Glendale Partners
Project Developers and Consultants

Infrastructure Investment & Finance

Thomas W. Shreve
President Director, Glendale Partners

Breakfast Dialogue
Financial Club
March 27, 2008

FINANCIAL CLUB
JAKARTA

GLOBE ASIA
POWERHOUSE FOR ENTREPRENEURS

Today's Agenda

- The Role of Infrastructure
- Policy Challenges
- Financing Sources
- The Coming Boom in Infrastructure
- Advice for Infrastructure Investors

I. The Role of Infrastructure

The Infrastructure "Requirement"

Indonesia: US$139 billion in 2004-09, Government will provide 17%

Source: Indonesian Government

Indonesia: US$22 billion/year

Source: Indonesian Government, 2006

Indonesia: US$70 billion in 2004-09, US$100 billion in 2009-14

Source: World Bank

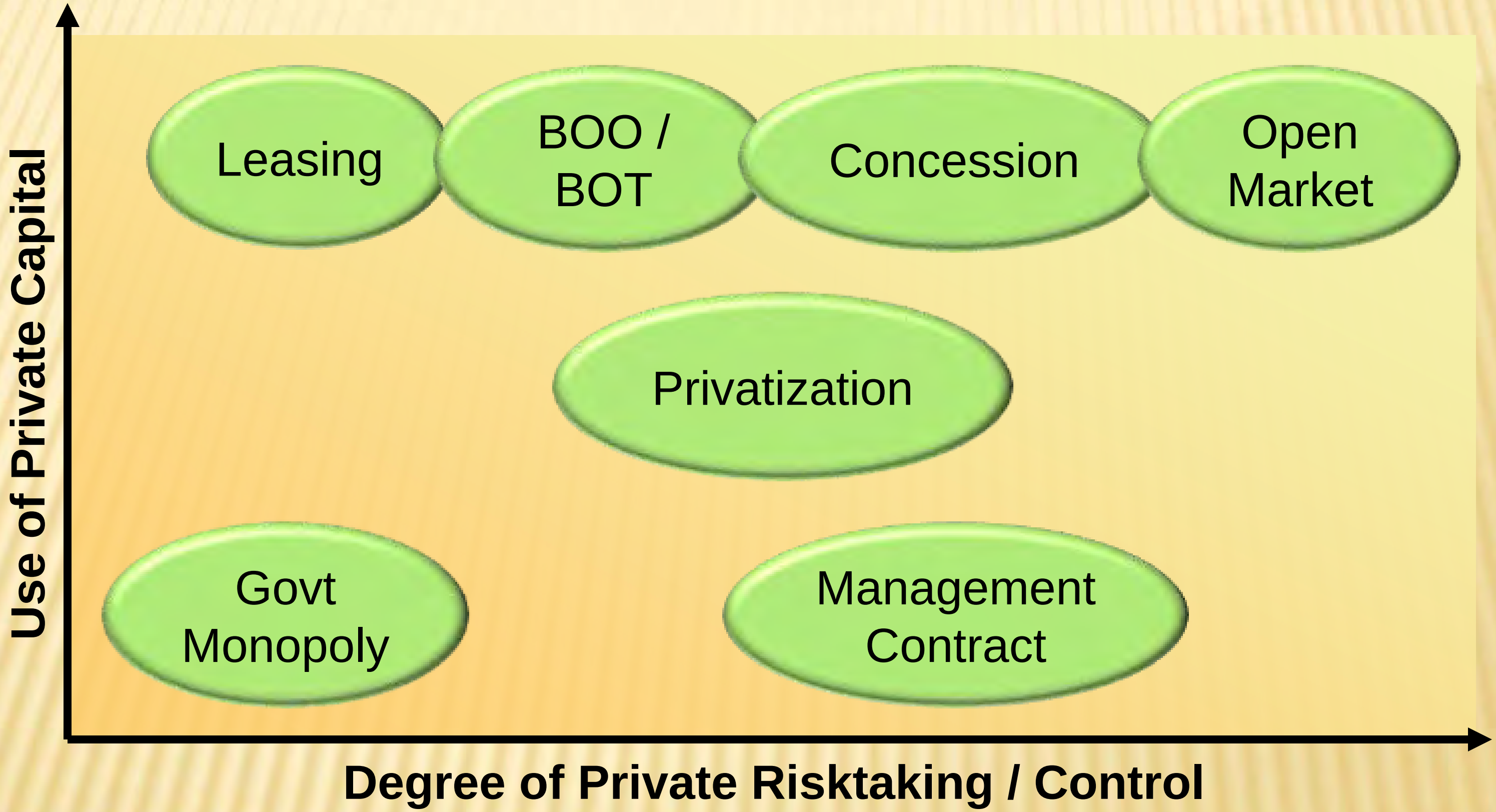
Emerging Markets: US$1,000 billion over 10 years

Source: McKinsey Global Institute, 2008

- At left, a sampling of infrastructure funding "requirements."
- These figures come from the world of policy not business.
- Private funding of infrastructure is relatively new in the world, about 20 years old. It is currently a favorite among policy advisors, but it has a checkered history especially in emerging markets.
- Attracting sufficient private capital is a doubtful proposition. But, so is meeting the requirement by using public funds.

Glendale Partners
Project Developers and Consultants

The Spectrum of Private Participation Alternatives



Glendale Partners
Project Developers and Consultants

Comment on Private Participation

- The private sector is more efficient in its use of capital, but demands a profit commensurate with the risk assumed.
- Government funding will always be the cheapest source of capital.
- The Government's success will be measured based on:
  - Whether it can attract capital to the projects it chooses, and
  - How cheaply it can obtain the capital required.
- Investors' success will be measured based on:
  - Maximizing predicted returns / minimizing predicted risk, and
  - Actual financial results, with the benefit of hindsight.

