Development Financing in Northeast Asia
- Demand Estimation and Suggestions -
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<td>III . Present Situation and Prospect</td>
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<td>VI . Conclusions</td>
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Introduction
Geographical Boundary of NEA

Including all of China

Increased growth potential for cooperation and development within NEA
## The Outlook on NEA Countries (As of 2003)

<table>
<thead>
<tr>
<th>Country</th>
<th>Territory (1000㎢)</th>
<th>Population (million)</th>
<th>GDP (USD100 million)</th>
<th>GDP per capita (USD)</th>
<th>Export (USD100 million)</th>
<th>Import (USD100 million)</th>
<th>FDI (USD100 million)</th>
<th>F/X Reserves (USD100mil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.Korea</td>
<td>99.7</td>
<td>48.0</td>
<td>6,052</td>
<td>12,608</td>
<td>1,938</td>
<td>1,788</td>
<td>20</td>
<td>1,553</td>
</tr>
<tr>
<td>N.Korea</td>
<td>122.8</td>
<td>22.5</td>
<td>184</td>
<td>818</td>
<td>7.8</td>
<td>16.1</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Japan</td>
<td>378</td>
<td>127.5</td>
<td>42,953</td>
<td>33,694</td>
<td>4,718</td>
<td>3,829</td>
<td>93</td>
<td>6,633</td>
</tr>
<tr>
<td>China</td>
<td>9,597</td>
<td>1,295</td>
<td>14,100</td>
<td>1,089</td>
<td>4,379</td>
<td>4,131</td>
<td>527</td>
<td>4,082</td>
</tr>
<tr>
<td>Russia</td>
<td>17,075</td>
<td>144</td>
<td>4,329</td>
<td>3,006</td>
<td>1,344</td>
<td>817</td>
<td>24</td>
<td>732</td>
</tr>
<tr>
<td>Mongolia</td>
<td>1,566</td>
<td>2.6</td>
<td>11.8</td>
<td>460</td>
<td>6.3</td>
<td>8.3</td>
<td>0.8</td>
<td>1.3</td>
</tr>
<tr>
<td>% of the World</td>
<td>21.2%</td>
<td>25.7%</td>
<td>20.9%</td>
<td>–</td>
<td>16.8%</td>
<td>13.8%</td>
<td>10.2%</td>
<td>–</td>
</tr>
</tbody>
</table>
Facilitating Economic Development for Underdeveloped Countries

Magnified to MDGs (Millennium Development Goals)
Development for NEA – ‘Not Easy’ but ‘Necessary’

**NEA Countries: In Different Stages of Economic Development**

- Differences in Respective Political Systems, Religion, Level of Technology.
- Military Tension on the Korean Peninsula
- Other Latent Political & Military Tension among Nations (Japan–Russia, China–Japan, China–Taiwan, etc.)

**Ironies between the Condition and the Possibility**

- Economic Conditions vary among Countries → Capital Flow Can Occur → Political & Military Tensions Relaxed
II. Development Demand in NEA Region
Demand for Development - China (1)

Continuous & Rapid Economic Growth (FY1978~2002)

9.4% per annum

Increasing Rate of SOC Investment over GDP

FY1991 3.5%  

FY2002 6.6%
Continuous Growth Expected for the Next 20 Years

6.5% per annum

Based on ADB’s Estimation

Demand for SOC Investment for the Next Decade

U$ 1,345 billion

Estimated GDP & SOC/GDP Ratio
## Demand for Development – South Korea

### Plans of Private Investment in SOC for the next 10 Years

(KRW trillions, USD billions)

<table>
<thead>
<tr>
<th></th>
<th>Amount (USD)</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads</td>
<td>109.3 (85.0)</td>
<td>54.9</td>
</tr>
<tr>
<td>Railways</td>
<td>57.2 (44.4)</td>
<td>28.8</td>
</tr>
<tr>
<td>Airports</td>
<td>6.6 (5.1)</td>
<td>3.3</td>
</tr>
<tr>
<td>Ports</td>
<td>22.5 (17.5)</td>
<td>11.3</td>
</tr>
<tr>
<td>Logistics</td>
<td>3.3 (2.6)</td>
<td>1.7</td>
</tr>
<tr>
<td>Sum</td>
<td>198.9 (154.6)</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### Required Infrastructures for the next 10 Years

<table>
<thead>
<tr>
<th>Used Methods</th>
<th>Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobb – Douglas Production Function</td>
<td>16.1</td>
</tr>
<tr>
<td>Appropriate SOC Investment Ratio over GDP</td>
<td>14.3</td>
</tr>
<tr>
<td>Average</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Source: KDB Analysis (2003. 9)
<table>
<thead>
<tr>
<th>Region</th>
<th>Detail Projects</th>
<th>Amounts</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian Far East</td>
<td>Far Eastern Oil Pipelines</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Irkutsk Gas Pipelines</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sakhalin I · II</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sakha Project</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Mongolia</td>
<td>Millennium Road</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Other Multi-national</td>
<td>TSR</td>
<td>13.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRADP</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td>73.8</td>
<td></td>
</tr>
</tbody>
</table>
# Required Infra Demand – World Bank

