ANANDRATHI

India I Equities

Infrastructure

Thematic Report

7 December 2015

India Roads

No alternative to roads

Sensex: 26169

Nifty: 7955

Prem Khurana
Research Analyst
+91-22- 6626 6470
premkhurana@rathi.com

Lokesh Pareek
Research Analyst
+91-22- 6626 6615
lokeshpareek@rathi.com

India Roads

No alternative to roads

7 December 2015

India Roads

Sensex: 26169

Nifty: 7955

No alternative to roads

After two dismal years, the road sector is now gaining momentum. We believe that the efforts by the government are translating into visible signs of the sector making a comeback and are confident of its long-term potential. This is one sector you cannot ignore seeing that it constitutes a $1trn opportunity over the next 20 years. And the corrective measures instituted by the government are bearing fruit.

Too crucial to ignore. Because roads carry over 80% of passengers and account for almost 60% of freight, no elected government can neglect to ensure road augmentation at the earliest. The past gap, coupled with estimated immense traffic growth, we believe, renders road augmentation a burning necessity.

Clear opportunities in sight. An interlinked road network is critical to any economy, and the measures to make poor road networks far better would translate into a $1trn opportunity over the XII to XV Five-Year Plans. Of this, BOT opportunities are likely to be ~15%; for National Highways the figure would be ~30%.

Corrective measures. No effort is being spared by the Road Transport Ministry, in consultation with stakeholders, in identifying and addressing sector-specific structural issues. Measures seem to have already begun yielding results.

Financing. Project financing is not a challenge as funding (equity + debt) is still accessible for BOT operators with proven execution records and quality portfolios.

Top picks. Of the five companies that we initiate coverage on with this report, Ashoka Buildcon (Buy, TP: ₹228) is our top pick. Besides Ashoka, we also initiate coverage on IRB Infrastructure (Buy, TP: ₹303), MEP Infra (Buy, TP: ₹60), Sadbhav Engineering (Hold, TP: ₹403) and Sadbhav Infrastructure (Hold, TP: ₹111).

Prem Khurana
Research Analyst
+91-22- 6626 6470
premkhurana@rathi.com

Lokesh Pareek
Research Analyst
+91-22- 6626 6615
lokeshpareek@rathi.com

Key Data		M Cap	Price *	TP	Upside	P/BV (x)		RoCE (%)		RoE (%)		Net debt/equity (x)	
	Reco	(₹ bn)	(₹)	(₹)	(%)	FY16e	FY17e	FY16e	FY17e	FY16e	FY17e	FY16e	FY17e
Ashoka Buildcon	Buy	35.3	189	228	20.8	1.9	1.8	9.2	8.8	4.9	4.3	1.7	2.0
IRB Infrastructure	Buy	87.9	250	303	21.0	1.8	1.7	10.4	11.3	13.5	11.7	2.6	2.9
MEP Infrastructure	Buy	7.9	49	60	22.4	8.0	5.1	14.2	14.9	na	46.6	28.1	17.0
Sadbhav Engineering	Hold	61.0	355	403	13.5	4.1	3.6	14.2	15.8	12.1	13.3	0.6	0.5
Sadbhav Infrastructure	Hold	35.6	101	111	9.8	2.8	2.9	3.8	5.2	(27.8)	(25.7)	6.5	6.8

*Source : Company, Anand Rathi Research   * on 1st Dec'15*

Roads – Too crucial to ignore

- **A need to upgrade the qualitatively-deficient existing road network and an anticipated surge in traffic are likely to keep activity buoyant in road-infrastructure development.**
- **In FY13, ~24% of national highways and ~3% of state highways had four or more lanes, leaving scope enough for augmentation.**
- **Estimates suggest that freight traffic is set for ~8% CAGR over FY12-32; even better growth, at 15%-a-year over the same period is envisaged for passenger traffic.**

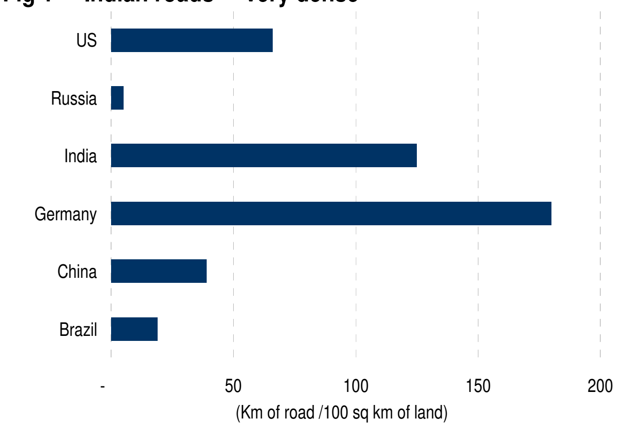
"It is not wealth that built the roads, but roads that built our wealth"

– John F Kennedy

In India, roads carry over 80% of passengers, ~60% of freight

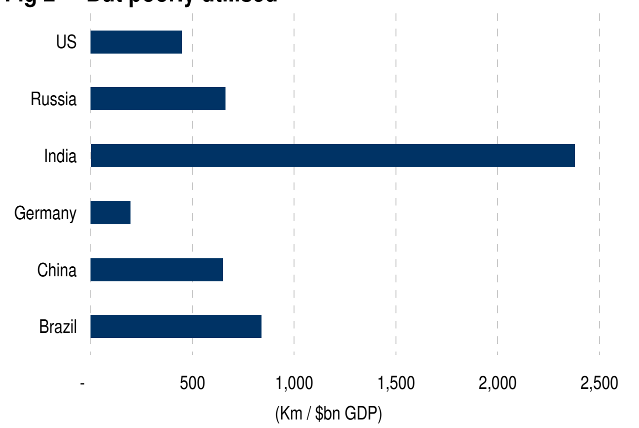
There can be no better words to emphasize the benefits that a good road network can make to any economy. Although India boasts of the second-largest road network in the world, Indian roads, as commonly known, are not only capacity-constrained but also slow, unsafe and patchily administered. Additionally, as they carry over 80% of passengers and almost 60% of freight, no elected government can avoid ensuring that road quality is augmented at the earliest. This, we believe, would keep activity in the road sector buoyant.

Fig 1 – Indian roads – very dense



Source: International Road Federation, World Road Statistics, 2011

Fig 2 – But poorly utilised



Source: International Road Federation, World Road Statistics, 2011

Why we favour the road sector

Transport by road is vital for rapid industrial and socio-economic development. A good road network possesses the potential to accelerate the process through connectivity and of opening up backward regions to trade and investment. Roads also play a key role in inter-modal transport development, establishing links with airports, railway stations and ports. Additionally, roadways, as a mode of transport, stand out for being the only means of last-mile connectivity.

Nevertheless, despite their importance to the national economy, the road network in India is grossly inadequate in various respects. A large part of the present network is capacity constrained, slow and unsafe, offers poor riding quality and is patchily administered. We feel these shortcomings in India throw up compelling opportunities for construction companies and road-asset owners in road development.

Freight traffic estimated to register a ~8% CAGR over FY12-32; for passenger traffic this is even higher at ~15%-a-year

- **Impending growth in traffic necessitates road development:** Since independence, both passenger and freight traffic have grown immensely. However, the surfaced road network has failed to keep pace with the mounting traffic. An increase in the number of roads and augmenting the quality of those already being used, therefore, is necessary to bridge this gap. Additionally, with an estimated 8% CAGR in freight traffic and an even better, 15%-a-year, anticipated traffic growth in passengers over FY12-32, road augmentation is likely to be at the top of the agenda.

Fig 3 – Traffic growth to drive road augmentation

Years	Traffic	
	Freight (bn tons/km)	Passenger (bn persons/km)
2011-12	1,385	9,329
2016-17	1,987	17,272
2021-22	2,949	35,043
2026-27	4,321	74,079
2031-32	6,559	163,109

Source: Government documents

Against an average of more than nine bidders per project in FY12, recent bids (except one) have not attracted more than five

- **Competitive intensity, off-peak:** Two years of sluggish economic activity (and the consequent hardship) seem to have led to the realisation among the most opportunistic Engineering, Procurement and Construction (EPC) operators that the Build, Operate and Transfer (BOT) business requires a different mindset and skill-sets, far more than mere execution capabilities. This realisation is now trimming the competition, evident from the fewer pre-qualified operators for FY16. Not only have we seen a curtailment in pre-qualifications, the response to recent bids, especially for BOT projects, have come only from serious operators. This, in effect, means that serious operators are bound to benefit from the prospective upswing in awarding contracts. (refer Annexure 2)

Fig 4 – Competitive intensity in FY12

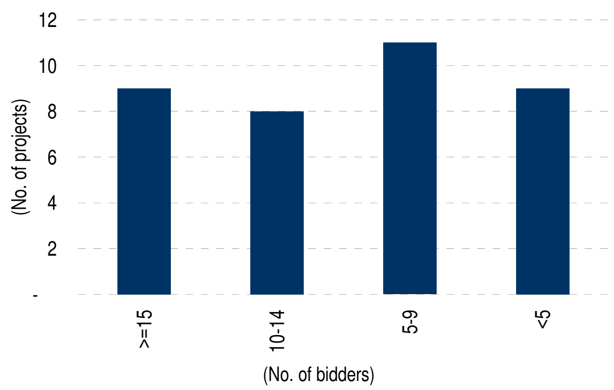
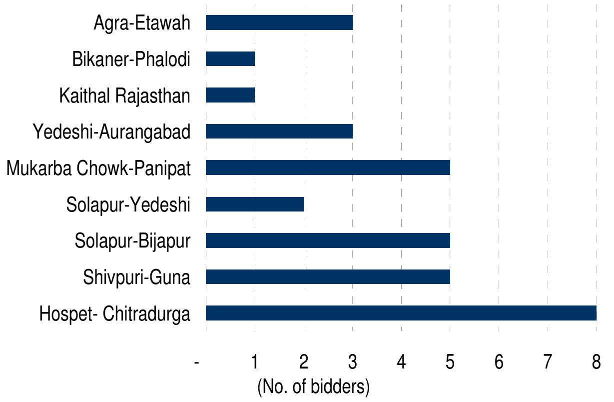


Fig 5 – Only serious operators left in the game



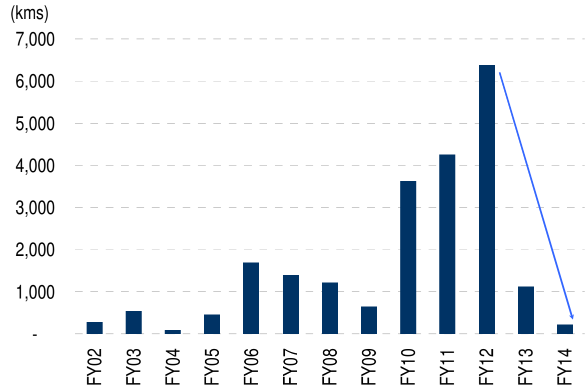
Source: Industry, NHAI

- **Structural issues being put to rest:** Over FY12-14, work on roads suffered because of the government's over-reliance on the private sector to fund the augmentation of the road network, aggressive bidding by road developers to build order books, delay in receipt of approvals, land acquisition issues and the banking sector's aversion to lend to the sector. Efforts are underway to address these issues, but fixes seem to be taking some time. We appreciate the fact that most of the measures announced in the recent past are not quick fixes and are likely to ensure that the structural issues plaguing the sector are eliminated. As evident from the performance of the present regime in the first 100 days, it seems committed to reviving stalled projects and re-structure cancelled ones.

Budgetary allocation for FY16 increased to ~₹826bn; from ~₹351bn for FY15

- **Higher budgetary allocation – indicative of more EPC awards but BOT pipeline more than suffices:** The public-private participation (PPP) mode worked well as long as capital markets were conducive; however, the years following FY12 led to the realisation that a balanced approach (a healthy mix of PPP and EPC, against over-reliance on PPP) would work best. Many feel that, over FY11-14, the government over-did it by relying solely on the private sector to fund its ambitious development plan. And, during FY10-12, since roads appeared to be the only sector with good business prospects, it was natural for developers to search out growth opportunities there. This raised the tempo of competition, and bidding shot through the roof, hitting irrational levels. Such aggressive bids, along with the unexpected economic slowdown and delay in receipt of approvals/right of way, led to most operators in the sector struggling. Consequently, demand for PPP projects fell steeply. In fact, a number of terminations (refer Annexure 3 for a list of terminated projects) arose for a variety of reasons.

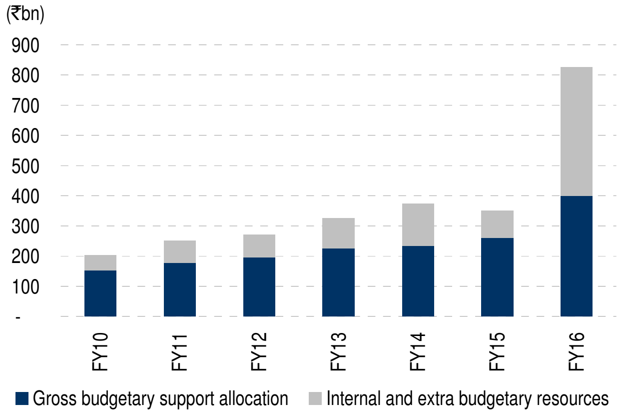
Fig 6 – Awards on PPP basis in FY14 touched a 10-year low

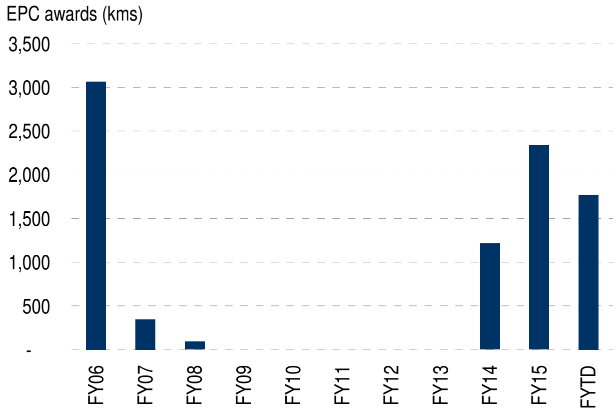


Source: NHAI

Having realized that the appetite for PPP projects was unlikely to be very great (due to strained balance sheets and the then issues) and that EPC was the way forward until demand for BOTs was revived in a huge way, the government increased the gross budgetary support to the sector for FY16, by more than 50%, to ~₹399bn (from ~₹261bn in FY15). Additionally, limits for internal and extra-budgetary resources have been substantially increased, from ~₹90bn in FY15 to ~₹427bn in FY16.

Fig 7 – Budgetary allocation increased on targeted higher awards on EPC basis



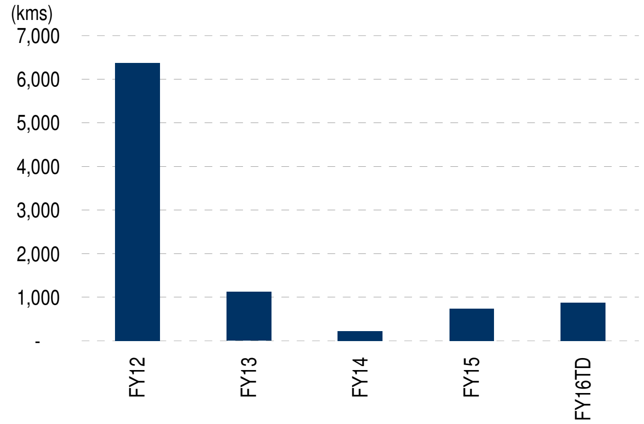


Source: International Road Federation, World Road Statistics, 2011

Expect 2,000-2,500km of new awards to come on a BOT basis

Although EPC is likely to rule the roost for a while now, we believe that there are more than adequate opportunities for BOT operators to capture a piece of the pie. We believe that balance sheets of serious operators seem good enough to support 2,000-2,500km of road awards on a BOT basis. Signs of recovery are already evident.

Fig 8 – PPP awards increasing gradually



Source: NHAI

Clear opportunities in place

- **Efforts to upgrade the patchily-administered and capacity-constrained road network into an efficient one are estimated to require ~$1trn over FY12-32.**
- **We see the private sector contributing ~15% overall, whereas the figure is expected at ~30% for investments required to augment national highways.**

Estimates say that, of the ~5.3m km of roads not more than 60% has been surfaced till now. Additionally, even of the surfaced roads, long stretches are either of a single lane or two. As a good road network is key to economic development, we see the authorities concerned going all out to ensure that a sound road network is developed and/or augmented at the earliest. Efforts to upgrade the patchily-administered and capacity-constrained road network into an efficient one would mean an estimated business opportunity of ~$1trn over FY12-32 (~₹45trn based on 2011-12 prices). Private-sector participation is likely to come at ~15% overall; for national highways, this is expected at ~30%.

Overall opportunity estimated at ~$1trn, with private sector participation likely at ~30% for NHs and ~15% overall

Fig 9 – Opportunities galore*

₹ trn	2012-17	2017-22	2022-27	2027-32	2012-32	
	Total	Total	Total	Total	Total	Private
Expressways	0.2	0.6	1.2	1.8	3.8	1.4
National highways	2.2	3.2	4.2	5.7	15.2	4.0
SARDP – NE	0.3	0.4	0.5	0.6	1.8	0.1
Other special schemes	0.1	0.2	0.2	0.2	0.7	-
State highways	2.1	2.7	3.2	3.6	11.6	1.2
Major district roads	1.0	1.3	1.6	2.1	6.0	-
Rural roads	1.5	1.9	1.3	1.1	5.7	-
Total	**7.3**	**10.2**	**12.2**	**15.1**	**44.7**	**6.7**

*Source: Government documents; * Based on 2011-12 prices*

National highways to lead: Without undermining the importance of state highways and other roads, we see national highways and expressways to be choice opportunities for benefits of size and scale. We see activity gaining traction even for state roads and other projects, but we see these to be largely taken up on an EPC basis.

Fig 10 – National highways – small, but critical to the economy

Road network	Length (km)	Percentage of total		Connectivity to
		Length	Traffic	
National highways	100,087	1.9	40.0	Union capital, state capitals, major ports and adjacent-country connectivity
Others	5,162,914	98.1	60.0	All, except those mentioned above
Total	**5,263,001**	**100.0**	**100.0**	

Source: Government, Industry

Fig 11 – Identified bid-pipeline for the next 45 days

			EPC		BOT-Toll		BOT-Hybrid	
States	Length (km)	Value (₹ bn)	Length (km)	Value (₹ bn)	Length (km)	Value (₹ bn)	Length (km)	Value (₹ bn)
West Bengal	133	23	133	23	-	-	-	-
Uttar Pradesh	268	34	207	27	-	-	61	7
Himachal Pradesh	60	7	37	2	-	-	23	5
Gujarat	16	3	16	3	-	-	-	-
Punjab	-	-	-	-	-	-	-	-
Odisha	193	23	81	9	112	15	-	-
Karnataka	221	29	221	29	-	-	-	-
Bihar	174	29	105	19	69	10	-	-
Chhattisgarh	-	-	-	-	-	-	-	-
Delhi / Uttar Pradesh	64	34	-	-	-	-	64	34
Maharashtra / Chhattisgarh	-	-	-	-	-	-	-	-
Uttarakhand/ Uttar Pradesh	175	23	175	23	-	-	-	-
Maharashtra	152	22	2	2	150	20	-	-
Jharkhand	222	36	72	8	151	28	-	-
Andhra Pradesh	4	1	4	1	-	-	-	-
Total	**1,684**	**265**	**1,054**	**146**	**482**	**72**	**148**	**46**

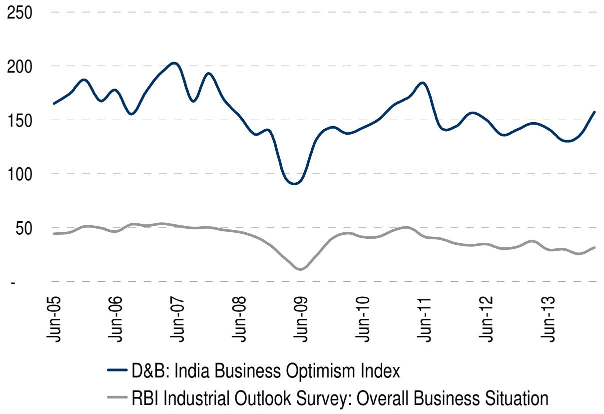
Source: NHAI

What has ailed the sector for two years?

All through FY12 the roads sector proved to be encouraging. The most new projects were awarded and the length of national highways completed increased ~21% yoy. The two years that followed, however, turned out to be very disappointing. Many projects awarded during FY13 could not be taken up for a variety of reasons (detailed below) and project termination became the order of the day. At the same time, new project awards plummeted. A number of issues plagued the sector, but over-aggression in bidding for projects seemed the most critical of them all.

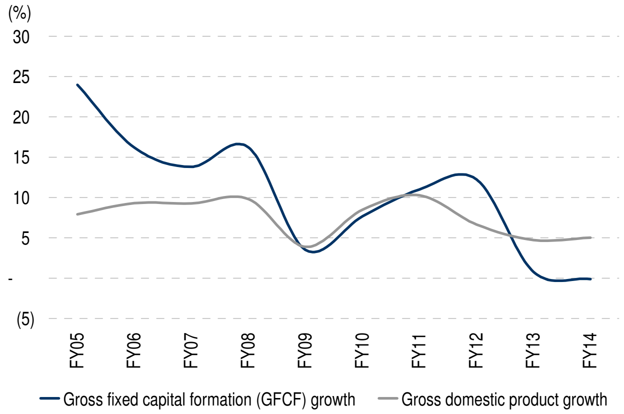
- **High degree of competition = irrational bidding:** Intense competition, over-exuberance and the fact that roads appeared to be the only infrastructure segment in FY11-12 flush with opportunity, led to financial bidding turning irrational.
- **Economic slowdown:** In the sluggish economic environment in the years that followed FY12 most realised that the assumptions while bidding did not hold true anymore; therefore, projects could very well turn out to be cash-burns.
  - As traffic growth has close co-relation with economic growth, traffic assumptions went for a toss for most projects, if not all.
  - Additionally, the sluggish economic environment meant capital (debt and equity) to fund projects was not as easily accessible as believed at the time of bidding.

Fig 12 – Sentiment turned weak; gradually improving



Source: RBI, D&B

Fig 13 – GDP and GFCF also subdued



Note: As per old series
Source: Government data

- **Inordinate delays in land acquisition, clearances:** In a bid to deliver on annual physical targets regarding awards and completions, the National Highways Authority of India (NHAI) also went overboard and awarded projects with limited right-of-way in place or even without proper clearances. Inordinate delays in land acquisition and in receipt of clearances meant that projects failed to take off within stipulated timelines, resulting in cost over-runs (a recipe for disputes).
- **Strained balance sheets:** At the height, the business model of most road developers carried a basic assumption that they would be able to access capital markets when required. This translated to unbridled growth plans, leading to an irrational increase in leverage levels. These seemed manageable in a buoyant economy or when capital markets were accessible. When the economic slowdown struck, however, leverage levels turned unmanageable; and default risk loomed large. This reduced the appetite for new road opportunities on a PPP basis.

Fig 14 – Consolidated debt-to-equity – Increase easing

Company name (x)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15
Ashoka Buildcon	1.5	1.6	2.1	2.4	1.4	1.7	2.4	2.6	2.9
Gammon Infrastructure	2.4	2.0	2.1	2.9	4.0	4.9	5.6	6.2	4.1
Gayatri Projects	2.4	4.6	3.9	4.9	6.5	8.5	9.8	14.8	5.9
GMR Infrastructure	1.9	1.3	1.9	3.1	2.5	4.0	4.8	5.4	7.4
GVK Power	3.4	0.7	1.4	1.5	1.7	4.1	6.0	8.1	12.9
IL&FS Transportation	1.3	1.7	2.0	2.0	2.4	3.7	4.0	3.7	4.1
IRB Infrastructure	7.0	1.3	1.4	1.4	1.9	2.5	2.7	3.1	2.9
IVRCL	0.5	0.7	1.0	1.2	1.6	2.1	2.5	4.3	12.2
JMC Projects	0.5	0.7	1.0	0.7	0.6	1.2	2.3	3.5	5.0
KNR Constructions	2.3	1.1	0.7	0.5	0.2	0.1	0.3	0.7	1.0
Madhucon Projects	-	-	-	2.4	4.9	25.7	NA	NA	NA
MBL Infrastructures	1.1	1.8	2.0	0.9	1.0	1.4	1.7	1.8	1.7
MEP Infrastructure	-	-	-	-	123.9	29.3	212.9	NA	NA
NCC	0.8	1.0	1.6	1.4	1.8	2.0	1.5	1.4	1.0
Patel Engineering	0.7	1.4	1.7	1.4	1.8	1.8	2.2	2.5	2.8
PNC Infratech	-	-	-	0.5	0.3	0.8	1.0	1.5	2.0
Ramky Infrastructure	0.8	1.2	1.7	1.8	1.2	1.7	1.7	2.6	4.6
Sadbhav Engineering	1.9	2.0	2.7	4.1	2.3	3.0	3.8	4.5	4.5
Simplex Infrastructures	-	-	1.4	1.3	1.5	1.8	2.1	2.0	2.3
Supreme Infrastructure	-	-	-	2.2	2.3	4.5	3.8	4.2	4.9
Unity Infraprojects	0.3	0.8	1.2	1.2	1.6	1.5	1.8	2.8	5.6

Source: ACE Equity

- **Greater capital requirement:** Amid project delays, cost over-runs and strained balance sheets, lenders' insistence on higher upfront equity commitment by developers made the going even more arduous for fund-starved developers. Against the normal equity infusion of 25-35% upfront before disbursal of project finance, lenders, perceiving the greater risk, began requiring developers to infuse 50% equity upfront. Thus, the project-funding equation went wrong for most, if not all, developers.
- **Delay in termination of stuck projects:** The delay in terminating projects that were stuck curbed the appetite for new PPP projects as developers were unsure of ridding themselves of such stuck projects (from their books); hence, they decided not to bid further.

With most of the issues now addressed, the time is ripe to re-visit the sector with a fresh perspective. We see that the companies we initiate coverage on in this report as some of the key beneficiaries of the government's thrust into road-infrastructure development and of improving activity in the sector.

Corrective measures underway

- **Efforts to streamline processes and eliminate structural bottlenecks seem to have slowly and gradually begun yielding results.**
- **NHAI awards, which touched a low of 1,122km in FY13, raced to ~3,068km in FY15. The figure is set to improve further as the first six months of FY16 have seen more than 85% contracts awarded for all of FY15.**

During 2013-14, the country's road sector was plagued with problems of awards and implementation of stretches, particularly under the PPP model. This could largely be attributed to the overall economic slowdown as well as to sector-specific issues. Many feel that the deceleration in the road sector was a result of the NHAI's over-reliance on the private sector to fund projects, and aggressive bidding by private operators (to build order books since it appeared the only sector flush with growth opportunities). To ensure that the roads sector did not turn out a casualty of structural issues, efforts to streamline processes or remove lacunae in the award process started in 2011 on the introduction of e-bidding (for transparency) and of model concession agreements. However, streamlining the processes could gain momentum only after issues had become too vast to handle (in 2013).

No effort being spared by the Road Transport Ministry in consultation with stakeholders

Though no effort is being spared by the Road Transport Ministry, in consultation with stakeholders, in identifying and addressing sector-specific issues, availability of equity in the market would be critical in bringing roads back on track. Till then, EPC is likely to be the way forward. Though we see EPC awards constituting a major chunk in the short to medium term, the forthcoming BOT awards would prove adequate for the business needs of serious BOT operators; any meaningful improvement in business sentiment would mean BOTs gain further traction.

Major measures put in place to address the structural issues are:

- **Harmonious substitution of concessionaires:** So that highway development does not become a casualty of the lack of equity in a constrained environment, the stretched balance sheets of road developers and the banking sector's risk-averseness, the Cabinet Committee for Economic Affairs (CCEA) in a meeting on 21st Jun'13 approved the substitution of concessionaires in ongoing and completed national-highway projects. This, in effect, means that the original concessionaire would be able to relinquish projects in their entirety. The intent appears to be to allow developers with cash to come in and replace cash-starved developers, ensuring that road-infrastructure development is not affected by developers' inability to bring in equity.
- **De-coupling of forest clearance from environment clearance:** Developers were allowed to proceed even if only the environment clearance was in place, and forest clearance awaited. Once the environment clearance had been secured, construction could commence in non-forest areas; in the meantime the NHAI could obtain forest clearance.
- **Debt to the sector to be classified as "secured":** Previously, advances to the sector were classified as "unsecured"; however, subsequent to a directive from The Reserve Bank of India, advances to

the sector would be classified as "secured" on the strength of the NHAI's guarantee. In case of default, the NHAI would make good 90% of the debt on the books of the SPV.

- **Relaxation in lending norms for the sector:** Banks have been advised to ensure funds are made available for road-infrastructure development if 80% of the land is in physical possession, down from 100% earlier.
- **Bidding, once not less than 60% of the land is in possession:** Various financial institutions' reluctance to lend until 100% of the land was in possession and the resultant failure to financially close seem to have resulted in the NHAI realising the importance of making land available for such projects in a timely manner. To address this, a recent directive suggests that bids would be invited when 60% of the requisite land was in physical possession. Efforts would be made to ensure that 80% of the land was available to a developer before the appointed date.
- **Committee set up to resolve claims:** A three-level redressal committee has been set up to expedite claims by various developers / contractors.
- **Introduction of InvIT:** In order to ease the infrastructure sector's access to long-term funding for long-gestation projects, The Securities and Exchange Board of India (SEBI) cleared guidelines for infrastructure investment trusts (InvIT).
- **Allowed extension of concession period/compensatory annuities:** To resolve issues pertaining to project-execution delays because of causes not attributable to the concessionaire, the CCEA has approved authorising the NHAI to extend the concession period by the time of delay in BOT-Toll projects or to pay compensatory annuities to the developer for the actual period of delay in BOT-Annuity projects (on successful completion of the project). The relief is subject to many conditions, including the project to be completed within three years.
- **Civil construction cost and land cost de-linked:** The CCEA also empowered the Ministry of Road Transport and Highways (MoRTH) to approve projects with civil construction costs of up to ₹10bn, approving the removal of land costs from overall costs to speed up decision-making. As land costs account for a major chunk of infrastructure projects, de-linking of land and civil costs would bring many projects within the defined threshold and enable the MoRTH to clear more projects without having to approach the CCEA.

Fig 15 – Besides, the RBI has announced measures to address structural issues in the infrastructure sector

RBI Notification	Impact
Flexible structuring of existing long-term project loans to infrastructure projects, commonly known as the 5/25 scheme	Measure essentially tries to address the need to provide debt finance with an adequate maturity tenure to enable recovery across the project-life for financing long-gestation infrastructure projects
Banks allowed to issue long-term bonds, with minimum maturity of seven years, to raise resources to lend to long-term projects in the infrastructure sector; such fund raising not subjected to CRR/SLR requirements	Owing to a) asset-liability mismatch of the tenure of debt in case of financial institutions, and b) the absence of benchmark rates to raise long-term debt, most financiers tend to avoid extending loans with very long-term maturities. The notification essentially addresses the need to provide debt finance with sufficient maturity tenure to enable recovery across the project life to finance long-gestation infrastructure projects
Revision of COD not to be treated as restructuring as long as the revised COD is within two years from the original COD stipulated at financial closure of an infrastructure project. Subject to conditions, multiple restructurings allowed	Aimed at easing the process of restructuring of distressed assets where the COD has been delayed and thus help provide some relief on the cash-flow mis-match for companies with such assets
Relaxed norms pertaining to takeout financing for existing infrastructure loans by lowering the minimum takeout requirement to 25%, from 50% earlier. Only standard loans of a minimum ₹10bn eligible for dispensation. Applicable only for operational projects	Yet again aimed at making available long-term funding for long-gestation projects; intent: to correct the inflow-outflow mismatch

Source: RBI

Corrective measures yielding results

Efforts to streamline processes and eliminate structural bottlenecks have slowly and gradually begun yielding results. New NHAI project awards, which touched a low of 1,122km in FY13, stepped up to ~3,068km in FY15. Including contracts from the MoRTH, total awards were of 7,980km, up from ~3,621km in FY14.

Fig 16 – Corrective measures yielding results

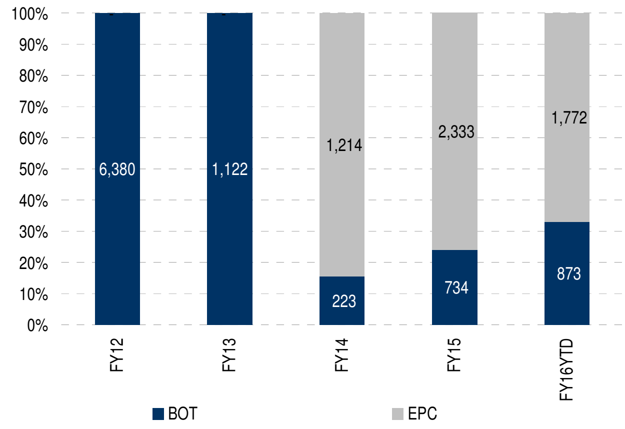
	No.	Length (km)
Projects where issues have been resolved	24	2,710
Projects terminated	35	4,190
Project-resolution process underway	18	1,508

Source: Government data

BOTs making a comeback – from ~16% of awards in FY14 to~33% in H1 FY16

Improvement continues: With over 2,600km of road contracts already awarded (till Sep'15), the NHAI would easily be able to deliver more than what it could last year. We see that the NHAI would be able to award ~5,000km of road projects this year. EPC formed a major chunk of new awards in FY15 and till now, but BOT projects have already started gaining traction. In FY15, BOTs accounted for ~24% of the stretches awarded by the NHAI. The number in the current fiscal has already risen to ~33%. We see the number of BOT projects improving even further as a host of projects have been lined up for awards in the rest of the year (including hybrid annuity projects).

Fig 17 – BOTs making a comeback



Source: NHAI

In fact, we are all the more positive on BOT as the turmoil of the recent past has largely made way for serious and stronger operators. In addition to awards, road construction, too, seems to be gaining traction. This holds good as completion would ensure that capital flows back into the segment and "awarding" gains further traction.

Financing – Balanced approach to reduce mismatch

- **We see overall spending on augmentation of national highways to more than double -- from ~₹309bn in FY14 to ~₹621bn in FY16, which we believe would further climb to ~₹728bn by FY18.**
- **Recent fund-raising by infrastructure operators, the measured award strategy, the advent of new execution models and the gradual maturing portfolio of operational assets, we believe, would keep investments going in the road BOT arena.**

Traditionally government-funded, the need to rope in the private sector was felt while preparing the X Five-Year Plan

Traditionally, or prior to the PPP model, road projects were fully financed and controlled by the government. Hence, implementation of road projects purely depended on budgetary allocations. Matters changed when the X Five-Year Plan was being prepared. An estimated ~₹1.6trn required to augment national highways alone pushed the then government/Planning Commission to seek out alternatives. The government thus came to the realisation of the need to involve the private sector in road development. In 1992, The National Highways Act, 1956, was amended to empower the government to levy fees for services or benefits rendered in relation to the use of sections of national highways, in addition to the existing provisions for the use of ferries, temporary bridges and tunnels.

Fig 18 – Estimated cost of eliminating deficiencies in national highways (at 1999 prices)

Category	Length to be covered (km)	Amount required (₹ bn)
Widening a single lane to two lanes	22,527	282
Improving two-lane roads:		
a) Strengthening weak pavements	19,250	145
b) Widening to 4-lanes/6-lanes	22,000	880
c) Construction of expressways	2,000	160
Number of bypasses to be constructed	60	90
Constructing missing links, improving low-grade sections to single-lane National Highway standards, road safety, drainage and misc. works	Lump sum	80
Constructing and re-doing bridges	210 + 425	7
Total		**1,643**

Source: Government documents

Concrete efforts to rope in private investment started n 1994-95

To attract private investment, the government initiated measures in 1994-95 such as declaring the road sector an industry so as to facilitate borrowing on easy terms, permission to float bonds, relaxing The Monopolies and Restrictive Trade Practices Act, 1969, to enable large firms to enter the highway sector, and reducing customs duty on construction equipment

Evolution of PPP

- **The concept dates to 1993:** Efforts to rope in private players to fund road infrastructure development dates to 1993. However, lack of a policy framework led to the idea failing to gain any meaningful traction.
- **Policy efforts began in Dec'96:** The year 1997 could easily be identified as a milestone since some important policy measures, including, but not limited to, land acquisition for National Highways being exempt from The Land Acquisition Act and notification of fee rules (for toll charges) based on the Wholesale Price Index (WPI), made developers take note of the concept. As a result, through 1997-2000, 17 BOT projects from the NHAI could see the light of day. Nevertheless, response lagged expectation.

- **First two phases of the NHDP:** The first two phases of the National Highways Development Project were announced in 1998 by the then prime minister, Shri Atal Bihari Vajpayee. However, initial lack of interest in PPPs, due to the still evolving policy framework, resulted in the government going ahead with item-rate contracts for phase I. Although a better response would come for phase II, it still lagged the then government's expectations.
- **Jaipur-Kishangarh, the first large project under PPP:** Having realised that the below-par response was partly due to lack of an approved model concession agreement (MCA), efforts largely revolved around an evolving MCA. As a test of the MCA prepared by the NHAI, the Jaipur-Kishangarh project was awarded to GVK Power in late 2002 and completed by 2005.

Introduction of two tax benefits under 80-IA and viability gap in 2006-08 proved keys to attract private investment

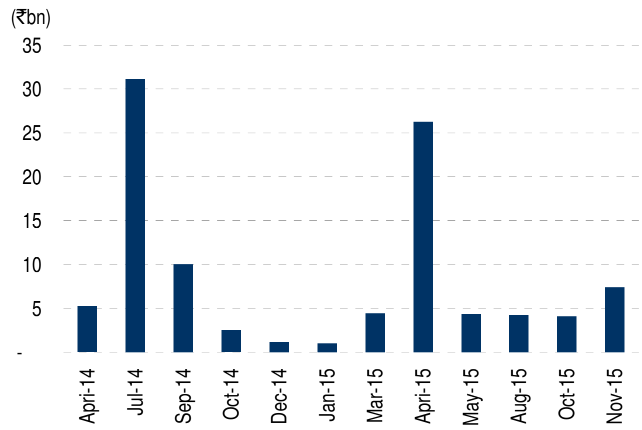
- **Conducive capital markets and fiscal benefits:** The PPP model gained traction during 2006-08 due to the introduction of viability-gap funding and tax benefits under section 80IA. Additionally, conducive capital markets meant funding was easily available for such long-gestation projects. In FY09 awards fell sharply to 643km (48% yoy) due to the global financial crisis.
- **Heightened activity and irrational bidding:** Over FY10-12, the number of road contracts awarded rose meaningfully. In fact, they were the highest ever in FY12. The influx of EPC operators (intending to make it big in the road BOT space), available opportunities and funds led to even keener competition. This led to irrational bids—and banks turned chary. Also, capital markets shot up beyond reach because of the global slowdown.

Funding not that vast a concern

Recent fund raising by infrastructure operators and a number of measures by the government to keep private investments going

Contrary to the popular perception, we do not see funding as a huge concern. Recent fund raising by infrastructure operators (~₹102bn in the last one-and-a-half years; refer Annexure 4), the measured award strategy (the government aiming at a healthy mix of EPC and BOT), the advent of new execution models (hybrid annuity), the recent relaxation of exit norms for road infrastructure operators and the gradual maturing portfolio of operational assets would keep investments going in the road BOT arena.

Fig 19 – Equity raised over the last 20 months

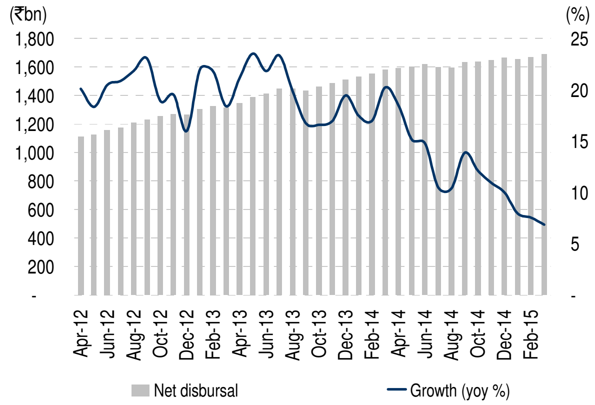


Source: Company BSE, NSE, SEBI

Bank funding yet available to quality operators with proven records

Bank funding: Our banking and NBFC analyst is of the opinion that infrastructure lenders are willing to fund road BOT projects provided they come from established operators with proven records.

Fig 20 – Albeit at lower pace, bank disbursals to roads continue



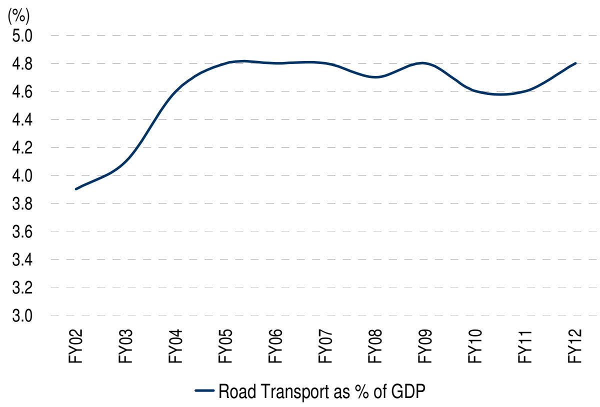
Source: RBI

Proportion of road transport in GDP set to increase

With more projects awarded and a better pace of execution, we see the percentage of road transport in GDP to increase from ~3.2% in FY15 to ~3.5% in FY16

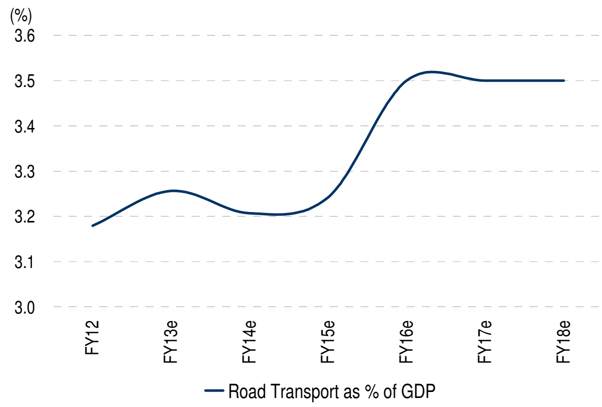
Road transport (as percent of GDP) dipped in FY14; with rising economic activity, however, we see the percentage of road transport in the gross domestic product to rise from an estimated ~3.2% in FY15 to ~3.5% in FY16. As a consequence of increasing economic activity and the new government's thrust on improving road-infrastructure development, we see spending on constructing/augmenting roads to increase. This would largely be supported by greater budgetary allocation for road augmentation, the gradually increasing number of project awards (in EPC and BOT) and the private sector making a slow and gradual comeback.

Fig 21 – Percentage of road transport in GDP



Note: As per old series
Source: Government data

Fig 22 – Percentage in GDP set to increase



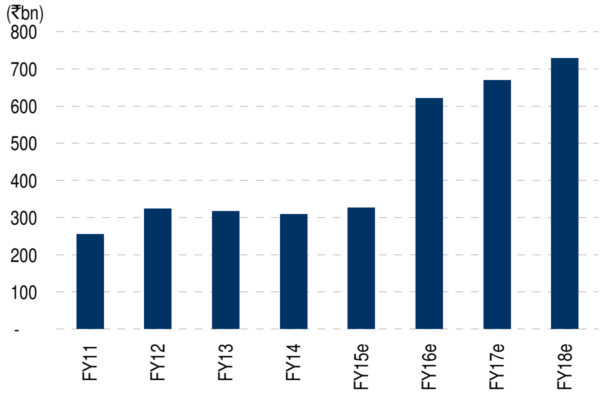
Note: As per new series
Source: Government data, Anand Rathi Research

National highways set to see rise in spending

Expect spending on national-highway augmentation to more than double from ~₹309bn in FY14 to ~₹728bn by FY18

As for funding EPC projects, the well-managed balance sheet of the NHAI (0.4x on 31st Mar'14) along with greater budgetary allocation and plans to monetise operational assets (through a toll-operate-transfer model) would help meet funding needs. Because of the combined effect of budgetary allocation and gradually mounting interest in BOT projects, we see overall spending on augmentation of national highways to more than double -- from~₹309bn in FY14 to ~₹621bn in FY16, which we believe would further climb to ~₹728bn by FY18. Owing to size and scale, we see NHDP contracts by the NHAI to account for a lion's share of the investments.

