

# IRCON International Limited

**Issue Snapshot:**

Issue Open: Sept 17 – Sept 19, 2018

Price Band: Rs. 470 – 475 (A discount of Rs. 10 per share to the Retail investors and eligible Employees)

Issue Size: 9,905,157 Equity Shares (Entirely Offer for sale including Employee Reservation of 5,00,000 sh)

Offer Size: Rs.465.54 crs – 470.49 crs

QIB	Upto 4,702,578 eq sh
Retail	atleast 3,291,805 eq sh
Non Institutional Employee	atleast 1,410,774 eq sh
	Upto 500,000 eq sh

Face Value: Rs 10

Book value: Rs 398.51 (Mar 31, 2018)

Bid size: - 30 equity shares and in multiples thereof

100% Book built Issue

**Capital Structure:**

Pre Issue Equity:	Rs. 94.05 cr
Post issue Equity:	Rs. 94.05 cr

Listing: BSE & NSE

Book Running Lead Manager: IDBI Capital Markets & Securities Limited, Axis Capital Limited, SBI Capital Markets Limited

Registrar to issue: Karvy Computershare Private Limited

**Shareholding Pattern**

Shareholding Pattern	Pre issue %	*Post issue %
Promoter and Promoter Group	99.72	89.18
Public & Others	0.28	10.82
<b>Total</b>	<b>100.0</b>	<b>100.0</b>

Source for this Note: RHP

**Background & Operations:**

IRCON International Ltd is an integrated Indian engineering and construction company, specializing in major infrastructure projects, including, railways, highways, bridges, flyovers, tunnels, aircraft maintenance hangars, runways, EHV sub-stations, electrical and mechanical works, commercial and residential properties, development of industrial areas, and other infrastructure activities. It provides EPC services on a fixed-sum turnkey basis as well as on an item-rate basis for various infrastructure projects and also execute on build, operate and transfer mode in various projects in order to meet the requirements of its bids. It is headquartered in Saket, New Delhi and has an overseas office in Malaysia. Additionally, it has 26 project offices in India and abroad (including in Sri Lanka, Bangladesh, South Africa and Algeria) and five regional offices to support and manage its business operations. IRCON's reputation for quality, commitment and consistency in terms of performance, as well as its local, regional and international presence, has allowed to service the growing infrastructure needs throughout India. Its Order Book as of a particular date comprises of the anticipated revenues from uncompleted portions of existing contracts (signed contracts for which all pre-conditions to entry has been met, including letters of intent issued by the client). As of March 31, 2018, it had an Order Book of Rs224,067.90 million.

IRCON has rich experience in executing major construction and infrastructure projects, both internationally and domestically. The scope of its services for such projects primarily includes design and engineering of the project, procurement of equipment and packages, project management, and commissioning. While it execute majority of its projects independently, it also form project specific joint ventures and consortiums with other infrastructure and construction companies, in particular, when a project requires the company or its partners to meet specific eligibility requirements in relation to certain large projects, including requirements of particular types of experience and financial resources. Its human resources and fleet of equipment, along with its engineering skills and capabilities, enable it to undertake a wide variety of construction projects that involve varying degrees of complexity. Its work force, as of March 31, 2018, consisted of 1179 full-time employees on a stand-alone basis, which together with its debt-free financial profile and comfortable liquidity position, positions it well to win mandates for a growing number of large-scale projects.

**IRCON's Business Operations**

Its core operations are (i) construction and (ii) infrastructure development.

Construction Business

In railway construction business, IRCON is a turnkey construction company that specializes in new railway lines, rehabilitation/conversion of existing lines, station buildings and facilities, bridges, tunnels, signaling and telecommunication, and railway electrification. Projects are usually awarded to it directly or where applicable, the Ministry of Railways awards projects to it indirectly through nomination. For over 20 years it has engaged in construction of highways and roads in accordance with international standards, both in India and abroad. In electrical business, the company carries out railway electrification and railway siding as turnkey projects. It also leverages its in-house design capacity to carry out projects on EPC basis.

Infrastructure Development Business

In infrastructure development business, IRCON develop and maintain railways and roads on a BOT basis. As of March 31, 2018, it had one completed road project of 115 km in India. It operates this completed project on a toll basis where profit is realized largely by toll collection during the concession period. It has currently placed strategic focus on executing projects under the EPC, DBFOT and hybrid annuity modes, as there has been an increase in high value projects being bid using these modes of project execution. With its capability in large turnkey projects, this development provides good opportunity for the company to secure large-size projects in the railways and highways sectors.

**Objects of Issue:**

The objects of the Offer are: (i) to carry out the disinvestment of upto 9,905,157 Equity Shares, including Employee Reservation Portion, by the Selling Shareholder constituting 10.53% of the Company’s pre-Offer paid up Equity Share capital IRCON; and (ii) to achieve the benefits of listing the Equity Shares on the Stock Exchanges. The Company will not receive any proceeds from the Offer and all proceeds shall go to the Selling Shareholder.


**Competitive Strengths**

**Construction business operates in diverse sectors covering many countries:** Since incorporation, IRCON has diversified into various infrastructure sectors and it is now an established player in the field of railways and highways construction. It also cater to its customers' needs in many other areas such as construction of commercial and residential complexes, power transmission lines, industrial lighting, bridge/fly-overs, tunnels, commercial, residential and retail properties, electrical and mechanical work, signaling/telecom, coach factory, station building, multi-function complex, and aviation. The variety of project types diversifies IRCON’s construction business and reduces its dependence on any one sector or type of project. Additionally, its broad range of clients within the government and private sectors, both domestic and international, ensures that it is not overly dependent on a limited number of clients. Its broad geographical coverage has helped the company to achieve its objective to gradually move from a construction company to a diversified company having a portfolio of BOT/DBFOT/EPC and other contracts as well as project development and operation through JVs/SPVs. IRCON has an advantageous position compared to its competitors because of its operating history, industry knowledge, experience and familiarity with civil and infrastructure construction projects at different scale and skill-level. With respect to its geographically diversified business operations, it has so far completed more than 127 projects in more than 24 countries across the globe, and 380 projects in various states in India as of March 31, 2018. A significant number of its projects are implemented through special purpose vehicles formed for the respective projects and it has a controlling interest in all Subsidiaries. These Subsidiaries enter into concession agreements with other agencies and generate revenue.

**Excellent execution track record through strong operating systems and controls:** IRCON’s track record of on-time and high quality project completion has helped to develop a strong reputation and increased its opportunities to bid for larger and more prominent projects. Through years of development, it has put in place well-tested systems and controls as below:

**Robust contract management:** Once awarded a contract, IRCON’s actively track and manage its deliverables and strive to ensure that there is no breach of the contractual terms and conditions. To improve customer satisfaction, it also endeavor to provide timely responses and solutions to its clients.

**Efficient planning and project management:** Through project teams, the company plans every step of the project and, over time, has developed strong project management and execution expertise and capabilities for projects both domestic and international. A combination of efficient and systematic project management and execution skills through procurement, resource deployment, operation and maintenance of construction equipment, and other resources for multiple project sites, has helped IRCON to establish a good track record and reputation for timely completion.

*Use of innovations in designs and advanced technology:* IRCON has been proactive in using modern construction techniques, technology and equipment comparable to the market standard. In executing its projects, it attempt to achieve high efficiency and on-time performance, often by cooperating with leading consultants to innovate and to develop more advanced and efficient methods and techniques.

**Strong financial performance and credit profile:** IRCON has a strong credit profile that includes non-fund based standby bank limits of Rs 31,200 million out of which Rs16,647.70 millions has been utilised. As of March 31, 2018, the financial profile of the Company is characterized by healthy profitability margins and a comfortable liquidity position. Its stable business model during the last three fiscal years ended March 31, 2018 contributed significantly to its financial strength. Since it commenced operations and through March 31, 2018, it has not defaulted in repayment of its borrowings, which, together with its strong financial performance and substantial assets, has helped it present a strong credit profile to potential lenders and avail alternatives sources of financing when necessary. IRCON's working capital requirement for its projects is principally met through client advances as well as internal accruals, supported predominately by its business growth and capability to execute large and complex projects in difficult terrains and territories.

**Visible growth through robust order book and steady execution:** In IRCON's industry, an order book is considered an indicator of future performance since it represents a portion of anticipated future revenue. It caters to both domestic as well as international markets and receives orders both on tender basis as well as through nomination by the Ministry of Railways. Its Order Book as of March 31, 2018 was Rs224,067.90 million which translates into approximately six times its total operating revenue in Fiscal Year 2018, and provides evidence of healthy revenue profile. By continuing to diversify its business and geographical focus, the company strives to pursue a broader range of project tenders and therefore maximize its business volume and profit margins. Growth in Order Book position is a result of IRCON's track record of successful execution of its projects, which has led to its ability to successfully bid and win new projects. The growth of average size new orders, together with diversified business activities in infrastructure projects across transportation, engineering, and building construction limits the risks associated with any particular industry, while simultaneously helping it to benefit from the synergies of operating in diverse business sectors. Further, its track record of executing projects within the specified timelines has also helped IRCON to minimize cost overruns. As it build on its expertise and experience in different industry segments, its Order Book has grown in response to its increased pre-qualifications for potential projects. In addition, while some of the large infrastructure companies are unable to mobilize additional resources to fund projects owing to debts, it continues to leverage its strong financial position to secure projects in different sectors. IRCON's strong financial position together with its successful efforts to meet the raising pre-qualification requirements of some of its clients has enhanced its competitiveness in its target market and, has enabled to maintain the momentum of its Order Book growth.

