO posed its own challenges - merchant bankers not giving it more than Rs 12 a share versus our estimate of Rs 15; when it was launched, it received an overwhelming response with more than 7 lakh (700,000) investors subscribing and that too at Rs 15 per share. By that time, we were also able to tie up project financing fully besides signing off-take agreements with our promoters cum off-takers. The Dahej terminal was also getting ready. So by 2004, we had things falling into place.

Q. You mentioned LNG was a new concept and much more costly than domestic gas at the time. What made customers opt for it?

A: The boost actually came from customers using liquid fuels, as crude oil prices started rising from 2004-05. LNG became increasingly economical due to the cap-and-floor pricing mechanism and customers started coming in. Natural gas is an addictive fuel – once you get the benefits of low maintenance, uninterrupted supply, and cleaner surroundings, it is difficult to go back to liquid or solid fuels, unless economics turn out to be highly unfavourable. In fact, in 2005-06 itself we discussed expanding the Dahej terminal.

Q. Petronet has grown tremendously since its inception. From a market share of under 10% in 2004-05, it currently supplies over a third of India's gas requirements. Profits have risen almost secularly and the stock has delivered a solid 30% CAGR in this period. What made it click?

A: I believe a major factor has been the lean structure and management's autonomy which led to fast decision making. Despite having the petroleum secretary as the company's chairman, and large rival oil and gas PSUs as promoters, there were no bureaucratic or procedural hurdles. We had full independence. Petronet has only 450 employees even now across Delhi, Dahej, and Kochi. Secondly, the company consciously decided to lower its risk through contracts management. That's why there are back-to-back binding agreements with suppliers and off-takers, with no price or volume related risks. Our only focus was to run plants as optimally as possible, and we were able to do this. Today, Dahej is one of the largest re-gas terminals globally, with probably the highest utilisation levels.

Another thing was the presence in Gujarat. During the last decade, Gujarat has grown significantly in terms of industrialisation and was moving towards a gas based economy. Gujarat had very friendly policies coupled with fast approval processes and limited labour issues. This led to considerable growth in gas usage, which helped Petronet to clock higher sales.

Q. When you started out, did you think you would reach the heights that you did? As a finance person, did you and your team have any goals on shareholder returns?

A: To be honest, no. As I mentioned, it was such a nascent sector back then that Petronet's very survival was in question. We just moved ahead. In fact, we made a definite business plan in a structured way only in 2010-11. Until 2010, it was unchartered territory every day. In terms of financial goals, too, there were no definite profitability targets. Our mandate was to move the project forward and operate the terminal optimally. In terms of returns, we targeted 16% equity IRR.

Q. As you said, Dahej is a global leader in terms of LNG importing and regasification. However, the Kochi terminal has suffered very low utilisation levels, even after almost five years of commissioning. Was there a miscalculation in terms of demand, or too much reliance on third-party pipelines?

A: Kochi terminal was on the cards since 1999 when Petronet started out. From the very beginning, Petronet has targeted both northern and southern markets. In fact, the company signed 7.5mn tonnes with RasGas back then, out of which 2.5mn tonnes were to be imported into Kochi. While discussions on the gas-demand scenario in the south abounded, there was definitely a case for gas, especially from the power sector. In Kerala, due to environmental considerations, coal-based power was not supported. The Kayamkulam plant, which was supposed to be one of Kochi terminal's anchor customers, was to run on gas. Even in terms of pipelines there were no issues earlier. It was only later that local issues emerged driven by socio-political considerations and concerns about safety, especially after a major incident took place in another pipeline in the region. Work on the terminal and the pipeline had started simultaneously, and was to be ready by year 2013. However, due to escalation of tensions within the region, the pipeline could not be completed on time.

Q. What is the current status of the pipeline and when do you think Kochi will break even?

A: The Mangalore section of the pipeline is under active progress and is likely to be ready by the end of 2018. I believe that by that time, the terminal may clock almost 2mn tonnes of annual volumes, a level at which it is likely to breakeven in terms of profit before tax as Kochi terminal debts will also be repaid by then. Besides, discussions have also started on the Bangalore section through Tamil Nadu. Hence, there could be a positive outcome on that front too. Kochi terminal is a strategic asset and Petronet remains fully committed to it.

Q. You had a challenging time in 2015, when oil prices crashed and your five-year pricing formula for RasGas LNG made economics highly unfavourable, affecting your volumes and profitability. Why was the pricing formula changed at all, especially because it made Petronet and other parties susceptible to such risks?

A: Earlier, oil prices had risen steeply to more than USD 100 a barrel and some estimates predicted even further increases. We consciously decided to minimise such risks and bring an element of stickiness into our pricing – the reason we went for average pricing. Unfortunately, we, like many other industry players, could not predict the collapse of oil prices because of the shale-oil revolution, and had to suffer high LNG prices for some time. However, our supplier RasGas acknowledged our predicament and we were able to negotiate changes to the formula so that it was more in line with prevailing oil prices. The Indian government also provided us with immense support.

Q. You have come a long way from being a start up to becoming an important pillar of the Indian gas industry. Where does Petronet go from here? What is on the cards?

A: Presently, Petronet is looking at setting up LNG terminals in neighbouring countries such as Bangladesh and Sri Lanka, besides entering the LNG retail space in India – both opportunities are under discussion. Petronet is planning to market LNG as a retail fuel for trucks and other vehicles, though I believe it would probably take five to ten years to meaningfully contribute to the company's profitability. With policy support, growth in this can be accelerated. The company already has the Taral brand name for direct supply of LNG, and plans to use it for future retail endeavours.

Q. What is your view on the new terminals coming up in India? Do you think there is saturation, given incoming competition? What is the status of Gangavaram terminal?

A: The competition is coming in, especially in Gujarat where multiple terminals are expected to be commissioned. However, Dahej still stands on firm ground, as it will continue to be the cheapest in terms of tariff and with 17.5 mn tonnes of annual capacity tied up, including the Gorgon contract. I do not see any cause for concern so far. However, the Dahej terminal would probably peak at 20mn tonnes capacity, and taking it beyond this level in a single location may not be prudent. There is some caution on expanding in Gujarat due to the new terminals coming up. Plans in Gangavaram are currently on hold, considering a couple of new terminals coming up in the east coast too- Petronet is looking for capacity commitments for Gangavaram before moving ahead. However there are upsides in Kochi. The company is also open to joint ventures with other companies, and favours associations with other LNG terminals. Petronet has the cash as well as expertise, and I believe, is in a strong position to add value as a partner to new terminals.

Q. What about rise in domestic gas output? Reliance and ONGC plan to raise production by almost 15 mn tonnes of LNG equivalent per annum by the next decade. Lately also, LNG imports, as per government data have fallen from earlier peaks, which is attributed to higher gas from some domestic fields. Do you think the market may see a glut in which LNG terminals would be first impacted?

A: I believe that by that time, demand will pick up and absorb this incremental gas. Pipeline connectivity to the east is already underway, which can open up a big market. The power sector will also absorb some of this supply. As the southern market is relatively under-penetrated, there is demand scope from the south. There could be some negative impact on utilisation levels of new terminals. However, Dahej is fully tied up - off-takers will somehow manage to uplift their commitments and Kochi will see demand, at least from Mangalore. In the current supply situation, incremental gas, whether domestic or LNG, goes into the grid; so an imbalance affects other sources. I believe some supplies are being made to fertiliser plants, but over a period, the market will be balanced. As the off-takers have binding commitments and being market makers themselves, I do not see any concern on volumes.

