

India

Infrastructure

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Infrastructure update: Activity picks up in power, roads and ports

Infrastructure equipment suppliers will be the main beneficiaries of improved investment momentum

In our detailed 2008 infrastructure [report](#), we identified power, roads and ports as the key areas to watch. A year later and as the economy recovers from the liquidity squeeze inflicted by the global financial crisis, investment momentum is again gathering in these three sectors. But the investment environment for airports and railways has deteriorated further due to political resistance and ineffective leadership.

Key judgments

- ❑ The overall pace of infrastructure development continues to lag government targets due to political resistance, ineffective leadership, procedural delays and the inability to craft investor-friendly policies, particularly in the airports and railways sectors.
- ❑ Power, roads and ports offer the best investment opportunities because of the improved policy environment in these sectors.
- ❑ The phased implementation of the reformist Electricity Act is beneficial to the power sector.
- ❑ A new Indian National Congress party-linked Roads Minister is spearheading reform in that sector.
- ❑ Promised regulatory changes and proactive state governments are attracting port investments.
- ❑ Equipment, materials and service providers – including power plant equipment and road roller manufacturers and engineering services suppliers – offer the best way to play the infrastructure sector.

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CONTEXT

Improved policy environment will create a strong project pipeline for roads, power and ports

Mid-way through its five-year infrastructure investment plan, the government finds itself well short of the ambitious goals it set in 2007. The global financial crisis (see our November 2008 [report](#)) compounded delays caused by political resistance to private developers, difficulties in implementing investor-friendly policies and procedural blockages. The government did in fact take some steps to counter the credit crunch, such as making more funds available through the India Infrastructure Finance Company (IIFCL) to help meet developers' needs for long-term debt. Tellingly, though, the funds remain largely unused because of the other obstacles to getting projects off the ground.

The national highways programme has suffered due to delays in land acquisition and in the removal of structures that impede the widening of roads as well as law and order issues in some states and the poor performance of some contractors – problems that the government has finally recognized. In the power sector, shortages of coal, gas and other fuel supplies, the shortfall in capacity additions, and delays in commencement of full generation in newly commissioned plants resulted in electricity generation growth of just 2.7 per cent in FY2008-09 compared with the targeted 9.1 per cent.

Government inability to put in place an enabling policy environment has hurt investment, particularly in the roads and railways sectors. The Planning Commission and the Ministry for Road Transport and Highways (MORTH) were unable to agree on a Model Concession Agreement between 2006 and early 2008. As a result the awarding of public-private partnership (PPP) projects by the National Highways Authority of India (NHAI) was delayed until early 2008. In the railways sector a minister who is often physically absent from New Delhi and is socialist in her thinking has resulted in a further narrowing of the already limited PPP projects under consideration.

However, two key factors are helping to recreate momentum for infrastructure investment: a recovery in economic growth this year and the May 2009 election of a more stable coalition government (with the Congress party emerging as a more dominant political force and therefore with more control over policymaking). The new Minister for Roads is from the Congress party and is perceived as investor-friendly, unlike his predecessor who belonged to a southern Indian political ally of the Congress and was therefore less manageable for Prime Minister Manmohan Singh. The Planning Commission that oversees the entire infrastructure sector is also pushing for more PPP projects amid the realization that the public sector – with its bloated fiscal deficit of around 10 per cent of GDP – will not be able to fund infrastructure projects on the scale that is needed to get India's economic growth back to at least 8 per cent per year.

As investment activity now recovers, we find the momentum is gathering primarily in the power, roads and ports sectors but slowing in airports and railways. Below, we look at each sector in turn and analyse its investment drivers and inhibitors.

