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1.040 Project Management
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Project Management
Spring 2009

How to Get Involved in
Private Financing

Fred Moavenzadeh

Department of Civil and Environmental Engineering

Massachusetts Institute of Technology

Project Development

1. Finding Projects
2. Project Structures
3. Getting into the Business
4. Organization & Staffing
5. Finding Partners
6. Financing and Development Issues
7. Project Risks
8. Merchant Bank/Fund Capability

1. Finding Projects

- Network:
 - Infrastructure funds
 - Published bid opportunities
 - Federal and State government officials
 - Banks and international financial institutions
 - Specialized operating companies in chosen sectors (such as electric utilities, airports, toll roads, etc.)
 - Infrastructure-related conferences
 - EPC companies
 - Private sector development companies
 - Individual project developers
 - Strategic and operational investors
- Research and intelligence resources
- Specialized Consultants

2. Project Structures

- Typical structures:
 - Include many participants
 - Various types of project owners/partners could include:
 - Individual project developers
 - Strategic and operational Investors
 - Governments
 - Passive Investors (e.g., funds and institutional investors)
 - Service providers/project contractors, equipment manufacturers, feedstock suppliers, O&M providers, offtakers
 - Various forms of debt – some recourse and some totally non-recourse project risk
 - Can be totally private sector or PPP
- The Developer is responsible for structuring these complex arrangements – which requires creative, experienced individuals.
 - Developers tend to be highly compensated with project profit participation, which can create cultural issues in traditional company

PROJECT STRUCTURES

Illustrative US Cogeneration Project Coal Fired Power Plant



* A wholly-owned special purpose subsidiary was used to hold the partnership interests

3. Getting Into The Business (1)

- Steps for entering the Development business:
 - Identify target sectors, project prioritization and selection criteria, and strategic approach
 - Form company
 - Hire staff
 - Develop and nurture “project opportunity network”
- Options for approaching projects:
 - Develop relationships with project developers/companies in target sectors
 - Create “greenfield” opportunity -- with or without Partner
 - Bid government-sponsored project on specific opportunity -- with or without partner
 - Buy partial or total position of another developer
 - Buy an existing operating asset or business
- Participate-in or develop ancillary business activities or expertise, which:
 - Increases the revenue/profit streams available
 - Increases sector expertise and enhances industry credibility and reputation
 - Expands relationships and possibly improves “deal flow”
 - May ultimately evolve into independent businesses themselves.

Getting Into The Business (2)

- Characteristics of infrastructure projects and the development/finance process
 - Very complex ownership and financial structures
 - New players entering industry, bringing tremendous capital but limited experience
 - Keys to success:
 - Creative financing and access to funding
 - Understanding government regulations and managing government relationships
 - Ability to evaluate specific industry potentials and trends
 - Ability to understand and weather long-term business-cycles
 - Ability to link together and mitigate the myriad of project risks, including the risks involved in project construction, feedstock pricing, off-take pricing, political risk, currency risk, etc,
 - A shortage of experienced professionals in the sectors – and good ones are very expensive.

4. Organization

- Infrastructure projects are highly capital-intensive ventures – so normally you would design your business to maximize your ability to leverage your capital.
- Therefore, one approach is to:
 - Create multiple levels into which strategic or financial investors can be introduced, and
 - Multiple levels at which value can be harvested.

4. Organization

- Any particular block or level of the business can be added or built at any time bringing in strategic, financial or special purpose partners as desired.
- In one model, The company owns a Holding Company which in turn owns x% of the Operating Company.
 - At the Operating Company level, a strategic or financial investor might be brought into the business to purchase part of the Company.
 - This investment could be made at any time – either at the beginning or later in the future -- as the value of the overall business becomes clearer, and the value of a particular partner easier to define.