Q. How would you rate the government support to your sector? Do you feel the need for more friendly policies?

A: The government is committed to further the usage of gas in India. It has already stated its desire to double the share of gas in India's primary energy basket to 15%. This is a significant number, but possible with right policies that include more investment in pipeline infrastructure, revival of fertiliser and power plants, and fiscal support including capital subsidy. A lot of this is already underway. However, revival of power plants is crucial for longer-term growth of the gas sector. The government may support this through purchase obligations of gas-based power, similar to renewables. Other than power and fertiliser, it is economics that will drive demand from sectors such as refineries, petrochemicals, city gas, and industries. I believe gas consumption in these sectors will keep growing with economic growth. Currently, global LNG prices have also been supportive of demand.

Q. Looking back, have there been any regrets?

A: There were setbacks, but over the years, the achievements have beaten expectations manifold, so I do not think of regrets but rather look more at the positives. I am an optimistic person and right from the beginning I have taken an affirmative view on Petronet and the LNG sector in India. We were able to develop a massive knowledge base and skill sets in LNG in India, and the country is now an important part of the global LNG industry. I remember, we used to get technical support from GDF initially, but later provided them our expertise in return. Even in shipping, we were able to bring skill sets from global players to our domestic operators. In this journey, every stakeholder has delivered.

Q. Any comments you would like to make to investors and shareholders?

A: In the last thirteen years, since Petronet's IPO, everyone has gained from its success. It is a long-term business, and though there will be short-term ups and downs, the company will do its best to deliver. Currently, Petronet is in a strong position and I believe, will be ready for future opportunities.

Q. What are your personal plans for the future?

A: I want to pass on my knowledge to others – with the first priority being to Petronet, of course. I have not made any definite plans, but am open to new challenges.

Indian Economy – Trend Indicators

Growth Rates (%) May-16 Jun-16 Jul-16 Aug-16 Sep-16 Oct-16 Nov-16 Dec-16 Jan-17 Feb-17 Mar-17 Jun-17 Apr-17 May-17 IIP 8.0 8.9 5.2 4.9 5.7 4.9 5.7 2.6 1.9 2.8 3.8 3.8 1.7 PMI 50.7 51.7 51.8 52.6 52.1 54.4 52.3 49.6 50.4 50.7 52.5 52.5 51.6 50.9 Core sector 7.1 5.2 7.0 3.1 3.1 5.3 3.2 5.6 3.4 0.6 5.3 2.8 3.6 WPI -0.9 1.4 4.3 3.9 2.1 0.9 -0.1 0.6 1.1 1.3 1.8 2.1 5.5 5.1 CPI 5.8 5.8 5.0 4.4 4.2 3.6 3.4 3.2 3.7 3.8 3.0 2.2 1.0 6.1 Money Supply 10.1 10.4 10.4 10.3 12.1 10.9 8.5 6.2 6.4 6.5 7.3 6.2 7.0 7.4 9.5 9.7 9.5 9.2 9.8 15.3 14.5 13.2 12.1 11.2 9.7 10.3 10.5 Deposit 11.3 9.8 9.4 9.7 11.2 8.5 4.7 4.7 4.6 4.4 4.7 3.9 4.7 5.6 Credit 9.6 5.7 Exports -0.8 1.3 -6.8 -0.3 4.6 9.6 2.3 4.3 17.5 27.6 19.8 8.3 4.4 Imports -13.2 -7.3 -19.0 -14.1 -2.5 8.1 10.4 0.5 10.7 21.8 45.3 49.1 33.1 19.0 Trade deficit (USD Bn) -6.3 -8.1 -7.8 -7.7 -8.3 -10.2 -13.0 -10.4 -9.8 -8.9 -10.4 -13.2 -13.8 -13.0 Net FDI (USD Bn) 1.4 3.3 3.6 4.4 4.6 2.4 4.5 2.7 3.8 0.6 1.8 3.4 1.1 FII (USD Bn) -1.6 -0.2 2.7 1.0 3.0 -1.8 -5.5 -4.0 -0.4 2.5 9.0 2.7 4.7 ECB (USD Bn) 1.3 1.1 1.2 3.2 2.5 1.8 0.5 2.8 1.8 2.2 3.3 1.7 1.1 Dollar-Rupee 67.3 67.5 67.0 67.0 66.6 66.8 68.4 67.9 67.9 66.7 64.9 64.2 64.5 64.6 FOREX Reserves (USD Bn) 360.2 360.8 365.5 372.0 367.2 365.3 360.3 361.6 362.8 370.0 372.7 378.8 386.5 366.8 NRI Deposits (USD Bn) 117.2 126.7 126.3 128.9 130.1 130.0 124.4 113.1 109.8 110.1 111.6 116.9 117.3

Monthly Economic Indicators

Quarterly Economic Indicators

Balance of Payment (USD Bn)	Q4FY15	Q1FY16	Q2FY16	Q3FY16	Q4FY16	Q1FY17	Q2FY17	Q3FY17	Q4FY17
Exports	70.8	68.0	67.6	64.9	65.8	66.6	67.4	68.8	77.4
Imports	102.5	102.2	104.7	98.9	90.6	90.5	93.1	102.0	107.1
Trade deficit	-31.7	-34.2	-37.2	-34.0	-24.8	-23.8	-25.6	-33.3	-29.7
Net Invisibles	30.2	28.0	28.6	26.9	24.4	23.5	22.2	25.3	26.3
CAD	-1.5	-6.1	-8.6	-7.1	-0.3	-0.3	-3.4	-8.0	-3.5
CAD (% of GDP)	0.3	1.2	1.7	1.3	0.1	0.0	0.0	1.4	0.6
Capital Account	30.7	18.6	8.1	10.9	3.5	7.1	12.8	6.1	10.4
ВоР	30.1	11.4	-0.9	4.1	3.3	7.0	8.5	-1.2	7.3

GDP and its Components (YoY, %)	Q4FY15	Q1FY16	Q2FY16	Q3FY16	Q4FY16	Q1FY17	Q2FY17	Q3FY17	Q4FY17
Agriculture & allied activities	-1.7	2.6	2.3	-2.1	1.5	2.5	4.1	6.9	5.2
Industry	6.9	7.1	9.2	12.0	11.9	9.0	6.5	7.2	5.5
Mining & Quarrying	10.1	11.2	12.2	11.7	10.5	-0.9	-1.3	1.9	6.4
Manufacturing	6.6	8.5	9.3	13.2	12.7	10.7	7.7	8.2	5.3
Electricity, Gas & Water Supply	4.4	2.5	5.7	4.0	7.6	10.3	5.1	7.4	6.1
Services	8.3	8.3	9.0	9.0	9.4	8.2	7.4	6.4	5.7
Construction	2.6	4.8	1.6	6.0	6.0	3.1	4.3	3.4	-3.7
Trade, Hotel, Transport and Communications	13.1	10.6	8.3	10.1	12.8	8.9	7.7	8.3	6.5
Finance, Insurance, Real Estate & Business Services	9.0	10.2	13.0	10.5	9.0	9.4	7.0	3.3	2.2
Community, Social & Personal Services	4.1	6.3	7.2	7.5	6.7	8.6	9.5	10.3	17.0
GDP at FC	6.2	7.8	8.2	7.3	8.7	7.6	6.8	6.7	5.6

