



# ***Financing Urban Transportation***

## ***The Korean Framework vs. Global Benchmarks***



CRÉDIT AGRICOLE INDOSUEZ

**Nicolas Vix**

Head, North Asia

Project & Structured Finance

(852) 2848 9975

[nicolas.vix@hk.ca-indosuez.com](mailto:nicolas.vix@hk.ca-indosuez.com)

***April 2003***



# **Contents**

**Global experience**

**The Korean framework**

**Financing transportation projects in Korea**

---

**Appendix: Introduction to Crédit Agricole Indosuez**



**Global Experience:**

**London Underground  
Thessaloniki Metro  
Bangkok "Blue Line"**



# London Underground

11 lines with 275 stations spread over 400 km of track

Owned / operated by London Underground Ltd (“LUL”, a 100%-owned subsidiary of public authority “Transport for London”).

Chronic under-investment had led to reliability problems.

March '98: the Government proposed a PFI / PPP solution = transfer of infrastructure responsibilities to 3 private “infracos” while LUL retains operations (train driving, ticket sales, etc.)

30-year concessions awarded to 2 private consortia:

Metronet (Balfour Beatty, Bombardier, Thames Water, Seaboard and WS Atkins)

Tube Lines Limited (Bechtel, Amey and Jarvis)



# London Underground

## **Infraco's main responsibilities:**

O&M of existing assets (tracks, stations, control rooms, trains)  
Delivery and financing of numerous capital expenditure projects to replace old assets and improve reliability

## **Main terms of the services contract between LUL and Infraco:**

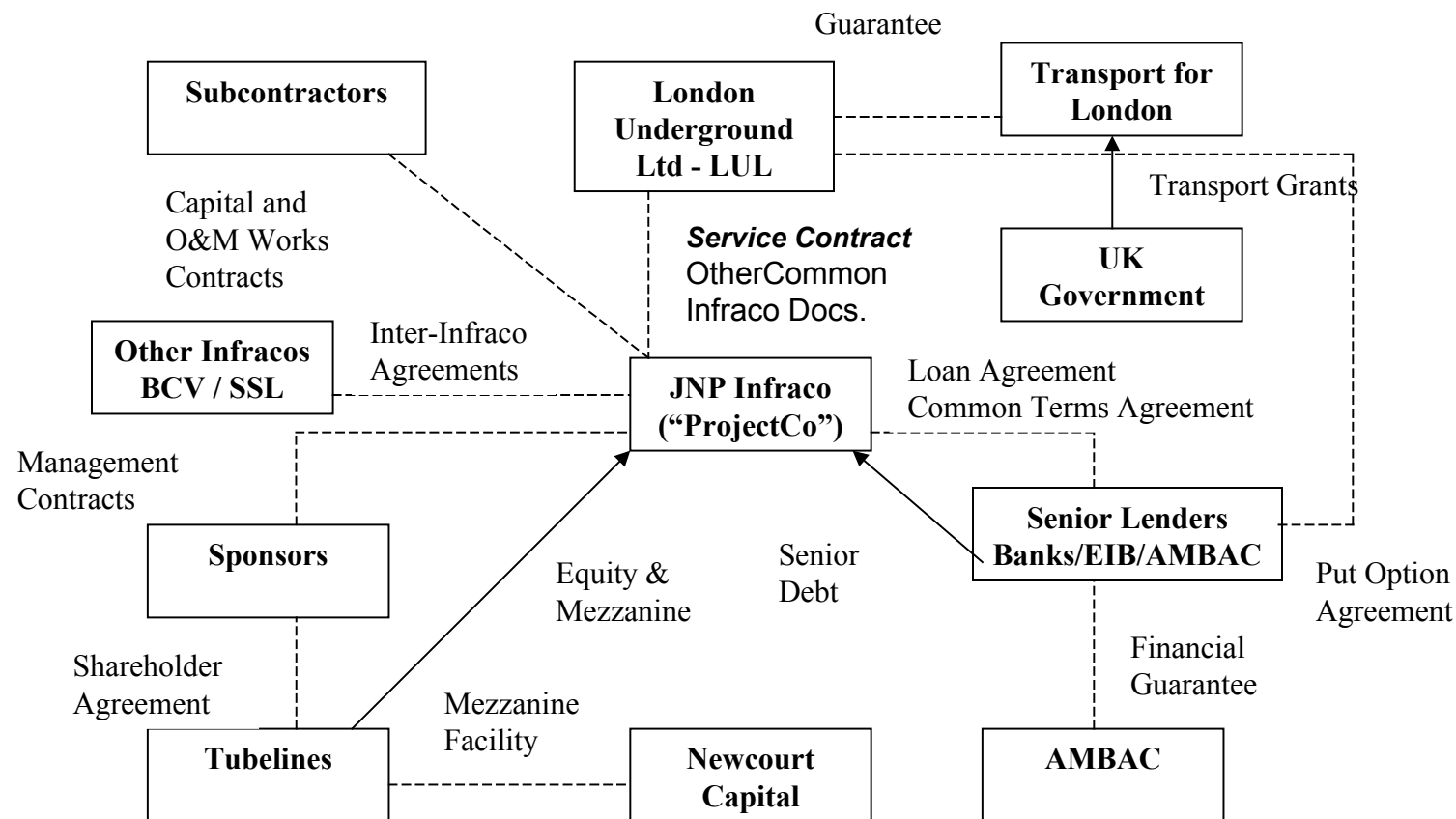
Remuneration = fixed payments + performance payments (capability, availability, and ambience).