<table>
<thead>
<tr>
<th>Region</th>
<th>Income Level</th>
<th>GDP(^1)</th>
<th>Applied Ratio(^2)</th>
<th>Required Infra Demand <em>per annum</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Middle</td>
<td>1,237</td>
<td>5.14</td>
<td>63.6</td>
</tr>
<tr>
<td>S.Korea</td>
<td>Middle</td>
<td>477</td>
<td>5.14</td>
<td>24.5</td>
</tr>
<tr>
<td>Russian Far East</td>
<td>Middle</td>
<td>35</td>
<td>5.14</td>
<td>1.8</td>
</tr>
<tr>
<td>Mongolia</td>
<td>Low</td>
<td>1</td>
<td>6.92</td>
<td>0.1</td>
</tr>
<tr>
<td>N.Korea</td>
<td>Low</td>
<td>17</td>
<td>6.92</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>–</td>
<td><strong>1,767</strong></td>
<td>–</td>
<td><strong>91.2</strong></td>
</tr>
</tbody>
</table>

**Notes:**
1. GDP is as of 2002
2. Applied ratio is the rate of required infra demand over estimated GDP during 2005–2010 adapted to income level by World Bank

*Reference:* Marrianne Fay & Tito Yepes (2003. 8)
III. Present Situation and Prospect

- Supply and Demand for Development Financing in NEA
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1,410</td>
<td>……</td>
<td>2,635</td>
<td>20,210</td>
<td>37,761</td>
<td>57,971</td>
</tr>
<tr>
<td>Investment in SOC</td>
<td>100.0%</td>
<td>……</td>
<td>175</td>
<td>1,345</td>
<td>2,515</td>
<td>3,860</td>
</tr>
<tr>
<td>Government &amp; Others</td>
<td>69.7%</td>
<td>……</td>
<td>121</td>
<td>938</td>
<td>1,754</td>
<td>2,692</td>
</tr>
<tr>
<td>Domestic Financial Institutions</td>
<td>24.3%</td>
<td>……</td>
<td>43</td>
<td>326</td>
<td>611</td>
<td>937</td>
</tr>
<tr>
<td>Foreigners</td>
<td>6.0%</td>
<td>……</td>
<td>11</td>
<td>81</td>
<td>150</td>
<td>231</td>
</tr>
</tbody>
</table>

(Unit: USD Billions)
<table>
<thead>
<tr>
<th>Region</th>
<th>Total Demand for Development (USD billions)</th>
<th>Demand for Development Financing (USD billions)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.Korea</td>
<td>154.6</td>
<td>27.9</td>
<td>Borrowed Capital over Private Project</td>
</tr>
<tr>
<td>N.Korea</td>
<td>15.2</td>
<td>15.2</td>
<td>Total</td>
</tr>
<tr>
<td>Others</td>
<td>73.8</td>
<td>36.9</td>
<td>Half of Russian Far East, Mongolia and Other Multinational Projects</td>
</tr>
<tr>
<td>Sum</td>
<td>243.6</td>
<td>80.0</td>
<td></td>
</tr>
</tbody>
</table>
Demand for Development Financing (Sum)

For the Next 10 Years

U$161 billion

China
81.0 (51%)

S. Korea
27.9 (17%)

N. Korea
15.2 (9%)

Others
36.9 (23%)

(USD billions)
Supply from Development Financing

NEA Claims 6.2% of WB’s Total Supply

**IBRD**
- **$11.23**

**Total Supply**
- **$18.51**

**IDA**
- **$7.28**

**East Asia & Pacific**
- **$2.31**
  - **China**: $1.145
  - **Mongolia**: $0.007

**NEA**
- **$1.15**

**WB Annual Report 2003**
(USD billions)
15.9% of Total Supply of ADB

OCR Loan $4.04
Total Supply $5.67
ADF Loan $1.63

China : $0.87
15% of ADB’s Total Supply (Ranked 3rd)

Mongolia : $0.03

ADB Annual Report 2002
(USD billions)
IV. Economic Benefits from the Activation of Development Financing
## Estimated Commissions & Interest Income

<table>
<thead>
<tr>
<th></th>
<th>Balance of Loans</th>
<th>Commissions (a)</th>
<th>Interest Income (b)</th>
<th>Total Revenue (a+b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Yrs.</td>
<td>140.9</td>
<td>3.2</td>
<td>62.9</td>
<td>66.1</td>
</tr>
<tr>
<td>20 Yrs.</td>
<td>169.1</td>
<td>6.4</td>
<td>186.2</td>
<td>192.6</td>
</tr>
</tbody>
</table>