Annual Economic Indicators and Forecasts

Indicators	Units	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16E	FY17E	FY18E
Real GDP/GVA growth	%	6.7	8.6	8.9	6.7	6.0	5.6	7.1	7.9	6.6	7.0
Agriculture	%	0.1	0.8	8.6	5.0	1.5	4.2	-0.2	0.7	4.9	6.5
Industry	%	4.1	10.2	8.3	6.7	5.0	4.5	6.5	10.2	7.0	6.4
Services	%	9.4	10.0	9.2	7.1	6.1	8.2	9.4	9.1	6.9	7.4
Real GDP	Rs Bn	41587	45161	49185	52475	85992	90844	97190	104905	111854	119694
Real GDP	US\$ Bn	908	953	1079	1096	1694	1581	1589	1603	1667	1841
Nominal GDP	Rs Bn	56301	64778	77841	87360	99466	112366	124451	136820	151837	167324
Nominal GDP	US\$ Bn	1229	1367	1707	1824	1828	1859	2035	2090	2264	2574
WPI (Average)	%	8.1	3.8	9.6	8.7	7.4	6.0	2.0	-2.5	3.7	2.5-3
CPI (Average)		9.0	12.4	10.4	8.3	10.2	9.5	6.4	4.9	4.5	2.5-3
Money Supply	%	20.5	19.2	16.2	15.8	13.6	13.5	12.0	10.3	7.3	9.5
CRR	%	5.00	5.75	6.00	4.75	4.00	4.00	4.0	4.0	4.0	4.0
Repo rate	%	5.00	5.00	6.75	8.50	7.50	8.00	7.50	6.75	6.25	5.75-6
Reverse repo rate	%	3.50	3.50	5.75	7.50	6.50	7.00	6.50	5.75	5.75	5.5-5.75
Bank Deposit growth	%	19.9	17.2	15.9	13.5	14.2	14.6	12.1	9.7	11.2	11.0
Bank Credit growth	%	17.5	16.9	21.5	17.0	14.1	13.5	12.5	10.7	4.7	7.0
Centre Fiscal Deficit	Rs Bn	3370	4140	3736	5160	5209	5245	5107	5328	5343	5465
Centre Fiscal Deficit	% of GDP	6.0	6.4	4.8	5.7	5.2	4.6	4.1	3.9	3.5	3.2
State Fiscal Deficit	% of GDP	2.4	2.9	2.1	1.9	2.0	2.2	2.6	3.6	3.0	3.5
Consolidted Fiscal Deficit	% of GDP	8.4	9.3	6.9	7.6	6.9	7.1	6.6	7.5	6.5	6.7
Exports	US\$ Bn	189.0	182.4	251.1	309.8	306.6	318.6	316.7	266.4	280.1	296.9
YoY Growth	%	13.7	-3.5	37.6	23.4	-1.0	3.9	-0.6	-15.9	5.2	6.0
Imports	US\$ Bn	308.5	300.6	381.1	499.5	502.2	466.2	460.9	396.4	392.6	443.6
YoY Growth	%	19.7	-2.5	26.7	31.1	0.5	-7.2	-1.1	-14.0	-1.0	13.0
Trade Balance	US\$ Bn	-119.5	-118.2	-129.9	-189.8	-195.6	-147.6	-144.2	-130.1	-112.4	-146.7
Net Invisibles	US\$ Bn	91.6	80.0	84.6	111.6	107.5	115.2	116.2	107.9	97.1	104.6
Current Account Deficit	US\$ Bn	-27.9	-38.2	-45.3	-78.2	-88.2	-32.4	-27.9	-22.2	-15.3	-42.1
CAD (% of GDP)	%	-2.3	-2.8	-2.6	-4.2	-4.7	-1.7	-1.4	-1.1	-0.7	-1.6
Capital Account Balance	US\$ Bn	7.8	51.6	62.0	67.8	89.3	48.8	90.0	41.1	36.5	66.4
Dollar-Rupee (Average)		45.8	47.4	45.6	47.9	54.4	60.5	61.2	65.5	67.0	64.5

Source: RBI, CSO, CGA, Ministry of Agriculture, Ministry of commerce, Bloomberg, PhillipCapital India Research

Summary
Valuation
Universe:
Coverage
India
Capital
Phillip(

		CMP	Mkt Cap	Net Sales	(Rs mn)	EBIDTA (F	(um s	PAT (Rs	(um	EPS (Rs)	8	5 Growth (%)	Ã	E (x)	P/B (x	-	ev/ebitda	(X)	ROE (%)		ROCE (%)	
Name of company	Sector	Rs	Rs bn	FY17E	FY18E	FY17E	FY18E	FY17E	FY18E	FY17E FY1	BE FY	17E FY18E	FY17E	FY18E	FY17E F	Y18E F	Y17E FY	/18E F	Y17E FY	18E FY	17E FY1	18E
Mahindra CIE	Automobiles	249	94,150	51,213	65,549	5,311	8,761	1,780	4,435	9	12	7.7 113.0	45.2	21.2	2.5	2.7	20.1	11.8	5.5	2.6	5.4 1	1.4
Ashok Leyland	Automobiles	84	238,769	196,201	221,827	22,025	24,091	15,739	13,488	9	2	41.6 -14.3	15.2	17.7	3.9	3.3	11.1	9.8	25.7	8.5	1.3 1	7.6
Ceat Ltd	Automobiles	1,691	68,409	57,810	69,397	6,815	8,623	3,618	4,802	89 1	18	21.0 32.7	19.0	14.3	2.9	2.5	10.5	8.2	15.3	7.3 `	15.2 1	7.2
Apollo Tyres	Automobiles	233	118,781	133,058	149,745	19,925	21,437	10,308	11,156	20	22	-1.4 8.2	11.5	10.6	1.7	1.5	6.9	6.3	14.5	3.7	0.9 1	0.5
Escorts Ltd	Automobiles	612	75,066	41,021	46,888	3,209	4,639	2,162	3,181	18	27 1(38.1 47.1	33.8	23.0	3.6	3.1	23.1	15.4	10.5	3.5	9.0 1	2.4
Bajaj Auto	Automobiles	2,893	837,139	213,736	240,876	44,224	46,878	38,277	41,416	132 1	43	4.8 8.2	21.9	20.2	4.9	4.3	18.9	17.7	22.5	1.3 2	24.7 2	1.5
Hero MotoCorp	Automobiles	3,298	658,670	281,695	321,711	46,348	55,656	33,771	40,793	169 2	04	7.8 20.8	19.5	16.1	6.5	5.4	14.3	11.9	33.4	3.2	33.7 3	3.8
Tata Motors	Automobiles	432	1,380,797	2,678,907	3,078,324	331,759	434,799	80,112	136,232	25	42	27.5 70.1	17.3	10.2	1.6	1.4	5.3	4.1	9.2	3.7	4.7	7.3
Maruti Suzuki	Automobiles	6,688	2,020,251	665,340	753,298	106,188	118,994	73,469	82,496	243 2	173	50.7 12.3	27.5	24.5	6.1	5.1	18.8	16.7	22.3 2	0.8	2.6 2	1.2
Mahindra & Mahindra	Automobiles	1,371	851,238	408,712	454,622	54,767	61,829	34,260	39,169	58	66	4.1 14.3	23.7	20.7	3.3	3.0	15.6	13.7	13.8	4.2 1	1.9 1	2.6
Bharat Forge	Automobiles	1,129	262,755	71,425	81,204	13,464	16,443	6,084	8,369	26	36	-7.1 37.6	43.2	31.4	6.7	5.8	20.6	16.7	15.4 `	8.5	1.8	4.8
Siemens	Capital Goods	1,381	514,950	108,089	115,924	9,731	13,305	6,056	8,518	17	24	4.6 40.6	81.2	57.7	7.5	7.1	49.3	35.7	9.2	2.2	8.2	9.8
ABB India	Capital Goods	1,321	333,131	86,484	102,531	7,467	10,242	3,583	5,355	17	25	19.5 49.5	78.1	52.3	8.5	7.8	43.8	31.9	10.9	4.9	9.2 1	2.8
Thermax	Capital Goods	1,031	123,327	44,831	49,046	4,330	4,871	2,969	3,310	25	28	5.2 11.5	41.4	37.1	4.8	4.4	28.3	24.9	11.7	1.9	2.1 1	2.9
Engineers India	Capital Goods	115	112,941	14,486	16,918	3,928	2,898	3,834	3,153	9	2	41.2 -17.8	20.2	24.6	2.8	2.7	22.9	29.9	13.8	1.1	2.9 1	2.4
Inox Wind	Capital Goods	418	44,794	46,885	51,662	7,025	7,765	4,191	4,578	19	21	-8.0 9.2	22.1	20.3	4.3	3.7	7.5	6.3	19.3	8.2	1.1 1	3.5
Cummins India	Capital Goods	955	295,481	49,581	55,909	8,018	9,398	7,346	8,679	27	31	-2.6 18.1	36.0	30.5	7.1	6.5	37.0	31.0	19.6	1.2	8.9 2	0.5
KEC International	Capital Goods	152	57,331	85,844	98,643	8,179	9,279	3,085	3,871	12	15	32.2 25.5	12.7	10.1	2.5	2.0	10.4	8.8	19.4	0.1	9.1 1	0.5
Larsen & Toubro	Capital Goods	1,173	1,636,211	1,100,110	1,236,553	110,747	130,855	59,198	67,902	63	73	14.5	18.5	16.1	2.2	2.0	22.8	19.7	11.8	2.4	5.4	5.5
VA Tech Wabag	Capital Goods	730	36,842	32,079	34,907	2,966	3,391	1,445	1,789	26	33	52.7 23.8	27.5	22.2	4.0	3.5	12.6	10.6	14.6	5.8	7.2 1	2.4
Crompton Greaves	Capital Goods	62	55,154	57,518	61,916	4,702	5,358	1,827	1,799	ę	ŝ	18.6 -1.6	21.2	21.5	0.9	0.9	12.7	10.7	4.4	4.4	3.6	3.6
Voltas	Capital Goods	307	143,769	60,328	71,129	5,791	7,396	5,079	5,811	15	18	41.8 14.4	20.0	17.5	3.1	2.7	24.5	19.2	15.4	5.5	1 19	6.2
BHEL	Capital Goods	279	435,550	282,222	315,416	17,749	21,346	10,294	14,977	4	6 -2,	45.1 45.5	66.3	45.6	2.1	2.0	18.7	15.3	3.2	4.5	2.9	3.6
CG Power & Ind	Capital Goods	62	55,154	57,518	61,916	4,702	5,358	1,827	1,799	3	e.	18.6 -1.6	21.2	21.5	0.9	0.9	12.7	10.7	4.4	4.4	3.6	3.6
GE T&D	Capital Goods	564	92,945	48,848	54,441	3,474	4,419	1,880	2,492	7	10 1(34.7 32.5	76.8	58.0	12.5	10.9	27.9	21.8	16.3	8.8	8.0 2	0.4