4. Organization

- Below the Operating Company level could be one or more Holding Companies.
- This approach allows The Company to maximize opportunities for investment of capital from outside sources, while continuing to maintain its desired level of control through the various levels of the organization

4. Organization

- Also below the Operating Company, one could organize a series of Service companies. The Service Companies could include such things as:
 - Operations and Maintenance
 - Management (accounting and other support to projects)
 - Development
 - Project Finance/Financial Advisory Services
- These entities grow expertise, provide differentiators in the marketplace, provide career growth opportunities, and also provides the flexibility to capture associated revenue streams

5. Finding Partners

- Important to Understand:
 - The Company's existing joint venture/partnership relationships
 - The Company's criteria for selecting future partners, could include:
 - Recognized name
 - Development experience in the sector being considered
 - Operational experience in the sector being considered
 - Reputation for ethical conduct and best operating practices
 - Strong financial position with robust balance sheet
 - Compatible with culture, modes of operation and business expectations
 - Ability to help build the sector in which they will invest
 - Ability to relate-to and comply with the particular local laws and regulations,
 - The partners would typically vary by sector, although there can be some cross-over

6. Financing

- Infrastructure project finance is a specialized skill-set.
- These are complex, often unique projects with multiple parties
- Often Project/Limited Recourse Financing
- Typically, there are diverse financing sources
 - Export Credits
 - Aid and concessionary finance
 - Bank consortia
 - Institutional
 - Contractor and equipment supplier
 - Mezzanine and other types of debt funds
 - General purpose Funds

6. Financing ⁽²⁾

- Financing often conducted in two phases
 - Short-term construction loans
 - Longer term take-out financing
 - Some signs of secondary markets evolving
- Interest rates can be fixed or floating
 - Generally banks are floating
 - Institutional is fixed
- Funding can cover:
 - Development of greenfield facility with construction risk
 - Construction period funding
 - Acquisition of existing project (s)

6. Financing (3)

- Special considerations that are changing the funding requirements of projects
 - Increased liquidity available for projects globally
 - Proliferation of funds being formed to invest-in or finance projects
 - Examples of funds include: Goldman Sachs, Macquarie Infrastructure, GE Capital, Citi-IFDC (\$5-b), Blackstone, Carlyle

7. Managing Project Risk

- Projects have diverse risk
 - Front-end development exposure
 - Pricing of bid/purchase
 - Completion
 - Geopolitical or local/national political risk (change of regulations, tax policy, expropriation, etc.)
 - Labor (operational)
 - EPC Risks:
 - Engineering, construction, procurement, shipping/logistics, cost risks including inflation
 - Raw materials and feedstock (pricing and availability)
 - Technology (doesn't work or becomes obsolete)
 - Market disruptions
 - Reliability of off-taker
 - Market for product or market pricing
 - Force majeure

7. Managing Project Risk ⁽²⁾

- Risk mitigation techniques
 - Evaluation: Experience and expertise which understands, can evaluate and mitigate risks
 - Risk sharing arrangements amongst parties to the project
 - Insurance (completion, bonding, technology, all-risk, business interruption, political)

8. Merchant Bank/Fund Capability

Example:

- Concept: Create a funding mechanism to support projects being developed
 - Start initially at \$300-million
 - Take 25% (\$75-million) as lead investor?
 - Remaining funds raised from institutional investors around the world
 - Retain core team:— complete by month 3
 - Develop a Fund prospectus: complete by month 3
 - Fund raising and commitment: complete by month 15
 - Closing of Fund: complete by month 17