Glendale Partners
Project Developers and Consultants

II. Policy Challenges

Glendale Partners
Project Developers and Consultants

Policy Challenges Facing Indonesia

- Need for improved concession terms
- Need for a new framework in several sectors
- Need for legal certainty & enforceability
- Perceived political risk
- High domestic interest rates
- Need to develop domestic capital markets

Improved Concession Terms

- Concession terms for typical infrastructure projects such as power plants and toll roads are not competitive with terms offered by other countries.
- Several common explanations:
  - The war on corruption
  - Insufficient give-and-take with investors
  - Macho Government policymaking
  - Insufficient depth in line ministries

Government Support

- Government support is a major issue with infrastructure developers, especially when the Government tries to keep payment obligations off its balance sheet by assigning them to an uncreditworthy subsidiary (PLN is the classic example).
- The MoF has assigned a Risk Management Unit to administer a Guarantee Fund which will take up contingent liabilities in support of infrastructure projects.
- There is an inherent inconsistency between private sector financing and government guarantees …

MoF estimates of guarantees to be issued by the Guarantee Fund:

2009:	*1-2 guarantees*
2010:	*2-4 guarantees*
2011:	*4-8 guarantees*
2012:	*10-15 guarantees*

Glendale Partners
Project Developers and Consultants

Government Support

Most Likely Candidates for the Guarantee Fund

Project	Size	US$M
Toll Roads		
Palembang-Indralaya	22 km	84.2
Pandaan-Malang	37 km	300.2
Kemayoran-Kampung Melayu	9.7 km	605.7
Rawa Buaya-Sunter	19 km	805.4
Kampung Melayu-Duri Pulo	11.4 km	521.2
Sunter-Pulo Gebang	14.7 km	605.5
Pasar Minggu-Casablanca	9.6 km	501.5
Ulujami-Tanah Abang	8.3 km	376.1
Power		
Pasaruan	1x500 MW	275
Central Java	2x600 MW	1,200
Geothermal (6 projects)		

Project	Size	US$M
Gas Pipeline		
Sengkang-Makassar	270 km	110
Cirebon-Muara Bekasi	220 km	190
Transportation		
Jakarta Airport Rail	31.4 km	288
Margagiri Ferry Terminal		237
Bojonegoro Port		194.3
Medan Kuala Namu Airport		224.6
Water		
Tangerang	900 l/sec	33.7
Bandung	450 l/sec	44

Source: Minister Sri Mulyani, Feb. 2008

Glendale Partners
Project Developers and Consultants

Need for New Frameworks

- Toll Roads: Close to serviceable but problems remain
- Power: Old framework with poor track record
- Water: Ad hoc approach with poor track record
- Ports and Airports: Waiting on revised framework
- Telecommunications: Fine tuning only

Glendale Partners
Project Developers and Consultants

“Environmental” Factors

- Inadequate legal infrastructure
- Perceived political risk
- High domestic interest rates
- Underdeveloped capital markets

“The greatest single factor in attracting investment is the experience of investors who have entered previously.”

Perceived Political Risk

Political Risk Ranking of Selected Asian Countries, 2003

1. Singapore
2. Japan
3. South Korea
4. Malaysia
5. Taiwan
6. Thailand
7. India
8. Vietnam
9. Philippines
10. China
11. Indonesia
12. Pakistan

Source: Political & Economic Risk Consultancy, Ltd. (Hong Kong), Business Environment Report 2003

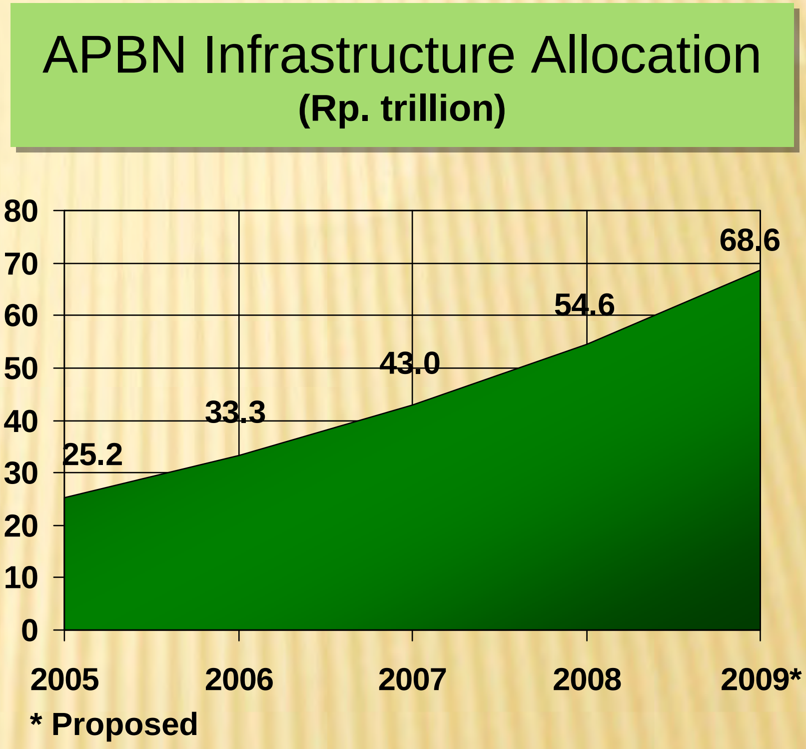
Glendale Partners
Project Developers and Consultants

III. Financing Sources

Glendale Partners
Project Developers and Consultants

Government Funding

- Government funding for infrastructure is not regressive – it is required and expected.
- The Government can and will do more in coming years as its financial position improves.
- Provincial Governments will become more important as they build up cash and are permitted to borrow.