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		CMP	Mkt Cap	Net Sales	(Rs mn)	EBIDTA (F	(um s	PAT (Rs	(um	EPS (Rs)	EPS	Growth (%)	P/	E (x)	P/B ((x	ev/ebitd	(x) V(ROE (%)		ROCE (%)	_
Name of company	Sector	Rs	Rs bn	FY17E	FY18E	FY17E	FY18E	FY17E	FY18E	FY17E FY1	SE FY1	TE FY18E	FY17E	FY18E	FY17E	-Y18E	FY17E F	-Y18E	FY17E FY	18E FY	17E FY1	18E
JK Lakshmi Cement	Cement	502	59,106	29,216	35,758	3,697	5,350	808	1,542	7	13 24	6.5 90.9	73.2	38.3	4.1	3.8	21.1	14.1	5.7	10.0	7.0	8.6
JK Cement	Cement	1,032	72,144	39,694	43,854	6,741	8,331	2,272	3,012	32	43 25	8.4 32.6	31.8	24.0	4.0	3.6	14.4	11.4	12.7	15.1	7.9	9.1
Dalmia Bharat Ltd	Cement	2,385	212,183	74,044	88,437	19,019	24,976	3,448	6,608	39	74 8	0.5 91.6	61.4	32.1	5.1	4.4	14.1	10.3	8.2	13.7	7.5	9.4
HeidelbergCement	Cement	134	30,457	18,244	19,946	2,454	3,182	676	1,164	ę	5 7	4.9 72.2	45.0	26.2	3.2	2.9	15.1	11.0	7.1	10.9	6.6	8.6
OCL India	Cement	1,109	63,111	29,529	33,165	5,857	6,592	3,224	3,721	57	5555	7.5 15.4	19.6	17.0	3.8	3.3	10.3	8.6	19.5	19.3	17.5 2	0.6
India Cement	Cement	208	63,985	58,637	65,877	8,910	11,053	1,631	3,822	5	12 1	8.7 134.3	39.4	16.8	1.2	1.2	10.6	8.3	3.2	7.1	4.4	6.5
Ultratech Cement	Cement	4,376	1,201,329	253,749	338,001	52,124	71,792	27,149	32,513	99 1	18 1	8.7 19.8	44.2	36.9	4.9	4.4	22.8	19.1	11.1	11.9	9.2	9.2
Mangalam Cement	Cement	370	9,875	600'6	9,922	1,137	1,628	344	682	13	26 -26	7.9 98.6	28.7	14.5	1.8	1.7	12.6	8.3	6.4	11.7	6.3	8.9
Ambuja Cement	Cement	257	510,410	200,940	239,971	28,693	38,078	11,509	17,400	7	9 2	5.0 34.7	39.5	29.3	2.3	2.5	16.2	12.1	5.9	8.6	7.9	8.0
ACC	Cement	1,693	317,999	109,456	130,763	11,988	16,160	6,430	8,524	34	t5 -1	4.5 32.6	49.5	37.3	3.7	3.6	25.0	18.6	7.4	9.5	7.0	8.3
Shree Cement	Cement		684,961	84,292	100,942	23,672	29,401	13,367	15,868	384 4	55 12	0.4 18.7	51.2	43.2	9.9	8.4	28.2	22.4	19.2	19.5	18.0 1	9.4
KEI Industries	ELECTRICALS	231	18,002	26,312	30,113	2,743	3,238	2,463	2,930	32	38 1	3.5 19.0	7.3	6.1	3.8	3.1	0.6	7.5	52.0	50.0	23.7 2	3.8
Finolex Cables Ltd	ELECTRICALS	527	80,523	5,154	6,278	657	861	281	400	8	12 -1	2.3 42.6	64.3	45.1	7.9	6.9	124.2	95.0	12.2	15.3	12.9 1	4.3
VGuard Industries Ltd	ELECTRICALS	212	90,027	5,154	6,278	657	861	281	400	8	12 -1	2.3 42.6	25.9	18.2	3.2	2.8	138.7	106.0	12.2	15.3	12.9 1	4.3
Bajaj Electricals Ltd	ELECTRICALS	354	35,862	46,946	50,568	2,605	2,989	1,069	1,284	11	13 1	1.8 20.0	33.4	27.8	4.2	3.8	15.7	13.5	12.7	13.5	10.6 1	1
Havells India Ltd	ELECTRICALS	498	311,053	59,506	86,487	6,395	10,564	4,122	6,382	7	10 -1	9.6 54.8	75.4	48.7	9.5	8.6	45.9	29.7	12.6	17.7	12.2 1	6.5
Shriram Transport Fin	Financials	1,014	230,036	55,970	59,557	43,682	43,586	12,573	16,068	55	11	6.7 27.8	18.3	14.3	2.0	1.8	5.3	5.3	11.7	13.4	1.8	2.0
Chola Invest and Fin	Financials	1,088	170,002	25,095	30,640	15,417	18,778	7,487	9,427	48	50 3	1.7 25.9	22.7	18.0	3.9	3.3	11.0	9.1	18.8	19.9	2.5	2.6
Manappuram Finance	Financials	95	80,069	18,570	23,348	10,454	13,306	6,539	8,415	8	10 9	3.9 28.7	12.2	9.5	2.5	2.0	7.7	6.0	21.9	23.4	4.9	5.1
Mah & Mah Finance	Financials	332	188,773	32,302	38,176	18,552	22,912	4,625	8,735	8	15 -3	1.2 88.9	40.5	21.5	3.0	2.7	10.2	8.2	7.5	13.3	1.1	1.8
Shriram City Union Fin	Financials	2,090	137,840	28,474	33,582	16,675	19,758	6,286	7,725	95 1	17 1	8.6 22.9	21.9	17.8	2.8	2.4	8.3	7.0	13.2	14.5	2.8	2.9
Muthoot Finance	Financials	400	159,790	29,972	34,858	18,191	21,430	11,592	13,627	29	34 4	3.2 17.6	13.8	11.7	2.5	2.1	8.8	7.5	19.1	19.4	4.0	4.1
Union Bank	Financials	157	122,949	134,300	139,742	70,560	70,010	5,727	10,305	8	12 -6	0.4 53.8	20.2	13.1	0.5	0.5	1.7	1.8	2.7	4.5	0.1	0.2
Oriental Bank of Com	Financials	162	60,407	79,612	79,078	44,505	40,013	2,845	4,653	8	12 6	9.3 49.2	19.7	13.2	0.4	0.4	1.4	1.5	2.0	3.1	0.1	0.2
ICICI Bank	Financials	259	1,745,346	412,489	374,367	268,614	210,817	85,083	71,498	15	12 -1	2.7 -16.1	17.7	21.2	1.6	1.5	6.5	8.3	9.2	7.4	1.7	1.6

