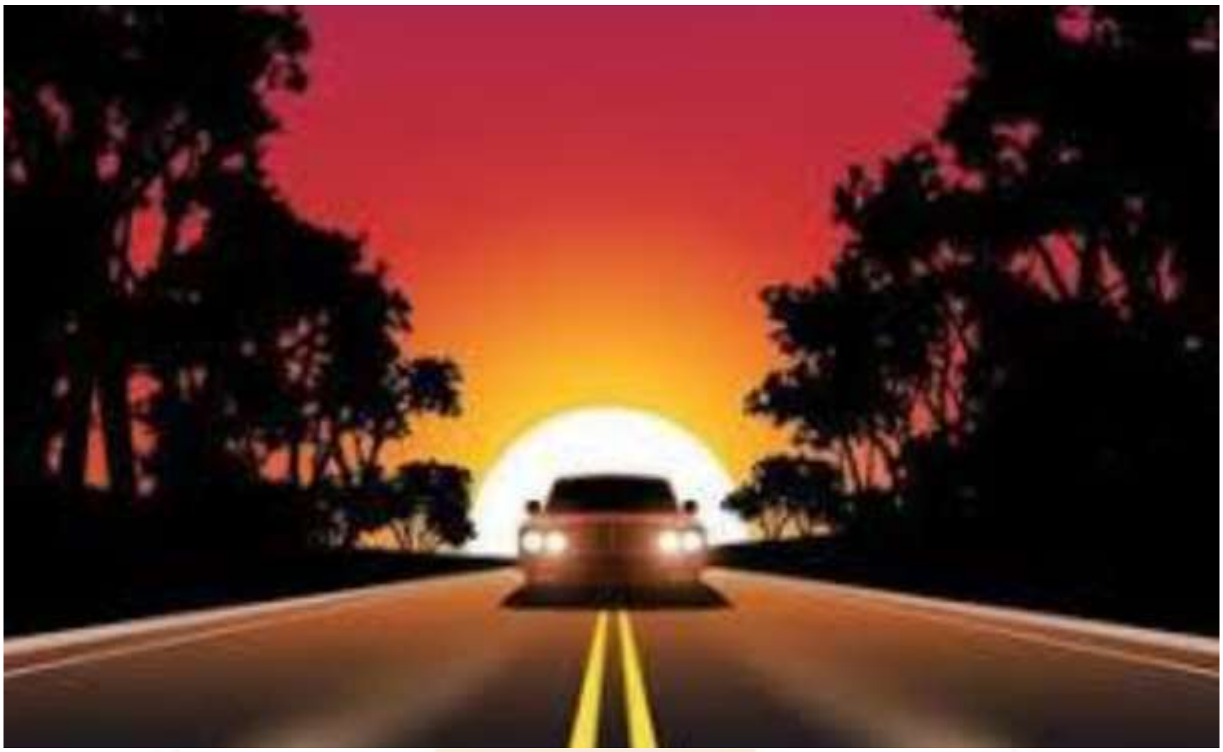
Kyon ki bhaiya, sabse bada rupaiya.

IRB Infrastructure Developers Limited

Cruising in top gear…



Kyon ki bhaiya, sabse bada rupaiya.

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For more on Ventura research

BUY @ CMP INR 215.0	Target: INR 729.2 in 30 months	Upside Potential: 239.2%

Cruising in top gear…

IRB Infrastructure Developers Ltd (IRB) has historically underperformed broader market as investors feared that the management strategy to mostly undertake BOT projects can lead to stress on the balance sheet. However, the management has strategically deleveraged its balance sheet through InvITs, private InvIT in partnership with marque investor GIC (IRB stake at 51%), capital raise of INR 5,347 cr through preferential allotment to Cintra for 24.9% stake (subsidiary of Ferrovial) and GIC for 16.9% stake and a public InvIT (16% stake with IRB).

This coupled with the fact that NHAI has upped its ante in terms of ordering contracts should now lead to removal of any fear from investor's minds and hence, should lead to re-rating of the stock, given the current lucrative valuation. It is to be noted that IRB is net debt zero at the holding company level. Its EBITDA margins in the construction business are >20% whereas the equity requirement is only 16% pursuant (the 70:30 debt equity) for BOT projects (IRB's share is 51% in equity while 49% is held by GIC, which is also a recurring partner). IRB now has the financial firepower with GIC and access to global best practices in Road BOT business with Cintra and is thus uniquely positioned to capitalize on the government's NIP, NMP, Gati Shakti initiatives.

We believe that IRB is at the threshold of accelerated growth given its expanding footprint and improved balance sheet. We expect revenue to grow at a CAGR of 14.7% over FY22-25 to INR 9,602.1 cr in FY25. We expect overall blended margins to be tad lower than FY22 levels. Finance cost is expected to fall by 9.8% CAGR as we expect the total debt to decrease from INR 13,822.5 cr in FY22 to INR 13,232.1 cr in FY25. We expect improvement in net debt/equity & net debt/EBITDA from 0.9x & 3.5x in FY22 to 0.4x & 1.3x in FY25. Net earnings are expected to grow at 64.0% CAGR over FY22-25 from INR 361.2 cr in FY22 to INR 1,592.8 cr in FY25. Return ratios namely RoE/RoCE/RoIC are expected to improve by 697/300/680bps over FY22-25 to 9.8%/15.6%/20.5% in FY25.

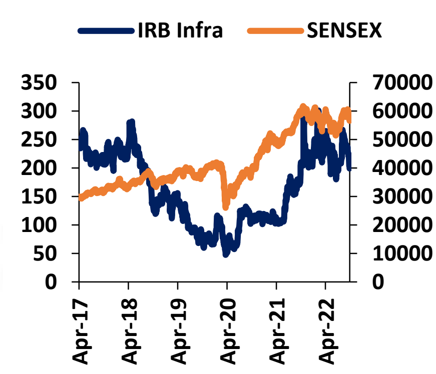
We initiate coverage on IRB with a BUY for a PT of INR 729.2 (SOTP methodology) representing an upside of 239.2% over the next 30 months. Low traffic growth due to a fall in economic activity remains the key risk which is inherent to the road business.

Industry	Infra

Scrip Details	
Face Value (INR)	10.0
Market Cap (INR Cr)	13,165.0
Price (INR)	215.0
No of Shares O/S (Cr)	60.4
3M Avg Vol (000)	1,174.0
52W High/Low (INR)	347/174
Dividend Yield (%)	0.6

Shareholding (%)	Jun 2022
Promoter	34.2
Institution	55.2
Public	10.6
TOTAL	**100.0**

Price Chart

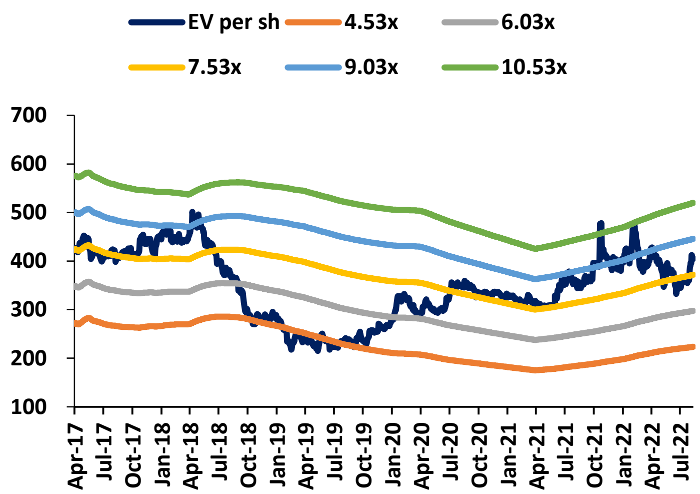


Key Financial Data (INR Cr, unless specified)

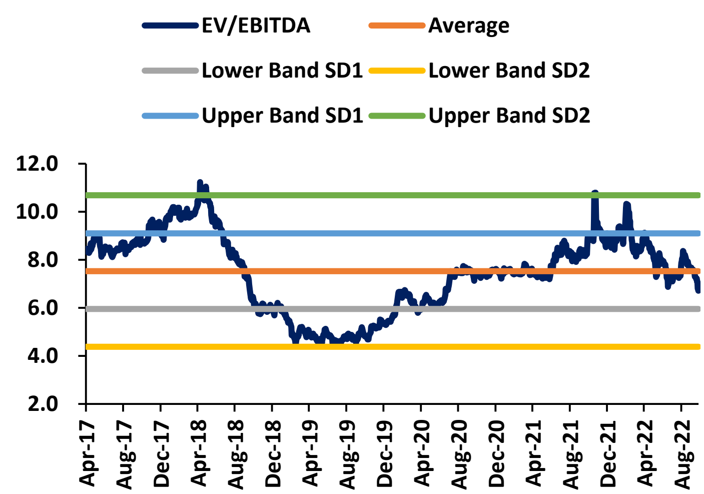
	Revenue	EBITDA	Net Profit	EBITDA (%)	Net Profit (%)	EPS (₹)	BVPS (₹)	Adj RoE (%)	RoIC (%)	P/E (X)	P/BV (X)
FY21	5,488	2,702	117	49.2	2.1	3.3	196	10.3	12.6	64.6	1.1
FY22	6,355	3,349	361	52.7	5.7	6.0	208	7.2	13.7	35.9	1.0
FY23E	7,115	3,585	819	50.4	11.5	13.6	226	11.5	14.3	15.9	1.0
FY24E	8,595	4,182	1,332	48.7	15.5	22.1	245	15.9	16.7	9.8	0.9
FY25E	9,602	4,608	1,593	48.0	16.6	26.4	268	16.2	20.5	8.2	0.8

IRB has underperformed broader indices mainly due to low valuation multiple as compared to sectorial average								
Sr No	Particulars	Valuation	Debt (net)	Net Value	Present Value	IRB's Share	Value (IRB)	Remarks
1	EPC Business	41,073	475	40,598	20,568	100%	20,568	Total EBIDTA*12 (less MP and AV and PVT Invit interest)
2	PVT Invit + Ganga*							
	Terminal	43,975	-	43,975	22,279	51%	11,362	EBIDTA for FY31*12
	Interim till FY30	15,094	17,050	(1,956)	(1,956)	51%	(998)	
3	IRBAV	11,445	8,192	3,253	3,253	100%	3,253	DCF till end of concession period
4	IRB MP	8,154	4,318	3,836	3,836	100%	3,836	DCF till end of concession period
6	HAM	690	-	690	350	100%	350	Remaining Investment in HAM in FY31 and PV of the same for FY25
7	New BOT projects	3,383	-	3,383	2,385	100%	2,385	Investment in BOT till FY31 and PV of the same for FY25
8	Cash Surplus	6,477	-	6,477	3,282	100%	3,282	Gross cash surplus less (Cash surplus of MP, distribution from Private Invit as same considered in DCF, Investment in new BOT assets)
	Total Value	130,291	30,036	100,256			44,038	
	No. of shares						60.4	
	Value per share						729.2	

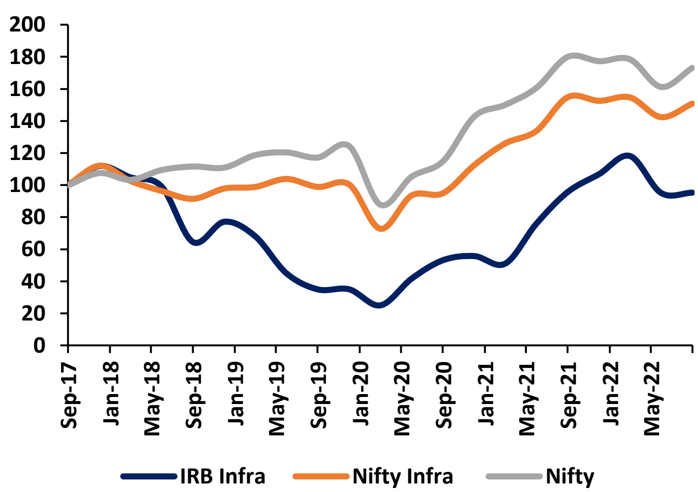
1 year forward EV/EBITDA band chart



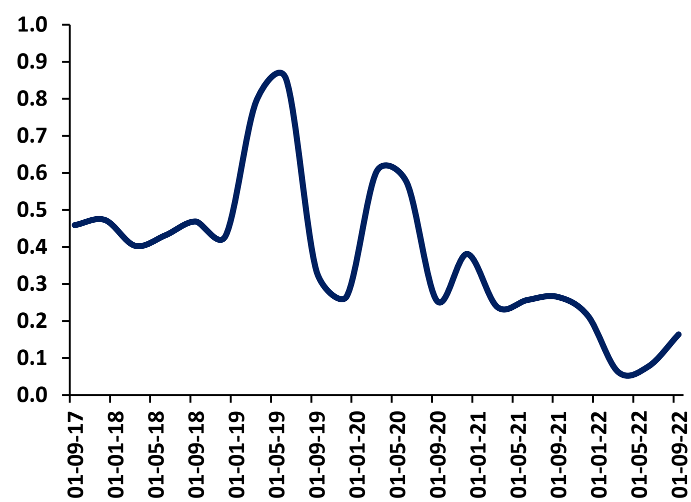
IRB is trading near its average EV/EBITDA



IRB has underperformed the broader indices



Disc to Nifty Infra Index EV/EBITDA



*Source: Company, Ventura research, * Ganga expressway is clubbed in Pvt InviT*

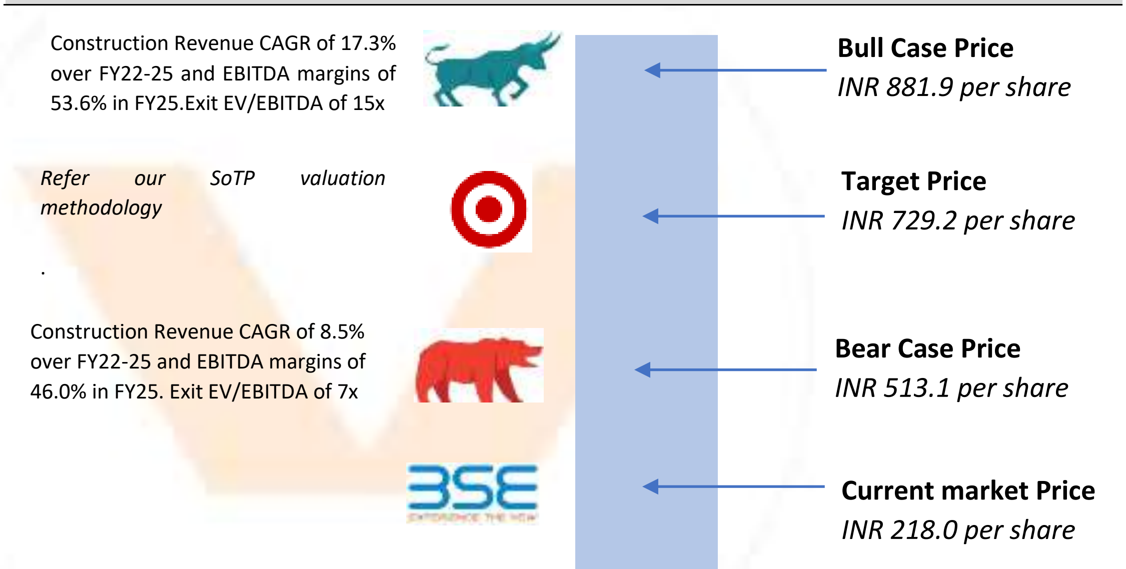
Our Bull and Bear Case Scenarios

We have prepared a Bull and Bear case scenario with 3 variable sensitivity based on FY25 revenues, EBITDA margins & valuation multiple of standalone entity mainly engaged in construction activity:

- **Bull Case:** We have assumed FY25 construction & other revenues of INR 7,225.0 cr in FY25 (CAGR of 17.3%) and EBITDA margins of 53.6%, which will result in a Bull Case price target of INR 881.9 per share. We expect the exit EV/EBITDA multiple of 15x.

- **Bear Case:** We have assumed FY25 construction & other revenues of INR 5,725.2 cr in FY25 (CAGR of 8.5%) and EBITDA margins of 46.0%, which will result in a Bear Case price target of INR 513.1 per share. We expect the exit EV/EBITDA multiple of 7x. Our bear case target is higher than CMP as we keep other variables same.

Bull & Bear Case Scenario



Investment triggers

- **IRB now has the financial firepower with GIC and access to global best practices in the road BOT business with Cintra and is thus uniquely positioned to capitalise on government's NIP, NMP, Gati Shakti initiatives.**
- **Strong balance sheet will benefit IRB with the government's push for private investment in the sector.**

Catalysts

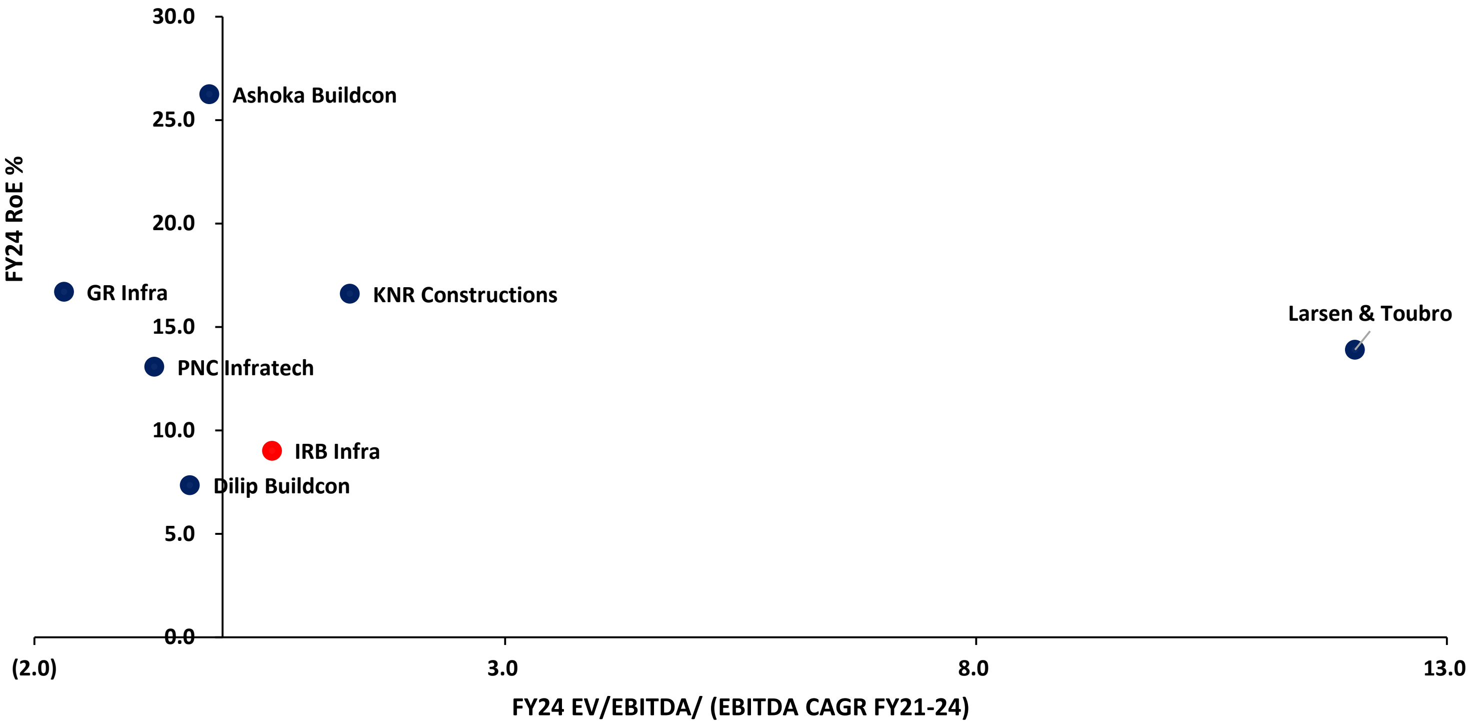
- **Faster than expected traffic growth.**
- **The company has a compelling track record of bagging meaningful claims and while we have not taken any contribution of the same to valuation - it will remain a significant trigger on an ongoing basis.**

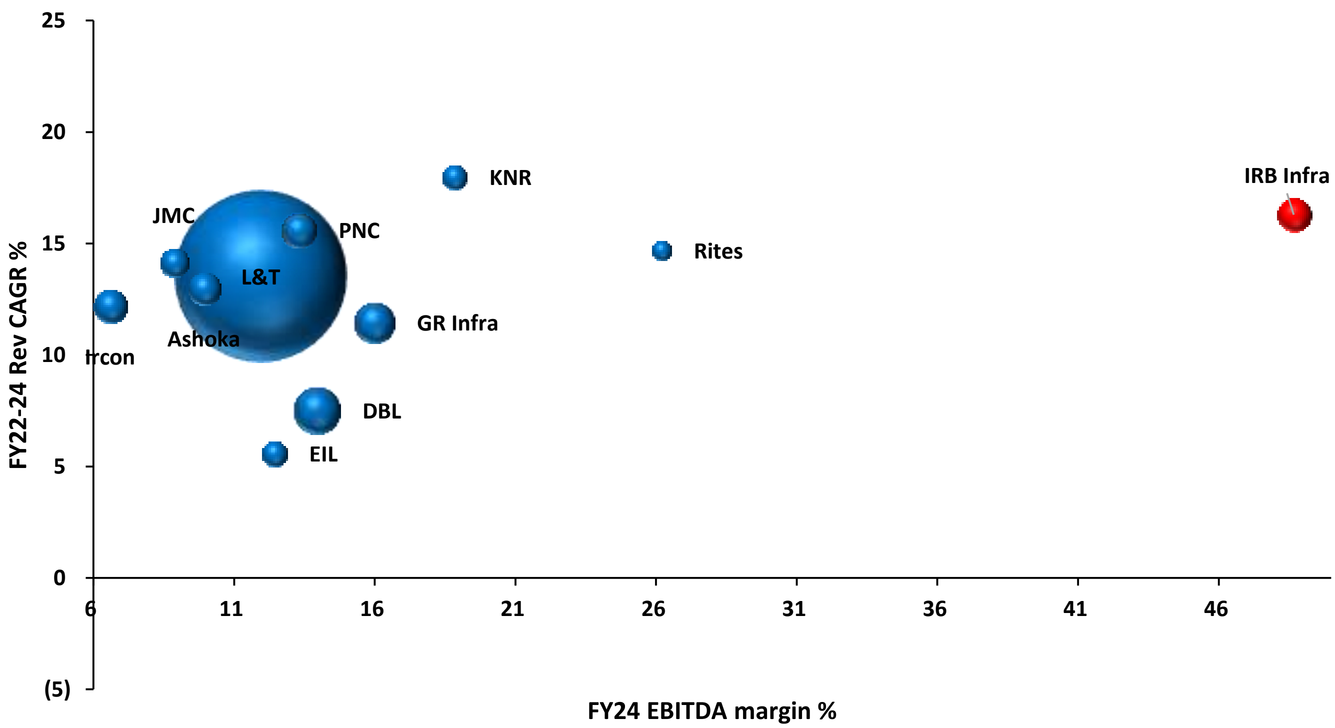
Valuation and Comparable Metric of Domestic Infra companies