Equity Sources

- Worldwide at present, private sector investment in infrastructure is almost exclusively domestic.
- Many Indonesian business groups are aggressively pursuing infrastructure development.
- International strategic infrastructure investors from developed markets, such as AES and Suez, have not regained the leading role they held in the mid-1990s.
- Emerging markets players, for example from China, India and the Persian Gulf, were seen first in natural resources sectors and may now expand into infrastructure.
- International financial infrastructure investors – primarily infrastructure funds – are taking an increasing role.

Project Financing – The Classic Model

- The limited recourse project financing model was developed early in the privatization of developed country infrastructure.
- In theory, each risk will be identified and allocated to the party most able to control it:

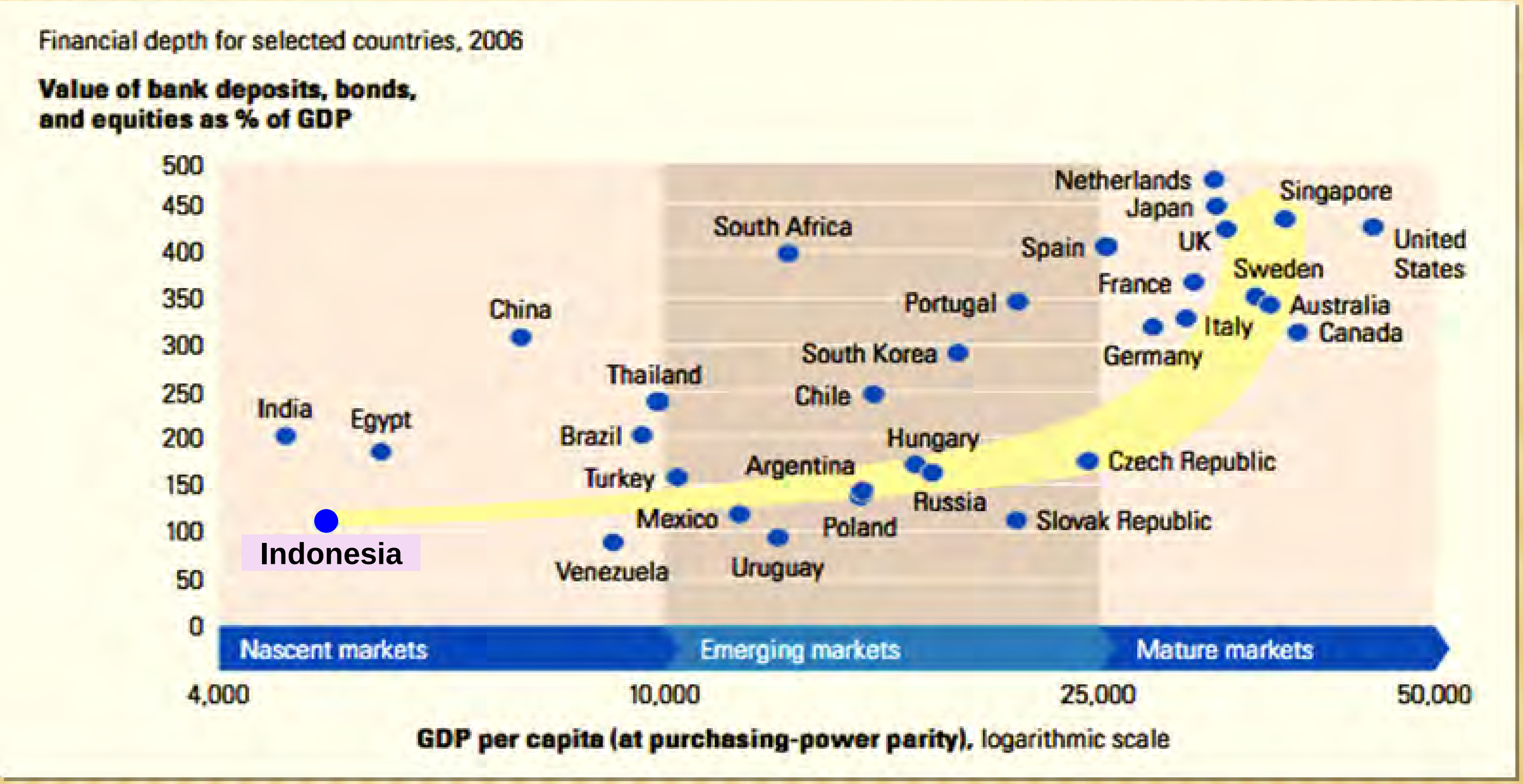
Offtake Guarantor – EPC Contractor – Feedstock Supplier
Political Risk Insurer – Casualty Insurer – Operator – Etc.

- The ultimate objective of this exercise is that no one has to provide an overall guarantee to the lenders, allowing the debt financing to be carried off the books of the parent company.
- While off balance sheet investing is a good way to extend the reach of developers, it may be unrealistic in markets where legal infrastructure is weak.

Domestic Debt Sources

- The domestic market has plenty of liquidity – for example, third party funds in Indonesian banks exceeded credit extended by approximately Rp.480 trillion at Dec. 31, 2007.
- Domestic banks are reluctant to accept the mismatch of tenor between long-term infrastructure projects and their short-term deposits.
- Funding projects using domestic bond issues would allow banks to address the tenor mismatch as well as diversify portfolio risk.
- There has been discussion of the Government administering a pooled bond issue program which would provide financing for a portfolio of infrastructure projects.