**Qualified and experienced employees and proven management team:** IRCON has a qualified and trained workforce to take on large-scale projects with demanding timelines on deliverables. As of March 31, 2018, members of its senior management team, which includes its Key Management Personnel, has an average of 27 years of experience and has been associated with it for an average of nine years. The skillsets of its employees gives the flexibility to adapt to the needs of its clients and the technical requirements of the various projects that it undertakes. It is committed to the development of the expertise and know-how of its employees through regular technical seminars and training workshops organized by the Company or reputed institutes. It has a management team that is qualified and experienced in construction and infrastructure development.

#### **Business Strategy:**

**Continue expanding geographical footprint within and beyond India:** IRCON has actively focused on becoming a diversified infrastructure player, both in terms of sector and geographical coverage. It has diversified its infrastructure work expertise into transportation engineering, civil and industrial construction, and other infrastructure projects. In addition, while it already has presence in many states in India, it intends to further expand its operations domestically across India as part of its growth business model. By further expanding its geographical coverage and expanding into new areas within India, IRCON will be able to take on more projects proposed by the Government of India and further consolidate its position in the infrastructure sector. Separately, it plans to continue its strategy of diversify across industry segments and increase orders from foreign countries to capture better profit margins afforded by these projects as compared to domestic projects. With increasing experience and success, it expects that it will see a steady growth in its business with a rate of expansion comparable to or better than the number of new projects the company undertake.

**Paradigm shift in revenue generation:** IRCON is gradually moving from generating income only through individual projects to regularly generating revenue and profits through its Subsidiaries and Joint Venture companies. Its Subsidiaries and Joint Venture companies are likely to generate revenue and profits on a sustained basis because of continued operation of existing projects and new projects. It is expected that projects with an approximate capex of Rs 172,050 million would be executed by these affiliate companies in the next five years. Through projects like these, it expects to complete 1,232 lane km of toll road and 1,000 track km of railway lines for coal and iron ore connectivity. Moreover, these projects also require regular maintenance and it will therefore generate revenues from this maintenance work. IRCON's goal is to migrate from a construction company to a diversified company having a portfolio of BOT/DBFOT/EPC and other contracts as well as project development and operation through JVs/SPVs.

**Focus on high value projects in the construction business to benefit from economies of scale:** In IRCON's construction business, it intends to focus on undertaking projects having a high order value, which it consider to be projects above Rs5,000 million. As of March 31, 2018, it had 20 projects in its Order Book that exceed this threshold. In principle, projects having high order value typically have a smaller percentage of overhead cost as a percentage of total cost and therefore provide a greater potential for profit. In addition, projects having high order value are also, in the current market, subject to less competition. The increasingly stringent pre-qualification requirement for pursuing such projects has resulted in a limited number of competitors being able to bid for such projects. These pre-qualification requirements make such type of projects an attractive sector for IRCON to participate. As its pre-qualification capabilities has improved across industry sectors and it has maintained a favorable financial profile with a comfortable liquidity position and its average bidding value has increased. It aims to firmly establish itself as a player in the market for high value projects by successfully executing the high order value projects on which it is currently working so that it can take advantage of these higher entry barriers.

**Actively bid for new projects:** Business growth of IRCON continues to be attributed principally to increased bidding activities for more and larger projects awarded by government clients. Given its long standing reputation as one of the sectorial leaders in transportation infrastructure, with specialization in execution of railway projects on turnkey basis, a large part of its business is driven by projects directly awarded by government clients. To maintain its reputation in the public sector and to strive for better profit margins, it hope to capitalize on its advantageous position over its competitors, both in terms of expertise and financial position, and seize opportunities to undertake larger projects driven by the growth of the Indian economy. The various initiatives promulgated by the Government of India will help in continuing the growth momentum. Further expanding, IRCON's geographical presence and service coverage it will be able to secure more mandates and consolidate its position in the infrastructure sector.

**Maintain favorable financial risk profile:** IRCON's financial profile of healthy profitability margins with comfortable liquidity position has contributed to its operational performance. It intends to continue this favorable capital structure with minimum debt by leveraging advances received from clients and internal accruals for working capital requirement towards projects. While aiming for higher profitability, it intends to avoid over-leveraging its balance sheet or undertaking projects that would put IRCON at financial instability.

**Explore different models of project execution to optimize project portfolio:** Since the union government took over in May 2014, the question of languishing BOT projects was a top priority due to dismal performance of construction projects awarded under existing model concession agreements. In a very short time, the government came up with new hybrid annuity mode (HAM) to address the various concerns, including the lack of toll traffic in several parts of the country and the substantial financial burden over companies which were awarded the BOT projects. IRCON welcome such change and are well geared to undertake turnkey projects under new project execution models, including EPC and HAM. To continue with projects on BOT/DBFOT basis, it also formed three special purpose vehicles as well as holding strategic shares in joint venture companies formed for coal connectivity projects in three states of India.

**Explore potential ways to capture sectorial initiatives undertaken by the Government to improve economic growth:** The Government of India has issued a number of macro-level and sectorial initiatives to improve the Indian economy in the past few years. The increasing Government interest in infrastructure, particularly in the railways sector, has opened up opportunities for IRCON to secure more businesses. It aims to capitalize on these opportunities by leveraging its established project execution track record and by diversifying its infrastructure work expertise into transportation engineering, civil and industrial construction, and other infrastructure projects. A fundamental aspect of its business strategy is to gradually transform from a construction company to a diversified company having a portfolio of BOT/DBFOT/EPC and other contracts as well as project development and operation through JVs/SPVs. To achieve its objective, the company continues to secure and execute more projects in various sectors and to lessen dependency on one or a few sectors.

**Attract and retain talented employees:** Talented employees are essential to IRCON's success. It rely on them to operate its modern construction equipment, complete various tasks on its complex construction projects and deliver quality performance to its clients, often on a demanding timeline. With strong human resource system, IRCON continue to focus on improving health, safety and environment for its employees. It intends to further strengthen its work force through continued on-job skill development and training. It also aims to provide a congenial and safe working atmosphere to women employees. It has a complaints committee for prevention of sexual harassment at work place, and has been arranging workshops exclusively for women employees covering self-defense by Delhi police and health awareness topics such as nutrition and diet by senior doctors. It intends to continue maintaining the relatively low employee attrition rate and retain more of its skilled workers for its future expansion, by providing them with better overall benefit packages and safer and healthier working environment.



**Industry:**

**Policy measures to drive construction spend, boost private participation**

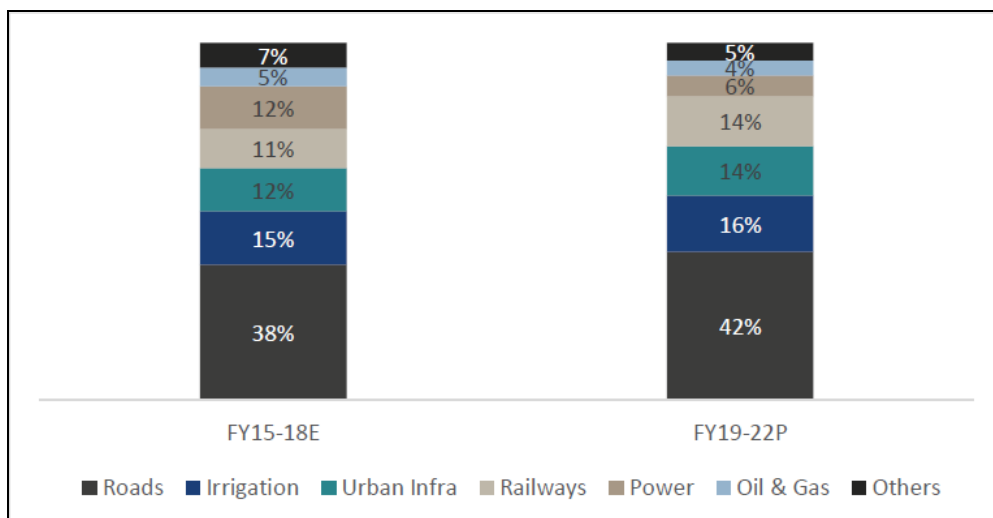
CRISIL Research estimates construction sector in India at Rs 14.4 trillion during fiscals 2015-2018 which is about 40% higher than construction spends during fiscals 2011-2014, driven by increased investments in Roads followed by Railways and Urban Infrastructure. In fiscal 2016, the construction spend for India as a % of GDP (current prices) accounted for about 6.9% (FY17) compared to other developing countries such as Sri Lanka at 7.4% (provisional) and Malaysia at 4.7% in 2015. Over fiscals 2019-2022, CRISIL Research expects the construction sector to increase 54% to Rs 22.2 trillion. Of this about 93% is contributed by infrastructure investments while the rest is from Industrial. This growth in infrastructure investments is driven by government initiatives and budgetary support especially in sectors such as Roads, Irrigation, Urban Infrastructure and Railways. These initiatives include:

- New Metro Rail Policy unveiled in August 2017 which makes PPP a must for obtaining central government assistance to boost private participation in Metro Rail.
- Awarding national highway projects only after 80-90% of the required land is in possession of the government from FY17 to reduce the uncertainty in the projects.
- Launching of schemes to help developers improve cash flow and repay debt, such as rescheduling premiums in road projects and permitting developers to offload stake in the build-operate-transfer projects initiated in FY16.
- Increased thrust on financing projects through external funding and private participation in Railway infrastructure from FY16.
- Financial restructuring of state electricity boards through UDAY, providing room for investments in distribution network.
- Bharatmala project(under inter-ministerial consultation as of August 2017) which envisages construction of 24,800 km of Roads
- Investment of ~ Rs 350 billion in urban infrastructure in seven states over FY 2015-2020 under the Atal Mission for rejuvenation and Urban Transformation(AMRUT)
- Convergence of irrigation schemes under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) with a spending target of Rs 500 billion for the period FY 2016-20
- Development of 50 economic corridors as well as 35 multimodal logistics parks and 10 intermodal stations, to boost transportation related investments under multi-modal logistics and transport policy in 2017.

