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Comparative Analyze of Infrastructure in Developed Countries

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Abstract

The goal of the work is to understand and find the ways the infrastructure in the UK, Brazil and Russia will be developed in near future by analyzing the finished projects in last 10 years in and providing recommendation for investment growth in russian infrastructure.

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1. Introduction

Infrastructure is a basic condition for economic growth and development of any country. Infrastructure is one of 12 criteria used by Word Economic Forum to analyze competitiveness of any country. Intensive infrastructure is key element for effective economic policy, as it determines layout of economic power centers, growth direction and sectors of economic in country.

The UK, Brazil and the Russian Federation are potentially attractive countries for international investors. Though these countries do not have equally developed infrastructure, in last ten years a number of major infrastructure projects were conducted there. By analyzing the data of the completed projects it is possible to forecast the potential direction to invest in infrastructure in the UK, Brazil and the Russian Federation.

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2. Results and discussion

The cuts in capital spending in the UK in 2010 seem like a long time ago now. While the need to reduce the deficit continues to loom large, spending on infrastructure has been on the rise during this parliament – from £45bn each year in 2010-2013 to £50bn in 2014-15, with pinch-points in digital connectivity and the road network seeing particular attention. Even more encouraging is the gusto with which the government has worked with industry to design new structures capable of channelling a steady stream of investment into our infrastructure. The introduction by Infrastructure UK (IUK) of innovations such as the UK Guarantee Scheme has made a positive impact – helping to bolster £14bn of much needed investment for the construction of Hinkley Point, among other schemes. The Infrastructure Bill is on track to reform the Highways Agency, helping put an end to the stopstart cycle of funding for the road network. Planning has also seen positive change as the National Planning Policy Framework's (NPPF) pro-growth principles begin to slowly bed in. What's more, longer-term plans in the 2013 Spending Round demonstrate a continued level of ambition across the next parliament. This has allowed the government to make a number of bold pledges – from the construction of major transport links such as HS2, to the trebling of planned investment in major road upgrades by 2020-21.

The UK now fares little better by international comparison than it did in 2011 when the CBI first ran its survey. At that time, UK's overall global ranking for quality of infrastructure was 28th according to the World Economic Forum (WEF) Competitiveness Report, just one place down from the 27th position that UK is in now. The UK's road network has dropped two places to 30th in the WEF rankings in the last year alone – below countries such as Namibia and Puerto Rico. The electricity capacity margin forecast for the winter of 2015 is uncomfortably low, having dropped to just 2% from 4% in 2012. In the last five years, new air links to Chinese destinations such as Xiamen, Wuhan, Hangzhou and Shenyang – links which are not provided at all from the UK have been opened up. These examples only compound the anxiety in the business community that the UK is falling behind.

Brazil has been making news for the size and scope of its infrastructure ambitions ever since they were jump-started in 2007 by the government's Growth Acceleration Program of Investment — PACI — followed by a second program that began in 2010 — PAC II — that has led to more than twelve thousand private and public infrastructure projects in the works. Some of the biggest opportunities for private companies lie in transport, partly preparing for the World Cup and Olympics. The country's booming export of commodities is also spurring heavy investment in ports and railways.

Not that Brazil is by any means immune to macro-economic shifts.1 Last November's Economic Outlook from the OECD, for instance, underscores both the struggle and the vitality of the Brazilian economy. On the one hand, Brazil's GDP growth has been revised downward to 1.5 percent, the lowest of all the BRICs, yet the same report projects that Brazil's GDP growth will bounce back to 4 percent and more in the next two years. Indeed, the debate is not if, but when Brazil will come booming back again.

It's nearly impossible to overstate Brazil's commitment to developing its infrastructure. In 2011 Dilma Rousseff's government awarded concessions to redevelop and operate three major airports. Between six and seven more airport concessions are anticipated. This "second wave," with a bolstered and improved concessions bidding process, is expected to boost private investment confidence in the air passenger and air freight sectors. In December of 2012, the administration announced a $US 3.5 billion regional airport infrastructure program that includes, among other things, $US 1 billion dedicated to 64 regional airports in the country's remote northeast and nearly billion to 67 airports in the north, with an overall goal of having 96 percent of the country living within 100 kilometers of an airport.

