Japan Expressway Holding and Debt Repayment Agency

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The Current Trend of Global Toll Road Business

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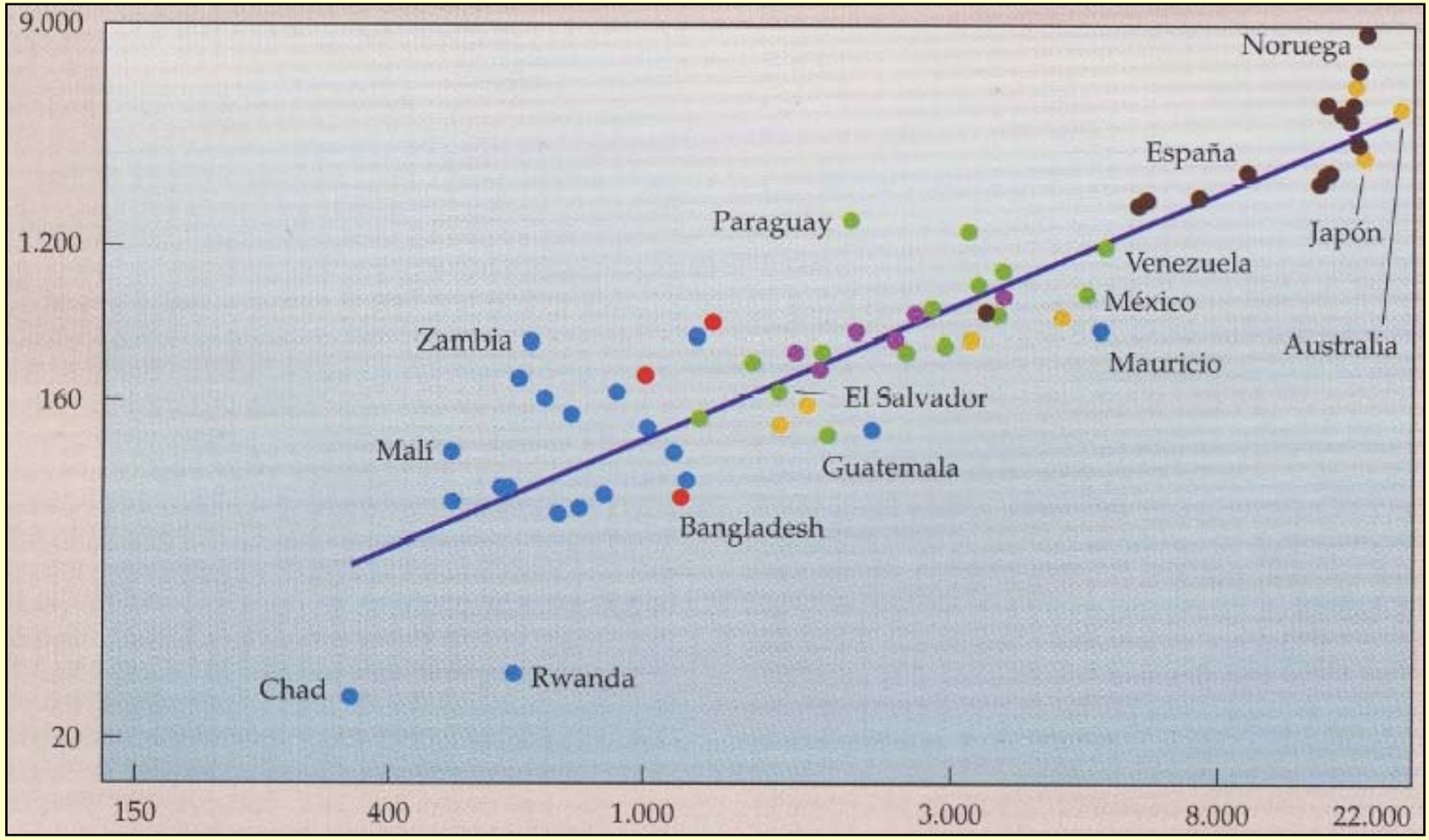
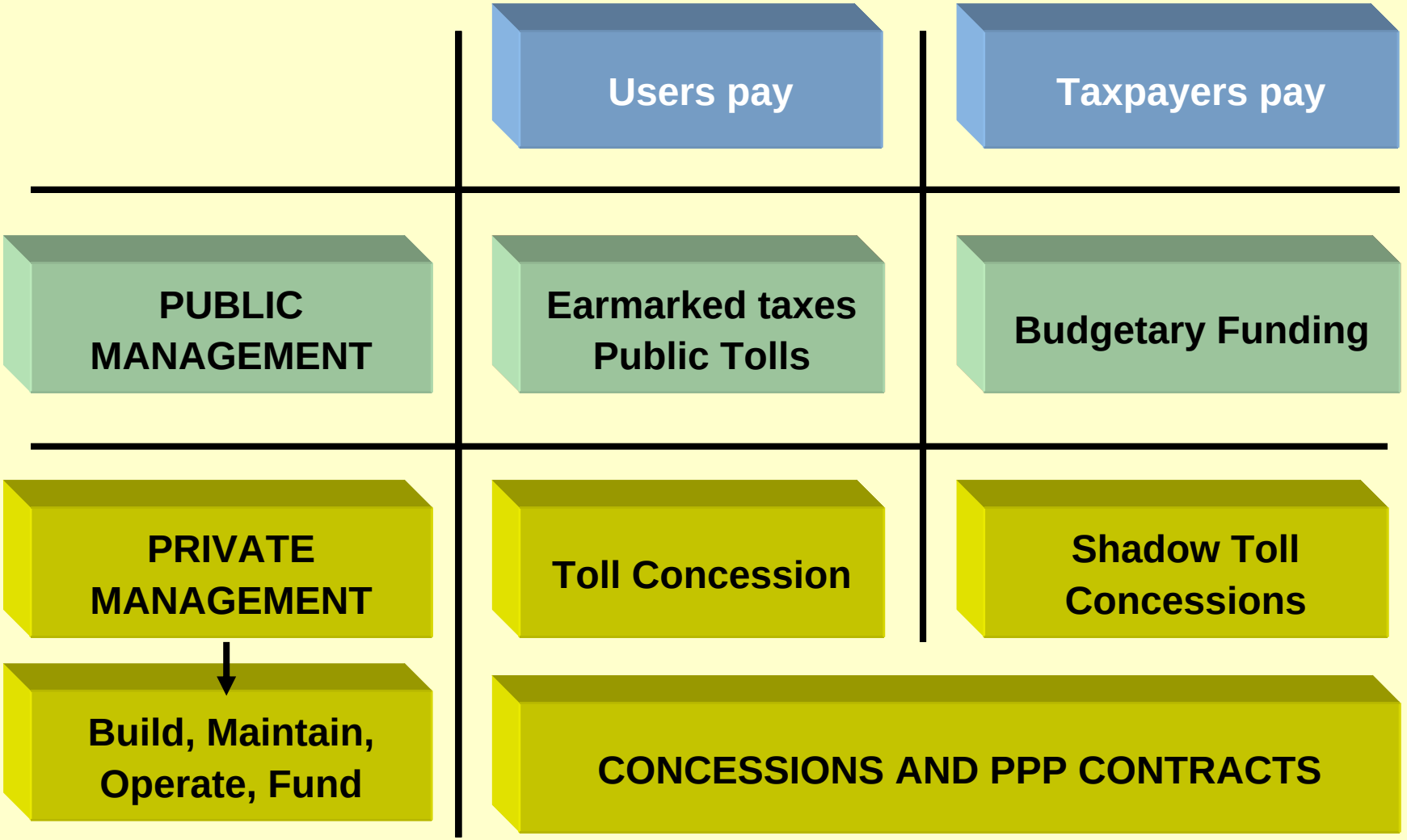
Infrastructure and Economic Development