Company Name	Mkt Cap	Price	PEG	P/E Ratio			P/BV			EV/EBITDA			RoE (%)			EBITDA Margin (%)			Net Margin (%)		
			FY24	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Domestic Peers (fig in INR Cr, unless specified)																					
IRB Infra	13,165	218.0	0.1	36.4	16.1	9.9	1.0	1.0	0.9	3.9	3.7	3.1	2.9	6.0	9.0	52.7	49.8	48.7	5.7	11.5	15.5
Larsen & Toubro	260,663	1,855.0	1.0	28.0	23.1	19.1	3.2	2.9	2.7	19.9	17.2	15.1	11.4	12.7	13.9	11.8	12.0	11.9	5.9	6.3	6.7
Rites	8,381	348.8	2.1	16.0	14.2	12.6	3.4	3.2	2.9	9.0	7.0	6.5	21.2	22.5	23.4	27.0	25.6	26.2	20.5	20.3	19.8
Ircon International	3,847	40.9	0.6	7.4	6.7	6.5	0.8	0.8	0.7	-3.7	-2.9	-3.3	11.3	11.8	11.5	6.0	6.7	6.6	7.9	7.6	7.1
Engineers India	3,650	65.0	1.1	11.4	10.1	8.4	1.9	1.8	1.7	7.2	6.1	4.3	16.9	18.2	20.0	10.7	11.6	12.4	10.0	11.3	12.2
Dilip Buildcon	3,231	221.0	-0.9	-32.4	14.8	9.1	0.8	0.7	0.7	7.8	4.3	3.8	-2.3	4.9	7.3	8.6	13.4	13.9	-1.1	2.2	3.3
Ashoka Buildcon	2,219	79.5	0.0	6.7	4.2	3.2	2.3	1.2	0.9	4.9	4.0	3.2	34.7	27.9	26.2	9.2	9.7	9.9	5.9	8.5	9.6
KNR Constructions	6,461	230.0	0.3	18.2	14.7	12.3	2.8	2.3	2.0	10.9	9.4	8.4	15.2	15.8	16.6	20.3	19.5	18.8	11.1	11.3	11.8
PNC Infratech	6,871	268.0	3.5	15.8	13.1	11.7	2.0	1.8	1.5	8.0	6.9	6.3	12.9	13.4	13.1	13.5	13.1	13.3	7.2	7.2	7.2
GR Infra	11,843	1,225.0	0.9	17.0	13.8	11.7	2.7	2.3	2.0	11.4	10.3	9.2	16.1	16.8	16.7	15.7	16.2	16.0	8.8	10.1	10.3
JMC Project	1,604	95.5	0.0	10.6	8.9	7.5	1.9	1.5	1.3	5.2	4.4	3.5	18.4	17.3	17.2	8.0	8.6	8.9	2.9	3.0	3.2

Source: Company Reports, Ventura Research, Bloomberg, JMC had reported loss in FY21

Compelling valuations as compared to peers





Source: Ventura Research, ACE Equity & Bloomberg, Size of bubble represents revenues, Margin profile for road companies are not strictly comparable as same changes as per project profile (eq HAM, BOT, TOT), legal structure of the SPV etc

Financial Analysis and Projections

Over FY20-22, IRB's total revenues de-grew by 5.0% to INR 6,355.4 cr mainly due to COVID as construction & other revenues fell by 7.6% while toll collection/InvIT revenues grew by 2.0% inspite of transfer of 9 assets to the private InvIT towards end of FY20.

EBITDA growth stagnated during this period (2.8% CAGR) while margins grew by 776bps to 52.7% mainly due to higher EBITDA from BOT and fall in the construction costs.

The total debt increased by INR 6,218.3 cr to INR 13,822.5 cr in FY22 mainly on account of upfront payment to MSRDC for Mumbai-Pune Phase 2 which resulted in increase in interest costs from INR 1,564.4 cr in FY20 to INR 1,890.6 cr in FY22.

The net earnings before minority interest of IRB declined by 7.0% CAGR between FY20-22.

The return ratios RoE/RoCE/ROIC fell by 791/933/1,232 bps over the period FY20-22.

Going forward, we expect IRB's total revenues to grow at a CAGR of 14.7% to INR 9,602.1 cr over FY22-25E on the back of 10.7% CAGR in construction/other revenues & 23.4% CAGR in toll collection/InvIT.

EBITDA is expected to increase by 11.2% CAGR while overall EBITDA margins are expected to fall by 470bps to 48.0% in FY25.

Finance cost is expected to fall by 9.8% CAGR as we expect the total debt to decrease from INR 13,822.5 cr in FY22 to INR 13,232.1 cr in FY25.

We expect improvement in net debt/equity & net debt/EBITDA from 0.9x & 3.5x in FY22 to 0.4x & 1.3x in FY25. Net earnings are expected to grow at 64.0% CAGR over FY22-25 from INR 361.2 cr in FY22 to INR 1,592.8 cr in FY25. Return ratios namely RoE/RoCE/RoIC are expected to improve by 697/300/680bps over FY22-25 to 9.8%/15.6%/20.5% in FY25.

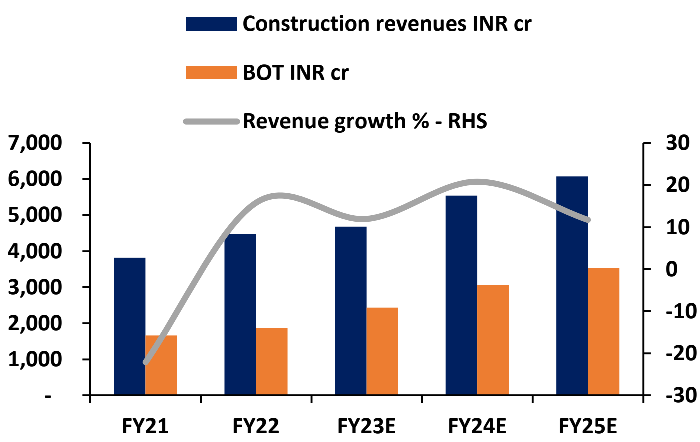
Financial Summary

Fig in INR Cr (unless specified)	FY20	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Construction/other revenues	**5,243.7**	**3,822.3**	**4,478.6**	**4,680.5**	**5,538.4**	**6,071.6**	**6,081.3**	**6,507.3**	**7,429.4**	**8,025.6**	**8,605.1**
YoY Growth (%)		*(27.1)*	*17.2*	*4.5*	*18.3*	*9.6*	*0.2*	*7.0*	*14.2*	*8.0*	*7.2*
Toll/InvIT revenues	**1,803.7**	**1,665.2**	**1,876.8**	**2,434.2**	**3,056.3**	**3,530.5**	**3,506.0**	**4,237.2**	**4,367.7**	**6,595.1**	**4,773.6**
YoY Growth (%)		*(7.7)*	*12.7*	*29.7*	*25.6*	*15.5*	*(0.7)*	*20.9*	*3.1*	*51.0*	*(27.6)*
Revenue from operations	**7,047.4**	**5,487.5**	**6,355.4**	**7,114.7**	**8,594.7**	**9,602.1**	**9,587.2**	**10,744.5**	**11,797.1**	**14,620.7**	**13,378.7**
YoY Growth (%)		*(22.1)*	*15.8*	*11.9*	*20.8*	*11.7*	*(0.2)*	*12.1*	*9.8*	*23.9*	*(8.5)*
Construction costs	3,653.0	2,628.0	2,837.0	3,394.9	4,153.0	4,542.9	4,578.8	4,841.1	5,223.2	5,485.7	5,624.6
Construction costs to Sales (%)	*51.8*	*47.9*	*44.6*	*47.7*	*48.3*	*47.3*	*47.8*	*45.1*	*44.3*	*37.5*	*42.0*
O&M expenses	228.0	157.7	169.4	135.1	259.4	451.0	267.4	165.0	172.1	343.8	549.8
O&M expenses to Sales (%)	*3.2*	*2.9*	*2.7*	*1.9*	*3.0*	*4.7*	*2.8*	*1.5*	*1.5*	*2.4*	*4.1*
EBITDA	**3,166.4**	**2,701.8**	**3,349.1**	**3,584.7**	**4,182.2**	**4,608.3**	**4,741.1**	**5,738.4**	**6,401.8**	**8,791.2**	**7,204.2**
EBITDA Margin (%)	*44.9*	*49.2*	*52.7*	*50.4*	*48.7*	*48.0*	*49.5*	*53.4*	*54.3*	*60.1*	*53.8*
Net Profit	720.7	116.9	361.2	818.6	1,331.6	1,592.8	1,739.5	2,697.2	3,583.4	5,430.0	4,380.3
Net Margin (%)	*10.2*	*2.1*	*5.7*	*11.5*	*15.5*	*16.6*	*18.1*	*25.1*	*30.4*	*37.1*	*32.7*
Adjusted EPS	**20.5**	**3.3**	**6.0**	**13.6**	**22.1**	**26.4**	**28.8**	**44.7**	**59.3**	**89.9**	**72.5**
P/E (X)	*10.5*	*64.6*	*35.9*	*15.9*	*9.8*	*8.2*	*7.5*	*4.8*	*3.6*	*2.4*	*3.0*
Adjusted BVPS	**190.2**	**196.4**	**208.1**	**225.5**	**244.5**	**267.9**	**293.7**	**335.4**	**391.7**	**478.6**	**548.2**
P/BV (X)	*1.1*	*1.1*	*1.0*	*1.0*	*0.9*	*0.8*	*0.7*	*0.6*	*0.5*	*0.4*	*0.4*
Net Worth	**6,682.9**	**6,900.8**	**12,565.4**	**13,617.0**	**14,767.6**	**16,179.4**	**17,737.9**	**20,254.1**	**23,656.4**	**28,905.5**	**33,104.8**
Return on Equity (%)	*10.8*	*1.7*	*2.9*	*6.0*	*9.0*	*9.8*	*9.8*	*13.3*	*15.1*	*18.8*	*13.2*
Adjusted Net Worth (Excl. Pvt InvIT Investment)	**2,792.9**	**2,758.8**	**8,204.7**	**8,160.3**	**8,889.4**	**10,010.4**	**11,178.8**	**13,228.3**	**16,072.2**	**20,617.5**	**24,217.0**
Return on Equity basis Adj Net Worth (%)	*24.3*	*10.3*	*7.2*	*11.5*	*15.9*	*16.2*	*15.6*	*18.9*	*19.3*	*24.2*	*15.8*
Capital Employed	**14,287.0**	**23,756.1**	**26,387.9**	**28,867.9**	**29,775.5**	**29,411.4**	**30,898.2**	**31,205.0**	**34,069.7**	**35,346.7**	**40,308.3**
Return on Capital Employed (%)	*21.9*	*11.2*	*12.6*	*12.3*	*13.9*	*15.6*	*15.2*	*18.3*	*18.7*	*24.8*	*17.8*
Invested Capital	**12,016.3**	**21,110.7**	**24,180.8**	**24,942.5**	**24,864.9**	**22,315.4**	**22,627.7**	**21,131.9**	**22,545.1**	**19,844.8**	**21,477.0**
Return on Invested Capital (%)	*26.0*	*12.6*	*13.7*	*14.3*	*16.7*	*20.5*	*20.8*	*27.0*	*28.3*	*44.1*	*33.4*
Return on Incremental invested capital (%)	*(0.4)*	*(4.9)*	*24.6*	*9.5*	*65.8*	*(117.0)*	*8.9*	*325.0*	*23.2*	*187.1*	*(32.0)*
Cash Flow from Operations	3,681.0	1,108.2	(122.5)	2,278.7	2,601.9	4,943.9	2,349.3	5,646.2	3,795.3	9,645.6	4,145.2
Cash Flow from Investing	6,483.7	(8,292.4)	4,607.7	(551.4)	1.7	405.7	98.3	(547.6)	(852.5)	(920.6)	(930.0)
Cash Flow from Financing	(9,466.1)	7,558.7	(4,923.5)	(8.9)	(1,618.4)	(3,164.2)	(1,273.1)	(3,297.0)	(1,490.3)	(4,747.7)	114.2
Net Cash Flow	**698.5**	**374.6**	**(438.4)**	**1,718.4**	**985.2**	**2,185.5**	**1,174.4**	**1,801.6**	**1,452.4**	**3,977.3**	**3,329.4**
Free Cash Flow	**3,535.4**	**1,126.2**	**707.7**	**2,303.7**	**2,626.9**	**4,968.9**	**2,374.3**	**5,671.2**	**3,820.3**	**9,670.6**	**4,170.2**
FCF to Revenue (%)	*50.2*	*20.5*	*11.1*	*32.4*	*30.6*	*51.7*	*24.8*	*52.8*	*32.4*	*66.1*	*31.2*
FCF to EBITDA (%)	*111.7*	*41.7*	*21.1*	*64.3*	*62.8*	*107.8*	*50.1*	*98.8*	*59.7*	*110.0*	*57.9*
FCF to Net Profit (%)	*490.6*	*963.3*	*195.9*	*281.4*	*197.3*	*312.0*	*136.5*	*210.3*	*106.6*	*178.1*	*95.2*
FCF to Net Worth (%)	*52.9*	*16.3*	*5.6*	*16.9*	*17.8*	*30.7*	*13.4*	*28.0*	*16.1*	*33.5*	*12.6*
Total Debt	**7,604.2**	**16,855.3**	**13,822.5**	**15,250.9**	**15,007.9**	**13,232.1**	**13,160.3**	**10,950.9**	**10,413.2**	**6,441.2**	**7,203.5**
Net Debt	**5,333.5**	**14,209.9**	**11,615.4**	**11,325.5**	**10,097.3**	**6,136.0**	**4,889.8**	**877.9**	**(1,111.3)**	**(9,060.6)**	**(11,627.7)**
Net Debt to Equity (X)	*0.8*	*2.1*	*0.9*	*0.8*	*0.7*	*0.4*	*0.3*	*0.0*	*(0.0)*	*(0.3)*	*(0.4)*
Net Debt to EBITDA (X)	*1.7*	*5.3*	*3.5*	*3.2*	*2.4*	*1.3*	*1.0*	*0.2*	*(0.2)*	*(1.0)*	*(1.6)*
Interest Coverage Ratio (X)	*2.0*	*1.6*	*1.8*	*2.5*	*3.0*	*3.3*	*3.9*	*5.2*	*6.7*	*11.3*	*11.1*
FCF to Net Profit (%)	*490.6*	*963.3*	*195.9*	*281.4*	*197.3*	*312.0*	*136.5*	*210.3*	*106.6*	*178.1*	*95.2*

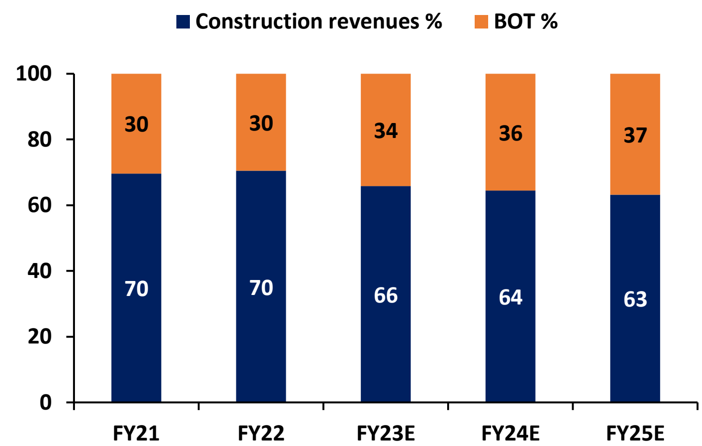
Source: Company Reports & Ventura Research Note on Adjusted Net worth: The company has investment in 100% subsidiaries and also has investment in Private Invit. Private invit is a development platform and the return of the same will be back-ended. It will be appropriate to calculate the return on networth which is deployed in 100% subsidiaries. To calculate the return on adjusted Networth, we have reduced the investment made by IRB in Private Invit and also the share of profit or loss from Private Invit.

Story in Charts

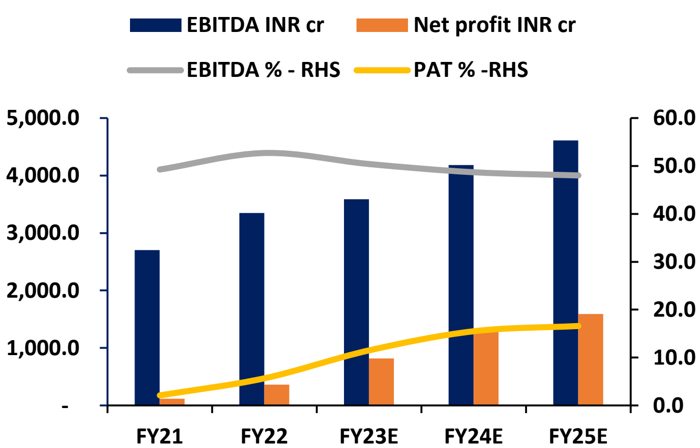
Revenues to grow a 14.7% CAGR over FY22-25



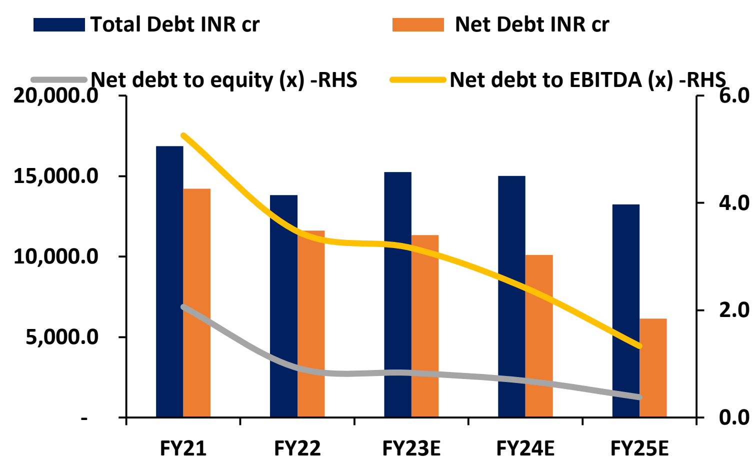
Toll/InviT revenues share to increase



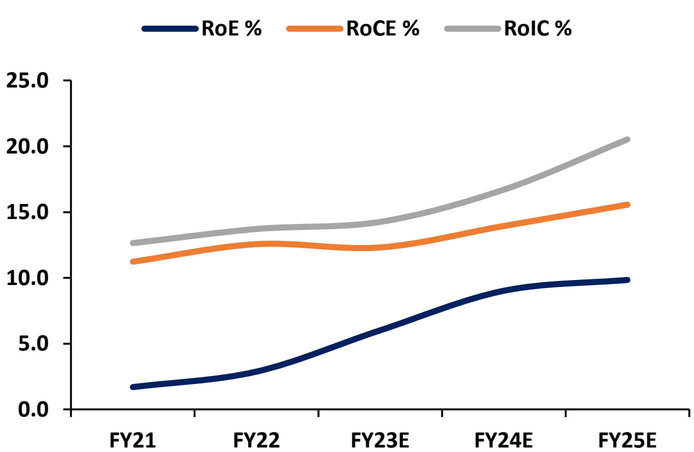
EBITDA to grow by 11.2% CAGR over FY22-25



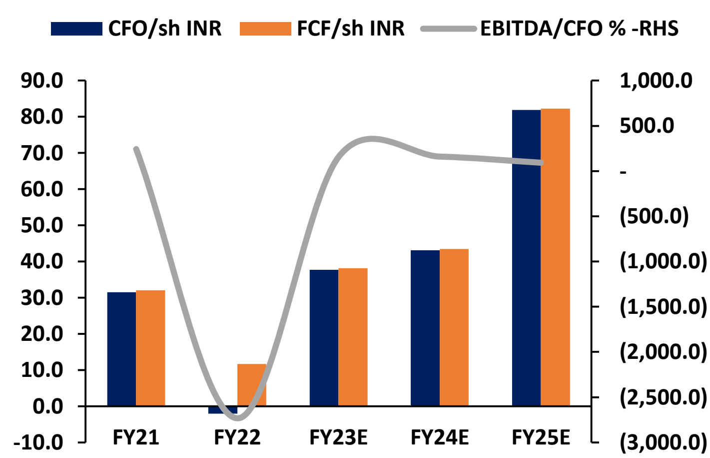
Net debt expected to come down



Return ratios to move upwards from hereon



Healthy cash generation expected



Source: Company Reports & Ventura Research

New government schemes like Bharatmala, increase in awarding/construction pace to benefit road players

India has the second-largest road network in the world, spanning a total of 5.9 million kms. This road network transports 64.5% of all goods in the country and 90% of India's total passenger traffic uses road network to commute. Road transportation has gradually increased over the years with improvement in connectivity between cities, towns and villages in the country. In the past seven years, length of National Highways has gone up by 50% from 91,287 km as of April, 2014 to 1,41,190 km as on 31st March 2022. The target is to reach 2,00,000 kms by FY25.

