Strategic Approach to Meeting Northeast Asia's Investment Needs
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Abstract

When evaluating the investment needs and ways to meet them, often the focus is on the size of the investment requirements and the potential sources to finance them. But indeed there are considerable amount of capital resources available, both globally and regionally, that could meet the investment needs. In case of Northeast Asia sub-region, the investment needs, albeit being large, represent only a small percentage of the sub-region's GDP.

However, the critical issue is the investment climate under which the investors operate, which impacts both the size of the investment and sources of financing; and, evidences are strong that a sound investment climate is usually associated with greater economic integration. In this context, few groups of countries can benefit from integration as much as the countries in Northeast Asia sub-region, particularly in infrastructure sector.

The paper provides a broad discussion of East Asia region's growth prospects. It emphasizes on individual countries in the Northeast sub-region, to provide an estimate of their investment needs for the energy sector as well as an indicative estimate for their broader infrastructure needs over the next 10 years. It then examines the implication of the investment climate on investment growth, briefly discusses the benefits of greater economic integration for the countries in the sub-region, and concludes by proposing a framework for a strategic approach to meet the investments needs.

I. Growth Prospects and the Size of the Investment Needs

Although the focus of this conference is on Northeast Asia sub-region, considering the high level of intra-regional trade among East Asian economies, it would be useful to first briefly review the growth prospects for the East Asia region as a whole.

There is a vast body of public information that provides outlook for East Asia's economic performance. Therefore, a detailed discussion of the region's growth prospects is not necessary. Briefly, given the region's impressive performance prior to '97/'98 crises, its rapid recovery afterwards, China's unprecedented sustained economic growth, and dynamics resulting from intra-regional trade, it can be assumed that--barring any unforeseen major disruption--the robust economic growth of the region will continue in the medium term. However, because of the region's heavy reliance on external market (about 2/3 of the regions exports go to the countries outside the region), and of its trend towards global integrations, its economies cannot be isolated from vulnerabilities of

global economy. For the purpose of this paper, it is assumed that 2004 will bring a growth of about 6% to the region, the growth in 2005 will be slightly below 6%, and that the average annual growth for 2006-2015 will be about 5.5%.

With regard to the Northeast Asia sub-region, the paper focuses on growth prospects and investment needs of China, Japan, Republic of Korea (ROK), Mongolia and, limitedly, the Democratic People's Republic of Korea (DPRK) given the absence of reliable and recent data on DPRK's economy and infrastructure. The paper does not review Russia's Far East region, since an isolated analysis of this region without discussing the entire country may not provide a meaningful input to the discussion. However, the economy of Russia's Far East region is indeed closely tied to the economies of Northeast Asia sub-region, and has great potential for integration, particularly in the field of energy and other infrastructure.

Also, for the purpose of this analysis, the paper focuses on energy sector investment requirements, although an order-of-magnitude for the investment needs of the larger infrastructure sector (including roads and telecommunications) is also provided for each country. Energy represents the largest share of investments within the infrastructure sector, and, together with roads and telecommunication, represent over 85% of the infrastructure investment needs. [1]

China

China's economic performance up to now has been stellar. Although there could be some slowdown (partly by design), a robust growth is expected to continue for the medium term. It is estimated that China will finish 2004 with a growth of about 7.5%, its 2005 growth will be about 7.0%, and is assumed that it will continue to grow at an average rate of 6% per year for 2006-2015. This slower growth is in line with country's strategy to eliminate overheating and to avoid the so called "hard landing." The road ahead for China would be challenging, as it is gradually emerging from the easier phase of liberalization and moving into the more difficult structure and institution building phase.

With regard to its future investment needs, they should be assessed in the context of three elements which underlie Chinese economy: urbanization, globalization and modernization. In the energy sector, even under a conservative growth scenario, the investment requirement would be large, both for increasing the domestics energy supply and to provide infrastructure for imported energy. China's need for a significant share of the world's oil and gas supply will position it to control important signals to the market as the strategic buyer. Some estimate that the energy demand increase in China is causing a fundamental global shift in the price of oil (i.e., some US$5-US$10 a barrel). Even taking into account the gradual decline in the energy intensity due to increased efficiency, and assuming that energy prices will recover their full economic cost of supply within the

[1] Energy projects are capital intensive. Globally, electricity and road each represent about 40% of infrastructure sector's investment. The share of the electricity is half of the roads in low income countries, but in middle income countries electricity is double that of the roads (reference 3).

next 3-4 years, it is expected that demand for primary commercial energy in China to grow at about 3% per year over the next 10 years. There would be a gradual decline in the shares of coal and oil (but not in their absolute consumption levels), and an increase in the shares of natural gas and nuclear, although the latter two would still represent small shares in the overall primary energy mix.