Highway Management Mechanisms



Characteristics of PPP Contracts (I)

- According to the Green Paper on PPPs published by the European Union (2004):
  - Long duration of the relationship between the public and the private sector
  - The project should be funded at least in part by the private sector
  - The private sector should take part in the design, construction or upgrade, and operation
  - A risk distribution between the public and the private sector should be established

Characteristics of PPP Contracts (II)

- PPP Contracts can be classified in:
  - Contractual PPPs
    - Refers to a partnership based solely on contractual links between the different players
    - i.e. concession contracts, DBFO Contracts
  - Institutionalized PPPs
    - Involve the establishment of an entity held jointly by the public partner and the private partner

Characteristics of PPP Contracts (III)

- Main reasons to implement PPPs:
  - Circumvent Budgetary Constraints
  - Increase Technical Efficiency by:
    - Taking advantage of the private sector skills
    - Integrating the design, construction, and operation phases
  - Increase quality of service

Concession Contracts (I)

MAIN CHARACTERISTICS OF CONCESSION CONTRACTS

1. The private sector carries out the ultimate design of the project
2. The construction and operation costs are financed by the private company which was granted the concession
3. The assets always belong to the government
4. Most of the risks are transferred to the private company
5. The private company has the right to collect tolls and the obligation to maintain and operate the highway for a period of time contractually agreed in advance
6. A user fee is the main revenue source

Concession Contracts (II)

- Private capital for investment in infrastructure is now “in fashion”
- From 1985 to 2007 400,000 M€ were invested in Transportation, Water and Public Facilities though concession contracts:
  - 240,000 in Europe, US and Canada
  - 100,000 in Asia
  - 50,000 in Latin America
  - 10,000 in Africa

Present trends regarding concessions (I)

- Europe is recovering the concession model
  - PFI at full speed in the UK
  - Spain passes a new Concessions Law
  - Eastern countries implement toll road concessions
- A major default in Argentina is reducing the implementation of concessions in South America
- USA and Canada are implementing huge Brownfield tenders:
  - Chicago Skyway
  - Indiana Toll Road
  - Pennsylvania Highway

Present trends regarding concessions (II)

- Major Construction Groups are becoming DEVELOPERS
- Pure international construction → an impossible market
- Spanish Groups are becoming international leaders
- Other players are coming into the business:
  - Investment Funds for infrastructure
  - Toll highways with plenty of cash

Three key issues of concession contracts

- TENDER
  - To award the concession to the most efficient consortium
  - To ensure that the profitability of the concessionaire equals its cost of capital
- REGULATION
  - To grant quality to the users
  - To preserve the Public Interest
- RISK ALLOCATION
  - To align incentives and abilities
  - To be fair

Concession Tender (I)

- Objectives of the TENDER
  - Promote Competition. “Competition for the market” instead of “competition in the market”
  - To choose the most efficient consortium from the social point of view
- Selection is based on what is declared by the bidders in the offer
  - Problems of Asymmetries of Information

Concession Tender (II)

Objectives of the Tender Process

STAKEHOLDER	OBJECTIVES
GOVERNMENT	A) To build more infrastructure B) To release public resources
BIDDERS	A) To be awarded the concession B) To make money C) To increase its expertise
USERS	A) Minimum price B) Maximum quality

Concession Tender (III)

Different Models

TENDERING MODELS

DBFO in the UK	Concessions in Spain	Concessions in Chile
1. Closed Prequalification 2. Negotiation	1. Requirements to bid 2. Combination of technical and economic criteria	1. Open Prequalification 2. Technical evaluation 3. Economic auction

Concession Tender (IV)

	ADVANTAGES
Negotiation	➢ All the contract's clauses are agreed between the parties
Technical and economic variables	➢ Short time until the award ➢ Take into account both economic and technical issues
Final economic auction	➢ Short time until the award ➢ Very objective

How the concessionaires bid? (I)