Periodic reviews of LUL's requirements every 7.5 years

95% [100%] payout of the Senior debt in case of the company [LUL] default as a compensation for the impossibility to take security over key network assets

# London Underground

## JNP (Jubilee, Northern, Picadilly Lines) - Contractual Structure



# London Underground

## JNP Infraco's financing plan

GBP135m = sponsors' equity, funded by a 5-year equity bridge loan

GBP135m = 30-year subordinated debt, provided by Newcourt Capital

GBP1,785m = senior debt provided by commercial banks (partial cover from AMBAC Assurance UK) and the European Investment Bank - maturities 18-25 years.

Standby funding plan = GBP200m debt + GBP45 m equity



# Thessaloniki Metro

## Project Description

Thessaloniki 2<sup>nd</sup> largest city in Greece (1 million inhabitants) with increasing traffic congestions

A new 9.8 km driverless underground line with 14 stations

25-year BOT concession awarded to a consortium of Bouygues, Bombardier, Keolis and Systra, signed in 1999

Pending State Aid clearance from the European Commission





# Thessaloniki Metro

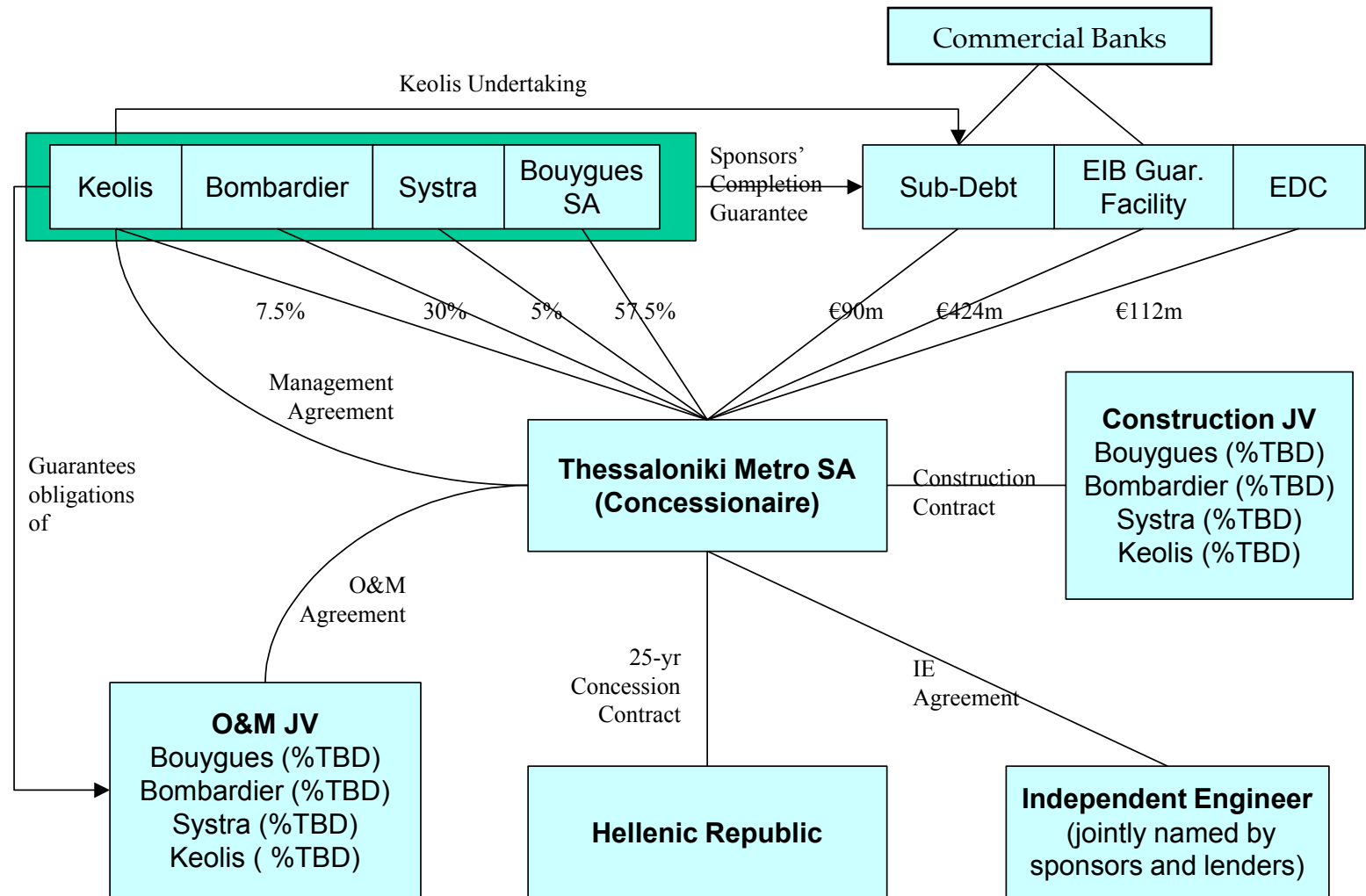
## The Government:

- Grants a EUR225m construction subsidy
- Guarantees a minimum patronage of 30 million per annum
- Shares profits if actual traffic is higher
- Subsidizes tickets during operation (“Cost-plus” basis)
- Can terminate the concession if system availability is below standard - guarantees debt in case of termination

## The concessionnaire:

- Builds the project within 5 years (LDs for delay, termination if LDs reach 5% of project costs)
- Operates the project with a minimum availability of 98%
- Finances the project

# Thessaloniki Metro





# Thessaloniki Metro

## Tentative Financing Plan (including stand-by funding)

EUR 225m - Government Subsidies

EUR 30m – Equity

EUR 80m - Subordinated debt provided by banks

EUR 450m – Senior debt funded by European Development Bank, guaranteed by banks

EUR 120m - Export credit from EDC (Canada)



# Bangkok MRTA Blue Line

## Project Description

20-km underground mass-transit system in Bangkok

## Public-Private Partnership

The MRTA (Mass Rapid Transportation Authority of Thailand) undertakes and finances the civil works

25-year concession to a private consortium which will supply and finance the M&E equipment (20% of total project cost), and operate and maintain the project

# Bangkok MRTA Blue Line

## Main Terms of the Concession

The tariff is preset in the concession agreement

MRTA is responsible for providing the infrastructure by date certain – interface risk could lead to termination of the concession by the concessionaire

The concessionaire pays a fixed and variable fee to the MRTA, and shares excess profits with the MRTA

Large unfavorable variations in interest or foreign exchange rates can be claimed from the MRTA in the form of increased tariff, reduced fees, variations in the concession agreement or cash payments.

Termination payments based on asset value



# The Korean Framework





# The PPI Framework

**The PPI Act enacted 1999 provides a comprehensive framework for private participation in infrastructure:**

Covers road, rail, port and environment projects

Clear process for solicited and unsolicited proposals

Allows all types of concessions (BTO, BOT, ROT, etc.) 30-year BTO concessions are most frequent

Government incentives = subsidies, revenue guarantees, partial FX risk protection, tax reductions and exemptions

Establishment of one-stop shop PICKO

Establishment of Korea Infrastructure Fund

**Today PICKO lists about 40 projects designated as PPI projects.**



# Typical Process for a Railway Project

1. Project initiation by a government entity (municipality, MoCT)
2. Korea Development Institute conducts a preliminary feasibility study
3. Approval by the Ministry of Planning and Budget
4. Feasibility study and request for proposal
5. Negotiation of concession agreement
6. Validation of detailed implementation plan

Unsolicited projects initiated by private companies are first reviewed by PICKO before being evaluated by the MPB.