Fig 23 – Spending on national highways set to rise



Source: Government data, Anand Rathi Research

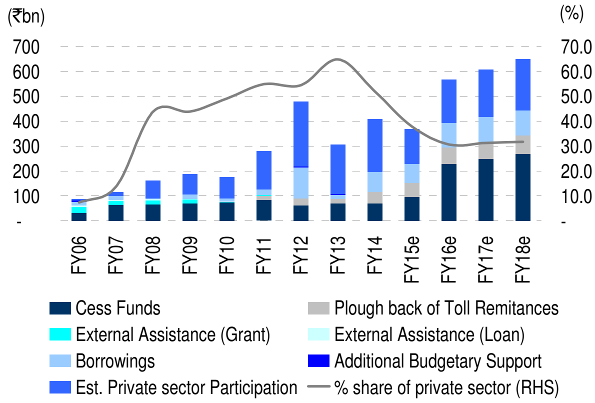
Anticipate private-sector participation at ~30% for NHDP contracts awarded by the NHAI

Because of constrained liquidity and the focus on cash-flow generation, EPC contracts would account for most of the new awards. The government of the day also realises this, evident from the greater budgetary allocation for FY16. However, BOT is gradually picking up pace again. The share of BOT in overall awards is trending upward again. Yes, awards on a BOT basis are unlikely to be of the order seen during FY10-12, but anticipated awards with less competition would suffice for serious operators. Our analysis of balance sheets of established operators and taking into consideration opportunistic bidding by fresh entrants, we see awards on a BOT basis to range anywhere between 2,000km and 2,500km a year for the next 2-3 years.

Expect private-sector contribution to decline to an average of ~31% over FY16-18, against estimated average of ~51% over FY13-15; however, absolute private investment to be ~₹20bn more owing to higher overall spending

Estimated BOT awards of ~2,000-2,500km on a yearly basis would mean they account for ~30% of the NHDP contracts awarded by the NHAI in terms of length, and ~40% by value. This is a stark shift from the 100% awards having come on a BOT basis in FY12. However, even our estimated share of BOT in the overall NHDP awards by the NHAI, we believe, would more than suffice for the growth momentum. Any significant improvement in the economy would mean the proportion of BOT contracts awarded would rise. Based on our current estimates, we see the private sector's estimated average contribution over FY16-18 at ~31% in spending towards the NHDP contracts awarded by the NHAI, against the estimated ~51% over FY13-15. However, over the same period, in absolute terms private-sector spending would be ~₹20bn more, to ~₹569bn (compared to FY13-15).

Fig 24 – Expect private-sector participation to stabilise at just over 30%



Source: Government data, Anand Rathi Research.

Eyeing innovative ways of funding

Eyeing the Hybrid Annuity and Toll-Operate-Transfer models to encourage private-sector investment

The government is cognisant of the fact that only traditional ways of funding would not suffice the targeted road development or augmentation. Hence, the MoRTH is promoting innovative project-implementation models such as the Hybrid Annuity model and the Toll-Operate-Transfer (TOT) model to encourage investment in highway development. The idea behind such innovative models is to leverage existing resources (financial or physical) to maximise the length of roads implemented. Under the TOT model, the government is trying to leverage operational assets to fund new projects whereas the Hybrid Annuity model seems aimed at a concessionaire's lower capital commitment and to protect concessionaires against traffic risk.

Annuity Hybrid model – construction-period capital support; fixed annuity, post-construction

Hybrid Annuity – To lower capital commitment and to protect against traffic risk, the government would partly fund (~40%) life-cycle costs

Simply put, the Hybrid Annuity model is a mix of the BOT Annuity and EPC work. Forty percent of the project cost would be provided by the Authority to the concessionaire during the construction period in the form of 'construction support'. The construction support would be disbursed in five equal instalments of 8% each; the timing of such payments would be linked to the percentage of project cost expended by the concessionaire. The concessionaire would be required to bear the balance 60% of the project cost through a combination of debt/equity and would be responsible for designing, building and managing the road. To compensate for the investment and efforts, the concessionaire would be entitled to receive annuity payments over a fixed tenure. It would be responsible for O&M of the project highway until the expiry of the concession period. However, there would be separate payments for operation and maintenance, subject to a pre-determined maximum.

Fig 25 – Mechanism

Bid parameter	Life-cycle cost (the NPV of the quoted bid project cost + NPV of the O&M cost for the entire O&M period)
Returns for concessionaire	Amount financed by concessionaire to be recovered from the Authority through bi-annual annuity payments along with interest payments (at the bank rate + 3%) on the reducing balance
Tenure	15 years
Toll collection	Authority collects toll; concessionaire insulated from toll-collection risk
O&M payments	O&M responsibility with concessionaire; bi-annual payments
Others	Project payments to be inflation-indexed

Source: MoRTH, Anand Rathi Research

Risk Sharing: In the hybrid-annuity model, however, the project-cost risk is shared by both parties, and the revenue-generation risk is borne by the Authority, while the risk for operation and maintenance is taken up by the party concerned. Risks pertaining to land acquisition and receipt approval vests with the Authority.

What's in it for the developers?

- The developer participates in the road sector sans any traffic risk.
- Capital commitment also is reduced as the Authority concerned would have to fund 40% of the appraised cost; thereby, the concessionaire would be required to invest only 60% of the project cost.

What's in it for the government?

- Reduces upfront capital commitment to 40%, if compared to a pure EPC project.
- Efficient operations and maintenance

Key risk to the model

After the poor response to the first project, the competent authority is considering equated annuity payments, against the earlier advised stepped-up annuity payments

The model proposes stepped-up annuity. This could act as a deterrent for some as payback would start after some time (differing for each project). After the poor response to the first project offered on this model, our channel checks suggest that the competent authority is contemplating equated annuity payments.

Fig 26 – Hybrid-Annuity awards in the immediate future

Projects	Length (km)	State	Estimated costs (₹ bn)	Bid date
Delhi-Meerut Expressway - Package I	22	Delhi / Uttar Pradesh	10	18-Nov-15
Delhi-Meerut Expressway - Package II	19	Delhi / Uttar Pradesh	14	18-Nov-15
Delhi-Meerut Expressway - Package III	22	Delhi / Uttar Pradesh	10	18-Nov-15
Meerut-Bulandshahr	61	Uttar Pradesh	7	02-Dec-15
Solan-Kaithalghat	23	Himachal Pradesh	5	07-Dec-15
Total	**148**		**46**	

Source: NHAI

Toll-Operate-Transfer: Leveraging old assets to fund new

Toll-Operate-Transfer - government considering giving private operators toll-collection rights for the available operational-road-assets for a fixed tenure; the rights would be obtained at a payment upfront

In the immense funding required for developing, augmenting and maintaining the vast road network that India boasts of, the government seems to be leaving no stone unturned. As an innovative way of financing the upgrading of the road network, the government is considering giving private operators toll-collection rights for the available operational-road-assets (to collect toll for a fixed period). The basic difference between the present toll-collection schemes / the operate-maintain-transfer (OMT) scheme and the under-consideration TOT model is that the latter would entail upfront payment by private operators in exchange for the right to collect toll over a fixed period. Additionally, TOT would entail a fairly long tenure, unlike toll-collection contracts and OMT projects where the tenure ranges anywhere between one and nine years.

What it means for the government

- The move, if successful, would mean that the government would be able to securitise future receivables from its ongoing portfolio of toll-road projects and make available capital, which could be further invested in creating new road infrastructure.
- Additionally, the move would ensure efficient operations and maintenance, and lower toll pilferage.

What it holds for the private sector

- For private operators, this would throw up opportunities to participate in the infrastructure sector.
- Operational road assets with proven traffic figures would be a low-risk opportunity.
- Successful private participants would enjoy a relatively stable revenue stream over a longish time-frame.

How huge is the opportunity?

- Government data show 104 toll roads (of ~6,042km; refer Annexure 5 for state-wise break-down), where toll-collection rights vest with government authorities.
- Additionally, a pack of projects awarded on an EPC basis are being implemented. These could come as TOT opportunities in future.

Key concern

The model proposes upfront payment for toll-collection rights. Upfront payment would essentially make it a capital-intensive business model and could prove to be a deterrent.

Annexure 1

Roads – Vital to economic growth

Road transport is part of the vital infrastructure for rapid industrial and socio-economic development. A good road network possesses the potential to accelerate the development process through connectivity and opening up of backward regions to trade and investment. Roads play a key role in inter-modal transport development, establishing links with airports, railway stations and ports. Additionally, roads, as a mode of transport, stand out as being the only means of last-mile connectivity. However, despite their importance to the national economy, the road network in India is grossly inadequate in various respects. A large part of the present network is capacity-constrained, slow and unsafe, and provides poor riding quality.

Having realised the importance of road networks to economic development, the Central and state governments in India have taken numerous steps to improve the national road network, both through upgrading the quality and augmenting the magnitude to keep pace with the demands of economic liberalization.

Road network – Abundant quantity, poor quality

At 5.3m km, India boasts of the second-largest road networks in the world

According to government documents, India has the second-largest road network in the world (more than 5.3m km). For management and administration, these are broadly categorised thus:

Fig 27 – Segment highlights

Categories	Importance	Significance
National highways	The chief arterial roads running through the length and breadth of the country, connecting ports, state capitals, industrial areas and neighbouring countries. Although they constitute less than 2% of the road network, they carry nearly 40% of road traffic	Account for less than 2% in length but carry 40% of freight
State highways	Supposed to carry traffic along major centres within a state	Almost 98% of total length but carry 60% of freight. Other roads, however, carry more passenger traffic than NHs
Major district roads	Link main roads and rural roads	
Other district roads	Make villages accessible so as to meet social needs as also the means to transport agricultural produce to nearby markets	
Village roads		

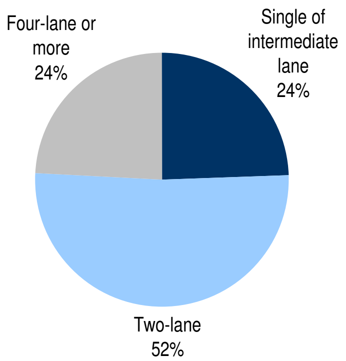
Source: Anand Rathi Research

Fig 28 – Expanding road network*

Km	1951	1961	1971	1981	1991	2001	2011	2012	2013e
National highways	19,811	23,798	23,838	31,671	33,650	57,737	70,934	76,818	79,116
State highways	173,723	257,125	56,765	94,359	127,311	132,100	163,898	164,360	168,324
Other PWD roads			276,833	421,895	509,435	736,001	998,895	1,022,287	1,099,943
Rural roads	206,408	197,194	354,310	628,865	1,260,430	1,972,016	2,749,804	2,838,220	3,159,739
Urban roads	-	46,361	72,120	123,120	186,799	252,001	411,679	464,294	444,961
Project roads	-	-	130,893	185,511	209,737	223,665	281,628	299,415	310,918
Total	**399,942**	**524,478**	**914,759**	**1,485,421**	**2,327,362**	**3,373,520**	**4,676,838**	**4,865,394**	**5,263,001**
Surfaced ('000km)	157	263	398	684	1,113	1,602	2,525	2,699	3,171
%	39.3	50.1	43.5	46.0	47.8	47.5	54.0	55.5	60.3

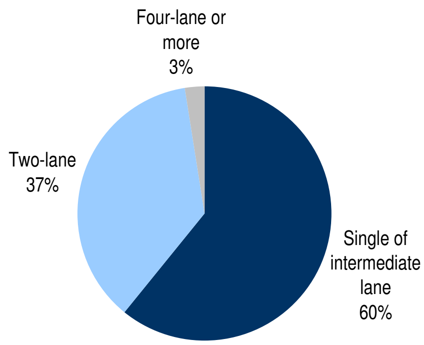
*Source: Government data Note: *NH length has increased to over 100,087km; expected to further rise to 150,000km shortly*

Fig29 – National highways – largely two lanes (FY13)



Source: NHAI

Fig 30 – State highways - vast scope for improvement (FY12)



Source: Government data

National Highways

NHs account for less than 2% in length but carry 40% of freight

The Central government is primarily responsible for the development and maintenance of the national highways. Though they comprise less than 2% of the road network, the national highways are very important because they carry about 40% of road traffic. The Central government follows the agency system in developing and maintaining these national highways. This is detailed below:

- **The NHDP:** To meet transportation needs (especially on national highways), in 2001 the government of India introduced the NHDP. The aim was to improve the Golden Quadrilateral, the North-South and East-West (NS-EW) corridors, port connectivity, and other such projects in phases. To ensure smooth operations, the government of India entrusted the NHAI with the responsibility of implementing the NHDP spread over seven phases. On 30th Sep'15, the NHAI was entrusted with managing, developing and augmenting ~46,500km under the NHDP.
- **State PWDs and the Border Road Organisation:** Apart from the national highways under the NHDP, there are about 64,016km of national highways whose development and maintenance is being carried out by state public works departments (PWDs) and the Border Road Organisation (BRO), including the national highway stretches yet to be entrusted.
- **The Special Accelerated Road Development Programme for the North-Eastern Region (SARDP-NE):** This programme aims to improve road connectivity of district headquarters and remote places of the north-east with state capitals. It envisages two- and four-laning of about 4,798km of national highways and two-laning and improving about 5,343km of state roads. This would ensure connectivity of 88 district headquarters in the north-eastern states to the nearest national highway by at least a two-lane road.

Fig 31 – NHDP - present status

On 30 Sep'15	Km				Cost (₹ bn)		
	Length (km)	2-/4-/6-/8-laned	Being implemented	Balance for award	Estimated	Cumulatively incurred	Awarded for projects being implemented
GQ	5,846	5,846	-	-	646	322	-
NSEW - Phase I and II	7,142	6,414	461	267		653	96
NHDP Phase III	12,109	6,634	3,308	2,167	806	850	122
NHDP Phase IV	13,203	1,585	4,668	6,950	278	97	66
NHDP Phase V	6,500	2,264	1,401	2,835	412	307	33
NHDP Phase VI	1,000	-	135	865	167	1	-
NHDP Phase VII	700	22	19	659	167	17	6
Total NHDP	**46,500**	**22,765**	**9,992**	**13,743**	**2,476**	**2,247**	**322**
Port Connectivity	402	379	23	-		109	4
Other NHs	1,807	1,518	289	-		-	33
SARDP - NE	388	105	5	278		-	1
Total by NHAI	**49,097**	**24,767**	**10,309**	**14,021**	**2,476**	**2,356**	**360**

Source: NHAI

State highways and other roads: As with national highways, even the length of state highways and other roads has risen tremendously. Over 1951-2013, the length of state highways and other roads increased from 0.4m km to ~5.1m. Although almost 60% of roads have already been surfaced, most have yet to be upgraded to four lanes. We see state highways and other roads (especially rural roads) also at greater importance in the government's efforts to ensure seamless road connectivity in India.

Annexure 2

Fig 32 – Re-awards indicative of reduced competition

Project	NH No.	Length (km)	When Terminated	Re-awarded	Mode		Premium / (Grant) / Awarded cost (₹ bn)		
					Then	Now	Then	Now	Difference (%
4-laning of Solapur-Bijapur	13	111	Dec'13	Yes	BOT-Toll	BOT-Toll	0.8	0.1	-91.0
2-laning of Forbesganj-Jogwani	57A	9	Oct'13	Yes	BOT-Annuity	EPC	-	-	-
Gopalganj-Chappra	85	92	Apr'14	Yes	BOT-Annuity	EPC	-	-	-
Jowai–Assam/Meghalaya border	44	102	Nov'14	Yes	BOT-Toll	EPC	-	-	-
Jabalpur-Katni -Rewa	7	226	Jan'13	Yes	BOT-Toll	EPC	-	-	-
Chhapra–Rewaghat–Muzzaffarpur	102	73	Nov'14	Yes	EPC	EPC	3.4	5.2	53.2
Barwaadda-Panagarh	2	123	May'12	Yes	BOT-Toll	BOT-Toll	1.1	0.4	-60.4
UP/Haryana border-Yamunanagar–Saha—Barwala-Puchkula	73	107	Mar'14	Yes	BOT-Toll	EPC	-	-	-
Hospet–Chitradurga	13	120	Dec'13	Yes	BOT-Toll	BOT-Toll	0.6	0.2	-71.4
Jabalpur to Lakhanadone	7	81	July'12	Yes	BOT-Toll	EPC	-	-	-
2-laning of Gulabpur–Uniara	148D	214	Nov'14	Yes	EPC	EPC	4.5	6.0	31.5
Shivpuri–Dewas	3	330	May'14	Yes	BOT-Toll	BOT-Toll	1.8	-2.6	-
Patna–Buxar	30 & 84	125	Aug'14	Yes	BOT-Toll	EPC	-	-	-
Agra–Etawah bypass	2	125	May'14	Yes	BOT-Toll	BOT-Toll	1.3	0.8	-36.7
Amravati–Chilki (Package–I)	6	194	Sep'14	Yes	BOT-Toll	BOT-Toll	na	-1.8	-
Fagne-Mah/Guj border (Package-III)	6	141	Sep'14	Yes	BOT-Toll	BOT-Toll	na	-2.5	-
Kharar-Kurali	21	14	Jun'14	Yes	EPC	EPC	na	2.1	-

Source: NHAI

Annexure 3

Fig 33 – List of projects terminated

Project	NH No.	Length (km)	When Terminated	Re-awarded
4-laning of Solapur-Bijapur	13	111	Dec'13	Yes
2-laning of Forbesganj-Jogwani	57A	9	Oct'13	Yes
Gopalganj-Chappra	85	92	Apr'14	Yes
Jowai–Assam/Meghalaya border	44	102	Nov'14	Yes
Jabalpur-Katni-Rewa	7	226	Jan'3	Yes
Chhapra–Rewaghat–Muzzaffarpur	102	73	Nov'14	Yes
Barwa-adda-Panagarh	2	123	May'12	Yes
UP/Haryana border-Yamunanagar–Saha—Barwala-Puchkula	73	107	Mar'14	Yes
Hospet–Chitradurga	13	120	Dec'13	Yes
Jabalpur to Lakhanadone	7	81	Jul'12	Yes
2-laning of Gulabpur–Uniara	148D	214	Nov'14	Yes
Shivpuri–Dewas	3	330	May'14	Yes
Patna–Buxar	30 & 84	125	Aug'14	Yes
Agra–Etawah bypass	2	125	May'14	Yes
Amravati–Chilki Package - I	6	194	Sep'14	Yes
Fagne-Mah/Guj border (Package – III)	6	141	Sep'4	Yes
Kharar–Kurali	21	14	Jun'14	Yes
Kannur-Kuttipuram (Package - II)	17	82	Nov'13	No
Kannur-Kuttipuram (Package - I)	17	83	Sep'13	No
Khagaria–Bakhtiyarpur	31	113	Jan'14	No
Rampur-Kathgodam	87	93	Apr'14	No
Cuttak-Angul	42	112	Jul'14	No
Bhopal-Sanchi	86A	54	Jan'15	No
Barhi-Hazaribagh	33	41	Jan'15	No
4-laning of Angul-Sambalpur	42	153	Nov'13	No
Meerut- Bulandshahar	235	66	Sep'13	No
Lukcnow–Sultanpur	56	126	Oct'13	No
Raipur-Bilaspur	200	127	Feb'04	No
Aligarh-Kanpur	91	283	Sep'14	No
Anandapuram-Visakapatnam-Anakapalli	5	58	Dec'13	No
6-laning of Gundugolanu Rajamundry	5	121	Dec'13	No
4-laning of Coimbatore-Mettupalayam	67	54	Aug'13	No
Kota–Jhalawar	12	88	Sep'13	No
Karnataka/Kerala border- Kannur	17	127	Jan'14	No
Bimitrapur-Barkate	113	86	Mar'14	No
Hospet–Bellary-Karnataka/AP border	63	95	Mar'14	No
Muhulia–Baharagora-Kharagpur	6 & 33	127	Sep'14	No
2-laning of Raipur–Jessa-Khera	458	32	Nov'14	No
Fagne–Chilki (Package – II)	6	150	Sep'14	No
Aurangabad-Barwa Adda	5	220	Nov'13	No

Source: NHAI

Annexure 4

Fig 34 – Equity raised over the last 20 months

		Type	Amount raised (₹ bn)
Nov'15	IL&FS Transportation	Rights Issue	7.4
Oct'15	J Kumar Infraprojects	QIP	4.1
Aug'15	Sadbhav Infrastructure	IPO	4.3
May'15	PNC Infratech	IPO	4.3
Apr'15	Ashoka Buildcon	QIP	5.0
Apr'15	MEP Infrastructure	IPO	3.2
Apr'15	Hindustan Construction	QIP	4.0
Apr'15	GMR Infrastructure	Rights issue	14.0
Mar'15	IRB Infrastructure	QIP	4.4
Jan'15	Supreme Infrastructure	QIP	1.0
Dec'14	MBL Infrastructures	QIP	1.2
Oct'14	Sadbhav Engineering	QIP	2.5
Sep'14	Gammon Infrastructure	QIP	2.6
Sep'14	NCC	Rights issue	6.0
Sep'14	ITD Cementation	QIP	1.4
Jul'14	J Kumar Infraprojects	QIP	1.4
Jul'14	GMR Infrastructure	QIP	14.8
Jul'14	Jai Prakash Associates	QIP	15.0
Apr'14	IL&FS Transportation	Rights issue	5.2
	Total		**101.8**

Source: Company, SEBI, NSE, BSE

Annexure 5

Fig 35 – State-wise identified TOT opportunities

State	No. of projects	Length (km)
Andhra Pradesh	9	603
Assam	1	74
Bihar	10	688
Gujarat	8	423
J & K	4	200
Jharkhand	3	233
Karnataka	7	382
Kerala	1	17
Madhya Pradesh	7	465
Maharashtra	3	144
North-East	2	98
Orissa	5	348
Punjab	2	102
Rajasthan	8	489
Tamil Nadu	5	212
Telangana	5	317
Uttar Pradesh	17	899
West Bengal	7	351
Total	**104**	**6,042**

Source: MoRTH

Company Section

7 December 2015

Ashoka Buildcon

Rating: **Buy**
Target Price: ₹228
Share Price: ₹189

All the right ingredients in place; initiating, with a Buy

We initiate coverage on Ashoka Buildcon, with a Buy rating, as we believe it has all the right ingredients in place to make it a success in road-infrastructure development. In-place execution capabilities, a healthy balance sheet and bandwidth to take up fresh orders stand the company first in the queue of likely beneficiaries of the upturn in road-infrastructure development.

Order inflows gaining pace: An otherwise strong company with a proven track record, limited revenue assurance was a key concern. Matters have started looking up, however, as awarding of contracts is gaining momentum. Besides, the wait seems to be worth it as the company seems to be gaining orders without compromising on margins. We see it securing orders of ~₹95bn over FY16-18, almost 3x FY15-closing order-backlog.

Balanced BOT portfolio: We believe Ashoka's road projects have the right balance, with its mature projects generating steady free-cash flows whereas new projects provide a play on the improving economy (hence, traffic). The two combined would ensure the company delivers on both, cash flows and revenue growth.

Limited equity requirement: At a time when most infrastructure names are struggling with strained balance sheets and huge pending equity requirements, Ashoka is well placed, with all but two projects already funded. Limited equity requirement coupled with in-place cash flows would benefit the company in the impending award of contracts.

Valuation: Our sum-of-parts method values the company at ₹228 a share. At our price target, the exit price to book value (PBV) multiple on FY17e book value works out to 2.2x, against the current multiple of 1.8x. **Risk.** Any significant delay in re-commencement of mining would not be good for Ashoka's road assets in the mining belt.

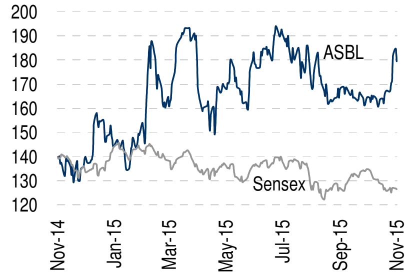
Key financials (YE Mar)	FY14	FY15	FY16e	FY17e	FY18e
Sales (₹ m)	17,949	23,197	26,346	31,459	35,469
Net profit (₹ m)	1,131	815	801	819	708
EPS (₹)	7.2	5.1	4.3	4.4	3.8
Growth (%)	13.3	-28.3	-16.7	2.2	-13.5
PE (x)	26.3	36.7	44.1	43.1	49.9
PBV (x)	2.4	2.2	1.9	1.8	1.8
RoE (%)	9.8	6.2	4.9	4.3	3.6
RoCE (%)	6.3	6.6	9.2	8.8	8.9
Dividend yield (%)	0.8	0.8	0.8	0.8	0.8
Net debt/equity (x)	1.7	2.1	1.7	2.0	2.3

Source: Company, Anand Rathi Research

Key data	ASBL IN / ABDL.BO
52-week high/low	₹221 /₹123
Sensex/Nifty	26169 / 7955
3-m average volume	$0.6m
Market cap	₹35bn/$531m
Shares outstanding	187m

Shareholding pattern (%)	Sep '15	Jun '15	Apr'15
Promoters	57.2	57.2	57.2
- of which, Pledged	-	-	-
Free Float	42.8	42.8	42.8
- Foreign Institutions	10.6	10.4	1.4
- Domestic Institutions	19.1	18.4	27.0
- Public	13.1	13.9	14.4

Relative price performance



Source: Bloomberg

Prem Khurana
Research Analyst
+91-22- 6626 6470
premkhurana@rathi.com
Lokesh Pareek
Research Analyst
+91-22- 6626 6615
lokeshpareek@rathi.com

Quick Glance – Financials and Valuations

Fig 1 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	17,949	23,197	26,346	31,459	35,469
Revenue growth (%)	-3.1	29.2	13.6	19.4	12.7
- Oper. expenses	14,127	18,467	18,800	23,191	26,037
EBIDTA	**3,822**	**4,730**	**7,546**	**8,267**	**9,432**
EBITDA margins (%)	21.3	20.4	28.6	26.3	26.6
- Interest	1,335	2,721	4,527	4,825	5,478
- Depreciation	1,389	1,517	2,385	2,622	3,222
+ Other income	297	290	420	300	300
- Tax	688	796	1,003	1,029	965
Effective tax rate (%)	49.3	101.7	95.2	91.9	93.5
+ Associates/(minorities)	425	828	750	727	641
Adjusted PAT	1,131	815	801	819	708
+ Extraordinary items	-157	-	-	-	-
Reported PAT	975	815	801	819	708
Adj. FDEPS (₹/sh)	7.2	5.1	4.3	4.4	3.8
Adj. FDEPS growth (%)	13.3	-28.3	-16.7	2.2	-13.5

Source: Company, Anand Rathi Research

Fig 2 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Share capital	790	793	935	935	935
Reserves & surplus	11,839	12,776	17,973	18,455	18,826
Net worth	12,628	13,569	18,908	19,390	19,762
Total debt	31,927	38,726	41,211	48,122	53,657
Minority interest	4,645	5,047	4,322	3,406	2,628
Def. tax liab. (net)	-21	-99	-148	-148	-148
Capital employed	**49,180**	**57,244**	**64,294**	**70,771**	**75,899**
Net fixed assets	2,053	1,868	1,372	1,125	874
Intangible assets	1,17,819	1,25,350	1,29,425	1,33,943	1,39,192
Investments	2,847	2,345	2,345	2,345	2,345
- of which, Liquid	896	147	147	147	147
Working capital	-74,484	-72,729	-69,970	-68,596	-68,271
Cash	945	410	1,123	1,954	1,758
Capital deployed	**49,180**	**57,244**	**64,294**	**70,771**	**75,899**
Adj. W C turn (days)*	78	55	87	89	82
Book value (₹/sh)	80.0	85.5	101.1	103.7	105.6

*Source: Company, Anand Rathi Research * Adjusted for LT liability classified as ST*

Fig 3 – Cash-flow statement (₹m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Adjusted PAT	1,131	815	801	819	708
+ Non-cash items	1,389	1,517	2,385	2,622	3,222
Cash profit	2,521	2,332	3,186	3,441	3,930
- Incr./(decr.) in WC	2,136	1,755	2,759	1,374	326
Operating cash-flow	385	577	428	2,067	3,604
- Capex	10,161	8,864	5,963	6,894	8,220
Free-cash-flow	-9,776	-8,286	-5,536	-4,827	-4,616
- Dividend	266	290	337	337	337
+ Equity raised	3,271	819	4,150	-916	-778
+ Debt raised	7,378	6,720	2,436	6,911	5,535
- Investments	23	-502	-	-	-
- Misc. items	-157	-	-	-	-
Net cash-flow	427	-536	714	830	-195
+ Op. cash & bank bal.	518	945	410	1,123	1,954
Cl. Cash & bank bal.	945	410	1,123	1,954	1,758

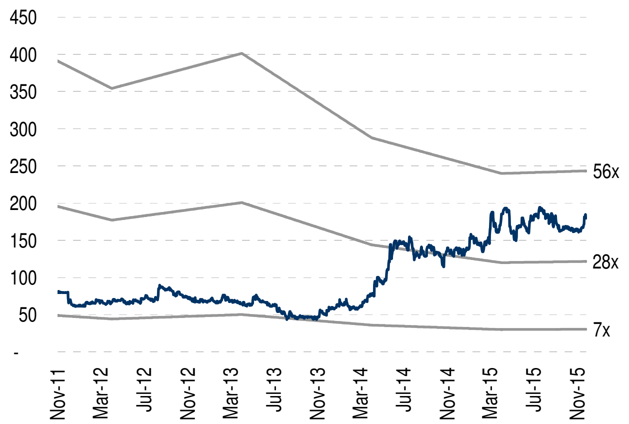
Source: Company, Anand Rathi Research

Fig 4 – Ratio analysis @ ₹189

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
P/E (x)	26.3	36.7	44.1	43.1	49.9
Cash P/E (x)	11.8	12.8	11.1	10.3	9.0
EV/EBITDA (x)	17.1	15.5	10.0	9.8	9.2
EV/sales (x)	3.6	3.2	2.9	2.6	2.5
P/B (x)	2.4	2.2	1.9	1.8	1.8
RoE (%)	9.8	6.2	4.9	4.3	3.6
RoCE (%)	6.3	6.6	9.2	8.8	8.9
Dividend yield (%)	0.8	0.8	0.8	0.8	0.8
Dividend payout (%)	23.5	35.6	42.0	41.1	47.5
Net debt/equity (x)	1.7	2.1	1.7	2.0	2.3
Debtor days	27	57	52	53	53
Inventory days	128	115	110	108	104
Payables days	116	100	79	82	82
Interest cover (x)	2.0	1.3	1.2	1.2	1.2
Fixed asset T/O (x)	0.1	0.2	0.2	0.2	0.3

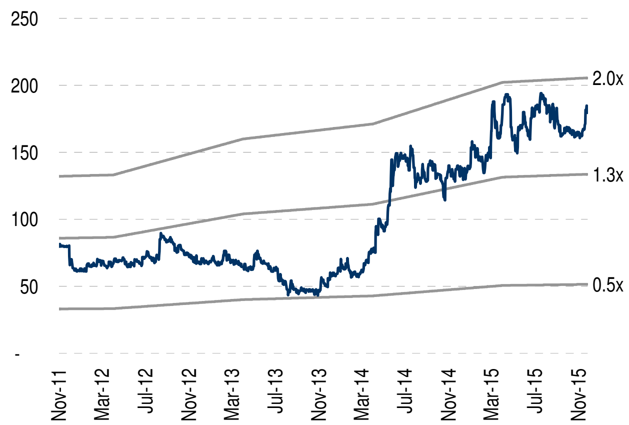
Source: Company, Anand Rathi Research

Fig 5 – PE band



Source: Bloomberg, Anand Rathi Research

Fig 6 – PB band

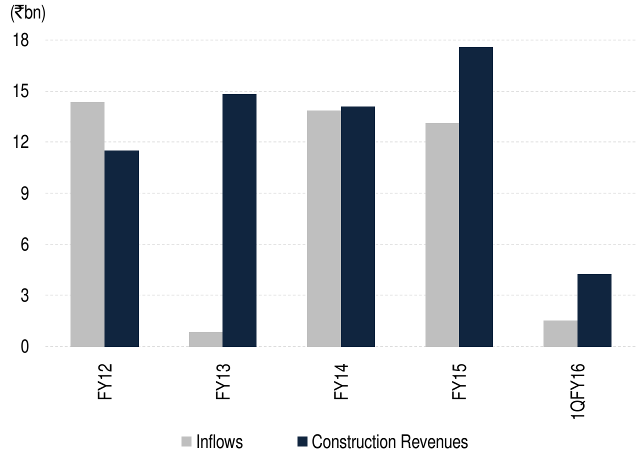


Source: Bloomberg, Anand Rathi Research

Order inflows gaining momentum

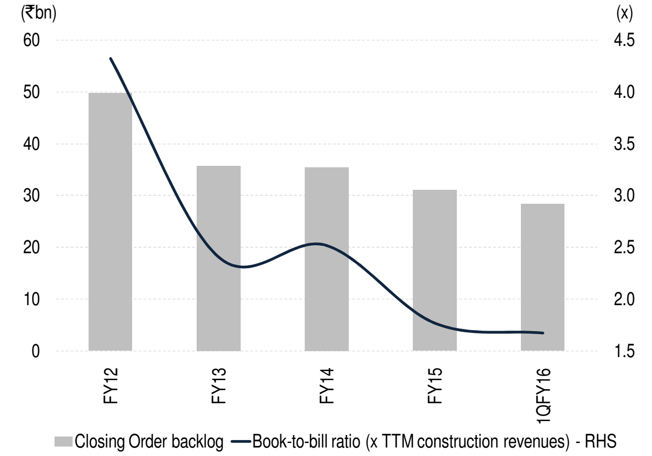
For an otherwise strong company with a proven track record, restricted revenue assurance was a key concern. The concern was not unfounded as the order backlog of ~₹28.3bn on 30th Jun'15 could provide revenue assurance for fewer than two years (based on TTM sales). Dismal awarding by one of its key clients (the NHAI), coupled with management's decision to refrain from aggressive bidding during FY13-15 (many players chasing too few orders), led to inflows lagging execution for three years running.

Fig 7 – Inflows lag execution...



Source: Company

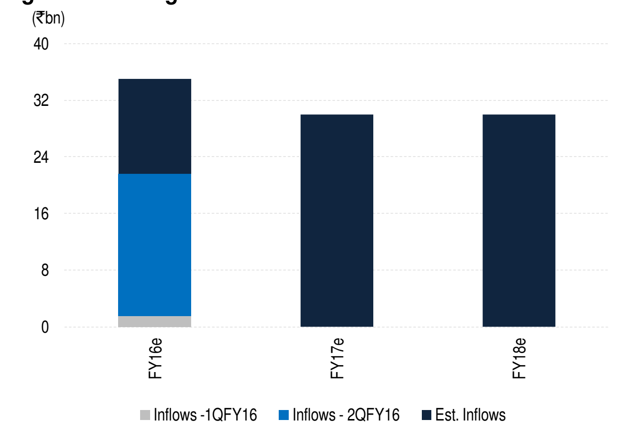
Fig 8 – ... as revenue assurance declines



Source: Company

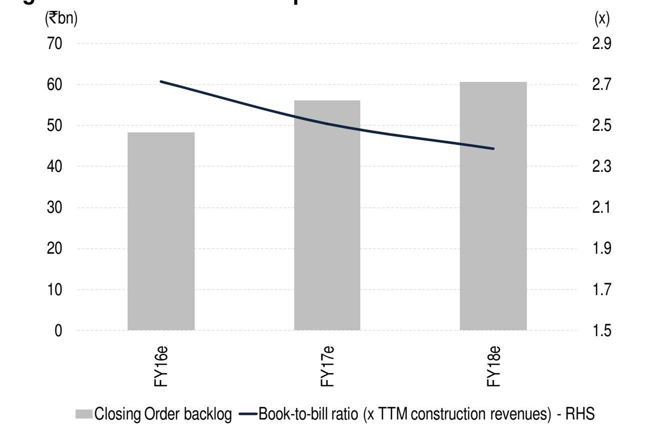
Matters have now started looking up, however, as awarding of contracts is gaining momentum. And the wait appears to be worth it as the company seems to be gaining orders without compromising on margins. After Q1 FY16, it has secured orders of ~₹22.2bn, taking the order backlog to ~₹46.6bn, with the book-to-bill now at ~2.6x.

Fig 9 – Inflows gain traction...



Source: Company, Anand Rathi Research

Fig 10 – ... as assurance improves



Source: Company, Anand Rathi Research

We see visibility to be healthy as the company continues to seek out growth opportunities. With awarding of contracts in roads and highways set to further increase, the company would emerge as one of the key beneficiaries. Besides, limited competition for BOT projects and large EPC projects is likely to help it capture a fair share of the contracts in the sector. Ashoka, as it operates in both EPC and BOT, would stand to greatly benefit from the visible upswing in awarding of contracts. The greater revenue assurance would translate to a better valuation multiple.

Balanced BOT portfolio

We believe that Ashoka's road projects possess the right balance, with its mature projects generating steady free-cash while the new projects provide growth opportunities. The company's BOT portfolio is divided in two; *a) project SPVs held by Ashoka directly and b) project SPVs held through the BOT holding-company arm, Ashoka Concessions (AC).*

- **Old projects, a cash cow:** Project SPVs directly held by Ashoka comprise state highways with years of operations. As the old projects, bagged in a less competitive environment, all of them have turned cash cows. Steady cash flows from mature projects give the company an edge over its peers struggling to arrange funds for future growth. Free-cash flows from past projects with tail periods ranging anywhere between two and five years (on 31stMar'15) would act as growth capital.

Mature assets generating free-cash flows for growth

Fig 11 – Cash flows from the projects to come as growth capital

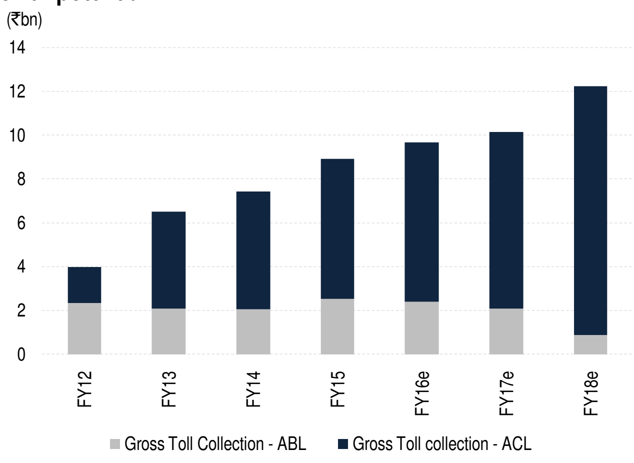
		FY15		
	Stake (%)	Toll collection (₹ m)	Outstanding debt (₹ m)	Residual tenure (yrs)
Indore-Edalabad	99.7	1,065	1,000	2.3
Wainganga bridge	50.0	255	95	2.9
Ahmednagar-Aurangabad road	100.0	197	-	3.4
Dewas bypass	100.0	191	-	*
Katni bypass	100.0	186	-	*
Others	100.0	638	-	2-5
Total		**2,532**	**1,095**	

*Source: Company Note: * Collecting toll under an order passed by the Madhya Pradesh High Court*

- **New projects gradually gaining ground:** Most of these new projects have not lived up to expectations (because of systemic issues such as the mining ban). Yet, the fact that most of them focus on stretches which connect the asset-rich areas to industrialised western India lead us to be sanguine about the long-term potential of such assets. We believe that when mining returns meaningfully, a long concession period would help capture the growth potential of such long-gestation projects.

Gradually improving operations at new projects to drive operating performance

Fig 12 – Growth potential



Source: Company, Anand Rathi Research Note: ABL stands for Ashoka Buildcon; ACL for Ashoka Concessions

Restricted equity requirement… premium re-scheduling to check gap funding

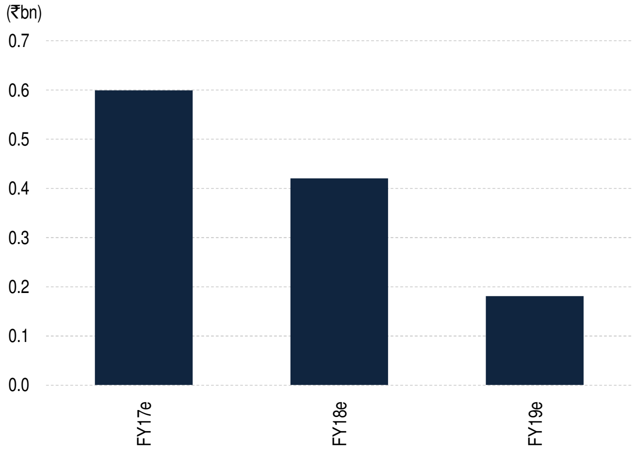
By 30th Sep'15, the entire portfolio, except the two recently-bagged Karnataka State Highways Improvement Project (KSHIP) annuity projects, had been fully funded. Besides the equity required for the two projects, the company would be required to provide stop-gap funding for the recently-commissioned Sambalpur-Baragarh project.

Equity requirement for two recently-bagged annuity projects at ~₹1.2bn; in addition, stop-gap funding required for one project

- Equity required for the two recently-bagged annuity projects in Karnataka is envisaged at ~₹1.2bn. This, we expect, to be phased over FY17, FY18 and early FY19.
- The Sambalpur-Baragarh project would need financial assistance as traffic is ~50% of initial estimates.
- Owing to the approval for premium deferment for the Dhankuni-Kharagpur and Belgaum-Dharwad projects, cash flow from operations, we believe, would suffice.

Anticipated free-cash-flow generation from past projects would act as the growth capital. Additionally, the standalone entity is under-leveraged now (after QIP money was utilised to de-lever). We expect the company to optimally lever its standalone balance sheet to fund the equity required.

Fig 13 – Pending equity infusion of ~₹1.2bn - estimated year-wise phasing



Source: Company, Anand Rathi Research

Fig 14 – Premium deferral to check shortfall

₹ m	FY16e	FY17e	FY18e
(Shortfall) / surplus without premium deferment			
Belgaum-Dharwad	-193	-150	-93
Sambalpur-Baragarh*	-658	-691	-723
Dhankuni-Kharagpur	-1,070	-1,086	-981
(Shortfall) / surplus with premium deferment			
Belgaum-Dharwad	163	245	322
Sambalpur-Baragarh*	-644	-676	-707
Dhankuni-Kharagpur	380	554	814

Source: Anand Rathi Research
** Premium deferment not considered as premium payment is very low*

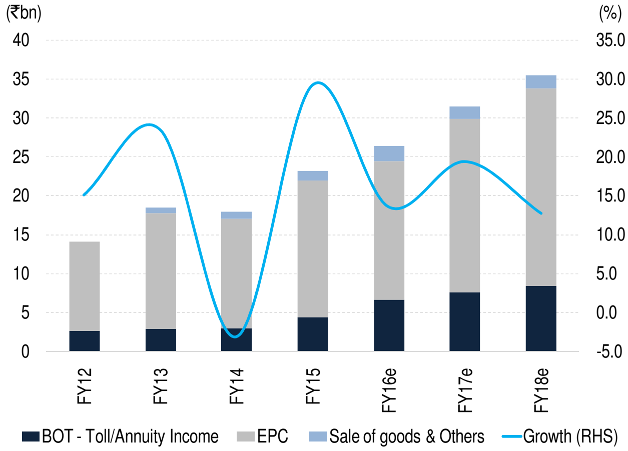
Financials

Revenue set to scale new heights

Revenues to register ~15.2% CAGR over FY15-18; to be largely driven by the BOT segment

Revenue seems set to record a ~15.2% CAGR over FY15-18, to ~₹35.5bn. We expect the BOT segment to lead from the front resulting in the company crossing ~₹30bn in annual revenue by FY17 itself. This segment would be ably supported by healthy growth in revenue of the EPC division.