Also, under Bharatmala Pariyojana, the government plans to develop about 65,000 km national highway of which 34,800 km of national highway is to be built under Phase I with an outlay of INR 5,35,000 cr. According to the MoRTH Annual Report 2021-22, Bharatmala Pariyojana envisages the following:

- 60% projects on Hybrid Annuity Mode
- 10% projects on BOT (Toll) Mode and
- 30% projects on EPC mode (For detailed explanation of each of these model, please refer to the appendix section)

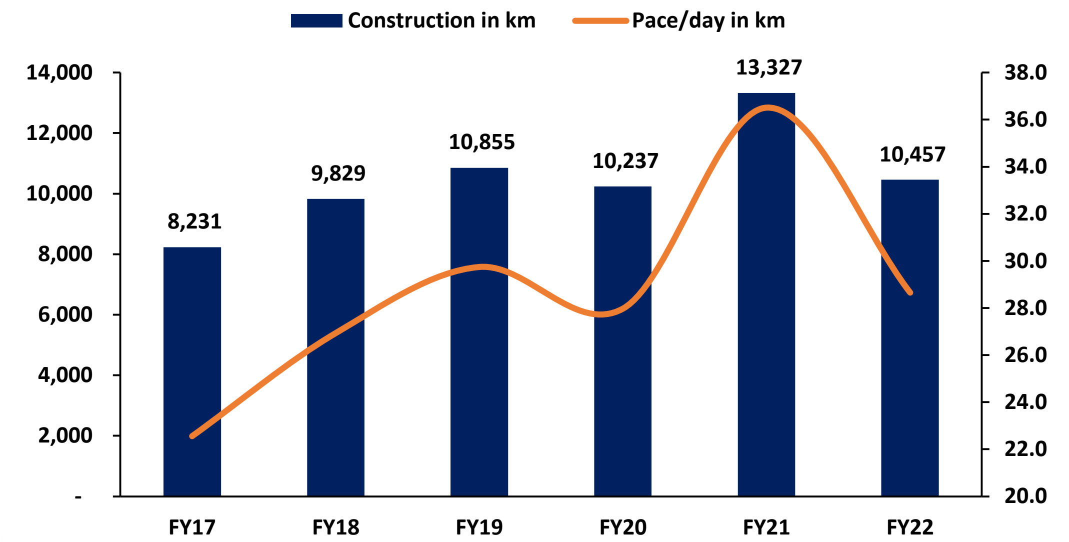
Bharatmala Yojna Phase I

Scheme	Length kms	Cost in INR cr
Economic corridors	9,000	120,000
Inter corridors and feeder roads	6,000	80,000
National corridor effeciency improvement	5,000	100,000
Border/International connectivity	2,000	25,000
Coastal and port connectivity	2,000	20,000
Expressways	800	40,000
Ongoing projects including NHDP	10,000	150,000
Total	**34,800**	**535,000**

Source: Company websites & Ventura Research

Further, 604 road projects with an aggregate length of 20,965 km have been approved and awarded under Bharatmala Pariyojana, including 131 of residual NHDP works of aggregate length of 5,529 kms with a total capital cost of INR 6,41,713 cr as on FY21.

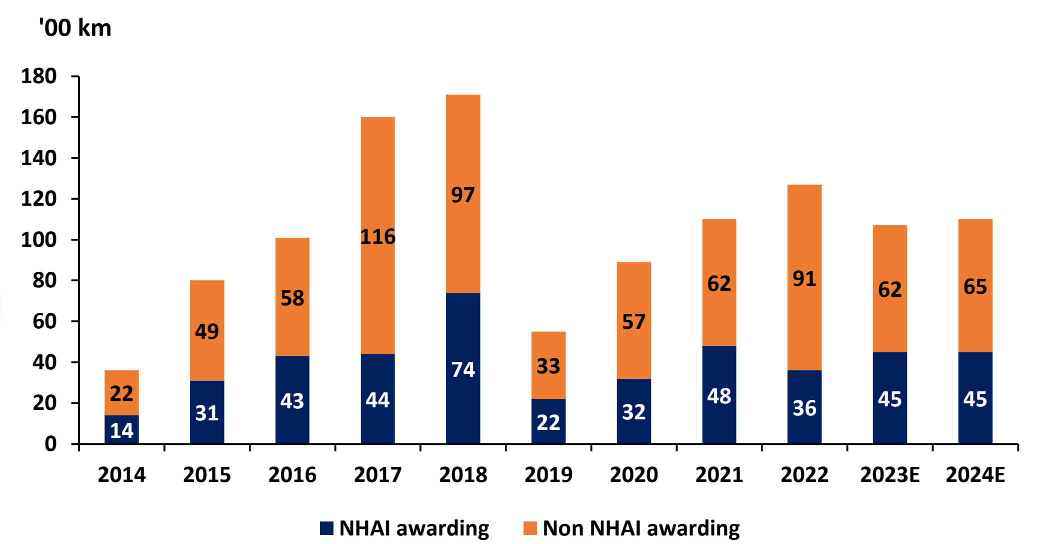
Construction has been above 10,000 km in last 4 years



Source: Company Reports, Ventura research

In terms of awarding, while we expect the total awarding to decline in 2023/24 over 2022 levels (2022 was the best year in terms of awarding from 2019), the same is expected to stay at 2021 levels.

We expect awarding to touch 2021 levels



Source: Company Reports, Ventura research

Further, in order to accelerate the pace of construction, several initiatives have been taken to revive the stalled projects and expedite completion of new projects.

- Identification of Model National Highway in the state for development by the government.

- Streamlining of land acquisition and acquisition of major portion of land prior to invitation of bids.
- Award of projects after adequate project preparation in terms of land acquisition, clearances etc.
- Disposal of cases in respect of Change of Scope (CoS) and Extension of Time (EoT) in a time bound manner.

FASTag implementation has also reduced the wait time at National Highway fee plazas significantly

In order to ensure that the payment of fees at Toll Plazas is through Electronic means only and vehicles pass seamlessly through the Fee Plazas, the FASTag drive has been very well supported by the highway users as it has achieved over 95% penetration with > 3 cr users in the country. Also, many of the toll plazas have even reached about 99% penetration. Toll collection through FASTag has seen a consistent growth, crossing Rs 100 crore per day mark.

In addition, there are a few more initiatives that will drive growth for the infrastructure sector in India:

- **Increase in outlay in FY23 budget** : The GOI has given a massive push to the infrastructure sector which can be seen from the fact that the total budgetary outlay increased by 68.6%, from INR 1,18,101 cr in FY 22 to INR 1,99,107 cr in FY23.

- **National Highway expansion**: The National Highways network will be expanded by 25,000 km in FY23.

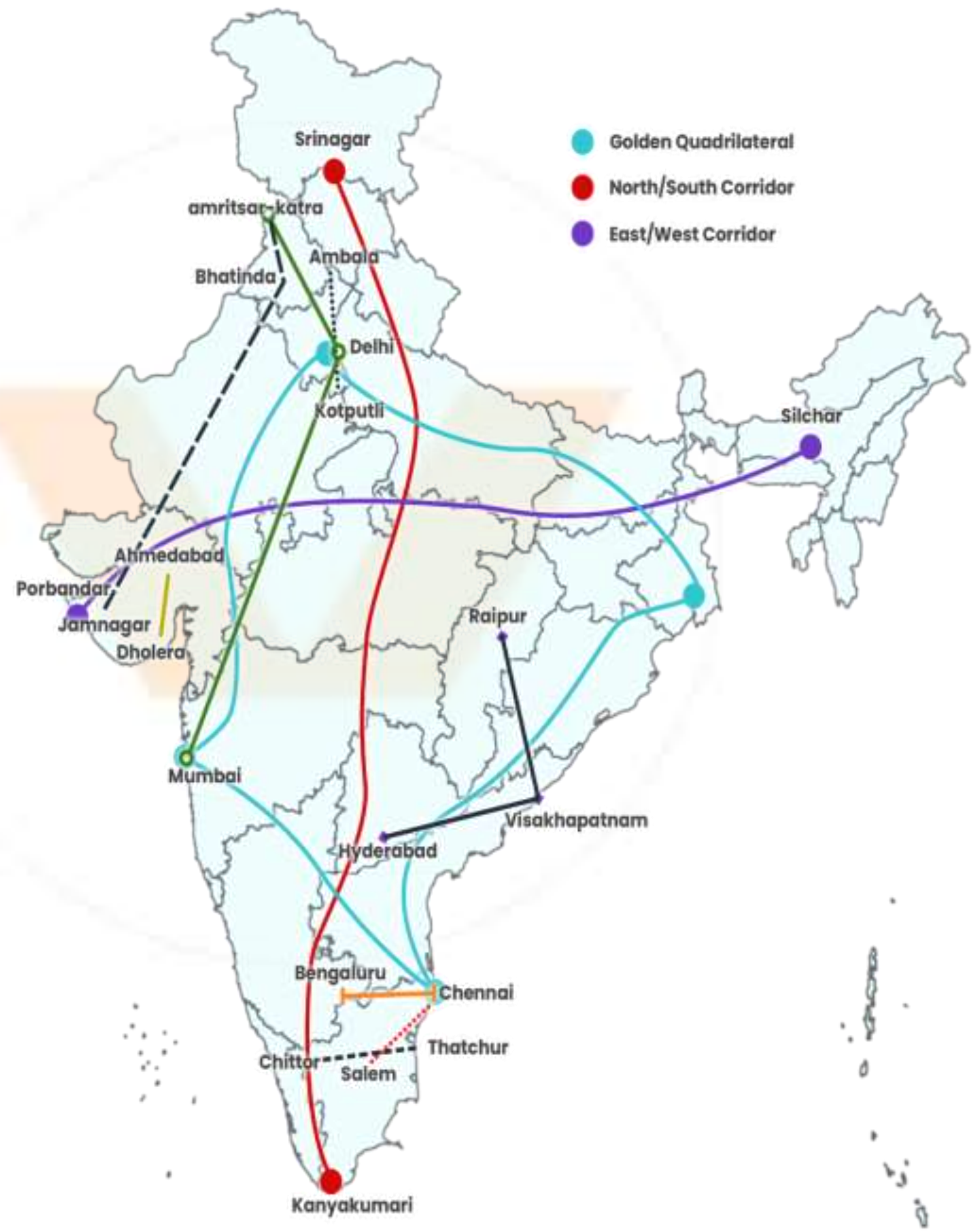
- **Growing demand for automobile:** With the increase in consumer demand and nuclear families, need for 2Ws and compact cars have been on the rise and is expected to grow even further. The market for roads and highways in India is projected to grow at a CAGR of 36.2% during 2016-25, on account of growing government initiatives to improve transportation infrastructure in the country. Almost 40% (824) of the 1,824 PPP projects awarded in India until Dec, 19 were related to roads.

- **PM Gati Shakti scheme to boost highway construction with total outlay of INR 20 lakh cr till FY25:** Under PM Gati Shakti scheme, the Ministry plans to develop 22 Greenfield Expressways, 23 other key infrastructure projects & other highway projects and 35 Multi-Modal Logistics Parks (MMLPs), as part of the Bharatmala Pariyojana.

  Some of the major Expressways and Corridors, which are under construction stage are
  - Delhi – Mumbai Expressway
  - Ahmedabad -- Dholera Expressway
  - Delhi-AmritsarKatra Expressway
  - Bengaluru-Chennai Expressway
  - Ambala-Kotputli Expressway

- Amritsar-Bhatinda-Jamnagar Expressway
- Raipur-VZG Expressway
- Hyderabad-VZG Expressway
- Chennai-Salem Expressway
- Chittor-Thatchur Expressway.

Major expressways (under construction), Golden Quadrilateral, Important road corridors



Source: Company Reports, Ventura research

Changes in model concession agreement and NMP are further green shots

In the recent years, the NHAI as well as MoRTH as made many notable changes which is expected to reduce the risk of the entire sector. For instance, the MoRTH has changed many changes in its model concession agreement as follows:

- Relaxation of milestone payment of HAM model
- Change in interest rate benchmark to MCLR from Bank rate earlier
- Relaxation in change in ownership norms
- Enhanced Land acquisition requirement before appointed date to reduce implementation risk
- Reduction in time period to assess traffic shortfall leading to improvement in refinancing flexibility as the concession period would be enhanced in advance.

Changes in model concession agreement to benefit road players

	Existing concession agreement	Revised model concession agreement	Impact on credit
Land acquisition	80% right of way before issue of appointed date	• Minimum 90% right of way before issue of AD • Automatic de-scoping clause to enable PCOD/COD • Project to be terminated if AD is not received within one year of concession signing date	Reduction in implementation risk
Stuck projects	NA	If COD is not achieved one year post SCOD, the project will be mutually foreclosed and the authority shall pay amount to concessionaire	Implementation of this needs to be monitored
Traffic shortfall	Revenue assessment of project every 10 years or once in a lifetime	Revenue assessment of project every 5 years	In case of shortfall it results in increase in concession period. Refinancing flexibility to improve

Construction stage Operational stage

	Existing concession agreement	Revised model concession agreement	Impact on credit
Milestone payments	5 instalments, each equal to 8% of the bid project cost	10 instalments, each equal to 4% of the bid project cost	Boost liquidity
Mobilisation advance	Interest on mobilisation advance linked to bank rate	Interest on mobilisation advance linked to MCLR	Not material
Annuity payments	Interest on annuity payment linked to bank rate + 3%	Interest on annuity payment linked to average of one year MCLR of top 5 scheduled commercial banks + 1.25%	Improvement in debt protection metrics
Change in ownership	100% transfer of equity stake is permitted only after two years of COD	100% transfer of equity stake permitted after six months from COD	Aid in asset monetisation

Construction stage Operational stage

Source: Company Reports & Ventura Research Note-1st chart is for BOT and 2nd chart is for HAM

New land acquisition guidelines to speed up the pace of highway construction

The Ministry of Road Transport & Highways has launched BhoomiRashi portal on 01.04.2018. In the past years, acquisition of land for the purpose of National Highway projects, payment of compensation to the land owners etc. were done manually by physical movement of documents in the form of files. However, in that procedure some constraints viz. delay in issuing notification, errors in the land/ area details etc were being faced. In order to overcome these issues, to cut short delays and avoid parking of public funds with the Competent Authority for Land Acquisition (CALA), the Ministry developed a web based Utility – BhoomiRashi, to fully digitize and automate the entire process of land acquisition.

With the operation of this Portal, the land acquisition process has been expedited significantly, become error-free and more transparent and the notifications at every stage are being processed on a real time basis.

National asset monetization can accelerate the growth prospects for Road/Highways sector

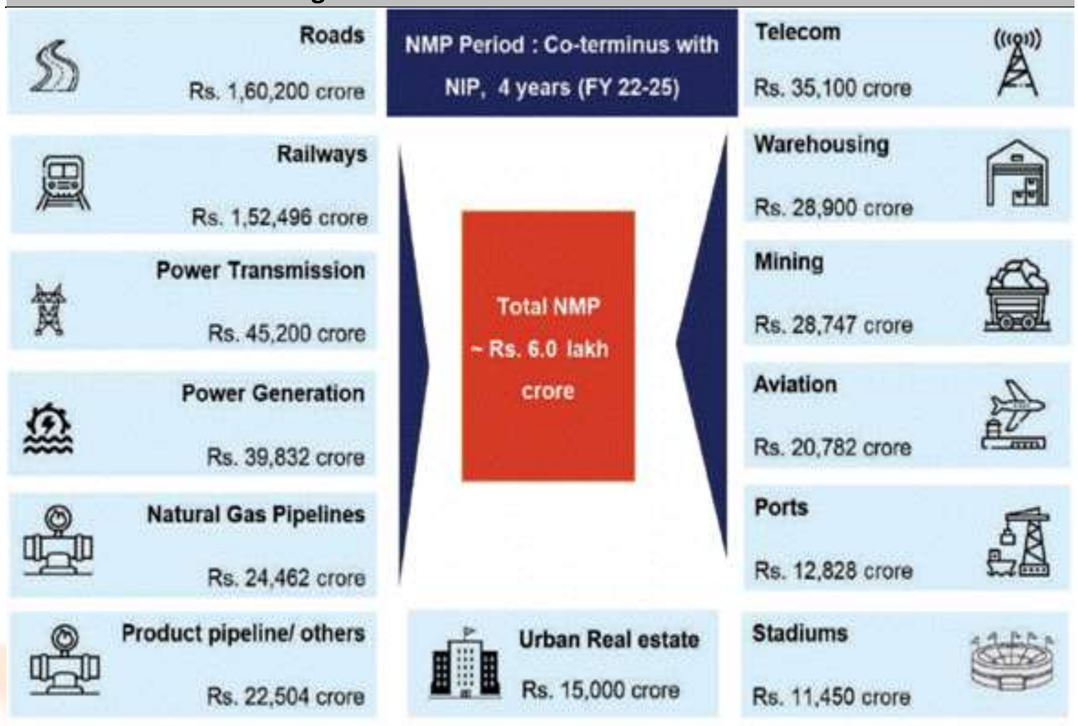
The government announced National asset monetization program (NMP) under which the strategic objective is to unlock the value of investments in brownfield public sector assets by tapping institutional and long-term patient capital, which can thereafter be leveraged for further public investments. It is to be noted that under NMP only rights over asset will be transferred while ownership will rest with the government only and thus the asset will be handed back to the government at the end of the transaction life.

NMP framework

Source: PIB & Ventura Research

The aggregate asset pipeline under NMP over FY22-25 is valued at INR 6.0 lakh cr of which roads will constitute ~27% at INR 1.6 lakh cr while airports constitute ~3.5% at INR 0.2 lakh crore. The monetization includes more than 20 asset classes totally besides roads & airports like ports, railways, warehousing, gas & product pipeline, power generation and transmission, mining, telecom, stadium, hospitality and housing.

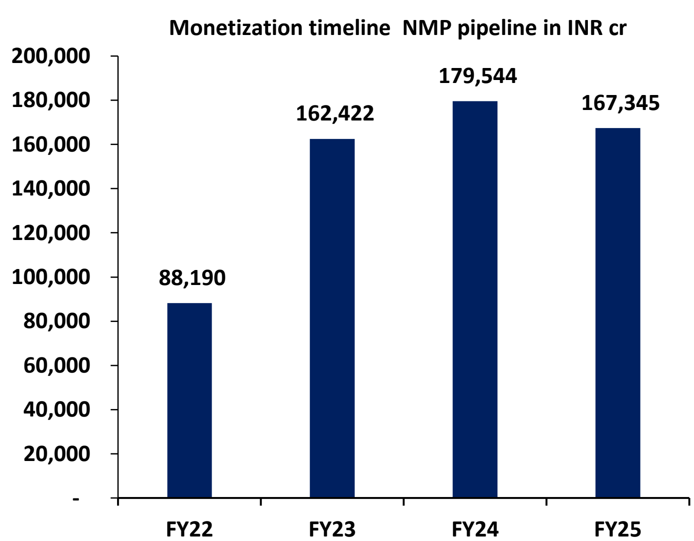
NMP envisages monetization of assets worth INR 6 lakh crore

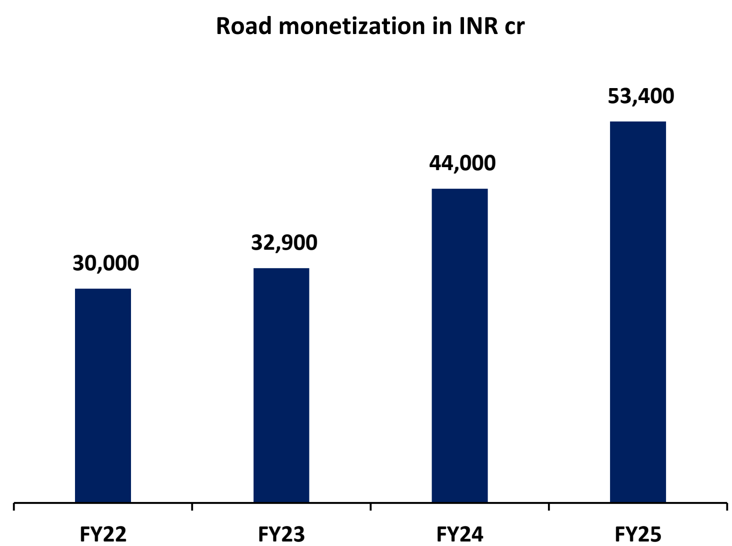


Source: PIB & Ventura Research

The assets under the NMP are expected to be rolled out through public private partnership concessions as well as capital market instruments such as InvIT's. The choice of instrument will be determined by the sector, nature of asset, timing of transactions (including market considerations), target investor profile and the level of operational/investment control envisaged to be retained by the asset owner etc.