Power

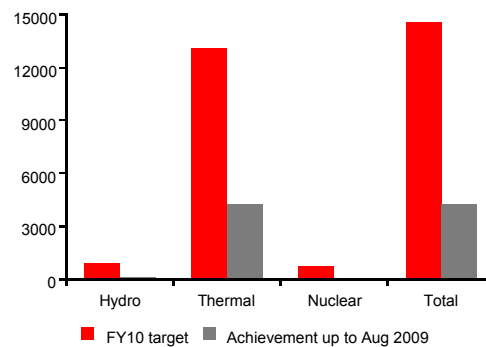
Outlook: Generation - positive; transmission and distribution (T&D) - negative

The reappointment of Congress veteran Sushil Kumar Shinde as Minister of Power was disappointing. During his previous tenure he was unable to turn around loss-making state electric utilities and he did little to help drive private investment in the sector. Nevertheless, investment has picked up steadily since the approval of the Electricity Act 2003, which clarified most regulatory issues.

Among the more encouraging aspects of regulatory reform in the power sector is the development of merchant power which allows electricity to be freely traded on spot and short-term forward markets (as we discussed in detail in our May 2008 [report](#)). This is creating a more liberal and market-determined pricing regime instead of forcing power producers to sell to loss-making State Electricity Boards that may not pay their bills on time. With the market for merchant power still thin (at just 2-3 per cent of the country's entire power generation), most developers are using a hybrid model with a long-term power purchase agreement still accounting for a majority of the power sales of a plant.

However, as more capacity is created and trading on the newly launched power exchanges becomes more active, the potential for returns on merchant power plants will rise. This is mainly because the demand-supply gap for power is likely to keep widening over the next three to four years as capacity addition continues to lag targets. The market for power trading is also growing: the Electricity Act mandated that from January 2009 buyers with demand of more than 1 MW can choose their suppliers, in turn allowing generation companies to sell electricity to multiple consumers.

Chart 1: Targeted vs achieved capacity additions in power generation, FY2009-10 (MW)



Source: CEA.

Risks to our positive outlook

Despite greater deregulation of the sector, the government continues to interfere with the electricity market. The Central Electricity Regulatory Commission (CERC) on 11 September 2009 capped the traded price of power for a period of 45 days to between Rs0.10/kWh and Rs8/kWh (US\$0.02-0.16) after prices spiked and volatility increased sharply on the power exchanges due to weather-related shortages. Since the bulk of the power traded on the exchanges is priced between Rs5 and Rs7/kWh (US\$0.10-0.15), this short-term cap on the price at which power can be sold in the open market for next-day delivery is unlikely to affect companies' profit margins. But private

developers say the price cap is an unnecessary intervention in the market that could upset the risk-reward tradeoff and dissuade investors from taking on high-risk projects. The CERC has stressed that the order is only a short-term measure and that it is conscious of its obligation to ensure a reasonable rate of return for investors.

One longstanding problem is state government interference in New Delhi's attempts to liberalize access for consumers and generation companies to the country's power grid. States continue to prevent power producers from transferring electricity generated within their geographical limits to other states and choose whom they want to sell electricity to. For instance, in August 2009 the CERC permitted power producers with capacity of at least 250 MW to sell electricity to other states through contracts for three to 25 years in the next step of a January 2008 reform that allowed sale of electricity across state borders on a month-by-month basis. But governments in Karnataka, Tamil Nadu, Andhra Pradesh and Orissa have continued to force generation companies to sell electricity only within their respective borders. Land acquisition also remains a chronic problem; for example obtaining the necessary environmental clearances for setting up power plants can take up to nine months.

The most appealing investment opportunity in the power sector remains power generation. Only a few private players are involved in the transmission and distribution of power, especially in PPP projects related to distribution franchising in which electricity distribution rights for a particular area are leased to private firms for a fixed tenure. High aggregate technical and commercial losses, rampant theft and poor enforcement of billing and collection deter many investors from the T&D segment, but rising demand for electricity continues to attract investments in generation.

Bottom line: Challenges remain in the form of land acquisition, environmental clearances and government interference with power trading but the enormous demand-supply gap for power will provide opportunities for investors, particularly in generation.

Roads

Outlook: Positive

As my colleague Amitabh Dubey highlighted in his 11 September 2009 [report](#), the new Minister for Road Transport and Highways Kamal Nath has made an energetic start on removing the regulatory and bureaucratic bottlenecks that have stymied the government's attempts to develop India's rudimentary road network. Only 10 out of the 60 projects up for bidding in the last fiscal year were awarded to developers.