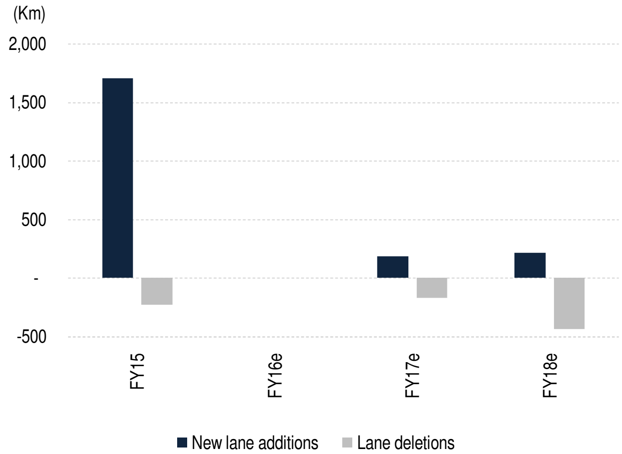
Fig 15 – BOTs to drive revenue growth



Source: Company, Anand Rathi Research

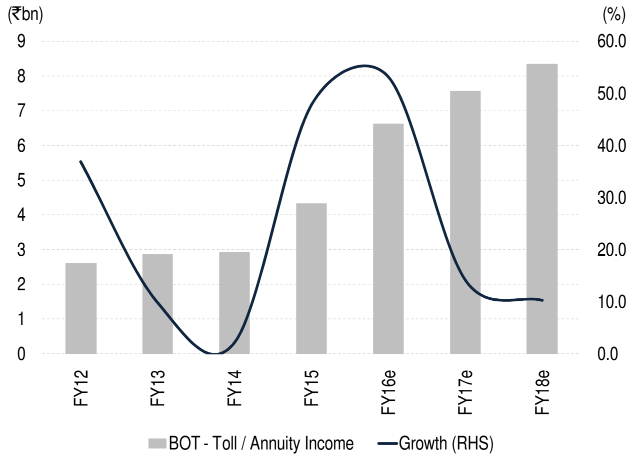
- On commissioning of operations at the Chennai annuity and the Mudhol-Nepani annuity (KSHIP WAP-II) projects, revenue stabilising at the recently-commissioned two projects (Dhankuni-Kharagpur and Sambalpur-Baragarh) and a gradual upswing in traffic for other operational assets, we see BOT revenue registering a ~24.5% CAGR over FY15-18 to ~₹8.3bn.

Fig 16 – Lane commissioning / de-commissioning



Source: Company, Anand Rathi Research

Fig 17 – Recently commissioned and new projects to drive growth

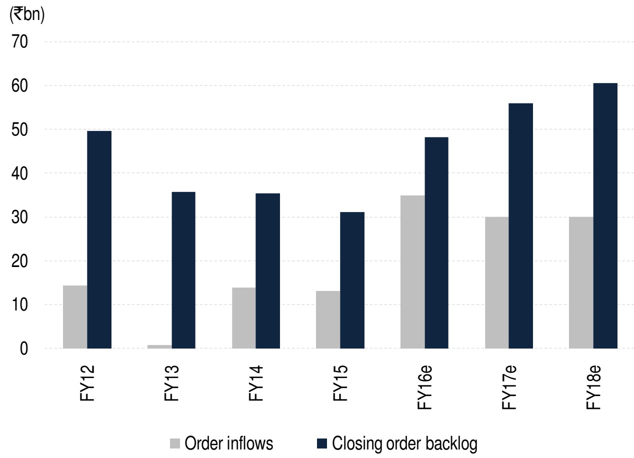


Source: Company, Anand Rathi Research

EPC revenues to register a ~13.1% CAGR over FY15-18

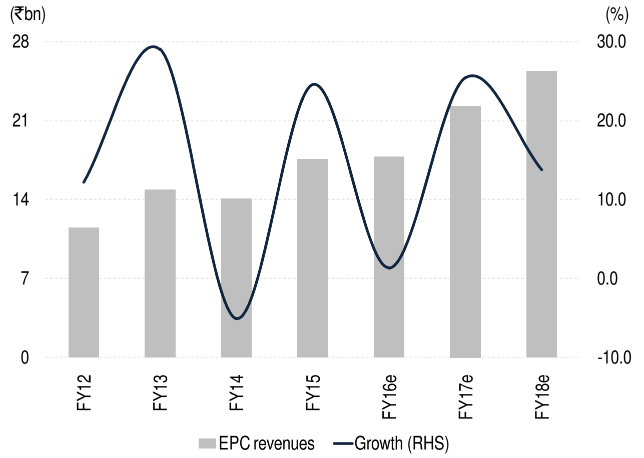
- With awarding of contracts in the roads sector likely to be healthy, we see the company securing contracts of ~₹95bn over FY16-18. These healthy order inflows and the company's proven execution capabilities would drive a ~13.1% CAGR in revenue from the EPC segment over FY15-18, to ~₹25.4bn.

Fig 18 – Envisage healthy order inflows



Source: Company, Anand Rathi Research

Fig 19 – New inflows to drive EPC revenue



Source: Company, Anand Rathi Research

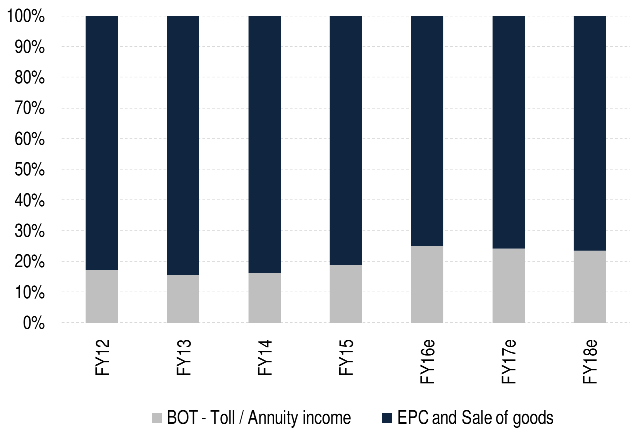
- Product sales, the third segment, is likely to register a 10% CAGR over FY15-18.

Increasing BOT income to widen margins

BOT- Toll / -Annuity income to account for ~24% of overall revenues; up from ~19% in FY15; to lead to margin expansion

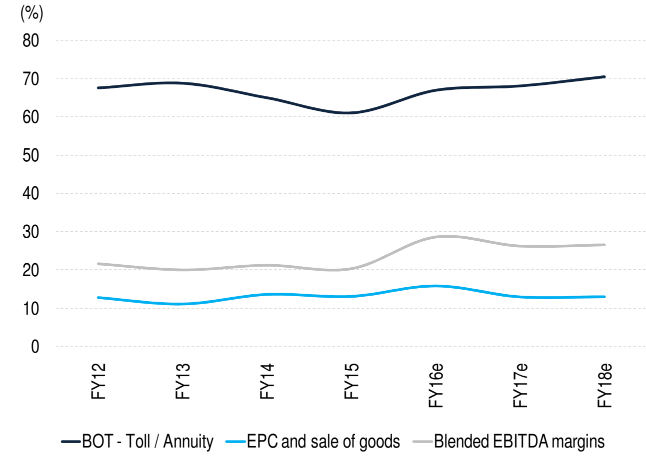
With toll income slated to register a ~24.5% CAGR, against an overall ~15.2% revenue CAGR, we see the revenue composition to turn favourable with the proportion of the high-margin BOT segment hitting ~24% (19% in FY15). This favourable change in revenue composition would expand the EBITDA margin to ~26.6% by FY18 (from ~20.4% in FY15). The margin profile would also improve owing to the gradually-maturing BOT vertical, which would drive the EBITDA margin to ~70.5% by FY18 (~61% in FY15; the FY15 EBITDA margin was constrained by one-offs).

Fig 20 – Revenue composition to turn favourable



Source: Company, Anand Rathi Research

Fig 21 – Favourable revenue composition to drive EBITDA margins



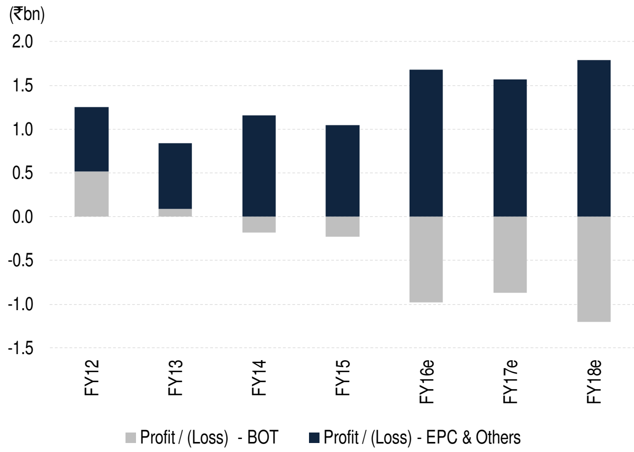
Source: Company, Anand Rathi Research

Commissioning of projects to contain earnings growth

Mounting losses in the BOT segment to contain consolidated earnings

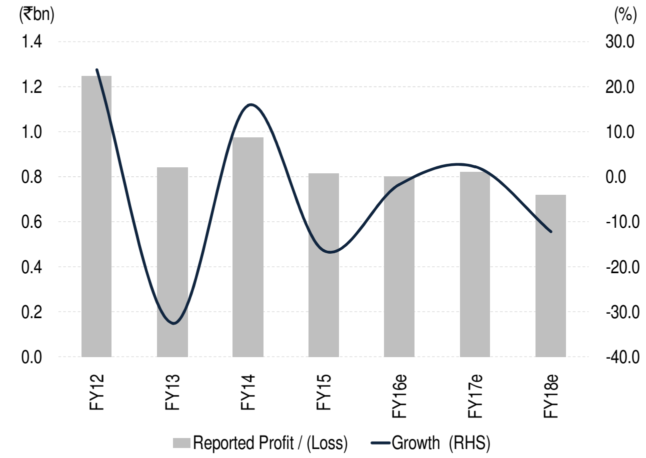
Though the operating performance is likely to improve, that would not hold true for the bottom line as commissioning of projects would mean that they add to the losses (the very nature of the business). Cessation of the concession period for the profitable Indore-Edalabad project in FY18 would also add to the losses. Losses in the BOT vertical would weigh heavy on the rising profitability of the EPC vertical (we expect a ~19.6% CAGR over FY15-18). We see losses in the BOT vertical to mount to ~₹1.2bn (from ~₹226m in FY15). This would largely be due to the commissioning of projects and the cessation of one of the mature projects, Indore-Edalabad, in FY18.

Fig 22 – Segment profitability*



*Source: Company, Anand Rathi Research Note: * Profit / (loss) after minority interest*

Fig 23 – Earnings growth to be subdued



Source: Company, Anand Rathi Research

Healthy cash profit but rise in working capital to limit OCF generation

Despite healthy, ~₹3.2bn, cash profit in FY16, operating cash-flow would be restrained at ~₹0.4bn because of the greater working capital required. The situation is likely to improve as new EPC orders start contributing and BOT–Toll/Annuity income gain momentum. Approval for the deferment of premium payable to the NHAI (for the Dhankuni-Kharagpur and Belgaum-Dharwad projects) would also aid in improving working capital. Operating CF would increase in FY17 to ~₹2.1bn, and to ~₹3.6bn in FY18.

Capex to lead to net debt moving up by ~₹13.6bn over FY15-18

The cash generated from business operations would largely be utilised to meet capex. The company would incur ~₹21.1bn capex over FY16-18 (incl. ~₹12bn for ~₹20bn of assumed new BOT projects). With capex expected to exceed cash flows from operations, net debt over FY15-18 would rise by ₹13.6bn. Had the company not raised ~₹4.9bn (net of expenses) through a qualified institutional placement in FY16, the increase in net debt would have been even higher.

Fig 24 – Free-cash-flow to be negative due to capex

₹ bn	FY15	FY16e	FY17e	FY18e
Operating cash-flow	0.6	0.4	2.1	3.6
Capex	-8.9	-6.0	-6.9	-8.2
Free-cash-flow	**-8.3**	**-5.5**	**-4.8**	**-4.6**
Utilisation /funding of free-cash-flow / negative cash-flow				
Equity raising (incl. change in minority interests)	0.8	4.2	-0.9	-0.8
Debt raised / (repaid)	6.7	2.4	6.9	5.5
Dividend payout (incl. tax)	-0.3	-0.3	-0.3	-0.3
Others	0.5	-	-	-
Net change in cash	**-0.5**	**0.7**	**0.8**	**-0.2**

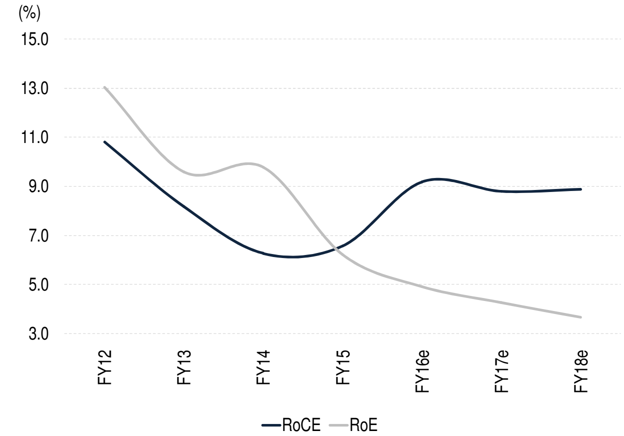
Source: Company, Anand Rathi Research

Project commissioning to lead to gradual improvement in the RoCE

Commissioning of BOT assets to result in the RoCE being better but the RoE to turn weak on early-cycle project losses

On the commissioning of projects, the capital employed in those under construction would gradually turn yielding in the next three years. This would raise the RoCE by FY18—from~6.6% to ~8.9%. It would improve even further because of the gradual increase in traffic at the operational assets and the project commissionings. As regards the RoE, the very nature of the BOT business (projects suffer losses at early stages of the lifecycle) is likely to weaken the RoE, by ~260bps, to ~3.6% by FY18. Additionally, the commissioning of projects and the cessation of the concession period for some mature assets (especially the Indore-Edalabad project) are likely to shrink the RoE. However, as operations at new projects stabilise, RoEs would improve.

Fig 25 – Return ratios - new BOTs to check return ratios

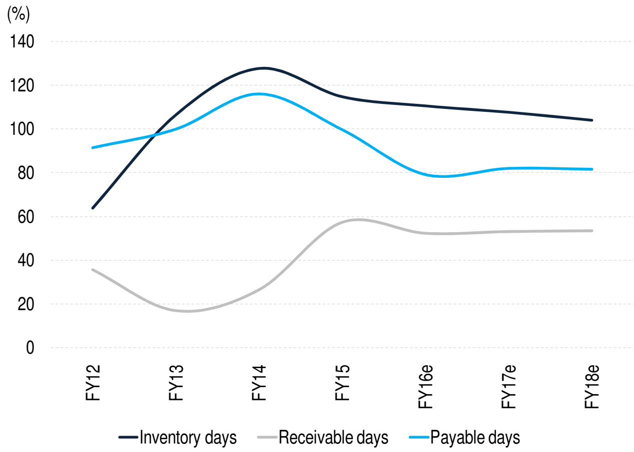


Source: Company, Anand Rathi Research

Efficiency ratios to be largely stable

As the roads EPC constitutes a larger share of EPC revenue, the falling proportion from the transmission EPC projects (entailing slightly higher receivable days) would result in fewer such days. We see receivables to come down from a high of 57 days in FY15 to ~53 by FY18. The figure would also benefit from the mounting percentage of the BOT Toll/Annuity income in overall revenue (entailing negligible receivables). We expect inventory days to drop due to the greater proportion of BOT Toll/Annuity income and no new investments in land. Payable days, too, are likely to come down.

Fig 26 – Cash-conversion cycle to improve



Source: Company, Anand Rathi Research

Fig 27 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	17,928	23,153	26,326	31,439	35,449
Other Op revenues	20	44	20	20	20
Revenues	**17,949**	**23,197**	**26,346**	**31,459**	**35,469**
Growth (%)	*-3.1*	*29.2*	*13.6*	*19.4*	*12.7*
Material Cost	-561	-754	-1,358	-1,096	-1,206
Employee Cost	-583	-754	-816	-975	-1,099
Manufacturing cost	-	-	-	-	-
Marketing cost	-	-	-	-	-
Administrative cost	-556	-1,001	-605	-723	-815
Energy cost	-	-	-	-	-
Other cost	-	-	-	-	-
Operating expenses	-12,427	-15,958	-16,021	-20,398	-22,917
EBITDA	**3,822**	**4,730**	**7,546**	**8,267**	**9,432**
Growth (%)	*2.8*	*23.8*	*59.5*	*9.6*	*14.1*
EBITDA margin (%)	*21.3*	*20.4*	*28.6*	*26.3*	*26.6*
Other income	297	290	420	300	300
Operating profit	**4,119**	**5,020**	**7,966**	**8,567**	**9,732**
Depreciation	-1,389	-1,517	-2,385	-2,622	-3,222
EBIT	**2,730**	**3,503**	**5,581**	**5,945**	**6,510**
Interest cost	-1,335	-2,721	-4,527	-4,825	-5,478
PBT	**1,394**	**782**	**1,054**	**1,120**	**1,032**
Tax	-688	-796	-1,003	-1,029	-965
Effective tax rate	*49.3*	*101.7*	*95.2*	*91.9*	*93.5*
PAT	**706**	**-13**	**51**	**91**	**67**
Minority interest	425	828	750	727	641
Associate profit	-	-	-	-	-
Consol PAT	**1,131**	**815**	**801**	**819**	**708**
Growth (%)	*13.3*	*-28.0*	*-1.7*	*2.2*	*-13.5*
PAT margin (%)	*6.3*	*3.5*	*3.0*	*2.6*	*2.0*
Extra-ordinary income	-157	-	-	-	-
Dividends (incl Tax)	-266	-290	-337	-337	-337
Transferred to reserves	**709**	**524**	**464**	**482**	**372**
Per Share data					
FDEPS (Rs)	7.2	5.1	4.3	4.4	3.8
DPS (Rs)	1.5	1.5	1.5	1.5	1.5
Adj BV (Rs)	80.0	85.5	101.1	103.7	105.6
CEPS (Rs)	16.0	14.7	17.0	18.4	21.0
Valuation ratio					
P/E (x)	26.3	36.7	44.1	43.1	49.9
P/adj BV (x)	2.4	2.2	1.9	1.8	1.8
P/C (x)	11.8	12.8	11.1	10.3	9.0
Dividend Yield (%)	0.8	0.8	0.8	0.8	0.8
EV/S (x)	3.6	3.2	2.9	2.6	2.5
EV/E (x)	17.1	15.5	10.0	9.8	9.2
Quality ratio					
Dividend Payout (%)	23.5	35.6	42.0	41.1	47.5
Other income/PBT (%)	21.3	37.1	39.8	26.8	29.1
Interest cover (x)	2.0	1.3	1.2	1.2	1.2
Operating CF/EBITDA (x)	0.1	0.1	0.1	0.2	0.4

Source: Company, Anand Rathi Research

Fig 28 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Equity	790	793	935	935	935
Reserves	11,839	12,776	17,973	18,455	18,826
Less: Misc Exp	-	-	-	-	-
Networth	**12,628**	**13,569**	**18,908**	**19,390**	**19,762**
Minority interests	**4,645**	**5,047**	**4,322**	**3,406**	**2,628**
Equity (% of CE)	*35.1*	*32.5*	*36.1*	*32.2*	*29.5*
LT Debt	30,515	36,721	39,447	45,829	50,952
ST Debt	1,412	2,006	1,764	2,294	2,706
Total debt	**31,927**	**38,726**	**41,211**	**48,122**	**53,657**
Net D/E (x)	*1.7*	*2.1*	*1.7*	*2.0*	*2.3*
DTL (net)	-21	-99	-148	-148	-148
Capital Employed	**49,180**	**57,244**	**64,294**	**70,771**	**75,899**
Gross block	46,718	1,32,024	1,39,472	1,46,347	1,54,547
Acc Depreciation	-6,467	-6,311	-8,676	-11,279	-14,480
Net block	**40,251**	**1,25,713**	**1,30,796**	**1,35,068**	**1,40,066**
CWIP	79,621	1,505	-	-	-
Fixed assets	**1,19,872**	**1,27,218**	**1,30,796**	**1,35,068**	**1,40,066**
Investments	2,847	2,345	2,345	2,345	2,345
Cash Equivalents	945	410	1,123	1,954	1,758
Inventories	6,272	7,286	7,974	9,271	10,100
Debtors	1,305	3,644	3,778	4,578	5,198
Loans & Advances	3,088	4,594	4,844	5,098	5,353
Other Current Assets	835	1,013	1,095	1,207	1,398
Current Assets	**12,444**	**16,946**	**18,815**	**22,108**	**23,807**
Creditors	-5,701	-6,332	-5,714	-7,066	-7,931
Provisions	-1,508	-1,978	-2,109	-2,618	-3,166
Other Current Liabilities	-78,773	-80,956	-79,839	-79,066	-79,223
Current Liabilities	**-85,983**	**-89,265**	**-87,662**	**-88,751**	**-90,320**
Net Current Assets	**-73,539**	**-72,319**	**-68,847**	**-66,643**	**-66,513**
Capital Deployed	**49,180**	**57,244**	**64,294**	**70,771**	**75,899**
FA/CE (%)	*243.7*	*222.2*	*203.4*	*190.9*	*184.5*
Investments/CE (%)	*4.0*	*3.8*	*3.4*	*3.1*	*2.9*
Liquid assets/CE (%)	*3.7*	*1.0*	*2.0*	*3.0*	*2.5*
Working Capital/CE (%)	*-151.5*	*-127.1*	*-108.8*	*-96.9*	*-89.9*

Source: Company, Anand Rathi Research

Fig 29 – Cash-flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Cash profit	2,521	2,332	3,186	3,441	3,930
Chg in WC	-2,136	-1,755	-2,759	-1,374	-326
Operating CF	**385**	**577**	**428**	**2,067**	**3,604**
Capex	-10,161	-8,864	-5,963	-6,894	-8,220
Free CF	**-9,776**	**-8,286**	**-5,536**	**-4,827**	**-4,616**
Equity	3,271	819	4,150	-916	-778
Debt	7,378	6,720	2,436	6,911	5,535
Investments	-23	502	-	-	-
Dividends	-266	-290	-337	-337	-337
Misc inflows	-157	-	-	-	-
Net change in cash	**427**	**-536**	**714**	**830**	**-195**
Opening cash	518	945	410	1,123	1,954
Closing cash	**945**	**410**	**1,123**	**1,954**	**1,758**

Source: Company, Anand Rathi Research

Fig 30 – Ratio analysis @ ₹189

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Dupont analysis					
Margins (%)	15.2	15.1	21.2	18.9	18.4
Capital turn (x)	0.4	0.4	0.4	0.5	0.5
RoCE (%)	6.3	6.6	9.2	8.8	8.9
Leverage factor (x)	3.8	4.1	3.7	3.5	3.7
Interest burden (x)	0.5	0.2	0.2	0.2	0.2
Tax burden (x)	0.5	-0.0	0.0	0.1	0.1
Consol factor (x)	1.6	-60.4	15.7	9.0	10.6
RoE (%)	9.8	6.2	4.9	4.3	3.6
Working capital (days)					
Inventories	128	115	110	108	104
Debtors	27	57	52	53	53
Loans & Advances	63	72	67	59	55
Other CA	17	16	15	14	14
Creditors	-116	-100	-79	-82	-82
Provisions	-31	-31	-29	-30	-33
Other CL	-1,602	-1,274	-1,106	-917	-815
Net WC	-1,515	-1,144	-969	-796	-703
Adj. Net WC*	78	55	87	89	82
Other ratios					
Operating dash-flow / revenue (%)	2.1	2.5	1.6	6.6	10.2
Free-cash-flow / revenue (%)	-54.5	-35.7	-21.0	-15.3	-13.0
Intangibles / GB (%)	252.2	94.9	92.8	91.5	90.1
Intangibles / CE (%)	239.6	219.0	201.3	189.3	183.4
Revenue / GB (x)	0.4	0.2	0.2	0.2	0.2
Revenue / FA (x)	0.1	0.2	0.2	0.2	0.3
CWIP / GB (x)	1.7	0.0	-	-	-

*Source: Company, Anand Rathi Research * Adjusted for liability recognised for premium payable over the concession period*

Valuation

Considering the company's operations in the two business segments, construction and road BOT, we utilise a sum-of-parts valuation. The construction division has been valued based on PE multiples of comparable companies. The road BOT business has been valued by the discounted-cash-flow (DCF) method. The investment in real estate has been taken at book value, though in the past the company monetised its real estate at a premium to book costs. The recently-raised funds through a qualified institutional placement have been considered on a cash basis.

- **Road BOT business:** Using the DCF method, we value the road BOT business at ₹61 a share. We have valued all the projects except the two recently-bagged KSHIP annuity ones, as they have yet to be financially closed.

Fig 31 – BOT projects - DCF valuation

₹ bn	State	Type	Status*	Laning	Lane-km	Project cost	Term loans #	Grant / Revenue share / (Premium)	Contract ending date	Economic interest (%)	Value per share (₹)
Ashoka Buildcon											
Nagar-Aurangabad	Maharashtra	Toll	O	Four	168	1.0	-	-	Sep-16	100	2
Indore-Edalabad	Madhya Pradesh	Toll	O	Two	407	1.7	1.0	0.5	Jul-17	100	4
Katni bypass	Madhya Pradesh	Toll	O	Two	35	0.7	-	-	Sep-14	100	-0
Dewas bypass	Madhya Pradesh	Toll	O	Two	40	0.6	-	-	Aug-15	100	1
Wainganga bridge	Maharashtra	Toll	O	Two	26	0.4	0.1	-	Feb-18	50	1
Mudhol-Nepani	Karnataka	Annuity	UI	Two	216	4.7	-	1.4	Dec-24	51	0
Others		Toll	O		30	0.3	-			100	1
Total - A					**921**	**9.4**	**1.1**				**8**
Ashoka Concessions											
Belgaum-Dharwad	Karnataka	Toll	O	Six	454	6.9	4.7	1st-yr premium @ ₹310m + 5% subsequent years	May-41	61	9
Sambalpur-Baragarh	Odisha	Toll	O	Four	408	11.4	8.0	1st-yr premium @ ₹13.3m + 5% subsequent years	May-41	61	-1
Dhankuni-Kharagpur	West Bengal	Toll	O	Six	841	22.0	12.5	1st-yr premium @ ₹1,260.6m + 5% subsequent years	Mar-37	61	19
Durg-Chhatisgarh	Chhattisgarh	Toll	O	Four	368	6.3	3.7	-	Jul-28	31	3
Bhandara(road)	Maharashtra	Toll	O	Four	377	5.3	3.2	0.1	Feb-28	31	4
Jaora-Nayagaon	Madhya Pradesh	Toll	O	Four	340	8.7	5.6	1st-yr premium @ ₹153m + 5% subsequent years	Feb-33	23	16
Pimpalgaon-Nashik-Gonde	Maharashtra	Toll	O	Six	452	16.9	12.5	1st-yr revenue share @ 6.19% + 1% subsequent years	Jan-30	16	-0
Chennai ORR	Tamil Nadu	Annuity	UI	Six	183	14.4	5.1	2.0	Mar-34	31	4
Total - B					**3,422**	**91.9**	**55.3**				**53**
Grand Total - (A+B)					**4,344**	**101.3**	**56.4**				**61**

*Source: Company, Anand Rathi Research * O – Operational, UI – Under implementation # On 31st Mar'15*

- **Construction business:** On 30th Sep'15, the company had an order backlog of ~₹44.4bn, 2.5x the TTM EPC segment revenue. With more contracts awarded in road-infrastructure development, we see healthy order inflows in the years ahead. We have valued the construction business by assigning a P/E multiple of 15x FY17e EPS of ~₹8.4. The per-share value of the construction division thus works out to ₹126.

Fig 32 – Construction business – relative valuation

₹	FY16e	FY17e	FY18e
EPS - construction business	9.0	8.4	9.5
Assigned P/E multiple (x)		15	
Per-share value		**126**	

Source: Anand Rathi Research

- **Real estate:** The company has also invested in land (~₹2.8bn as at 31st Mar'15). At 1x PBV, these investments reflect a per-share value of ~₹15.

Based on the above, we arrive at a price target of ₹228 a share. We initiate coverage on the company with a Buy rating.

Fig 33 – Sum-of-parts

₹ per share	Method	Value per share (₹)
BOT division	DCF	61
Construction division	P/E	126
QIP monies	Book value	26
Real estate	1x book value	15
Target price		**228**

Source: Anand Rathi Research

Fig 34 – Sensitivity analysis for change in traffic growth and tariff hike

		Change in estimated traffic growth (%)				
	₹ / share	-1.0	-0.5	-	0.5	1.0
Change in estimated tariff hike (%)	-1.0	195	203	210	219	228
	-0.5	203	210	219	228	238
	-	210	219	**228**	238	248
	0.5	219	228	238	248	259
	1.0	228	238	248	259	271

Source: Anand Rathi Research

Fig 35 – Sensitivity analysis for change in WACC rate and interest rate

		Change in interest rate (%)				
	₹ / share	-1.0	-0.5	-	0.5	1.0
Change in WACC (%)	-1.0	245	241	236	232	228
	-0.5	240	236	232	228	224
	-	236	232	**228**	224	221
	0.5	231	228	224	221	218
	1.0	227	224	221	218	215

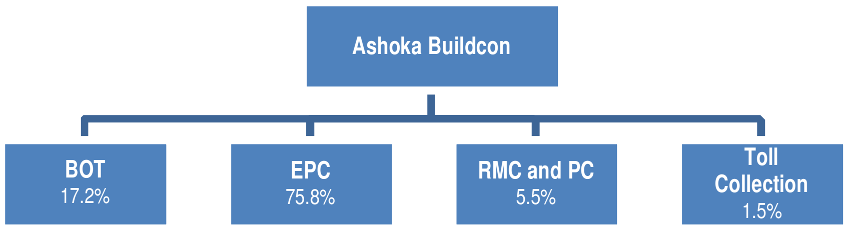
Source: Anand Rathi Research

Company Background & Management

This full-service road-infrastructure developer goes back to 1976; until 1997, however, it was solely into engineering and construction of residential, commercial, industrial and institutional buildings. Sensing significant growth opportunities in roads and highways, it acquired the required skills and began to bid for BOT toll roads and bridges. Gradually, it ventured into manufacturing ready-mixed concrete (RMC) and power T&D EPC.

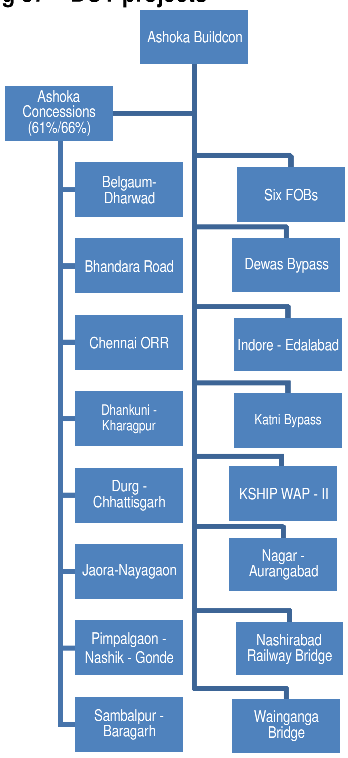
Over the years, it has evolved into a fully-integrated road infrastructure developer, with operations in BOT, EPC, toll-collection contracts and RMC. Today, it is in a sweet spot as the smaller equity required for projects under construction and lower leverage than most of its peers would help it capture growth opportunities as the NHAI awards gain further traction. The less intense competition for BOT projects would also help it secure projects at a better internal rate of return (IRR). Even in EPC, its strong execution capabilities and healthy balance sheet would ensure it is in the lead as project-awarding picks up pace.

Fig 36 – Business Model



Source: Anand Rathi Research Note: Percentages denote revenue contribution in FY15

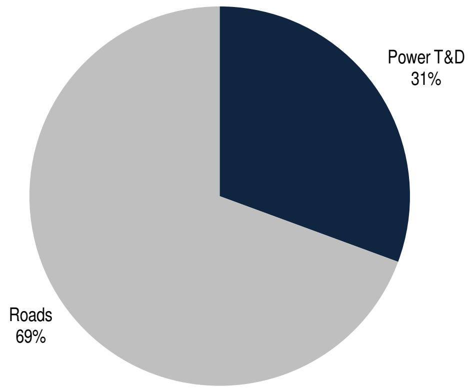
Fig 37 – BOT projects



Source: Company

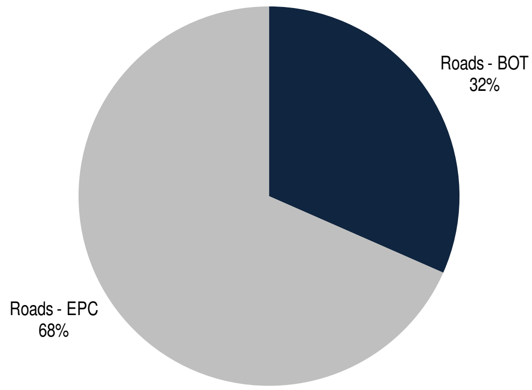
- **BOT division:** This division has an interest in 16 road BOT projects (excl. the two recent annuity orders) of ~4,344 lane-km in Maharashtra, Madhya Pradesh, Chhattisgarh, Karnataka, Odisha, West Bengal and Tamil Nadu. Of these projects, 14 are operational, two under construction. Besides, the company has recently bagged two annuity projects in Karnataka (financial closure and appointed date awaited). It is also executing a 1,500 kW/hr hydro-electric plant at Waghur, due to be completed in FY16.
- **EPC division:** By 30th Sep'15, the company had executed more than 60 roads and bridges, comprising ~4,015 lane-km (of its own BOT projects) and ~1,189 lane-km (of third-party projects). Besides it has executed power transmission and distribution works. On 30th Sep'15, it had an unexecuted order book of ~₹44.4bn.

Fig 38 – Order-backlog composition - ~₹44.4bn



Source: Company, Anand Rathi Research

Fig 39 – Roads - BOT vs EPC split



Source: Company, Anand Rathi Research

- **RMC and PC poles division:** The company also sells ready-mixed concrete and pre-cast concrete poles. This division supports the EPC division by ensuring timely and quality RMC and PC poles for orders bagged by the EPC division. The company has 16 RMC plants, 116 concrete-mixer transit trucks, 17 concrete pumps and three boom-placers.
- **Toll-collection-contracts division:** To date, the company has entered into six agreements to collect tolls on roads/bridges owned and constructed by third parties. At present, it has one toll collection contract with the NHAI to collect toll at Kognoli on the NH4 in Karnataka, expiring 28th Jan'16.

Board of Directors and Management

- Promoter and Chairman **Ashok M. Katariya** is a B.E. (gold medallist) from COEP, Pune University, and has over 35 years' experience in civil construction. He started working as a contractor to the PWD, Maharashtra, in 1975.
- Managing Director **Satish D. Parakh** has a B.E. in civil engineering, and has been associated with the group since 1982, executing various industrial/residential and BOT projects.
- **Other directors:** Apart from these, the company has two other whole-time directors and five independent directors. The ratio of non-independent to independent directors is 44:56.

Equity history

Ashoka entered the capital market in Oct'10, with a public issue of 6.9m shares at ₹324 each (face value: ₹10), totalling ~₹2.2bn. Thereafter, its equity capital rose to ₹526m. In 2013, it reduced the face value to ₹5 a share and subsequently issued bonus shares (one for every two held), thus raising its equity capital to ₹790m. To create a war chest for future growth, it came out with a QIP in Apr'15, raising ~₹5bn at ~₹176 a share (face value: ₹5).

Fig 40 – Equity history

Date	Share capital (₹m)	Premium (₹m)*	Reason
20-Apr-15	935	171	Qualified institutional placement
31-Mar-15	793	-	According to the annual report - adjusted for ESOPs
05-Jul-13	790	-	Bonus issue in the ratio of 1:2
31-Mar-13	527	-	According to the annual report - adjusted for ESOPs
14-Oct-10	526	157	Public issue
31-Mar-08	457	-	According to the annual report

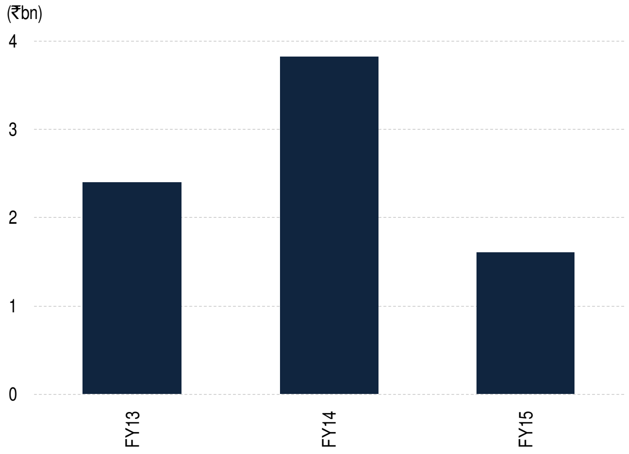
Source: Company, ACE Equity ** Adjusted for Bonus issue*

Ashoka Concessions' financial partner, Macquarie SBI Infrastructure

Till 31st Mar'15, cumulative equity investment in Ashoka Concessions by the financial partner of ~₹7.8bn; last tranche of ~₹0.2bn infused in Q3 FY16

To arrange funds so that the growth momentum continued smoothly and to unlock value, the company entered into an agreement with Macquarie SBI Infrastructure Investments Pte. Ltd. (MSII) to introduce the latter as a partner in the BOT holding company arm, Ashoka Concessions. The multi-party agreement, dated 11th Aug'12, was entered into in relation to investment by the former in the latter of up to ₹8bn. Pursuant to the multi-party agreement, the company and the MSII had agreed to subscribe to equity shares of Ashoka Concessions in a shareholding ratio of 66:34 or 61:39. The percentage stake held by MSII is contingent on the performance of one of the seven assets held through Ashoka Concessions at the time of the agreement.

Fig 41 – Cumulative equity infusion by financial partner



Source: Company

7 December 2015

IRB Infrastructure

Steady as ever; initiating, with a Buy

Rating: **Buy**
Target Price: ₹303
Share Price: ₹250

We initiate coverage with a Buy rating on this fully-integrated road infrastructure developer with extensive experience in construction, development and operation of road projects. We like IRB Infrastructure for its established portfolio of BOT assets and proven execution capabilities. We believe it is poised to benefit from opportunities arising in BOT roads since there are only few bidders of its size and scale. Besides, it has a 100% toll-based portfolio (unlike peers whose portfolios are a mix of Toll and Annuity), which would be a pure play on economic recovery.

BOT portfolio to gain on economic revival: Our confidence in IRB to emerge as one of the key beneficiaries of the anticipated upturn in economic activity (and hence revived traffic growth) stems from the fact that a large part of its project portfolio is along high-traffic-density corridors and is already generating revenue.

EPC to scale new highs: Because of its healthy order backlog (excl. O&M at ~₹96.4bn on 30th Sep'15) and execution capabilities, IRB's EPC revenue is likely to scale fresh highs. We expect its EPC revenue to register a ~17.4% CAGR, to hit a high of ~₹32.5bn by FY18.

Eyeing value-unlocking through InvIT: The company is likely to be the first off the block to list an infrastructure investment trust (InvIT). If the plan to float an InvIT is successful, the company would essentially become a capital-rate-compression story. In our estimates, every 50-bp cut in the cap-rate translates to ~7% higher value.

Valuation. Based on our sum-of-parts-valuation-based price target of ₹303, we see the stock trading at an exit PBV multiple of 2x FY17e consolidated book value, against the current multiple of 1.7x. Consequently, it offers 21% potential from a one-year perspective. **Risk.** Less-than-expected traffic growth would be the key concern.

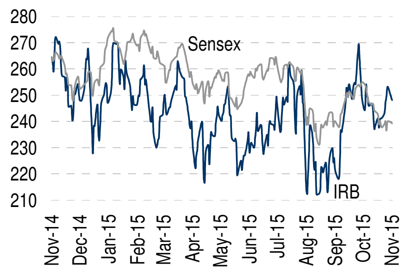
Key financials (YE Mar)	FY14	FY15	FY16e	FY17e	FY18e
Sales (₹ m)	37,319	38,475	47,136	57,492	65,599
Net profit (₹ m)	4,591	5,429	6,169	5,898	6,788
EPS (₹)	13.8	15.4	17.6	16.8	19.3
Growth (%)	-18.5	11.8	13.6	-4.4	15.1
PE (x)	18.1	16.2	14.2	14.9	12.9
PBV (x)	2.3	2.0	1.8	1.7	1.5
RoE (%)	13.5	13.7	13.5	11.7	12.4
RoCE (%)	10.4	10.2	10.4	11.3	12.0
Dividend yield (%)	1.6	1.6	1.6	1.6	1.6
Net debt/equity (x)	2.7	2.5	2.6	2.9	2.9

Source: Company, Anand Rathi Research

Key data	IRB IN / IRBI.BO
52-week high/low	₹276 / ₹197
Sensex/Nifty	26169 / 7955
3-m average volume	$6.5m
Market cap	₹88bn / $1,322m
Shares outstanding	351m

Shareholding pattern (%)	Sep '15	Jun '15	Mar'15
Promoters	57.8	57.8	57.8
- of which, Pledged	0.4	0.4	0.4
Free Float	42.2	42.2	42.2
- Foreign Institutions	27.4	26.5	26.9
- Domestic Institutions	8.5	9.1	8.0
- Public	6.3	6.6	7.3

Relative price performance



Source: Bloomberg

Prem Khurana
Research Analyst
+91-22- 6626 6470
premkhurana@rathi.com

Lokesh Pareek
Research Analyst
+91-22- 6626 6615
lokeshpareek@rathi.com

Quick Glance – Financials and Valuations

Fig 1 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	37,319	38,475	47,136	57,492	65,599
Revenue growth (%)	1.2	3.1	22.5	22.0	14.1
- Oper. expenses	19,782	16,358	21,093	24,373	26,651
EBIDTA	**17,537**	**22,117**	**26,042**	**33,119**	**38,948**
EBITDA margins (%)	47.0	57.5	55.2	57.6	59.4
- Interest	7,562	9,312	10,401	13,377	16,262
- Depreciation	4,771	7,071	8,503	11,128	12,624
+ Other income	1,214	1,130	1,173	1,173	1,173
- Tax	1,823	1,441	2,132	3,878	4,439
Effective tax rate (%)	28.4	21.0	25.7	39.6	39.5
+ Associates/(minorities)	-5	6	-10	-11	-7
Adjusted PAT	4,591	5,429	6,169	5,898	6,788
+ Extraordinary items	-	-	-	-	-
Reported PAT	4,591	5,429	6,169	5,898	6,788
Adj. FDEPS (₹/sh)	13.8	15.4	17.6	16.8	19.3
Adj. FDEPS growth (%)	-18.5	11.8	13.6	-4.4	15.1

Source: Company, Anand Rathi Research

Fig 2 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Share capital	3,324	3,515	3,515	3,515	3,515
Reserves & surplus	32,283	40,094	44,576	48,787	53,888
Net worth	35,607	43,609	48,090	52,301	57,402
Total debt	1,10,841	1,25,762	1,41,413	1,66,238	1,82,838
Minority interest	356	351	361	372	379
Def. tax liab. (net)	143	170	170	170	170
Capital employed	**1,46,947**	**1,69,891**	**1,90,034**	**2,19,082**	**2,40,790**
Net fixed assets	3,492	3,639	3,666	3,725	3,764
Intangible assets	1,26,919	3,62,352	3,82,943	4,45,409	4,66,462
Investments	145	88	82	82	82
- of which, Liquid	132	80	80	80	80
Working capital	1,567	-2,11,986	-2,11,940	-2,45,669	-2,45,728
Cash	14,823	15,798	15,282	15,535	16,210
Capital deployed	**1,46,947**	**1,69,891**	**1,90,034**	**2,19,082**	**2,40,790**
Adj. W C turn (days)*	15	27	22	17	15
Book value (₹/sh)	107.1	124.1	136.8	148.8	163.3

*Source: Company, Anand Rathi Research * Adjusted for LT liability classified as ST*

Fig 3 – Cash-flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Adjusted PAT	4,591	5,429	6,169	5,898	6,788
+ Non-cash items	4,771	7,071	8,503	11,128	12,624
Cash profit	9,362	12,500	14,672	17,025	19,412
- Incr./(decr.) in WC	-522	-2,13,554	47	-33,730	-59
Operating cash-flow	9,884	2,26,053	14,625	50,755	19,472
- Capex	30,934	2,42,650	29,122	73,652	33,717
Free-cash-flow	-21,050	-16,597	-14,497	-22,897	-14,245
- Dividend	1,555	1,621	1,687	1,687	1,687
+ Equity raised	-721	4,188	10	11	7
+ Debt raised	22,965	14,947	15,652	24,825	16,600
- Investments	-475	-57	-6	-	-
- Misc. items	-	-	-	-	-
Net cash-flow	113	975	-516	253	675
+ Op. cash & bank bal.	14,710	14,823	15,798	15,282	15,535
Cl. Cash & bank bal.	14,823	15,798	15,282	15,535	16,210

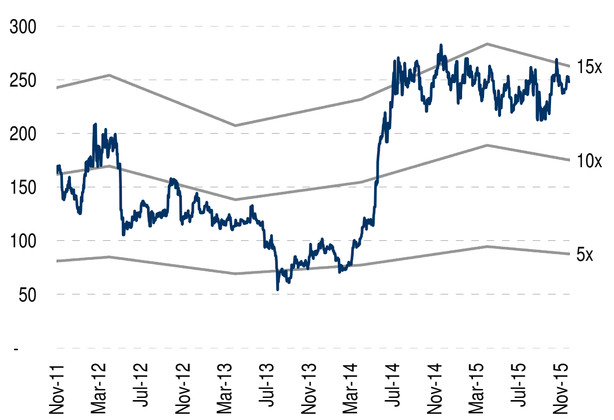
Source: Company, Anand Rathi Research

Fig 4 – Ratio analysis @ ₹250

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
P/E (x)	18.1	16.2	14.2	14.9	12.9
Cash P/E (x)	8.9	7.0	6.0	5.2	4.5
EV/EBITDA (x)	10.5	8.9	8.2	7.2	6.5
EV/sales (x)	4.9	5.1	4.5	4.1	3.9
P/B (x)	2.3	2.0	1.8	1.7	1.5
RoE (%)	13.5	13.7	13.5	11.7	12.4
RoCE (%)	10.4	10.2	10.4	11.3	12.0
Dividend yield (%)	1.6	1.6	1.6	1.6	1.6
Dividend payout (%)	33.9	29.9	27.3	28.6	24.9
Net debt/equity (x)	2.7	2.5	2.6	2.9	2.9
Debtor days	1	0	1	1	1
Inventory days	26	25	25	25	25
Payables days	40	22	35	35	35
Interest cover (x)	1.8	1.7	1.8	1.7	1.7
Fixed asset T/O (x)	0.3	0.1	0.1	0.1	0.1

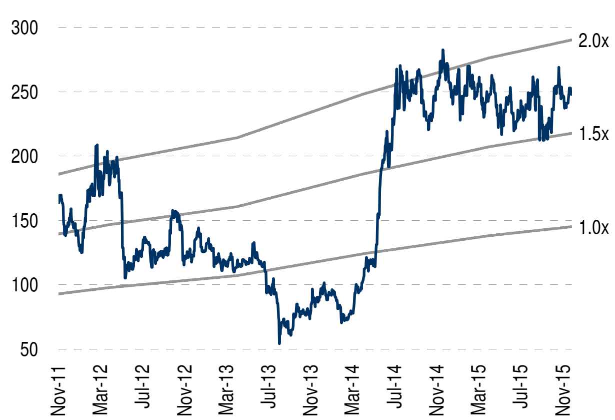
Source: Company, Anand Rathi Research

Fig 5 – PE band



Source: Bloomberg, Anand Rathi Research

Fig 6 – PB band



Source: Bloomberg, Anand Rathi Research

BOT portfolio, a play on eco-revival

Over its years of operations, IRB has built up a range of geographically-diversified (20) road BOT assets. Unlike most of its peers, however, where portfolios are a mix of BOT-Toll and BOT-Annuity projects, the company's entire portfolio comprises BOT-Toll projects. This makes it one of the best plays on anticipated traffic-growth revival. Our certainty regarding IRB emerging as one of the key beneficiaries of the anticipated upturn in economic activity (and hence traffic-growth revival) stems from the fact that a large part (~54%) of its project portfolio is along high-traffic-density corridors (largely six-lane/expressways). Of these, ~75% is already revenue-operational. Additionally, the company holds a ~13.2% share of the Golden Quadrilateral. With government efforts already underway to ensure greater economic activity in the years ahead and a thrust on "Make in India", we see the recent rise in traffic growth (closely co-related with economic growth) to more than sustain. Since IRB has projects along high-traffic-density corridors, it is likely to emerge as one of the key beneficiaries of the sustained revival in traffic growth. Any increase in traffic would improve cash flows and revenue growth.