**Roads to enjoy lion's share of construction spend**

Road projects augur well for construction players, as nearly all funds (save those used for land acquisition) are channelized into construction. Moreover, over the years, the private investments have grown close to public investments due to implementation several models such as BOT-toll, BOT-Annuity, BOT-HAM etc. thereby contributing the highest share of construction spend at 38%.

**Roads, Irrigation, Urban Infrastructure and Railways account for three fourth of the construction spend**

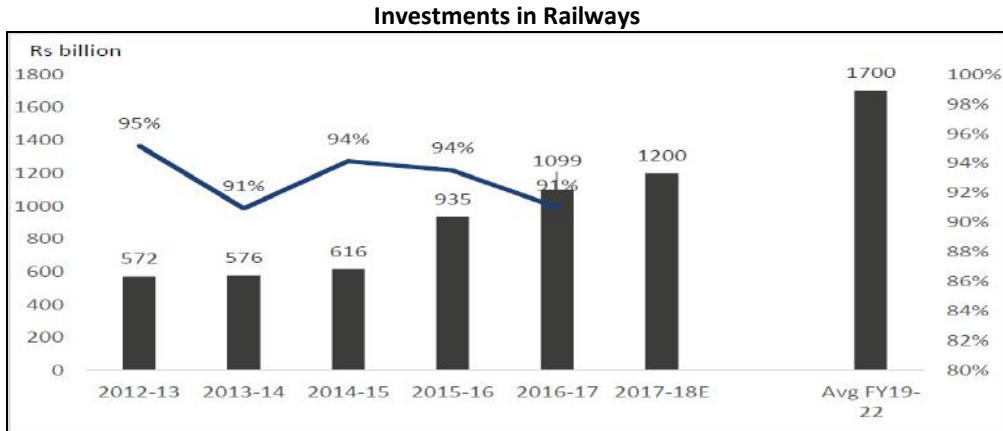


**Share of railways in construction to rise to 14% over the next 4 years**

During fiscals 2015-2018, railways accounted for 11% of the construction sector at Rs 1.6 trillion. Over the next 4 years, the construction opportunity in Railways is expected to double to Rs 3.1 trillion driven by investments by public as well as private sector especially in Network decongestion, expansion and Safety which account for over half of the total investments in railways during this period. Investments in key segments such as new lines, gauge conversion, doubling, track renewals, and electrification will account for Rs 2.3 trillion (73%) of the construction opportunity during fiscals 2019-2022 with doubling accounting for the highest share at 31% during this period.

**Railway investments to touch Rs 6.8 tn over fiscals 2019-2022**

CRISIL Research expects the investments in railway sector to increase by about 77% from Rs 3.9 trillion in fiscals 2015-2018 to Rs 6.8 trillion in fiscals 2019-2022. The growth in investments are driven by Availability of funding from Life Insurance Corporation (LIC) and Multilateral agencies Improvement in the pace of approvals Provision of additional resources such as Rashtriya Rail Sanraksha Kosh (RRSK) Increase in private sector participation (especially in rolling stock, station redevelopment, connectivity projects, etc.) During 2012-13 to 2016-17, the investments in Indian Railways have almost doubled from Rs 572 billion to Rs 1099 billion. Especially, in 2015-16, the investments have jumped by about 52% from Rs 616 billion to Rs 935 billion. This was led by an increased thrust on raising funds through new channels such as LIC, Multilateral agencies etc.



Note: During FY19, budgetary allocation for Railways stood at Rs 1465 billion Source: Budget Documents, CRISIL Research

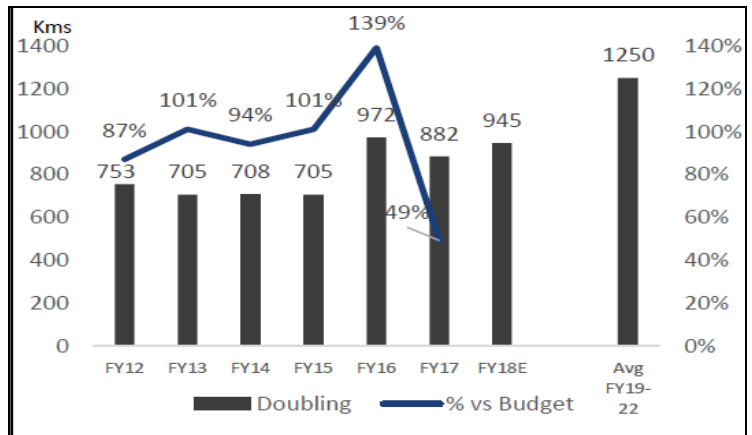
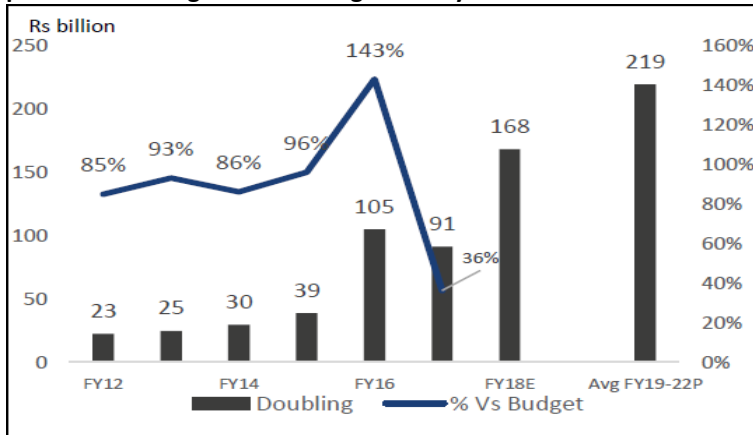
**Network decongestion and expansion is a Rs 1.4 trillion opportunity**

Network decongestion incorporates investments in, Gauge Conversion, Doubling and Electrification. CRISIL Research estimates an outlay of Rs 1.4 trillion (21% of the actual capex) for this segment between fiscals 2019 and 2022 – about 102% jump in allocation compared to the previous four years. Sanctioning of new lines has also seen a sharp increase since fiscal 2016 as availability of funds improved. Moreover, the execution has maintained this pace in fiscal 2017 where actual have exceeded the budgeted target for the year. The ramp up of new lines was driven by the funding support through joint ventures with various state governments. Apart from funding, other measures such as speeding up approvals (timeline for approval and tendering has been cut down from 2-2.5 years to 9-12 months) have also helped increasing the pace of execution.

**Investments in doubling to double over the next four years**

Doubling projects, which involve laying additional line/s along an existing line to ease traffic constraints and increase chartered capacity, are seeing sharper focus on commissioning. The buoyancy comes from a sharp increase in the pace of new sanctions, emphasis on project prioritisation, an assurance of funds from LIC being utilised in addition to Gross Budgetary Support (GBS).

**Spend on doubling to increase significantly**



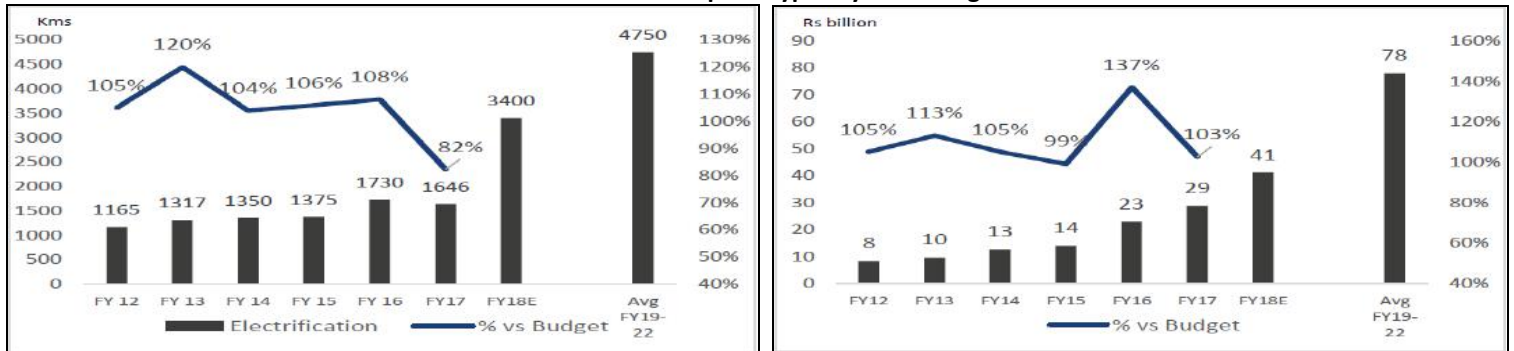
The pace of completion of doubling projects is likely to increase to 1,500 km by FY22 from 882 km in fiscal 2017. Although, the budget has set a target of 1800km in the year, it has been revised down sharply to 945 km during the revised estimates. Albeit, the pace of execution

has been pulled up significantly compared to the period during fiscal 2012-2015. As a result, it is expected spending on doubling projects to almost triple by fiscal 2022 from Rs 91 billion in fiscal 2017

**Share of electrification on broad gauge to rise; offers potential for EPC players**

As per union budget fiscal 2019, 1646 km of track has been electrified during fiscal 2017, taking the total electrified track length to 29,645 rkm. Till FY16, electrification has been extended to 27,999 rkm constituting 42% of the total rail network and 46.3% of the broad gauge (BG) line. Completion for electrification increased from 1,375 km in fiscal 2015 to 1,646 km in fiscal 2017 aided by Life Insurance Corporation of India infusion. In line with the master plan prepared by Indian Railways, the proposed physical target for fiscal 2018 has been ramped up to 4,000 rkm. The government’s plan till FY 2020-21 is to touch electrification pace of 10,500 km every year. The push has been supported by a significant rise in allocations – with the latest Union Budget revising the targeted spend for fiscal 2018 to Rs 50 billion and proposing an even higher outlay for fiscal 2019. For scale, the revised outlay for fiscal 2018 is 72% higher than spend in fiscal 2017.