Nath has cobbled together a new consensus among policymakers to improve bidding terms for toll road developers and directly address difficult issues such as delays caused by land acquisition problems – one of the key impediments to investment in India's infrastructure sector. According to a government study, 70 per cent of all road project delays are caused by land acquisition issues.

Nath has moved to consolidate his decision-making authority over the roads sector by pushing for the creation of a prime ministerial committee that went on to recommend that the Roads Ministry should have complete authority to make changes to the Model Concession Agreement and award projects. This would help to avoid turf battles with other government agencies such as the Planning Commission that have in the past led to a bureaucratic logjam.

The government also increased the allocation for the National Highways Development Programme in the July 2009 budget by 23 per cent year on year for FY10-11 during which MORTH plans to tender out 9,800 km of highways (of four or more lanes) with a total project cost of about Rs800 billion (US\$16 billion). Only 25 per cent of India's national highways are two- or four-laned and about 90 per cent of the highways cannot structurally support the 10.2 tonne load per axle that trucks are allowed to carry, according to McKinsey estimates. Industry insiders say that even if only half the government's proposed road projects are bid out, it will result in a doubling of the existing pipeline of most listed companies involved in road building.

Bottom line: Recent initiatives will result in more projects being bid out, greater investor interest and consequently an acceleration in the pace of highway construction over the next two years.

Airports

Outlook: Negative

Civil Aviation Minister Praful Patel began his previous term in office in 2004 with major reforms including deregulating domestic skies and permitting domestic carriers to fly abroad, as well as modernizing the Delhi and Mumbai airports. Since 2007, however, broad progress towards liberalization and deregulation of India's aviation sector has slowed considerably, due partly to the economic slowdown but also to repeated delays in key proposed initiatives that include:

1. **Establishment of the Aviation Economic Regulatory Authority (AERA):** The bill for setting up this independent regulator to monitor tariffs for aeronautical services was finally passed in late 2008, three years after the idea was first floated. According to news reports, AERA is currently being staffed and will be functional only by the end of 2009.
2. **Modernization of 35 non-metro airports:** Political resistance and the slowdown in the real estate market have halted the bidding out of projects to modernize airports in smaller cities. The government-owned Airports Authority of India (AAI) planned to complete the modernization of 35 non-metro airports by March 2010, and the city-side development (commercial development of property, car parking and cargo operations) of 24 of these airports was to be undertaken by PPPs. However, initial bids were invited for airports in Amritsar and Udaipur only and even these were cancelled by the AAI in July 2009 due to a change in project bidding guidelines that reduced the scope of private sector participation.
3. **Ground handling policy:** Although this was introduced in October 2007 with the mandate that by 1 January 2009 three companies (the concerned airport operator, an independent competitive bidder or Air India) will be allowed to provide ground handling services at the six metro and 35 non-metro airports, the policy is yet to be implemented. The government delayed the implementation of the policy by another six months in July 2009 because domestic airlines strongly oppose the higher tariffs charged by the new ground handlers. With airport operators and airlines both suffering a shrinkage in revenues due to the slowdown, the Civil Aviation Ministry will have to take a tough stand against one or the other if the policy is to see the light of day.

Bottom line: A lacklustre real estate market will keep developers away from city-side airport development. Government inability to create an

enabling policy environment will limit investment opportunities.

Ports

Outlook: Positive

The slowdown in global trade has affected port traffic, which grew just 2.1 per cent in FY2008-09 compared with 13.9 per cent in the previous year. The outlook remains uncertain as India's import and export growth continues to be negative. However, persistent delays in completion of port projects and bids awarded for new ones under the National Maritime Development Programme (NMDP) imply that capacity will still be insufficient to meet demand despite the economic downturn.

A long-drawn-out project approval and bidder selection process has delayed port projects. Apart from requiring a green light from the PPP Appraisal Committee, projects also face land acquisition delays and have to deal with tariff-setting issues, lagging connectivity (rail and road linkages need to be coordinated with the concerned ministries at a faster pace, especially for greenfield private sector ports) and shortage of equipment.