Combined cash profits from three key mature assets to move up from ~₹6.5bn in FY15 to ~₹10.2bn by FY18

- **Mature assets – generating free-cash-flows:** For most infrastructure assets, returns are typically tilted toward later in the concession period. Road BOT assets are no different, and generally tend to produce a J-curve-like profile of cash flows and earnings. Of the various road asset operators, IRB enjoys the distinction of having good assets, which have already turned profitable and are generating free-cash-flows. Of the completed projects, three key assets combined yielded a cash profit of ~₹6.5bn during FY15. This is around ~52% of cash profits registered at the corporate level. We see these cash flows as being handy to ensure equity required is met in a timely manner and growth continues unabated.

Fig 7 – Old assets to drive cash flows

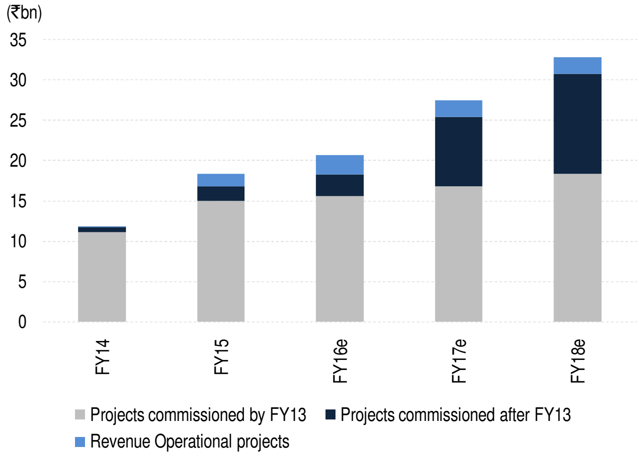
	Cash profits				
₹ bn	**FY14**	**FY15**	**FY16e**	**FY17e**	**FY18e**
Mumbai-Pune	2.9	4.2	4.1	3.3	4.9
Surat-Dahisar	1.3	1.3	2.2	2.7	3.3
Bharuch-Surat	1.0	1.0	1.3	1.7	2.0
Total	**5.2**	**6.5**	**7.7**	**7.6**	**10.2**
Combined term loans at these SPVs*		20.9			

Source: Company, Anand Rathi Research
** Term loans on 30th Sep'15*

New assets to drive operating performance

- **Old assets help generate cash flows; new assets drive growth:** The company's projects are a balance of mature and fresh assets. We see the old/mature assets providing stability to the financials/cash flow owing to established traffic flows. The recently-commissioned / yet-to-be-commissioned assets (where traffic flows have yet to be established) provide the fillip to the growth momentum. Yet, new projects, once commissioned, would prove to be a drag on profitability for the first few years (because of the very nature of the business) but commissioning would mean non-yielding capital employed turns yielding and cash flows improve. Consequently, service-coverage ratios would also look better.

Fig 8 – New assets to drive BOT-Toll income



Source: Company, Anand Rathi Research
** Revenue-operational projects under construction: six-laning projects*

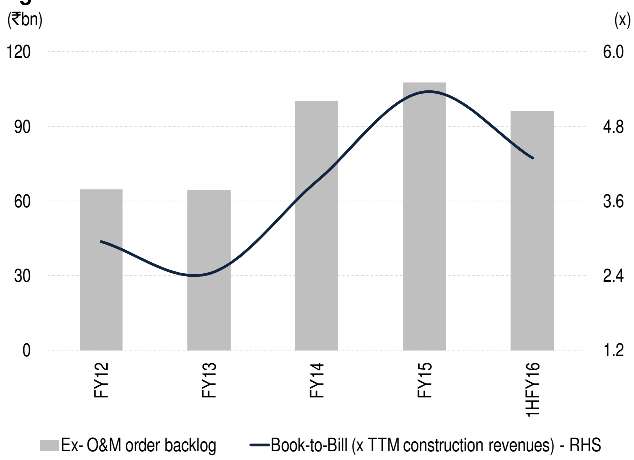
EPC to scale new highs

An integrated road BOT operator, the company carries out EPC work in-house for road BOT projects. Not only is the EPC work carried out in-house but O&M is also carried out only internally. This enables IRB to reduce depending on sub-contractors, and exercise greater control over quality and execution timelines. Because it carries out EPC work in-house, the company captures the entire economic-value chain of the road BOT business. On account of its proven execution capabilities, we see it continuing to deliver strong growth in the EPC vertical. We believe the present order backlog would more than suffice for the EPC vertical to scale fresh highs.

Excluding O&M, the ~₹96.4bn order backlog provides more than ample revenue assurance; targeted addition of 300-400km annually to add to the growth momentum

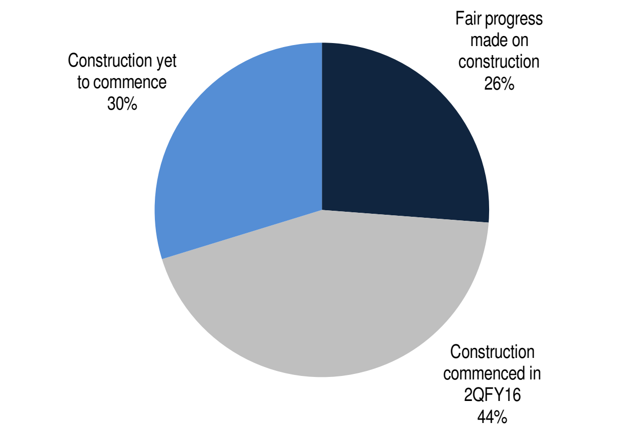
- **Backlog offers more than ample assurance:** On 30th Sep'15, the order backlog was ~₹114.7bn. Adjusted for long gestation O&M orders, the backlog executable is ~₹96.4bn and provides more-than-ample revenue assurance. Because of its healthy order backlog and proven execution capabilities, we see EPC revenue scaling fresh highs. A gradual upturn in construction at Yedeshi-Aurangabad and Kaithal-Rajasthan (pending EPC of ~₹42.4bn) coupled with commencement of construction at the Agra-Etawah project (EPC size of ~₹21.8bn) in the short term (on receipt of the appointed date) would help provide the more-than-healthy growth momentum. Additionally, management intends to add projects of 300-400km annually. New project additions, if they materialise, would accelerate growth momentum even further.

Fig 9 – Revenue assurance evident



Source: Company

Fig 10 – Order-book composition suggests healthy growth

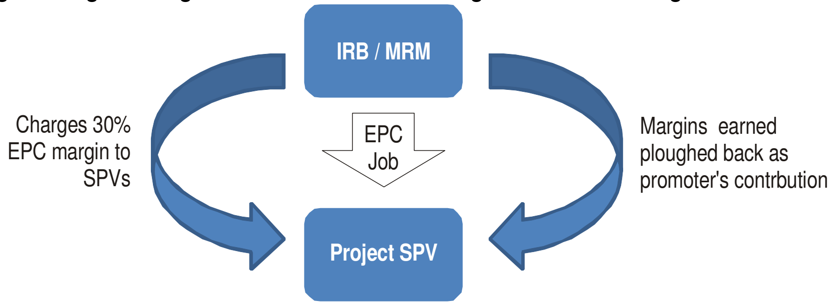


Source: Company

High EPC margins help partly finance the equity required through higher borrowing at the SPV level; typically less-expensive SPV-level debt augments IRRs

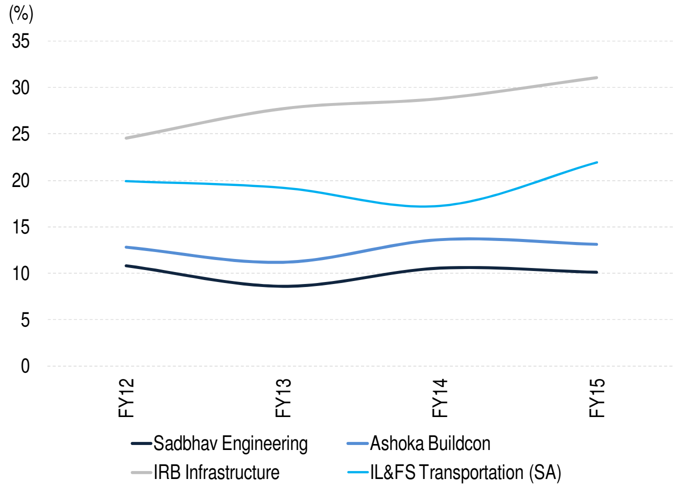
- **Industry-leading EPC margins help upfront project cash-flows:** The company's EPC arm commands exceptionally high margins on EPC jobs sub-contracted from project SPVs. Time and again, questions have been raised about the company's strategy to load higher margins since higher project costs at the SPV level would mean the project takes longer to turn profitable. We do not see this as a matter of grave concern as margins are yet within the consolidated entity. The high margins not only help partly finance the equity required through higher borrowing at the SPV level but also augment the entity-level project IRR since SPV-level borrowing is typically less expensive than corporate-level debt.

Fig 11 – Higher margins = front loaded IRR and greater debt funding



Source: Anand Rathi Research

Fig 12 – Industry-leading construction margins



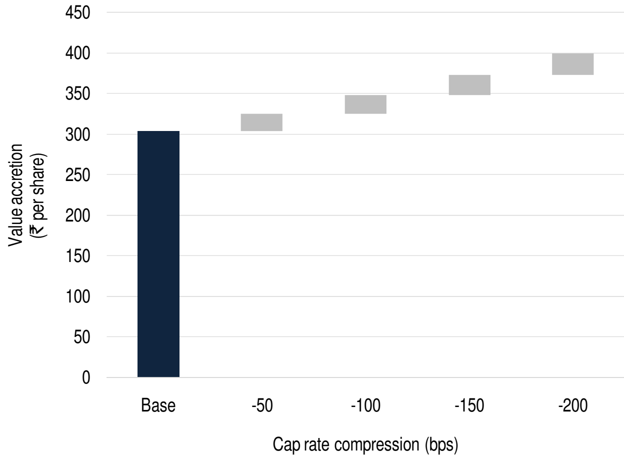
Source: Company

Eyeing value unlocking through InvIT – potential trigger

The company is likely to be first off the block to list an InvIT. The idea is to carve out a number of projects and list them separately in an InvIT. This essentially would make such projects a play on yield for investors willing to have long-term assets with a stable revenue stream in their portfolio. The company would benefit as it would cash out investments at a profit (the quantum would depend on yield expectations of investors) and the funds so generated would be utilised to look at growth opportunities. Essentially, the role of IRB would be to create assets, stabilise operations and transfer such assets to an InvIT. The planned InvIT, if it goes through, would be a re-rating trigger as it would make the stock a capital-rate-compression story.

Every 50-bp cut in the cap-rate translates to ~7% greater value

Fig 13 – Sensitivity to capital-rate compression



Source: Anand Rathi Research

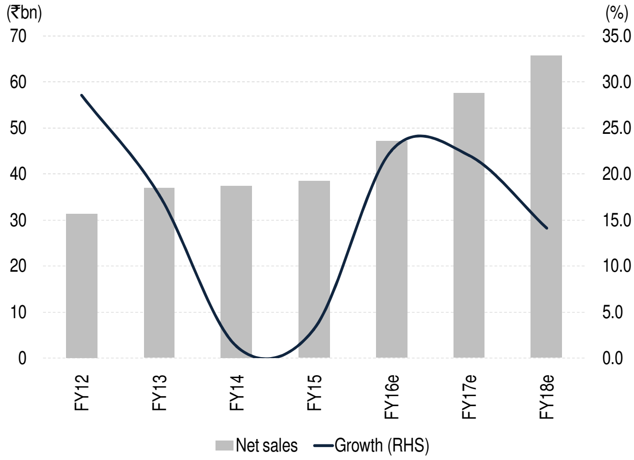
Financials

Revenue CAGR over FY15-18 estimated at 19.5%

BOT vertical expected to drive overall revenue CAGR of ~19.5% over FY15-18

The better performances of the two key business verticals, EPC and BOT, are likely to lead to the company registering a robust ~19.5% revenue CAGR over FY15-18, to take revenue to ~₹65.6bn. Of the two verticals, BOT is likely to come ahead with a 21.7% revenue CAGR; the EPC vertical would not be far behind with a 17.4% revenue CAGR.

Fig 14 – Revenues set to scale new highs

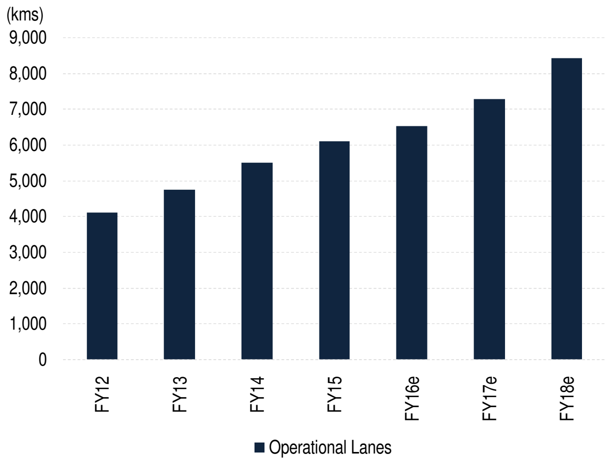


Source: Company, Anand Rathi Research

BOT vertical to clock a ~21.7% revenue CAGR over FY15-18

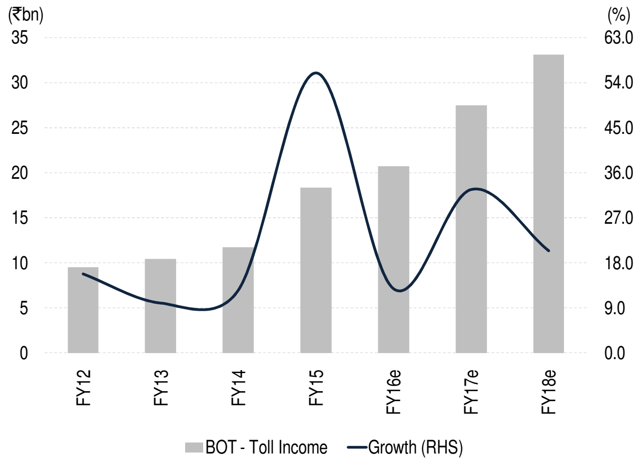
- We expect revenue in the BOT vertical to increase from ~₹18.4bn in FY15 to ~₹33.1bn by FY18. Besides the gradual rise in revenue across its operational assets (due to the increased traffic and hiked toll fee), we see construction completion at three new projects and the recently bagged Agra-Etawah project turning revenue-operational in FY17 to drive BOT-Toll revenue.

Fig 15 – Lane-km set to increase



Source: Company, Anand Rathi Research

Fig 16 – Increasing lane-km to drive BOT revenue

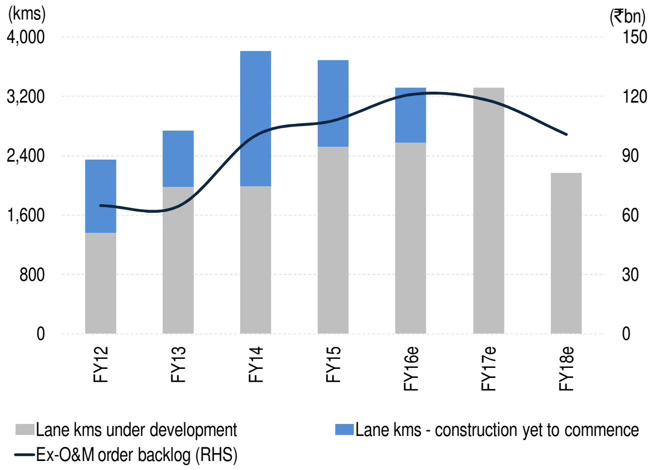


Source: Company, Anand Rathi Research

Steady pace of execution at projects being implemented and construction commencing at Agra-Etawah would drive EPC revenue

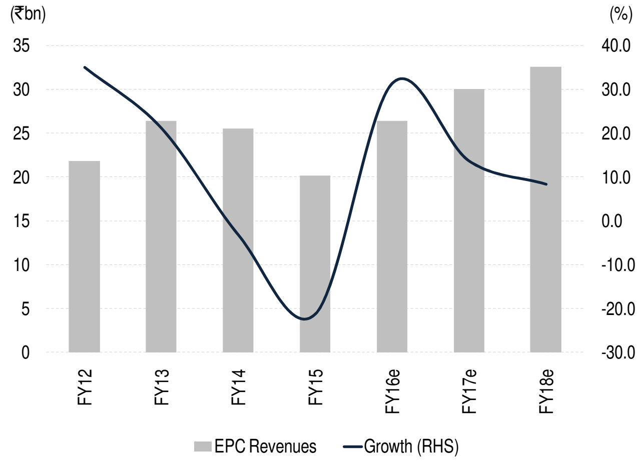
- In the EPC vertical, revenue would be higher as project execution at the under-construction portfolio is gaining momentum and construction is set to commence at Agra-Etawah in FY17. Additionally, we expect assumed order inflows of ~₹78.6bn over FY16-18 to contribute to the top-line. Consequently, we see EPC revenue registering a ~17.4% CAGR to a high of ~₹32.5bn by FY18.

Fig 17 – FY17 to see all projects being implemented



Source: Company, Anand Rathi Research

Fig 18 – Projects being implemented to drive EPC revenue



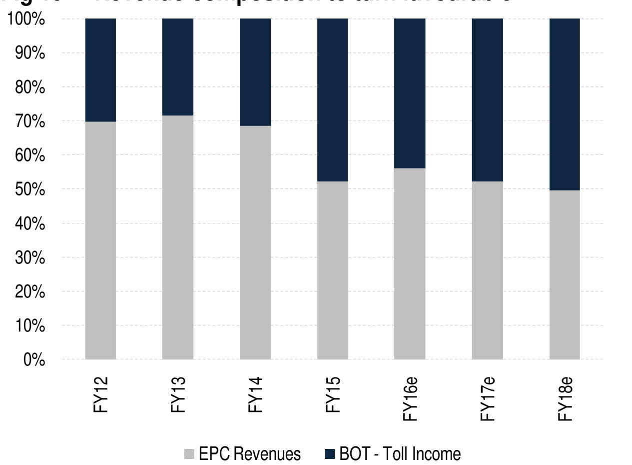
Source: Company, Anand Rathi Research

Revenue increasingly tilted toward BOT to push up operating margins

Margins to expand on favourable revenue composition and margin expansion for BOT

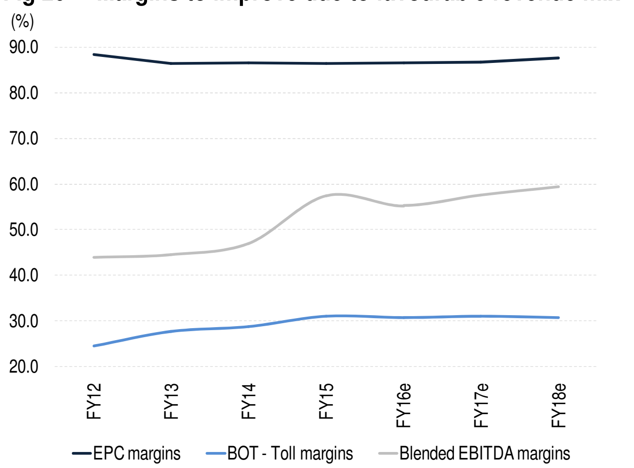
With growth in BOT revenue expected to outpace growth in EPC revenue, we see consolidated revenue as tilted in favour of the high-margin BOT vertical. Consequently, the EBITDA margin is likely to improve by ~189bps over FY15-18 to a new high of ~59.4%. We expect the EBITDA margins of the EPC vertical to be around 31% over FY15-18 whereas the BOT margin is likely to improve by ~111bps to ~87.6%.

Fig 19 – Revenue composition to turn favourable



Source: Company, Anand Rathi Research

Fig 20 – Margins to improve due to favourable revenue mix



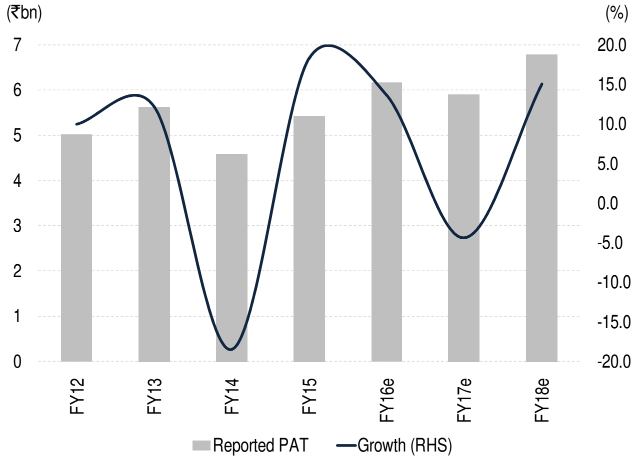
Source: Company, Anand Rathi Research

On BOT-project commissioning, earnings would lag revenue growth

Start-up losses for new BOT commissioning to check earnings growth

A strong improvement in operating performance is unlikely to translate into an equally healthy performance in net profit due to the commissioning of BOT projects. Such commissioning would mean that finance costs and depreciation would eat into profitability. As finance costs and depreciation, combined are likely to be higher than the anticipated contribution of operating profits from new projects, earnings would register only a~7.7% CAGR.

Fig 21 – New BOT projects to keep earnings growth in check



Source: Company, Anand Rathi Research

On asset creation, free-cash-flow to be negative … gearing ratio to inch up

Over FY15-18, net debt set to increase by ~₹56.7bn on ~₹102.9bn capex

A strong performance in terms of project execution, coupled with a healthy increase in toll collection (on the commissioning of projects and gradually improved toll collection in past projects) is likely to keep operating cash-flow healthy. We see the company generating operating cash-flows of ~₹51.3bn over FY16-18. Despite such healthy operating cash-flows, cumulative capex of ~₹102.9bn over FY16-18 is likely to lead to the company registering negative free-cash-flows of ~₹51.6bn. Negative free-cash-flows, coupled with dividend pay-outs, are likely to translate to a~₹56.7bn increase in net debt.

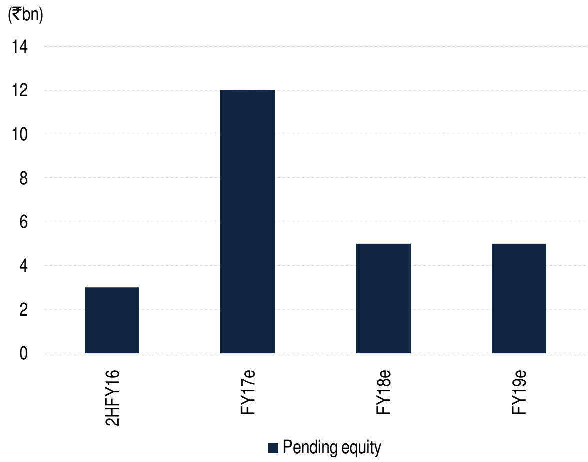
Fig 22 – Capex to keep free-cash-flows negative

₹ bn	FY15	FY16e	FY17e	FY18e
Operating cash-flows	**6.1**	**14.6**	**17.2**	**19.5**
Capex	-22.7	-29.1	-40.0	-33.7
Free-cash-flows	**-16.6**	**-14.5**	**-22.9**	**-14.2**
Utilisation of positive FCF / Funding of negative FCF				
Dividend pay-out	-1.6	-1.7	-1.7	-1.7
Debt raised / (repaid)	14.9	15.7	24.8	16.6
Other financing activities	4.2	0.0	0.0	0.0
Net incr. / (decr.) in cash balance	**1.0**	**-0.5**	**0.3**	**0.7**

Source: Company, Anand Rathi Research

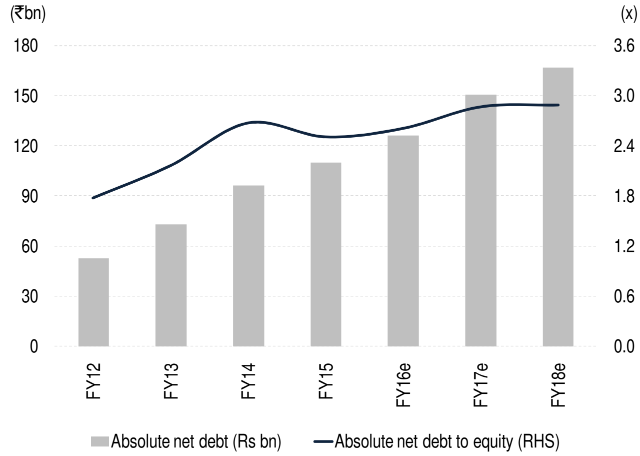
Because of the drawdown of project finances to fund capex and utilisation of internal accruals to meet pending equity requirement (~₹26bn on 30th Sep'15), the net-debt-to-equity ratio would rise from ~2.5x on 31st Mar'15 to ~2.9x on 31st Mar'18.

Fig 23 – Phased pending equity requirement - ₹26bn



Source: Company, Anand Rathi Research

Fig 24 – Leverage set to increase due to capex

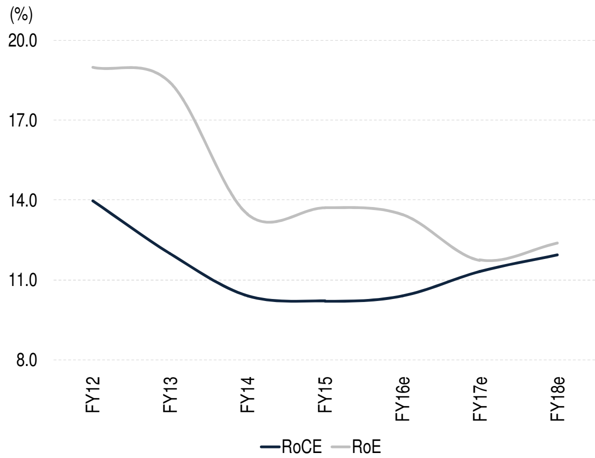


Source: Company, Anand Rathi Research

Healthy operating performance to translate into better RoCE… RoE to turn weak

The improved operating performance because of the commissioning of relatively high-margin BOT projects, coupled with the healthy pace of project execution, is likely to take the RoCE to ~12% by FY18, from ~10.2% in FY15. Although the RoCE is likely to improve ~175bps over FY15-18, we see the RoE as weighed down by greater finance costs and a higher effective tax incidence (as some new projects would register losses). We see the RoE to be compressed by ~133bps, to ~12.4%, owing to lower net margins.

Fig 25 – RoCE set to improve; RoE to turn weak on project commissioning

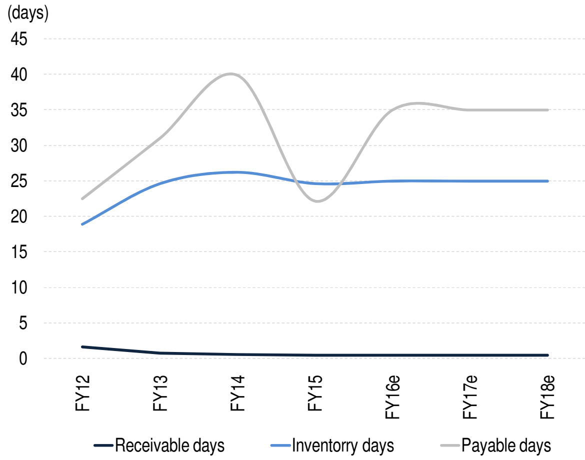


Source: Company, Anand Rathi Research

Efficiency ratios to improvement due to the changing revenue mix

As the company carries out EPC jobs only for captive BOT projects, its working-capital position is unlikely to change meaningfully. We see receivable days at a steady ~1 as we anticipate project SPVs to make payments in a timely manner. Inventory days are likely to be steady at ~25 because of the timely bill-raising by the construction arm. As for payable days, we expect the company to continue to enjoy around a month's credit.

Fig 26 – Steady efficiency ratios



Source: Company, Anand Rathi Research

Fig 27 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	37,319	38,475	47,136	57,492	65,599
Other Op revenues	-	-	-	-	-
Revenues	**37,319**	**38,475**	**47,136**	**57,492**	**65,599**
Growth (%)	*1.2*	*3.1*	*22.5*	*22.0*	*14.1*
Material Cost	-5,027	-4,345	-8,464	-9,798	-10,773
Employee Cost	-1,799	-1,898	-1,586	-1,801	-1,952
Manufacturing cost	-	-	-	-	-
Marketing cost	-	-	-	-	-
Administrative cost	-1,327	-1,400	-1,025	-1,135	-1,264
Energy cost	-	-	-	-	-
Other cost	-	-	-	-	-
Operating expense	-11,630	-8,715	-10,020	-11,639	-12,662
EBITDA	**17,537**	**22,117**	**26,042**	**33,119**	**38,948**
Growth (%)	*6.9*	*26.1*	*17.7*	*27.2*	*17.6*
EBITDA margin (%)	*47.0*	*57.5*	*55.2*	*57.6*	*59.4*
Other income	1,214	1,130	1,173	1,173	1,173
Operating profit	**18,751**	**23,247**	**27,215**	**34,292**	**40,121**
Depreciation	-4,771	-7,071	-8,503	-11,128	-12,624
EBIT	**13,980**	**16,176**	**18,712**	**23,164**	**27,496**
Interest cost	-7,562	-9,312	-10,401	-13,377	-16,262
PBT	**6,419**	**6,864**	**8,311**	**9,788**	**11,234**
Tax	-1,823	-1,441	-2,132	-3,878	-4,439
Effective tax rate	*28.4*	*21.0*	*25.7*	*39.6*	*39.5*
PAT	**4,596**	**5,424**	**6,179**	**5,909**	**6,795**
Minority interest	-5	6	-10	-11	-7
Associate profit	-	-	-	-	-
Consol PAT	**4,591**	**5,429**	**6,169**	**5,898**	**6,788**
Growth (%)	*-18.5*	*18.2*	*13.6*	*-4.4*	*15.1*
PAT margin (%)	*12.3*	*14.1*	*13.1*	*10.3*	*10.3*
Extra-ordinary income	-	-	-	-	-
Dividends (incl Tax)	-1,555	-1,621	-1,687	-1,687	-1,687
Transferred to reserves	**3,036**	**3,808**	**4,482**	**4,211**	**5,101**
Per Share data					
FDEPS (₹)	13.8	15.4	17.6	16.8	19.3
DPS (₹)	4.0	3.9	4.0	4.0	4.0
Adj BV (₹)	107.1	124.1	136.8	148.8	163.3
CEPS (₹)	28.2	35.6	41.7	48.4	55.2
Valuation ratio					
P/E (x)	18.1	16.2	14.2	14.9	12.9
P/adj BV (x)	2.3	2.0	1.8	1.7	1.5
P/C (x)	8.9	7.0	6.0	5.2	4.5
Dividend Yield (%)	1.6	1.6	1.6	1.6	1.6
EV/S (x)	4.9	5.1	4.5	4.1	3.9
EV/E (x)	10.5	8.9	8.2	7.2	6.5
Quality ratio					
Dividend Payout (%)	33.9	29.9	27.3	28.6	24.9
Other income/PBT (%)	18.9	16.5	14.1	12.0	10.4
Interest cover (x)	1.8	1.7	1.8	1.7	1.7
Operating CF/EBITDA (x)	0.6	10.2	0.6	1.5	0.5

Source: Company, Anand Rathi Research

Fig 28 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Equity	3,324	3,515	3,515	3,515	3,515
Reserves	32,283	40,094	44,576	48,787	53,888
Less: Misc Exp	-	-	-	-	-
Net worth	**35,607**	**43,609**	**48,090**	**52,301**	**57,402**
Minority interests	**356**	**351**	**361**	**372**	**379**
Equity (% of CE)	*24.5*	*25.9*	*25.5*	*24.0*	*24.0*
LT Debt	1,01,876	1,19,447	1,29,035	1,50,830	1,64,370
ST Debt	8,965	6,315	12,379	15,408	18,469
Total debt	**1,10,841**	**1,25,762**	**1,41,413**	**1,66,238**	**1,82,838**
Net D/E (x)	*2.7*	*2.5*	*2.6*	*2.9*	*2.9*
DTL (net)	143	170	170	170	170
Capital employed	**1,46,947**	**1,69,891**	**1,90,034**	**2,19,082**	**2,40,790**
Gross block	1,05,855	3,44,227	3,44,577	3,78,579	3,79,114
Accum. depreciation	-20,311	-26,589	-35,093	-46,220	-58,845
Net block	**85,544**	**3,17,638**	**3,09,484**	**3,32,359**	**3,20,270**
CWIP	44,867	48,353	77,125	1,16,775	1,49,956
Fixed assets	**1,30,411**	**3,65,991**	**3,86,610**	**4,49,134**	**4,70,226**
Investments	145	88	82	82	82
Cash Equivalents	14,823	15,798	15,282	15,535	16,210
Inventories	2,683	2,598	3,228	3,938	4,493
Debtors	55	49	65	79	90
Loans & Advances	8,519	8,845	9,267	9,693	10,161
Other Current Assets	400	536	469	498	533
Current Assets	**26,480**	**27,827**	**28,311**	**29,743**	**31,486**
Creditors	-4,078	-2,339	-4,520	-5,513	-6,290
Provisions	-2,888	-2,189	-2,173	-2,160	-2,151
Other Current Liabilities	-3,125	-2,19,487	-2,18,276	-2,52,204	-2,52,563
Current Liabilities	**-10,090**	**-2,24,015**	**-2,24,969**	**-2,59,877**	**-2,61,005**
Net Current Assets	**16,390**	**-1,96,188**	**-1,96,658**	**-2,30,134**	**-2,29,519**
Capital Deployed	**1,46,947**	**1,69,891**	**1,90,034**	**2,19,082**	**2,40,790**
FA/CE (%)	*88.7*	*215.4*	*203.4*	*205.0*	*195.3*
Investments/CE (%)	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Liquid assets/CE (%)	*10.2*	*9.3*	*8.1*	*7.1*	*6.8*
Working Capital/CE (%)	*1.1*	*-124.8*	*-111.5*	*-112.1*	*-102.1*

Source: Company, Anand Rathi Research

Fig 29 – Cash flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Cash profit	9,362	12,500	14,672	17,025	19,412
Chg in WC	522	2,13,554	-47	33,730	59
Operating CF	**9,884**	**2,26,053**	**14,625**	**50,755**	**19,472**
Capex	-30,934	-2,42,650	-29,122	-73,652	-33,717
Free CF	**-21,050**	**-16,597**	**-14,497**	**-22,897**	**-14,245**
Equity	-721	4,188	10	11	7
Debt	22,965	14,947	15,652	24,825	16,600
Investments	475	57	6	-	-
Dividends	-1,555	-1,621	-1,687	-1,687	-1,687
Misc inflows	-	-	-	-	-
Net change in cash	**113**	**975**	**-516**	**253**	**675**
Opening cash	14,710	14,823	15,798	15,282	15,535
Closing cash	**14,823**	**15,798**	**15,282**	**15,535**	**16,210**

Source: Company, Anand Rathi Research

Fig 30 – Ratio analysis @ ₹250

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Dupont analysis					
Margins (%)	37.5	42.0	39.7	40.3	41.9
Capital turn (x)	0.3	0.2	0.3	0.3	0.3
RoCE (%)	10.4	10.2	10.4	11.3	12.0
Leverage factor (x)	3.9	4.0	3.9	4.1	4.2
Interest burden (x)	0.5	0.4	0.4	0.4	0.4
Tax burden (x)	0.7	0.8	0.7	0.6	0.6
Consol factor (x)	1.0	1.0	1.0	1.0	1.0
RoE (%)	13.5	13.7	13.5	11.7	12.4
Working capital (Days)					
Inventories	26	25	25	25	25
Debtors	1	0	1	1	1
Loans & Advances	83	84	72	62	57
Other CA	4	5	4	3	3
Creditors	-40	-22	-35	-35	-35
Provisions	-28	-21	-17	-14	-12
Other CL	-31	-2,082	-1,690	-1,601	-1,405
Net WC	15	-2,011	-1,641	-1,560	-1,367
Adj Net WC*	15	27	22	17	15
Other ratios					
Op CF/Rev (%)	26.5	587.5	31.0	88.3	29.7
FCF/Rev (%)	-56.4	-43.1	-30.8	-39.8	-21.7
Intangibles/GB (%)	119.9	105.3	111.1	117.7	123.0
Intangibles/CE (%)	86.4	213.3	201.5	203.3	193.7
Revenue/GB (x)	0.4	0.1	0.1	0.2	0.2
Revenue/FA (x)	0.3	0.1	0.1	0.1	0.1
CWIP/GB (x)	0.4	0.1	0.2	0.3	0.4

*Source: Company, Anand Rathi Research * Adjusted for liability recognised towards premium payable over concession period*

Valuation

Considering the company's exposure to the road-asset-ownership business, construction, wind assets and real estate, we have utilised a sum-of-parts valuation. The construction business has been valued using a comparative method based on PE multiples for comparable companies. The road BOT business has been valued using the discounted-cash-flow (DCF) approach. The investment in the land bank/real estate is valued at a discount to the cost of acquisition. In wind power, we value 20MW of operational assets at replacement cost.

- **Road BOT business:** Using the DCF approach, we have valued IRB's road BOT business at ₹212 a share. We have valued all the road BOT projects except the IRDP Kolhapur (termination proceedings underway) and the Mumbai-Pune phase II (committee formed to decide on award). Both these have not been considered because of the limited clarity regarding their fate.

Fig 31 – BOT projects – DCF valuation

	State	Laning	Status*	Lane (km)	Project costs (₹ bn)	Premium / (grant) / revenue share (₹ bn)	Term loan (on 30th Sep'15, ₹ bn)	COD	Concession period (years)	Stake (%)	Per share value (₹)
Thane-Bhiwandi	Maharashtra	Four	O	96	1.0	-	0.7	Jan-99	19	100.0	0
Pune-Solapur	Maharashtra	Four	O	104	0.6	-	0.5	Mar-03	16	100.0	0
Pune-Nashik	Maharashtra	Four	O	119	0.7	-	0.8	Sep-03	18	100.0	0
Mumbai-Pune	Maharashtra	Four	O	1,014	13.0	9.2	4.9	Aug-04	15	100.0	39
Thane-Ghodbunder	Maharashtra	Four	O	60	2.5	1.4	1.3	Dec-05	15	100.0	1
Omallur Salem Namakkal	Tamil Nadu	Four	O	274	3.1	22.4% revenue share + ₹1bn premium	2.1	Aug-06	20	74.0	8
Bharuch-Surat	Gujarat	Six	O	390	14.7	5.0	6.1	Jan-07	15	100.0	20
IRDP-Kolhapur	Maharashtra	Four	O	-	4.3	0.3	3.9	Jan-09	30	100.0	-
Surat-Dahisar	Maharashtra / Gujarat	Six	O	1,534	25.4	Ist yr revenue share @ 38% + 1% subsequent yrs	9.9	Feb-09	12	100.0	18
Jaipur-Deoli	Rajasthan	Four	O	585	17.3	-3.1	8.9	Jun-10	25	100.0	19
Talegaon-Amravati	Maharashtra	Four	O	267	8.9	-2.2	4.8	Sep-10	22	100.0	12
Pathankot-Amritsar	Punjab	Four	O	410	14.5	-1.3	9.1	Dec-10	20	100.0	8
Tumkur-Chitradurga	Karnataka	Six	O	684	11.4	Ist yr premium @ ₹1.4 bn + 5% subsequent years	9.3	Jun-11	26	100.0	30
Ahmedabad-Vadodara (NE)	Gujarat	Four	RO	373	48.8	Istyr premium @ ₹3.1 bn + 5% subsequent years	29.2	Dec-15	25	100.0	18
Ahmedabad-Vadodara (NH)	Gujarat	Six	UI	614							
Solapur-Yedeshi	Maharashtra	Four	UI	395	14.9	-1.9	3.1	Jul-17	29	100.0	4
Goa/ Karnataka border to Kundapur	Karnataka	Four	UI	758	26.4	-5.4	8.7	Aug-16	28	100.0	7
Yedeshi-Aurangabad	Maharashtra	Four	UI	756	31.8	-5.6	3.4	Dec-17	26	100.0	18
Kaithal-Rajasthan border	Haryana	Four	UI	665	22.9	-2.3	2.5	Jan-18	27	100.0	17
Agra-Etawah	Uttar Pradesh	Six	-	747	26.5	Ist yr premium @ ₹0.8 bn + 5% subsequent years	-	NA	24	100.0	-6
Mumbai-Pune II	Maharashtra	Four	-	-	21.9		-	Aug-19	9	100.0	-
Others (concession ceased in FY16)										100.0	-1
Grand Total				**9,846**	**310.6**		**109.3**				**212**

Source: Company, Anand Rathi Research ** O - Operational, UI - Under implementation, RO - Under implementation, but revenue operational*

- **Construction:** We have valued the construction business by assigning a P/E multiple of 8x the FY17e construction EPS of ₹11.0 a share. Consequently, the value of the construction business works out to ₹88 a share.