It is estimated that China would need an investment of US$700–US$725 billion over the next 10 years for its energy sector alone, about three-fourth of which would be for the power sector (generation, transmission and distribution).[2] The investment in the gas sub-sector is expected to be US$25 – US$30 billion for the period, and the balance is equally divided between oil and coal. Investment needs for energy and other infrastructure (mainly roads and telecommunication) is estimated to be about US$1,200-1,500 billion for the next 10 years. Overall, China will spend about 6% of its GDP per year for new investment and maintenance, to meet its infrastructure needs over the next 10 years.

With regard to the source of financing, there would still be a continuing need, albeit at reduced level, for concessional external financing. The role of the private investors will continue to be hampered by unclear legal framework and reluctant by the private investors to accept provincial government guarantees. Therefore, the financing of infrastructure in China for the medium term is expected to be dominated by the public sector (directly or indirectly), although it will increasingly shift to the private sector over the next 20 years. In the energy sector, because of the private investors preference for quick payback, nuclear, hydro and clean coal technology are not expected to attract major private fund.

Japan

Japan's economy appears to have finally reversed its decline and to be on the path of sustained growth. It grew at 2.7% growth in 2003 and is expected to grow at 4% in 2004. Whether Japan's recovery is sustainable over the medium term is an ongoing debate among the economists. Nonetheless, it is expected that some of the Government's initiatives, such as cleansing the banks with bad loans and the so called "reform without sanctuary" strategy, would bear fruits and provide the impetus for sustained growth . For the medium term, it is assumed that it will grow at 1.5%-2% per year.

For the purpose of this paper, it was not deemed necessary to evaluate Japan's investment needs for the energy/infrastructure sector, particularly since Japan meets its future investment needs virtually all from internal sources (many of the utilities use their internal cash or corporate-based borrowing to finance the investment).

Republic of Korea (ROK)

ROK had a relatively weak growth in 2003 (about 3%), mainly due to weakness in domestic demand. Although the economy picked up in 2004 and as the result of strong

[2] IEA estimates that China's electricity generation sector alone would require about US$800 billion over the next three decades (references 1 and 2).

growth in export the growth is expected to be about 5%, the weakness in domestic demand continues and, more alarming, the corporate expenditure has slowed substantially. However, for the medium term the exports are expected to remain strong and Korea's economic outlook is considered stable. It is estimated that the economy will grow at an average of 4% over the next 10 years.

Regarding investment needs of its energy sector, clearly the 8%-9% annual growth in primary energy demand that prevailed over the past three decades, will no longer be the case. Assuming that Korea will liberalize all its energy prices by 2007, and adopt an aggressive energy efficiency implementation programs--particularly in the heavy industries such as steel, cement, chemical and petrochemical—its primary energy demand will grow at about 3% - 3.5% per year over the next 10 years, with natural gas at 6%-7% (having the highest share of growth), followed by coal, nuclear and oil. The electricity is expected to grow at about 3% per year.

The total investment needs of Korea's energy sector over the next 10 years is about US$75 billion, over 85% of which will be in the power sector. Its infrastructure investment needs (energy, roads and telecommunication) is estimated to be US$155 billion for the period.

Financing of energy project in Korea has shifted significantly over the past 10 years, from government and government-based borrowing to corporate based commercial borrowing, and shifting gradually to domestic market. This trend is expected to continue.

Mongolia

Mongolia, with a GDP per capita of about $460, has had an average growth of about 4% over the past couple years. The Government has set its target annual GDP growth at 6% for the next 5 years. However, Mongolia will face some challenges to achieve this objective. If Mongolia were to achieve this goal--mainly through sustaining a private-led growth--it needs to push towards greater integration with regional and international economies, and remove impediments to private sector participation. Considering these factors, as well as the strong demand for its exports (copper and cashmere) and the recent progress made on the restructuring front (public enterprise reforms), it is assumed that Mongolia will grow at an average annual rate of 4% over the next 10 years.

A preliminary estimate of Mongolia's energy investment needs indicates that it would require about US$500 million over the next 10 years to meet those needs. Further, it is assumed that about 7% of its GDP is needed to meet its infrastructure investment requirements for the period, or about $85-US$100 million per year (including investment for maintenance).