**Electrification spend typically over budget**



Ministry of Railways’ electrification capex for the railway network has increased significantly from Rs 8 billion in fiscal 2012 to Rs 29 billion in fiscal 2017. This is estimated to surge to Rs 41 billion in fiscal 2018. Over fiscals 2019- 2022, it estimate an average run rate of Rs 78 billion per year over fiscal 2019-2022.

**Indian Railways has been slowly but steadily electrifying its routes, as the benefits of electrification of railway lines are far greater, compared with running with diesel engines. Most importantly, in India, the cost of electrification is cheaper than running trains with diesel.** Higher speeds and improved throughput - Electrification generates 12-19% of additional line capacity owing to faster speeds. Hence, to release the line capacity in dense rail corridors, investment in electrification is justified. Leads to lower carbon footprint

**Electrification to drive EPC contracts while rolling stock presents opportunities in manufacturing for private players**

While some proportion of electrification is executed by the Indian railways and various PSUs, a significant share is outsourced to private players via the EPC mode. As a result, with the rate of electrification increasing in the near future, the opportunities for private players are expected to improve proportionally.

**Rs 26 billion potential in manufacturing facilities for rolling stock, more projects proposed under JV**

With the focus on network expansion and rising rate of electrification, there is expected to be a commensurate increase in locomotive demand. To balance this demand, the government has envisaged two locomotive plants, both in Bihar, which have been awarded already through the PPP route. While Alstom has commenced production of its first locomotive from October, 2017, GE had imported its prototype from US. Moreover, the railways has also planned to set up a factory for manufacture of EMU/MEMU coaches under JV route. The selection of the JV partner for the project is currently under process.

Indian Railways has adopted various models for strategic partnerships, including those involving tie-ups with customers and investors (non-government railway or private line; joint venture; customer-funded model) and also pure PPP models (build, operate and transfer, or BOT, and BOT-annuity). The government has come up with model concession agreements for each of these models, which define the risk and responsibility balance among stakeholders involved in a project to increase transparency of the process.

**92% of lines are under broad gauge, with rest targeted for conversion in 4-6 years**

Conversion from metre gauge to broad gauge is undertaken to ensure seamless movement of traffic on Indian Railways network. Broad gauge is used for regular trains, while metre gauge and narrow gauge are used for smaller and unconventional engines and coaches. As of fiscal 2016, 60,510 rkm are under broad gauge, while the rest are under metre gauge or Narrow gauge. Considering the network expansion and gauge conversion carried out during fiscal 2017, CRISIL Research estimates about 92% of the railway network is under broad gauge. Over

fiscals 2019-2022, CRISIL Research expects gauge conversion of about 2,900 rkm over FY19-FY22, indicating that about ~98% of the network will be on broad gauge by FY22.

**Investments in new lines to majorly clear backlog projects**

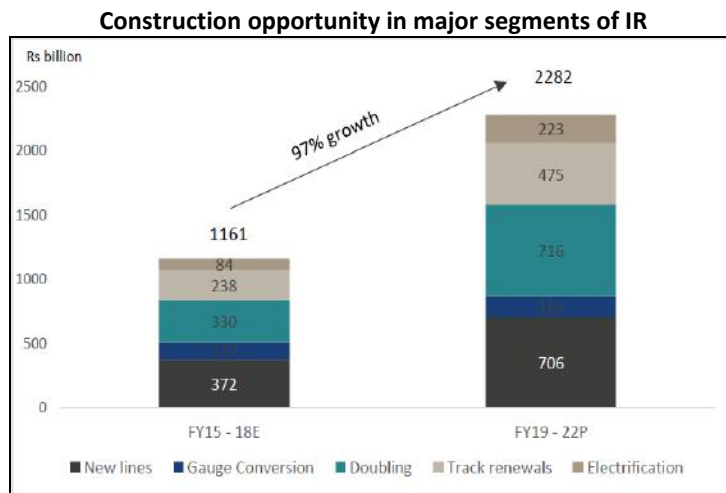
New lines are sanctioned for providing connectivity to regions not adequately connected to the railway network. Priority has been accorded to clearing the huge backlog of projects, most of which are more than 10 years old and routes which offer better return. New line projects typically take 2-3 years to commission after land acquisition. Indian Railways will be able to take up additional new line projects if State JVs/ PPPs come up in a big way or where industrial hubs need to be connected.

**Investments in Track Renewals to rise with thrust on safety**

It is estimated that the investments on track renewals to increase from estimated Rs 238 billion over FY15-18E to Rs 475 billion over FY19-22, aided by higher availability of funds for safety through newly introduced Safety fund “Rashtriya Rail Suraksha Kosh” during FY18 budget. On an average, about 4,500 km of track should be renewed annually. However, due to financial constraints, the achievement on this score has declined over the past six years. This has resulted in a backlog of 5,300 km as of FY16, leading to high maintenance and speed restrictions. Thus, the backlog has hindered efforts to increase train speeds, bloated up maintenance effort and costs, and led to safety failures.

**IR to provide a construction opportunity of Rs 3.1 trillion over FY19-22**

Over the next 4 years, the construction opportunity in Railways is expected to double to 3.1 trillion driven by huge investments especially in Network decongestion, expansion and Safety which account for about 53% of the total investments in railways during this period. Of this, ~73% (Rs 2.3 trillion) of total IR construction spend is expected to be in new lines; gauge conversion; doubling; track renewals; and electrification; this is a 97% rise in construction opportunity over estimated Rs 1.2 trillion construction opportunity for these segments during fiscals 2015-2018.



Among these segments, doubling accounts for the highest share accounting for about 31% of the total construction spends during fiscals 2019-2022. This is mainly due to increased investments towards doubling, which are expected to double over the next four years compared to fiscals 2015-2018 due to increase in pace of execution. Construction intensity is highest for track renewals and gauge conversion at > 90%, whereas for new lines, it is 55- 60%. The difference in construction intensity between track renewals, gauge conversion with new lines is due to the land acquisition and signalling costs (nil for track renewals and gauge conversion). For doubling and electrification, the construction intensity is 80-85% for doubling, and 70-75% for electrification as the land acquisition costs for doubling are negligible and hence signalling and telecommunication investments account for majority of the non-construction investments. In case of electrification, investments in substation and other electrical equipment occupies the remaining share of investments.

**Spend on DFC gathers traction, PPP Stretch in DFC, a key monitorable**

As part of the plan to boost freight share and revenues, spending on the Eastern and Western Dedicated Freight Corridor (DFC), on which work is underway, has seen a significant step-up of late. The Eastern DFC covers a route length of 1856 Km whereas the western DFC covers a route length of 1504 km. The total project cost for these two DFCs is estimated at Rs 815 billion. Till fiscal 2017, the total investment in DFCs stood at Rs 317 billion of which Rs 159 billion is towards land acquisition. Over fiscals 2016-2021, investments to the tune of Rs 682 billion are anticipated in DFCs. Of this, during fiscals 2016- 2017, about Rs 184 billion has been expended leaving an opportunity of Rs 498



billion between fiscals 2018-2021. In the first phase, two DFCs have been planned: The eastern stretch, from Dankuni in West Bengal to Ludhiana in Punjab. The western stretch from Jawaharlal National Port Trust in Mumbai to Dadri in Uttar Pradesh

### **Future DFCs offer Rs 2,717 billion opportunity**

As a part of corridor along Golden Quadrilateral, four more DFCs, spanning 6,700 km, have been planned over the next 8-10 years. The cost of three of these corridors is estimated at Rs 2,717 billion. The Preliminary Engineering and Traffic Study (PETS) for three of these corridors has already been completed.

### **New Metro Rail policy to boost private participation**

The Ministry of Railways has accorded priority to development of metropolitan rail networks, which include suburban rail networks in Mumbai, Hyderabad and Chennai, and Kolkata Metro. These cities are seeing some activity aimed at expansion of the networks. Among the 14 metropolitan Projects (MTP) planned by Indian Railways, Kochi Metro rail project has been recently commissioned in June 2017. There has been a significant delay in these projects due to delay in Land acquisition and clearances. Over the next four years, it anticipates an investment of about Rs 60-65 billion in Metro Rail.