Fig 32 – Construction business - Relative valuation

₹ m	FY16e	FY17e	FY18e
EPS for EPC business	9.2	11.0	11.0
Assigned P/E (x)		8	
Value per share for EPC business		**88**	

Source: Anand Rathi Research

- **Wind Power:** The company owns and operates 16 wind turbines of 20MW, in Jaisalmer (Rajasthan). This has been tied up for 20 years with the Jodhpur Vidhyut Vitran Nigam. The assets have been valued at ~₹50m a MW, bringing ~₹3 to the price target.

Based on our sum-of-parts valuation, we arrive at a price target of ₹303 a share. In our fair-value estimate, we have not considered any potential that could accrue if the planned InvIT listing goes through. We estimate that every 50-bp compression in the cap rate/discount rate, due to the InvIT listing, could translate to 7% greater value.

Fig 33 – Sum-of-parts

Particulars	Methodology	Value (₹ / share)
Road BOTs	DCF	212
Construction business	P/E	88
Wind power	Market value	3
Target price - FY17e		**303**

Source: Anand Rathi Research

Optional value – real estate: Through one of its majority subsidiaries, the company owns certain land parcels in Mouje Taje and Mouje Pimpoli in Pune. We have not considered them in the valuation. On 31st Mar'15 equity invested for the land was ~₹0.6bn.

Fig 34 – Sensitivity analysis for change in traffic growth and tariff hike

Change in estimated tariff hike (%)		Change in traffic growth assumptions (%)				
	₹ / share	-1.0	-0.5	-	0.5	1.0
	-1.0	202	226	251	277	304
	-0.5	225	250	276	304	333
	-	249	275	**303**	332	364
	0.5	273	301	331	363	397
	1.0	300	330	362	396	433

Source: Anand Rathi Research

Fig 35 – Sensitivity analysis for change in WACC rate and interest rate

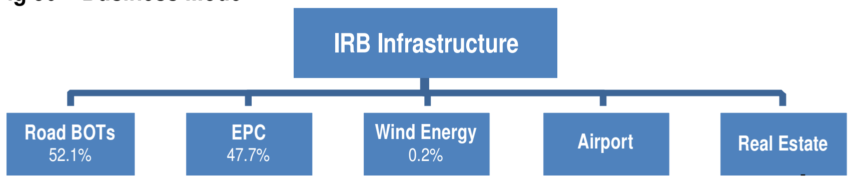
Change in WACC (%)		Change in interest rate (%)				
	₹ / share	-1.0	-0.5	-	0.5	1.0
	-1.0	386	366	347	328	311
	-0.5	360	341	324	307	291
	-	336	319	**303**	287	272
	0.5	314	298	283	268	254
	1.0	293	279	265	251	238

Source: Anand Rathi Research

Company Background & Management

Incorporated in 1998 as DVJ Leasing and Finance Pvt. Ltd., the company took its present name IRB Infrastructure Developers Pvt. Ltd. in 2006. Its project portfolio of 20 road BOT projects with 9,846 lane-km makes it one of the largest infrastructure development companies in India in roads and highways. Besides, it has small operations in airports (Sindhudurg), wind energy and real estate (planned township in Maharashtra).

Fig 36 – Business Model



Source: Company Note - Percentages denote FY15 revenue composition

A portfolio of 20 road BOT projects with 9,846 lane-km

- **Road BOTs:** Over the many years of operating in the roads and highways segment, the company has put together a portfolio of 20 road BOT projects, of 9,846 lane-km. Of the 20, 14 are operational, the rest at various stages of development. The company holds a ~13.2% share in the Golden Quadrilateral, one of the busiest corridors.

Fig 37 – Road BOT portfolio - status on 30th Sep'15

Particulars	(km)	(%)
Lane-km being implemented	3,188	32.4
Lane-km operational	5,911	60.0
Lane-km where construction has yet to commence	747	7.6
Total	**9,846**	**100.0**

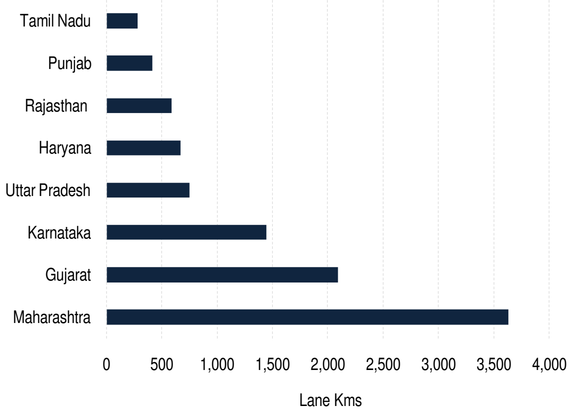
Source: Company

- **Construction:** This vertical complements the BOT infrastructure-development business of the company. The segment essentially involves engineering, procurement and construction (EPC) work for captive road BOT projects.
- **Airports:** The company is also involved in developing an airport in Sindhudurg (Maharashtra) on a BOT basis. Construction has been outsourced to L&T.
- **Wind energy:** The company owns and operates 16 wind turbines of 20 MW, in Jaisalmer (Rajasthan). A power-purchase agreement (PPA) is in place with the Jodhpur Vidhyut Vitran Nigam, a state government-owned and controlled entity, to sell electricity for 20 years.
- **Real estate:** As part of the Kolhapur integrated-road-development project (IRDP), the company has access to development rights for 30,000 sq.mt. for a hotel property. Besides, through one of its majority subsidiaries, it owns certain land parcels in Mouje Taje and Mouje Pimpoli in Pune.

Geographical presence

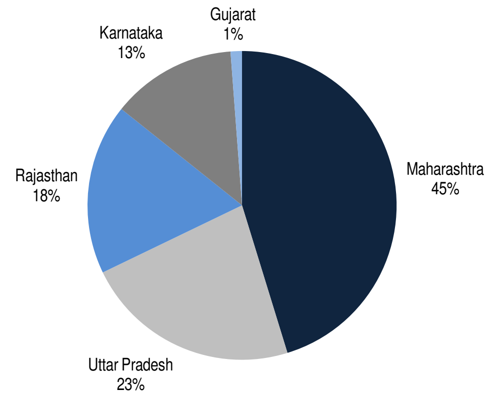
The company has spread its wings from operating in a single state to operating in eight. However, Maharashtra continues to make up the lion's share (~37% in lane-km) followed by Gujarat (~21%). Even in its order-book pending execution (excl. O&M), Maharashtra's share is ~45%, followed by Uttar Pradesh with ~23%.

Fig 38 – BOT portfolio - geographical spread



Source: Company

Fig 39 – EPC order backlog - geographical spread



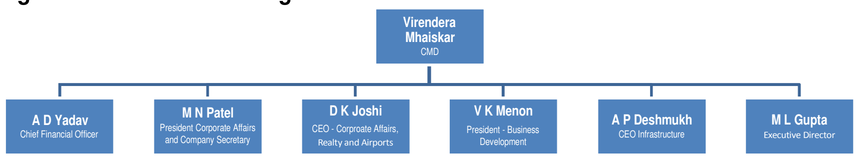
Source: Company

Board of Directors and Management

CMD Virendra D Mhaiskar is a professional with over 24 years' experience in construction and the infrastructure sector. A civil engineer from Shriram Polytechnic, Navi Mumbai, Mr Mhaiskar joined the IRB Group in 1990 and is responsible for leading and directing the group's strategy in BOT and funded projects.

The Board comprises three non-independent directors and five independent ones.

Fig 40 – Professional Management



Source: Company

Equity history

The latest fund raising was in Mar'15. The company issued to qualified institutional buyers (QIBs) ~19m shares at ₹231 each (face value: ₹10) totalling ~₹4.4bn. Subsequent to the QIP, the equity share capital stands at ~₹3.5bn. Prior to the QIP, in Feb'08 the company had approached the capital market for its initial public offering. It had then raised ~₹9.5bn issuing ~51m equity shares at ₹185 each.

Fig 41 – Equity history

Date	Equity Capital (₹m)	Reason	Premium / share (₹)
23-Mar-15	3,515	QIP	221
15-Feb-08	3,324	Public issue	175
10-Sep-07	2,813	Debenture conversion	68
17-Nov-06	2,473	Preferential issue of shares	-
31-Aug-06	2,473	Preferential issue of shares	-
22-Jun-06	1,404	Preferential issue of shares	-
23-Feb-06	1,333	Preferential issue of shares	-
18-Jan-06	1,309	Preferential issue of shares	-
10-Jan-06	1,305	Preferential issue of shares	-
30-Nov-05	1,255	Preferential issue of shares	-
31-Mar-05	1,143	As per balance sheet	-

Source: Company, ACE Equity

ANAND RATHI

India I Equities

Infrastructure

Initiating Coverage

7 December 2015

MEP Infrastructure

Play on road infrastructure, sans execution risk: initiating, Buy

Rating: Buy
Target Price: ₹60
Share Price: ₹49

With its proven capabilities in toll-collection and operation-maintenance-transfer projects, MEP Infrastructure, the #1 toll collection and OMT operator, is set to benefit from impending road awards on an EPC/hybrid annuity basis. The government's renewed focus on EPC/hybrid annuity to get things moving in the roads sector would throw up many growth opportunities.

Toll-collection opportunities galore: Industry estimates suggest that the toll-collection segment, estimated at ~12,150km of highways under toll on 31st Mar'14, is set to grow to ~16,900km by FY18. By value (annual collection), it is expected to nearly double—from ~₹46.4bn to ~₹81.7bn.

Operate, Maintain and Transfer – market leader: Estimates suggest that the size of Operate, Maintain and Transfer (OMT) segment is set to grow from ~5,150km on 31st Mar'14 to ~10,000km by FY18. In terms of market opportunity by value, it is slated to more than double to ~₹57.9bn from ~₹23.8bn in FY14.

Increasing focus on long-term contracts to aid stability: Having realised that short-term toll collections carry the inherent risk of non-renewal, management in order to improve predictability and longer-term visibility is increasingly focusing on projects with longer tenures. The greater proportion of long-term projects would lead to better valuation multiples due to the better revenue assurance and margin profile.

Valuation. We initiate coverage with a Buy recommendation and a price target of ₹60 a share. At the ruling price, the stock trades at 5.1x FY17e consolidated book value of ~₹9.6 a share. Based on our estimated exit multiple of 6.2x FY17e, we see a ~22% potential. **Risks.** Management is eyeing opportunities in the recently proposed Toll-Operate-Transfer (TOT) model. Because the business is capital intensive, failure to exercise financial prudence would be a key risk.

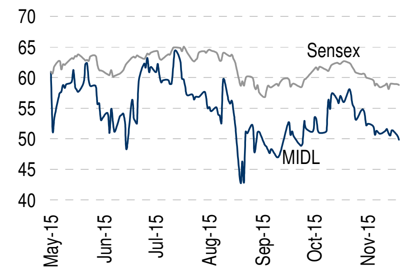
Key financials (YE Mar)	FY14	FY15	FY16e	FY17e	FY18e
Sales (₹ m)	11,979	19,843	20,316	20,138	20,367
Net profit (₹ m)	-1,325	-1,143	269	594	752
EPS (₹)	-13.2	-10.2	1.7	3.7	4.6
Growth (%)	-	-	-	120.5	26.6
PE (x)	-	-	29.4	13.3	10.5
PBV (x)	-	-	8.0	5.1	3.4
RoE (%)	-	-	-	46.6	39.0
RoCE (%)	7.4	9.9	14.2	14.9	15.5
Dividend yield (%)	-	-	0.2	0.2	0.2
Net debt/equity (x)	-	-	28.1	17.0	11.0

Source: Company, Anand Rathi Research

Key data	MIDL IN
52-week high / low	₹67 / ₹41
Sensex / Nifty	26169 / 7955
3-m average volume	$1.2m
Market cap	₹8bn / $119m
Shares outstanding	163m

Shareholding pattern (%)	Sep '15	Jun'15	Mar'15
Promoters	67.2	66.6	66.6
- of which, Pledged	12.5	-	-
Free Float	32.8	33.4	33.4
- Foreign Institutions	8.7	7.9	11.6
- Domestic Institutions	5.4	9.1	9.1
- Public	18.7	16.4	12.6

Relative price performance



Source: Bloomberg

Prem Khurana
Research Analyst
+91-22- 6626 6470
premkhurana@rathi.com
Lokesh Pareek
Research Analyst
+91-22- 6626 6615
lokeshpareek@rathi.com

Quick Glance – Financials and Valuations

Fig 1 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	11,979	19,843	20,316	20,138	20,367
Revenue growth (%)	-6.4	65.6	2.4	-0.9	1.1
- Oper. expenses	8,864	15,641	14,723	14,584	14,584
EBIDTA	**3,115**	**4,201**	**5,593**	**5,554**	**5,784**
EBITDA margins (%)	26.0	21.2	27.5	27.6	28.4
- Interest	3,797	4,036	3,771	3,466	3,323
- Depreciation	1,303	1,799	1,749	1,621	1,786
+ Other income	433	570	378	410	442
- Tax	-236	79	182	283	365
Effective tax rate (%)	15.2	-7.4	40.4	32.2	32.7
+ Associates / (minorities)	-9	-	-	-	-
Adjusted PAT	-1,325	-1,143	269	594	752
+ Extraordinary items	33	-11	-	-	-
Reported PAT	-1,292	-1,153	269	594	752
Adj. FDEPS (₹ / sh)	-13.2	-10.2	1.7	3.7	4.6
Adj. FDEPS growth (%)	-	-	-	120.5	26.6

Source: Company, Anand Rathi Research

Fig 2 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Share capital	1,000	1,115	1,626	1,626	1,626
Reserves & surplus	-1,878	-3,379	-638	-64	668
Net worth	-878	-2,264	987	1,562	2,294
Total debt	31,679	33,358	29,314	28,453	26,933
Minority interest	9	-	-	-	-
Def. tax liab. (net)	-756	-942	-1,069	-1,069	-1,069
Capital employed	**30,054**	**30,152**	**29,233**	**28,946**	**28,157**
Net fixed assets	310	446	469	503	542
Intangible assets	23,384	21,276	19,634	18,110	16,415
Investments	6	322	216	216	216
- of which, Liquid	0	106	-	-	-
Working capital	4,730	6,759	7,385	8,200	9,232
Cash	1,623	1,348	1,529	1,917	1,752
Capital deployed	**30,054**	**30,152**	**29,233**	**28,946**	**28,157**
W C turn (days)	144	124	133	149	165
Book value (₹ / sh)	-8.8	-20.3	6.1	9.6	14.1

Source: Company, Anand Rathi Research

Fig 3 – Cash-flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Adjusted PAT	-1,325	-1,143	269	594	752
+ Non-cash items	1,303	1,799	1,749	1,621	1,786
Cash profit	-22	657	2,018	2,215	2,538
- Incr. / (decr.) in WC	-2,874	2,029	625	815	1,033
Operating cash-flow	2,852	-1,373	1,393	1,400	1,505
- Capex	3,485	-173	131	130	131
Free-cash-flow	-633	-1,199	1,262	1,269	1,375
- Dividend	-	-	20	20	20
+ Equity raised	277	-242	3,002	0	0
+ Debt raised	382	1,493	-4,171	-862	-1,520
- Investments	-24	316	-106	-	-
- Misc. items	33	-11	-	-	-
Net cash-flow	84	-274	181	388	-165
+ Op. cash & bank bal.	1,539	1,623	1,348	1,529	1,917
Cl. Cash & bank bal.	1,623	1,348	1,529	1,917	1,752

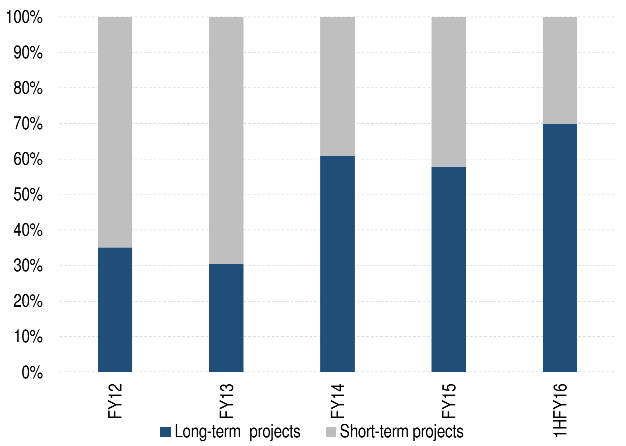
Source: Company, Anand Rathi Research

Fig 4 – Ratio analysis @ ₹49

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
P/E (x)	-	-	29.4	13.3	10.5
Cash P/E (x)	-	8.3	3.9	3.6	3.1
EV / EBITDA (x)	12.2	9.5	6.4	6.2	5.7
EV / sales (x)	3.2	2.0	1.8	1.7	1.6
P/B (x)	-	-	8.0	5.1	3.4
RoE (%)	-	-	-	46.6	39.0
RoCE (%)	7.4	9.9	14.2	14.9	15.5
Dividend yield (%)	-	-	0.2	0.2	0.2
Dividend payout (%)	-	-	7.2	3.3	2.6
Net debt / equity (x)	-	-	28.1	17.0	11.0
Debtor days	9	5	5	5	5
Inventory days	-	-	-	-	-
Payables days	45	49	47	47	46
Interest cover (x)	0.6	0.7	1.1	1.3	1.3
Fixed asset T/O (x)	0.5	0.9	1.0	1.1	1.2

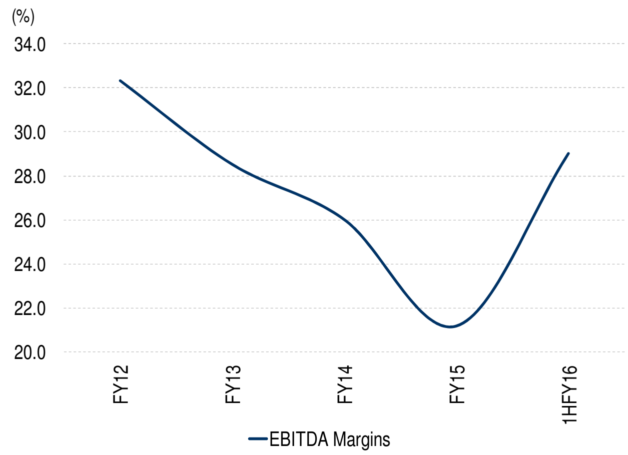
Source: Company, Anand Rathi Research

Fig 5 – Favourable change in revenue composition



Source: Company

Fig 6 – Margin improving on changing revenue composition



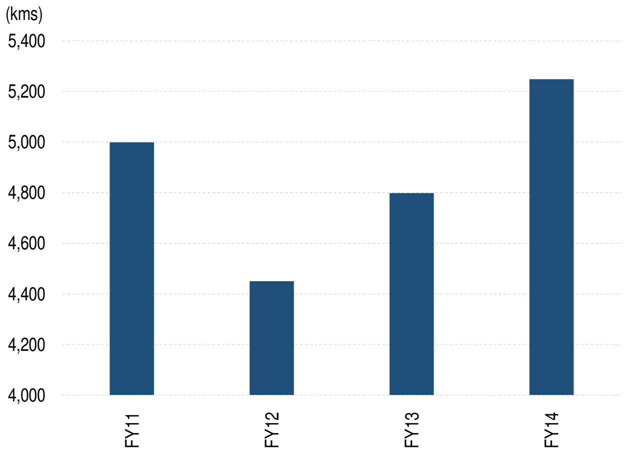
Source: Company

Toll-collection opportunities galore

Thrust on EPC / hybrid annuity to throw up opportunities

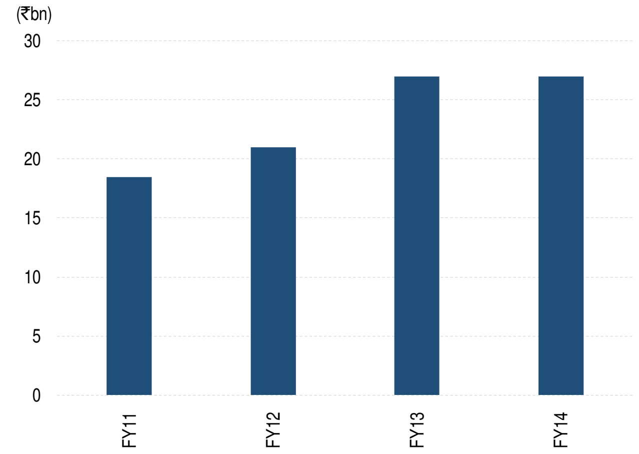
Toll collection is a relatively new concept but is fast gaining popularity since it is a win-win situation for private participants and the government. The concept lets private participants share a pie of the thriving roads and highways sector in a less capital-intensive manner (and sans execution risk) whereas the government benefits as it gets to enjoy the efficacy of private players in toll collection at state-funded road projects. Over the years, the industry has grown meaningfully and, with a large number of new road project contracts being awarded on an EPC basis, we see the opportunity to grow even larger. We believe that every project awarded on an EPC basis is a potential toll-collection opportunity for private participants.

Fig 7 – Toll collection activity gaining traction - Volumes



Source: NHAI

Fig 8 – Toll-collection gaining momentum - Value



Source: NHAI

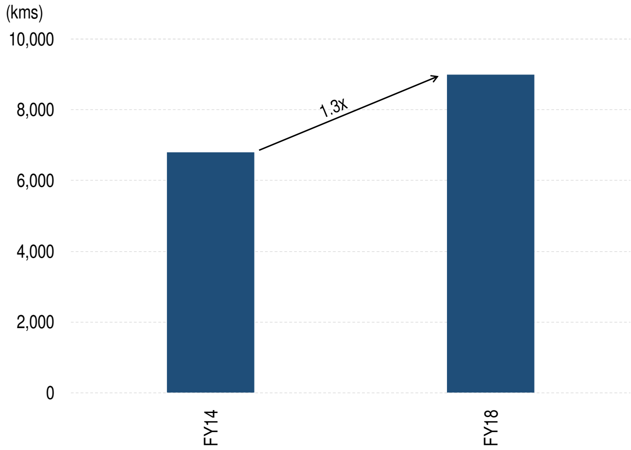
Toll-collection segment set to grow larger

Opportunity set to increase from ~12,150km with collection potential of ~₹46.4bn at end-FY14 to ~16,900km with collection potential of ~₹81.7bn by FY18

Industry estimates suggest that the toll-collection segment, estimated at ~12,150km of highways under toll on 31st Mar'14, is set to grow to ~16,900km by FY18. In value terms (annual collection), the size is expected to grow from ~₹46.4bn to ~₹81.7bn.

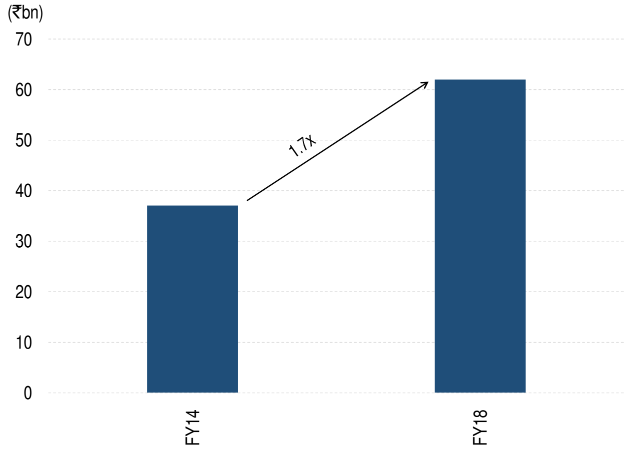
- **National highways - gradual growth expected:** Almost 6,800km of national highways under toll by 31st Mar'14 are likely to grow ~1.3x over the next four years to ~9,000km by FY18. The growth is envisaged to be even higher, at ~1.7x, in value terms; from ~₹37bn to ~₹62bn over FY14-18.

Fig 9 – Toll collection opportunity from NHAI - Volumes



Source: MEP Infrastructure offer document

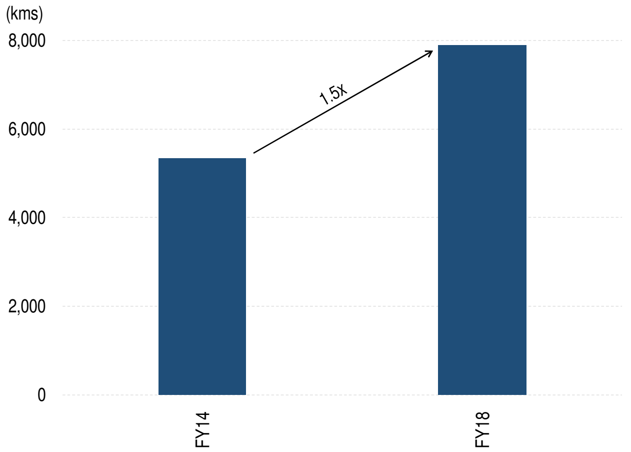
Fig 10 – Toll collection opportunity from NHAI – Value



Source: MEP Infrastructure offer document

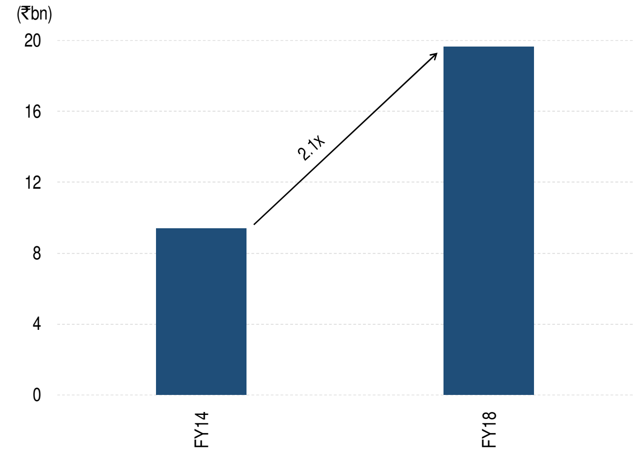
- **States also becoming active:** In addition to opportunities from the basket of NHAI, we see a number of state authorities also becoming aggressive on toll-collection contracts. The key states are Maharashtra, Haryana, Rajasthan and Odisha. Industry estimates suggest operational length under toll-collection contracts for states is set to grow from ~5,350km to ~7,900km over FY14-18. In terms of annual toll-collection potential, the size is expected at ~₹19.7bn by FY18, from ~₹9.4bn in FY14.

Fig 11 – Toll collection - States too getting active (volumes)



Source: MEP Infrastructure offer document

Fig 12 – Toll collection - States too getting active (value)



Source: MEP Infrastructure offer document

Years of operating history to result in the company emerging as a key beneficiary of the mounting opportunities

- **First-mover advantage to benefit from growing opportunities in toll collection:** MEP, being one of the first movers in the segment, is bound to benefit from the ever-increasing size of the segment. We see the company benefiting on two counts: **a)** having operated a number of projects in the past, it would have an edge over its peers when the projects operated in the past come up for re-bidding (due to its expertise in traffic estimation) and **b)** for project contracts, the expertise developed over the years of operations and the understanding of industry dynamics would help the company be one of the key contenders for forthcoming opportunities.

Annual collection potential of ~₹5.5bn for immediate bid pipeline

Fig 13 – Immediate toll-collection opportunities

Projects	State	Client	Tenure (yrs)	Annual potential collection (₹m)	Bid submission date
Vaghasia Toll Plaza	Gujarat	NHAI	1	330	27th Nov'15
Dhumiyani Toll Plaza	Gujarat	NHAI	1	125	27th Nov'15
Pundag Toll Plaza-Recall Bid	Jharkhand	NHAI	1	647	27th Nov'15
Milanpur Toll Plaza	Madhya Pradesh & Maharashtra	NHAI	1	179	27th Nov'15
Chalageri Toll Plaza	Karnataka	NHAI	1	583	30th Nov'15
Collection of toll at four toll locations of IRDP Solapur	Maharashtra	MSRDC	3	170	01st Dec'15
Krishnavaram Toll Plaza	Andhra Pradesh	NHAI	1	672	02nd Dec'15
Badauri Toll Plaza	Uttar Pradesh	NHAI	1	635	02nd Dec'15
Bankapur Toll Plaza	Karnataka	NHAI	1	505	02nd Dec'15
Brahmarkotlu Toll Plaza	Karnataka	NHAI	1	97	02nd Dec'15
Methoon Toll Plaza	Rajasthan	NHAI	1	32	04th Dec'15
Brijghat Toll Plaza	Uttar Pradesh	NHAI	1	472	07th Dec'15
Hattargi Toll Plaza	Karnataka	NHAI	1	207	07th Dec'15
Kognoli Toll Plaza	Karnataka	NHAI	1	500	14th Dec'15
Chilakapalem Toll Plaza	Andhra Pradesh	NHAI	1	370	14th Dec'15
Total				**5,523**	

Source: Industry, Anand Rathi Research

OMT – market leader

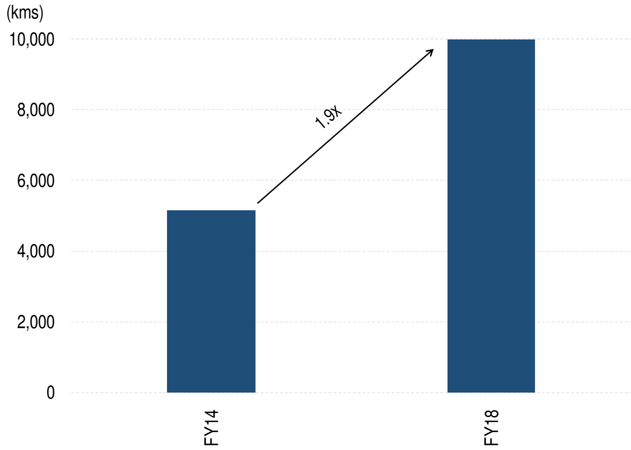
In the past, the repair and maintenance of roads has not received the attention it should have been given. Lack of funds could be identified as the key reason for inadequate maintenance. Having realised that timely maintenance is equally important as road augmentation, the Union government introduced a new concept in 2009, named "OMT", to ensure that road stretches receive optimal maintenance. The concept is a step further to toll-collection contracts as it, in addition to toll collection, involves obligation to maintain a stretch over a specified time.

Set to benefit from impending growth opportunities

Size estimated to expand from ~5,150km under operations at end-FY14 to ~10,000km by FY18

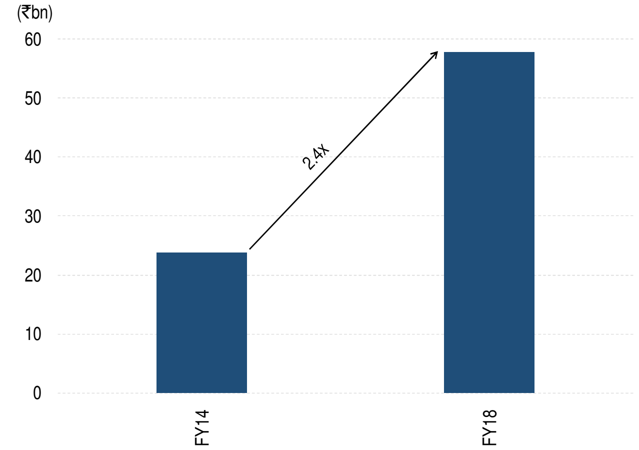
Because of constrained liquidity, a number of project awards are now taking place on an EPC basis. Such projects would initially be toll-collection contracts and, as soon as the defect-liability period expires (new NHAI projects entail four years of defect-liability), they are likely to be bid out as OMT projects. Given this, we see vast scope in the segment. Estimates suggest the size of the OMT segment is set to grow from ~5,150km on 31st Mar'14 to ~10,000km by FY18. The value of the market opportunity is slated to more than double to ~₹57.9bn, from ~₹23.8bn in FY14.

Fig 14 – OMT size - Volumes expected to double



Source: MEP Infrastructure offer document

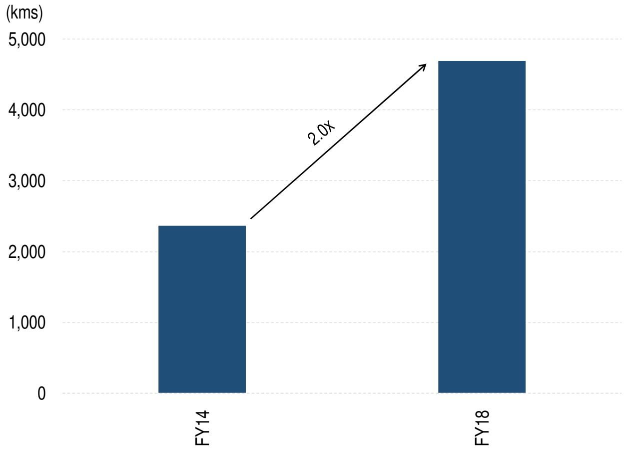
Fig 15 – OMT size - Value expected to more than double



Source: MEP Infrastructure offer document

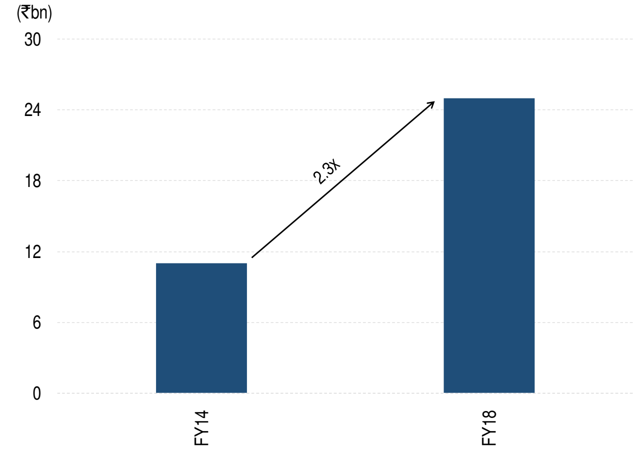
- **NHAI opportunity – expect doubling of length under operations over 2-3 years:** Since inception of the concept in 2009 till 2014, the NHAI has awarded ~2,360km of road projects on an OMT basis. With an increasing number of contracts being awarded on an EPC basis and with the advent of the hybrid annuity model, industry experts see the OMT portfolio increasing to ~4,700km by FY18. Doubling of the length is likely to translate into a value opportunity of ~₹25bn, from ~₹11bn in FY14.

Fig 16 – NHAI OMT opportunity - length expected to double



Source: MEP Infrastructure offer document

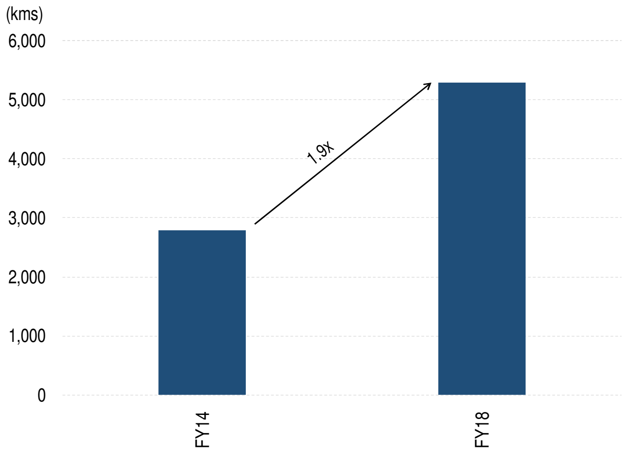
Fig 17 – NHAI OMT opportunity-value expected to more than double



Source: MEP Infrastructure offer document

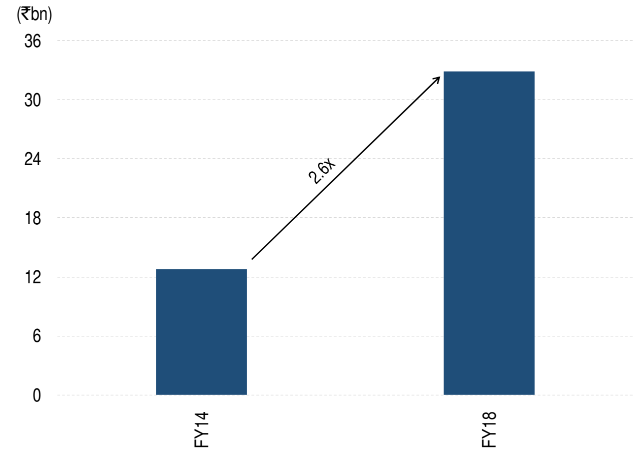
- **State opportunities – to exceed NHAI opportunity:** Until FY14, key states combined awarded ~2,790km on an OMT basis. Industry experts expect this to rise to ~5,300km by FY18. Value growth is likely to far exceed volume growth. Industry experts expect the value potential to increase 1.6x to ~₹32.9bn, from ~₹12.8bn during FY14.

Fig 18–State OMT opportunity-length expected to go up meaningfully



Source: MEP Infrastructure offer document

Fig 19 – State OMT opportunity - expect huge jump in value



Source: MEP Infrastructure offer document

Growth opportunities to help MEP consolidate leading position: Having made a humble beginning as a pure toll-collection company in 2002, the company gradually started bidding for OMT projects in the years that followed. Over time, it has not only built a quality portfolio of five projects but also attained market leadership. We see the company to continue to enjoy market leadership due to its proven track record, deep understanding of the sector, geographically-diversified operations and balance-sheet size (in relation to others operating in the segment; this would come in handy as some states seek upfront payment). Additionally, the company enjoys an edge over its peers for its huge exposure to toll-collection contracts, most of which, we believe, would be bid out on an OMT basis, after the defect-liability period.

Fig 20 – Key state OMT opportunities in the offing

State	Projects identified (Nos.)	Length (km)
Karnataka	8	840
Bihar	NA	6,475
Madhya Pradesh	16	865

Source: Industry, Anand Rathi Research

OMT - essentially a road BOT opportunity sans project execution

Play on toll collection coupled with maintenance margins: Unlike toll-collection contracts, OMT projects entail O&M margins for investors. Hence, OMT opportunities are essentially a play on three variables: a) traffic growth, b) inflation and c) in-built operations and maintenance margins. We see proven execution capabilities in project management to help the company augment shareholder wealth.

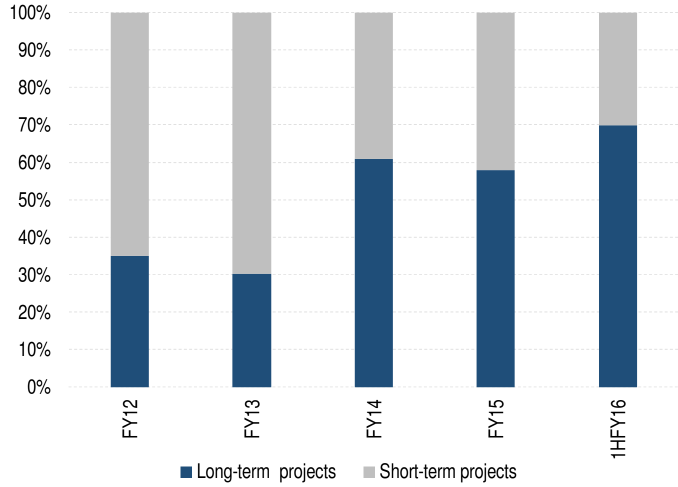
Sharper focus on long-term contracts to aid stability

Focusing on increasing the share of long-term projects to provide improved visibility and margin profile

Having realised that short-term toll collections carry an inherent risk of non-renewal, the management in order to improve predictability and longer-term visibility is increasingly focusing on projects with longer tenures. The company has already had good success in reducing dependence on short-term projects but the idea is to reduce it even further. The greater proportion of long-term projects, we believe, would entail better valuation multiples because of the better revenue assurance and margins. As is evident from the recent performance, efforts seem to be already underway. Constant efforts to increase the percentage of long-term projects seem evident from the bagging of four OMT and three long-term projects in FY14. The company added the prestigious long-term Delhi Entry Points project in Q1 FY16. Consequently, its revenue profile was tilted in favour of long-term projects (a ~69.8% share in H1 FY16).

Share of long-term contracts increased from ~58% in FY15 to ~70% in H1 FY16

Fig 21 – Long-term contracts to improve visibility



Source: Company

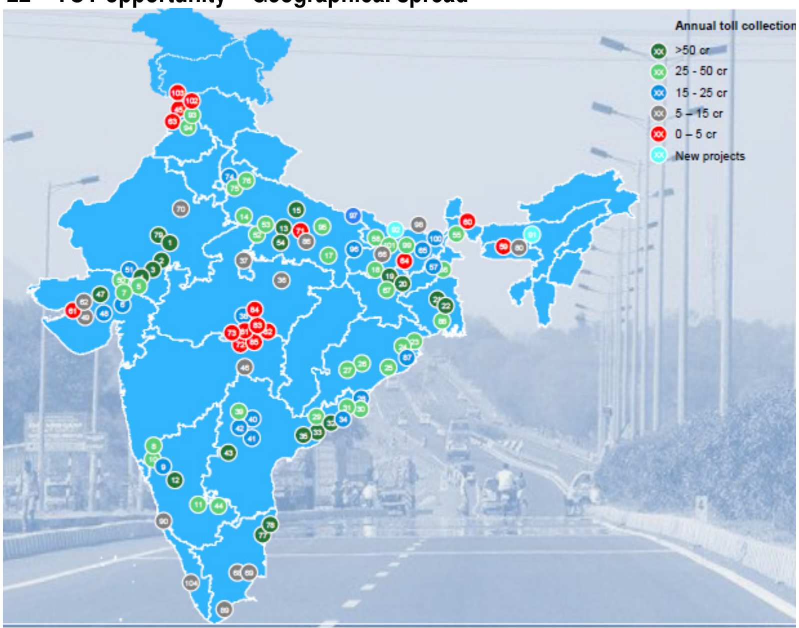
Eyeing TOT opportunity

Government identified 104 stretches with annual collection potential of ~₹35bn for the first round

The government is cognisant of the fact that only traditional ways of funding would not suffice for the targeted road development or augmentation. Hence, the Ministry of Road Transport & Highways (MoRTH) is promoting innovative project implementation models such as the Hybrid Annuity and TOT models to encourage investment in the highways sector. Under the TOT model, the government aims to monetise existing road assets for a very long period (15-25 years) to raise capital upfront. This would be done by securitising long-term toll contracts through the MoRTH and the NHAI. In short, the TOT model presents a significant opening for specialised OMT and toll-collection operators to leverage this immense opportunity.

We believe the company would be one of the key beneficiaries of any opportunity under the new model as not only does it boast of a proven track record of managing OMT projects but it also has balance-sheet size (relative to other operators in toll collection and OMT) to leverage. In order to contain capital-intensiveness, our interaction with the management suggests that the company is actively looking at a tie-up with strategic/financial partners to bid for TOT projects.