With NMP, the government intends to monetize INR 1,60,200 cr of roads





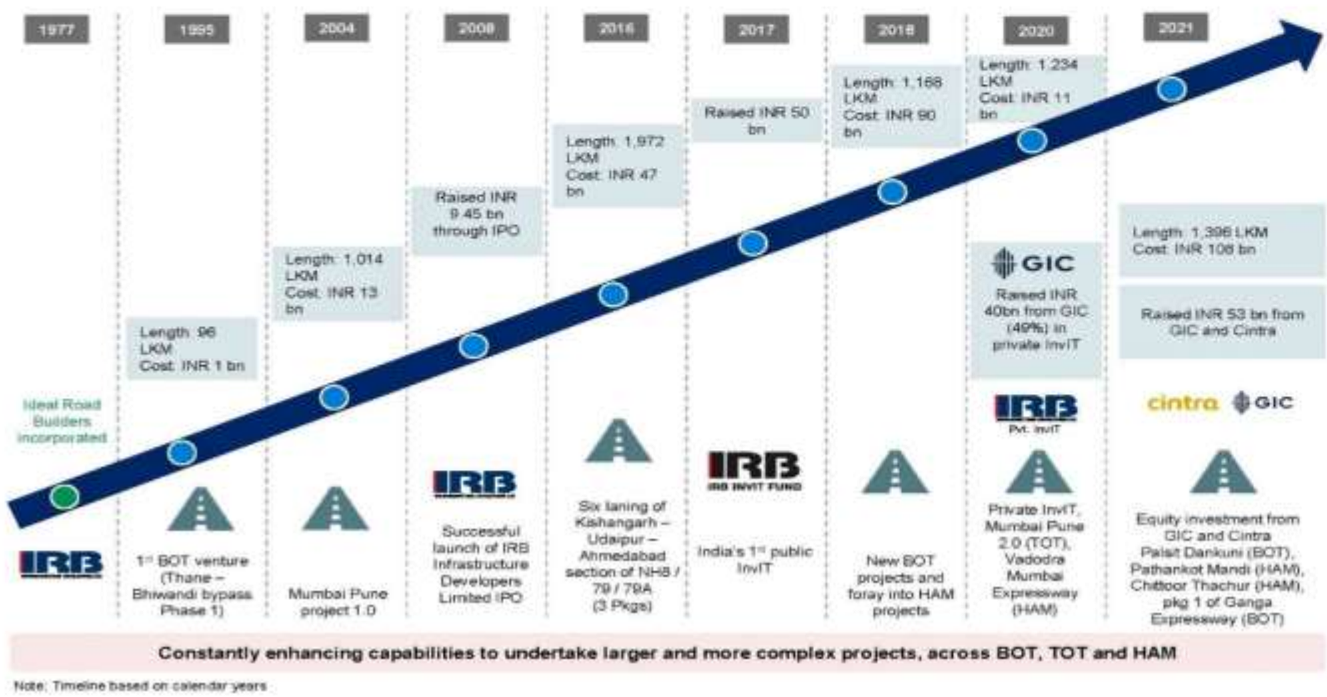
Source: Company Reports & Ventura Research

Given increase in awarding pace, IRB stands to benefit as the most experienced player in the sector

IRB Infrastructure Developers Ltd. (IRB) is among the most experienced and largest road developers in India and has always led evolution in the industry by being the pioneer for new concepts - right from first BOT to first InvIT to first large strategic partnership with world renowned investors (Sovereign wealth fund GIC, Cintra- subsidiary of Ferrovial).

IRB is one of the few companies to have received “Excellent” rating for its various projects from NHAI. The rating is based on various parameters like Highway efficiency, Highway safety and User services.

Evolution of IRB over the decades



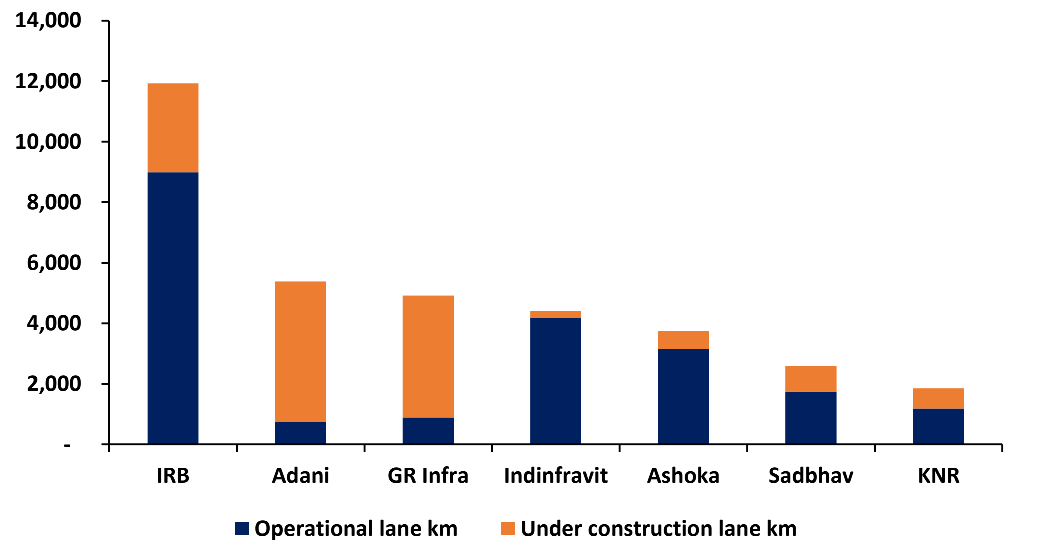
Source: Company & Ventura Research

IRB is one of the few company to have received "Excellent" rating for its road projects from NHAI

Project	Total marks	Classification
Ahmedabad Vadodara	95	Excellent
Kaithal Rajasthan	83	Excellent
Solapur Yedeshi	97	Very good
Goa/Karnataka to Kundapura	91	Excellent
Yedeshi Aurangabad	78	Excellent
Amritsar Pathankot	81	Excellent
Jaipur Deoli	82	Excellent
Surat Dahisar	81	Excellent
Bharuch Surat	85	Excellent
Tumkur Chitradurg	81	Excellent

*Source: Company & Ventura Research, *80-100 stands for excellent,60-80 stands for very good,40-60 stands for good,<40 stands for poor*

IRB has higher operational lane km than peers



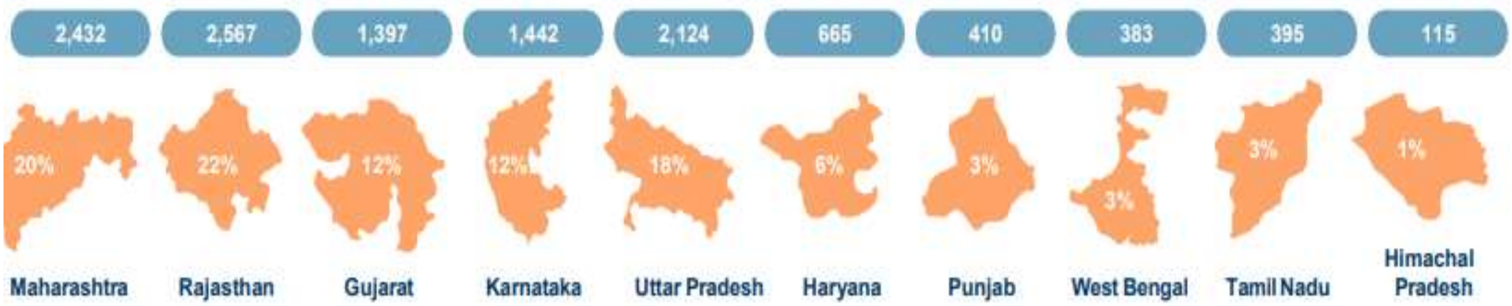
Source: Company & Ventura Research, Data IRB, Adani, Indinfravit are for FY22. For GR Infraprojects, KNR, Ashoka Buildcon numbers are for Q3FY22. For Sadbhav, numbers are for FY21

Largest portfolio of long term assets with ~20 years average life spread across India

Overview of IRB's portfolio

Particulars	Lane KM operational	Lane KM under development	Total lane KM
IRB Parent	2,001	1,423	3,424
Private InvIT	4,753	1,522	6,275
Public InvIT	2,231	-	2,231
Total	8,985	2,945	11,930

BOT / HAM portfolio – State wise (lane KM)

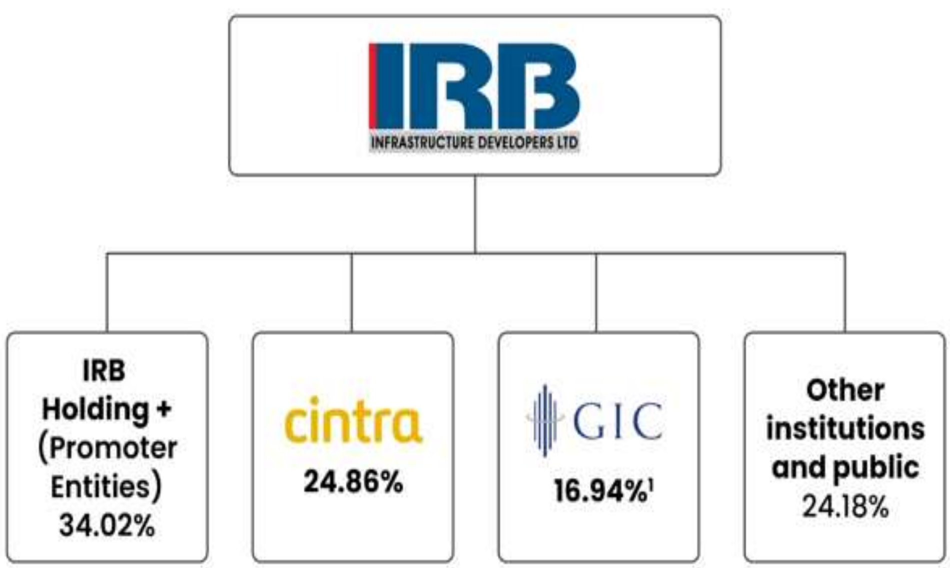


Source: Company & Ventura Research

IRB concluded the largest equity fund raise by a listed Indian infrastructure developer in the roads and highways sector

In Dec,21 IRB Infrastructure Developers Ltd said that it has completed equity fundraise of INR 5,347 crore from Cintra INR Investments BV and Bricklayers Investments Pte Ltd. Cintra has invested INR 3,180 cr through preferential placement whereas Bricklayers Investment has invested INR 2,167 crore through preferential issue.

IRB shareholding pattern



Source: Company & Ventura Research

Further, of INR 5,347 cr infused as a part of the deal, INR 3,250 cr was used for deleveraging, resulting in significant improvement in leverage ratios. It is to be noted that the net debt to equity of the company which stood at 2.1x in FY21 improved to 1.0x in FY22. The prepayment helped the company to save ~INR 350 cr in finance costs annually. The deal also helped to improve the credit rating from Ind A+ / Negative before the deal to Ind AA- / stable currently from India rating.

InvIT structure to help monetization of completed projects and raise funds for future development

An Infrastructure Investment Trust (InvITs) is Collective Investment Scheme similar to a mutual fund, which enables direct investment of money from individual and institutional investors in infrastructure projects to earn a small portion of the income as return. The InvIT is designed as a tiered structure with Sponsor setting up the InvIT which in turn invests into the eligible infrastructure projects either directly or via special purpose vehicles (SPVs).

Key stakeholders

Unitholder/ Investor

The unitholder subscribes to InvIT units. The InvIT invests this amount in income-generating infrastructure assets and receives interest/dividend which is distributed to unitholders.

Sponsor

The sponsor is responsible for transferring the initial portfolio of assets to the InvIT and is responsible for the formation transactions involved in setting-up and establishing an InvIT.

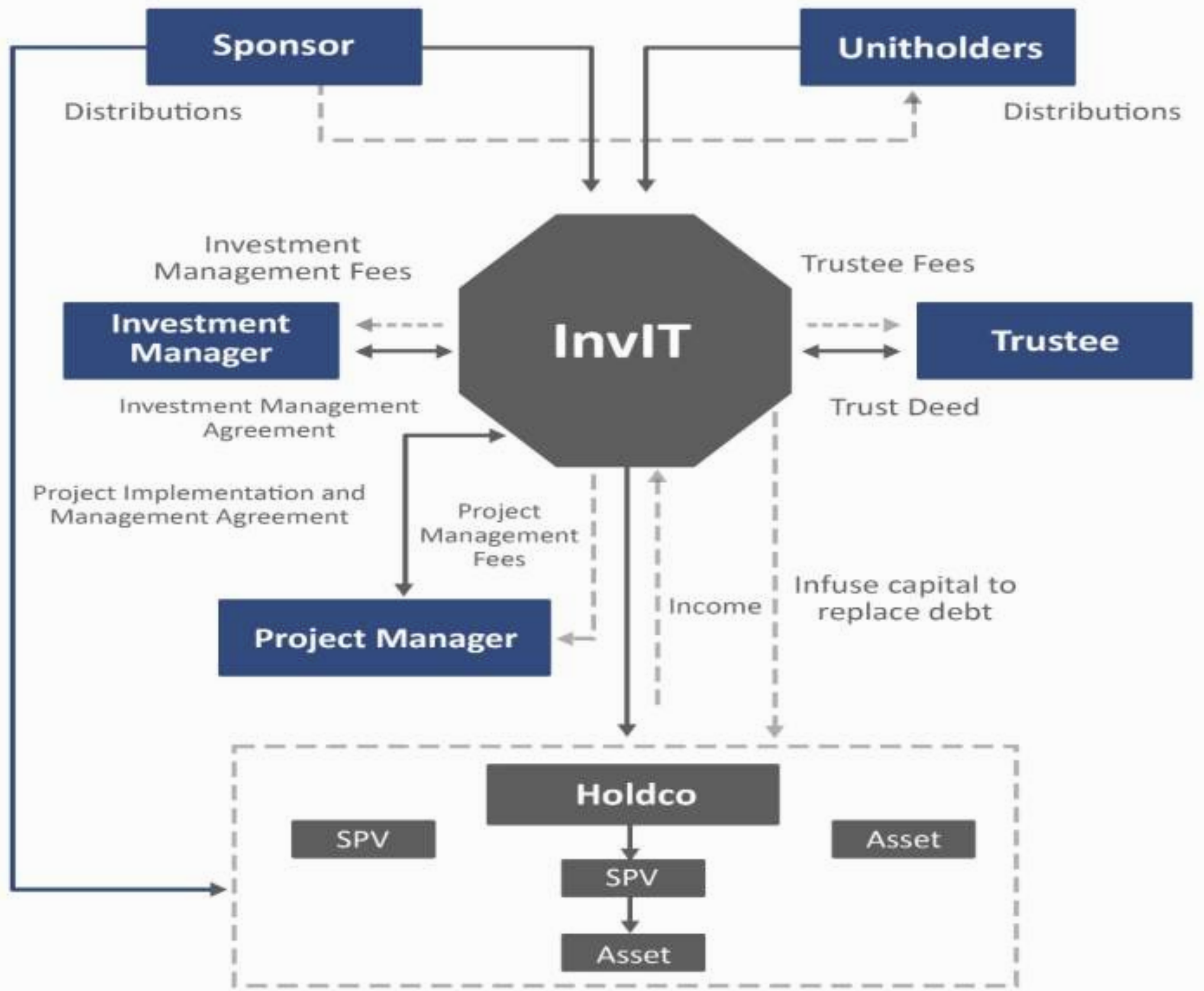
Trustee

A trustee appoints and oversees the activities of the Investment Manager and Project Manager and is registered with SEBI as a debenture trustee.

Project manager

Project Manager is responsible for the execution and management of the project assets held by the InvIT.

Structure of InvIT



Source: Company & Ventura Research

Steps for formation of Invit

- The sponsor settles a trust (yet to be registered as an InvIT) and simultaneously appoints an independent trustee.
- The trustee appoints an investment manager, to oversee and manage all the activities of the InvIT.
- Necessary purchase agreements are entered for transfer of eligible infrastructure projects by the sponsor to the InvIT. The projects can either be transferred directly to the InvIT, or to a holding company owned by the InvIT. Once the transfer gets completed, units will be issued to the sponsor.
- A project manager is appointed by the trustee for the InvIT.

- The sponsor will then apply to the SEBI for registration of the trust. Once the registration is obtained, a preliminary placement memorandum (PPM) is to be submitted to the SEBI. SEBI's approval is required for finalizing the PPM in the case of listed InvITs only.

- Lastly, the final placement memorandum is issued by the InvIT to the investors, and funds are raised from these investors through an initial offer of units.

Benefits of Invit

- **Regular Source of Income:** At least 90% of income has to be distributed through dividends and interest pay-outs on a bi-annual basis which helps to earn stable income. Further, tax benefits available with regard to pass through of income of InvIT improves the IRR for the investor.

- **Diversification of Portfolio:** InvITs allows the investors diversification of portfolio through part ownership in infrastructure projects. The diversified underlying asset base reduces risk and provides more stable returns in the long term.

- **Reduction in risk as compared to direct equity investment in a listed infra company:** Since >80% of the assets of the InvIT have to be deployed in completed income generating assets which have long-term contracts with strong counterparties.

IRB has divested its portfolio under 2 InvIT

- Private InvIT with GIC
- Public InvIT

Private InvIT acts as a development platform with GIC as 49% partner

The private invIT is in partnership with GIC whereby IRB holds 51% and is the sponsor while rest 49% is held by GIC. The invIT was formed in 2019.

The initial agreement with GIC stood as follows:

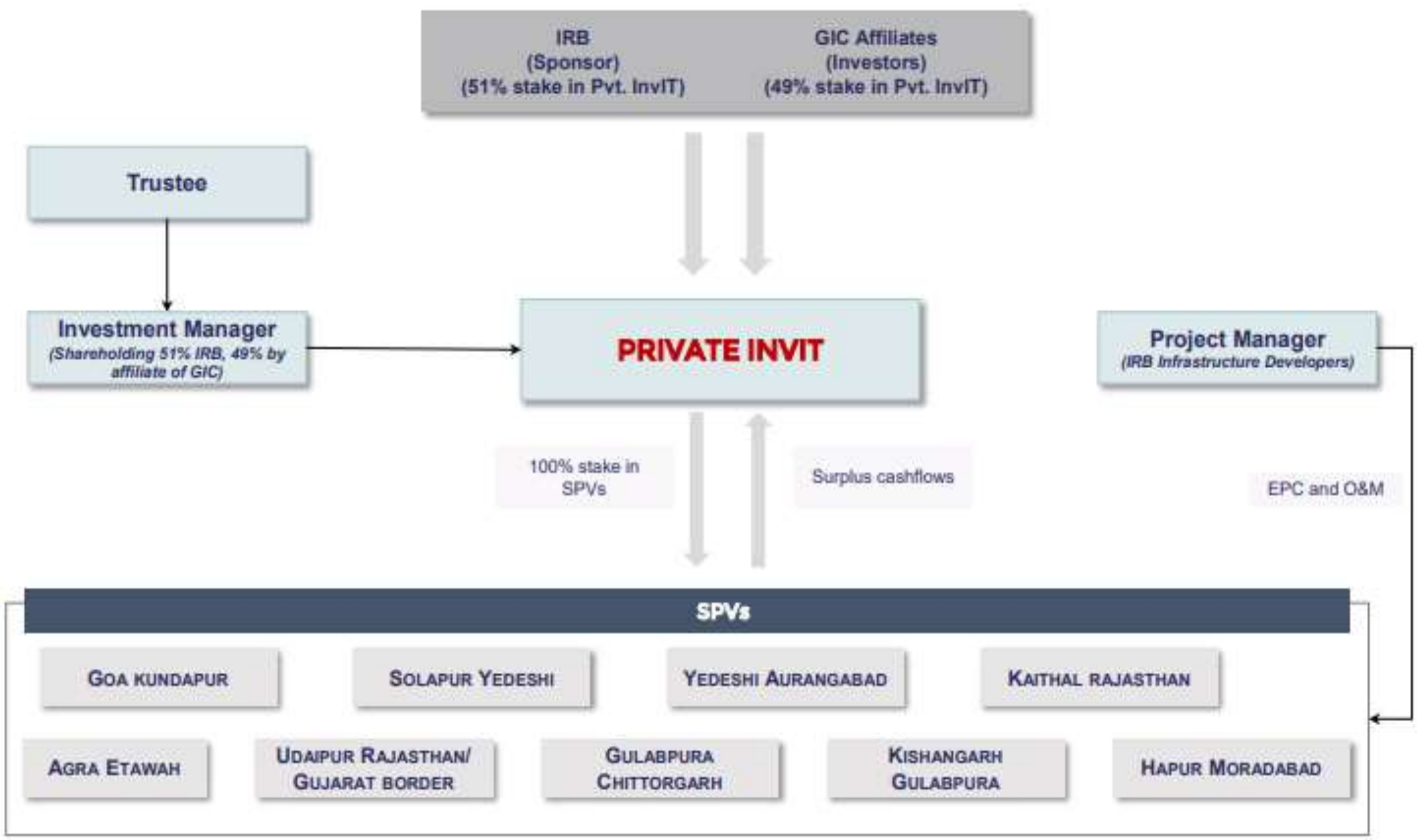
IRB transferred assets to the invIT : IRB transferred 9 of its existing BOT Concessions to a Private InvIT for 51% stake alongwith management control in the Private InvIT. The balance EPC and O&M for the Portfolio will be the responsibility of IRB.

GIC invested INR 4,400 cr: GIC invested INR 4,400 cr for 49% stake in the invIT. GIC will have standard and customary rights of a Financial Investor including corresponding board representation. Additionally, GIC has committed to participate in sponsor contribution to the extent of 49% i.e INR 1,500 cr in Palshit Dankuni and Ganga Project.

End utilization of proceeds: The proceeds from GIC affiliates' investment was utilised for deleveraging of the portfolio and equity funding for under construction projects of the Portfolio.

By transferring its assets to private invIT, IRB was able to reduce the consolidated Net Debt to Equity from 2.1:1 pre invIT to 1.6:1 post invIT thereby strengthening the balance sheet & thus reducing the cost of capital.