PhillipCapital India Coverage Universe: Valuation Summary

Summary
Valuation
Universe:
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		CMP	Mkt Cap	Net Sales	(Rs mn)	EBIDTA (I	Rs mn)	PAT (Rs	(um	EPS (Rs)	EPC	Growth (%)		/E (x)	P/B (x		EV/EBITD	(x)	ROE (%)		ROCE (%	
Name of company	Sector	ß	Rs bn	FY17E	FY18E	FY17E	FY18E	FY17E	FY18E	FY17E FY	18E FY	17E FY18E	FY171	FY18E	FY17E F	Y18E	FY17E F	Y18E	FY17E FV	18E FV	17E FY	18E
Repco Home Finance	Financials	678	47,853	4,038	5,068	3,326	4,163	1,802	2,354	29	37	20.0 29.8	23.6	5 18.1	3.8	3.2	14.4	11.5	17.4	19.2	2.0	2.1
State Bank of India	Financials	259	2,404,167	915,543	930,647	454,303	423,106	102,503	132,582	13	16	-0.6 27.8	20.3	3 15.9	1.3	1.2	5.3	5.7	6.7	8.0	0.4	0.5
Bank of Baroda	Financials	154	431,569	193,981	201,585	103,533	101,905	15,693	28,916	7	13 -1.	29.1 84.3	22.	7 12.3	0.9	0.9	4.2	4.2	4.3	7.5	0.2	0.4
Indian Bank	Financials	131	170,407	73,085	79,100	39,912	43,322	14,413	16,492	30	34 10	02.6 14.4	4.4	1 3.8	0.4	0.4	4.3	3.9	10.5	10.5	0.7	0.7
HDFC Bank	Financials	1,109	3,976,379	448,760	533,934	252,200	304,517	146,389	176,839	58	. 02	19.1 20.6	19.1	15.8	3.3	2.8			18.7	19.4	2.0	2.0
Indusind Bank	Financials	950	854,898	100,156	125,481	53,020	67,915	29,683	38,413	50	64	29.4 29.4	19.	14.8	2.8	2.4	16.1	12.6	15.7	17.5	2.0	2.1
HDFC Limited	Financials	1,304	2,461,876	115,002	126,802	106,625	117,385	73,588	81,113	47	51	3.7 10.2	28.() 25.4	5.4	4.8	23.1	21.0	20.4	20.1	2.5	2.4
LIC Housing Finance	Financials	492	348,344	38,395	41,105	32,208	33,989	19,217	20,805	38	41	15.7 8.3	12.5	11.9	2.3	2.0	10.8	10.2	19.4	18.0	1.4	1.3
Punjab National Bank	Financials	142	371,330	248,616	251,656	129,150	118,386	15,749	30,400	7	14 -1;	35.8 88.2	19.4	10.4	0.7	0.7	2.9	3.1	77.5 1	13.1	0.2	0.4
DCB Bank	Financials	133	59,132	10,486	12,403	4,146	4,814	2,076	2,458	7	œ	6.7 8.8	18.2	16.7	1.9	1.6	14.3	12.3	11.0	10.6	1.0	1.0
AXIS Bank	Financials	561	1,245,261	293,256	296,043	173,334	159,630	30,300	45,498	13	19 -(53.3 49.4	1 44.4	1 29.7	2.5	2.4	7.2	7.8	5.6	8.2	9.0	0.8
Canara Bank	Financials	253	221,744	172,544	185,946	86,732	91,806	14,816	24,569	26	41 -1	19.4 62.1	5'6	6.1	0.5	0.5	2.6	2.4	5.4	8.2	0.3	0.4
SKS Microfinance	Financials	760	104,866	11,525	15,045	5,948	7,642	6,420	6,671	47	48	95.5 2.9	16.5	15.8	0.0	0.0	17.6	13.7	30.9	21.5	7.5	5.6
Bharat Financial Incl	Financials	549	104,866	11,525	15,045	5,948	7,642	6,420	6,671	47	48	95.5 2.9	11.8	11.4	2.7	2.2	17.6	13.7	30.9	21.5	7.5	5.6
Colgate	FMCG	1,015	276,079	43,228	49,951	9,574	11,601	5,926	7,211	22	27	-2.5 21.7	46.6	38.3	21.5	17.1	28.5	23.3	46.1	44.6	51.4	19.7
Bajaj Corp	FMCG	380	56,035	8,709	9,631	2,632	2,896	2,350	2,566	16	17	0.5 9.2	23.8	3 21.8	12.2	12.6	21.0	19.2	51.0	57.9	46.9	56.6
Nestle	FMCG	6,965	671,502	91,594	106,521	17,959	22,155	10,740	13,600	111	141	15.6 26.6	62.1	5 49.4	22.4	19.6	37.3	29.8	35.9	39.7	31.8	42.2
Glaxo Smithkline Con	FMCG	5,324	223,923	37,739	40,677	8,335	9,228	6,567	7,333	156	174	-4.5 11.7	34.	30.5	8.1	7.3	23.1	20.4	23.9	23.8	25.4	25.2
ITC	FMCG	276	3,347,819	428,036	475,599	154,359	174,554	104,713	118,287	6	10	10.3 13.C	31.6	3 28.0	9.6	9.1	21.3	18.8	30.3	32.5	23.5	25.1
Godrej Consumer Pro	FMCG	1,919	653,664	92,428	103,416	19,134	21,453	13,198	14,912	39	44	15.4 13.0	49.5	43.8	11.3	9.4	35.0	30.8	22.8	21.5	17.1	17.8
Dabur India Ltd	FMCG	278	489,879	77,014	84,177	15,089	16,130	12,767	13,862	7	80	1.9 8.6	, 38.4	1 35.3	9.8	8.4	32.3	30.2	25.7	23.8	24.1	22.6
Britannia	FMCG	3,690	442,803	89,623	105,291	11,864	12,994	7,925	9,246	66	77	5.3 16.7	55.6	\$ 47.9	19.0	15.0	37.0	33.5	34.1	31.3	36.0	33.2
Apcotex Industries	FMCG	380	7,880	5,640	6,557	798	1,074	500	691	24	33	30.2 38.C	15.6	11.4	3.6	2.9	9.5	6.3	22.7	25.8	25.0	28.7
Emami	FMCG	1,108	251,378	25,297	28,637	7,563	8,540	5,465	6,354	24	28	2.7 16.3	46.(39.6	17.1	15.7	33.9	29.9	37.2	39.8	17.7	22.5
Jubilant Foodworks	FMCG	779	64,423	25,834	27,384	2,411	2,744	669	811	11	12 -:	27.8 15.9	, 91.4	1 78.8	7.8	7.1	26.4	22.3	8.6	9.0	9.9	9.0