Fig 22 – TOT opportunity – Geographical spread



Source: MoRTH

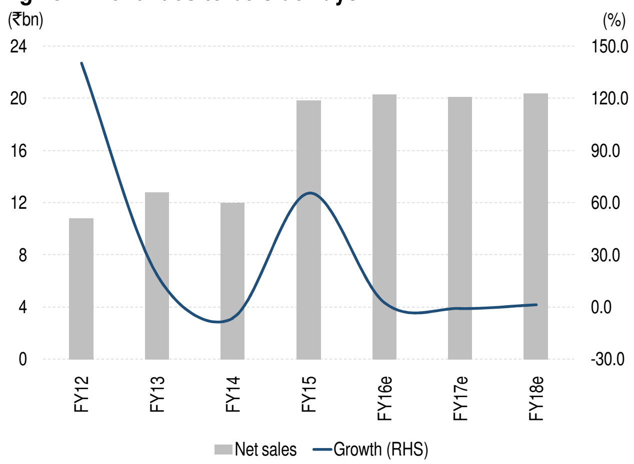
Financials

Revenue to be sideways… better mix to lead to better operating profit

Focused approach to reduce dependence on short-term contracts to lead to revenues being sideways

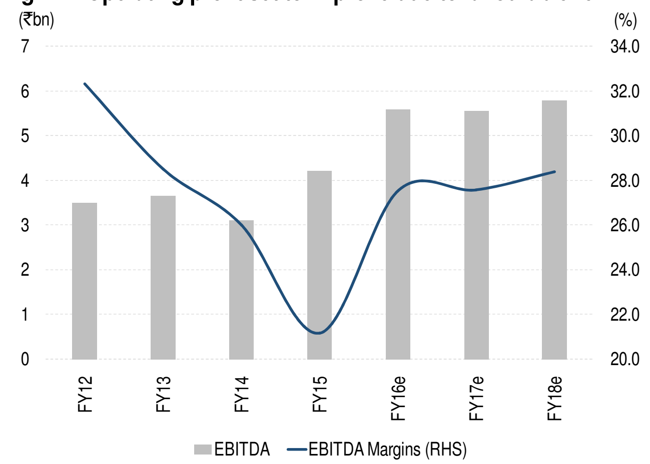
The decision to reduce dependence on short-term toll-collection contracts would lead, we expect, to a constrained, ~1%, revenue CAGR over FY15-18. However, because of the greater proportion from the high-margin OMT projects and gradually more traffic on one of the key projects (Mumbai entry points), operating profitability (read EBITDA) would register healthy growth. Besides, operating profit would be augmented by the management's decision not to provide for obligations payable to the Authority (w.e.f. from Oct'14) for the Chennai project for toll evasion and *force majeure* issues. The combined effect is likely to translate to margin betterment—from ~21.2% in FY15 to ~28.4% in FY18.

Fig 23 – Revenues to be sideways



Source: Company, Anand Rathi Research

Fig 24 – Operating profit set to improve due to favourable rev. mix



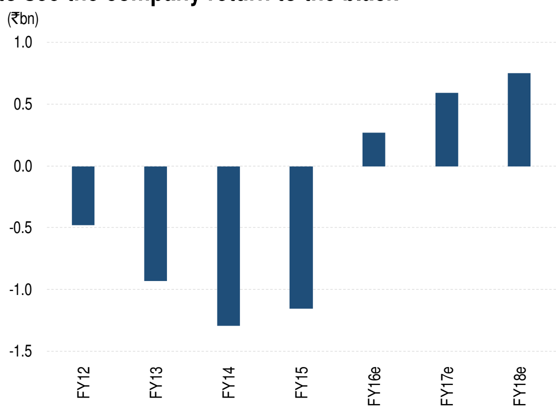
Source: Company, Anand Rathi Research

Earnings to benefit from better operations and lower finance costs

Set to turn PAT positive in FY16; estimated ~₹0.3bn of PAT in FY16 to grow to ~₹0.8bn

The healthy operating performance and lower finance costs (IPO proceeds utilised to repay debt) would turn the bottom line to black, after having suffered losses for at least six years running (financials prior to FY10 unavailable). The company would clock ~₹0.8bn in reported PAT in FY18, against a ~₹1.2bn loss in FY15. There exists an upside risk to our earnings estimate as debt at the Mumbai entry points OMT project (~₹25bn) is set for an interest re-set in the immediate future. Any reduction in interest costs would prove to be earnings accretive.

Fig 25 – FY16 to see the company return to the black



Source: Company, Anand Rathi Research

IPO monies coupled with positive free-cash-flows to reduce net debt by ~₹6.7bn over FY15-18

Operating cash-flow to turn better

A constrained rise in working capital and better cash profits are likely to make operating cash flows positive in FY16 (at ~₹1.4bn) from negative operating cash flows of ~₹1.4bn in FY15. Management is most likely to utilise positive operating cash-flows to reduce debt. Besides utilising internal accruals for debt repayment, a large part of the IPO proceeds (~₹2.6bn of ~₹3bn) is also to be used to reduce debt. Consequently, we see net debt to come down by ~₹4.1bn during FY16. Positive free-cash-flows are likely to be steady in FY17 and FY18 because of the gradually maturing long-term and OMT projects. The company would register a combined positive free-cash-flow of ~₹2.6bn over FY17-18. The funds would largely be utilised to look at de-leveraging, unless the company finds lucrative growth opportunities.

Fig 26 – Cash-flow situation to be better

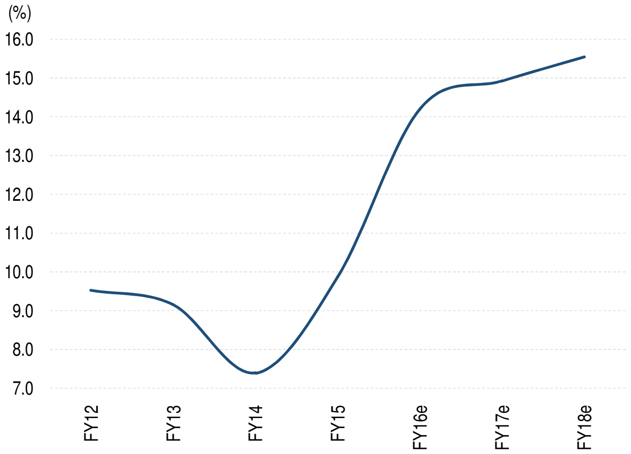
(₹ bn)	FY15	FY16e	FY17e	FY18e
Cash profit	0.7	2.0	2.2	2.5
(Increase) / decline in WC	-2.0	-0.6	-0.8	-1.0
Operating CF	**-1.4**	**1.4**	**1.4**	**1.5**
Capex	0.2	-0.1	-0.1	-0.1
Free CF	**-1.2**	**1.3**	**1.3**	**1.4**
Utilisation of positive FCF / funding of negative FCF				
Equity raised	-0.2	3.0	0.0	0.0
Debt raised / (repaid)	1.5	-4.2	-0.9	-1.5
Other financing activities	-0.3	0.1	-0.0	-0.0
Change in cash	**-0.3**	**0.2**	**0.4**	**-0.2**

Source: Company, Anand Rathi Research

Return ratios to markedly improve

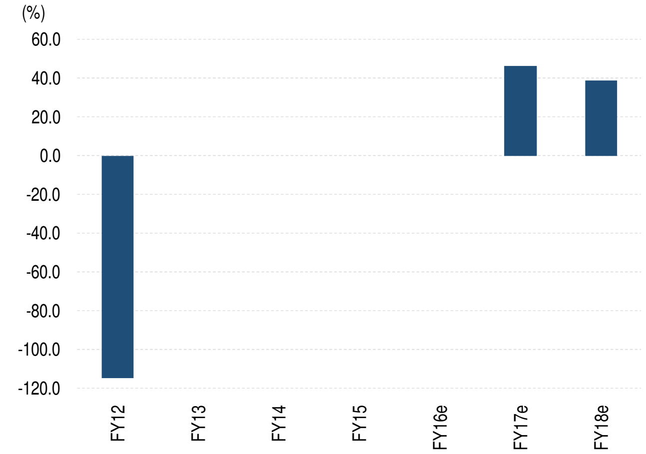
Because of the greater profitability, return ratios would meaningfully improve in FY18, with the RoCE expanding from ~9.9% in FY15 to ~15.5%. The healthy RoCE would help the company clock a ~39% RoE in FY18.

Fig 27 – To clock double-digit RoCEs in FY16



Source: Company, Anand Rathi Research

Fig 28 – RoE set to turn positive in FY17



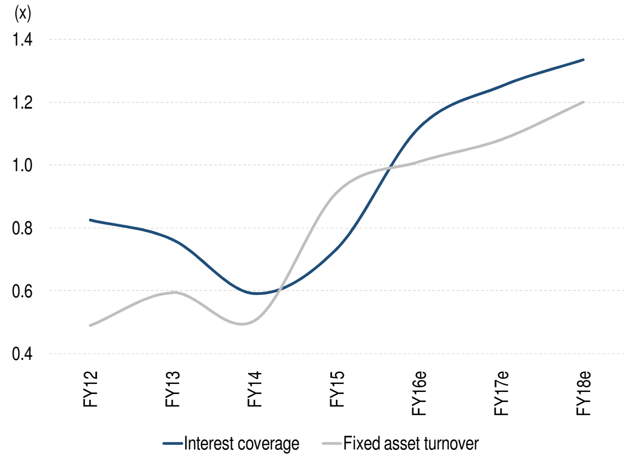
Source: Company, Anand Rathi Research

Interest coverage and fixed-asset turnover also on an uptrend

Fixed asset turnover to improve from ~0.9x in FY15 to ~1.2x by FY18

The interest-coverage ratio, ~0.7x in FY15, had raised concerns regarding the company's ability to meet interest obligations. With greater operating profits and lower leverage, the ratio would improve to ~1.3x by FY18. Because of better asset sweating (especially at the Mumbai entry points), the fixed-asset turnover would also improve—from ~0.9x in FY15 to ~1.2x in FY18.

Fig 29 – Interest coverage and FA turnover begin to be re-assuring



Source: Company, Anand Rathi Research

Fig 30 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	11,979	19,843	20,316	20,138	20,367
Other Op revenues	-	-	-	-	-
Revenues	**11,979**	**19,843**	**20,316**	**20,138**	**20,367**
Growth (%)	*-6.4*	*65.6*	*2.4*	*-0.9*	*1.1*
Material Cost	-	-	-	-	-
Employee Cost	-499	-716	-711	-725	-733
Manufacturing cost	-	-	-	-	-
Marketing cost	-	-	-	-	-
Administrative cost	-350	-356	-366	-383	-407
Energy cost	-	-	-	-	-
Other cost	-	-	-	-	-
Operating expense	-8,015	-14,570	-13,647	-13,477	-13,443
EBITDA	**3,115**	**4,201**	**5,593**	**5,554**	**5,784**
Growth (%)	*-14.6*	*34.9*	*33.1*	*-0.7*	*4.1*
EBITDA margin (%)	*26.0*	*21.2*	*27.5*	*27.6*	*28.4*
Other income	433	570	378	410	442
Operating profit	**3,548**	**4,771**	**5,971**	**5,963**	**6,225**
Depreciation	-1,303	-1,799	-1,749	-1,621	-1,786
EBIT	**2,245**	**2,972**	**4,222**	**4,342**	**4,439**
Interest cost	-3,797	-4,036	-3,771	-3,466	-3,323
PBT	**-1,552**	**-1,064**	**451**	**876**	**1,116**
Tax	236	-79	-182	-283	-365
Effective tax rate	*15.2*	*-7.4*	*40.4*	*32.2*	*32.7*
PAT	**-1,316**	**-1,143**	**269**	**594**	**752**
Minority interest	-9	-	-	-	-
Associate profit	-	-	-	-	-
Consol PAT	**-1,325**	**-1,143**	**269**	**594**	**752**
Growth (%)	-	-	-	*120.5*	*26.6*
PAT margin (%)	*-11.1*	*-5.8*	*1.3*	*2.9*	*3.7*
Extra-ordinary income	33	-11	-	-	-
Dividends (incl Tax)	-	-	-20	-20	-20
Transferred to reserves	**-1,292**	**-1,153**	**250**	**574**	**732**
Per Share data					
FDEPS (₹)	-13.2	-10.2	1.7	3.7	4.6
DPS (₹)	-	-	0.1	0.1	0.1
Adj BV (₹)	-8.8	-20.3	6.1	9.6	14.1
CEPS (₹)	-0.2	5.9	12.4	13.6	15.6
Valuation ratio					
P/E (x)	-	-	29.4	13.3	10.5
P/adj BV (x)	-	-	8.0	5.1	3.4
P/C (x)	-	8.3	3.9	3.6	3.1
Dividend Yield (%)	-	-	0.2	0.2	0.2
EV/S (x)	3.2	2.0	1.8	1.7	1.6
EV/E (x)	12.2	9.5	6.4	6.2	5.7
Quality ratio					
Dividend Payout (%)	-	-	7.2	3.3	2.6
Other income/PBT (%)	-	-	83.8	46.8	39.6
Interest cover (x)	0.6	0.7	1.1	1.3	1.3
Operating CF/EBITDA (x)	0.9	-0.3	0.2	0.3	0.3

Source: Company, Anand Rathi Research

Fig 31 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Equity	1,000	1,115	1,626	1,626	1,626
Reserves	-1,878	-3,379	-638	-64	668
Less: Misc Exp	-	-	-	-	-
Networth	**-878**	**-2,264**	**987**	**1,562**	**2,294**
Minority interests	9	-	-	-	-
Equity (% of CE)	*-2.9*	*-7.5*	*3.4*	*5.4*	*8.1*
LT Debt	30,292	31,287	27,465	26,648	25,142
ST Debt	1,387	2,072	1,849	1,805	1,791
Total debt	**31,679**	**33,358**	**29,314**	**28,453**	**26,933**
Net D/E (x)	-	-	*28.1*	*17.0*	*11.0*
DTL (net)	-756	-942	-1,069	-1,069	-1,069
Capital Employed	**30,054**	**30,152**	**29,233**	**28,946**	**28,157**
Gross block	27,235	26,881	26,961	27,042	27,122
Acc Depreciation	-3,598	-5,321	-7,071	-8,692	-10,478
Net block	**23,637**	**21,559**	**19,891**	**18,350**	**16,644**
CWIP	58	163	213	263	313
Fixed assets	**23,695**	**21,722**	**20,103**	**18,613**	**16,957**
Investments	6	322	216	216	216
Cash Equivalents	1,623	1,348	1,529	1,917	1,752
Inventories	-	-	-	-	-
Debtors	287	258	305	302	306
Loans & Advances	8,434	10,746	10,253	10,250	10,389
Other Current Assets	542	1,017	1,240	1,536	1,857
Current Assets	**10,886**	**13,370**	**13,327**	**14,005**	**14,303**
Creditors	-1,464	-2,663	-2,619	-2,616	-2,548
Provisions	-18	-28	-37	-46	-56
Other Current Liabilities	-3,052	-2,572	-1,758	-1,227	-716
Current Liabilities	**-4,533**	**-5,262**	**-4,413**	**-3,889**	**-3,319**
Net Current Assets	**6,353**	**8,108**	**8,913**	**10,117**	**10,984**
Capital Deployed	**30,054**	**30,152**	**29,233**	**28,946**	**28,157**
FA/CE (%)	*78.8*	*72.0*	*68.8*	*64.3*	*60.2*
Investments/CE (%)	*0.0*	*0.7*	*0.7*	*0.7*	*0.8*
Liquid assets/CE (%)	*5.4*	*4.8*	*5.2*	*6.6*	*6.2*
Working Capital/CE (%)	*15.7*	*22.4*	*25.3*	*28.3*	*32.8*

Source: Company, Anand Rathi Research

Fig 32 – Cash flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Cash profit	-22	657	2,018	2,215	2,538
Chg in WC	2,874	-2,029	-625	-815	-1,033
Operating CF	**2,852**	**-1,373**	**1,393**	**1,400**	**1,505**
Capex	-3,485	173	-131	-130	-131
Free CF	**-633**	**-1,199**	**1,262**	**1,269**	**1,375**
Equity	277	-242	3,002	0	0
Debt	382	1,493	-4,171	-862	-1,520
Investments	24	-316	106	-	-
Dividends	-	-	-20	-20	-20
Misc inflows	33	-11	-	-	-
Net change in cash	**84**	**-274**	**181**	**388**	**-165**
Opening cash	1,539	1,623	1,348	1,529	1,917
Closing cash	**1,623**	**1,348**	**1,529**	**1,917**	**1,752**

Source: Company, Anand Rathi Research

Fig 33 – Ratio analysis @ ₹49

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Dupont analysis					
Margins (%)	18.7	15.0	20.8	21.6	21.8
Capital turn (x)	0.4	0.7	0.7	0.7	0.7
RoCE (%)	7.4	9.9	14.2	14.9	15.5
Leverage factor (x)	-	-	-	22.8	14.8
Interest burden (x)	-0.7	-0.4	0.1	0.2	0.3
Tax burden (x)	-	-	0.6	0.7	0.7
Consol factor (x)	-	-	1.0	1.0	1.0
RoE (%)	-	-	-	46.6	39.0
Working capital (days)					
Inventories	-	-	-	-	-
Debtors	9	5	5	5	5
Loans & advances	257	198	184	186	186
Other CA	17	19	22	28	33
Creditors	-45	-49	-47	-47	-46
Provisions	-1	-1	-1	-1	-1
Other CL	-93	-47	-32	-22	-13
Net WC	144	124	133	149	165
Other ratios					
Op CF/Rev (%)	23.8	-6.9	6.9	7.0	7.4
FCF/Rev (%)	-5.3	-6.0	6.2	6.3	6.7
Intangibles/GB (%)	85.9	79.1	72.8	67.0	60.5
Intangibles/CE (%)	77.8	70.6	67.2	62.6	58.3
Revenue/GB (x)	0.4	0.7	0.8	0.7	0.8
Revenue/FA (x)	0.5	0.9	1.0	1.1	1.2
CWIP/GB (x)	0.0	0.0	0.0	0.0	0.0

Source: Company, Anand Rathi Research

Valuation

We have valued the company using the discounted-cash-flow (DCF) method for all its operational projects, assuming new short-term collection projects in coming years. Because of the only road BOT project (the Baramati project), in addition to the DCF of anticipated toll receipts over the life of the project, we have assigned a value to the ~20 acres granted to render the project financially viable. Hence, our price target works out to ~₹60 a share.

Fig 34 – Sum-of-parts valuation

Projects	State	Authority	COD	Tenure (yr)	Economic Interest (%)	Value per share (₹)
Short-term toll collection projects - A	**Multiple**	**Multiple**			**100.0**	**13**
Phalodi Ramji	Rajasthan	RIDCOR	17th Sep'10	5	100.0	0
IRDP Solapur	Maharashtra	MSRDC	2nd Jan'13	3	100.0	0
Vidyasagar Setu	West Bengal	HRBC	1st Sep'13	5	100.0	1
Kini Tasawade	Maharashtra	MSRDC	29th May'14	2	100.0	2
Rajiv Gandhi Salai	Tamil Nadu	ITEL	8th Mar'14	3	100.0	0
Kalyan Shilphata	Maharashtra	MSRDC	27th Sep'13	3	100.0	1
Delhi Entry Points	Delhi	SDMC	16th May'15	3	25.0	2
Long-term Toll collection projects - B						**6**
Madurai-Kanyakumari	Tamil Nadu	NHAI	22nd Sep'13	9	100.0	3
Hyderabad-Bangalore	Andhra Pradesh	NHAI	16th May'13	9	100.0	1
Chennai Bypass	Tamil Nadu	NHAI	14th May'13	9	100.0	-
Rajiv Gandhi Sea Link	Maharashtra	MSRDC	6th Feb'14	3	100.0	1
Mumbai Entry Points	Maharashtra	MSRDC	20th Nov'10	16	100.0	23
OMT Projects - C						**28**
Baramati - BOT Toll – D						**0**
Less: Net debt / (Net cash) at Corporate level						7
Add: IPO Money						20
Target price						**60**

Source:

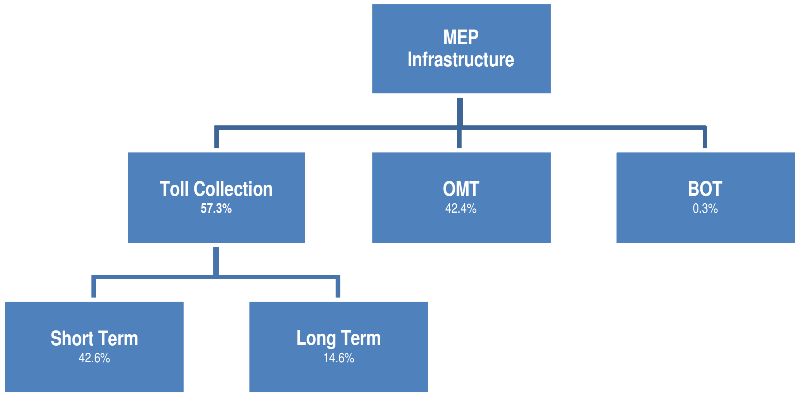
Potential from our estimates

- Any new projects in long-term toll collection and OMT segments, with fair returns, are key upside risks to our price target. Since the company is a going concern, we see it continuing to scout out opportunities.
- More-than-estimated traffic growth.
- On 31st Mar'15, the company had recoverables of ~₹4.3bn (classified as loans and advances to related parties) from one of the promoter group entities. Our estimates do not take this into account. The receipt of this would add to the value.
- On 30th Sep'15, the Chennai subsidiary had preferred claims with the Authority, of ~₹3.1bn, on account of toll evasion and *force majeure* arising from non-compliance of the concession agreement by the Authority. Resolution of the issue is underway. Any resolution could add value.

Company Background & Management

Having commenced business in 2002 on acquiring toll-collection rights at five Mumbai entry points, the company has become an established and leader in toll-collection operations in road infrastructure, with all-India operations. Although it has tried to take in the BOT arena as well, its focus continues on pure toll-collection projects as well as OMT ones, which involve maintenance obligations besides toll collection on operational roads constructed by others. Over the years of operations (till 30th Sep'15), the company has completed 85 projects, including 147 plazas and 943 lanes. Ahead, it hopes to enlarge the proportion of long-term toll collection and OMT projects in order to improve revenue stability.

Fig 35 – Business Model



Source: Company Note - Percentages denote share in FY15 revenue

Fig 36 – Business segments – salient features and risk profile

Model	Capital Employed	Risk: Development	Risk: Traffic	Risk: Financing	Maintenance responsibility	Concession period (yr)	Toll rate hike
Toll collection - short term	Minimal	No	Yes	Yes	No	=< 1	No
Toll collection - long term	Minimal	No	Yes	Yes	No	1-5	Fixed rate + % of WPI growth
OMT	Minimal*	No	Yes	Yes	Yes	9+	Fixed rate + % of WPI growth
BOT	Large	Yes	Yes	Yes	Yes	15-30	Fixed rate + % of WPI growth

Source: Company, Anand Rathi Research

Project basket: On 30th Sep'15, the company had 20 operational projects in the various segments it operates in.

- **Toll-collection projects:** It now has 14 long-term and short-term toll-collection projects in 10 states. These 14 include the long-term toll-collection projects at the Delhi entry point with 124 plazas. Of the 124 bagged in a consortium, the company operates 22.
- **Long-term OMT projects:** In this segment, the company has five long-term OMT projects; covering 2,530 lane-km and 15 toll plazas.
- **Road BOT:** The company also has one BOT project; efforts, however, are underway to surrender it.

Board of Directors and Management

The board, comprising eight directors (four independent), is led by the experienced Dattatray P Mhaiskar, non-executive chairman, and ably supported by his son, Jayant D Mhaiskar, vice-chairman and managing director.

Fig 37 – Board of Directors

Name	Designation / Status	Remarks
Dattatray P. Mhaiskar	Chairman and non-executive director	One of the founding directors and a promoter, Mhaiskar holds a Diploma in Civil Engineering, and over 47 years' experience in construction and infrastructure
Jayant D. Mhaiskar	Vice-chairman and managing director	A founding director and promoter, with over 17 years' experience in toll-collecting and infrastructure
Anuja J. Mhaiskar	Non-independent and non-executive director	A Bachelor's degree in Arts (philosophy major), she was inducted on the board in 2006. Has over 15 years' experience in administration
Murzash Manekshana	Executive director	Appointed additional director in Nov'12, he has a Bachelor's degree in Commerce and is a qualified chartered accountant. Has over 21 years' experience. Is also director of Altamount Capital Management Pvt. Ltd.

Source: Company

Equity history

In 2015 the company came out with its initial public offering. On offer were ~51m equity shares, of ₹10 each, at ₹63. Subscribed to at the lower end of the price band, ~₹3bn was raised (net of issue expenses). A large part of the funds so raised has been utilised largely for de-leveraging.

Fig 38 – Equity history

Date	Share capital (₹ m)	Premium (₹ per share)	Reason
06-May-15	1,626	53	Initial public offering
28-May-14	1,115	12	Preferential allotment
29-Dec-11	1,000	-	Preferential allotment
15-Jun-11	263	-	Preferential allotment
04-Aug-07	113	-	Preferential allotment
02-Dec-02	10	-	Preferential allotment
08-Aug-02	0	-	Upon subscription

Source: Company, ACE Equity

7 December 2015

Sadbhav Engineering

Execution at the core; initiating, with a Hold

Rating: **Hold**
Target Price: ₹403
Share Price: ₹355

Sadbhav Engineering is a leading infrastructure development and construction company, dominant in road infrastructure development. Besides holding on to its ground in the legacy segments (roads and irrigation), it is gradually scaling up into mining to further diversify and ensure more stability in its business. What makes this company stand out is its unparallel execution capabilities.

Likely beneficiary of the government's focus on roads and mining: We see Sadbhav emerging as one of the key beneficiaries of the government's efforts to bring the road-infrastructure development and mining sectors back on track. The company's proven execution capabilities and healthy balance sheet would help it capture a good proportion of the opportunities in the sectors in focus.

Access to a good BOT portfolio: Since its operations are in states with a proven record of NSDP growth being higher than that of India, its 12 road BOT assets are a play on the long-term growth potential of the Indian economy.

Healthy balance sheet: Its balance sheet is one of its key strengths since it is not overly-leveraged. On 30th Sep'15, its standalone net-debt-to-equity ratio was ~0.7x. This is set to improve further.

Valuation. We initiate coverage on Sadbhav, with a Hold rating and a sum-of-parts-based price target of ₹403 a share. Our target price comprises ~₹247 as the value of the construction business (at 20x FY17e EPS) and ~₹156 for its BOT projects (based on DCF). At the ruling price of ₹355, from a one-year perspective, the stock offers ~14% potential. **Risk.** Any failure to maintain business prudence would mean the company would fail to capitalise on the growth opportunities.

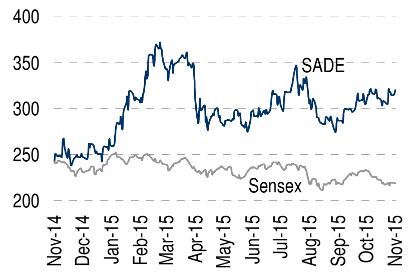
Key financials (YE Mar)	FY14	FY15	FY16e	FY17e	FY18e
Sales (₹ m)	23,581	29,698	34,158	40,534	45,109
Net profit (₹ m)	1,446	1,137	1,721	2,120	2,491
EPS (₹)	9.1	6.6	10.0	12.4	14.5
Growth (%)	937.6	-26.8	51.3	23.2	17.5
PE (x)	39.3	53.6	35.4	28.8	24.5
PBV (x)	5.9	4.5	4.1	3.6	3.2
RoE (%)	16.2	9.8	12.1	13.3	13.7
RoCE (%)	13.1	12.6	14.2	15.8	16.4
Dividend yield (%)	0.2	0.2	0.2	0.2	0.2
Net debt/equity (x)	1.0	0.8	0.6	0.5	0.4

Source: Company, Anand Rathi Research

Key data	SADE IN / SADE.BO
52-week high / low	₹385 / ₹233
Sensex / Nifty	26169 / 7955
3-m average volume	$0.7m
Market cap	₹61bn / $917m
Shares outstanding	172m

Shareholding pattern (%)	Sep '15	Jun '15	Mar'15
Promoters	47.1	47.1	47.1
- of which, Pledged	14.5	14.5	14.0
Free float	52.9	52.9	52.9
- Foreign institutions	14.7	15.9	16.0
- Domestic institutions	27.1	25.0	24.3
- Public	11.1	12.0	12.6

Relative price performance



Source: Bloomberg

Prem Khurana
Research Analyst
+91-22- 6626 6470
premkhurana@rathi.com

Lokesh Pareek
Research Analyst
+91-22- 6626 6615
lokeshpareek@rathi.com

Quick Glance – Financials and Valuations

Fig 1 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	23,581	29,698	34,158	40,534	45,109
Revenue growth (%)	30.2	25.9	15.0	18.7	11.3
- Oper. expenses	21,091	26,696	30,474	36,116	40,143
EBIDTA	**2,490**	**3,002**	**3,685**	**4,418**	**4,966**
EBITDA margin (%)	10.6	10.1	10.8	10.9	11.0
- Interest	1,181	1,382	1,397	1,379	1,334
- Depreciation	474	817	857	992	1,082
+ Other income	369	655	734	698	673
- Tax	-242	321	444	625	731
Effective tax rate (%)	-20.1	22.0	20.5	22.8	22.7
+ Associates/(minorities)	-	-	-	-	-
Adjusted PAT	1,446	1,137	1,721	2,120	2,491
+ Extraordinary items	-383	-	-118	-	-
Reported PAT	1,062	1,137	1,603	2,120	2,491
Adj. FDEPS (₹ / sh)	9.1	6.6	10.0	12.4	14.5
Adj. FDEPS growth (%)	937.6	-26.8	51.3	23.2	17.5

Source: Company, Anand Rathi Research

Fig 2 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Share capital	152	172	172	172	172
Reserves & surplus	9,420	13,349	14,808	16,784	19,131
Net worth	9,572	13,520	14,979	16,955	19,302
Total debt	10,257	10,964	10,273	9,666	9,082
Minority interest	-	-	-	-	-
Def. tax liab. (net)	357	244	244	244	244
Capital employed	**20,186**	**24,728**	**25,496**	**26,865**	**28,628**
Net fixed assets	4,975	5,342	5,485	5,993	5,911
Intangible assets	6	16	16	16	16
Investments	5,210	5,313	4,741	4,741	4,741
- of which, Liquid	-	-	-	-	-
Working capital	9,232	13,707	14,508	14,925	16,693
Cash	762	351	747	1,190	1,268
Capital deployed	**20,186**	**24,728**	**25,496**	**26,865**	**28,628**
W C turn (days)	143	168	155	134	135
Book value (₹ / sh)	60.0	78.8	87.3	98.9	112.5

Source: Company, Anand Rathi Research

Fig 3 – Cash-flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Adjusted PAT	1,446	1,137	1,721	2,120	2,491
+ Non-cash items	474	817	857	992	1,082
Cash profit	1,920	1,954	2,577	3,112	3,573
- Incr. / (decr.) in WC	1,865	4,475	801	417	1,768
Operating cash-flow	54	-2,521	1,777	2,695	1,806
- Capex	2,152	1,193	1,000	1,500	1,000
Free-cash flow	-2,098	-3,714	777	1,195	806
- Dividend	125	144	144	144	144
+ Equity raised	310	2,956	0	0	0
+ Debt raised	2,667	594	-691	-607	-584
- Investments	-174	102	-571	-	-
- Misc. items	-383	-	-118	-	-
Net cash-flow	544	-411	396	443	78
+ Op. cash & bank bal.	217	762	351	747	1,190
Cl. Cash & bank bal.	762	351	747	1,190	1,268

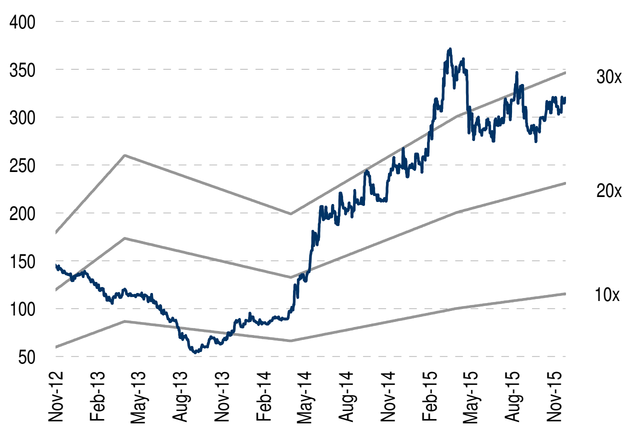
Source: Company, Anand Rathi Research

Fig 4 – Ratio analysis @ ₹355

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
P / E (x)	39.3	53.6	35.4	28.8	24.5
Cash P / E (x)	29.6	31.2	23.7	19.6	17.1
EV / EBITDA (x)	28.3	23.8	19.1	15.7	13.8
EV / sales (x)	3.0	2.4	2.1	1.7	1.5
P / B (x)	5.9	4.5	4.1	3.6	3.2
RoE (%)	16.2	9.8	12.1	13.3	13.7
RoCE (%)	13.1	12.6	14.2	15.8	16.4
Dividend yield (%)	0.2	0.2	0.2	0.2	0.2
Dividend payout (%)	8.7	12.7	8.4	6.8	5.8
Net debt / equity (x)	1.0	0.8	0.6	0.5	0.4
Debtor days	116	115	124	117	117
Inventory days	25	26	22	22	23
Payables days	58	54	54	54	54
Interest cover (x)	2.0	2.1	2.6	3.0	3.4
Fixed asset T/O (x)	4.7	5.5	6.2	6.7	7.6

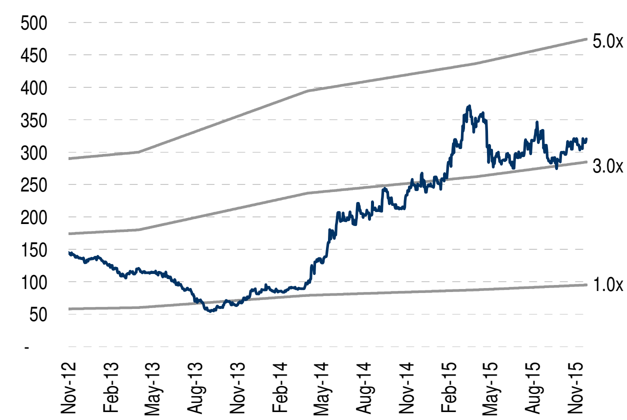
Source: Company, Anand Rathi Research

Fig 5 – PE band



Source: Bloomberg, Anand Rathi Research

Fig 6 – PB band

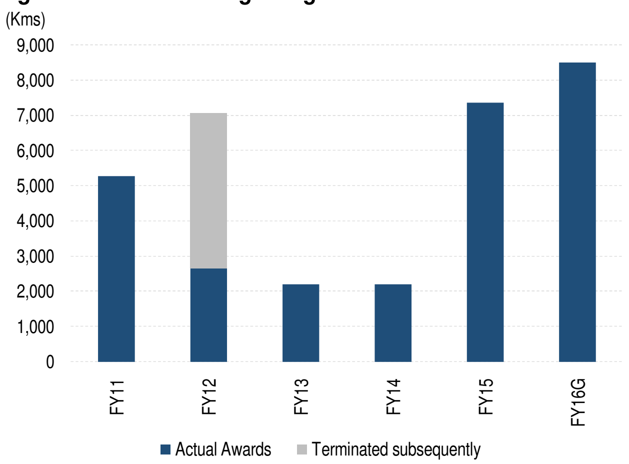


Source: Bloomberg, Anand Rathi Research

Likely beneficiary of the government's focus on roads and mining

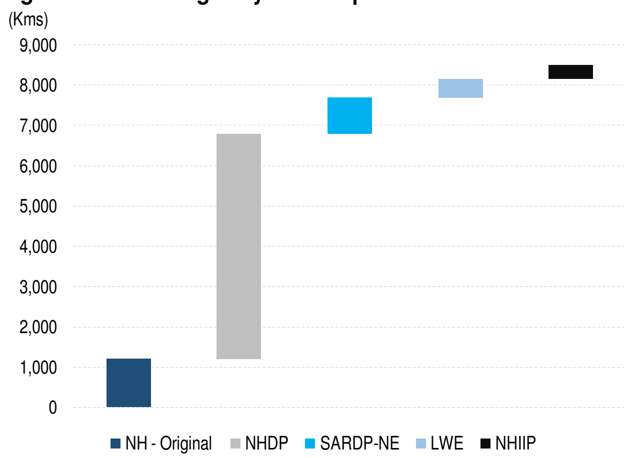
We believe Sadbhav is likely to be one of the key beneficiaries of the government's thrust on road-infrastructure development. The government aims to award national-highway contracts of ~5,600km in FY16 under the NHDP and another ~2,900km under other schemes. The figures are likely to increase even further in subsequent years because of the intention to finish the remaining length in the NHDP over the next two years. In addition to the NHDP, non-NHDP national highways and state roads are also to see healthy awarding of contracts. The sharper focus on improving Coal India's productivity and the recent approval of the Mines and Minerals Development Regulation (MMDR) would also throw up huge opportunities for the company.

Fig 7 – Road contracts gaining momentum



Source: Government documents, NHAI

Fig 8 – National Highways award plan - FY16



Source: Government documents

Created a name for itself for execution capabilities; targeting early completion of three captive road BOT projects

- **Unparalleled execution capabilities:** Since inception, the company has been very focused on managing project execution activity well. Its consistent record of timely execution over its years of operation has led to it creating a name for itself in an industry infamous for execution delays. This is commendable as, even with a meaningful increase in the scale of operations, the company has not lost focus on project execution. We believe execution is likely to be at the core of its business strategy and continue to drive growth. This is likely to keep the company as a contractor of choice. Additionally, the focus on timely execution helps it manage execution well within cost estimates and, in some cases, it become eligible for the early-completion bonus (if the contract provides).

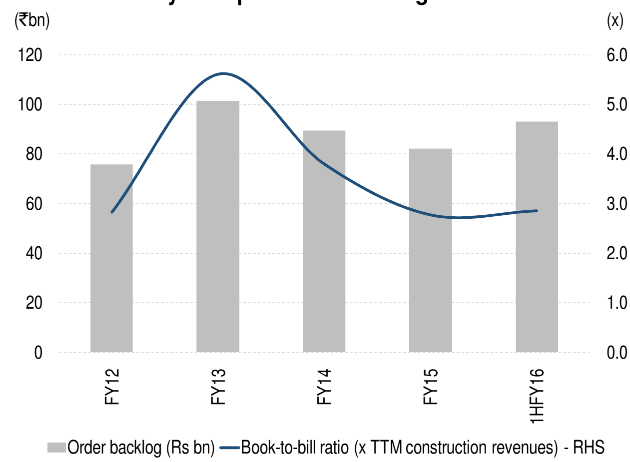
Fig 9 – Proven execution track record... raises hope for the future

Project	Completion		
	Scheduled COD	Actual/Target* COD	Early by (months)
Achieved early completion			
Ahmedabad Ring Road	Nov-08	May-08	6
Aurangabad-Jalna	Nov-09	Jul-09	4
Bijapur - Hungund	Mar-13	Apr-12	11
Dhule-Palesner	May-12	Feb-12	3
Candidates for early completion			
Bhilwara-Rajsamanad	Apr-16	Feb-16	2
Rohtak-Hissar	Jun-16	Apr-16	2
Mysore-Bellary	Jun-17	Jun-16	12

Source: Company, Anand Rathi Research *Note - * Targeted early completion*

- **Healthy earnings visibility:** The order backlog (on 30th Sep'15) was ~₹93.1bn. With the book-to-bill ratio at ~2.9x, the backlog offers ample revenue/earnings assurance. This would improve as we envisage healthy orders of ~₹150bn over FY16-18. The inflows and backlog and the continuing focus on project execution would keep the growth momentum going.

Fig 10 – Order book healthy... ample assurance of growth



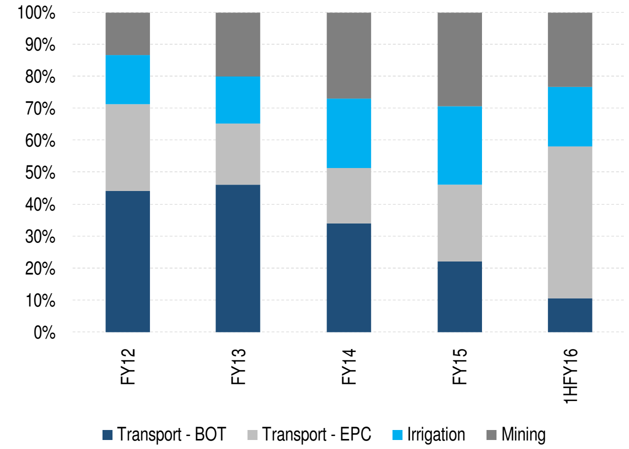
Source: Company

Fairly diversified order book with key focus on core strength, ie, roads

- **Diversified order backlog:** The order backlog not only provides ample assurance but as it is well diversified also does not expose the company to the vagaries of any particular segment or area. The order backlog is primarily split among three segments: transportation, mining and irrigation. Further, in the transportation sector, the order backlog consists of road EPC orders, EPC orders for captive road BOTs and metro projects. The diversified order backlog provides comfort as each segment comes with benefits of its own.

  Mining orders provide relatively longer visibility whereas irrigation tends to be quick churn. In transportation, the execution cycle tends to be somewhat similar for third-party EPC and captive-BOT projects, but BOTs come with better control over execution timelines as they are in-house projects. As for margins, mining orders command the best margins (~15-20%) of the lot, but entail higher capex. Of the three segments, irrigation has the lowest margin (~8%).

Fig 11 – Fairly diversified order book… captive BOTs to make a comeback due to additions



Source: Company

Eyeing opportunities in mining EPC as well as MDO

- **Expanding into complementary sub-sectors:** To leverage its experienced track record, commercial relationships and brand recognition, the company intends to expand EPC into complementary sub-sectors. For instance, to leverage its expertise in excavating rocky surfaces, management intends to explore mining of minerals as well. The company is also exploring mining, development and operations (MDO) to leverage its execution capabilities in mining. In transportation, it intends to seek out further opportunities in metro railways. The strategy, if it plays out, would further broaden its growth base.

Access to good BOT projects

Access to twelve quality assets through its BOT holdco arm; project portfolio boasts residual life of over 18years

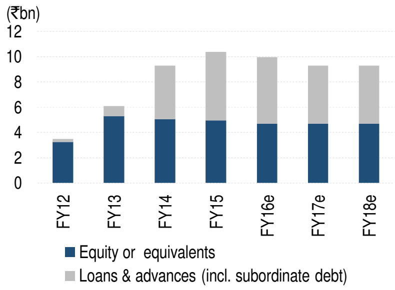
In 2006, the group began in road BOT. In a short span it has created 12 good assets (excl. Mumbai-Nasik to be sold to Gammon Infrastructure). The company enjoys access to these assets through its majority stake in the recently listed BOT holdco arm, Sadbhav Infrastructure. The projects cover seven states of India, most of which are economically stable, and had an NSDP growth rate from FY94 to FY13 higher than that of India. Besides, having created 12 assets in the last nine years means that most are still in the early stages of project lifecycles and have yet to reach the optimal annual traffic growth rate. With the residual term for projects estimated at 18 years and three months (on 30th Sep'15), the assets, we believe, are investments in the long-term growth potential of the Indian economy.