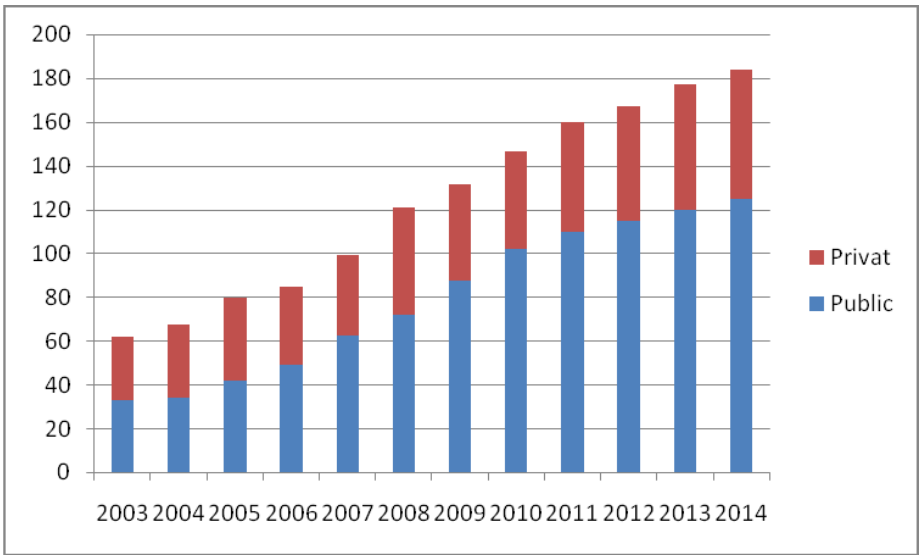

Fig.1. The comparative graphic of public and private investment in infrastructure ion Brazil in 2003-2011.

Mechanisms vary for boosting private investment, but many have been paying attention to harnessing voluntary pension funds to help finance infrastructure projects. It's an idea born in England during the 1980s, under the government of Margaret Thatcher, according to David Tuesta, chief economist for the pension's unit at BBVA Research, and the practice has matured and spread elsewhere in the UK and in Australia. "Pension funds and infrastructure investment represent a strategic alignment between a country's national needs for growth, which are facilitated by improved infrastructure, and the fiduciary interests of voluntary pension funds to optimize long-term portfolio planning." By diversifying their portfolios in areas that have a direct connection to public works, Tuesta adds, "the needs of social development are matched and facilitated by the financial needs and objectives of the funds." The risk profile for pension fund investment in infrastructure, according to Tuesta, is competitive with those of stocks and bonds, offering expected rates of return of 9.3 percent, significantly higher than most standard PPP contracts, which remain between 4 and 5 percent. Although the practice is still in the nascent stages in Brazil — Tuesta estimates that in 2010 pension funds in Brazil invested roughly $62 billion in infrastructure projects — more pension fund participation is expected, especially when combined with the attractions of the new infrastructure debentures program. In fact, Moody's projects that local pension funds and private investors will invest R$ 124 billion, potentially financing up to 42 percent of Brazilian infrastructure needs from 2012 until 2014.

International's downgrading of Brazil's 2012 GDP growth forecast to 1.8 in October was offset by its forecast for Brazil's average real GDP growth of 3.6 percent between 2012 and 2017. The private equity group Kohlberg Kravis Roberts and Russia's biggest investment bank, VTB Capital, have both entered into investment agreements with Brazilian banks, and PepsiCo has renewed investment in Brazil's northeast. In June, the Brazilian government announced "PAC Equipamentos," a R$ 8.4 billion (US$ 4.19 billion) addition to the PAC II accelerated growth initiative. PAC Equipamentos essentially targets specific industries in Brazil to procure, among other things, 8,000 trucks, 8,500 buses, 3,000 tractors, along with subway cars, cranes and earthmoving equipment, and 3 million desks and chairs for schools — all of it, according to a government announcement, designed to "strengthen Brazil's [economic] condition and overcome the difficulties of the international scenario." Despite the current economic slowdown, which, as recent reports of a slight jump in economic growth for June seem to suggest, may be finally leveling off. "Private Brazilian infrastructure companies are developing projects across the region. Even in the most volatile of markets — Argentina, Bolivia, Venezuela — Brazilian infrastructure companies are there," says Paulo

Resende, the head of the Center for Infrastructure and Logistics at Fundacao Dom Cabral, Brazil, “so Brazil’s success will continue to create a ‘waterfall effect’ for everyone.

With many emerging economies suffering from a slowdown and capital outflow, the gap between infrastructure needs and ability of the governments to deliver infrastructure investments is getting ever wider. Russia is keen to increase both infrastructure investment and the private sector’s share in it to speed up infrastructure development. A growing trend in the last decades has been to take the share of the private sector in a country’s infrastructure investments as a measure of such quality. Russia has a long way to catch up both on the increasing infrastructure investment as share of GDP (4% in 2006–15) and private sector participation. The share of private sector as a percentage of cumulative infrastructure investments in Russia over 2006–2015 is estimated at 16%. The same indicator for the US was 29%, India — 40%, EU new members — 44%, EU old members — 64%, and Chile — 66%. The main challenge in the infrastructure sector (and not only in Russia) is that of consistently managing to structure and deliver projects that are both bankable and sustainable. Under Russia’s G20 presidency, the issue of project preparation was taken up and proposals made to enhance project preparation capabilities. This theme has been taken on by the current Australian G20 presidency. Infrastructure projects are generally very complex, not only legally, but also financially and technically. Despite the adoption of the Concession Law back in 2005, what singled out Russia until recently was simply the lack of a project pipeline in which to invest. However, this is starting to change after years of ground work by the public side.