		CMP	Mkt Cap	Net Sales	(Rs mn)	EBIDTA (F	ts mn)	PAT (Rs	mn)	EPS (Rs)	ĒP	Growth (%)	P	(x)	P/B ()	(x	EV/EBITL	(x) YC	ROE (%	(ROCE (%	()
Name of company	Sector	Rs	Rs bn	FY17E	FY18E	FY17E	FY18E	FY17E	FY18E	FY17E FY1	8E FY	17E FY18E	FY17E	FY18E	FY17E	FY18E	FY17E	FY18E	FY17E F	/18E F	(17E FY	18E
Asian Paints	FMCG	1,169	1,121,302	152,902	175,242	30,214	34,755	19,088	21,860	20	23	7.9 14.5	58.7	51.3	17.2	14.8	36.8	32.0	29.2	28.9	29.7	29.4
Agro Tech Foods	FMCG	512	12,477	8,043	8,613	609	746	247	404	10	17	5.6 63.4	50.5	30.9	3.5	3.2	21.2	17.1	6.9	10.5	6.7	8.6
Marico Industries	FMCG	309	398,498	59,180	67,572	11,593	12,793	7,986	8,999	9		12.2 12.7	49.9	44.3	16.0	13.6	34.0	30.4	32.0	30.6	29.8	28.9
Hindustan Unilever	FMCG	966	2,154,935	323,670	361,938	67,090	77,089	43,374	50,393	20	23	3.5 16.2	49.8	42.8	33.7	30.6	31.8	27.5	67.7	71.3	71.0	72.6
Parag Milk Foods	FMCG	255	21,449	16,455	19,114	1,666	2,058	746	980	6	12 5	7.6 31.4	28.8	21.9	2.9	2.6	13.4	10.8	10.2	11.8	13.5	12.6
Hindustan Constructior.	n Infrastructure	43	43,258	41,959	41,400	7,536	4,968	806	1,524	-	2 -1	9.4 89.0	53.7	28.4	1.6	1.5	11.3	13.0	3.6	5.5	7.9	6.4
NCC	Infrastructure	96	53,175	78,921	87,813	6,853	7,991	2,608	3,200	ъ	6	2.5 22.7	20.4	16.6	1.5	1.4	9.9	8.5	7.6	8.6	9.3	10.4
PNC Infratech Ltd	Infrastructure	160	41,072	16,891	19,425	2,210	2,564	2,103	1,742	œ	7	-9.9 -17.2	19.5	23.6	2.6	2.4	19.2	16.6	14.3	10.5	14.3	10.4
Adani Ports & SEZ	Infrastructure	352	729,907	84,394	100,576	54,147	64,808	37,334	35,135	18	17	10.5 -5.9	19.6	20.8	4.2	3.5	17.1	14.1	21.3	16.9	12.5	10.8
IRB Infrastructure	Infrastructure	261	91,553	58,459	59,209	30,483	29,180	7,155	8,624	20	25	2.0 20.5	12.8	10.6	1.7	1.5	6.8	7.0	13.6	13.9	3.7	4.1
Ashoka Buildcon	Infrastructure	210	39,329	29,794	34,029	8,930	10,033	-104	-422	- -	-2	0.1 306.5	-379.1	-93.2	2.3	2.4	9.5	8.3	-0.6	-2.6	5.5	6.1
ITD Cementation	Infrastructure	189	29,387	30,896	35,530	2,626	3,020	953	1,206	9	8	98.1 26.5	30.8	24.4	4.7	4.0	12.1	10.8	15.2	16.2	14.0	15.9
Ahluwalia Contracts	Infrastructure	388	25,991	14,265	16,120	1,730	2,055	860	1,121	13	17	1.9 30.3	30.2	23.2	5.1	4.4	14.8	12.5	18.5	20.3	17.8	19.6
KNR Construction	Infrastructure	205	28,827	15,411	17,722	2,296	2,570	1,681	1,637	12	12	4.4 -2.6	17.1	17.6	3.2	2.7	13.0	11.5	20.6	16.8	18.2	16.1
NIIT Technologies	IT Services	503	30,884	28,021	29,143	4,846	5,022	2,723	2,811	45	46	1.8 3.2	11.3	11.0	1.8	1.7	4.8	4.6	16.1	15.6	15.3	15.6
Mindtree Ltd	IT Services	509	85,449	52,364	54,142	6,953	6,804	4,186	4,493	25	26 -:	.4.3 4.5	20.4	19.5	3.3	3.1	12.1	12.4	16.2	15.7	16.9	16.7
Wipro	IT Services	505	1,227,064	550,402	552,304	116,986	115,593	84,895	87,680	18	18	-3.2 2.6	28.7	28.0	4.7	4.3	11.4	11.4	16.3	15.2	15.9	14.7
Persistent Systems	IT Services	585	46,784	28,784	30,232	4,654	4,797	3,129	3,208	39	40	5.2 2.5	15.0	14.6	2.5	2.2	9.7	9.5	16.5	15.2	15.6	15.0
KPIT Technologies	IT Services	129	25,556	33,234	34,555	3,486	3,344	2,125	2,046	11	11 -:	6.4 -3.7	11.7	12.1	1.6	1.4	7.2	7.3	13.4	11.7	14.0	10.5
Infosys Technologies	IT Services	948	2,176,470	684,850	714,249	186,050	192,624	143,830	147,401	63	64	6.6 2.5	15.1	14.7	3.1	3.1	9.6	9.3	20.9	21.0	21.8	21.1
HCL Technologies	IT Services	843	1,203,372	467,220	501,514	103,090	134,269	84,570	106,797	90	76 5	5.1 26.5	14.1	11.1	3.0	2.6	11.7	8.8	25.3	27.2	25.8	27.9
Tech Mahindra	IT Services	429	418,160	291,408	300,106	41,843	37,197	28,387	24,589	32	28	-7.5 -13.4	13.3	15.3	2.3	2.1	9.5	10.6	17.3	13.8	14.0	11.0
Tata Consultancy	IT Services	2,335	4,600,358	1,179,660	1,217,864	323,110	324,967	262,890	260,398	133 1	36	8.6 2.2	17.5	17.1	5.2	5.5	14.1	14.0	29.8	31.8	31.7	29.7
Navkar	Logistics	217	30,875	3,875	7,048	1,458	2,710	896	1,664	9	12 -	9.8 85.8	34.5	18.5	2.2	1.9	23.7	12.5	6.4	10.3	5.8	9.8
Gateway Distripacks	Logistics	257	27,900	10,902	12,342	2,411	3,262	1,081	1,782	10	16	-1.3 64.9	25.8	15.6	2.9	2.7	14.0	10.3	11.3	17.2	8.3	11.9