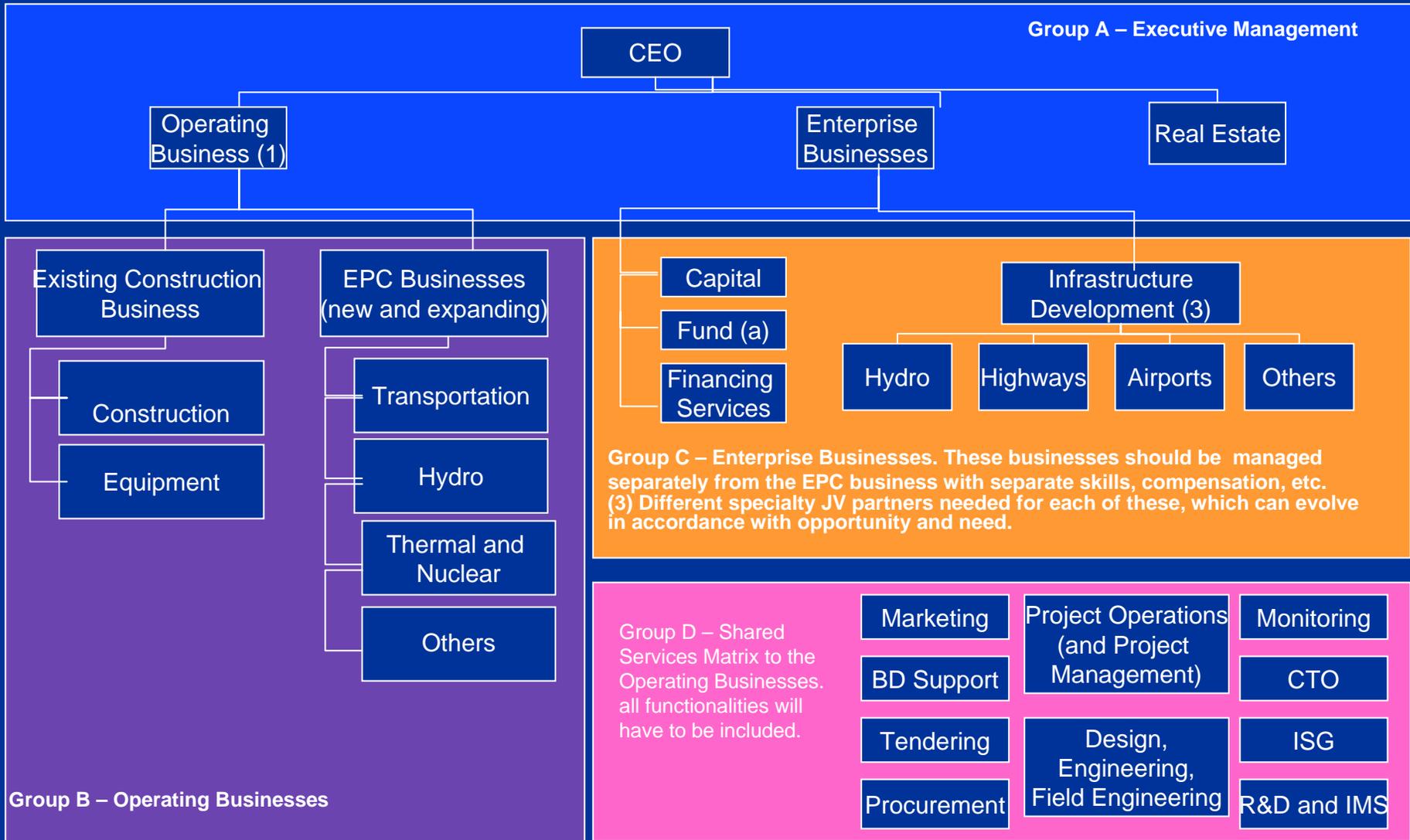
8. Merchant Bank/Fund Capability (2)

- If a 15% interest is taken in projects, the \$300-million investment will support about \$8-billion of projects financed 25% equity and 75% debt
- Fund/merchant bank also to have an international debt raising capability and capability to locate other partners for projects.

Investment Appetite

- What is the breadth of the Company's interest in development?
 - The total package of these activities could include:
 - Development from an owner's perspective
 - Project development and costing from an EPC perspective
 - Broad project participant (which could include: owning and running a development company)
 - Does this vary by sector?
- Are HCC funds available for development and equity investment in development projects?
 - What is the level of potential participation by the Company in a development company and in various projects?
 - Will the Company be willing to partner with others in a development company?
 - What degree of control would the Company require/desired in the development company etc.?