### **PPP a necessity for Metropolitan Rail projects to access central government funds**

The new Metro Rail policy unveiled by the railway minister in August 2017 makes it mandatory for developing authorities undertaking metropolitan rail projects to opt for one out of the three PPP models outlined by the central government in order to receive financial assistance from the central government.

The 3 PPP models outlined by the central government are:

1. *Cost plus fee contract*-Private operator is paid a monthly/annual payment for O&M of system. This can have a fixed and variable component depending on the quality of service. Operational and revenue risk is borne by the owner.
2. *Gross Cost Contract*-Private operator is paid a fixed sum for the duration of the contract. Operator to bear the O&M risk while the owner bears the revenue risk.
3. *Net Cost Contract*-Operator collects the complete revenue generated for the services provided. If revenue generation is below the O&M cost, the owner may agree to compensate.

With the investment in Metropolitan rail projects over the next three years expected to be around Rs 50-60 billion, the significance of metro projects in the portfolio of infrastructure companies is expected to increase

### **High speed rail expected to materialise due to low-cost fund tie-up**

During fiscals 2016-2020, Indian Railways' have targeted an investment of Rs 650 billion for the development of high speed rail (HSR) corridors in India. However, CRISIL Research believes that barely about one third (Rs 190-200 billion) of these investments will bear fruit due to land acquisition hurdles. The feasibility study of the first HSR between Mumbai-Ahmedabad estimated at Rs 976 billion has concluded. Despite such a high cost, the project will materialise due to availability of cheaper funds from Japan International Cooperation Agency (JICA). JICA has agreed to fund 81% of the project cost at an interest rate of 0.1% per annum for 50 years, with a 15 year moratorium period. During fiscals 2016-2019, the budget has allocated Rs 24.5 billion towards the new special purpose vehicle (SPV) for HSR – the National High Speed Rail Corporation (NHSRC). Land acquisition and partial funding from Maharashtra and Gujarat state government towards HSR will be a key monitorable.

### **National Rail Plan 2030 to provide the future Roadmap**

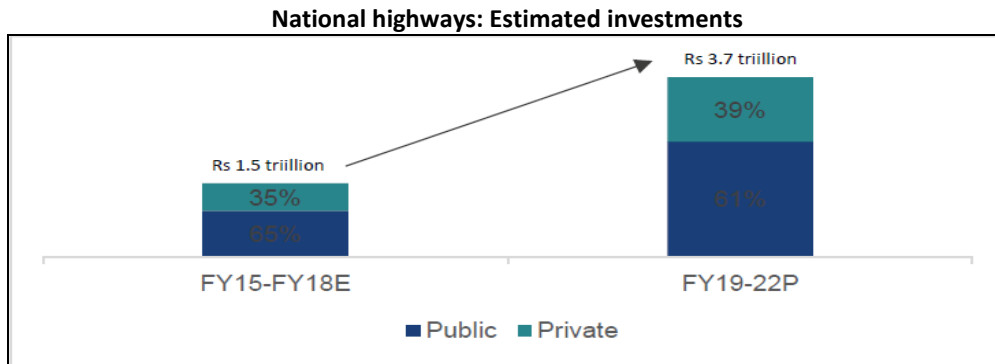
In order to provide long term perspective to planning for augmenting the railway network Ministry of Railways have decided to develop National Rail Plan (NRP 2030) in consultation with all the stakeholders. For this purpose, it has launched a website of National Rail Plan, 2030 for all stakeholders to give their inputs, as Railways' planning cannot be done in isolation. So far, development of the network was taken up based on numerous individual requests received from various stakeholders such as state governments, elected representatives, industries, etc. for sanction of railway projects in different parts of the country. Based on these representations and infrastructural gaps, operational requirements, bottlenecks strategic requirements, socio-economic considerations and participation by other stakeholders, new railway projects are sanctioned. However, these projects are sanctioned mostly in isolation and may not necessarily take a holistic view of the infrastructural needs of the country's railways. Currently, IR doesn't have a long-term integrated plan. Surveys are initially done as per demands of public representatives and then some of these lines are later sanctioned. IR intends to reverse the process. It plans on developing a network plan first and then conducting surveys. The network plan shall take into account connectivity to backward region, congestion in the existing network and futuristic development of industrial corridors. Removal of deficits in existing network are to be planned given huge regional imbalances. To take a holistic approach, a beginning was made in 2014 when 24 clusters were identified and the removal process of their bottlenecks was initiated on a corridor basis. Projects were sanctioned to decongest the network and its work has started. To take this process to next level, NRP 2030 has been envisaged which shall not only take care of existing corridors but also the

identification and development of new corridors & connections. This will facilitate easy movement of freight and passengers, and access to resources and services with reliability, safety and convenience to secure an environmentally efficient and long-term sustainable rail transport.

**Investments in National Highways to rise 2.5 times in next 4 years**

Between fiscals 2019 and 2022, CRISIL Research expects investment of Rs ~3.7 trillion, up 2.5 times compared with the past four years driven by increased private participation. Notably, the government will continue to account for more than half of the investments, and, hence, NHAI's ability to fund this proportion by raising debt externally is a monitorable.

Over the next four years, the share of private investments is expected to rise to 39% from 35% during the past four years driven entry of new players and improvement in financials.



The pace of activity in highways has quickened since fiscal 2016, on the back of sustained government thrust and policy changes. In fiscal 2017, total projects awarded by NHAI amounted to 4,337 km. This is short of the awarding achieved in the previous fiscal, as financing institutions exercised caution towards the shift in the PPP model from EPC to HAM. However, as the HAM model achieves greater acceptance due to low revenue risk on the developers, it expects the momentum in the highways sector to accelerate in fiscal 2018 and NHAI awarding to cross 5,000 kilometres driven by:

- Completion of the remaining length of the National Highway Development Programme (NHDP) programme
- New projects such as Bharat Mala
- Upgradation of state highways to national highway

**State Roads account for a major share in Road Infrastructure investments**

State roads (which include highways, major district roads, and rural roads that do not enter the purview of the Pradhan Mantri Gram Sadak Yojana, or PMGSY) comprise ~20% of the country's total road network and handle ~40% of road traffic. CRISIL Research estimates, a total investment of Rs 3.9 trillion was made in state roads between fiscals 2013-2018. Currently, 12-15% of the total investments in state road projects is channeled through the public private partnership (PPP) route. This proportion is expected to remain largely range bound over fiscals 2019-2022, however with a slight upward bias as few states start exploring different PPP models like HAM to improve private investments.

**Higher budgetary allocation in major states to drive investment in state roads**

Propelled by higher budgetary allocations by state governments, investment in state roads is expected to grow steadily at a compounded annual growth rate (CAGR) of ~9% between fiscals 2018-2022. Investments had grown at a higher 15% CAGR during the preceding four years, mainly due to the low base effect.

**Public funding to drive investment in Rural Roads**

Rural roads fall under the jurisdiction Pradhan Mantri Gram Sadak Yojana (PMGSY), introduced in 2000. The investments in the scheme have picked up pace during the past four years i.e. fiscals 2015–2018 due to increase in budgetary allocation, during which the investments in rural roads are estimated to have increased at a CAGR of 24%. CRISIL Research expects investment in PMGSY to increase by 1.6 times from fiscals 2019 to 2022, compared with the preceding four years, as the central government aims to achieve targets three years ahead of schedule. To speed up implementation, the Centre increased allocation to the PMGSY by 12% to Rs 190 billion in fiscal 2019. As of January 2018, about 57% of the targeted road length for fiscal 2018 under PMGSY has been constructed. Earlier in fiscal 2017, the government has constructed about 47,447 km compared to a target 48,812 km, achieving 97% of the planned target.

**Road investments under PPP to rise driven by HAM model**

Public-private partnership (PPP) is an arrangement between a government/ statutory entity/ government-owned entity and a private sector entity for the provision of public assets and/or public services, through investments being made and/or management being undertaken by the private sector entity, for a specified period of time. For broad-based and sustainable growth, the government recognises the need to engage with the private sector through a PPP framework, to achieve the following objectives: Harness private sector efficiencies in asset creation, maintenance and service delivery. Focus on life-cycle approach for development of a project, involving asset creation and maintenance over its lifecycle. Create opportunities to bring in innovation and technological improvements. Over the past few years, several PPP models have been adopted such as BOT-Toll, BOT-Annuity etc. HAM has been introduced by the government effective 2016, to increase the pace of execution by reducing the traffic risk for the player.

**Key Concerns**

**Business and revenues are substantially dependent on construction and infrastructure projects undertaken or awarded by government authorities and other entities funded by the government:** IRCON's business and revenues are substantially dependent on construction and infrastructure projects undertaken or awarded by government authorities and other entities funded by international and multilateral development finance institutions. Contracts awarded to the company by the government and government-controlled entities constitute almost 100% of its total consolidated income. Such contracts to continue to account for a high percentage of its total consolidated income in the future. Any adverse change in the policies adopted by the government regarding award of its projects such as pre-qualification criteria could adversely affect the ability to bid for and/ or win such projects. In addition, any changes in the existing policies pertaining to incentives granted in respect of infrastructure developments, could adversely affect its existing projects and opportunities to secure new projects. The government has in the past made sustained increases to budget allocations for the construction and infrastructure sector. Such measures taken by the government has also attracted and enabled additional funding by international and multilateral development financial institutions for construction and infrastructure projects in India. Additionally, the projects in which government entities participate may be subject to delays, extensive internal processes, policy changes, and changes due to local, national and internal political forces, insufficiency of government funds or changes in budget allocations of governments or other entities. Since government entities are responsible for awarding contracts and are parties to the development and operation of certain of IRCON's projects, its business is directly and significantly dependent on their support and co-operation. If it is unable to manage the competitions and changes in the market, it could materially and adversely impact IRCON's business, results of operations and financial condition.