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		CMP	Mkt Cap	Net Sales	(Rs mn)	EBIDTA (F	(s mn)	PAT (Rs	(um	EPS (Rs)	EPS	Growth (%)	P	E (x)	P/B (x		V/EBITD/	(x) V	ROE (%)		30CE (%)
Name of company	Sector	ß	Rs bn	FY17E	FY18E	FY17E	FY18E	FY17E	FY18E	FY17E FY	18E FY	I7E FY18E	FY17E	FY18E	FY17E FN	/18E F	17E F	/18E	FY17E FY	8E FY	17E FY18
Allcargo Logistics	Logistics	185	46,625	56,674	61,740	4,788	5,943	2,248	3,007	6	12 -	9.2 33.7	20.7	15.5	2.7	2.4	10.6	8.6	13.0 1	5.3	9.3 12
Container Corp Of India	Logistics	1,200	292,461	54,668	60,835	10,442	11,715	7,322	8,136	38	42	-7.0 11.1	32.0	28.8	2.7	2.6	27.7	24.6	8.6	9.0	8.4 8
VRL Logistics Ltd	Logistics	330	30,110	18,031	18,945	2,182	2,477	705	919	œ	10	1.1 30.4	42.7	32.8	5.6	5.3	14.6	12.8	13.0	. 0.9	0.0 12
Ortel Communication	Media	108	3,273	2,533	3,025	844	1,084	125	88	4	ę	4.2 -29.9	26.1	37.2	2.2	2.0	6.0	4.6	8.3	5.5	8.5 8
HT Media	Media	83	19,423	24,521	26,025	2,984	3,449	1,703	2,063	7	6	1.4 21.1	11.4	9.4	0.9	0.8	8.4	6.4	7.5	8.1	7.9 8
Hindustan Media Vent	Media	285	20,917	9,333	10,021	2,055	2,332	1,936	2,145	26	29	8.3 10.8	10.8	9.8	1.8	1.5	10.8	8.6	16.5 1	5.6	9.2 17
DB Corp Limited	Media	380	69,793	22,435	24,602	6,422	7,192	3,730	4,325	20	24 2	5.1 16.0	18.7	16.1	4.3	3.8	10.4	9.1	22.8 2	3.5	:1.4 21
Dish TV	Media	67	103,236	30,144	31,694	9,729	9,954	1,538	1,614	-	2 -7	8.2 5.0	67.1	63.9	20.6	15.6	11.0	10.6	30.7 2	4.4	19.8 28
Zee Entertainment	Media	505	485,027	64,341	65,665	19,269	20,698	9,987	14,380	10	15 1	6.9 44.0	48.5	33.7	6.9	4.5	23.9	20.7	14.1	3.4	4.8 16
Jagran Prakashan	Media	196	64,173	22,936	24,808	6,347	7,171	3,713	4,327	12	14	3.1 16.5	16.8	14.4	3.3	2.8	10.3	8.6	19.4 1	9.5	6.1 15
Tata Steel	Metals	249	423,741	1,122,994	1,223,602	170,078	198,122	39,476	63,896	41	66 32	6.0 61.9	6.1	3.8	0.7	0.7	7.2	6.2	11.1	7.5	2.1 6
Hindalco Inds	Metals	106	418,713	1,001,838	1,045,917	124,474	139,152	17,943	34,365	œ	15 11	3.3 91.5	13.1	6.8	0.5	0.5	7.8	6.7	3.9	6.8	4.9 7
Vedanta Ltd	Metals	129	674,171	728,043	905,686	215,276	272,640	62,913	103,528	21	28 10	1.1 31.3	6.1	4.6	0.8	0.6	6.3	4.6	12.8 1	2.7	8.5 10
NALCO	Metals	36	131,149	72,858	87,824	8,915	16,701	5,205	10,309	m	ß	2.4 98.1	13.2	6.7	0.7	0.7	12.2	6.2	5.1	9.8	3.6 8
SAIL	Metals	58	251,523	444,524	511,379	380	44,805	-26,165	-4,909	9-	÷.	6.5 -81.2	-9.2	-48.8	0.7	0.7		15.7	-7.3	1.3	1.0 1
JSW Steel	Metals	81	469,787	568,768	621,910	134,465	135,750	47,395	45,762	20	19 24	.2.6 -3.4	4.1	4.3	0.9	0.7	6.6	6.6	20.9 1	7.0	0.8 9
Hindustan Zinc	Metals	156	1,072,175	172,674	212,335	96,656	128,835	82,298	110,986	19	26	0.4 34.9	8.0	6.0	1.5	1.3	8.1	5.4	19.3 2	2.3	9.4 22
PEBS	Midcap	149	5,104	5,154	6,278	657	861	281	400	8	12 -1	2.3 42.6	18.2	12.8	2.2	2.0	9.4	7.4	12.2 1	5.3	2.9 14
KDDL	Midcap	199	2,157	4,760	5,513	296	459	36	98	ę	ې و	1.7 170.6	59.6	22.0	2.1	1.9	11.2	7.2	3.5	8.4	4.8 7
Pennar Inds.	Midcap	50	5,969	15,320	19,035	1,777	2,278	488	749	4	6	1.4 53.3	12.2	8.0	1.1	1.0	4.8	3.8	8.9	2.4	2.9 15
Praj Inds.	Midcap	86	15,392	9,089	11,264	637	1,431	409	67	2	2 -7	0.2 136.4	37.2	15.7	2.4	2.3	23.3	10.5	6.5 1	4.5	6.1 14
Sintex Industries	Midcap	115	63,491	83,702	99,494	14,455	17,540	5,209	6,706	10	13	0.0 28.7	11.6	9.0	0.9	0.9	8.7	7.4	8.1	9.5	5.4 5
Indo Count Industries	Midcap	205	40,447	22,643	25,158	4,568	5,138	2,651	3,005	13	15	0.2 13.4	15.3	13.5	4.5	3.5	9.2	8.0	29.6 2	5.9	4.7 23
Gulf Oil Lubricants	Oil & Gas	772	38,309	11,286	12,981	1,804	2,223	1,211	1,491	24	30	0.5 23.1	31.6	25.7	10.8	8.7	20.6	16.8	34.2 3	3.9	6.4 27
Castrol India	Oil & Gas	443	219,313	36,135	39,952	10,523	11,988	7,128	8,098	14	16	7.6 13.6	30.8	27.1	32.8	29.2	20.0	17.5	106.6 10	7.9 13	4.9 128
Gujarat State Petronet	Oil & Gas	177	99,868	10,276	10,898	8,883	9,398	4,966	5,210	6	9	1.5 4.9	20.1	19.2	2.2	2.0	11.2	10.4	11.0	0.7	9.4 9