Private invIT with GIC



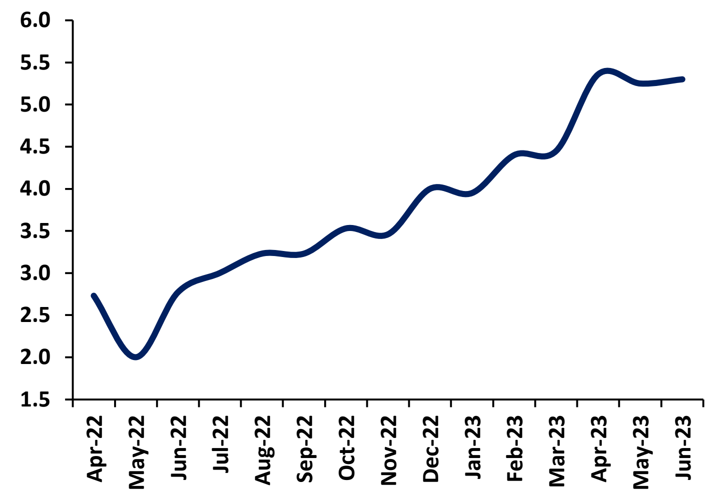
Source: Company & Ventura Research, Palsit Dankuni was added subsequently

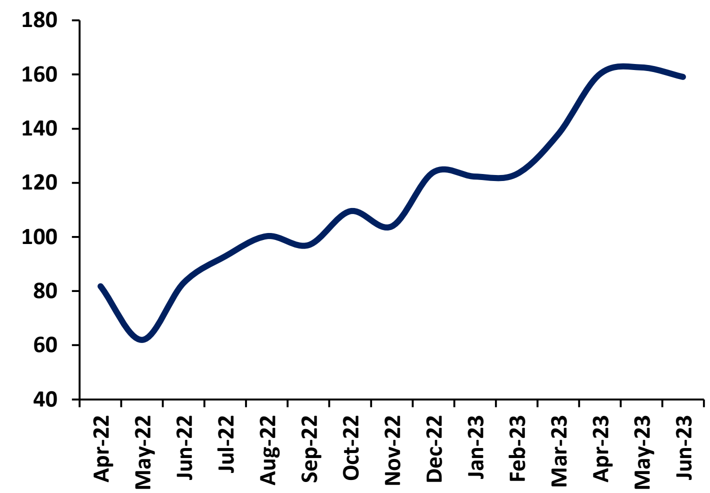
Assets under Private InvIT

Project	Project Cost INR cr
Goa Kundapur	3,477
Solapur Yedeshi	1,590
Yedeshi Aurangabad	4,177
Kaithal Rajasthan	2,323
Agra Etawah	3,044
Hapur Moradabad	3,345
Udaipur GJ Border	2,531
Gulabpura Chittorgarh	2,009
Kishangarh Gulabpura	1,526
Palsit Dankuni	2,314
Total	26,336

Source: Company & Ventura Research

Assets under private InvIT has seen an improvement in toll collection





Source: Company & Ventura Research

Public InvIT

The public invIT listed in May,2017 and consists of BOT-Toll assets with proven traffic history spread across different states including Maharashtra, Gujarat, Rajasthan, Karnataka, Punjab & Tamil Nadu. The assets under this InvIT consists as per below list:

It is to be noted that unit holders have unanimously approved (99%) acquisition of VK1 HAM from IRB. This paves way for transfer of future HAM assets to Public InvIT upon completion.

Assets under Public InvIT

Project	Project Cost INR cr
Talegaon Amravati	888
Amritsar Pathankot	1,445
Jaipur Deoli	1,733
Tumkur Chitradurga	1,142
Omallur Salem Namakkal	308
Total	5,516

`Source: Company & Ventura Research

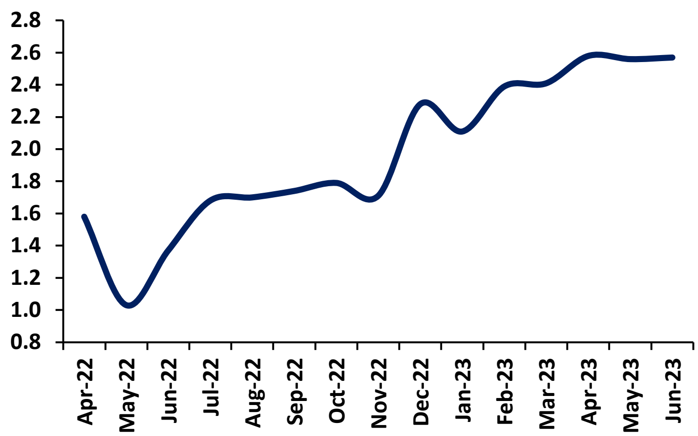
List of major shareholders

Sr No	Unit Holder	% holding
1	IRB Infrastructure Developers (sponsor)	16.0%
2	Government Of Singapore	7.8%
3	Aditya Birla Sun Life Trustee	6.4%
4	CIM Investment Fund	4.2%
5	BNY Mellon Investment Funds	4.1%
6	Prusik Umbrella Ucits Fund	4.0%
7	Monetary Authority Of Singapore	2.6%
8	Virendra D Mhaiskar	2.1%
9	PFIL Securities	2.1%
10	Pace Stock Broking Services	1.8%
11	Nomura Singapore	1.7%
12	HDFC Life Insurance	1.7%
13	Schroder Asian Asset Income Fund	1.5%
	Total	**56.0%**

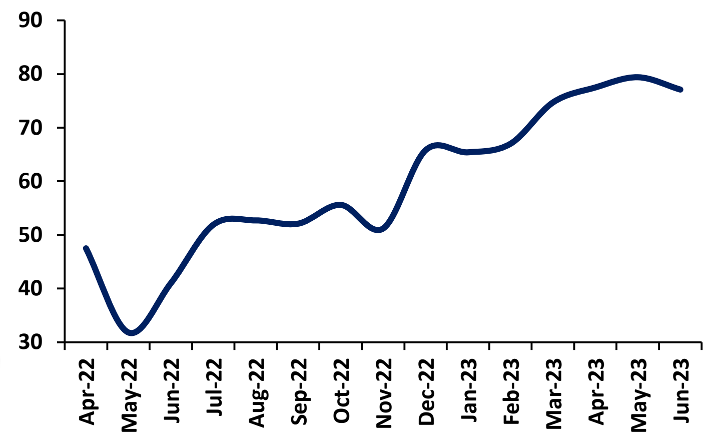
Source: Company & Ventura Research

Assets under private InvIT have seen an improvement in toll collection

Daily toll collection in INR cr



Toll collection in INR cr



Source: Company & Ventura Research

With most projects entering self-sustenance, IRB is expected to refinance the existing capital structure leading to improvement in cash flows and IRR

IRB is working towards return enhancement by bringing down the cost of debt and refinancing. Given current stronger balance sheet and improved credit rating it is able to seek even better financing terms and optimize the capital structure of the project. For its 2 projects Solapur Yedeshi and Yedeshi Aurangabad both under Private InvIT, better refinancing terms is expected to lead to an additional cash flow saving to the tune of INR 500 cr over next 5 years. We believe that it is just the tip of the iceberg and the same will be taken up for rest of the projects in a phased manner over coming quarters.

Unlocking Value through Financial Re-Engineering

- Yedeshi Aurangabad Tollway Limited (**"YATL"**), 100% SPV of IRB Infrastructure Trust (InvIT) which is backed by IRB (51%) and GIC Singapore (49%), has successfully refinanced its existing term loan through issuance of NCDs of INR 1,515 Cr listed on BSE EBP Platform
- YATL is fully operational and stabilised project with a tolling history of more than 3 years and residual concession life of ~22 years
- Avener Capital was the exclusive advisor to YATL for the aforementioned NCDs issue

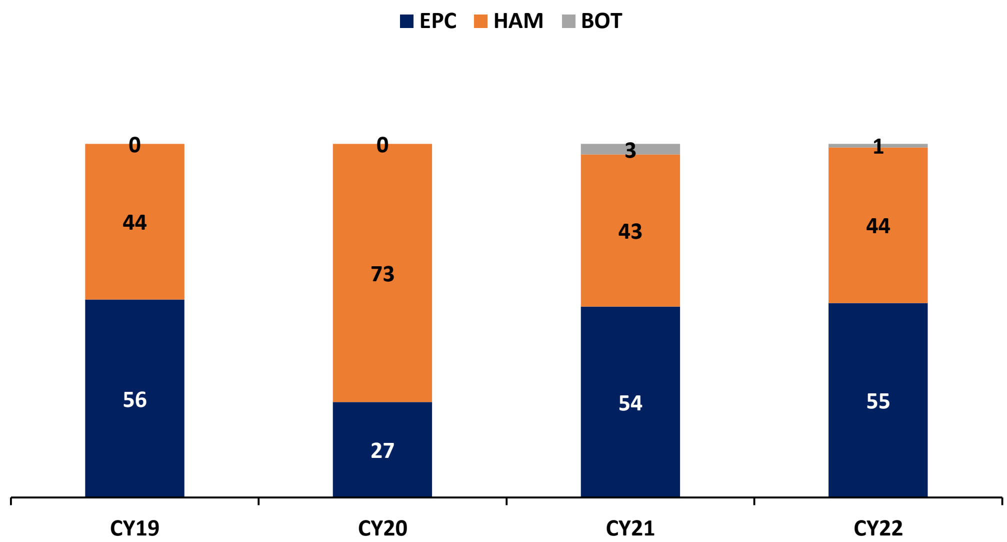
Parameters	Existing Structure (Term Loan)	Revised Structure (NCD)
Coupon	Floating coupon linked to MCLR (exposed to Interest Rate Risk)	Fixed coupon (Interest Rate Risk has been fully mitigated)
Amortization	Amortizing term loan, maturing in FY34 with 30% (INR 400 Cr) due in next 5 years	Bullet redemption at the end of 5 years to be refinanced and amortized over project life resulting in substantial increase in distributable surplus cashflows
Funded MMR and DSR	Floating DSR and MMR to be funded from project cashflows	MMR and DSR funded through NCD proceeds
Credit Rating	IND A	CRISIL AAA

Source: Company & Ventura Research

With strong balance sheet and access to capital, road players like IRB and Adani are expected to benefit given renewed focus on BOT

During the Modi's government tenure, road development work was undertaken via either EPC or HAM mode with lower focus on BOT/TOT.

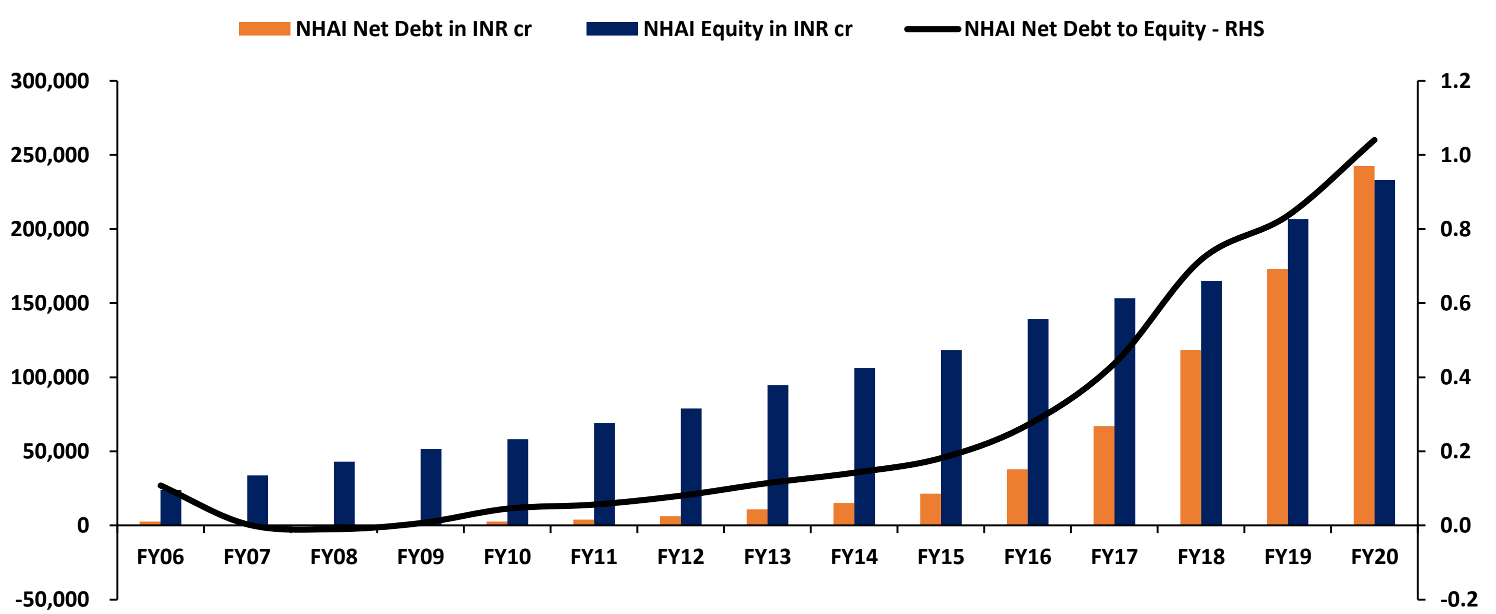
Breakup of new projects awarded in terms of length in %



Source: Company & Ventura Research

Also, aggressive road development meant that fund requirements were also elevated. This blitzkrieg road asset development was funded via the debt leveraging NHAI balance sheet.

Infusion of own funds lead to increase in net debt to equity of NHAI



Source: Company & Ventura Research

With government's share of spending on road projects hitting all-time highs of ~80% (compared to 50-70% between FY10-13), NHAI net debt to equity ratio increased from 0.1x in FY14 to 1.0x in FY20.

Government share of expenditure on national highways has been at record levels vis a vis private sector

	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Govt expenditure on NH	19,662	27,141	35,952	21,694	30,386	30,295	66,369	76,275	102,852	137,354	82,723
Share of govt expenditure	*69.6%*	*63.9%*	*58.0%*	*51.7%*	*57.4%*	*61.2%*	*69.0%*	*82.6%*	*86.2%*	*86.4%*	*79.0%*
Pvt expenditure on NH	8,573	15,354	25,999	20,305	22,515	19,232	29,770	16,029	16,501	21,605	21,926
Share of private expenditu	*30.4%*	*36.1%*	*42.0%*	*48.3%*	*42.6%*	*38.8%*	*31.0%*	*17.4%*	*13.8%*	*13.6%*	*21.0%*
Gross Fiscal Deficit (%)	6.5	4.8	5.9	4.9	4.5	4.1	3.9	3.5	3.5	3.4	4.7
Net Fiscal Deficit (%)	6.4	4.6	5.9	4.9	4.4	4.0	3.8	3.4	3.4	3.4	4.6
Gross Primary Deficit (%)	3.2	1.8	2.8	1.8	1.1	0.9	0.7	0.4	0.4	0.4	1.6
Net Primary Deficit (%)	3.4	1.9	3.0	1.9	1.3	0.9	0.8	0.3	0.4	0.4	1.6
Revenue Deficit (%)	5.2	3.2	4.5	3.7	3.2	2.9	2.5	2.1	2.6	2.4	3.3

Source: Company Reports, Ventura Research

With recent flagging of debt situation of NHAI by PMO, there is a shift expected in the ministry's policy with increase in awarding towards BOT/TOT to enhance private participation. We believe that with asset ownership being an increasingly favorable awarding methodology, IRB and Adani are well placed to benefit from this trend given their strong balance sheet/access to global capital.

IRB's strategy is to bid for projects in HAM, BOT and TOT model given less competition than traditional EPC model.

	Different types of road model				
Items	**HAM**	**BOT**	**TOT**	**EPC**	**OMT Tolling**
Description	Mix of EPC & BOT Design	Build – Finance – Operate – Transfer	Right to collect user fees or tolls on highway stretches	Developer to lay roads with no role in ownership	Right to collect user fees or tolls on highway stretches
Concession Period	Construction Period (2 – 2.5 years) + Fixed Operations Period of 15	Construction Period (2 – 2.5 years) + Operations Period of	20 years	N/A	3-5 years
Revenue	Annuity	Toll collection / Annuity	Toll collection	Based on Project Value	Toll collection
Funding by Developer	For funding 60% of Bid Project Cost (BPC) (Govt. Grant- 40%)	For funding 100% project cost	For funding 100% upfront Concession Fee + 100% augmentation	Working Capital based on milestones	For funding 100% Concession Fee in installments
Financing Risks	Concessionaire & Authority. 40% of BPC funded by Authority	Concessionaire	Concessionaire	Authority	Concessionaire
O&M Risk	Concessionaire	Concessionaire	Concessionaire	Authority	Concessionaire
Revenue Risk	Authority	BOT Toll – Concessionaire BOT Annuity - Authority	Concessionaire	Authority	Concessionaire
Award of Contract	Lowest Bid NPV (NPV of Bid Project Cost & 15 years O&M)	BOT Toll – Lowest Grant / Highest Premium BOT Annuity – Lowest	Highest Upfront Concession Fee	Lowest Construction Cost	Highest 1st year concession fee or minimum O&M support

Source: Company, Ventura research

Revenues are expected to grow at 14.7% CAGR over FY22-25

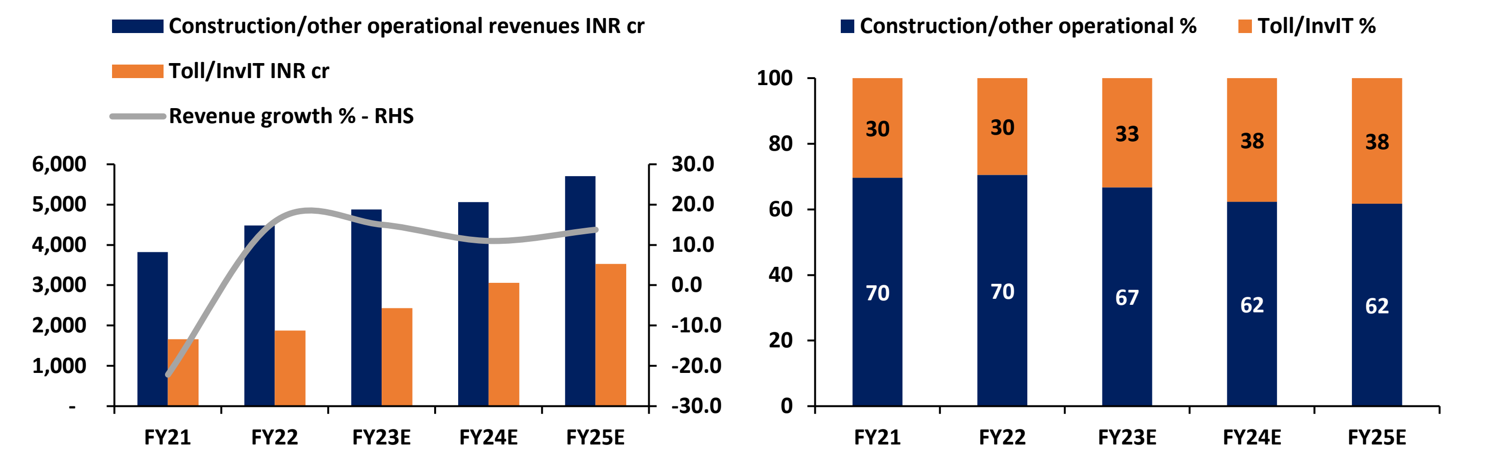
We expect IRB's total revenues to grow at a CAGR of 14.7% to INR 9,602.1 cr over FY22-25E on the back of :

- 10.7% CAGR in construction/other revenues
- 23.4% CAGR in toll/InvIT receipts

The topline is also expected to see a big boost from recent inflationary trend. Wholesale Price Index (WPI) Linked Toll Rates Provide Protection to Toll Cash Flows in an Inflationary Environment with Increasing Interest Rates

Post 2008, toll rate for NHAI projects is revised annually in April at 3% fixed rate plus 40% of change in WPI for December. For projects that were bidded prior to 2008, Hike in toll rates is linked to March WPI. The tariff revision for state projects is as per respective concession agreement. As per management, high growth in toll rates coupled with a 5% - 6% traffic growth is expected to result in a 14% - 15% growth in toll collections in FY23. Also, the healthy growth in toll collections is expected to outweigh the increase in maintenance cost, resulting in improvement in debt servicing capabilities.

Total revenues is expected to grow at 14.7% CAGR over FY22-25



Source: Company Reports & Ventura Research

EBITDA is expected to grow at 11.2% CAGR over FY22-25; high CFO should lead to fall in total debt and thus spike in net earnings

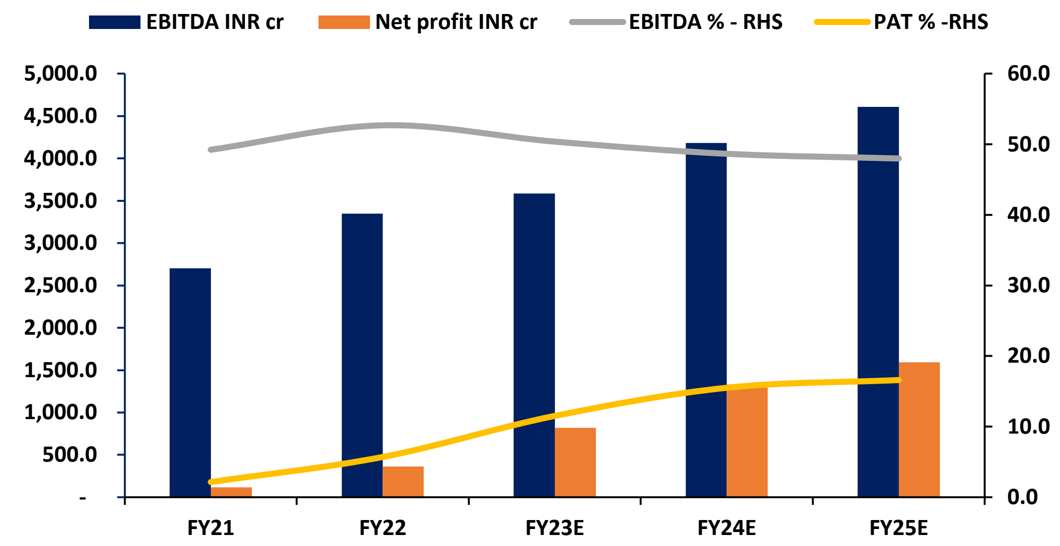
IRB's EBITDA is expected to grow at 11.2% CAGR. In terms of blended margins, we expect the same to fall by 470bps from 52.7% in FY22 to 48.0% in FY25.

We expect total debt to fall from INR 13,822.5 cr in FY22 to INR 13,232.1 cr in FY25 while net debt should fall from INR 11,615.4 cr in FY22 to INR 6,136.0 cr in FY25.

We expect IRB to kick in major refinancing activity for its projects with stable cash flows which should lead to fall in interest costs by 9.8% CAGR over FY22-25.

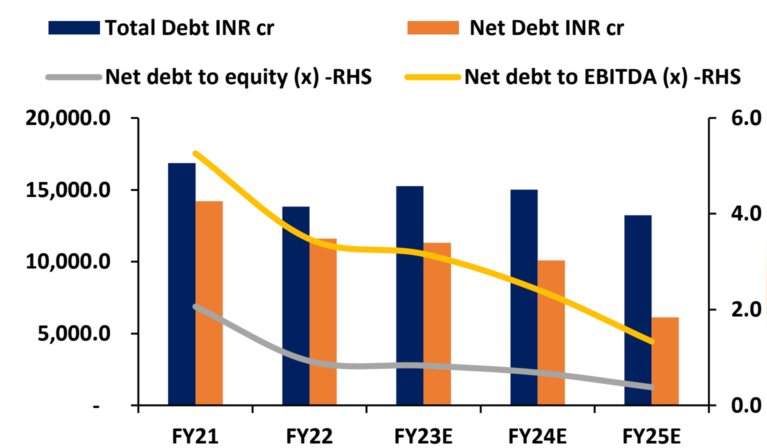
Overall, we expect net earnings to grow at 64.0% CAGR over FY22-25 from INR 361.2 cr in FY22 to INR 1,592.8 cr in FY25 with net margins rising by 1,090bps from 5.7% in FY22 to 16.6% in FY25.