3. Conclusions

There are five priority recommendations that - if adopted - will lead to a sustained level of investment in the 6 percent of GDP range in Russian Federation:

- Vision - Russia needs a compelling infrastructure vision, whether tying the country together (a la the Eisenhower Interstate Highway System), creating a logistics initiative through an export corridor approach or building a robust network of rail and highway connections between major cities. The vision needs to be large, national and focused on competitiveness — creating the conditions for long-term economic success, along with as wide as possible a distribution of opportunity.
- Organization - Running throughout the assessment of Russia’s inconsistent infrastructure performance, set against extraordinary needs, is the fact that decision-making seems fractured. It should be unified. In almost every economic area, greatness comes through the development of clusters of excellence, and these are invariably the result of bringing all decision-makers and disciplines under one roof. Russia should consider creating an Infrastructure Ministry (Canada has a strong model), and placing budget and finance authority for infrastructure under that roof.
- Local Strength - Probably the biggest weakness in Russia’s recent infrastructure strategy — obvious now — has been relying on outside financing through a PPP model. This has never worked anywhere in the world, and Russia needs to reverse course and build local financing capacity — perhaps through increasing the role of VEB along the lines of Brazil’s development bank model.
- Champions - It is important to recognize that real leadership in an infrastructure initiative comes from local EPC firms. Those firms need to have the financial, technical and management capacity to initiate and execute projects. In this sense, it would make sense for Russia to consider the Spanish model, with VEB playing the role of the European Investment Bank. This would create a strong cadre of professional firms, able to carry their weight in a dynamic infrastructure marketplace.
- Pipeline Creation – A final missing piece is a culture — really, a production process — of good projects, well-structuring from both the engineering and financial perspective. This requires additional up-front financing, probably through VEB or a combination of VEB with appropriate ministries, oblast decision-makers and either the EBRD or the IFC. Once you create this kind of world-class capacity in a country, the conditions for a great initiative are in place.

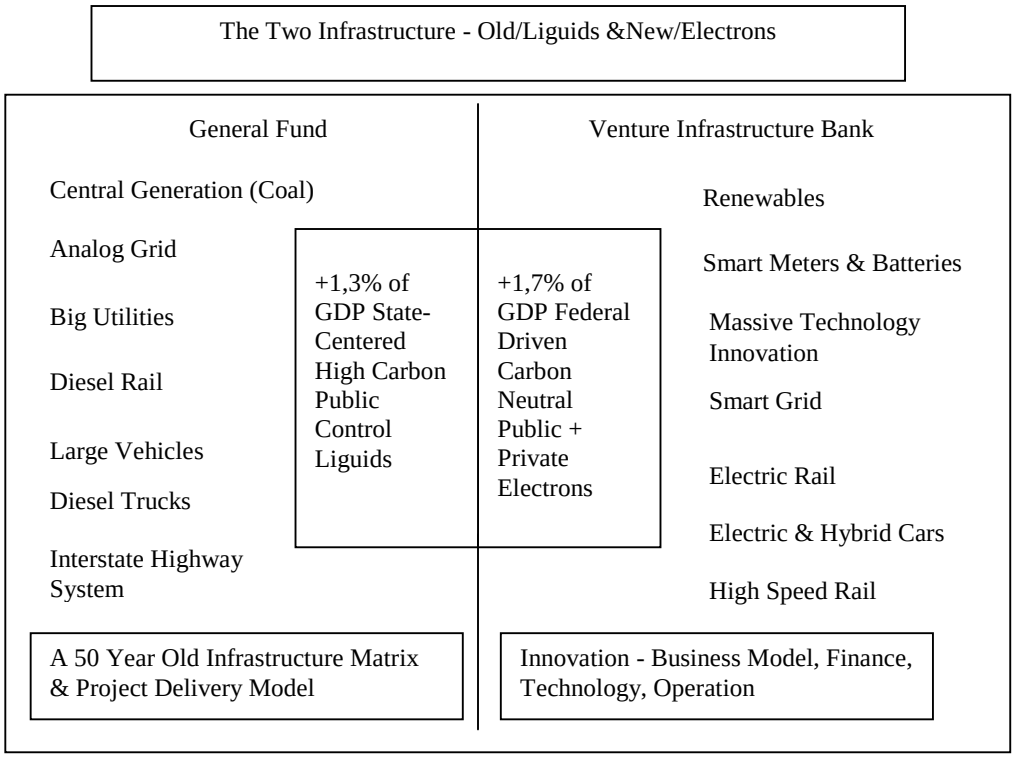

Fig. 2. General characteristics of the Two Infrastructure Models for Russia in 2015-2025.

Under the right conditions, that market should grow to over $120 billion in five years. Infrastructure markets can be very quick to warm - witness the Chinese infrastructure market - particularly when a vision has been developed, and a set of priority projects has been prepared that breathes life into that vision.

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