		CMP	Mkt Cap	Net Sales	(Rs mn)	EBIDTA (F	ls mn)	PAT (Rs	(um	EPS (Rs)	EPS	Growth (%)	P/ł	(x)	P/B (x) E	V/EBITDA	(x)	ROE (%)	-	ROCE (%)	~
Name of company	Sector	Rs	Rs bn	FY17E	FY18E	FY17E	FY18E	FY17E	FY18E	FY17E FY1	8E FY1	7E FY18E	FY17E	FY18E	FY17E FI	Y18E F.	Y17E FY	18E F	rite fy	18E FY ⁻	I7E FY1	18E
Petronet LNG	Oil & Gas	436	326,888	246,160	270,164	26,798	31,067	17,057	20,665	23	28 55	9.7 21.2	19.2	15.8	4.0	3.4	12.7	9.7	21.1 2	1.6 1	5.9 1	7.5
GUJARAT GAS LTD	Oil & Gas	779	107,203	50,926	55,979	7,433	10,526	2,195	4,443	16	32 -(5.2 102.4	48.8	24.1	6.5	5.4	17.4 1	12.2	13.3 2	2.4	6.3	9.6
GUJARAT GAS LTD	Oil & Gas	779	107,203	50,926	55,979	7,433	10,526	2,195	4,443	16	32 -(5.2 102.4	48.8	24.1	6.5	5.4	17.4 1	12.2	13.3 2	2.4	6.3	9.6
Indraprastha Gas	Oil & Gas	1,025	143,500	38,148	36,666	9,638	10,795	5,711	6,563	41	47 3.	1.9 14.9	25.1	21.9	4.9	4.2	14.3	12.5	19.5 1	9.4 1	7.0 1	7.0
Reliance Industries	Oil & Gas	1,346	4,375,969	3,053,820	3,849,646	461,940	539,003	298,330	239,810	101	81 17	7.5 -19.7	13.3	16.6	1.5	1.4	13.7 1	12.6	11.3	8.4	7.1	5.8
Divi's Laboratories	Pharma	637	169,170	41,063	41,444	14,857	13,791	11,001	9,584	41	36	1.2 -12.9	15.4	17.7	3.4	3.0	11.3	12.4	21.1	6.9		
Aurobindo Pharma	Pharma	613	359,146	150,899	170,649	34,893	39,590	22,914	24,931	39	43 12	2.3 8.8	15.6	14.3	3.9	3.2	11.1	9.6	25.4 2	2.2 2	3.1 2	1.5
Glenmark Pharma	Pharma	874	246,474	89,704	95,972	21,752	23,124	13,139	14,175	47	50 42	2.8 7.9	18.8	17.4	4.8	3.8	12.8 1	1.7	25.7 2	1.9 1	8.3 1	6.3
Lupin	Pharma	1,261	569,512	171,198	180,925	48,620	49,000	28,994	29,851	64	66 3.	1.9 3.0	19.6	19.0	4.3	3.6	12.8 1	2.2	19.3 1	8.9		•
Sun Pharma	Pharma	643	1,542,946	302,642	300,806	100,893	96,649	69,644	62,174	29	26 2(.3 -10.7	22.2	24.8	4.2	3.7	14.1 1	4.4	19.0	4.9 1	5.4 1	2.8
Dr Reddy's Labs.	Pharma	2,598	430,426	140,809	152,347	25,220	34,278	12,039	18,964	71 1	11 -4().4 57.5	36.8	23.3	3.6	3.2	18.9 1	3.5	9.7 1	3.6	5.8	8.6
Cadila Healthcare	Pharma	479	490,373	94,156	121,792	19,086	29,126	14,485	21,053	14	21 -	9.1	33.9	23.3	7.5	5.9	26.7 1	17.3	22.2 2	1 1	6.1 1	8.9
Ipca Laboratories	Pharma	550	69,331	32,106	35,868	4,274	5,882	1,855	3,121	15	25 3(5.1 68.3	37.1	22.0	2.8	2.5	17.1	12.2	7.5 1	1.2	6.3	9.3
Cipla Ltd	Pharma	559	450,083	14,630	16,270	3,646	4,149	1,303	1,561	16	19 -16	5.8 19.8	34.5	28.8	3.5	3.2	124.6 10	9.3	17.4 2	0.4		
Biocon	Pharma	1,030	205,990	38,763	46,678	9,795	10,325	6,121	5,299	31	26 35	5.8 -13.4	33.7	38.9	4.6	4.5	21.9 2	21.0	13.2 1	1.0	1.5	0.2
Titan Company	Retail	473	419,523	129,787	148,471	11,554	14,598	7,711	9,847	6	11 17	t.3 27.7	54.4	42.6	10.1	8.7	36.2 2	28.4	20.2 2	1.9 1	8.7 2	2.3
Meghmani Organics	Spec Chem	41	10,452	15,463	17,028	2,888	3,355	915	1,115	4	4 1.	1.0 21.8	11.4	9.4	1.4	1.3	5.1	4.3	12.6 1	3.4 1	0.9 1	2.2
Camlin Fine Sciences	Spec Chem	60	9,355	5,339	7,425	386	1,040	-113	459	÷	4 -125	5.9 -506.4	-82.8	20.4	4.4	3.7	31.1 1	12.0	-3.6	9.6		
Aarti Industries	Spec Chem	862	70,792	31,635	36,851	6,535	7,628	3,158	3,808	38	46 22	2.9 20.6	22.4	18.6	5.4	4.2	13.0 1	11.3	25.0 2	3.7		
SRF Ltd	Spec Chem	1,778	102,065	51,366	58,078	9,694	11,267	4,874	5,008	85	87 10	1.7 2.7	20.9	20.4	3.3	2.9	12.7 1	11.2	16.6 1	4.1	0.0	9.3
Vinati Organics	Spec Chem	850	43,852	7,069	8,510	2,192	2,649	1,393	1,708	27	33 45	5.1 22.6	31.5	25.7	6.7	5.5	19.9 1	17.2	21.3 2	1.3		•
Atul Ltd	Spec Chem	2,476	73,448	29,961	33,444	5,095	5,886	3,234	3,624	109 1	22 20	0.0 12.1	22.7	20.3	4.7	3.9	14.4 1	12.1	20.4 1	8.9		1
Bharti Infratel	Telecom	366	677,604	84,327	93,542	59,420	66,639	27,470	30,998	15	17 18	3.3 12.7	24.7	21.9	4.4	4.7	10.7	9.4	17.8 2	1.4 1	1.1 1	5.7
Bharti Airtel	Telecom	356	1,424,074	955,147	914,244	353,763	318,695	53,448	39,100	13	10 34	5.9 -26.8	26.7	36.4	2.0	1.9	7.4	8.2	7.7	5.3	5.7	4.9
Tata Communications	Telecom	656	186,960	176,197	188,796	24,059	28,498	2,944	4,408	10	15 -1(.9 49.8	63.5	42.4	28.3	19.7	11.0	9.2	44.6 4	+6.4 -1	7.1	4.7
ldea Cellular	Telecom	88	315,869	355,758	354,798	102,763	91,930	-3,997	-21,571	<u>.</u>	-6 -112	1.6 439.7	-78.9	-14.6	1.3	1.4	7.3	9.0	-1.6	9.4	3.0	0.8

PhillipCapital India Coverage Universe: Valuation Summary

Source: PhillipCapital India Research Estimates

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