# Risk Allocation

	Korea	London	Bangkok	Thessaloniki
Traffic Risk	G, PC	G	PC	G
Tariff Risk / Price Elasticity	PC, G	-	PC	G
Foreign Exchange Risk	PC, G	-	PC	-
Interest Rate Risk	PC	PC	PC	PC
Construction Risks	PC, S	PC	G, PC	PC
Technical / Design / Interface	C, PC	C, PC	G, C, PC	C, S, G

**S: Sponsors**

**PC: Project Company**

**G: Government**

**C: Contractor(s)**



# **Financing Transportation Projects in Korea**





# Investment Structure

**Government Subsidies (40-50%)**

**Equity / Subordinated Debt (15%-20%)**

**Debt (35%-45%)**



# Sources of Debt

## **Domestic and Foreign Banks**

- KRW commercial loans

- US\$/EUR/JPY commercial loans

- Export credits

## **Insurance companies / pension funds**

- Quite conversant with project financing

- Long-term fixed-rate loans to projects

- Some can also provide subordinated debt

## **Subordinated debt**

- Infrastructure funds



# Main Financing Terms

**Long maturities available (up to 16-17 years)**

**Pricing based on 3-year A / AA corporate bond yield – fixed rates are also available through interest rate hedging, or from insurance companies**

**Some limited recourse to sponsors sometimes expected to cover construction risks and cash deficiency in the early stage of operation**

# Comparison with Global Experience

	Korea	London	Bangkok	Thessaloniki
<b>S&amp;P Rating (Local/Foreign)</b>	<b>A+/A-</b>	<b>AAA</b>	<b>A-/BBB-</b>	<b>A</b>
<b>Concession period</b>	<b>30</b>	<b>30</b>	<b>25</b>	<b>25</b>
<b>Senior debt maturity</b>	<b>16-17</b>	<b>18-25</b>	<b>15</b>	<b>22</b>
<b>Subordinated debt</b>	<b>Yes?</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>
<b>% of debt covered (termination)</b>	<b>100%</b>	<b>95%/100%</b>	<b>-</b>	<b>100%</b>
<b>Revenue Guarantee</b>	<b>Yes</b>	<b>-</b>	<b>No</b>	<b>Yes</b>
<b>Construction subsidies</b>	<b>40-50%</b>	<b>-</b>	<b>80%</b>	<b>25%</b>
<b>Ticket subsidies</b>	<b>No</b>	<b>-</b>	<b>No</b>	<b>Yes</b>
<b>Excess return sharing</b>	<b>Yes</b>	<b>-</b>	<b>Yes</b>	<b>Yes</b>



# Conclusion

## **The Korean PPI framework**

provides a framework for subsidies  
allocates revenue risks to the Government  
enticing the private sector to compete on technology,  
operational efficiency and financial ingenuity.

**Domestic debt markets have been able to address PPI projects financing requirements.**

**Korea is seeing the emergence of infrastructure funds and growing involvement of institutional investors in the financing of infrastructure projects.**

**Increased competition from local and foreign banks will also result in greater financing efficiency.**



# **Introduction to Crédit Agricole Indosuez**





# Crédit Agricole / Crédit Agricole Indosuez

## Crédit Agricole is the largest banking group in France

- Capital Reserves (Dec 02): EUR34 bn
- Total Assets (Dec 02): EUR506 bn
- 16 million retail customers
- Credit Ratings: AA / Aa2
- Present in 60 countries



## CAI : the wholesale & investment banking arm of CA

- Serving the group's institutional and corporate clients
- 12,000 staff in over 50 countries
- Business lines include financing (including Project & Structured Finance), capital markets, advisory, private banking and investment services.



CRÉDIT AGRICOLE INDOSUEZ



# Crédit Agricole in Korea

## Crédit Agricole Group in Korea: long-established – local connections – multi-metiers

- Branch → Credit Agricole Indosuez: full-fledged branch / 1<sup>st</sup> French bank to settle in Korea in 1974
- Equity Broker → Credit Agricole Indosuez Chevreux: Electronic brokerage, execution, trading
- Futures / Derivatives Broker → Carr Futures
- Asset Management → Credit Agricole Asset Management; set-up of new JV: NACF / CA ITC in Sept 02

## Credit Agricole Indosuez Seoul: full-fledged product range

- Fixed Income (Market Activities) – Forex, Global bonds, Interest rate, reverse repo, derivatives, trade on bonds & derivatives...
- Asset Based Finance – in conjunction with dedicated teams: Project Finance, Export Credit, Aircraft Finance, Shipping Finance
- Corporate Finance – cross-boarder operations with European MNCs / Privatization
- Debt Capital Market – FRN, loan syndication
- Corporate banking: trade finance, ST & MT commercial loans...