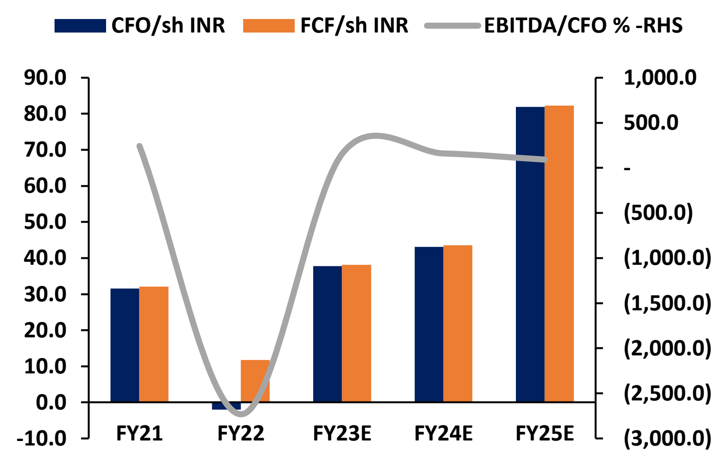
EBITDA is expected to grow at 11.2% CAGR over FY22-25



Source: Company & Ventura Research

Better cash flow generation to help bring down net debt





Source: Company Reports & Ventura Research

Return ratios set to jump as margins improve

IRB is expected to see a jump in its net margin by 1,090 bps over FY22-25 given benefits of operating leverage and better refinancing to lead to 9.8% decline in finance costs.

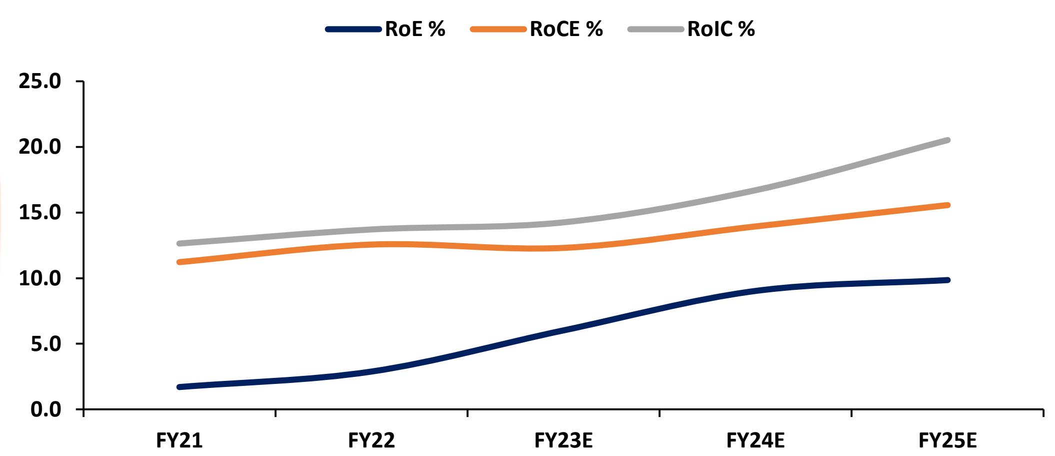
Better PAT margin is expected to lead to a jump in return ratios namely RoE, RoCE and RoIC by 697/300/680bps from 2.9%/12.6%/13.7% in FY22 to 9.8%/15.6%/20.5% in FY25.

Decomposition of RoE

	FY21	FY22	FY23E	FY24E	FY25E
PAT margin %	2.1	5.7	11.5	15.5	16.6
Asset turnover %	0.1	0.2	0.2	0.2	0.2
Leverage %	5.7	3.3	3.2	3.0	2.7
RoE %	**1.7**	**2.9**	**6.0**	**9.0**	**9.8**

Source: Company & Ventura Research

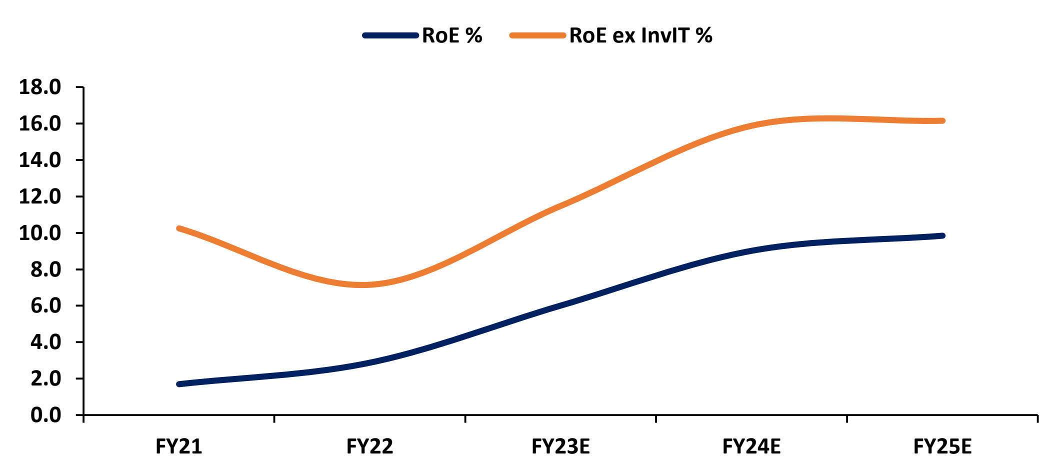
Return ratios set to expand due to better profitability



Source: Company & Ventura Research

Also, since a large part of investment is attributed to PvT InvIT where BOT assets transferred are in initial phase (even though self-sustaining), the RoE excluding investment in PvT InviT is much higher than the consolidated RoE.

Return ratios set to expand due to better profitability



Source: Company & Ventura Research

Valuation

We have used SoTP method for IRB valuation. Our CoC assumption is as follows:

Return ratios set to expand due to better profitability

I. Projects where revenue booking has not yet commenced

Particulars	Cost	Mix	%
Cost of Equity	14.0	60%	8.4
Cost of Debt	9.0	40%	3.6
WACC			**12.0**

II. Projects where revenue booking has already commenced

Particulars	Cost	Mix	%
Cost of Equity	12.5	60%	7.5
Cost of Debt	8.5	40%	3.4
WACC			**10.9**

III. For Mumbai Pune - Project has more than 15 years history

Particulars	Cost	Mix	%
Cost of Equity	11.0	60%	6.6
Cost of Debt	8.0	40%	3.2
WACC			**9.8**

Source: Company & Ventura Research

Valuation

Sr No	Particulars	Valuation	Debt (net)	Net Value	Present Value	IRB's Share	Value (IRB)	Remarks
1	EPC Business	41,073	475	40,598	20,568	100%	20,568	Total EBIDTA*12 (less MP and AV and PVT Invit interest)
2	PVT Invit + Ganga*							
	Terminal	43,975	-	43,975	22,279	51%	11,362	EBIDTA for FY31*12
	Interim till FY30	15,094	17,050	(1,956)	(1,956)	51%	(998)	
3	IRBAV	11,445	8,192	3,253	3,253	100%	3,253	DCF till end of concession period
4	IRB MP	8,154	4,318	3,836	3,836	100%	3,836	DCF till end of concession period
6	HAM	690	-	690	350	100%	350	Remaining Investment in HAM in FY31 and PV of the same for FY25
7	New BOT projects	3,383	-	3,383	2,385	100%	2,385	Investment in BOT till FY31 and PV of the same for FY25
8	Cash Surplus	6,477	-	6,477	3,282	100%	3,282	Gross cash surplus less (Cash surplus of MP, distribution from Private Invit as same considered in DCF, Investment in new BOT assets)
	Total Value	130,291	30,036	100,256			44,038	
	No. of shares						60.4	
	Value per share						729.2	

Source: Company & Ventura Research, We have not ascribed value to non-core assets being real estate and airport having book value of ~INR 1,131 cr,
** Ganga is clubbed with Pvt Invit*

Business Quality Score

Key Criteria	Score	Risk	Comments
Management & Leadership			
Management/Board Quality	7	Low	IRB has historically been perceived to be promoter driven even though the management team consists of people with high industry experience. However, recent inductees to the board from Cintra along with their advisory team and observer from GIC should lead to significant improvement in governance.
Promoters Holding Pledge	7	Low	The promoter holding is 34.2% which is low. As per management, 49.1% of promoter's share has been kept under NDU and no debt has been taken against this NDU but the same is in relation to investment by Cintra and GIC which is infact positive for the shareholders.
Industry Consideration			
Industry Growth	7	Low	The govt has announced schemes like Bharatmala which provides long term visbility for road players. Industry is however expected to see consolidation going forward with weaker players gradually moving out of the industry while large players gaining market share.
Regulatory Environment or Risk	5	Medium	NHAI is mostly the awarding as well as regulatory body for road players. The companies are expected to complete projects within required timeline or else face punitive action from the body.
Business Prospects			
New Business / Client Potential	7	Low	IRB is focused on roads sector and is already a PAN India.
Margin Expansion Potential	7	Low	The margins depend on change in mix. However, IRB enjoys strong construction margins of >30% for most of its projects.
Earnings Growth	8	Low	We expect net income to grow at 77.0% CAGR over FY22-25.
Valuation and Risk			
Balance Sheet Strength	8	Low	While current net debt to equity stands at 0.9x in FY22, we expect the same to improve to 0.3x by FY25.
Dividend Policy	6	Low	Owing to COVID, the management opined to conserve liquidity and therefore did not declare dividend in FY21 & FY22. However, historically IRB has been regular in payment of dividend in line with their dividend policy of 20% payout.
Total Score	**62**	**Medium**	**The overall risk profile of the company is good and we consider it as a medium risk company for investments**
Ventura score (%)	**69**		

Source: Company Reports & Ventura Research, Total score >=75 = low risk, between 50-74 = medium risk, less than 50= high risk

Annual Report Takeaways

We analyzed the FY22 annual report of IRBI and our key observations are as follows:

Key Takeaways for IRBI

Industry Overview

Infrastructure sector is a key driver for the Indian economy. The Government of India has given a significant push for capital expenditures for key infrastructure sectors, especially highways. The total allocation for the highways sector has increased to INR 1.99 lakh crore from INR 1.18 lakh crore in the fiscal years 2021 to 2022. Robust demand, higher investments, attractive opportunities and policy support changed the face of the road sector in the country within three years.

Opportunity

GoI has launched many initiatives like National Infrastructure Pipeline and Pradhan Mantri (PM) Gati Shkati National Master Plan (NMP).

Trends

Some recent trends in road and highway sector are:

- National Electronic Toll Collection (FASTag) programme.
- Different type of PPP models used in road projects such as BOT toll, TOT and HAM.
- With the Government permitting 100% Foreign Direct Investment (FDI) in the road sector, Cumulative FDI in construction development stood at US$ 26.21 billion between April 2000-March 2022.

Board of Directors

Details of Board of Directors

Particulars	FY19	FY20	FY21	FY22
Mr. Virendra D. Mhaiskar	CMD	CMD	CMD	CMD
Mrs. Deepali V. Mhaiskar	WTD	WTD	WTD	WTD
Mr Jose Angel Tamariz Martel Goncer				NED
Mr. Ravindra Dhariwal				Add. NED
Mr. Chandrashekar S. Kaptan	D	D	ID	ID
Mr. Sunil Talati	D	D	ID	ID
Mr. Sandeep J. Shah	D	D	ID	ID
Ms. Priti Savla				ID
Mr. Sudhir Hoshing	JMD	JMD	JMD	JMD
Mr. Mukesh Lal Gupta	JMD	JMD	JMD	JMD
Mrs. Heena Raja	D	D	ID	ID
Mr. Carlos Ricardo Ugarte Cruz Coke				NED
Mr. Sunil Tandon	D			

Source: Annual Reports

Auditor’s qualifications and significant notes to accounts

B S R & Co LLP (KPMG) & Gokhale & Sathe are the joint auditors and there were no qualifications/emphasis of matters highlighted by them in the FY22 Annual Report.

Related Party Transactions and Balances

Due to the very nature of industry (separate SPV for each project), related party transactions are high. However, it is to be noted that most of the related party transactions are with subsidiaries, Pvt InvIT and Public InvIT except remuneration and sitting fees to KMPs/directors. No transaction exists with Promoter or promoter entities.

Contingent Liabilities

IRBI’s contingent liabilities reduced over the past 4 years even with increase in business.

IRBI’s Contingent Liabilities

Particulars	FY19	FY20	FY21	FY22
Guarantees given by the Company to banks for loans to subsidiary	673.1	666.2	680.8	271.0
Guarantees given to others for subsidiary	535.1	509.6	385.2	375.6
Guarantees and counter guarantees on behalf of subsidiaries given by the Company	540.8	309.6	215.9	425.6
Guarantees and counter guarantees on behalf of joint ventures given by the Company	0.0	87.2	46.0	0.0
Bank guarantees towards bids/tenders/ etc	94.5	66.7	46.1	41.2
Total Contingent Liabilities	1,843.5	1,639.3	1,374.0	1,113.4
Contingent Liabilities to Net Worth (%)	*29.2*	*24.5*	*19.9*	*8.9*
Contingent Liabilities to Sales (%)	*26.7*	*23.3*	*25.0*	*17.5*

Source: Annual Reports

Key management personnel (KMP) details

KMP details		
Key Person	**Designation**	**Details**
Virendra D. Mhaiskar	**Chairman and Managing Director**	He holds a diploma in civil engineering from Shriram Polytechnic, Navi Mumbai. He has an experience of 30+ years in the construction and infrastructure industry. He is responsible for developing new business, executing road construction and BOT projects.
Sudhir Hoshing	**CEO- Execution**	He holds a Graduate degree in Civil Engineering and is a Management Graduate from ICFAI (Institute of Chartered Financial Analysts of India). He has an experience of 36+ years.
Dhanajay K Joshi	**CEO- Corporate**	He holds a Bachelor's degree in Commerce and a Bachelor's degree in Law from Mumbai University. He has a work experience of over seventeen years in the field of Operations Management. Mr. Joshi has worked in various capacities with the IRB group of companies.
Anil D Yadav	**Director- Investor relations**	He is a member of the Institute of Chartered Accountants of India. He also holds a Master's degree in commerce and Bachelor of Laws from University of Mumbai. He has approximately 18 years of experience in the fields of audit, taxation and consultancy and has been with the Company for more than 14 years.
Tushar Kawedia	**Group CFO**	Mr. Tushar Kawedia, holds a Bachelor's Degree in Commerce and is a qualified Chartered Accountant (ICAI). He has more than 20 years of experience in the fields of Accounts, Audit, Finance, Taxation and business reorganisation.
Rajpaul Sharma	**Head-Project Monitoring and Evaluation**	He is responsible for evaluation and budgeting of new projects, finalizing contracts and ensuring completion of projects within approved budgets He holds a Bachelor's degree in Civil Engineering from Amravati University, Amravati. Mr. Sharma has an overall experience of approximately 28 years in the construction industry.
Vinod Menon	**President, Business Development & Tendering**	He holds a Bachelor of Technology degree in Civil Engineering. He has experience of 35+ years in the fields of infrastructure development and management. Previously, he was the president (business development) of the Sponsor.
Amitabh Murarka	**Chief Revenue officer**	He has 20 years of wide experience in the field of accounts, contracts, taxation, logistics and business development. He is working with IRB since 2016. Prior to joining IRB, he was associated with Tatva Global Environment Ltd.

Source: Company, Ventura Research

Key Risks & Concerns

- **Competition risk**: Attractive growth opportunities exist in the road construction sector, especially with the government going full throttle on infrastructure development. This may increase the number of players operating in the industry.

- **Availability of capital and interest rate risk**: Infrastructure projects are typically capital intensive and require high levels of long-term debt financing. IRB intends to pursue a strategy of continued investments in infrastructure development projects. In the past, it has been able to infuse equity and arrange for debt financing on acceptable terms for the projects.

  However, future capital requirements and arrangements depend on various factors like timing and internal accruals, timing and size of the projects awarded, credit availability from banks and financial institutions, and the success of its current infrastructure development projects.

- **Traffic growth risk** : Toll revenue is a function of toll rates and traffic growth. For toll rates, the government plans to link toll rate increases to changes in the Wholesale Price Index (WPI).

  Toll rates of the Company's projects awarded after 2008 are decided based on a formula, which is 3% fixed plus 40% of WPI. On 4 to 6 lanning projects, toll collection starts from the appointed date with a 75% tariff and rate revision happens on completion of the asset. The Company's other projects including state highway projects have annual revision linked with WPI or periodical increase clause in their concession agreement.

  Traffic growth is mostly related with economic activity and hence can fluctuate in the medium term.

- **Input cost risk** : Raw materials, such as bitumen, stone aggregates, cement and steel need to be supplied continuously to complete projects. There is also a risk of cost escalations or raw material shortages.

- **Labour risk :** Timely availability of skilled and technical personnel is one of the key challenge for the industry.

Quarterly and Annual Performance

Fig in INR Cr (unless specified)	FY20	FY21	Q1FY22	Q2FY22	Q3FY22	Q4FY22	FY22	Q1FY23	FY23	FY24	FY25
Revenue from operations	**7,047.4**	**5,487.5**	**1,670.5**	**1,504.4**	**1,497.8**	**1,682.7**	**6,355.5**	**1,995.4**	**7,114.7**	**8,594.7**	**9,602.1**
YoY Growth (%)	*2.2*	*(22.7)*	*59.0*	*30.4*	*(17.3)*	*(10.7)*	*9.5*	*18.4*	*11.9*	*20.8*	*11.7*
EBITDA	**3,166.4**	**2,701.8**	**744.7**	**756.9**	**957.0**	**890.7**	**3,349.3**	**1,131.5**	**3,584.7**	**4,182.2**	**4,608.3**
EBITDA Margin (%)	*44.9*	*49.2*	*44.6*	*50.3*	*63.9*	*52.9*	*52.7*	*56.7*	*50.4*	*48.7*	*48.0*
Net Profit	**720.7**	**116.9**	**71.9**	**42.3**	**72.7**	**174.5**	**361.4**	**363.2**	**818.6**	**1,331.6**	**1,592.8**
Net Margin (%)	*10.2*	*2.1*	*4.3*	*2.8*	*4.9*	*10.4*	*5.7*	*18.2*	*11.5*	*15.5*	*16.6*
Net Worth	**6,682.9**	**6,900.8**					**12,565.4**		**13,617.0**	**14,767.6**	**16,179.4**
Return on Equity (%)	*10.8*	*1.7*					*2.9*		*6.0*	*9.0*	*9.8*
Capital Employed	**14,287.0**	**23,756.1**					**26,387.9**		**28,867.9**	**29,775.5**	**29,411.4**
Return on Capital Employed (%)	*21.9*	*11.2*					*12.6*		*12.3*	*13.9*	*15.6*
Invested Capital	**12,016.3**	**21,110.7**					**24,180.8**		**24,942.5**	**24,864.9**	**22,315.4**
Return on Invested Capital (%)	*26.0*	*12.6*					*13.7*		*14.3*	*16.7*	*20.5*
Cash Flow from Operations	3,250.3	559.9					(772.1)		2,278.7	2,601.9	4,943.9
Cash Flow from Investing	6,914.3	(7,743.9)					5,257.3		(551.4)	1.7	405.7
Cash Flow from Financing	(9,466.1)	7,558.7					(4,923.5)		(8.9)	(1,618.4)	(3,164.2)
Net Cash Flow	**698.5**	**374.7**					**(438.4)**		**1,718.4**	**985.2**	**2,185.5**
FCF to EBITDA (%)	*98.1*	*21.4*					*1.7*		*64.3*	*62.8*	*107.8*
FCF to Net Profit (%)	*430.8*	*494.3*					*16.1*		*281.4*	*197.3*	*312.0*
FCF to Net Worth (%)	*46.5*	*8.4*					*0.5*		*16.9*	*17.8*	*30.7*
Total Debt	**7,604.2**	**16,855.3**					**13,822.5**		**15,250.9**	**15,007.9**	**13,232.1**
Net Debt	**5,333.5**	**14,209.9**					**11,615.4**		**11,325.5**	**10,097.3**	**6,136.0**
Net Debt to Equity (X)	*0.8*	*2.1*					*0.9*		*0.8*	*0.7*	*0.4*
Net Debt to EBITDA (X)	*1.7*	*5.3*					*3.5*		*3.2*	*2.4*	*1.3*
Interest Coverage Ratio (X)	*2.0*	*1.6*					*1.4*		*1.9*	*2.3*	*2.5*