Shipping Minister G.K. Vasan, a Congress party leader, is taking steps to resolve some of these problems. His Ministry is in the process of framing a Major Port Regulatory Authority (MPRA) Act 2009 to replace the existing Tariff Authority for Major Ports that has inadequate enforcement powers. The MPRA will regulate tariffs for services provided at India's 12 major ports, monitor the performance standards of port authorities and private operators, and act as an arbitrator of disputes between port authorities, private operators and port users. Meanwhile, the global slowdown should help reduce waiting times for equipment supplies.

Private investment in ports also varies by state. Governments in Gujarat, Maharashtra, Orissa, Andhra Pradesh and Tamil Nadu are proactive in their policies and therefore have more projects to offer private sector investors. Ports developed via the PPP route that have been commissioned over the past year include Gangavaram in Andhra Pradesh and Karaikal in Pondicherry. Several projects are under construction or in the advanced planning stage under the NMDP.

Table 1: Status of port projects under the NMDP, as of 31 July 2009

	Number of projects
Completed	43
Work in progress	69
Approved but not yet awarded	24
Under approval process	28
In preliminary stage	90
Dropped	22
Total	276

Source: Ministry of Shipping.

Despite the problems confronting the port sector, the medium- to long-term outlook is positive due to the demand being created for bulk shipments from

power projects that will require imported coal, steel plants that are planned or under construction in eastern India, expansion of refinery capacity and increasing containerization of traded goods.

Bottom line: Policy environment is improving for major ports, but the primary investment activity will remain in minor ports.

Railways

Outlook: Negative

The appointment of Mamata Banerjee of the Trinamool Congress Party – a junior partner of the ruling coalition – as Minister of Railways has resulted in a slowdown in the award of projects to private investors in a sector that remains a government monopoly. According to media reports, Banerjee spends most of her time in her home state of West Bengal, which has led to policy neglect in New Delhi. She has also earned a reputation for not being pro-business, following her bitter opposition to automobile maker Tata Motors' Nano small car project in West Bengal, which finally resulted in the company moving its operations out of that state. Furthermore, she recently said that the Railways Ministry will not acquire any land forcefully for any projects and that it will review all the land acquisition decisions taken by her predecessor.

With Banerjee's attention focused on state politics, crucial proposals such as the Rs500 billion (US\$10.5 billion), 3,289 km-long Dedicated Freight Corridor (DFC) and the modernization of railway stations have not seen any progress. According to a 13 September 2009 report in the "Indian Express" newspaper, Banerjee has missed seven of 12 cabinet meetings since she was sworn in as Minister in May 2009. A proposal seeking a Rs177 billion (US\$3.7 billion) Japanese loan to fund the DFC was not discussed at the 10 September cabinet meeting due to her absence.

Bottom line: Investment opportunities that were already limited by the state's rail monopoly have been reduced even further on account of policy failure at the Ministry level.

CONCLUSION

The central problems related to infrastructure investments – land acquisition and obtaining environmental clearances and other government approvals for private participation in projects – have not changed. But with the Congress party-led government back in power, the infrastructure drive remains broadly intact, with the Planning Commission and key ministers belonging to the Congress party aggressively trying to accelerate the investment momentum. Meanwhile, the power sector seems to be gathering its own steam thanks to the phasing in of the Electricity Act.

Although none of the five infrastructure sectors are meeting the ambitious investment targets set out by the government for 2007-12, the big disappointments are in civil aviation and railways. Both these ministries are run by Congress party allies and are therefore less responsive to pressure from the Prime Minister or the Planning Commission. To be fair, Civil Aviation Minister Praful Patel's hands are tied over the airport modernization plan by sharp political resistance, but other policies such as those pertaining to ground handling are also being delayed due to the Ministry's inability to find a consensus among the various groups involved.

However, investor interest in the infrastructure sector is still warranted because of the sheer demand for uninterrupted power, good roads and additional port capacity. The number and speed of projects may not be up to expectation, but there is still enough activity to keep the project pipeline for infrastructure-related firms strong.