Indonesian Financial Markets – Still Lagging

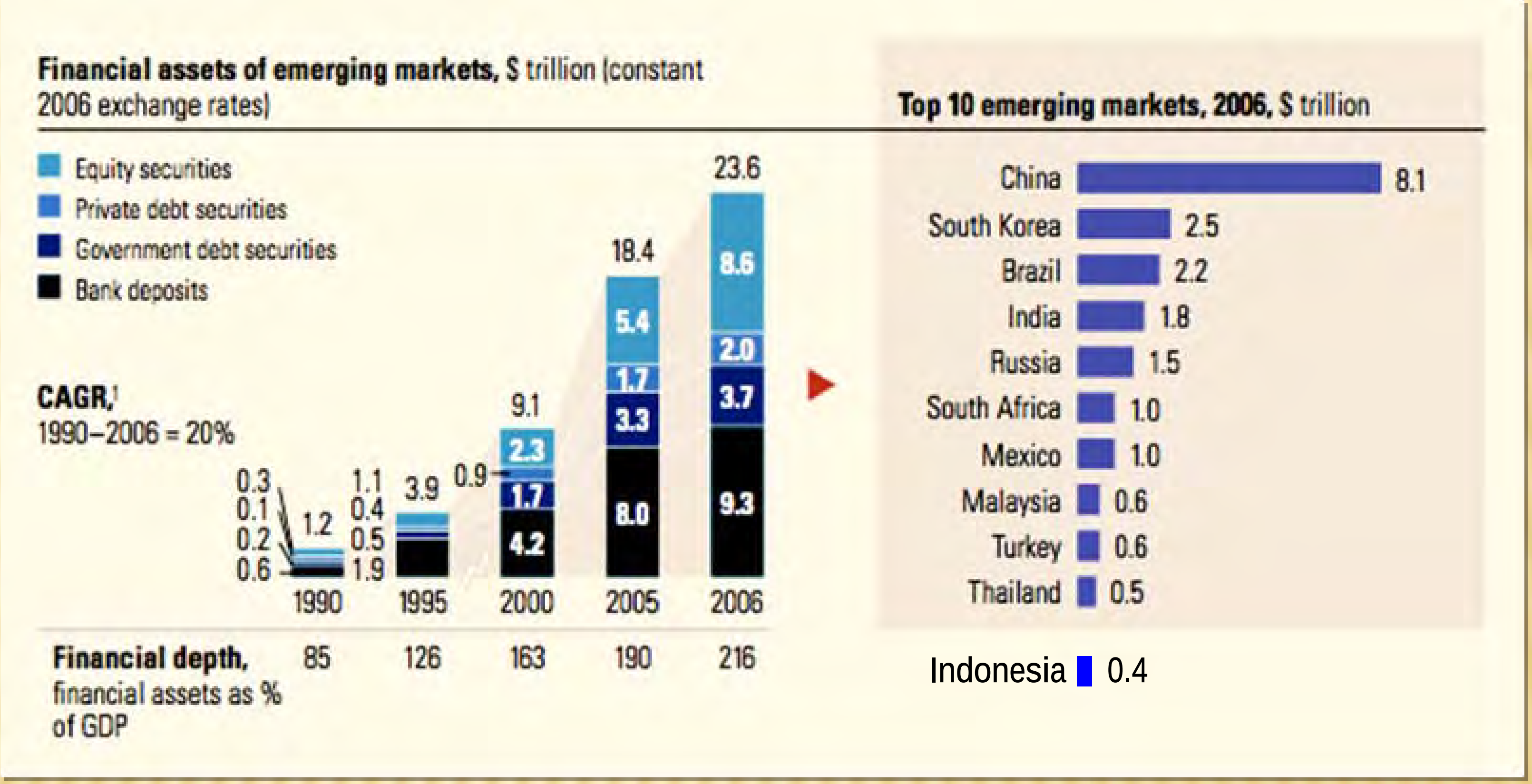


Source: McKinsey Global Institute, 2008

Glendale Partners

Project Developers and Consultants

Growth of Emerging Financial Markets



Source: McKinsey Global Institute, 2008

Glendale Partners

Project Developers and Consultants

Syariah-Compliant Financing

- All syariah compliant structures are analogous to either a repo or a joint venture model.
- There are no regulations to allow these structures to be taxed the same as other financing transactions.
- Syariah bonds (sukuk) are at an early stage but there is opportunity for Indonesia to be a leading market.

	Market Size, 2005 (US$ billion)
Private Debt (Global)	**36,000**
Private Debt (Emerging Markets)	**1,700**
Sukuk (Islamic Bonds) (Global)	**6**

Source: McKinsey Global Institute, 2008
Emerging Markets Partnership, 2006

Carbon Credits

- It takes significant time and money to have a project certified by the UNFCCC. Carbon credits can be sold for US$15-20/ton.
- For non-certified projects, carbon reduction may be demonstrated informally and may generate half the proceeds per ton.
- Forward sales are another issue – these figures represent the value at the time carbon emissions are actually being reduced.
- There is substantial uncertainty after 2012.
- A project with a strong CO_2 impact may generate carbon credits which improve project IRRs by 1-2%.
- If certification is sought after financing, the record must show that carbon credits were a factor in the original investment decision.