Suggested Enterprise Structure

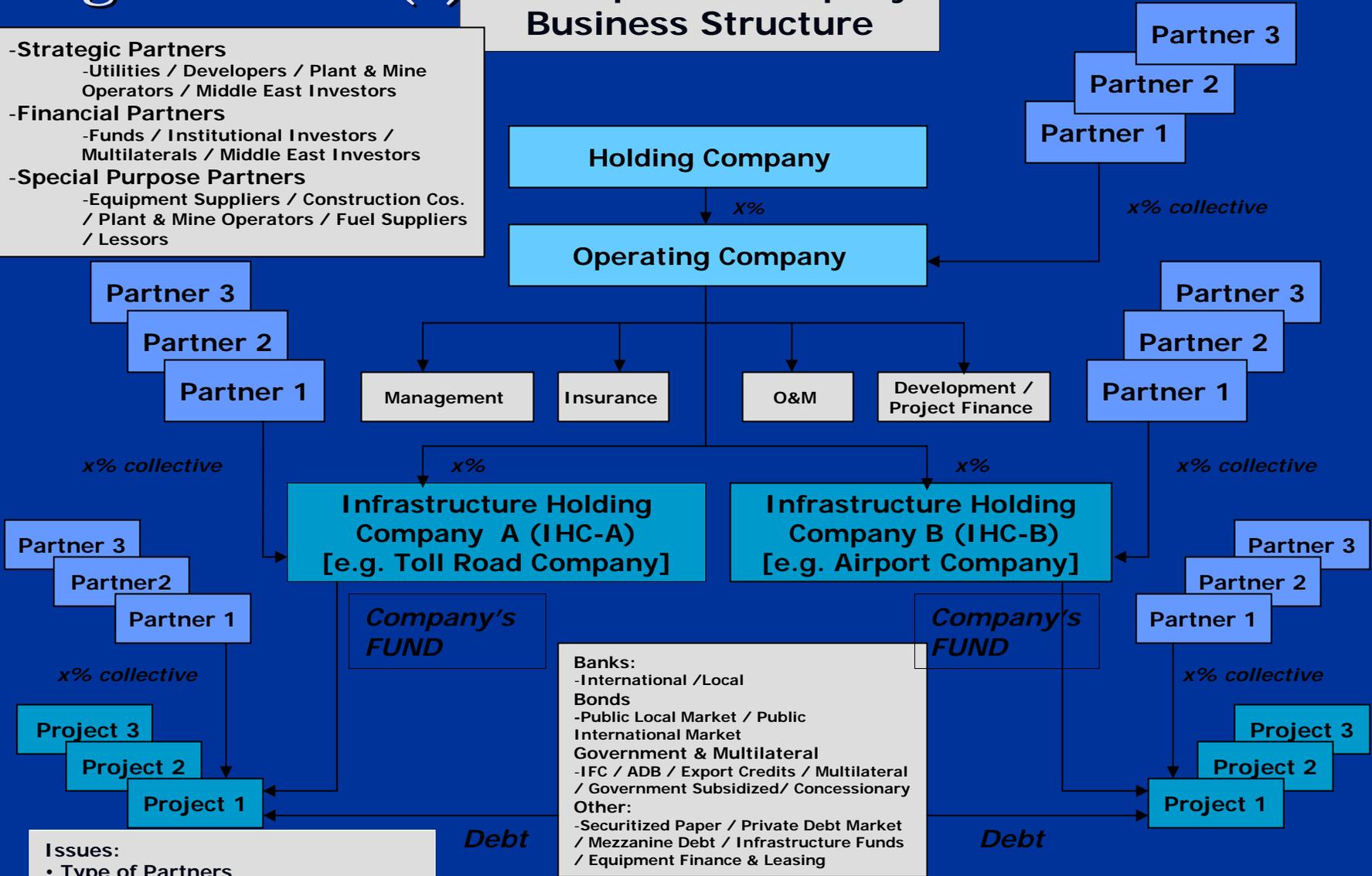


(1) Recommend a separate company be set up to execute LSTK jobs

Organization (2)

Illustrative Development Company Business Structure

- Strategic Partners
 - Utilities / Developers / Plant & Mine Operators / Middle East Investors
- Financial Partners
 - Funds / Institutional Investors / Multilaterals / Middle East Investors
- Special Purpose Partners
 - Equipment Suppliers / Construction Cos. / Plant & Mine Operators / Fuel Suppliers / Lessors



- Issues:**
- Type of Partners
 - Timing to let them enter
 - Level at which they would enter
 - Investment appetite of HCC
 - Raising a Fund(s)

Summary: Analysis for Business Development

- What we need for this business
 - Personnel
 - Partners
 - Resources
 - Commitments
- What we have
- What is missing