# Project & Structured Finance

## One-stop shop providing:

### ■ Advisory services

- Infrastructure , oil & gas, power, telecoms
- Acquisitions, market tapping, loan restructuring

### ■ Limited recourse financing

- Greenfield projects
- Acquisition financing
- Refinancing

### ■ Multi-source financing, combining

- Export credits
- KRW and foreign currency loans

### ■ Underwriting / Syndication

- Capacity to underwrite large amounts of debt
- Regional teams in Hong Kong and Singapore

### ■ Hedging instruments



# Asia Advisory

2001

**West East Pipeline**



c. US\$ 5 billion

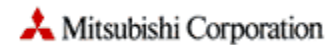
Financial Advisor to Shell



CRÉDIT AGRICOLE INDOSUEZ

Thailand, 1998-2002

**MRTA  
Blue Line**



Financial Adviser



CRÉDIT AGRICOLE INDOSUEZ

Thailand, ongoing

**TA Orange**



Financial Adviser



CRÉDIT AGRICOLE INDOSUEZ

2001

**Shanghai Caojing  
Cogeneration Plant**



Financial Advisor



CRÉDIT AGRICOLE INDOSUEZ

2001

**Singapore  
Incineration Plant #5**



Financial Advisor to Keppel



CRÉDIT AGRICOLE INDOSUEZ

China, 2000-2001

**Guohua, CPI  
Power Plants Acquisitions**



Financial Adviser to CLP

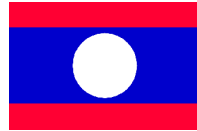


CRÉDIT AGRICOLE INDOSUEZ

# Asia Advisory

On-going

**Nam-Theun 2**



US\$ 1.0 – 1.2 bn

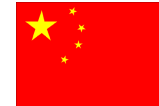
Financial Advisor to  
the Government of the LAO PDR



CRÉDIT AGRICOLE INDOSUEZ

2000

**The World Bank /  
Government of China**



**Private Participation in  
Infrastructure in China**

Financial Consultant



CRÉDIT AGRICOLE INDOSUEZ

2000

**Beijing No. 10  
Water Treatment Plant**



US\$ 350 mn

Financial Advisor



CRÉDIT AGRICOLE INDOSUEZ

2000

**Jakarta Airport  
Privatisation**



Bid Advisor



CRÉDIT AGRICOLE INDOSUEZ

1999

**Hong Kong International  
Theme Parks Ltd.**



HK\$ 18.1 bn

Financial advisor to  
The Hong Kong SAR Government



CRÉDIT AGRICOLE INDOSUEZ

1999

**Tate's Cairn Tunnel  
Debt Rescheduling**



HK\$ 950 mn

Financial advisor



CRÉDIT AGRICOLE INDOSUEZ



# Korea Advisory

1999

**Houay Ho  
(Laos)**

**DAEWOO**

Electricite du Laos  
Loxley PCL

**US\$ 250 mn**

Financial Advisor / Participant



1999-2000

**Korean Airlines  
5 Airbus A330**

**KOREAN AIR**

**US\$ 500 mn**

Financial Advisor / Global Arranger  
Agent / Security Trustee



1998

**Sri Lanka  
Combined Project**

**DOOSAN**  
Heavy Industries  
& Construction

Financial Advisor



1996

**Yulchon IPP**

 **HYUNDAI**

**Bid to KEPCO**

Financial Advisor



1999

**Tema Oil Refinery  
(Ghana)**

**SAMSUNG**

**US\$ 185 mn**

Financial Advisor



1998

**Whitefield Power Plant  
(India)**

**DOOSAN**  
Heavy Industries  
& Construction

**US\$ 230 mn**

Financial Advisor / Lead Manager



# Asia Infrastructure Financing

1994, 2000

**Korea High Speed Rail  
Core System**



**US\$ 2.5 bn**

**Bid Advisor  
Financing Coordinator**



2001

**Sino-French Water  
Development Co. Ltd**



**HK\$ 1.2 bn**

**Coordinating Arranger  
Joint Bookrunner**



On-going

**Nanhai  
Petrochemicals**



**c. US\$ 1 bn**

**Mandated  
Lead Arranger**



Philippines, 2002

**Manila North  
Tollway Corporation**



**US\$ 261 mn**

**Lead Arranger**



2000, 2001

**Asia Container  
Terminals Ltd.**



**HK\$ 3.4 bn  
HK\$ 2.5 bn (refinancing)**

**Arranger**



2000

**Hong Kong Disneyland**



**HK\$ 3.3 bn**

**Lead Arranger**