**If IRCON faces adverse publicity and incur costs associated with warranty claims or from defects during construction, its business, results of operations and financial condition could be adversely affected:** IRCON may have to undertake service and rectification action for defects that could occur in its projects. These actions may require it to spend considerable resources in correcting the problems and may adversely affect future demand for its construction services. Defects in IRCON's projects that arise from defective components or materials supplied by external suppliers may not be covered under warranties provided by such third parties. A majority of the infrastructure contracts specify a period as the defects liability period during which it would have to rectify any defects arising from construction services provided by it at its cost. Under BOT agreements, it is usually required to put in place grievance mechanisms to handle its construction defects and liabilities during the relevant construction and warranty periods. IRCON's contracts also usually include liquidated damage clauses, which may be enforced against it if it do not meet specified requirements during the course of a contract. Actual or claimed defects in construction quality could give rise to claims, liabilities, costs and expenses. Failure to meet quality standards could expose IRCON's to risk of claims during the project execution period when its obligations are typically secured by performance guarantees. In defending such alleged claims or taking such remedial actions, substantial costs may be incurred and adverse publicity generated. Further, management resources could be diverted away from its business towards defending such claims or taking remedial action. As a result, its results of operations and financial condition could be adversely affected. Clients may also make claims against IRCON's for liquidated damages provided in the contracts. In addition, in the event, the defects are not rectified to the satisfaction of its clients, they may decide not to return part or the entire amount paid as a performance guarantee. If it is ultimately unable to collect on these payments and/or retrieve its performance guarantee in full, its profits would be reduced. These claims, liabilities, costs and expenses, if not fully covered, could have an adverse effect on its business, results of operations and financial condition.

**Projects included in order book and future projects may be delayed, extended, modified or cancelled:** IRCON's Order Book sets forth its expected revenues from ongoing projects awarded to it and for which it has entered into signed agreements or received letters of award or letters of intent or work orders. However, project delays, extension, modifications in the work scope or project cancellations may occur from time to time due to either a client's or its default, incidents of force majeure or legal impediments. Revenue generated from a construction project may vary widely and is dependent on various factors, such as, the stage and size of the project, the scheduled commencement date, the price and supply of raw materials and project delays (if any). The scheduled commencement date for its projects is estimated based on current expectations and market conditions, which could change significantly. IRCON's revenue may also differ significantly from period to period due to factors such as number of new projects, delays or difficulties in expanding its business, changes to its pricing structure or that of its competitors, inaccurate estimates of resources and time required to complete on-going contracts and currency fluctuations. It cannot

provide any assurance that the company will succeed in any new projects it may enter into or that it will recover its investments in such projects. Any failure in the development, financing or operation of any of its new projects may materially and adversely affect the business, financial condition, cash flows and results of operations.

**If IRCON is not successful in managing growth, business may be disrupted and its profitability may be reduced:** IRCON has experienced high growth in Fiscal Year 2014, attributable primarily to large size foreign projects secured by it. Its future growth is subject to risks arising from a rapid decrease in order volume or value, and inability to retain and recruit skilled staff. Although it plans to continue to expand its scale of operations through organic growth or investments in other entities, as well as gradually moving to a construction company having a diversified portfolio, it may not grow at a rate comparable to its growth rate in the past, either in terms of revenue or profit. If IRCON is not successful in managing its growth, its business may be disrupted and profitability may be reduced, and consequently, its business, prospects, financial condition and results of operations may be adversely affected.

**Railway sector projects contribute approximately 86.70% of the Order Book as of March 31, 2018. Any change in the sector causing decline in the numbers of project available may adversely affect the revenues and profitability:** IRCON has serviced a diverse range of infrastructure and construction projects in sectors as varied as railways, highways, bridges, flyovers, tunnels, EHP sub-stations, electrical and mechanical works, and commercial and residential properties. However, it continues to attract majority of its projects from the railway sector which accounts for 86.70% of its Order Book as of March 31, 2018. Due to this high concentration, any decline in client demands, increase in quality standard, growing competition and any change in requirements for its services by clients in this sector may adversely affect IRCON's ability to retain the current revenue and profitability level. While clients in the railway sector continue to add new projects and expand geographical coverage in the country, it cannot assure that it will continue to generate the same quantum of business, and decline in the numbers of project awarded to it may adversely affect its revenue and profitability.

**IRCON anticipates that its portfolio will be increasingly concentrated in large-scale and long-term projects, specifically, projects in the railway sector. Such concentration in its portfolio if not properly managed could lead to material adverse effect on the business, prospects, financial condition and results of operations:** IRCON's business strategy is to focus on high value and long-term contracts. As of March 31, 2018, it had 20 projects in its Order Book with value of more than Rs5,000 million. In principle, projects having high order value typically have a smaller percentage of overhead cost as a percentage of total cost and therefore provide a greater potential for profit. However, these high value projects, which take up a majority part of its portfolio, if not properly managed, can increase individual contract risks and have material adverse effect on the business, prospects, financial condition and results of operations. In addition, IRCON may need to execute large-scale projects through joint ventures, which expose it to the risk of default by its joint venture partners. If IRCON does not achieve its expected margins or suffer losses on large contracts, this could have an adverse effect on its results of operations.

**Projects sub-contracted or undertaken through a joint venture may be delayed on account of the performance of the joint venture partner, principal or sub-contractor, resulting in delayed payments or non-enforcement of performance guarantee issued by IRCON, could lead to material adverse effect on its business, prospects, financial condition and results of operations:** From time to time IRCON's sub-contract specific construction and development works of its projects, and when it subcontract to third party, payments may depend on the sub-contractor's performance. Its contracts typically require it to enter into certain commercial and performance obligations with its clients, the performance of which in turn may be dependent on third parties. It may not be able to pass such commercial and performance obligations to executing agencies, which may increase its expenditure in relation to such contracts, or which may result in it being unable to complete its contracts in time or to the satisfaction of its clients. Many of IRCON's projects depend on the availability of competent external contractors for construction, delivery and commissioning, as well as the supply and testing of equipment. Any inadequacy or delay in services by its contractors may result in incremental costs and time over run which in turn may adversely affect its projects and expansion plans. If its joint venture partners fail to perform their obligations satisfactorily, or at all, the joint venture may be unable to perform adequately or deliver its contracted services. If the joint venture partner fails to complete its work on time, it could result in delayed payments or in breach of its contract. In such cases, IRCON may be required to pay penalties and liquidated damages, or the client may invoke its performance bond or guarantee, if applicable. Further, the liability of joint venture partners is joint and several. Therefore, it would be liable for the completion of the entire project if a joint venture partner were to default on its duty to perform. Failure to effectively protect itself against risks for any of these reasons could expose IRCON to substantial costs and potentially lead to material losses.

**Projects are exposed to various implementation and other risks and uncertainties:** The construction or development of IRCON's projects involves various implementation risks including construction delays, delay or disruption in supply of raw materials, delays in acquisition of land, unanticipated cost increases, force majeure events, cost overruns or disputes with its joint venture partners. It may be further subject to regulatory risks, financing risks and the risks that these projects may ultimately prove to be unprofitable. In addition, increases in the prices of construction materials, fuel, labour and equipment, their availability and cost overruns could have an adverse effect on the company. The cost of construction materials, fuel, labour and equipment constitutes a significant part of its operating expenses. Its ability to pass on increased costs may be limited under its fixed price contracts, which may have limited or no price escalation provisions. Further,



IRCON's clients may dispute the increased costs. If it is unable to pass on such unanticipated price increases to its clients in EPC projects or through an increase in annuities or through extension of concession periods in BOT projects, it may have to absorb such increases and its business, financial condition and results of operations may be adversely affected.

**IRCON may be unable to identify or acquire new projects and its bids for new projects may not always be successful, which may negatively impact the business growth:** Undertaking new projects depends on various factors such as IRCON's ability to identify projects on a cost-effective basis or to integrate acquired operations into its existing business. Its undertakings may require consents from the concession authorities, other regulatory authorities and sometimes, consents from its lenders, when applicable. If it is unable to identify or acquire new projects matching its expertise or profit expectations or to obtain the requisite consents from concession authorities or other relevant parties when required or at all, it may be subject to uncertainties in its business. It cannot be assured that it would bid where it is pre-qualified to submit a bid, that it can collaborate well with its joint venture partner to submit a bid successfully, that it will remain qualified during the bidding process, that its bids, when submitted or if already submitted, would be accepted or that it could be awarded the project IRCON is bidding for. Further, there may be delays in the bid selection process owing to a variety of reasons which may be outside its control and its bids, once selected, may not be finalized within the expected time frame. In case IRCON lose out on bid, there could be adverse effect on its business, financial condition, cash flows, results of operations and growth prospects. Its future results of operations and cash flows can fluctuate materially from period to period depending on the timing of contract awards.