Fig 12 – Young portfolio with over 18 years of average residual tenure

Project	State	Client	Type	Status*	Effective economic interest (%)**	Lane-km	Project cost (₹ bn)	Term loans (₹ bn) ^	Residual life (yrs)
Sadbhav Infrastructure - BOT Holdco					**68.4**				
Ahmedabad ring road	Gujarat	AUDA	Toll	O	68.4	305	5	4	11
Aurangabad-Jalna	Maharashtra	Govt. of Maharashtra	Toll	O	68.4	263	3	2	15
Dhule-Palesner	Maharashtra	NHAI	Toll	O	68.4	355	14	10	12
Nagpur-Seoni	Maharashtra / Madhya Pradesh	NHAI	Annuity	O	68.4	111	4	2	12
Bijapur-Hungund	Karnataka	NHAI	Toll	O	52.6	389	14	8	15
Rohtak-Panipat	Haryana	NHAI	Toll	O	68.4	323	12	10	21
Hyderabad-Yadgiri	Telangana	NHAI	Toll	O	68.4	140	5	4	18
Maharshtra border checkpost	Maharashtra	Govt. of Maharashtra	User Fee	RO	53.3	-	14	10	18
Shreenathji-Udaipur	Rajasthan	NHAI	Toll	UI	68.4	317	12	6	25
Rajsamanad-Bhilwara	Rajasthan	NHAI	Toll	UI	68.4	349	7	1	28
Rohtak Hissar	Haryana	NHAI	Toll	UI	68.4	395	13	4	20
Mysore-Bellary	Karnataka	Govt. of Karnataka	Annuity	UI	68.4	387	8	1	9
Total - (A+B)						**3,334**	**109**	**62**	

*Source: Company * O - Operational; UI - Under implementation; RO - Revenue operational ** Adjusted for share-purchase agreements in place ^ on 31st Mar'15*

Fig 13 – Cumulative investments in BOT operations set to drop on recoveries



Source: Company, Anand Rathi Research

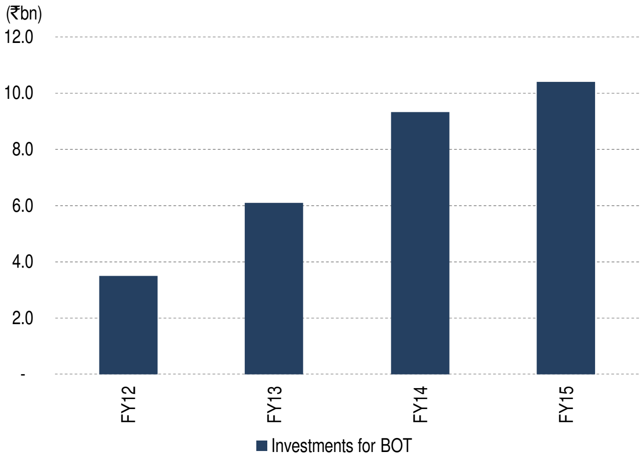
- **BOT holdco arm turning financially independent:** A large part of the debt on the books could be attributed to the need to fund the group's BOT projects. With the recent listing of the BOT holdco arm, we see the BOT holdco arm to turn financially independent. In effect, this means that the company would no more be required to extend financial support to the BOT holdco arm, at least in the short to medium term. In fact, we see the BOT holdco utilising a part of the funds recently raised to repay part of the financial support extended by the company in earlier years. This would mean cash from the EPC vertical would be utilised for a mix of de-leveraging and driving the next leg of growth. For growth in BOT, the group is planning to leverage its existing projects to scout for growth opportunities.

Healthy balance sheet

Standalone net-debt-to-equity at ~0.7x on 30th Sep'15; set to decline to ~0.4x by FY18-end due to positive free-cash-flows

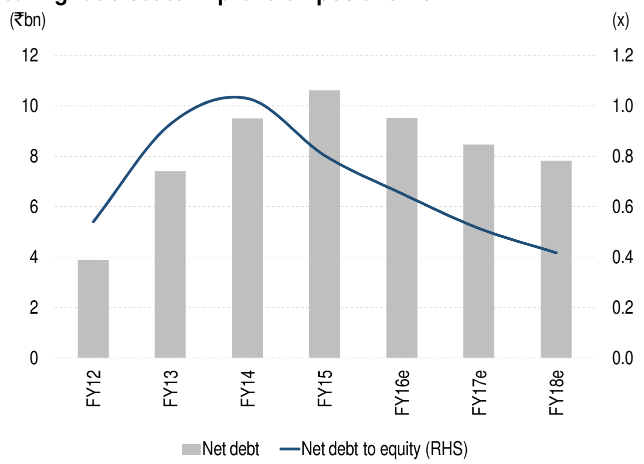
On 30th Sep'15, the standalone net-debt-to-equity ratio was ~0.7x. The not-overly-leveraged balance sheet is a key strength. Leverage levels would come down as the company is slated to repay a part of the financial support extended to the BOT holdco arm. Leverage levels, also, would come down. During FY15, the company took over a couple of slow-moving projects of partners because of their inability to fund such projects. This required it to commit additional working capital to ensure timely project completion. The net-debt-to-equity ratio would slide to ~0.4x (from ~0.7x on 30th Sep'15). We believe that the return ratios bottomed out in FY15 and are likely to trend upward now. We see the RoE and RoCE improving by more than three percentage points over FY15-18.

Fig 14 – Investments in BOT pushed up leverage



Source: Company

Fig 15 – Gearing ratio set to improve on positive FCF



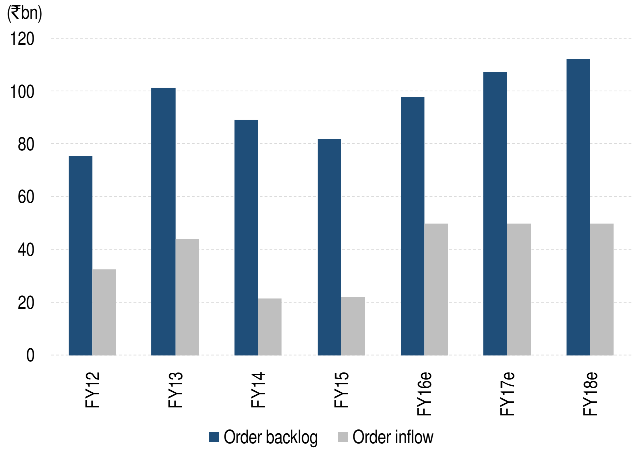
Source: Company

Financials

Revenue set to hit new highs

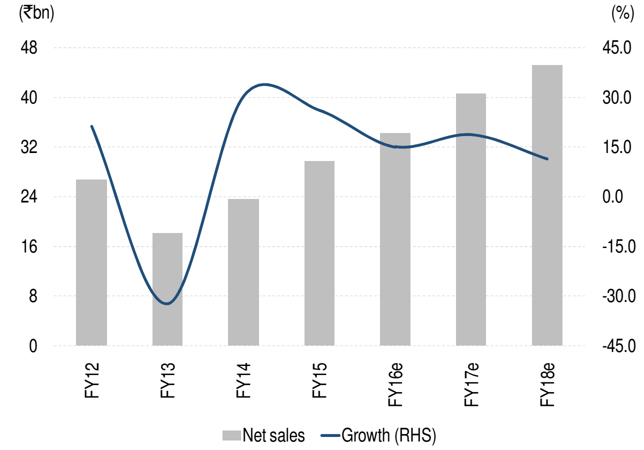
The company's healthy order backlog and equally healthy order prospects hint that its growth momentum would persist. We expect the company to clock a ~15% revenue CAGR over FY15-18. Its proven execution capabilities, the ~₹93.1bn order backlog (on 30th Sep'15) and expected orders of ~₹123bn in the next two and a half years are likely to make the anticipated growth figures come true. We expect the company to clock revenue of ~₹45.1bn in FY18, against ~₹29.7bn in FY15.

Fig 16 – Healthy inflows to keep backlog healthy



Source: Company, Anand Rathi Research

Fig 17 – Healthy backlog to drive revenue growth



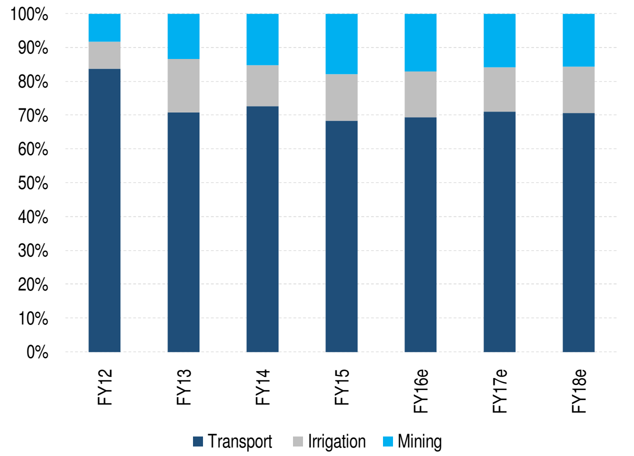
Source: Company, Anand Rathi Research

Margin profile to turn better

Margin to touch 11% by FY18; largely driven by economies of scale

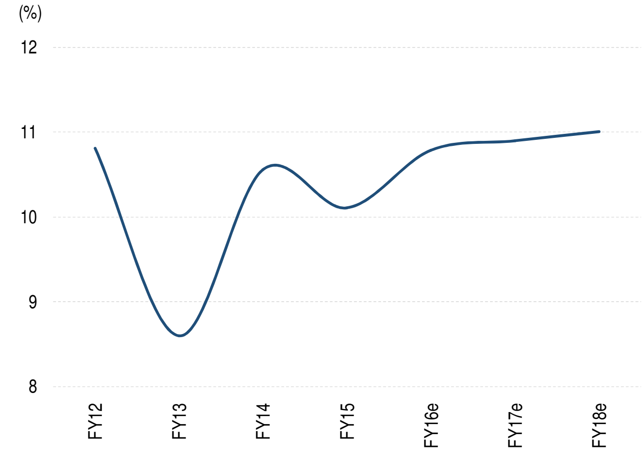
As revenues scale new highs, better absorption of fixed costs would mean EBITDA margins are improving. Besides, the greater proportion of high-margin mining orders bagged in the recent past would drive EBITDA margins. We see EBITDA margins improving ~90bps over FY15-18 to come at 11%. A part of the betterment would be attributable to the absence of low-margin projects taken over from two partners (which ate into margins in FY15) and the one-time impact of the increase in the VAT rate in Haryana.

Fig 18 – Revenue composition in favour of transport



Source: Company, Anand Rathi Research

Fig 19 – Margins to be better due to operating leverage



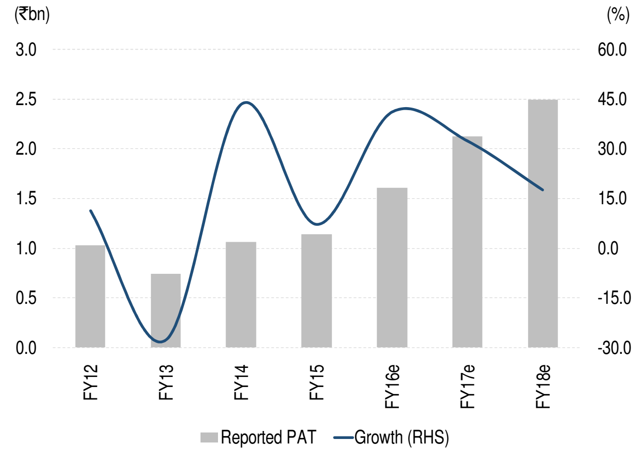
Source: Company, Anand Rathi Research

Profitability also to see a leg up

Healthy operating profitability coupled with lower leverage levels to drive earnings

As with the operating performance, profitability also would improve meaningfully. In fact, the combined effect of the healthy operating performance and reduced absolute leverage would lead to earnings growth being better than revenue growth. We see reported PAT coming at a ~29.9% CAGR over FY15-18 to touch ~₹2.5bn by FY18.

Fig 20 – PAT growth to be more than revenue growth



Source: Company, Anand Rathi Research

Free-cash-flows set to turn

Over FY15-18, positive free-cash-flows to bring down net debt by ~₹2.8bn

We expect the company to turn free-cash-flow positive in FY16 itself. This would be possible as, subsequent to the listing of Sadbhav Infrastructure, it would no more be required to extend support to BOT projects. Besides, repayment of loans of ~₹0.8bn by the BOT holdco arm (from the issue proceeds) would support cash flows. Working capital would increase in FY17 and FY18 in sync with heightened business activity. However, a reduction in inventory days would contain the increase to a certain extent (because of the absence of projects taken over from partners for their inability to fund them). The positive free-cash-flow would result in net debt declining by ~₹2.8bn over FY15-18.

Fig 21 – To turn free-cash-flow positive in FY16

₹ bn	FY15	FY16e	FY17e	FY18e
Operating cash-flow	**-2.5**	**1.8**	**2.7**	**1.8**
Capex	-1.2	-1.0	-1.5	-1.0
Free-cash-flow	**-3.7**	**0.8**	**1.2**	**0.8**
Equity raised	3.0	0.0	0.0	0.0
Debt raised / (repaid)	0.6	-0.7	-0.6	-0.6
Other financing activities	-0.2	0.3	-0.1	-0.1
Net change in cash	**-0.4**	**0.4**	**0.4**	**0.1**

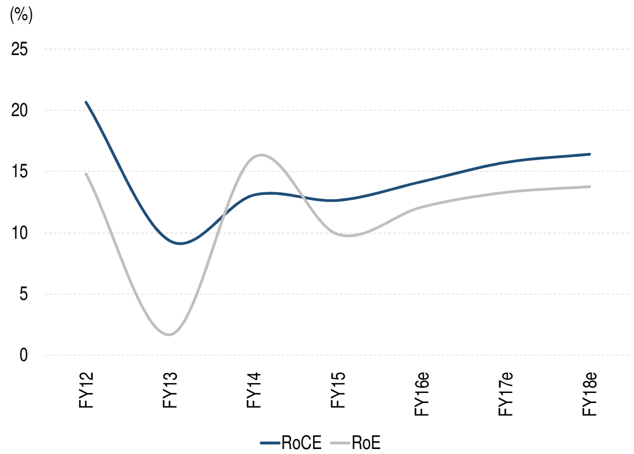
Source: Company, Anand Rathi Research

Return ratios set to improve

RoE to return to double digits in FY16, from single digits in FY15

The greater scale of operations and lower capital intensity (because of no more funding to the BOT holdco) would lead to return ratios expanding. The RoCE would improve by ~377bps to ~16.4%. The RoE, too, is set to improve because of the combined effect of greater operating profit and lower finance costs. We see the RoE to return to double digits in FY16 (from ~9.7% in FY15) and scale a high ~13.7% by FY18.

Fig 22 – Improving operations to translate into better return ratios



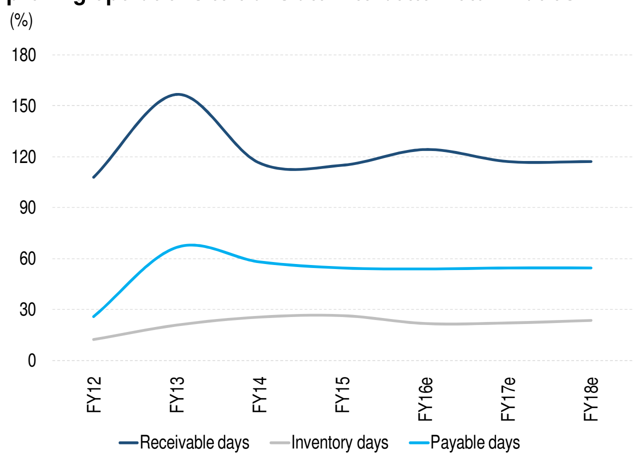
Source: Company, Anand Rathi Research

Efficiency ratios

Cash-conversion cycle to be steady

The increasing scale of operations would at first (in FY16) lead to a lengthening of the cash-conversion cycle. However, as execution gains momentum, by FY18 the cash-conversion cycle would stabilise at ~86 days. Receivable days would increase to ~117 (from ~115 at end-FY15). Inventory days are likely to come down to ~23 for FY18 (from ~26 in FY15) since working-capital-intensive projects taken over from partners would have been completed by then. Payable days would be a stable ~54.

Fig 23 – Improving operations to translate into better return ratios



Source: Company, Anand Rathi Research

Fig 24 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	23,581	29,698	34,158	40,534	45,109
Other Op revenues	-	-	-	-	-
Revenues	**23,581**	**29,698**	**34,158**	**40,534**	**45,109**
Growth (%)	*30.2*	*25.9*	*15.0*	*18.7*	*11.3*
Material Cost	-3,779	-7,353	-3,416	-4,053	-4,511
Employee Cost	-602	-974	-1,127	-1,338	-1,443
Manufacturing cost	-	-	-	-	-
Marketing cost	-	-	-	-	-
Administrative cost	-1,040	-1,361	-1,453	-1,718	-1,909
Energy cost	-	-	-	-	-
Other cost	-	-	-	-	-
Construction expense	-15,671	-17,009	-24,478	-29,006	-32,280
EBITDA	**2,490**	**3,002**	**3,685**	**4,418**	**4,966**
Growth (%)	*59.8*	*20.6*	*22.7*	*19.9*	*12.4*
EBITDA margin (%)	*10.6*	*10.1*	*10.8*	*10.9*	*11.0*
Other income	369	655	734	698	673
Operating profit	**2,859**	**3,658**	**4,418**	**5,116**	**5,639**
Depreciation	-474	-817	-857	-992	-1,082
EBIT	**2,385**	**2,841**	**3,561**	**4,124**	**4,557**
Interest cost	-1,181	-1,382	-1,397	-1,379	-1,334
PBT	**1,204**	**1,458**	**2,165**	**2,745**	**3,222**
Tax	242	-321	-444	-625	-731
Effective tax rate	*-20.1*	*22.0*	*20.5*	*22.8*	*22.7*
PAT	**1,446**	**1,137**	**1,721**	**2,120**	**2,491**
Minority interest	-	-	-	-	-
Associate profit	-	-	-	-	-
Consol PAT	**1,446**	**1,137**	**1,721**	**2,120**	**2,491**
Growth (%)	*997.5*	*-21.3*	*51.3*	*23.2*	*17.5*
PAT margin (%)	*6.1*	*3.8*	*5.0*	*5.2*	*5.5*
Extra-ordinary income	-383	-	-118	-	-
Dividends (incl Tax)	-125	-144	-144	-144	-144
Transferred to reserves	**937**	**993**	**1,459**	**1,976**	**2,347**
Per Share data					
FDEPS (₹)	9.1	6.6	10.0	12.4	14.5
DPS (₹)	0.7	0.7	0.7	0.7	0.7
Adj BV (₹)	60.0	78.8	87.3	98.9	112.5
CEPS (₹)	12.0	11.4	15.0	18.1	20.8
Valuation ratio					
P/E (x)	39.3	53.6	35.4	28.8	24.5
P/adj BV (x)	5.9	4.5	4.1	3.6	3.2
P/C (x)	29.6	31.2	23.7	19.6	17.1
Dividend Yield (%)	0.2	0.2	0.2	0.2	0.2
EV/S (x)	3.0	2.4	2.1	1.7	1.5
EV/E (x)	28.3	23.8	19.1	15.7	13.8
Quality ratio					
Dividend Payout (%)	8.7	12.7	8.4	6.8	5.8
Other income/PBT (%)	30.6	44.9	33.9	25.4	20.9
Interest cover (x)	2.0	2.1	2.6	3.0	3.4
Operating CF/EBITDA (x)	0.0	-0.8	0.5	0.6	0.4

Source: Company, Anand Rathi Research

Fig 25 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Equity	152	172	172	172	172
Reserves	9,420	13,349	14,808	16,784	19,131
Less: Misc Exp	-	-	-	-	-
Networth	**9,572**	**13,520**	**14,979**	**16,955**	**19,302**
Minority interests	**-**	**-**	**-**	**-**	**-**
Equity (% of CE)	*47.4*	*54.7*	*58.8*	*63.1*	*67.4*
LT Debt	5,839	7,164	4,694	3,054	1,724
ST Debt	4,418	3,800	5,579	6,612	7,358
Total debt	**10,257**	**10,964**	**10,273**	**9,666**	**9,082**
Net D/E (x)	*1.0*	*0.8*	*0.6*	*0.5*	*0.4*
DTL (net)	357	244	244	244	244
Capital Employed	**20,186**	**24,728**	**25,496**	**26,865**	**28,628**
Gross block	7,263	8,512	9,512	11,012	12,012
Acc Depreciation	-2,282	-3,155	-4,011	-5,003	-6,085
Net block	**4,982**	**5,358**	**5,501**	**6,009**	**5,927**
CWIP	-	-	-	-	-
Fixed assets	**4,982**	**5,358**	**5,501**	**6,009**	**5,927**
Investments	5,210	5,313	4,741	4,741	4,741
Cash Equivalents	762	351	747	1,190	1,268
Inventories	1,638	2,134	2,014	2,431	2,890
Debtors	7,517	9,360	11,635	13,016	14,486
Loans & Advances	9,456	12,094	13,102	13,634	14,518
Other Current Assets	689	641	652	652	652
Current Assets	**20,062**	**24,580**	**28,150**	**30,923**	**33,814**
Creditors	-3,734	-4,411	-5,021	-6,024	-6,704
Provisions	-1,219	-1,620	-1,780	-2,236	-2,570
Other Current Liabilities	-5,116	-4,491	-6,094	-6,548	-6,581
Current Liabilities	**-10,068**	**-10,522**	**-12,895**	**-14,808**	**-15,854**
Net Current Assets	**9,994**	**14,058**	**15,255**	**16,115**	**17,960**
Capital Deployed	**20,186**	**24,728**	**25,496**	**26,865**	**28,628**
FA/CE (%)	*24.7*	*21.7*	*21.6*	*22.4*	*20.7*
Investments/CE (%)	*25.8*	*21.5*	*18.6*	*17.6*	*16.6*
Liquid assets/CE (%)	*3.8*	*1.4*	*2.9*	*4.4*	*4.4*
Working Capital/CE (%)	*45.7*	*55.4*	*56.9*	*55.6*	*58.3*

Source: Company, Anand Rathi Research

Fig 26 – Cash-flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Cash profit	1,920	1,954	2,577	3,112	3,573
Chg in WC	-1,865	-4,475	-801	-417	-1,768
Operating CF	**54**	**-2,521**	**1,777**	**2,695**	**1,806**
Capex	-2,152	-1,193	-1,000	-1,500	-1,000
Free CF	**-2,098**	**-3,714**	**777**	**1,195**	**806**
Equity	310	2,956	0	0	0
Debt	2,667	594	-691	-607	-584
Investments	174	-102	571	-	-
Dividends	-125	-144	-144	-144	-144
Misc inflows	-383	-	-118	-	-
Net change in cash	**544**	**-411**	**396**	**443**	**78**
Opening cash	217	762	351	747	1,190
Closing cash	**762**	**351**	**747**	**1,190**	**1,268**

Source: Company, Anand Rathi Research

Fig 27 – Ratio analysis @ ₹355

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Dupont analysis					
Margins (%)	10.1	9.6	10.4	10.2	10.1
Capital turn (x)	1.3	1.3	1.4	1.5	1.6
RoCE (%)	13.1	12.6	14.2	15.8	16.4
Leverage factor (x)	2.0	1.9	1.8	1.6	1.5
Interest burden (x)	0.5	0.5	0.6	0.7	0.7
Tax burden (x)	1.2	0.8	0.8	0.8	0.8
Consol factor (x)	1.0	1.0	1.0	1.0	1.0
RoE (%)	16.2	9.8	12.1	13.3	13.7
Working capital (Days)					
Inventories	25	26	22	22	23
Debtors	116	115	124	117	117
Loans & advances	146	149	140	123	117
Other CA	11	8	7	6	5
Creditors	-58	-54	-54	-54	-54
Provisions	-19	-20	-19	-20	-21
Other CL	-79	-55	-65	-59	-53
Net WC	143	168	155	134	135
Other ratios					
Op CF/Rev (%)	0.2	-8.5	5.2	6.6	4.0
FCF/Rev (%)	-8.9	-12.5	2.3	2.9	1.8
Intangibles/GB (%)	0.1	0.2	0.2	0.1	0.1
Intangibles/CE (%)	0.0	0.1	0.1	0.1	0.1
Revenue/GB (x)	3.2	3.5	3.6	3.7	3.8
Revenue/FA (x)	4.7	5.5	6.2	6.7	7.6
CWIP/GB (x)	-	-	-	-	-

Source: Company, Anand Rathi Research

Valuation

We have valued the company based on a sum-of-parts approach. The construction business has been valued using a relative valuation multiple, and the value of the road BOT assets has been based on the discounted-cash-flow (DCF) method used for Sadbhav Infrastructure.

- **Construction business:** The construction business has been valued using a comparative valuation based on PE multiples. We expect the company to command a premium multiple of 20x one-year forward earnings for its industry-leading earnings growth and quality of earnings.

Fig 28 – Construction business – Relative valuation

₹ per share	FY16e	FY17e	FY18e
Construction EPS	10.0	12.4	14.5
Assigned P/E multiple (x)		20	
Value for construction business		**247**	

Source: Anand Rathi Research

- **Road BOT projects:** The company's exposure to road BOT assets, through a 68.4% stake in Sadbhav Infrastructure, has been valued at ~₹156 a share. We have taken the DCF approach for all the projects except Mumbai-Nasik which has been agreed to be sold to Gammon Infrastructure. This has been valued at the exit valuation/cash received.

Sadbhav's ~68.4% stake in the road BOT holdco would contribute ~₹156 a share to the target price of ~₹403

Fig 29 – Value of road BOT assets

Particulars	₹bn
Sum-of-parts valuation for BOT holdco	39,198
Sadbhav's economic interest in HoldCo (%)	68.4
Value attributable to Sadbhav	**26,792**
No. of shares (m)	171.5
Value per share (₹)	**156**

Source: Anand Rathi Research

We recommend a Hold on the stock with a one-year-forward price target of ₹403. The target price (explained above) is based on 20x FY17e construction earnings and the proportionate value of the 68.4% stake in the BOT holding company.

Fig 30 – Sum-of-parts

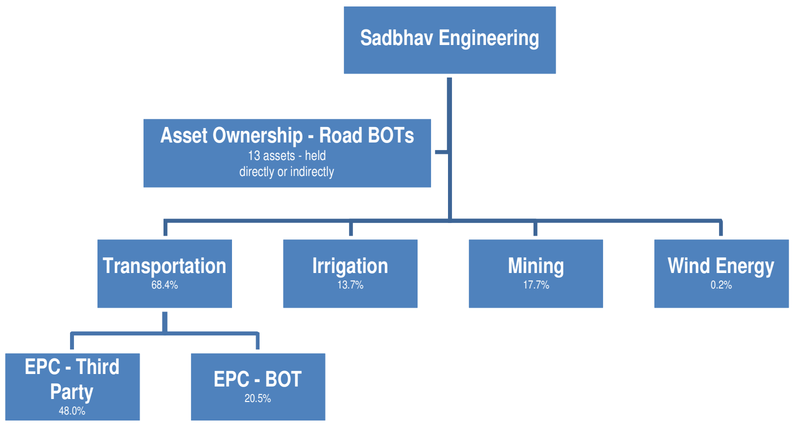
Particulars	Methodology	₹ / share
Construction business	20x FY17e construction EPS	247
Road BOT	Sum-of-parts method	156
Target price		**403**

Source: Anand Rathi Research

Company Background & Management

One of the leading infrastructure development and construction companies, Sadbhav Engineering is dominant in the road BOT vertical and has completed most of its projects ahead of schedule. Incorporated in 1988 as a private company, it began operations with acquiring the running business of Bhavna Construction Co. Since incorporation, over 25 years of operating, it has constructed more than 4,500 lane-km of roads and highways, excavated ~250m cubic metres of surface rocks & rubble, and minerals, and constructed ~260km of irrigation canals. On 30th Sep'15, it was executing orders worth ~₹93.1bn, fairly spread across three segments: transportation, irrigation and mining.

Fig 31 – Business Model



Source: Company *Note – The 13 assets include the to-be-monetised Mumbai-Nasik project*

Board of directors and management: The board comprises six independent and five non-independent directors, led by Vishnu Bhai Patel, MD and CEO. Mr Patel boasts of over 40 years' experience in construction. He is ably supported by Shashin V Patel, Joint MD.

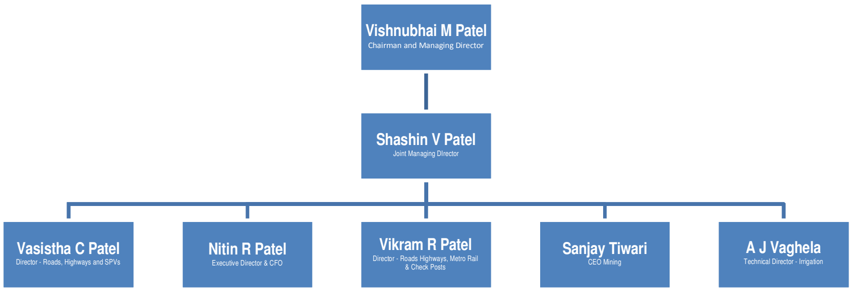
Experienced management

Fig 32 – Board of Directors

	Designation / Status	
Vishnubhai M Patel	Managing Director and CEO	Since 1968, has been actively involved in the family construction business as partner of M/s Bhavna Construction, in charge of canal and road projects
Shashin V Patel	Joint Managing Director	With a Masters in Business Administration, has been associated with the company since 2000. Scope of work includes overview of the day-to-day affairs in consultation with the MD and making strategic management decisions
Nitin R Patel	Whole Time Director and CFO	A Chartered Accountant, current areas of responsibility are execution of projects, cost analyses, claims, arbitration and participating in the bidding process, as well as corporate affairs. Also policy implementation and liaising with banks and financial institutions

Source: Company

Fig 33 – Management profile



Source: Company

Equity history: In Oct'14, the company made a qualified institutional placement of ~11.6m shares at ~₹216 each (face value: ₹1) totalling ~₹2.5bn. Prior to this, it had raised ~₹926m through conversion of the warrants issued to the promoters. The promoters converted 8m warrants into an equivalent number of equity shares, at ~₹116 each. Funds so raised were largely utilised to meet capex for the mining business.

Fig 34 – Fund-raising largely to support the asset-ownership business

Date	Share capital (₹ m)	Premium (₹ /sh)*	Reason
21-Oct-2014	171	215	Qualified institutional placement
30-Sep-2104	160	115	Conversion of warrants
31-Mar-2014	162	-	According to the balance sheet – adjusted for ESOPs
24-Feb-2011	150	42	Conversion of warrants
19-Jan-2011	135	42	Conversion of warrants
05-Jan-2011	133	42	Conversion of warrants
16-Jun-2010	131	72	Rights issue
11-Jul-2007	125	57	Qualified institutional placement
01-Mar-2006	109	18	Public issue
31-Mar-05	80	-	According to the balance sheet

Source: Company, ACE Equity ** Adjusted for split of face value of equity shares from `10 to `1 per equity share*

ANANDRATHI

India I Equities

Infrastructure

Initiating Coverage

7 December 2015

Sadbhav Infrastructure

Rating: **Hold**
Target Price: ₹111
Share Price: ₹101

Road-asset owner in the true sense; initiating, with a Hold

Since incorporation in 2007, Sadbhav Infrastructure has come a long way in a short nine years. Over the years of operations, it has gained access to 12 quality road BOT projects with 3,334 lane-km and 22 Maharashtra border check posts. With its entire project portfolio slated for completion by FY17, cash flows and coverage ratios would markedly improve. Besides, the commissioning of all its projects would lead to the company looking for fresh growth opportunities and embark on the next leg of growth.

From zero to 12 quality assets: Having created a portfolio of 12 assets in almost a decade means that most assets are still in the early stages of project lifecycles and have yet to reach an optimal annual traffic growth rate. With the residual term for projects, estimated at 18 years and three months (on 30th Sep'15), the assets, we believe, are a play on the long-term growth potential that the Indian economy harbours.

FY18, the first full year of operations for the entire portfolio: The entire capital now being employed would mean coverage and return ratios would be augmented. This, we believe, would help the company command a better valuation multiple because of the execution risk having eased. Not only do we see the execution risk easing, the reduction in finance costs (re-set upon completed construction) would also augment shareholder wealth. Besides, it would lead to the management searching for growth opportunities to augment shareholder wealth.

Valuation: We have used the discounted-cash-flow (DCF) approach for the present projects and attached Operations & Maintenance jobs to arrive at a price target of ₹111. At the CMP, the stock seems fairly valued. We, therefore, initiate coverage with a Hold rating. **Risks.** Any added new project with a decent return profile is an upside risk to our call. Any failure to deliver on traffic growth would be a key downside risk.

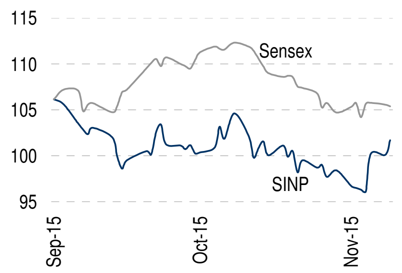
Key financials (YE Mar)	FY14	FY15	FY16e	FY17e	FY18e
Sales (₹m)	3,711	5,003	6,835	11,314	13,802
Net profit (₹m)	-1,559	-3,016	-2,837	-3,197	-2,426
EPS (₹)	-5.0	-9.7	-8.1	-9.1	-6.9
Growth (%)	-	-	-	-	-
PE (x)	-	-	-	-	-
PBV (x)	3.8	4.0	2.8	2.9	3.6
RoE (%)	-17.4	-37.5	-27.8	-25.7	-21.9
RoCE (%)	3.2	3.0	3.8	5.2	6.6
Dividend yield (%)	-	-	-	-	-
Net debt/equity (x)	4.8	7.3	6.5	6.8	8.3

Source: Company, Anand Rathi Research

Key data	SINP IN
52-week high/low	₹112 /₹94
Sensex/Nifty	26169 / 7955
3-m average volume	$0.2m
Market cap	₹36bn/$536m
Shares outstanding	352m

Shareholding pattern (%)	Sep '15
Promoters	69.2
- of which, Pledged	10.0
Free Float	30.8
- Foreign Institutions	3.1
- Domestic Institutions	4.7
- Public	23.0

Relative price performance



Source: Bloomberg

Prem Khurana
Research Analyst
+91-22- 6626 6470
premkhurana@rathi.com
Lokesh Pareek
Research Analyst
+91-22- 6626 6615
lokeshpareek@rathi.com

Quick Glance – Financials and Valuations

Fig 1 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	3,711	5,003	6,835	11,314	13,802
Revenue growth (%)	29.2	34.8	36.6	65.5	22.0
- Oper. expenses	1,295	1,915	2,027	3,524	3,354
EBIDTA	**2,416**	**3,088**	**4,808**	**7,791**	**10,448**
EBITDA margins (%)	65.1	61.7	70.3	68.9	75.7
- Interest	3,552	5,259	6,264	8,365	8,851
- Depreciation	915	1,406	1,779	2,778	4,147
+ Other income	216	278	235	169	204
- Tax	122	0	35	66	112
Effective tax rate (%)	-6.6	-0.0	-1.2	-2.1	-4.8
+ Associates/(minorities)	398	284	198	52	32
Adjusted PAT	-1,559	-3,016	-2,837	-3,197	-2,426
+ Extraordinary items	-	-	-	-	-
Reported PAT	-1,559	-3,016	-2,837	-3,197	-2,426
Adj. FDEPS (₹/sh)	-5.0	-9.7	-8.1	-9.1	-6.9
Adj. FDEPS growth (%)	-	-	-	-	-

Source: Company, Anand Rathi Research

Fig 2 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Share capital	260	3,110	3,522	3,522	3,522
Reserves & surplus	7,944	4,772	9,039	8,792	6,366
Net worth	8,204	7,882	12,561	12,314	9,888
Total debt	49,958	63,418	84,981	87,850	85,548
Minority interest	1,865	569	371	319	288
Def. tax liab. (net)	-0	-	-	-	-
Capital employed	**60,026**	**71,870**	**97,914**	**1,00,484**	**95,723**
Net fixed assets	255	226	226	226	226
Intangible assets	78,002	91,084	1,29,092	1,31,578	1,27,431
Investments	1,052	81	20	20	20
- of which, Liquid	1,029	47	-	-	-
Working capital	-19,801	-21,218	-32,155	-32,913	-33,500
Cash	518	1,696	730	1,573	1,546
Capital deployed	**60,026**	**71,870**	**97,914**	**1,00,484**	**95,723**
Adj. W C turn (days)*	312	87	3	-23	-34
Book value (₹/sh)	26.4	25.3	35.7	35.0	28.1

*Source: Company, Anand Rathi Research * Adjusted for LT liability classified as ST*

Fig 3 – Cash-flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Adjusted PAT	-1,559	-3,016	-2,837	-3,197	-2,426
+ Non-cash items	915	1,406	1,779	2,778	4,147
Cash profit	-644	-1,610	-1,058	-419	1,721
- Incr./(decr.) in WC	-19,302	-1,416	-10,937	-758	-587
Operating cash-flow	18,658	-193	9,879	339	2,308
- Capex	31,256	14,459	39,787	5,264	-
Free-cash-flow	-12,598	-14,652	-29,908	-4,924	2,308
- Dividend	-	-	-	-	-
+ Equity raised	332	1,398	7,318	2,898	-32
+ Debt raised	13,226	13,461	21,563	2,869	-2,303
- Investments	958	-971	-61	-	-
- Misc. items	-	-	-	-	-
Net cash-flow	1	1,177	-965	842	-27
+ Op. cash & bank bal.	517	518	1,696	730	1,573
Cl. Cash & bank bal.	518	1,696	730	1,573	1,546

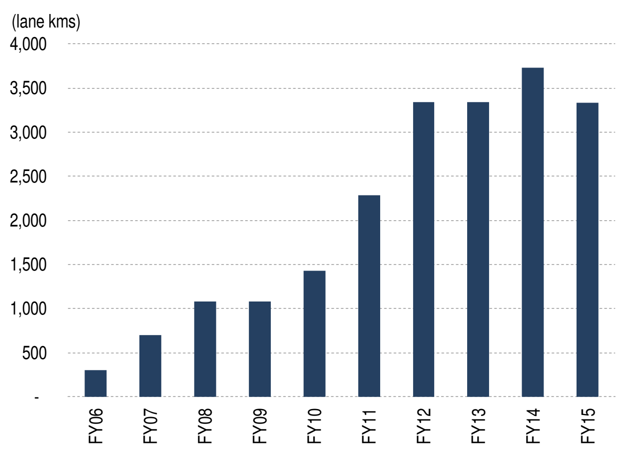
Source: Company, Anand Rathi Research

Fig 4 – Ratio analysis @ ₹101

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
P/E (x)	-	-	-	-	-
Cash P/E (x)	-	-	-	-	20.7
EV/EBITDA (x)	34.8	31.5	24.9	15.6	11.5
EV/sales (x)	22.7	19.5	17.5	10.8	8.7
P/B (x)	3.8	4.0	2.8	2.9	3.6
RoE (%)	-17.4	-37.5	-27.8	-25.7	-21.9
RoCE (%)	3.2	3.0	3.8	5.2	6.6
Dividend yield (%)	-	-	-	-	-
Dividend payout (%)	-	-	-	-	-
Net debt/equity (x)	4.8	7.3	6.5	6.8	8.3
Debtor days	14	10	2	5	2
Inventory days	-	-	-	-	-
Payables days	42	29	30	32	24
Interest cover (x)	0.5	0.4	0.5	0.6	0.7
Fixed asset T/O (x)	0.0	0.1	0.1	0.1	0.1

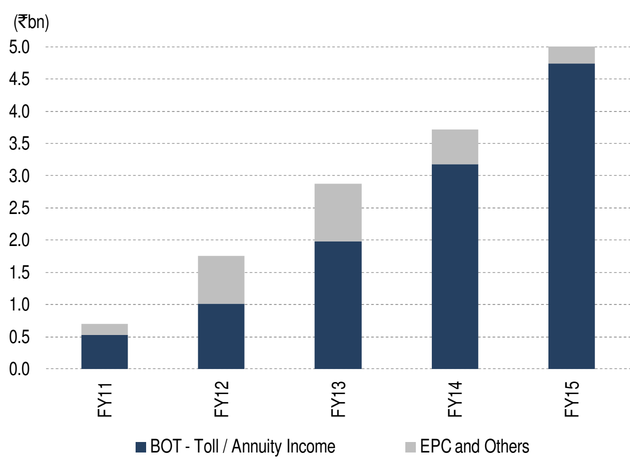
Source: Company, Anand Rathi Research

Fig 5 – From zero to 3,334 lane-km



Source: Company, Anand Rathi Research

Fig 6 – Revenue composition



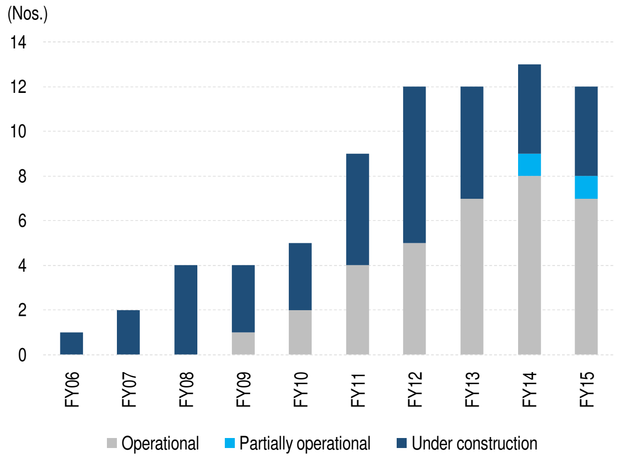
Source: Company

From none to 12 good assets

Built 3,334 lanes in less than a decade

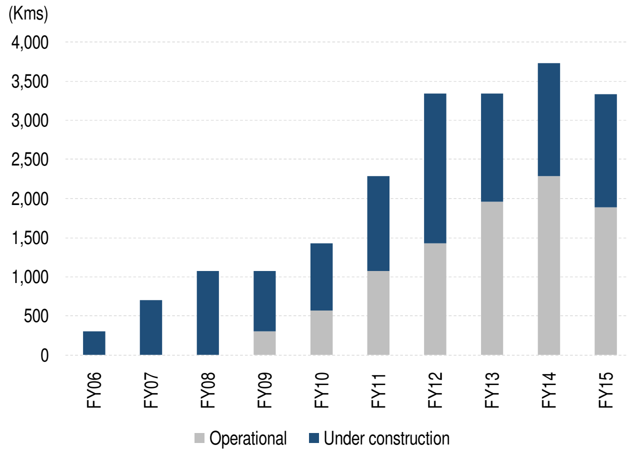
In 2006 the group ventured into road-asset ownership. Lack of experience, however, coupled with balance-sheet constraints, led to the company looking for less capital-intensive state government opportunities or tagging along with others for a share of the prospects in road-infrastructure development. Having started in asset ownership almost a decade back, the group is now into road-infrastructure development. Its disciplined approach to road-infrastructure development and efficient capital allocation has resulted in the company gaining access to 12 good, diversified (area-wise and business model-wise) assets (excl. Mumbai-Nasik, the entire 20% stake to be sold to Gammon Infrastructure). With its successfully implemented strategy unlikely to see any sea change, the company would continue efficiently using the cash flows it generates from assets created thus far and from under-development assets (once they turn operational). Portfolio augmentation would continue as we see more than sufficient opportunities to be bid out on a BOT basis. These opportunities would come amid reduced competition.

Fig 7 – From zero to twelve



Source: Company, Anand Rathi Research
Note: FY15 numbers exclude Mumbai – Nasik project

Fig 8 – From zero to 3,334 lane-km



Source: Company, Anand Rathi Research
Note: FY15 numbers exclude Mumbai – Nasik project

Projects in states with an NSDP growth rate higher than that of India for FY94-FY13

- **Geographical spread favourable:** The company has projects in seven states of India, most of which are economically stable, and has a net state domestic product (NSDP) growth rate higher than that of India for FY94 to FY13. From the past record of these states, we believe that industrial activity in these regions would continue to grow substantially, leading to an increase in traffic, with the business (toll collection) benefitting from it. We also believe that the strategic locations of projects in high economic growth areas strengthen the stability of revenue and the ability to close financing arrangements for projects. Additionally, the projects appear well distributed, covering urban and rural vehicular traffic and including national and state highways.

Fig 9 – Operating in economically stable states

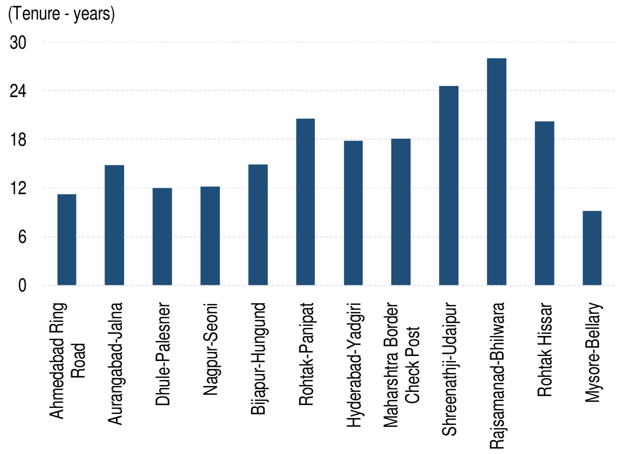
(%)	NSDP (1993-94 to 2012-13)	Per capita (1993-94 to 2012-13)
Maharashtra	7.5	5.9
Gujarat	8.4	6.7
Rajasthan	7.4	5.3
Karnataka	7.3	6.1
Haryana	8.5	6.4
Andhra Pradesh	7.4	6.4
India	**6.8**	**5.1**

Source: Government data

Average residual term of over 18 years renders the projects a play on the long-term growth potential of the economy

- **Young portfolio with immense growth potential:** Having created a portfolio of 12 assets over the last nine years means that most assets are still in the early stages of a project lifecycle and have yet to reach an optimal annual traffic growth rate. In fact, of the seven operational assets, only three (including one BOT-Annuity asset) has an operating history longer than five years. With the residual term for 12 projects (excl. Mumbai-Nasik) estimated at 18 years, three months on 30th Sep'15, the assets, we believe, come as a play on the long-term growth potential of the Indian economy.