Regarding source of financing, the public sector is expected to continue to play the dominant role either by providing direct financing or facilitating the sectors borrowing by guaranteeing the loans.

Democratic People's Republic of Korea (DPRK)

Although the lack of reliable information on the DPRK precludes definitive statements about various aspects of its economy, experts universally agree that the country suffers from two acute shortages: food and energy. Its indigenous energy resources are limited to coal and hydropower, as the country has no oil, natural gas, geothermal resources or usable nuclear energy. Even coal and hydropower reserves are inadequate, relative to consumption needs. While details are sketchy, outside experts believe that when accounting for suppressed demand, DPRK meets only half of its energy needs.

To rehabilitate the energy sector so it can meet the country's energy needs in a reliable and efficient manner, a large investment (relative to the size of its economy) will be required, perhaps some $30 billion over the next 10 years. Clearly, resources of this magnitude will not be available to DPRK in the near future. Even if they were, meeting DPRK's investment needs presents complex issues in the optimization of the investment program. For example, although new generation capacity could be needed, it may first be necessary to rehabilitate an existing plant, since it will take 4-5 years for the new generation to come on stream. Or, while a fertilizer plant may need to be rehabilitated (and refineries revamped), it may be essential to initially import fertilizer and diesel oil. For infrastructure, rough estimate indicates that it would need about US$75 billion for the period, for new investments and maintenance of its energy, roads and telecommunications infrastructure.

DPRK has the highest to gain by meeting its infrastructure investment and maintenance needs through sub-regional integration. Such a plan in the short term (4-5 years) would include four overlapping phases: stocktaking, imports, capacity building and "light" rehabilitation. The longer-term objectives (5-20 years), would also have four overlapping phases; conducting deeper analytical works for its infrastructure investment needs and strategy, "heavy" rehabilitation, regional integration and new construction.[3] In particular, the potential for DPRK's energy system to be integrated into some of the neighboring countries energy network (China, Russia and ROK) deserves serious considerations. The integration could be through energy trade (import/export), or DPRK facilitating a transit route.

Total Size of the Investment Needs

Based on the above, the total energy investment needs of China, ROK, DPRK and Mongolia over the next 10 years is estimated at US$800-US$830 billion. The indicative estimate for meeting the infrastructure needs (energy, as well as roads and telecommunications) of these countries is estimated to be US$1,400-US$1,700 billion over the next 10 years.

These are clearly "ball park" estimates, function of many variables such as domestic and international prices, structure of the sector, the legal, regulatory and policy framework, the performance of global and regional economies, technology and innovations, and

[3] Reference 5.

political environments. Nonetheless, the thrust of the discussion does not change, in that the demand for energy and infrastructure in the sub-region will continue to increase substantially, the corresponding investment needs of the sub-region would be large, and the financing required to meet most of these investments would have to come from the private sector, regionally and internationally.

II. Investment Climate and Integration

Although the size of the above investment is large, but it is still small in relation to the size of the sub-region's GDP. The available resources in global capital market could easily meet a multitude of this size investment. The challenge however is to develop an investment climate which would be attractive to private investors.

Investment Climate

"Entrepreneurship is everywhere. It is the climate in which they have to operate that can frustrate their effort".[4] It is only recently that we have begun to analyze and quantify the cost of doing business in different countries. Some of the result are revealing in that the negative impacts of an adverse business climate on investment growth is far more significant than originally perceived. Good investment climate is conducive to higher productivity. Investment climate includes the country's institutional, legal and regulatory frameworks, as well as the environment under which every day business is conducted, from frequency of power outages to the number of days required to clear an export/import items from the customs, or to get a telephone line connection.

While the negative impacts of these elements are different on different economy, their common feature is that that they all act as a trade barrier to slow the growth. For example, a recent survey has shown that the investor's highest concerns in developing Asia are corruption, inflation and policy stability.[5] In countries that these may not be the issue, a country's high tax, for example, can act as a barrier. Although appropriate tax policies are effective instruments to promote domestic and foreign investments, the most effective instruments are those which remove obstacles to growth such as heavy regulations, lack of infrastructure and inadequate institutions. The cost of heavy regulations on investment climate is high by any measure.[6]

The average difference between poor and rich countries on "doing business" cost indicators is threefold.[7] Another survey shows that companies in countries with positive conditions in areas such as corruption, policy unpredictability, high taxes and poor