Glendale Partners
Project Developers and Consultants

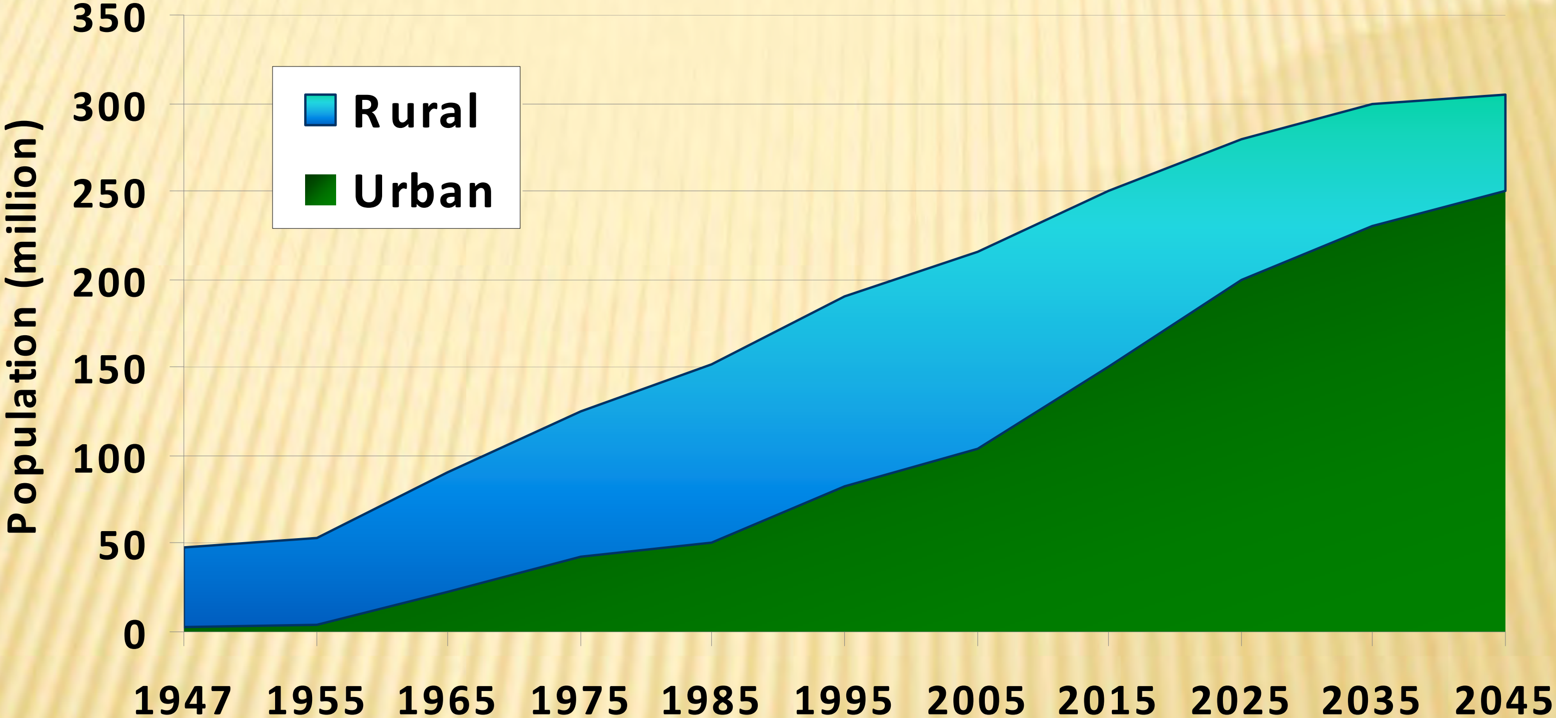
IV. The Coming Boom in Infrastructure

Glendale Partners
Project Developers and Consultants

Trends Affecting Infrastructure

- Rapid national urbanization
- Shortages of equipment and expertise
- Capital surpluses generated by emerging markets
- Popularity of infrastructure as an investment target

Rapid National Urbanization



Today: Urban / Rural ratio ~ 50 : 50
2020: Urban / Rural ratio ~ 70 : 30

Glendale Partners
Project Developers and Consultants

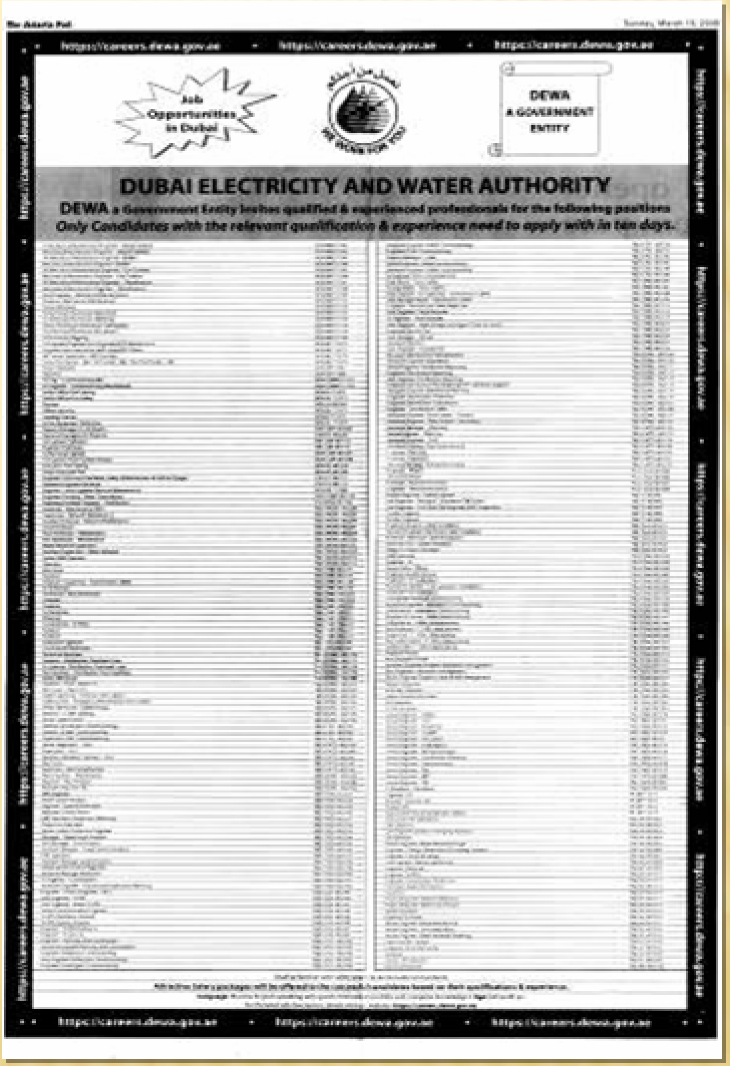
Infrastructure Development Resources Are in High Demand