Source: Company Reports & Ventura Research

Financial Analysis & Projections

Fig in INR Cr (unless specified)	FY21	FY22	FY23E	FY24E	FY25E
Income Statement					
Revenue	**5,487.5**	**6,355.4**	**7,114.7**	**8,594.7**	**9,602.1**
YoY Growth (%)	*(22.1)*	*15.8*	*11.9*	*20.8*	*11.7*
Construction Costs	2,628.0	2,837.0	3,394.9	4,153.0	4,542.9
RM Cost to Sales (%)	*47.9*	*44.6*	*47.7*	*48.3*	*47.3*
O&M expenses	157.7	169.4	135.1	259.4	451.0
O&M expenses to Sales (%)	*2.9*	*2.7*	*1.9*	*3.0*	*4.7*
EBITDA	**2,701.8**	**3,349.1**	**3,584.7**	**4,182.2**	**4,608.3**
Margin (%)	*49.2*	*52.7*	*50.4*	*48.7*	*48.0*
YoY Growth (%)	*(14.7)*	*24.0*	*7.0*	*16.7*	*10.2*
Depreciation & Amortization	582.0	682.8	894.5	1,079.7	1,149.8
EBIT	**2,119.8**	**2,666.3**	**2,690.2**	**3,102.5**	**3,458.5**
Margin (%)	*38.6*	*42.0*	*37.8*	*36.1*	*36.0*
YoY Growth (%)	*(21.4)*	*25.8*	*0.9*	*15.3*	*11.5*
Other Income	0.0	0.0	0.0	0.0	0.0
Finance Cost	1,692.4	1,890.6	1,437.3	1,375.5	1,388.3
Interest Coverage (X)	*1.3*	*1.4*	*1.9*	*2.3*	*2.5*
Exceptional Item	0.0	0.0	0.0	0.0	0.0
PBT	**427.4**	**775.7**	**1,252.9**	**1,727.0**	**2,070.2**
Margin (%)	*7.8*	*12.2*	*17.6*	*20.1*	*21.6*
YoY Growth (%)	*(63.6)*	*81.5*	*61.5*	*37.8*	*19.9*
Tax Expense	144.5	188.2	315.4	314.9	452.6
Tax Rate (%)	*33.8*	*24.3*	*25.2*	*18.2*	*21.9*
PAT	**282.9**	**587.5**	**937.5**	**1,412.1**	**1,617.6**
Margin (%)	*5.2*	*9.2*	*13.2*	*16.4*	*16.8*
YoY Growth (%)	*(60.7)*	*107.7*	*59.6*	*50.6*	*14.6*
Min Int/Sh of Assoc	(166.0)	(226.2)	(118.9)	(80.5)	(24.8)
Net Profit	**116.9**	**361.2**	**818.6**	**1,331.6**	**1,592.8**
Margin (%)	*2.1*	*5.7*	*11.5*	*15.5*	*16.6*
YoY Growth (%)	*(83.8)*	*209.0*	*126.6*	*62.7*	*19.6*
Net profit to EBITDA (%)	*4.3*	*10.8*	*22.8*	*31.8*	*34.6*
Balance Sheet					
Share Capital	351.5	603.9	603.9	603.9	603.9
Total Reserves	6,549.3	11,961.7	13,013.3	14,163.9	15,575.7
Shareholders Fund	**6,900.8**	**12,565.4**	**13,617.0**	**14,767.6**	**16,179.4**
Long Term Borrowings	16,855.3	13,822.5	15,250.9	15,007.9	13,232.1
Deferred Tax Assets / Liabilities	2.7	85.4	85.4	85.4	85.4
Other Long Term Liabilities	50.0	59.6	59.6	59.6	59.6
Long Term Trade Payables	1,193.7	208.3	(0.5)	0.0	0.0
Premium obligation	14,619.8	14,666.9	14,687.7	14,676.4	14,810.7
Total Liabilities	**39,622.3**	**41,408.0**	**43,700.1**	**44,596.9**	**44,367.1**
Net Block	174.7	971.7	966.7	961.7	956.7
Receivables for HAM	976.8	1,081.7	2,036.5	2,951.7	2,117.0
Unamortised BOT asset	13,331.0	11,824.7	11,138.2	10,138.5	9,205.2
Investments ex Public InvIT	7,942.0	7,935.8	8,510.1	8,442.8	8,000.3
Public InvIT	496.0	487.5	470.2	454.4	441.2
Premium obligation	14,240.3	14,123.1	13,958.1	13,772.7	13,564.4
Net other current assets	(183.9)	2,778.0	2,694.8	2,964.5	2,986.2
Cash & Bank	2,645.4	2,207.0	3,925.4	4,910.6	7,096.1
Total Assets	**39,622.3**	**41,408.0**	**43,700.1**	**44,596.9**	**44,367.1**

Fig in INR Cr (unless specified)	FY21	FY22	FY23E	FY24E	FY25E
Per share data & Yields					
Adjusted EPS (INR)	3.3	6.0	13.6	22.1	26.4
Adjusted Cash EPS (INR)	4.3	6.5	14.1	22.5	26.9
Adjusted BVPS (INR)	196.4	208.1	225.5	244.5	267.9
Adjusted CFO per share (INR)	31.5	(2.0)	37.7	43.1	81.9
CFO Yield (%)	14.7	(0.9)	17.6	20.0	38.1
Adjusted FCF per share (INR)	32.0	11.7	38.1	43.5	82.3
FCF Yield (%)	14.9	5.5	17.7	20.2	38.3
FCF to Net Profit %	963.3	195.9	281.4	197.3	312.0
FCF to EBITDA %	41.7	21.1	64.3	62.8	107.8
FCF to networth %	16.3	5.6	16.9	17.8	30.7
EBITDA/CFO %	243.8	(2,732.9)	157.3	160.7	93.2
Solvency Ratio (X)					
Total Debt to Equity	2.4	1.1	1.1	1.0	0.8
Net Debt to Equity	2.1	0.9	0.8	0.7	0.4
Net Debt to EBITDA	5.3	3.5	3.2	2.4	1.3
Return Ratios (%)					
Networth	6,900.8	12,565.4	13,617.0	14,767.6	16,179.4
Capital employed	23,756.1	26,387.9	28,867.9	29,775.5	29,411.4
Invested capital	21,110.7	24,180.8	24,942.5	24,864.9	22,315.4
Return on Equity	1.7	2.9	6.0	9.0	9.8
Return on Capital Employed	11.2	12.6	12.3	13.9	15.6
Return on Invested Capital	12.6	13.7	14.3	16.7	20.5
Return on incremental invested cap	(4.9)	24.6	9.5	65.8	(117.0)
Valuation (X)					
P/E	64.6	35.9	15.9	9.8	8.2
P/BV	1.1	1.0	1.0	0.9	0.8
EV/EBITDA	10.1	7.3	6.8	5.5	4.1
EV/Sales	5.0	3.9	3.4	2.7	2.0
Cash Flow Statement					
PAT	116.9	361.2	818.6	1,331.6	1,592.8
Adjustments	2,274.4	2,573.4	2,331.9	2,455.2	2,538.1
Change in Working Capital	(1,283.1)	(3,057.2)	(871.7)	(1,184.9)	813.0
Cash Flow from Operations	**1,108.2**	**(122.5)**	**2,278.7**	**2,601.9**	**4,943.9**
Net Capital Expenditure	(18.0)	(830.2)	(25.0)	(25.0)	(25.0)
Change in Investments	(829.8)	16.2	(558.5)	83.1	455.7
Others	(7,444.6)	5,421.7	32.1	(56.4)	(25.0)
Cash Flow from Investing	**(8,292.4)**	**4,607.7**	**(551.4)**	**1.7**	**405.7**
Change in Borrowings	9,251.2	(3,032.9)	1,428.4	(242.9)	(1,775.9)
Less: Finance Cost	(1,692.4)	(1,890.6)	(1,437.3)	(1,375.5)	(1,388.3)
Cash flow from Financing	**7,558.7**	**(4,923.5)**	**(8.9)**	**(1,618.4)**	**(3,164.2)**
Net Cash Flow	**374.6**	**(438.4)**	**1,718.4**	**985.2**	**2,185.5**
Forex Effect	0.0	0.0	0.0	0.0	0.0
Opening Balance of Cash	2,270.7	2,645.3	2,206.9	3,925.3	4,910.5
Closing Balance of Cash	**2,645.4**	**2,207.0**	**3,925.4**	**4,910.6**	**7,096.1**

Source: Company Reports & Ventura Research

Appendix- 1

Details on various road projects of IRB

Mumbai Pune Highway

Mumbai- Pune financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**977**	**1,220**	**1,560**	**1,978**	**2,108**	**2,231**	**2,426**	**2,573**	**2,704**	**2,937**
Growth		*24.9%*	*27.8%*	*26.8%*	*6.6%*	*5.8%*	*8.8%*	*6.0%*	*5.1%*	*8.6%*
Expenses	74	97	99	202	220	226	122	127	297	303
% to revenues	*7.5%*	*8.0%*	*6.3%*	*10.2%*	*10.4%*	*10.1%*	*5.0%*	*4.9%*	*11.0%*	*10.3%*
EBITDA	**903**	**1,123**	**1,461**	**1,776**	**1,888**	**2,004**	**2,304**	**2,445**	**2,407**	**2,634**
% to revenues	*92.5%*	*92.0%*	*93.7%*	*89.8%*	*89.6%*	*89.9%*	*95.0%*	*95.1%*	*89.0%*	*89.7%*
PBT	(64)	(30)	250	445	566	695	991	1,163	1,167	1,361
% to revenues	*-6.5%*	*-2.5%*	*16.0%*	*22.5%*	*26.8%*	*31.1%*	*40.9%*	*45.2%*	*43.2%*	*46.3%*
PAT	**(41)**	**(28)**	**250**	**445**	**451**	**523**	**725**	**840**	**829**	**950**
% to revenues	*-4.2%*	*-2.3%*	*16.0%*	*22.5%*	*21.4%*	*23.4%*	*29.9%*	*32.7%*	*30.6%*	*32.3%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Tolling operation, Maintenance and Transfer of Yashwant Chavan Expressway & National Highway NH-48 (Old NH-4) in the state of Maharashtra
Project cost (INR Mn)	88,750
Project road length	23.7 km
Toll/Annuity	TOT
Current Status	Tolling
Awarding authority	MSRDC
Tolling start date	March 1, 2020
Concession period[a]	10 Years 2 months
Expected completion[a]	April 30, 2030

Source: Company Reports & Ventura Research

Importance of the project

- Mumbai-Pune is one of the most prestigious, busiest and high growth road projects in India connecting two major economic hubs (i.e. Mumbai and Pune).
- It also derives higher growth being a part of Golden Quadrilateral (thus a proxy on economic growth) and due to its proximity to India's largest port – JNPT.
- Further, there is no alternative short or long-distance routes with comparable riding quality and cost efficiency.

Ahmedabad Vadodara

Ahmedabad Vadodara financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**516**	**537**	**635**	**716**	**801**	**888**	**987**	**1,100**	**1,214**	**1,344**
Growth		*4.0%*	*18.3%*	*12.9%*	*11.7%*	*10.9%*	*11.1%*	*11.5%*	*10.3%*	*10.8%*
Expenses	53	64	35	37	194	41	43	45	47	247
% to revenues	*10.2%*	*12.0%*	*5.5%*	*5.2%*	*24.2%*	*4.6%*	*4.4%*	*4.1%*	*3.9%*	*18.4%*
EBITDA	**463**	**472**	**600**	**679**	**607**	**847**	**944**	**1,055**	**1,167**	**1,097**
% to revenues	*89.8%*	*88.0%*	*94.5%*	*94.8%*	*75.8%*	*95.4%*	*95.6%*	*95.9%*	*96.1%*	*81.6%*
PBT	(95)	(142)	(75)	(38)	(157)	38	94	167	242	137
% to revenues	*-18.4%*	*-26.5%*	*-11.9%*	*-5.3%*	*-19.6%*	*4.3%*	*9.6%*	*15.2%*	*19.9%*	*10.2%*
PAT	**(95)**	**(142)**	**(75)**	**(38)**	**(157)**	**32**	**78**	**138**	**200**	**113**
% to revenues	*-18.4%*	*-26.5%*	*-11.9%*	*-5.3%*	*-19.6%*	*3.6%*	*7.9%*	*12.5%*	*16.4%*	*8.4%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	6 laning of Ahmedabad Vadodara section of NH-8 and improvements to existing expressway NE-1 on BOT basis
Project cost (INR Mn)	48,800
Project road length	NE 1: 94 Kms; NH 8: 102 Kms
Toll/annuity	Toll
Current status	Operational
Awarding authority	NHAI
Appointed date	January 1, 2013
Concession period	30 years
Tolling start date	NE 1: January 2013 NH 8: December 2015
Average daily toll collection in FY20	INR 13.8 Mn

Source: Company Reports & Ventura Research

Importance of the project

- NH 8 is one of the busiest highways in the country as it connects the national capital Delhi to the financial capital Mumbai, and other major cities along the way.

Ganga Expressway

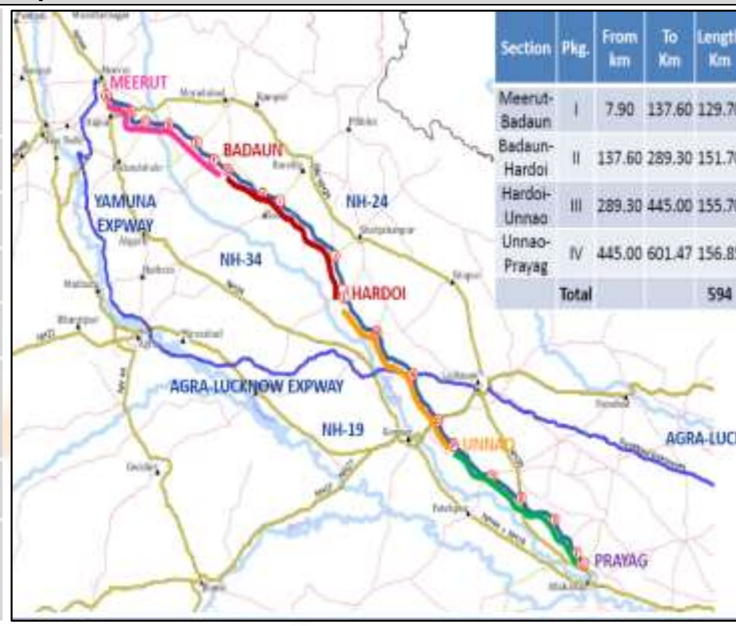
Ganga Expressway financials

INR cr	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**128**	**371**	**509**	**559**	**617**
Growth		*190.5%*	*37.4%*	*9.8%*	*10.4%*
Expenses	35	74	77	80	83
% to revenues	*27.5%*	*19.8%*	*15.2%*	*14.3%*	*13.5%*
EBITDA	**93**	**297**	**432**	**479**	**534**
% to revenues	*72.5%*	*80.2%*	*84.8%*	*85.7%*	*86.5%*
PBT	(90)	58	184	228	279
% to revenues	*-70.6%*	*15.6%*	*36.2%*	*40.8%*	*45.3%*
PAT	**(90)**	**58**	**184**	**228**	**279**
% to revenues	*-70.6%*	*15.6%*	*36.2%*	*40.8%*	*45.3%*

Source: Company Reports & Ventura Research, We do not expect tax outflow as amotisation on intangible asset would be higher resulting in income tax losses

Project snapshot

Project description	Development of access-controlled six lane greenfield expressway from Meerut to Budaun in the state of Uttar Pradesh on DBFOT (Toll) basis
Project cost (INR Mn)	INR 65.39b / USD 850m[i]
Project road length	129.7 km
Toll/Annuity	Toll
Current Status	FC achieved
Awarding authority	Uttar Pradesh Expressway Industrial Development Authority (UPEIDA)
Tolling start date	3 years from Appointed Date
Concession period[(a)]	30 years (further extendable by a period of 6 years) including construction period of 1096 days



Source: Company Reports & Ventura Research

Importance of the project

- Asset is an access controlled greenfield expressway that connects Meerut to Prayagraj. ~594 Km long expressway divided into four packages with 1st package being awarded to IRB and the balance 3 to Adani. Using the expressway will result in time savings as well as lower vehicle operating cost.

Solapur Yedeshi

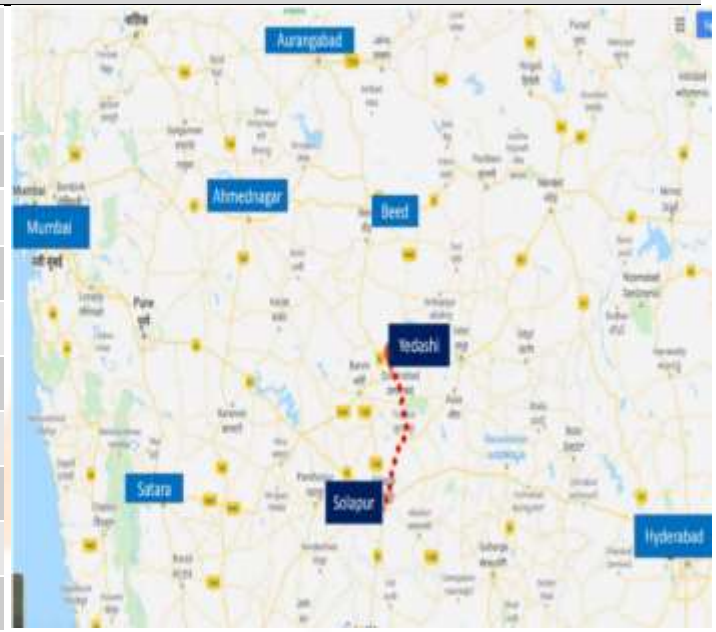
Solapur Yedeshi financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**71**	**83**	**110**	**124**	**137**	**153**	**170**	**191**	**211**	**234**
Growth		*17.2%*	*33.1%*	*12.0%*	*11.0%*	*11.4%*	*11.4%*	*12.0%*	*10.5%*	*11.1%*
Expenses	19	23	17	18	31	39	41	22	23	24
% to revenues	*26.9%*	*27.5%*	*15.4%*	*14.5%*	*22.7%*	*25.5%*	*24.0%*	*11.3%*	*10.8%*	*10.2%*
EBITDA	**52**	**60**	**93**	**106**	**106**	**114**	**129**	**169**	**188**	**210**
% to revenues	*73.1%*	*72.5%*	*84.6%*	*85.5%*	*77.3%*	*74.5%*	*76.0%*	*88.7%*	*89.2%*	*89.8%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Four Laning of the Solapur to Yedeshi Section of NH-211 in the state of Maharashtra under NHDP Phase IV on DBFOT Toll Basis
Project cost (INR Mn)	15,900
Project road length	98.7 Kms
Toll/annuity	Toll
Current status	Operational
Awarding authority	NHAI
Appointed date	January 21, 2015
Concession period	29 years
Tolling start date	March 2018
Full COD	November 2019 (100% rates)



Source: Company Reports & Ventura Research

Importance of the project

- Proximity to several pilgrim centers. Siddheswar temple (Solapur) attracts 35 Lac pilgrims per year.
- Adjacent Tourist spots like Ajanta, Ellora, Daulatabad and Bibi-ka-Maqbara.
- Major factories located around are Kirloskar, Videocon, Garware, Glenmark, Hindalco, L&T, Bajaj Auto, Skoda Auto, etc.

Palshit Dhankuni

Palshit Dhankuni financials

INR cr	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**197**	**207**	**317**	**364**	**355**	**387**	**419**	**454**
Growth		*4.9%*	*53.5%*	*14.7%*	*-2.4%*	*8.9%*	*8.3%*	*8.5%*
Expenses	22	44	48	50	53	56	95	104
% to revenues	*11.2%*	*21.1%*	*15.0%*	*13.8%*	*14.9%*	*14.5%*	*22.7%*	*23.0%*
EBITDA	**175**	**163**	**270**	**314**	**302**	**331**	**324**	**350**
% to revenues	*88.8%*	*78.9%*	*85.0%*	*86.2%*	*85.1%*	*85.5%*	*77.3%*	*77.0%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Six laning of Palsit to Dankuni section of NH-19 from km. 588.870 to km. 652.700 Section of NH-19 (design length of 63.830 kms) in the state of West Bengal on DBFOT (Toll) basis
Project cost (INR Mn)	24,030
Project road length	63.830 kms
Toll/annuity	Toll
Current status	Tolling @75% (upto construction period of 2.5 years) Tolling @100% from Projection Completion Date
Awarding authority	NHAI
Appointed date	April 2022
Concession period	17 years
Tolling start date	April 2022
Expected COD	September 2024

Source: Company Reports & Ventura Research

Importance of the project

- Has close proximity to well established industrial belt of Howrah, Durgapur, Asansol, Dhanbad, etc. High commercial traffic is witnessed on the road stretch due to supplies to Kolkata from these areas.

Goa Kundapur

Goa Kundapur financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**70**	**83**	**131**	**151**	**181**	**216**	**241**	**269**	**299**	**333**
Growth		*19.2%*	*57.4%*	*15.0%*	*20.4%*	*18.9%*	*11.8%*	*11.6%*	*11.2%*	*11.3%*
Expenses	22	24	65	67	69	28	30	30	141	73
% to revenues	*31.1%*	*28.4%*	*50.0%*	*44.3%*	*38.2%*	*12.9%*	*12.5%*	*11.1%*	*47.3%*	*21.8%*
EBITDA	**48**	**60**	**66**	**84**	**112**	**188**	**211**	**239**	**158**	**261**
% to revenues	*68.9%*	*71.6%*	*50.0%*	*55.7%*	*61.8%*	*87.1%*	*87.5%*	*88.9%*	*52.7%*	*78.2%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Four Laning of Goa/Karnataka Border to Kundapur section of NH17 in the state of Karnataka under NHDP Phase – IV on DBFOT Basis
Project cost (INR Mn)	35,000
Project road length	189.6 Kms
Toll/annuity	Toll
Current status	PCOD
Awarding authority	NHAI
Appointed date	March 3, 2014
Concession period	28 years
Tolling start date	February 2020 (75% tolling)

Source: Company Reports & Ventura Research

Importance of the project

- Adjacent Tourist spots like Gokarna, Murudeshwara, Yana, Idagunji, Jog Falls.
- Major factories located around are BHEL, Volvo, Toyota, TVS, Kirloskar, L&T, MRPL etc.

Yedeshi Aurangabad

Yedeshi Aurangabad financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**134**	**161**	**202**	**225**	**250**	**275**	**303**	**333**	**364**	**400**
Growth		*20.3%*	*25.7%*	*11.1%*	*11.3%*	*10.0%*	*10.1%*	*10.0%*	*9.4%*	*9.9%*
Expenses	27	34	24	25	50	58	61	30	31	33
% to revenues	*20.4%*	*20.9%*	*11.6%*	*11.0%*	*20.1%*	*21.0%*	*20.0%*	*9.0%*	*8.6%*	*8.2%*
EBITDA	**106**	**127**	**179**	**200**	**200**	**217**	**242**	**303**	**333**	**367**
% to revenues	*79.6%*	*79.1%*	*88.4%*	*89.0%*	*79.9%*	*79.0%*	*80.0%*	*91.0%*	*91.4%*	*91.8%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Four Laning of the Yedeshi to Aurangabad Section of NH-211 in the state of Maharashtra under NHDP Phase IV on DBFOT Toll Basis
Project cost (INR Mn)	41,828
Project road length	189.1 Kms
Toll/annuity	Toll
Current status	Operational
Awarding authority	NHAI
Appointed date	July 1, 2015
Concession period	26 years
Tolling start date	March 2019
Full COD	September 2020

Source: Company Reports & Ventura Research

Importance of the project

- Adjacent Tourist spots like Ajanta, Ellora, Daulatabad and Bibi-ka-Maqbara.
- Major factories located around are Kirloskar, Videocon, Garware, Glenmark, Hindalco, L&T, Bajaj Auto, Skoda Auto, etc.