**Inability to obtain adequate capital or other financing at affordable cost or to obtain any financing at all or to complete construction of or to commence commercial operation of the projects undertaken by IRCON may adversely affect the business, results of operations, cash flows and financial condition:** IRCON has working capital requirements for its projects, part of which would be met through additional borrowings from the banks or financial institutions. Moreover, it may need substantial working capital for purchase of raw materials, performance of engineering, construction and other work on projects before payments are received from clients. Its working capital requirements may increase if, under certain contracts, payment terms do not include advance payments or such contracts have payment schedules that shift payments toward the end of a project or otherwise increase its working capital burdens. There can be no assurance that it will be successful in arranging adequate capital or other financing at affordable cost or obtain any financing at all or complete construction of or to commercial operation of the projects undertaken by the Company and any failure in doing so may adversely affect its cash flows, business, results of operations and financial condition.

**Inadequate workload may cause underutilization of workforce and equipment bank:** IRCON estimated its future workload largely based on whether and when it will receive certain new contract awards. While its estimates are based upon its best judgment, these estimates can be unreliable and may frequently change based on newly available information. In a project where timing is uncertain, it is particularly difficult to predict whether or when it will receive a contract award. The uncertainty of contract awards and timing can present difficulties in matching its workforce size and equipment bank with its contract needs. In planning growth, IRCON has been adding to its workforce and equipment bank as it anticipate inflow of additional orders. If it do not receive future contract awards or if these awards are delayed or reduced, it may incur significant costs on account of maintaining the under-utilized workforce and equipment bank, which may result in reduced profitability for the company. As such, its financial condition and results of operation may be adversely affected.

**IRCON may be seriously affected by delays in the collection of receivables from clients:** IRCON's business and revenues depend on projects awarded by government authorities, including central, state and local authorities and agencies and public sector undertakings. There may be delays in the collection of receivables from its clients or entities owned, controlled or funded by its clients or their related parties. Additionally, it may claim for more payments from its clients for additional work and costs incurred in excess of the contract price or amounts not included in the contract price. These claims typically arise from changes in the initial scope of work or from delays caused by the clients. The costs associated with these changes or client caused delays include additional direct costs, such as labour and material costs associated with the performance of the additional work, as well as indirect costs that may arise due to delays in the completion of the project, such as increased labour costs resulting from changes in labour markets. In addition, IRCON may incur substantial costs in collecting against its debtors and such costs may not be recovered in full or at all from the debtors. As it often need to fulfill significant working capital requirements in its operations, delayed collection of receivables or inadequate recovery on its claims could materially and adversely affect the business, cash flows, financial condition and results of operations.

**If IRCON fails to maintain its projects pursuant to the relevant contractual requirements, it may be subject to penalties or even termination of the contracts:** The contracts for IRCON's BOT projects typically specify certain operation and maintenance standards and specifications to be met by it. These specifications and standards requires to incur operation and maintenance costs on a regular basis. It may be subject to increase in operation and maintenance costs which will lead to an increase in operating expenses in order to comply with such specifications and standards, which may adversely affect IRCON's business, cash flows and results of operations. In addition, its operations may be adversely affected by interruptions or failures in the technology and infrastructure systems that it use to support its operations. Any significant increase in operations and maintenance costs beyond budget and any failure by it to meet quality standards may

reduce IRCON's profits and could expose it to regulatory penalties and could adversely affect the business, financial condition and results of operations.

**Delays in the acquisition of private land or rights of way, eviction of encroachments from government owned land by the Government or resolution of associated land issues may adversely affect the timely performance of the contracts and lead to disputes and losses:** In IRCON's contracts, government clients are typically required to acquire, lease, or secure rights of way over, tracts of land underlying the infrastructure it construct free of encroachments and encumbrances, which are beyond control. Separately, although government clients may have obtained land clearances on which these projects are implemented, IRCON may not have copies of supporting documentation for the land acquisition. The regulatory authorities may allege non-compliance and may subject it to regulatory action in the future, including penalties, orders to stop work, seizure of land and other civil or criminal proceedings which may affect the development of its projects, and as a result, adversely affect its business and results of operations. Failure to acquire land may lead to a change of project scope or payment delays or disputes with the Government entity for claims in connection with a completed project's eligibility for an early completion bonus (if any). IRCON will continue to face risks associated with implementation which could be due to reasons beyond its control such as delays from the concession authority or joint venture partners with whom it has entered into contractual arrangements. Further, any delay or inability to complete such land acquisitions may also result in increase in the price of construction materials from original estimates, which it may not be able to pass on to the contractors or users of projects. These factors could have an adverse effect on its business, results of operations and financial condition.

**Projects may be adversely affected by public and political oppositions, conflicting local interests, elections and protests:** The construction and operations of IRCON's projects may face oppositions from the local communities where these projects are located and from special interest groups. In particular, the public, the forest authorities and other authorities may oppose its operations due to the perceived negative impact it may have on the environment, which may cause suspension or delay to its construction or operations until the disputes are resolved. There may be negative publicity about the company made by opposing interest groups in local media due to its construction activities. In addition, it may be adversely affected by political events such as protests and general strikes in the states where it operates, especially when such events take place on or close to its construction sites. Local and national elections often strain government and community resources and governments' decisions in respect of accepting new bids or awarding new construction contracts may be delayed when substantial resources are dedicated to meeting voters' needs. Such events may also disrupt the normal contract awarding or decision making processes and cause IRCON to lose business or incurrance of significant costs. In these events, its business, financial condition and results of operations may be materially and adversely affected.

**Market conditions may affect the ability to complete BOT and PPP projects at expected profit margin, which could adversely affect the results of operations and financial condition:** There is a significant lag between the time IRCON acquires development rights to land for BOT and PPP projects and the time that it develop and operates its projects. Its BOT and PPP project require substantial capital infusion at periodic intervals before their completion and it may take months or even years before positive cash flows can be generated, if at all from such projects. IRCON will be affected if the market conditions deteriorate, if it construct inventories at higher prices due to increases in sub-contracting costs, shortages of, and price increases in, energy, materials, skilled and unskilled labour, and inflation in key supply markets fuel costs, environmental risk, including rehabilitation and resettlement costs or other inputs or if the value of constructed inventories subsequently decline. It may not be able to obtain adequate working capital or other financing to complete construction of and to commence operations of its or their projects. The risk of developing BOT and PPP projects can be substantial as the market value of inventories can change significantly as a result of changing economic and market conditions. Since development investments are relatively illiquid, its ability to mitigate the risk of any market fluctuations is limited. Any failure in the development, financing, implementation or operation of any BOT or PPP project by it or a company in which IRCON invest is likely to materially and adversely affect its business and results of operations.

**The success of business is dependent on its ability to anticipate and respond to client requirements, both in terms of the type and location of the projects:** The growth of the Indian economy has led to changes in the way businesses operate in India, while population growth and urbanization continue to drive demand for better infrastructure. The Government has sought to address the demand for basic infrastructure by increase the numbers of project in both railway and highways sectors. To meet the large number of projects coming up, IRCON continue to strengthen its EPC and DBFOT project capability. Nevertheless, pursuing EPC and DBFOT projects does not assure the success of its business. As clients continue to seek better quality and economic solutions, it is required to focus on the development of better project handling processes and methodologies in the industry. If it is unable to provide clients with their preference or it fails to anticipate and respond to client needs accordingly, it will have an adverse effect on its business, results of operations and financial condition.

**Obsolescence, destruction, theft, breakdowns of construction equipment, vehicles and other construction machinery or failure to repair or maintain the same may adversely affect the business, cash flows, financial condition and results of operations:** IRCON owns a large

fleet of construction equipment, vehicles and other construction machinery used in its operations. As of March 31, 2018, it had a fleet of 648 construction equipment, vehicles and other construction machinery. To maintain its capability to undertake large and complex projects, it seeks to purchase construction equipment and other construction machinery installed with latest technologies and knowhow and keep them readily available for its construction activities through careful and comprehensive repairs and maintenance. However, it cannot be assured that it will be immune from the associated operational risks such as the obsolescence of its construction equipment or machinery, destruction, theft or major equipment breakdowns or failures to repair its major equipment or machinery, which may result in unavailability of equipment, project delays, cost overruns and even defaults under its construction contracts. Obsolescence, destruction, theft or breakdowns of major plants or equipment may significantly increase IRCON's equipment purchase cost and the depreciation of its plants and equipment, as well as change the way its management estimates the useful life of its equipment and machinery. It may experience significant price increases due to supply shortages, inflation, transportation difficulties or unavailability of bulk discounts. Such obsolescence, destruction, theft, breakdowns, repair or maintenance failures or price increases may not be adequately covered by the insurance policies availed by it and may have an adverse effect on its business, cash flows, financial condition and results of operations.

**Faces significant competition and if it fails to compete effectively, its business, prospects, financial condition and results of operations will be adversely affected:** IRCON operates in a competitive environment and compete against various domestic and foreign engineering, construction and infrastructure companies. Its industry has been frequently subjected to intense price competition for the acquisition and bidding of projects. Its contracts are awarded following competitive bidding processes and satisfaction of other prescribed pre-qualification criteria. Its competition varies depending on the size, nature, complexity of the project and on the geographical region in which the project is to be executed. It strives to leverage its financial resources as well as industry expertise, to increase its competitive edge. While service quality, technological capacity and performance, health and safety records and personnel, as well as reputation and experience, are important considerations in clients' decisions, competitive price is a major factor. The competitive nature of this process may require it and other prospective bidders to submit low bids to win the award of the contract to maintain market share. In particular, a large part of IRCON's revenue is attributable to government contracts. It may thus be compelled to bid for new projects more aggressively than it expected and may accept terms and conditions that are not in its favour in order to continue receiving works from the government. If IRCON fails to win new projects, it may not be able to increase, or maintain, its volume of business or revenues. Failure to compete effectively against its current or future competitors may have a material and adverse effect on the business, financial condition and results of operations.