- There are an estimated US$550 billion in projects now under development in the Persian Gulf region alone.
- Lead times and prices have increased by 50-100% since the start of 2006 for:
  - Turbines and generators
  - Petroleum & geothermal drilling equipment
  - Heavy equipment
  - Shipbuilding

Glendale Partners
Project Developers and Consultants

Infrastructure Development Resources Are in High Demand

- Shortages of engineers and construction specialists is reaching critical proportions.
- New business opportunities are arising, for example in:
  - Repair and maintenance
  - Used equipment
  - Innovative solutions to equipment shortages
  - Technical education and training



https://careers.dewa.gov.ae

Job Opportunities in Dubai

DEWA A GOVERNMENT ENTITY

DUBAI ELECTRICITY AND WATER AUTHORITY

DEWA a Government Entity invites qualified & experienced professionals for the following positions

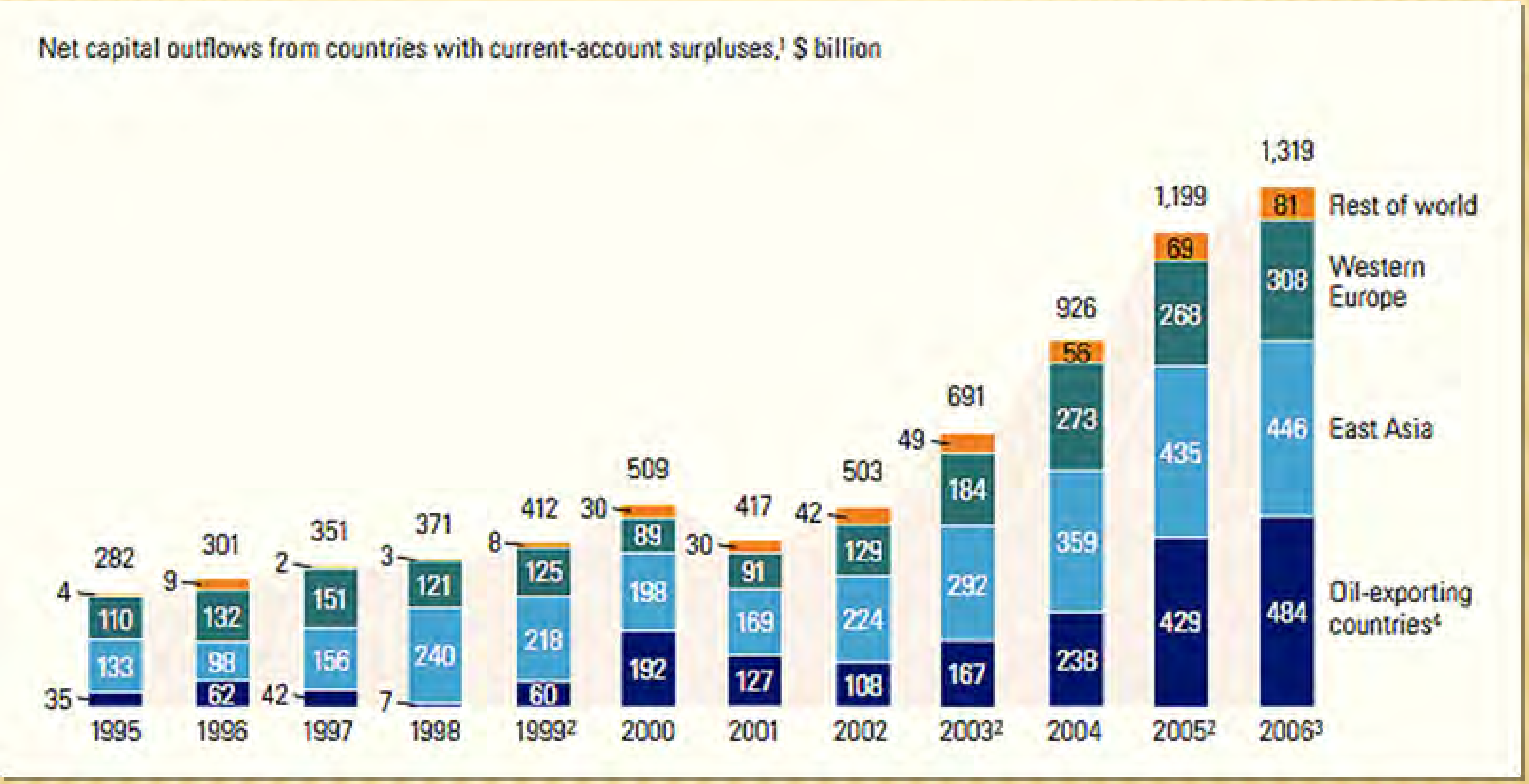
Only Candidates with the relevant qualification & experience need to apply with in ten days.