[4] Reference 7.
[5] Reference 7.
[6] It must be noted that regulations also exist in those countries in which the cost of doing business is among the lowest (i.e., New Zealand), but regulations are less costly and burdensome (reference 9).
[7] Reference 9. For example, the survey has shown that it takes 153 days to start a business in Maputo, but 2 days in Toronto; it takes 21 procedures to register commercial properties in Nigeria, but 3 procedures in Helsinki; it costs about US$2,000 to enforce a contract in Indonesia, but costs US$1,300 in Korea; and, in India, a creditor gets 13 cents on the dollar in case of a debtor's bankruptcy, but in Japan it gets 90 cents on the dollar

domestic financial market, experience on average a sales growth which is 11% more than those operating in the countries which these factors are negative.[8] Further, there are indirect costs associated with doing business in a negative investment climate, such as for example the tendency of the firms to underreport revenues where there is weak policy and institutional conditions.

The evidences are thus overwhelming that investment climate has a significant impact on investment growth, including the size of investment and sources of private sector financing—and private sector sources would have to meet the lion's share of the investment needs.

Integration

An essential element of a sound investment climate is a meaningful integration. China is far higher on the list of countries that are easy to do business than, say, Brazil or Argentina. It takes 5-6 days to clear import in Shanghai custom but it takes up to 15 days in Rio custom. It takes up to 5 months to obtain a telephone connection in Dhaka but it will take only seven days in Tianjin. The losses due to power outage (% of total sales) in Karachi are 6% but in Shanghai is 1.5%. [9] While individual country's trade policies play an important role in the growth of investment, high productivity is partly related to the greater integration that comes with sound investment climate: there is strong correlation between investment climate and integration. Chinese success over the past two decades can for most part be contributed to providing an easier business environment and striving for greater integration.

The Case for Northeast Asia Sub-regional Integration

While a detailed analysis regarding the feasibility and benefits of greater integration among the Northeast Asian countries is outside the scope of this paper, indications strongly support that there is indeed significant benefits to be gained through greater integration.

Japan, China and Korea have three of the largest foreign reserves globally. China is Korea's largest export market, and Japan and Korea are discussing Free Trade Agreement. When considering the small size of the Mongolia's economy and its limited endowment, the country can surely benefit from regional integration. Sub-regional integration can also bring substantial benefits to DPRK. Further, integration among the countries of the sub-region is not mutually exclusive from their bilateral integrations such as between Japan and ASEAN, or China and ASEAN. In fact, it would enhance the investment climate and growth of the sub-region.

[8] Reference 7. Also, if hypothetically improvements can be made on all aspects of the "doing business" indicators in a country to reach to the top quartile of countries, annual economic growth can be raised by an estimated 1.4-2.2 percentage points (reference 9).
[9] Reference 6.

However, thus far no concrete action has been taken towards greater integration of the sub-region, particularly in development of a network of infrastructure projects which could benefit several member countries.

III. Conclusion and a Proposed Framework for a Strategic Approach

Global and/or regional financial markets can easily meet the capital resources required for the sub-region's investment needs. However, what is critically important, and challenging, is to create a market-friendly investment climate. The negative impact of an adverse business environment is significantly higher than perceived, impacting the investment growth and the efficiency with which the investments are implemented. An essential element of a sound investment climate is the economic integration, internationally, regionally, or sub-regionally, as the appropriate case may be.

A strategic approach to meeting the sub-region's investment needs would have to be based on improving the investment climate within the economies of the member countries, and on greater integration in the subregion. The preliminary indications are that the sub-region would benefit substantially from greater integrations, particularly in the infrastructure sector. Such an integration would not have a negative implications for bilateral integrations of the member countries with other regions, or internationally. In fact, it would enhance the investment climate and growth of the sub-region.

However, despite potentially vast benefits, thus far very little concrete actions have been taken to this end. To promote the sub-regional integration, the framework for a strategic approach should include;

- Carrying out a cohesive and impartial assessment of the issues and options for greater sub-regional integration including its implications for the investment and economic growth of the member countries;
- Establish, as the key first step, a forum (or strengthen an existing one) with sufficient authorities and resources to facilitate greater integration;
- Take concrete steps toward implementation of a physical infrastructure project--in energy, transport, or telecommunications preferably involving more than two countries--in order to provide an operational impetus for greater integration; and
- Consider establishing, at a later stage, a financial intermediary mechanism, to stimulate securing the financing for the sub-region's investment needs.

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