Kaithal Rajasthan

Kaithal Rajasthan financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**71**	**134**	**174**	**190**	**206**	**224**	**245**	**266**	**289**	**313**
Growth		*87.1%*	*30.5%*	*9.1%*	*8.2%*	*9.0%*	*9.1%*	*8.8%*	*8.3%*	*8.5%*
Expenses	33	37	19	42	67	70	24	25	26	27
% to revenues	*45.9%*	*27.4%*	*11.1%*	*22.3%*	*32.3%*	*31.2%*	*9.6%*	*9.3%*	*9.0%*	*8.7%*
EBITDA	**39**	**97**	**155**	**148**	**139**	**154**	**221**	**242**	**263**	**286**
% to revenues	54.1%	72.6%	88.9%	77.7%	67.7%	68.8%	90.4%	90.7%	91.0%	91.3%

Source: Company Reports & Ventura Research

Project snapshot

Project description	Four Laning of Kaithal to Rajasthan Border section of NH 152/65 in the state of Haryana under NHDP Phase IV on DBFOT Basis
Project cost (INR Mn)	23,230
Project road length	166.3 Kms
Toll/annuity	Toll
Current status	Operational
Awarding authority	NHAI
Appointed date	July 15, 2015
Concession period	27 years
Tolling start date	September 2017
Full COD	March 2019

Source: Company Reports & Ventura Research

Importance of the project

- Hisar is known as the "City of Steel" due to large presence of steel industry. Haryana manufactures ~2/3rd of passenger cars, ~50% of tractors and 60% of motorcycles and 50% of refrigerators manufactured in India.
- Major factories located around are Maruti Udyog, Jindal Steel, Modi Alcatel, Escorts, Sony India, VXL India, Whirlpool Industries, Wipro Ltd, DCM, Benetton, Asahi India Safety Glass, HMT Ltd., National Fertilizer Ltd., Indian Drugs & Pharmaceutical Ltd, Bharat Electronics Ltd, Cotton Textile mills.

Agra Etawah

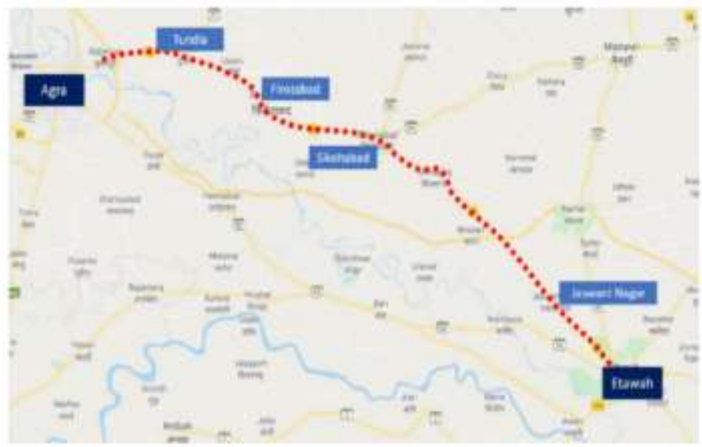
Agra Etawah financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**36**	**110**	**115**	**135**	**159**	**184**	**214**	**248**	**286**	**327**
Growth		*205.9%*	*4.6%*	*16.8%*	*17.6%*	*16.3%*	*16.1%*	*15.6%*	*15.4%*	*14.5%*
Expenses	38	53	36	70	78	83	43	46	48	50
% to revenues	*106.7%*	*47.6%*	*31.0%*	*51.8%*	*49.5%*	*44.7%*	*20.3%*	*18.5%*	*16.7%*	*15.4%*
EBITDA	**(2)**	**58**	**80**	**65**	**80**	**102**	**171**	**202**	**238**	**277**
% to revenues	*-6.7%*	*52.4%*	*69.0%*	*48.2%*	*50.5%*	*55.3%*	*79.7%*	*81.5%*	*83.3%*	*84.6%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Six Laning of Agra to Etawah Bypass section of NH2 under NHDP Phase V in the state of Uttar Pradesh on BOT (Toll) mode
Project cost (INR Mn)	32,443
Project road length	124.5 Kms
Toll/annuity	Toll
Current status	Operational
Awarding authority	NHAI
Appointed date	August 1, 2016
Concession period	24 years
Tolling start date	August 2016
Completion achieved	November 25, 2020



Source: Company Reports & Ventura Research

Importance of the project

- Project is part of Golden Quadrilateral.
- Major tourist spots include Taj Mahal, Fatehpur Sikri and Agra Fort.

Gulabpura Chittorgarh

Gulabpura Chittorgarh financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**140**	**190**	**101**	**134**	**168**	**207**	**249**	**297**	**335**	**379**
Growth				*33.0%*	*25.3%*	*23.1%*	*20.2%*	*19.4%*	*12.9%*	*13.2%*
Expenses	29	41	33	34	63	66	69	42	44	46
% to revenues	*20.4%*	*21.4%*	*32.4%*	*25.6%*	*37.4%*	*32.0%*	*27.9%*	*14.0%*	*13.0%*	*12.1%*
EBITDA	**111**	**149**	**68**	**100**	**105**	**141**	**179**	**255**	**291**	**333**
% to revenues	*79.6%*	*78.6%*	*67.6%*	*74.4%*	*62.6%*	*68.0%*	*72.1%*	*86.0%*	*87.0%*	*87.9%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Six Laning of Kishangarh Udaipur Ahmedabad Section of NH-79 from Gulabpura to end of Chittorgarh Bypass in the state of Rajasthan under NHDP Phase V on BOT (Toll) basis
Project cost (INR Mn)	20,900
Project road length	124.9 Kms
Toll/annuity	Toll
Current status	Tolling (@ 75% rates) + Under Construction
Awarding authority	NHAI
Appointed date	November 4, 2017
Concession period	20 years
Tolling start date	November 2017

Source: Company Reports & Ventura Research

Importance of the project

- Project is part of Golden Quadrilateral.
- Major tourist spots include various temples and Forts across Rajasthan.
- There are 16,000 industrial units and 10 industrial belts in Gulabpura and over 9,500 industrial units and 7 industrial belts in Chittorgarh.

Kishangarh Gulabpura

Kishangarh Gulabpura financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**94**	**105**	**204**	**100**	**126**	**153**	**184**	**219**	**257**	**288**
Growth		*11.9%*	*94.6%*	*-50.9%*	*25.7%*	*21.4%*	*20.4%*	*18.9%*	*17.6%*	*12.1%*
Expenses	22	22	23	24	25	26	128	29	30	32
% to revenues	*23.0%*	*21.0%*	*11.1%*	*23.8%*	*19.8%*	*17.2%*	*69.5%*	*13.2%*	*11.8%*	*11.0%*
EBITDA	**72**	**83**	**181**	**76**	**101**	**127**	**56**	**190**	**227**	**257**
% to revenues	*77.0%*	*79.0%*	*88.9%*	*76.2%*	*80.2%*	*82.8%*	*30.5%*	*86.8%*	*88.2%*	*89.0%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Six Laning of Kishangarh to Gulabpura section of NH 79A and NH 79 from Kishangarh(on NH 79A) and ends near Gulabpura (on NH-79) in the state of Rajasthan on DBFOT(Toll) basis under NHDP Phase V
Project cost (INR Mn)	15,260
Project road length	90 Kms
Toll/annuity	Toll
Current status	Tolling (@ 75% rates) + Under Construction
Awarding authority	NHAI
Appointed date	February 21, 2018
Concession period	20 years
Tolling start date	February 2018

Source: Company Reports & Ventura Research

Importance of the project

- Project is part of Golden Quadrilateral.
- Major tourist spots include various temples and Forts across Rajasthan.
- There are 16,000 industrial units and 10 industrial belts in Gulabpura and over 9,500 industrial units and 7 industrial belts in Chittorgarh.

Hapur Moradabad

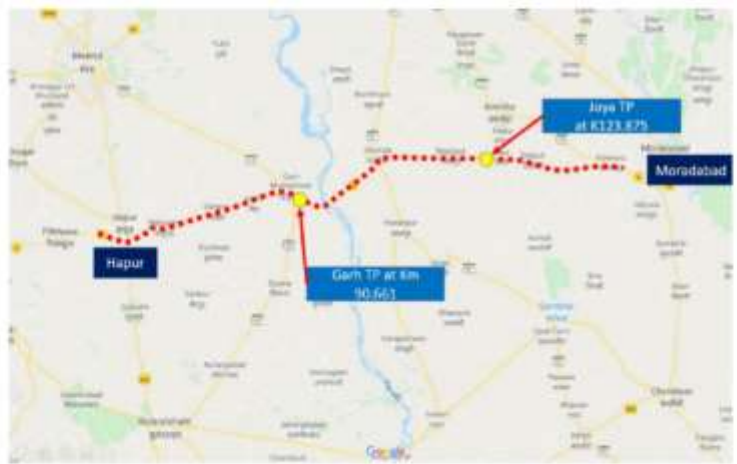
Hapur Moradabad financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**126**	**136**	**235**	**260**	**285**	**315**	**347**	**385**	**418**	**455**
Growth				*10.7%*	*9.7%*	*10.5%*	*10.0%*	*10.8%*	*8.6%*	*9.0%*
Expenses	9	9	8	13	9	99	100	95	10	16
% to revenues	*7.0%*	*6.9%*	*3.6%*	*5.1%*	*3.2%*	*31.3%*	*28.7%*	*24.8%*	*2.5%*	*3.6%*
EBITDA	**117**	**126**	**227**	**247**	**276**	**217**	**247**	**289**	**407**	**439**
% to revenues	*93.0%*	*93.1%*	*96.4%*	*94.9%*	*96.8%*	*68.7%*	*71.3%*	*75.2%*	*97.5%*	*96.4%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Six Laning of Hapur Bypass to Moradabad Section of NH-9 in the state of Uttar Pradesh under NHDP Phase V on BOT (toll) Basis
Project cost (INR Mn)	31,510
Project road length	99.9 Kms
Toll/annuity	Toll
Current status	Under-construction
Awarding authority	NHAI
Appointed date	May 28, 2019
Concession period	22 years
Tolling start date	June 2019
Expected completion	November 2021



Source: Company Reports & Ventura Research

Importance of the project

- Project's vicinity to the national capital has induced rapid urbanization and industrialization growth along the project corridor. Large number of big townships are coming along the project corridor.

Udaipur Rajasthan Gujarat

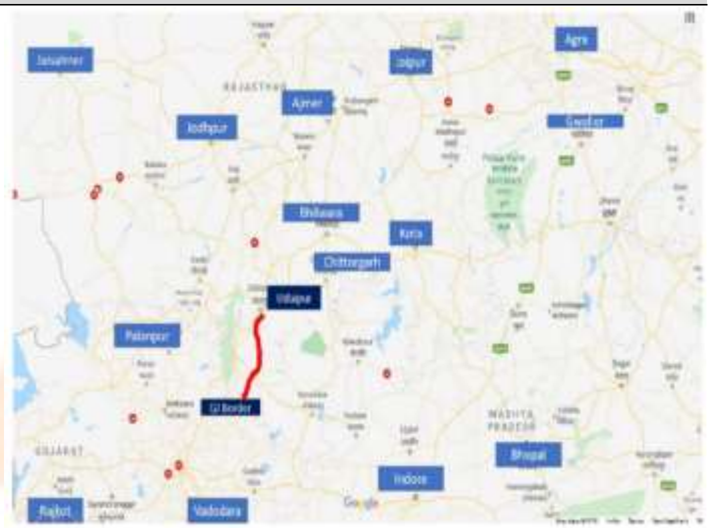
Udaipur Rajasthan Gujarat financials

INR cr	FY21	FY22	FY23E	FY24E	FY25E	FY26E	FY27E	FY28E	FY29E	FY30E
Total revenues	**118**	**145**	**125**	**161**	**192**	**226**	**264**	**306**	**340**	**381**
Growth		*22.8%*	*-13.9%*	*28.5%*	*19.1%*	*17.8%*	*17.2%*	*15.7%*	*11.1%*	*12.0%*
Expenses	24	74	20	78	91	99	28	24	145	152
% to revenues	*20.6%*	*50.9%*	*16.1%*	*48.6%*	*47.5%*	*44.0%*	*10.5%*	*8.0%*	*42.7%*	*39.8%*
EBITDA	**94**	**71**	**105**	**83**	**101**	**126**	**237**	**281**	**195**	**229**
% to revenues	*79.4%*	*49.1%*	*83.9%*	*51.4%*	*52.5%*	*56.0%*	*89.5%*	*92.0%*	*57.3%*	*60.2%*

Source: Company Reports & Ventura Research

Project snapshot

Project description	Six Laning from end of Udaipur Bypass to Rajasthan/Gujarat Border section of NH8 in the states of Rajasthan & Gujarat on DBFOT (Toll) basis under NHDP Phase V
Project cost (INR Mn)	25,310
Project road length	113.8 Kms
Toll/annuity	Toll
Current status	Tolling (@ 75% rates) + Under Construction
Awarding authority	NHAI
Appointed date	September 3, 2017
Concession period	21 years
Tolling start date	September 2017



Source: Company Reports & Ventura Research

Importance of the project

- There are 1,80,000 units and 10 industrial belts in Udaipur. Tourism places include various forts and lakes in Udaipur city.

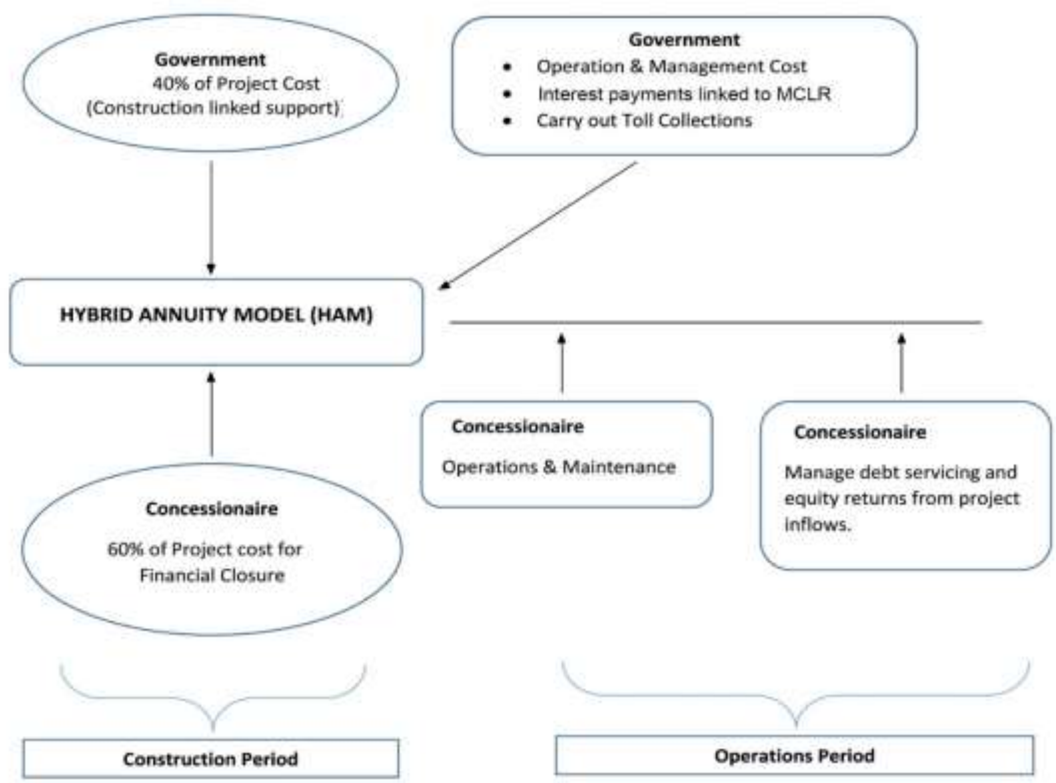
Appendix- 2

Different types of road model

HAM model

- Hybrid Annuity Model (HAM) has been introduced by the Government to revive PPP (Public Private Partnership) in highway construction in India.
- Hybrid annuity means that the government makes payment in a fixed amount for a considerable period and then in a variable amount in the remaining period.
- The government will contribute to 40% of the project cost while the balance 60 % is arranged by the developer.
- The developer usually invests not more than 20-25% of the project cost while the remaining is raised as debt.
- There is no toll right for the developer & revenue collection would be the responsibility of the National Highways Authority of India (NHAI).
- For the developer contribution of 60%, the government will pay variable annuity amount after the completion of the project depending upon the value of assets created.

Schematic diagram of HAM model

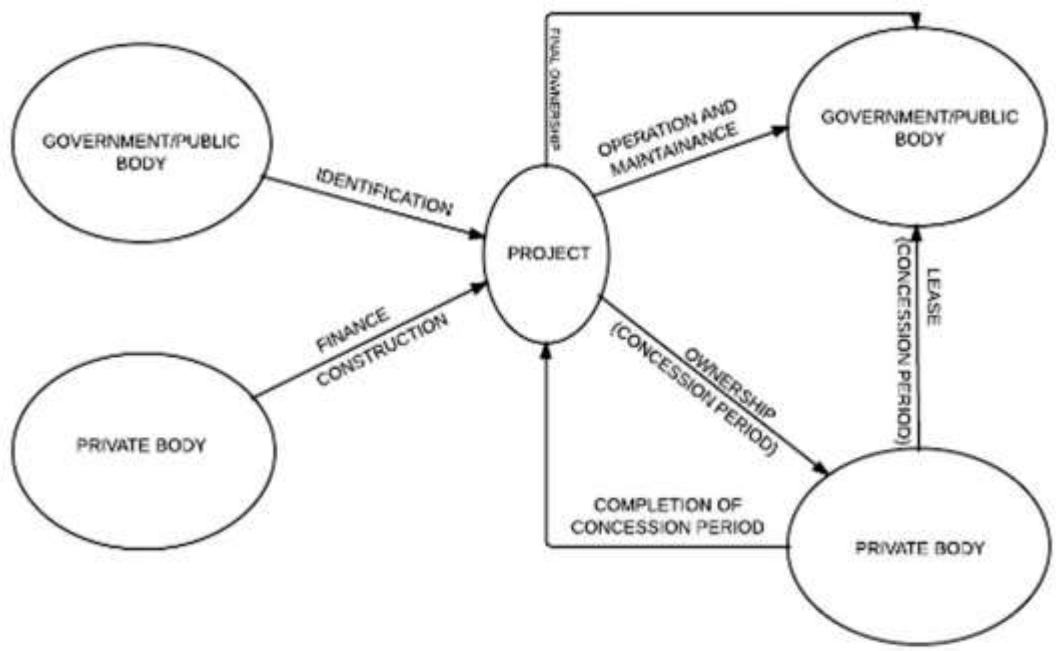


Source: Company Reports & Ventura Research

BOT model

- The private partner is responsible to design, build, operate (during the contracted period) and transfer back the facility to the public sector.
- He will bring the finance for the project and take the responsibility to construct and maintain it.
- The public sector will either pay a rent for using the facility or allow it to collect revenue from the users.

Schematic diagram of BOT model

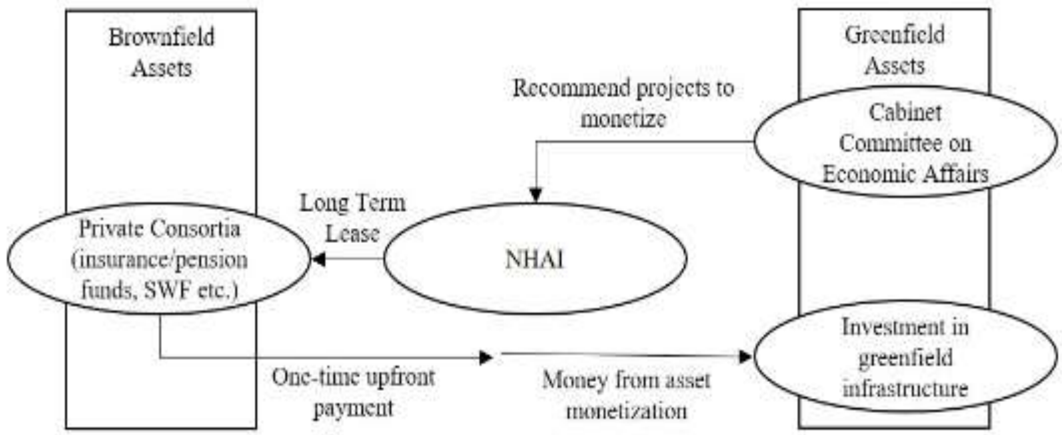


Source: Company Reports & Ventura Research

TOT/OMT tolling

- Under this type of PPPs, a facility which already exists and is under operation, is entrusted to the private sector partner for efficient operation, subject to the terms and conditions decided by mutual agreement.
- The contract will be for a given but sufficiently long period and the asset will be transferred back to the government at the end of the contract.
- The toll collection / maintenance of road would be responsibility of the person who won the contract (concessionaire).
- TOT projects are for longer concession period while OMT model is for short concession period.
- The model helps to monetize the existing brownfield assets under NHAI ownership to develop greenfield assets in the future.

Schematic diagram of TOT/OMT model



Source: Company Reports & Ventura Research

EPC

- Under this model, the government only awards the contract for construction of the road while toll collection, ownership right rests with the government.
- The government releases the money to the developer based on milestone achieved.

 For any further query, please email us on research@ventura1.com

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