**Failure to successfully implement business strategies may materially and adversely affect the business, prospects, financial condition and results of operations:** IRCON aims to implement its business strategies to ensure future business growth, which may subject to various risks and uncertainties. Implementation of its strategies may be subject to a number of risks and uncertainties some of which are beyond control. There can be no assurance that it will be able to execute its growth strategy on time and within the estimated costs, or that it will meet the expectations of its clients. In order to manage growth effectively, IRCON must implement and improve operational systems, procedures and controls on a timely basis, which, as it grows and diversify, it may not be able to implement, manage or execute efficiently and in a timely manner or at all, which could result in delays, increased costs and diminished quality and may adversely affect its results of operations and its reputation. Any failure or delay in the implementation of any of IRCON's strategies may have a material adverse effect on its business, prospects, financial condition and results of operations.

**Work stoppages, shortage of labour and other labour problems could adversely affect the business:** IRCON operates in a labour-intensive industry and hire contract employees in certain projects. Though it has not faced any material labour disputes in the past which has adversely affected its business and operations, there can be no assurance that it will not experience disruptions to its operations in the future due to disputes or other problems with its work force such as strikes, work stoppages or increased wage demands, which may adversely affect its business. It cannot be assured that its employees will not unionize, or attempt to unionize in the future. Further, there can be no assurance that it will have adequate access to skilled workmen at reasonable rates and in the areas in which it execute its projects. As a result, it may be required to incur additional costs to ensure timely execution of its projects. This may in turn affect its results of operations.

**Business could be adversely affected if it fails to keep pace with technological developments in the construction industry:** Although IRCON's attempt to keep pace with the latest international technology standards, the technology requirements for business in the civil construction and infrastructure sector are subject to constant change and development. To meet its clients' needs, it must continuously update its existing systems and develop new technologies for IRCON's construction projects. Rapid and frequent technological and market demand changes can still render existing technologies and equipment obsolete and result in requirements for additional and substantial capital expenditures and/or significant write downs of its assets. The cost of upgrading or implementing new technologies, upgrading its existing equipment or expanding capacity could be significant. If it fails to anticipate or respond adequately to its clients' changing requirements or keep pace with the latest technological developments, its business, prospects, financial condition and results of operations may be materially and adversely affected.

**IRCON's infrastructure development projects, including BOT projects, enjoy certain benefits under Section 80IA of the Income Tax Act, 1961 and any change in these tax benefits applicable to it may adversely affect its results of operations:** Presently, infrastructure development projects, including BOT projects, enjoy certain benefits under Section 80IA of the Income Tax Act, 1961. As a result of these incentives, most of BOT project companies are subject to relatively low tax liabilities. The income tax exemptions for various BOT projects expire at various points of time. There is no assurance that the BOT projects will continue to enjoy the tax benefits under Section 80IA of the Income Tax Act, 1961 in future. When the tax incentives expire or terminate or in the event that the relevant authority rejects its entitlement under the Income Tax Act, 1961, its tax expense will materially increase and IRCON's profitability may decrease as a result.

**The company is subject to risks arising from currency exchange rate fluctuations, which could adversely affect the business, financial condition and results of operations:** As a business strategy of IRCON, it has diversified its operations into new geographies such as Sri Lanka, Bangladesh, Malaysia, Ethiopia and Mozambique. Presently, it is working on projects in Algeria, Bangladesh and South Africa. For project located outside India, its payment will be denominated in foreign currencies and it has to bear the cost of adverse exchange rate movements as per the terms and conditions of such contracts. Accordingly, any fluctuation in the value of the Rupee against these currencies has and will affect the Rupee cost to it of servicing and repaying any obligations it may incur that expose the company to exchange rate risk which may have an adverse effect on its results of operations and financial condition.

**Consolidated Profit & Loss**
**Rs in million**

Particulars	FY18	FY17	FY16	FY15
Revenue From Operations	40275.1	30673.1	24926.9	29750.7
Other Income	1848.9	2340.4	4159.5	2574.3
Total Income	42124.0	33013.5	29086.4	32325.1
<b>Total Expenditure</b>	<b>35782.4</b>	<b>27397.9</b>	<b>22283.3</b>	<b>23392.9</b>
Operating Expenses	32879.6	24906.7	19235.9	20278.8
Employee Benefits Expense	2388.5	1560.7	1806.9	1943.8
Proportionate share of expenses in Integrated Joint operations	94.4	563.9	972.5	862.3
Other Expenses	419.9	366.5	268.2	307.9
PBIDT	6341.7	5615.6	6803.0	8932.2
Interest	645.6	586.5	433.0	287.3
PBDT	5696.1	5029.1	6370.1	8644.9
Depreciation	164.1	266.8	309.0	220.5
PBT	5532.0	4762.3	6061.1	8424.4
Tax (incl. DT & FBT)	1467.8	1715.4	2184.9	2715.5
Current tax	1789.7	1233.4	1568.3	1976.1
Short / (Excess) Provision for earlier years	-433.7	-183.4	50.7	407.7
Deferred Tax	111.8	665.5	565.9	331.7
Reported Profit After Tax before Minority Interest and Exceptional Item	4064.2	3046.8	3876.2	5708.9
Exceptional item	0.0	736.9	0.0	0.0
Share in Profit/(Loss) of Joint Ventures	51.6	56.0	54.9	-78.6
Adj PAT	4115.8	3839.8	3931.1	5630.3
EPS (Rs.)	43.76	38.79	198.58	284.42
Equity	940.5	989.8	198.0	198.0
Face Value	10.0	10.0	10.0	10.0
OPM (%)	11.2	10.7	10.6	21.4
PATM (%)	10.2	12.5	15.8	18.9

**Consolidated Balance Sheet:**
**Rs in million**

Particulars	FY18	FY17	FY16	FY15
<b>ASSETS</b>				
<b>NON CURRENT ASSETS</b>				
Property, Plant And Equipment	1405.9	1456.1	1563.9	1619.6
Capital Work In Progress	31.5	20.0	15.0	10.7
Investment property	3586.9	3073.5	2781.8	2704.0



Other Intangible assets	691.7	714.8	719.0	721.1
Intangible assets under development	9605.2	5465.8	738.6	151.4
Investments	5678.0	5309.4	3494.7	1735.6
Loans	396.6	789.1	606.1	1286.0
Other financial assets	27366.4	1013.7	498.6	530.2
Deferred tax assets	1338.7	1450.5	2116.0	2675.2
Other non current assets	1410.8	4036.6	2494.1	2453.7
<b>Total Non Current Assets</b>	<b>51511.7</b>	<b>23329.3</b>	<b>15027.8</b>	<b>13887.5</b>
<b>CURRENT ASSETS</b>				
Inventories	1407.5	1393.4	1406.2	1144.4
Investments	2161.7	2499.1	1380.2	683.9
Trade receivables	6937.6	4728.8	5100.0	4717.5
Cash and Cash Equivalents	15740.5	14537.4	25906.8	13212.1
Other bank balances	31164.9	32993.8	21313.1	20577.8
Loans	19.1	802.1	17.1	204.7
Other financial assets	7268.1	6691.1	6845.7	6566.3
Current tax assets (net)	406.1	55.7	191.0	184.7
Other current assets	11165.1	5283.3	4206.3	4031.2
<b>Total Current Assets</b>	<b>76270.5</b>	<b>68984.7</b>	<b>66366.2</b>	<b>51322.6</b>
<b>TOTAL ASSETS</b>	<b>127782.2</b>	<b>92314.1</b>	<b>81394.1</b>	<b>65210.0</b>
<b>EQUITY AND LIABILITIES</b>				
<b>EQUITY</b>	<b>37617.5</b>	<b>38365.3</b>	<b>36607.6</b>	<b>34746.3</b>
Equity Share Capital	940.5	989.8	198.0	198.0
Other equity	36677.0	37179.2	36191.2	34335.5
Non-Controlling Interests	0.0	196.2	218.5	212.8
<b>LIABILITIES</b>				
<b>NON CURRENT LIABILITIES</b>				
Borrowings	32030.8	0.0	0.0	0.0
Trade Payables	4.6	4.6	56.3	82.0
Other financial liabilities	3215.0	2101.4	1613.3	971.1
Provisions	753.0	762.3	1497.8	3385.0
Other Non-Current Liabilities	9149.3	17454.6	9143.4	827.0
<b>Total NON CURRENT LIABILITIES</b>	<b>45152.7</b>	<b>20322.8</b>	<b>12310.8</b>	<b>5265.1</b>
<b>CURRENT LIABILITIES</b>				
Trade payables	5100.4	3606.5	4003.8	4425.6
Other financial liabilities	9470.9	7039.8	6041.0	6339.1
Provisions	2654.4	2980.1	3542.7	3276.5
Other current liabilities	27645.1	19761.3	18262.7	9933.5
Current tax liabilities	141.3	238.3	625.5	1224.0
<b>Total CURRENT LIABILITIES</b>	<b>45012.0</b>	<b>33626.0</b>	<b>32475.7</b>	<b>25198.7</b>
<b>Total Equity &amp; Liabilities</b>	<b>127782.2</b>	<b>92314.1</b>	<b>81394.1</b>	<b>65210.0</b>

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