### Assumptions

1. All projects guaranteed by respective governments
2. Arrangement fee & interest rates are 2% flat and 7.5% per annum respectively, based on prevailing private projects in Korea
3. Loan maturity of 16 years (including 5-year grace period)
4. 16.1 billion dollars per annum – financed by PF Loans
Other Direct & Indirect Benefits

- F/X–related profits incurred from capital flows
- Additional value created by capital flows
- Enlarges employment opportunities
- Expands and streamlines the regional logistics
- Lowers the cost of energy by diversifying its sources
- Further economic benefits from arms reduction
V. SUGGESTED SCHEMES
FOR DEVELOPMENT FINANCING
General Schemes For Development Financing

Investors
- Private Investors
- Institutional Investors
- Financial Institutions
- Governments
- MDBs

Investment Institutions
- Private Investment Fund
- Northeast Asia Investment Corporation
- Northeast Asian Development Bank

SPC
- Project Company 1
- Project Company 2
- Project Company 3
- Project Company 4
- Project Company N

Projects
- Project 1
- Project 2
- Project 3
- Project 4
- Project N
Utilizing Existing Development Financing Organizations

Limited in Gov’t Funding for Large Scale Projects in short term

Development Financing Organizations Have Broad Experience in Raising Funds via Bonds & Loans

- Government–Guaranteed Bonds
- Tax Incentives to Buyers
- Bonds Underwritten by Deposits from Gov’t Funds

Raising Development Financing Organizations as Market Makers
Establishment of Public NEA Development Funds

Short Term
- Subscriptions from Gov’t and Banks
- Deposits from Gov’t Funds

Development Funds
- Equity
- Loans
- Guarantees

Corporation
- SPC
- Lease Corporation

Long Term
- Borrowings
- State/Public Bonds
- Lottery
- Benefits from Funds

Development Banks

Trust
Establishment of Private Development Funds in NEA

DOMESTIC

- Domestic Financial Institutions such as KDB
- Institutional Investors such as Pension Funds, Individuals & Companies
- Abroad Institutional Investors
- International Financial Organizations

ABROAD

- Advisor
- Asset Manager
- Asset Depositary

Private NEA Development Fund
Utilization of MDBs and International Funds

Active Use of Existing MDBs / Funds

Securing Permissive Loans, Cooperation Finance of International Financial Organizations such as WB, ADB, ADF

Establishment of New Regional Financial Organizations/Funds

Establishment of Regional Financial Organizations/Funds such as NEADB or NEADF
V. CONCLUSIONS
Characteristics of Development Financing Market

This market needs more than funds and willingness

Entry Barrier
- National & Regional Gov’t, Gov’t-owned corporations play a key role

Launch Barrier
- Government’s F/X Control
- Funding & Support difficulties due to high risk

Compromise & Deregulation Needed
Role of Government

Introduction

- Establishing a Cooperation System
- Developing Promising Business Opportunities
- Strengthening International Relations
- Seeking Funding Plan

Development

- Minimizing Country Risks
- Providing Investment Incentive
- Continuing System Improvement
- Establishing NEADB

Maturity

- Completing Advanced Financing Infrastructure
- Plans for Cooperative Development with other Financial Areas
- Creating Constant Demand
Role of Financial Institutions

Introduction

- Accumulating Experience through Participation in Domestic SOC Projects
- Encouraging Financial Cooperation at Home and Abroad
- Discovering New Projects and Assessing Risks

Development

- Performing Development Financing
- Initiating the Establishment of NEADB
- Developing High Value-Added Opportunities such as Consulting

Maturity

- Expanding Participation of Commercial Financial Institutions
- Strengthening Cooperative Loans by the NEADB
## Policy Recommendations

<table>
<thead>
<tr>
<th>Area</th>
<th>Recommendations</th>
</tr>
</thead>
</table>
| Building Regional Cooperation             | • Lessening of tensions  
• Multilateral security cooperation                                                |
| Global Standards                          | • General laws, systems, financial practices                                   |
| National Consensus                        | • Overseas investments and financing  
• Attract foreign investments and financing                                      |
| Advancements in Financial Infra           | • Improvement in domestic financial environment  
• Deregulation                                                                |
| Funding Structure                         | • Establishment and execution of appropriate fund system of required resources  |
| Human Resource Development                | • Training of int’l financing experts for the region                           |
NADFC Launched in 2004

Business Preferences
- Projects in China, Korea & Japan, etc.
- Cooperative Development of Natural Resources

Steering Committee

Working Group

Financing Tools
- P/F
- Syndicated Loans
- On-lending Loans
- Guarantees
- Equity Investments
- Underwriting

CDB (China)

Mizuho (Japan)
Thank You ...