Fig 10 – BOT projects - average residual tenure of more than 18 years



Source: Company

Fast-easing execution risk

Of the company's 12 assets, seven are fully operational, one is partially operational and four are being implemented. Those being constructed carry a certain discount because of the attached execution risk. Judging by the present state of construction at assets being implemented, FY18 would be the first full year of operations for the entire range of assets. Project completion, we believe, would lead to most on the street doing away with the discount assigned due to the execution risk and, hence, drive valuations. Not only do we see execution risk softening, the reduced finance costs (re-set on construction completion) would also augment shareholder wealth.

Three of four projects being constructed seem set for early completion; extended the toll period to augment IRRs

- **Early-completion bonus:** The group boasts of a track record of completing its projects in time or ahead of schedule. We see the company maintaining this record and completing ahead of schedule in at least three of the four now being implemented. Not only would early completion translate into savings on interest during construction but the company would also benefit from toll-collecting rights for the additional period (the period saved). Of the four projects being constructed, management expects early completion of three—Bhilwara-Rajsamanad, Rohtak-Hissar and Mysore-Bellary.

Fig 11 – Proven track record of early completion ..raises hope for the future

Project	Completion: Scheduled COD	Completion: Actual / Target* COD	Completion: Early by (months)
Achieved early completion			
Ahmedabad ring road	Nov-08	May-08	6
Aurangabad-Jalna	Nov-09	Jul-09	4
Bijapur-Hungund	Mar-13	Apr-12	11
Dhule-Palesner	May-12	Feb-12	3
Candidates for early completion			
Bhilwara-Rajsamanad	Apr-16	Feb-16	2
Rohtak-Hissar	Jun-16	Apr-16	2
Mysore-Bellary	Jun-17	Jun-16	12

*Source: Company * Targeted early completion*

₹30.9bn of term loans in the process of being re-financed; annualised savings of ~₹0.6bn likely

- **Lower finance costs to augment shareholder wealth:** Besides benefiting from softening interest rates, the company would also see reduced finance costs for refinancing of loan facilities for operational assets. The recent revision in finance costs upon refinancing of loans for one project (Dhule-Palesner) could clearly be identified as a precedent for shape of things to come. Efforts are underway to achieve lower finance costs for four more operational assets. Additionally, with four projects being constructed due for completion by FY17, the easing execution risk (upon completion) would trigger a re-set clause for finance costs (as set out in the finance agreements). The reduction would be good in augmenting shareholder wealth.

Fig 12 – Re-financing underway

Project	Borrowing costs - FY15 (%)	Refinance rate (%)	Term loans - FY15 (₹ bn)
Dhule-Palesner*	11.7	9.9	10.3
Bijapur-Hungund	11.6	9.9	6.0
Nagpur-Seoni#	8.9	8.9	1.9
Hyderabad-Yadgiri	11.4	9.9	2.4
Aurangabad-Jalna	11.3	10.2	1.7
Maharashtra Border Check Posts	12.7	10.2	9.7

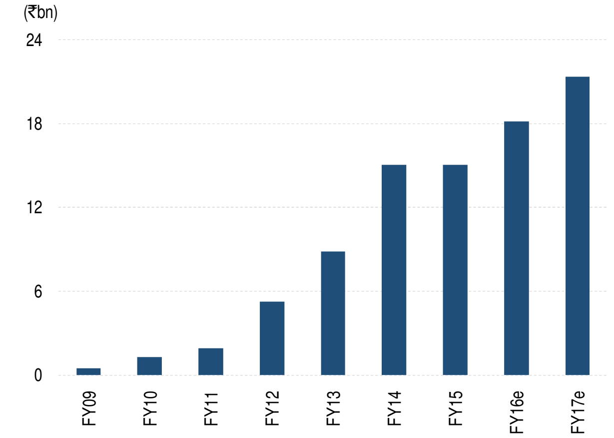
*Source: Company * Re-financing done; # to convert foreign currency debt into rupee-denominated bonds*

Entire equity invested to be employed by FY17

Cumulative equity of ~₹21.4bn to start generating revenue by FY17

With all projects-in-hand slated for completion over the next 18 months, the capital employed for the 12 projects would begin to generate revenue by FY17. FY18 would be a year when all the company's projects would, for the first time, operate for an entire year. The entire capital employed, being thus productive, would mean coverage and return ratios would improve. This would help the company command a better valuation multiple. As it is in the business of road and highway development, it is bound to look for fresh projects for growth. Investment in any new project would begin generating revenue in subsequent years.

Fig 13 – Cumulative yielding equity



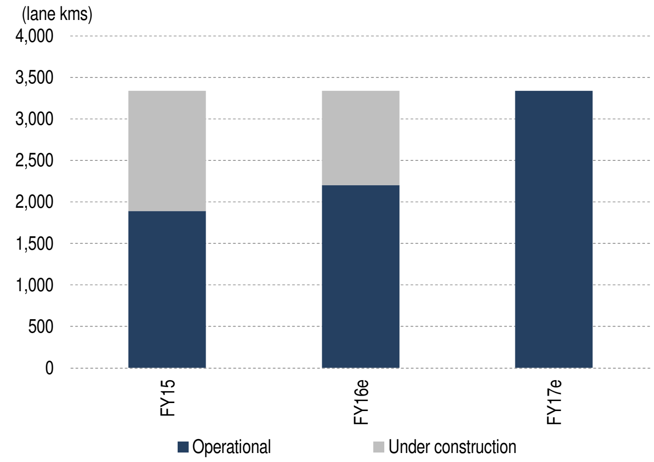
Source: Company, Anand Rathi Research Note - FY15 drop attributable to exclusion of Mumbai-Nasik project

Project completions would lead to striving for the next leg of growth

Entire equity being employed by FY17 would push the management to look for growth opportunities

As all the company's projects would be operational by FY17, the management is likely to target the next leg of growth. The company would be a key beneficiary of the anticipated more contract awards because of its balance sheet and proven execution capabilities. It would also benefit as it is pre-qualified to bid for NHAI projects of up to ₹26.5bn, either directly or through joint ventures for DBFOT projects, subject to certain eligibility criteria.

Fig 14 – Commissioning of entire portfolio to make it look for new opportunities



Source: Company, Anand Rathi Research

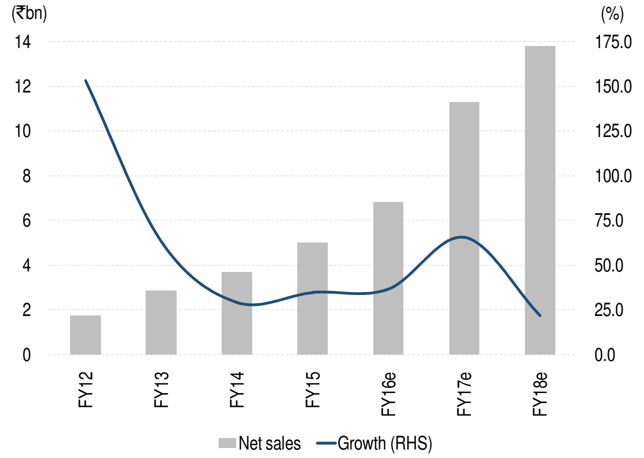
Financials

Commissioning of projects would drive revenue

Expect revenue to register a ~40% CAGR over FY15-18

We expect that the number of the company's operational projects would increase from eight at end-FY15 to twelve by FY17. This would translate to a ~40% revenue CAGR over FY15-18. Besides the commissioning of operations at four projects-being-implemented and of more Maharashtra border check-posts, the consolidation of the Dhule-Palesner stretch (on acquiring a stake from the partner) and a gradual increase in traffic at operational assets would lead to ~₹13.8bn in revenue, from ~₹5bn during FY15.

Fig 15 – New projects to drive growth

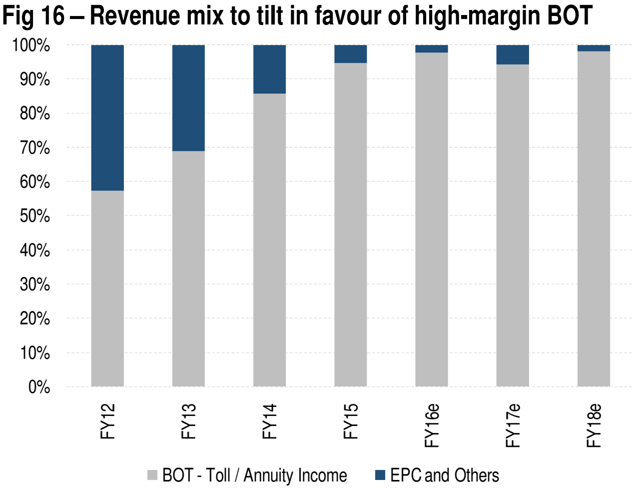


Source: Company, Anand Rathi Research

Margins to be better due to operating leverage

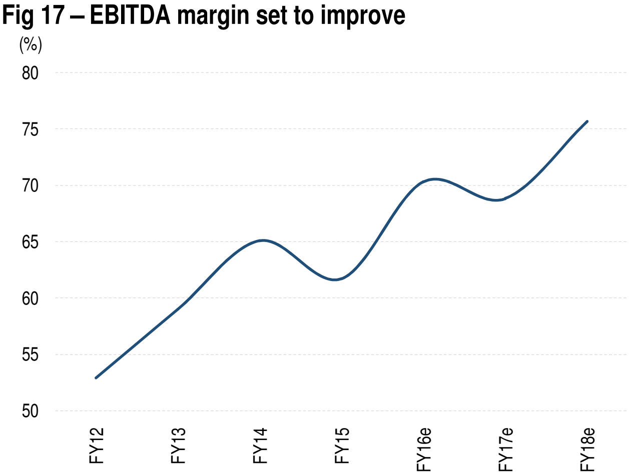
The commissioning of projects and the gradual increase in toll collection at operational BOT projects is likely to expand the EBITDA margin by ~14 percentage points, to ~75.7%. Besides the operating leverage, the smaller proportion of income from the low-margin EPC would help to a better EBITDA margin. This EBITDA-margin betterment and the healthy revenue growth would lead to the EBITDA registering a ~50.1% CAGR.

Fig 16 – Revenue mix to tilt in favour of high-margin BOT



Source: Company, Anand Rathi Research

Fig 17 – EBITDA margin set to improve



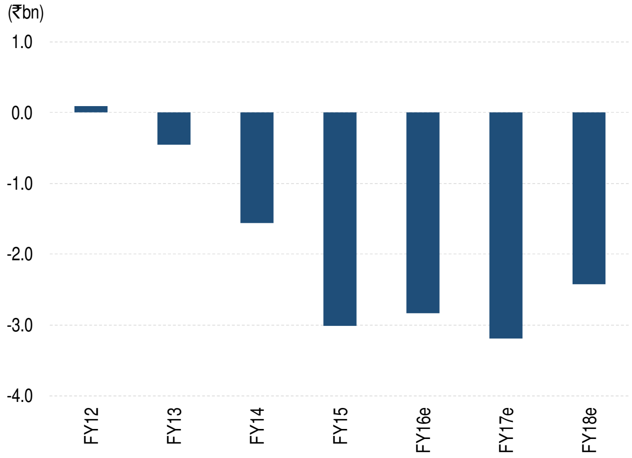
Source: Company, Anand Rathi Research

Bottom line to be in the red

Losses to peak out at ~₹3.2bn in FY17

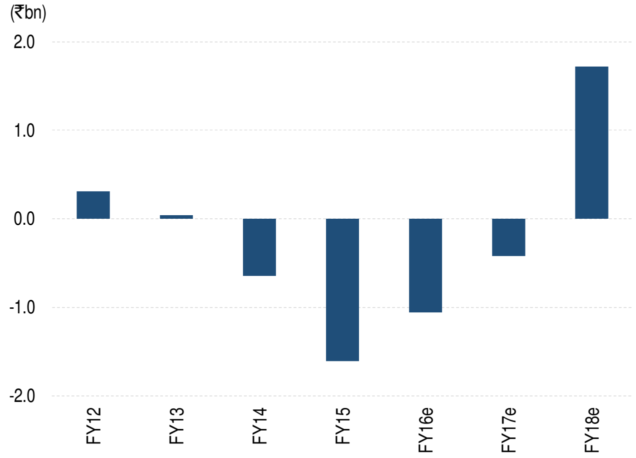
Although the operating performance over FY15-18 is likely to markedly improve, losses are likely to continue. The commissioning of operations at new projects would mean that interest is no more capitalised and is routed through the income statement. The amortisation of project costs would also weigh heavy on the bottom line. This would make for a red bottom line. Although book losses are likely to continue till FY18, we see the company registering cash profit in that year. We see losses to peak out at ~₹3.2bn in FY17 before receding to ~₹2.4bn in FY18.

Fig 18 – Bottom line in the red



Source: Company, Anand Rathi Research

Fig 19 – To turn cash profitable in FY18



Source: Company, Anand Rathi Research

Capex to lead to increasing debt

Over FY15-18, net debt set to increase by ~₹22.3bn on capex of ~₹18bn

Over FY16-18, we expect cumulative cash profit of ~₹0.2bn. Nevertheless, a decline in working capital over that period would result in positive operating cash-flow of ~₹1.6bn. The operating cash-flow generated over FY15-18 would be utilised to partly meet the envisaged capex of ~₹19.5bn over the two years for projects being constructed. However, reported fixed assets would be greatly increased due to the consolidation of the Dhule-Palesner project (~₹12.7bn) and the capitalisation of premium payable (~₹9.8bn) for the Shreenathji-Udaipur road BOT project. Because of capex and limited operating cash-flow, the company would register a negative free-cash-flow of ~₹17.9bn. A part of the free-cash-flow would be funded through equity raised through an initial public offering (~₹4.3bn) and the receipt of a grant from the NHAI (~₹6.9bn). The balance would be funded through the drawdown of debt. A rise in net debt over and above that required for capex would meet the acquisition payment for the Dhule-Palesner project and the consolidation of debt for it (~₹10bn).

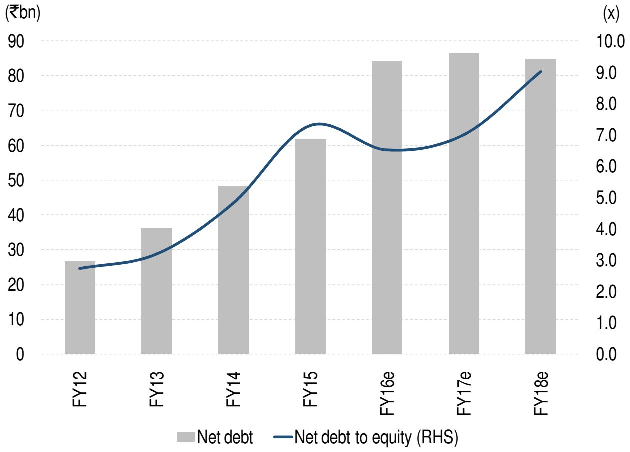
Fig 20 – Cash-flow status

₹ bn	FY15	FY16e	FY17e	FY18e
Operating cash-flow	**-0.2**	**-1.0**	**0.3**	**2.3**
Capex	-14.5	-14.2	-5.3	-
Free-cash-flow	**-14.7**	**-15.3**	**-4.9**	**2.3**
Equity raised (incl. change in minorities)	1.4	7.3	2.9	-0.0
Debt raised / (repaid)	13.5	10.6	2.9	-2.3
Other financing activities	1.0	0.1	-	-
Net change in cash	**1.2**	**2.7**	**0.8**	**-0.0**

Source: Company, Anand Rathi Research

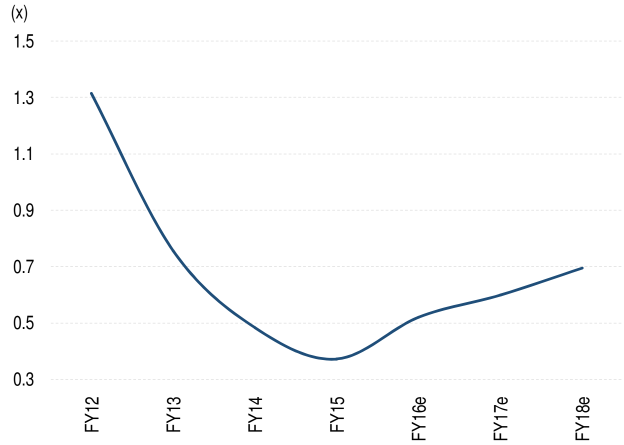
Although the gearing ratio would increase, the enhanced performance is expected to translate into a better service-coverage ratio. We see the interest-coverage ratio to improve from 0.4x in FY15 to ~0.7x in FY18.

Fig 21 – Net debt to increase on drawdown of project finance



Source: Company, Anand Rathi Research

Fig 22 – Interest coverage to improve

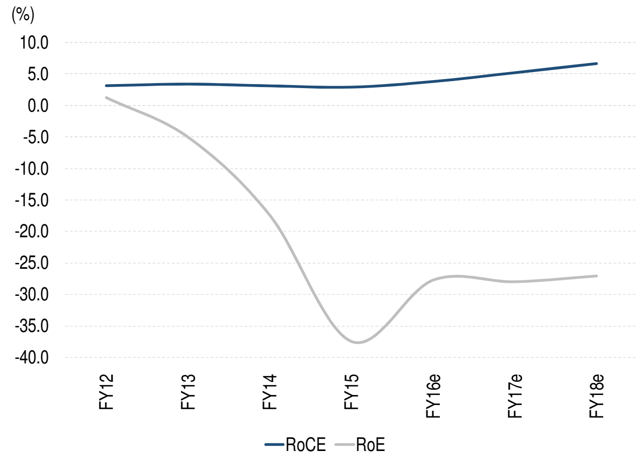


Source: Company, Anand Rathi Research

New project commissioning to lead to gradually improved RoCE

On the commissioning of new projects and the gradual rise in toll collection at existing projects, the company would have a better RoCE — from ~3% in FY15 to ~6.6% by FY18. The RoE would be under duress as the interest charge and amortisation would weigh heavy on profit. This is because of the nature of the business: toll collection amounts move up only gradually; interest for the entire debt is charged, however, from the first day the project is commissioned. We, therefore, see the company as suffering losses in the short to medium term.

Fig 23 – Return ratios to gradually improve

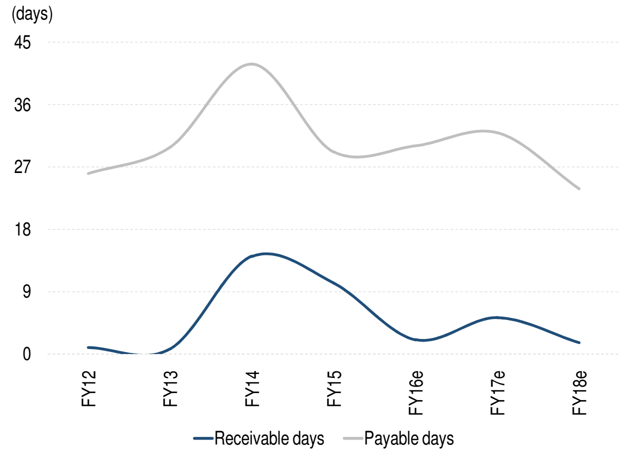


Source: Company, Anand Rathi Research

Receivable days set to decline... payable days to be steady

Because of the declining contribution from EPC, we expect a shortening of the receivables recovery cycle. Receivable days would decline to ~2, against ~10 in FY15. Toll collection does not involve extending credit; therefore, we do not see any reason for a jump in receivable days. Payable days too would come down by ~5, to ~24 by FY18, on completion of construction.

Fig 24 – Efficiency ratios to benefit due to operating leverage



Source: Company, Anand Rathi Research

Fig 25 – Income statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Net revenues	3,697	4,965	6,819	11,298	13,786
Other Op revenues	14	38	16	16	16
Revenues	**3,711**	**5,003**	**6,835**	**11,314**	**13,802**
Growth (%)	*29.2*	*34.8*	*36.6*	*65.5*	*22.0*
Material Cost	-	-	-	-	-
Employee Cost	-164	-243	-314	-508	-607
Manufacturing cost	-	-	-	-	-
Marketing cost	-	-	-	-	-
Administrative cost	-246	-258	-248	-341	-565
Energy cost	-	-	-	-	-
Other cost	-	-	-	-	-
Operating expense	-885	-1,414	-1,465	-2,674	-2,183
EBITDA	**2,416**	**3,088**	**4,808**	**7,791**	**10,448**
Growth (%)	*42.5*	*27.8*	*55.7*	*62.0*	*34.1*
EBITDA margin (%)	*65.1*	*61.7*	*70.3*	*68.9*	*75.7*
Other income	216	278	235	169	204
Operating profit	**2,632**	**3,366**	**5,043**	**7,960**	**10,652**
Depreciation	-915	-1,406	-1,779	-2,778	-4,147
EBIT	**1,717**	**1,960**	**3,265**	**5,182**	**6,505**
Interest cost	-3,552	-5,259	-6,264	-8,365	-8,851
PBT	**-1,836**	**-3,299**	**-3,000**	**-3,183**	**-2,346**
Tax	-122	-0	-35	-66	-112
Effective tax rate	*-6.6*	*-0.0*	*-1.2*	*-2.1*	*-4.8*
PAT	**-1,957**	**-3,300**	**-3,034**	**-3,249**	**-2,458**
Minority interest	398	284	198	52	32
Associate profit	-	-	-	-	-
Consol PAT	**-1,559**	**-3,016**	**-2,837**	**-3,197**	**-2,426**
Growth (%)	-	-	-	-	-
PAT margin (%)	*-42.0*	*-60.3*	*-41.5*	*-28.3*	*-17.6*
Extra-ordinary income	-	-	-	-	-
Dividends (incl Tax)	-	-	-	-	-
Transferred to reserves	**-1,559**	**-3,016**	**-2,837**	**-3,197**	**-2,426**
Per Share data					
FDEPS (₹)	-5.0	-9.7	-8.1	-9.1	-6.9
DPS (₹)	-	-	-	-	-
Adj BV (₹)	26.4	25.3	35.7	35.0	28.1
CEPS (₹)	-2.1	-5.2	-3.0	-1.2	4.9
Valuation ratio					
P/E (x)	-	-	-	-	-
P/adj BV (x)	3.8	4.0	2.8	2.9	3.6
P/C (x)	-	-	-	-	20.7
Dividend Yield (%)	-	-	-	-	-
EV/S (x)	22.7	19.5	17.5	10.8	8.7
EV/E (x)	34.8	31.5	24.9	15.6	11.5
Quality ratio					
Dividend Payout (%)	-	-	-	-	-
Other income/PBT (%)	-	-	-	-	-
Interest cover (x)	0.5	0.4	0.5	0.6	0.7
Operating CF/EBITDA (x)	7.7	-0.1	2.1	0.0	0.2

Source: Company, Anand Rathi Research

Fig 26 – Balance sheet (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Equity	260	3,110	3,522	3,522	3,522
Reserves	7,944	4,772	9,039	8,792	6,366
Less: Misc Exp	-	-	-	-	-
Networth	**8,204**	**7,882**	**12,561**	**12,314**	**9,888**
Minority interests	**1,865**	**569**	**371**	**319**	**288**
Equity (% of CE)	*16.8*	*11.8*	*13.2*	*12.6*	*10.6*
LT Debt	45,951	58,441	72,481	77,850	74,548
ST Debt	4,007	4,977	12,500	10,000	11,000
Total debt	**49,958**	**63,418**	**84,981**	**87,850**	**85,548**
Net D/E (x)	*4.8*	*7.3*	*6.5*	*6.8*	*8.3*
DTL (net)	-0	-	-	-	-
Capital Employed	**60,026**	**71,870**	**97,914**	**1,00,484**	**95,723**
Gross block	70,488	71,926	1,13,967	1,31,797	1,27,650
Acc Depreciation	-	-	-	-	-
Net block	**70,488**	**71,926**	**1,13,967**	**1,31,797**	**1,27,650**
CWIP	7,769	19,385	15,352	7	7
Fixed assets	**78,257**	**91,310**	**1,29,319**	**1,31,804**	**1,27,657**
Investments	1,052	81	20	20	20
Cash Equivalents	518	1,696	730	1,573	1,546
Inventories	-	-	-	-	-
Debtors	143	140	38	161	60
Loans & Advances	5,704	4,266	1,484	1,219	1,219
Other Current Assets	543	1,459	1,941	1,825	860
Current Assets	**6,909**	**7,561**	**4,193**	**4,777**	**3,685**
Creditors	-426	-400	-563	-991	-903
Provisions	-729	-1,091	-1,091	-1,091	-1,092
Other Current Liabilities	-25,037	-25,592	-33,964	-34,035	-33,643
Current Liabilities	**-26,192**	**-27,083**	**-35,618**	**-36,117**	**-35,638**
Net Current Assets	**-19,283**	**-19,522**	**-31,425**	**-31,340**	**-31,954**
Capital Deployed	**60,026**	**71,870**	**97,914**	**1,00,484**	**95,723**
FA/CE (%)	*130.4*	*127.1*	*132.1*	*131.2*	*133.4*
Investments/CE (%)	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
Liquid assets/CE (%)	*2.6*	*2.4*	*0.7*	*1.6*	*1.6*
Working Capital/CE (%)	*-33.0*	*-29.5*	*-32.8*	*-32.8*	*-35.0*

Source: Company, Anand Rathi Research

Fig 27 – Cash flow statement (₹ m)

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Cash profit	-644	-1,610	-1,058	-419	1,721
Chg in WC	19,302	1,416	10,937	758	587
Operating CF	**18,658**	**-193**	**9,879**	**339**	**2,308**
Capex	-31,256	-14,459	-39,787	-5,264	-
Free CF	**-12,598**	**-14,652**	**-29,908**	**-4,924**	**2,308**
Equity	332	1,398	7,318	2,898	-32
Debt	13,226	13,461	21,563	2,869	-2,303
Investments	-958	971	61	-	-
Dividends	-	-	-	-	-
Misc inflows	-	-	-	-	-
Net change in cash	**1**	**1,177**	**-965**	**842**	**-27**
Opening cash	517	518	1,696	730	1,573
Closing cash	**518**	**1,696**	**730**	**1,573**	**1,546**

Source: Company, Anand Rathi Research

Fig 28 – Ratio analysis @ ₹101

Year-end: Mar	FY14	FY15	FY16e	FY17e	FY18e
Dupont analysis					
Margins (%)	46.3	39.2	47.8	45.8	47.1
Capital turn (x)	0.1	0.1	0.1	0.1	0.1
RoCE (%)	3.2	3.0	3.8	5.2	6.6
Leverage factor (x)	6.0	8.2	8.3	8.0	8.8
Interest burden (x)	-1.1	-1.7	-0.9	-0.6	-0.4
Tax burden (x)	1.1	1.0	1.0	1.0	1.0
Consol factor (x)	0.8	0.9	0.9	1.0	1.0
RoE (%)	-17.4	-37.5	-27.8	-25.7	-21.9
Working capital (Days)					
Inventories	-	-	-	-	-
Debtors	14	10	2	5	2
Loans & Advances	561	311	79	39	32
Other CA	53	106	104	59	23
Creditors	-42	-29	-30	-32	-24
Provisions	-72	-80	-58	-35	-29
Other CL	-2,463	-1,867	-1,814	-1,098	-890
Net WC	-1,948	-1,548	-1,717	-1,062	-886
Adjusted Net WC*	312	87	3	-23	-34
Other ratios					
Op CF/Rev (%)	502.8	-3.9	144.5	3.0	16.7
FCF/Rev (%)	-339.5	-292.9	-437.6	-43.5	16.7
Intangibles/GB (%)	110.7	126.6	113.3	99.8	99.8
Intangibles/CE (%)	129.9	126.7	131.8	130.9	133.1
Revenue/GB (x)	0.1	0.1	0.1	0.1	0.1
Revenue/FA (x)	0.0	0.1	0.1	0.1	0.1
CWIP/GB (x)	0.1	0.3	0.1	0.0	0.0

*Source: Company, Anand Rathi Research * Adjusted for liability recognised towards premium payable over concession period*

Valuation

We have used a sum-of-parts methodology to value the company. We have used the discounted-cash-flow (DCF) approach to value the operational and road BOT assets being constructed. The liquidation value of the Mumbai-Nasik project has been taken (agreement entered into to sell a 20% stake to Gammon Infrastructure). The standalone entity, which carries out the operations and maintenance for the captive BOT projects, has been valued using the DCF approach. Based on this sum-of-parts method, we arrive at a price target of ₹111.

Fig 29 – Sum-of-parts

Project	State	Client	Type	Status*	Lane km	Project cost (₹ bn)	Term loans#	Stake (%)	Value per share (₹)
Liquidation value - A									
Mumbai-Nasik	Maharashtra	NHAI	Toll	O	-	-	-	-	2
DCF - B									
Ahmedabad ring road	Gujarat	AUDA	Toll	O	305	5	4	100	15
Aurangabad-Jalna	Maharashtra	Govt. of Maharashtra	Toll	O	263	3	2	100	8
Dhule-Palesner	Maharashtra	NHAI	Toll	O	355	14	10	100	6
Nagpur-Seoni	Maharashtra / Madhya Pradesh	NHAI	Annuity	O	111	4	2	100	2
Bijapur-Hungund	Karnataka	NHAI	Toll	O	389	14	8	77	17
Rohtak-Panipat	Haryana	NHAI	Toll	O	323	12	10	100	0
Hyderabad-Yadgiri	Telangana	NHAI	Toll	O	140	5	4	100	4
Maharshtra border check post	Maharashtra	Govt. of Maharashtra	User Fee	PO	-	14	10	78	37
Shreenathji-Udaipur	Rajasthan	NHAI	Toll	UI	317	12	6	100	18
Rajsamanad-Bhilwara	Rajasthan	NHAI	Toll	UI	349	7	1	100	4
Rohtak Hissar	Haryana	NHAI	Toll	UI	395	13	4	100	8
Mysore-Bellary	Karnataka	Govt. of Karnataka	Annuity	UI	387	8	1	100	3
Total - (A+B)					**3,334**	**109**	**62**		**126**
Add: Value for O&M Business									4
Enterprise value									**130**
Less: Holdco debt									24
Add: Cash at SPVs									5
Target price									**111**

Source: Company, Anand Rathi Research ** O – Operational, UI – Under implementation, PO – Partially Operational* *# On 31st Mar'15*

Fig 30 – Sensitivity analysis for change in interest cost and WACC

	₹ per share	Change in interest cost (%) -1.0	-0.5	-	0.5	1.0
Change in WACC (%)	-1.0	132	131	130	129	128
	-0.5	122	121	121	120	118
	-	112	112	**111**	110	109
	0.5	103	103	103	102	101
	1.0	95	95	94	94	93

Source: Anand Rathi Research

Fig 31 – Sensitivity analysis for change in estimated traffic growth & tariff revision

	₹ per share	Change in estimated traffic growth (%) -1.0	-0.5	-	0.5	1.0
Change in estimated tariff revision (%)	-1.0	66	77	88	99	111
	-0.5	77	88	99	111	124
	-	88	99	**111**	124	137
	0.5	99	111	124	137	152
	1.0	111	124	138	152	167

Source: Anand Rathi Research

Upward risk to our target price

- The company is in the process of re-financing term loans for four of its projects. Any reduction in borrowing costs would prove to be value-accretive.
- Any project addition with a healthy return profile would be a key risk to our estimated valuation.

Company Background

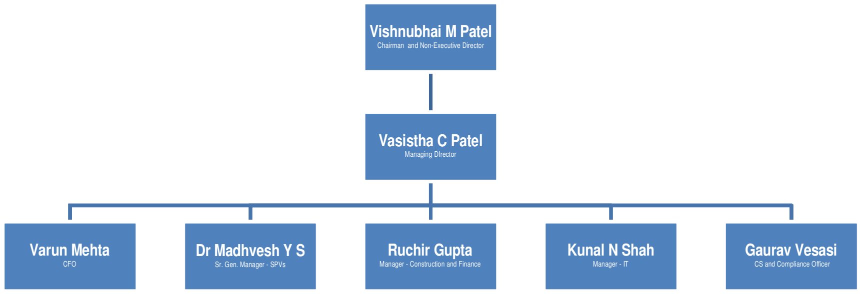
Since incorporation in 2007, Sadbhav Infrastructure has come a long way within a short span. Over the years of operations, it gained access to 12 good road BOT projects of 3,334 lane-km. It is one of the leading road BOT companies in India, specialising in the development, operation and maintenance of highways, roads and related projects. A balanced mix of BOT-Toll and BOT-Annuity projects, its portfolio is geographically diversified across seven states so as to not to become a casualty of a slowdown in any state.

Board of Directors and Management

The Board comprises eight members, four of which are independent. It functions under the guidance of Vishnubhai M Patel, chairman and non-executive director. Managing director Vasistha C Patel handles day-to-day affairs. He is supported by a team of qualified personnel.

Management – a mix of experience and youth

Fig 32 – Key management personnel



Source: Company

Fig 33 – Key Management Personnel

Particular	Designation / Status	Remarks
Vishnubhai M Patel	Chairman, Non-Executive Director	Since 1968, he has been actively involved in the family construction business as partner of M/s Bhavna Construction Co. where he was in charge of canal and road projects
Vasistha C Patel	Managing Director	Diploma in civil engineering from Gujarat University. More than 15 years' experience in construction. Besides overseeing the bidding process and execution, he is also in charge of purchasing of construction material
Varun Mehta	Chief Financial Officer	A B.Com and Chartered Accountant, a Financial Risk Manager from GARP and CFA from the CFA Institute, USA., has been associated with the company since Dec'12. Among other things, he is also responsible for evaluating optimum financing options, evolving company strategy, policy implementation, liaising with banks and financial institutions for funds

Source: Company

Share-subscription agreement with financial partners: In Aug'10, the company, along with the parent entity, entered into a share-purchase agreement with Xander and Norwest to raise growth capital and unlock value.

- Pursuant to the share-purchase agreement, the two financial partners subscribed to ~36m shares for ₹3bn.
- Besides, investors, according to the terms of the SPA, collectively subscribed to 2.3m compulsorily convertible preference shares (CCPS) for ~₹1bn. These CCPSs were subsequently converted into ~28m

equity shares.

- In all, the two financial partners invested ~₹4bn for a (pre-IPO) equity holding of ~20.6%.
- In the recently-concluded IPO the two financial partners liquidated a part of their stake in the company (~10% of their holding) to raise ~₹0.7bn.

Equity history

The company recently concluded its initial public offering (IPO), raising ~₹4.9bn. The IPO comprised a mix of fresh issue of equity shares and offer for sale by the two financial partners. At an offer price of ₹103, the company raised ~₹4.3bn through a fresh issue of equity (~41.3m shares) and the two partners could raise ~₹0.7bn through the offer for sale (~6.4m shares). Subsequent to the IPO, Sadbhav Engineering's shareholding stood reduced to ~68.3%, from ~77.4%. The two financial partners now own ~16.5% in the company.

Fig 34 – Equity history

Date	Share capital (₹m)	Premium (₹ / sh)	Reason
16-Sep-2015	3,522	93	IPO
29-Oct-2014	3,110	-	Bonus issue in the ratio of 1:10
22-Oct-2014	283	432	Conversion of CCCPS and CCDs
25-Oct-2012	260	671	Preferential allotment to the parent
23-Sep-2010	242	819	Preferential allotment
18-Sep-2010	206	120	Preferential allotment to the parent
18-Sep-2010	6	-	Preferential allotment
18-Jan-2007	1	-	Issued upon incorporation

Source: Company, ACE Equity

Appendix

Analyst Certification

The views expressed in this Research Report accurately reflect the personal views of the analyst(s) about the subject securities or issuers and no part of the compensation of the research analyst(s) was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report. The research analysts are bound by stringent internal regulations and also legal and statutory requirements of the Securities and Exchange Board of India (hereinafter "SEBI") and the analysts' compensation are completely delinked from all the other companies and/or entities of Anand Rathi, and have no bearing whatsoever on any recommendation that they have given in the Research Report.

Anand Rathi Ratings Definitions

Analysts' ratings and the corresponding expected returns take into account our definitions of Large Caps (>US$1bn) and Mid/Small Caps (<US$1bn) as described in the Ratings Table below:

Ratings Guide	**Buy**	**Hold**	**Sell**
Large Caps (>US$1bn)	>15%	5-15%	<5%
Mid/Small Caps (<US$1bn)	>25%	5-25%	<5%

Anand Rathi Research Ratings Distribution (as of 5 December 2015)	**Buy**	**Hold**	**Sell**
Anand Rathi Research stock coverage (196)	60%	27%	13%
% who are investment banking clients	4%	0%	0%

Research Disclaimer and Disclosure inter-alia as required under Securities and Exchange Board of India (Research Analysts) Regulations, 2014

Anand Rathi Share and Stock Brokers Ltd. (hereinafter refer as ARSSBL) (Research Entity) is a subsidiary of Anand Rathi Financial Services Ltd. ARSSBL is a corporate trading and clearing member of Bombay Stock Exchange Ltd, National Stock Exchange of India Ltd. (NSEIL), Multi Stock Exchange of India Ltd (MCX-SX), United Stock Exchange and also depository participant with National Securities Depository Ltd (NSDL) and Central Depository Services Ltd. ARSSBL is engaged in the business of Stock Broking, Depository Participant and Mutual Fund distributor.

The research analysts, strategists, or research associates principally responsible for the preparation of Anand Rathi research have received compensation based upon various factors, including quality of research, investor client feedback, stock picking, competitive factors and firm revenues.

General Disclaimer: This Research Report (hereinafter called "Report") is meant solely for use by the recipient and is not for circulation. This Report does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. The recommendations, if any, made herein are expression of views and/or opinions and should not be deemed or construed to be neither advice for the purpose of purchase or sale of any security, derivatives or any other security through ARSSBL nor any solicitation or offering of any investment /trading opportunity on behalf of the issuer(s) of the respective security (ies) referred to herein. These information / opinions / views are not meant to serve as a professional investment guide for the readers. No action is solicited based upon the information provided herein. Recipients of this Report should rely on information/data arising out of their own investigations. Readers are advised to seek independent professional advice and arrive at an informed trading/investment decision before executing any trades or making any investments. This Report has been prepared on the basis of publicly available information, internally developed data and other sources believed by ARSSBL to be reliable. ARSSBL or its directors, employees, affiliates or representatives do not assume any responsibility for, or warrant the accuracy, completeness, adequacy and reliability of such information / opinions / views. While due care has been taken to ensure that the disclosures and opinions given are fair and reasonable, none of the directors, employees, affiliates or representatives of ARSSBL shall be liable for any direct, indirect, special, incidental, consequential, punitive or exemplary damages, including lost profits arising in any way whatsoever from the information / opinions / views contained in this Report. The price and value of the investments referred to in this Report and the income from them may go down as well as up, and investors may realize losses on any investments. Past performance is not a guide for future performance. ARSSBL does not provide tax advice to its clients, and all investors are strongly advised to consult with their tax advisers regarding taxation aspects of any potential investment.

Opinions expressed are our current opinions as of the date appearing on this Research only. We do not undertake to advise you as to any change of our views expressed in this Report. Research Report may differ between ARSSBL's RAs and/ or ARSSBL's associate companies on account of differences in research methodology, personal judgment and difference in time horizons for which recommendations are made. User should keep this risk in mind and not hold ARSSBL, its employees and associates responsible for any losses, damages of any type whatsoever.

ARSSBL and its associates or employees may; (a) from time to time, have long or short positions in, and buy or sell the investments in/ security of company (ies) mentioned herein or (b) be engaged in any other transaction involving such investments/ securities of company (ies) discussed herein or act as advisor or lender / borrower to such company (ies) these and other activities of ARSSBL and its associates or employees may not be construed as potential conflict of interest with respect to any recommendation and related information and opinions. Without limiting any of the foregoing, in no event shall ARSSBL and its associates or employees or any third party involved in, or related to computing or compiling the information have any liability for any damages of any kind.

Details of Associates of ARSSBL and Brief History of Disciplinary action by regulatory authorities & its associates are available on our website i.e. www.rathionline.com

Disclaimers in respect of jurisdiction: This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject ARSSBL to any registration or licensing requirement within such jurisdiction(s). No action has been or will be taken by ARSSBL in any jurisdiction (other than India), where any action for such purpose(s) is required. Accordingly, this Report shall not be possessed, circulated and/or distributed in any such country or jurisdiction unless such action is in compliance with all applicable laws and regulations of such country or jurisdiction. ARSSBL requires such recipient to inform himself about and to observe any restrictions at his own expense, without any liability to ARSSBL. Any dispute arising out of this Report shall be subject to the exclusive jurisdiction of the Courts in India.

Statements on ownership and material conflicts of interest, compensation - ARSSBL and Associates

Answers to the Best of the knowledge and belief of ARSSBL/ its Associates/ Research Analyst who is preparing this report

ARSSBL/its Associates/ Research Analyst/ his Relative have any financial interest in the subject company? Nature of Interest (if applicable)	No
ARSSBL/its Associates/ Research Analyst/ his Relative have actual/beneficial ownership of one per cent or more securities of the subject company	No
ARSSBL/its Associates/ Research Analyst/ his Relative have any other material conflict of interest at the time of publication of the research report or at the time of public appearance?	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation from the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have managed or co-managed public offering of securities for the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past twelve months	No
ARSSBL/its Associates/ Research Analyst/ his Relative have received any compensation or other benefits from the subject company or third party in connection with the research report	No

Other Disclosures pertaining to distribution of research in the United States of America

This material was produced by ARSSBL, solely for information purposes and for the use of the recipient. It is not to be reproduced under any circumstances and is not to be copied or made available to any person other than the recipient. It is distributed in the United States of America by Enclave Capital LLC (19 West 44th Street, Suite 1700, New York, NY 10036) and elsewhere in the world by ARSSBL or an authorized affiliate of ARSSBL (such entities and any other entity, directly or indirectly, controlled by ARSSBL, the "Affiliates"). This document does not constitute an offer of, or an invitation by or on behalf of ARSSBL or its Affiliates or any other company to any person, to buy or sell any security. The information contained herein has been obtained from published information and other sources, which ARSSBL or its Affiliates consider to be reliable. None of ARSSBL or its Affiliates accepts any liability or responsibility whatsoever for the accuracy or completeness of any such information. All estimates, expressions of opinion and other subjective judgments contained herein are made as of the date of this document. Emerging securities markets may be subject to risks significantly higher than more established markets. In particular, the political and economic environment, company practices and market prices and volumes may be subject to significant variations. The ability to assess such risks may also be limited due to significantly lower information quantity and quality. By accepting this document, you agree to be bound by all the foregoing provisions.

1. ARSSBL or its Affiliates may or may not have been beneficial owners of the securities mentioned in this report.

2. ARSSBL or its affiliates may have or not managed or co-managed a public offering of the securities mentioned in the report in the past 12 months.

3. ARSSBL or its affiliates may have or not received compensation for investment banking services from the issuer of these securities in the past 12 months and do not expect to receive compensation for investment banking services from the issuer of these securities within the next three months.

4. However, one or more of ARSSBL or its Affiliates may, from time to time, have a long or short position in any of the securities mentioned herein and may buy or sell those securities or options thereon, either on their own account or on behalf of their clients.

5. As of the publication of this report, ARSSBL does not make a market in the subject securities.

6. ARSSBL or its Affiliates may or may not, to the extent permitted by law, act upon or use the above material or the conclusions stated above, or the research or analysis on which they are based before the material is published to recipients and from time to time, provide investment banking, investment management or other services for or solicit to seek to obtain investment banking, or other securities business from, any entity referred to in this report.

Enclave Capital LLC is distributing this document in the United States of America. ARSSBL accepts responsibility for its contents. Any US customer wishing to effect transactions in any securities referred to herein or options thereon should do so only by contacting a representative of Enclave Capital LLC.

Additional information on recommended securities/instruments is available on request.

ARSSBL registered address: 4th Floor, Silver Metropolis, Jaicoach Compound, Opposite Bimbisar Nagar, Goregaon (East), Mumbai - 400 063.
Tel No: +91 22 4001 3700 | Fax No: +91 22 4001 3770 | CIN: U67120MH1991PLC064106.