The basic investment conclusion that we have been emphasizing in our recent reports on infrastructure remains the same: the best medium- to long-term opportunities are direct and portfolio investments in infrastructure-related equipment manufacturers. Service providers – from aggregate bitumen and cement for roads to machinery and engineering services – are also important plays. This route minimizes political risk because these companies also benefit from government-led spending on infrastructure in areas where private investment is limited, such as airports and railways.

ASSUMPTIONS AND EVIDENCE

The global financial crisis, political resistance and procedural delays slowed capacity expansion in the power and port sectors during FY2008-09 in absolute terms while progress in the roads sector was slower in relative terms.

Table 2: Annual infrastructure capacity creation, FY2006-09

	FY2006-07	FY2007-08	FY2008-09
Power capacity addition (MW)	6,853	9,263	3,454
National highways length upgraded (km)	636	1,683	2,203
Railway routes electrified (km)	361	502	797
Port capacity addition (million tonnes per annum)	-	27.3	23.6

Source: Economic Survey 2008-09.

Bureaucratic bottlenecks hamper almost every stage of project implementation.

Table 3: Infrastructure project tendering process

Key activities	Agencies involved	Timeline
Preparation of feasibility report	Nodal agency (for example, NHAI)	12-16 weeks
Approval from Planning Commission	Planning Commission	4 weeks
Preparation of Detailed Project Report (DPR)	Nodal agency External consultants	24-36 weeks
Review of DPR	Administrative ministries Planning Commission	6 weeks
Approval from External Finance Committee (EFC), Public Investment Board (PIB)	Nodal agency EFC PIB	4 weeks
Submission for approval by concerned ministries	Ministry of Finance Ministry of Environment and Forests Cabinet Working Committee	2 weeks
Approval granted by all ministries	Ministry of Finance Ministry of Environment and Forests	24-36 weeks

	Cabinet Working Committee	
Submission for approval by Cabinet Committee for Economic Affairs (CCEA)	Nodal agency	4 weeks
Approval granted by CCEA	CCEA	4 weeks
Total time taken		20-26 months

Source: "Mint", 13 August 2009.

But the government is coming to realize that with a high fiscal deficit, India needs large infrastructure investments from the private sector. For instance, the government acknowledges that faster growth in private sector electricity generation has helped to raise overall growth in the power sector.

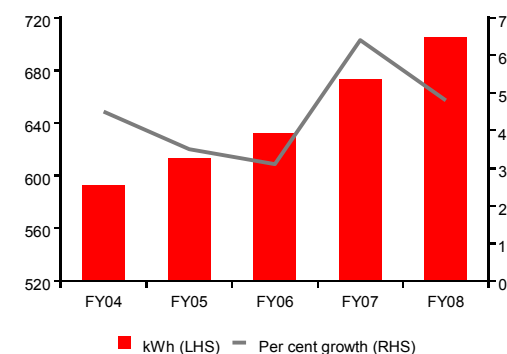
Table 4: Power generation (billion kWh)

Sector	FY2007-08	FY2008-09	Growth (per cent)
Central	299.0	304.0	1.7
State	338.1	345.0	2.1
Private	62.2	68.9	10.6
Total	704.5	723.8	2.7

Source: Economic Survey 2008-09.

The basic driver for investment is the huge demand for infrastructure services and therefore high potential returns.

Chart 2: Per capita consumption of electricity, FY2004-08



Source: CEA.

Although the IIFCL represents a small part of the funds going towards the infrastructure sector, its portfolio is representative of where the activity is: power and roads.

Table 5: Allocations to IIFCL projects with financial closure, by sector as at 31 August 2009 (Rs billion)

Sector	Number of projects	Project cost	Loan total sanctioned	Amount allocated
Road	56	355.6	61.4	43.6
Port	5	37.7	5.8	4.8

Power	21	881.5	91.3	81.3
Airport	2	147.2	21.5	8.5
Urban infrastructure	1	0.7	0.1	0.1
Total	85	1422.6	180.1	138.3

Source: IIFCL.

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