Jakarta Post, March 16, 2008

Glendale Partners

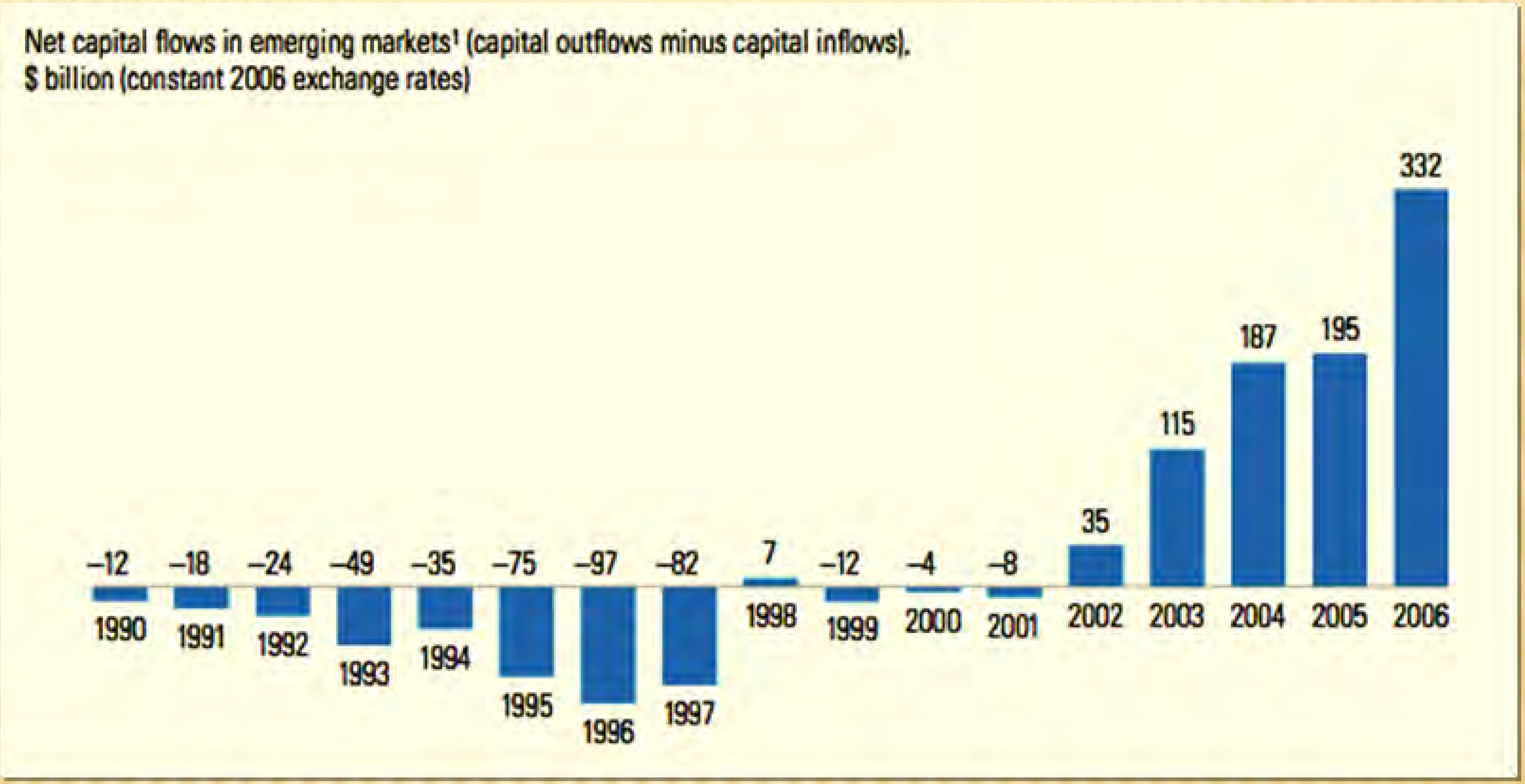
Project Developers and Consultants

Excess Capital Generation – Oil Exporting Countries vs. East Asia



Source: McKinsey Global Institute, 2008

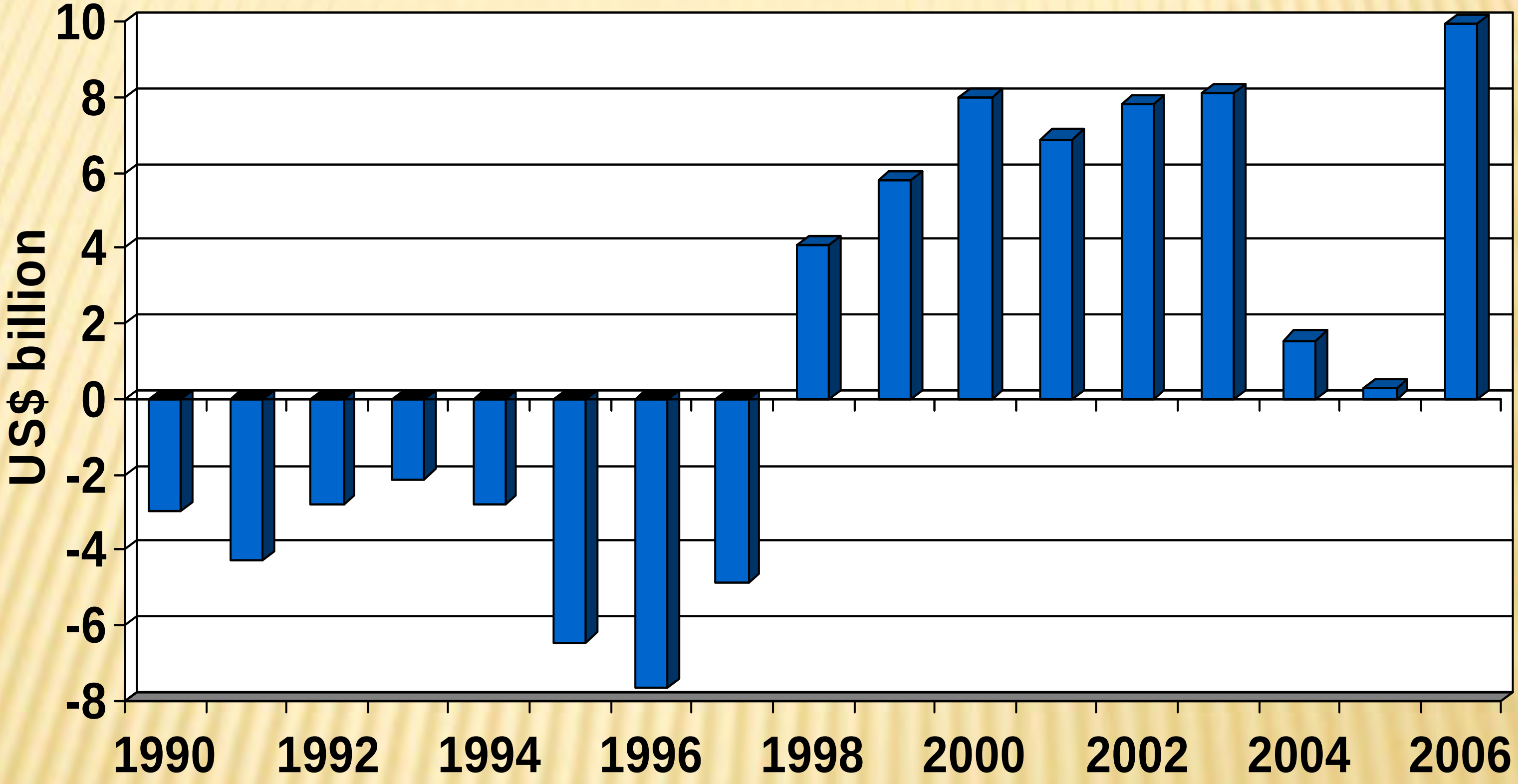
Current Account Movements – Emerging Markets



Source: McKinsey Global Institute, 2008

Glendale Partners
Project Developers and Consultants

Current Account Movements – Indonesia



Source: OECD, 2008

Glendale Partners
Project Developers and Consultants

Popularity of Infrastructure Investment

- Infrastructure investment is more popular in ever in history, with both governments and investors.
- US$105 billion raised by infrastructure funds worldwide from January 2006-June 2007.
- The 20 largest infrastructure funds have US$130 billion under management
  - 77% raised since January 2006
  - 63% from new entrants to infrastructure investing
- Competition for deals is driving prices up and yields down.
- Interest is not subsiding on account of the subprime mortgage crisis and possibly it is even causing increased interest.

Glendale Partners

Project Developers and Consultants

Infrastructure Funds in Indonesia

- Few of the international infrastructure funds are currently present in Indonesia; they will come to Indonesia in search of good investments with reasonable returns.
- Private equity funds are being attracted to infrastructure to achieve their target investment size in Indonesia.
- A new Bapepam regulation allows private equity funds to operate in Indonesia, probably as domestic investors.

Bapepam regulation IV.C.5 (Feb. 14, 2008) allows venture capital funds to be operated under a collective investment contract – "KIK" – provided that:

- *The fund is managed by a CFA or experienced fund manager*
- *The minimum unit size is Rp.5 billion (or US$500,000)*
- *The maximum number of investors is 49*

V. Advice for Infrastructure Investors

Glendale Partners

Advice for Investors

- Do the work: The Indonesian infrastructure sector needs innovative solutions and will reward them.
- Add value by active financial and balance sheet management – in particular, the original development debt financing should usually be refinanced within 2 years of commercial operation.
- Don’t rely exclusively on the classic project finance model.
- Takeovers of existing assets can generate revenues immediately.
- Exercise your right to walk away from unreasonable concession terms and overpriced deals.
- Look at wholly private deals such as captive power and transportation infrastructure for coal and CPO.

Advice for Investors

- Assess risks in a project-specific way.
- Don’t rely on financial expertise alone – become actively involved in operational issues.
- The Government’s difficulties in making Indonesian infrastructure opportunities competitive with other countries will translate directly into higher yields.

In a study of 60 completed private equity investments (Heel & Kehoe, 2005), over 60% of the value added arose from improved performance rather than financial engineering, market timing or sector appreciation.

Glendale Partners

Project Developers and Consultants

- Project Identification
- Financial Expertise
- Operational Expertise
- Policy Expertise
- Infrastructure
- Natural Resources
- Corporate M&A
- Project Management

PT Glendale Partners, Recapital Building 5th Fl., Jl. Adityawarman No. 55, Jakarta 12160 Indonesia
Phone +62-21-7278-7335 www.glendalepartners.com Fax +62-21-7278-7334