Economic Balance of a Concession Contract

$$I_o - S = \sum_{i=1}^{i=n} \frac{(p_i \cdot q_i(p_i) - c_i - t_i)}{(1+\alpha)^i}$$

$$I_o + \sum_{i=1}^{n} \frac{c_i + t_i}{(1+\alpha)^i} = \sum_{i=1}^{i=n} \frac{(p_i \cdot q_i(p_i))}{(1+\alpha)^i}$$

Io: Initial investment

S: Upfront subsidy

α: Cost of capital of the project

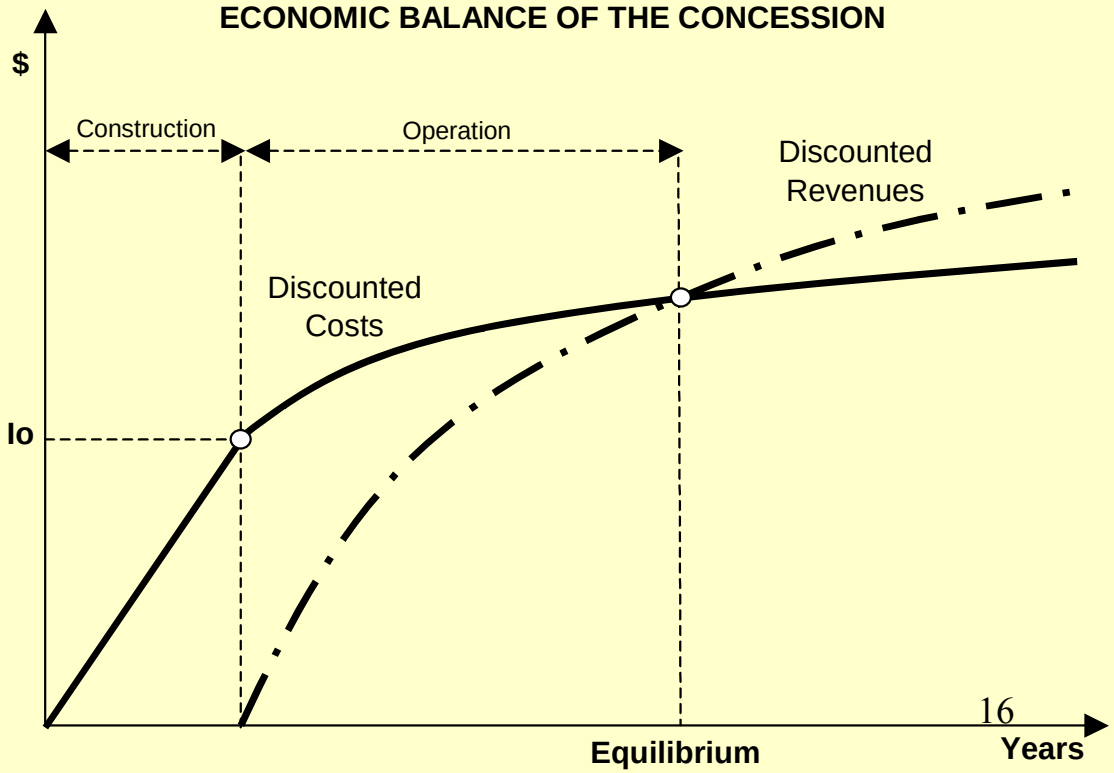
n: Concession term

p_i: Price for year i

q_i: Annual traffic in year i

c_i: Operation and maintenance cost in year I

t_i: Corporate taxes in year i



How the concessionaires bid? (II)

If there is competition, the expected profitability should be equal to the weight averaged cost of capital (WACC)

$$r_{WACC} = (1 - t_c)\frac{D}{V} r_d + \frac{E}{V} r_e$$

D: Debt value

E: Equity value

V: Firm Value

r_d: Debt cost

r_e: Equity cost

t_c: Profit Taxes

How the concessionaires bid? (III)

Cost of Equity can be estimated through the Capital Asset Pricing Model (CAPM)

$$r_e = r_f + \beta_i (r_m - r_f)$$

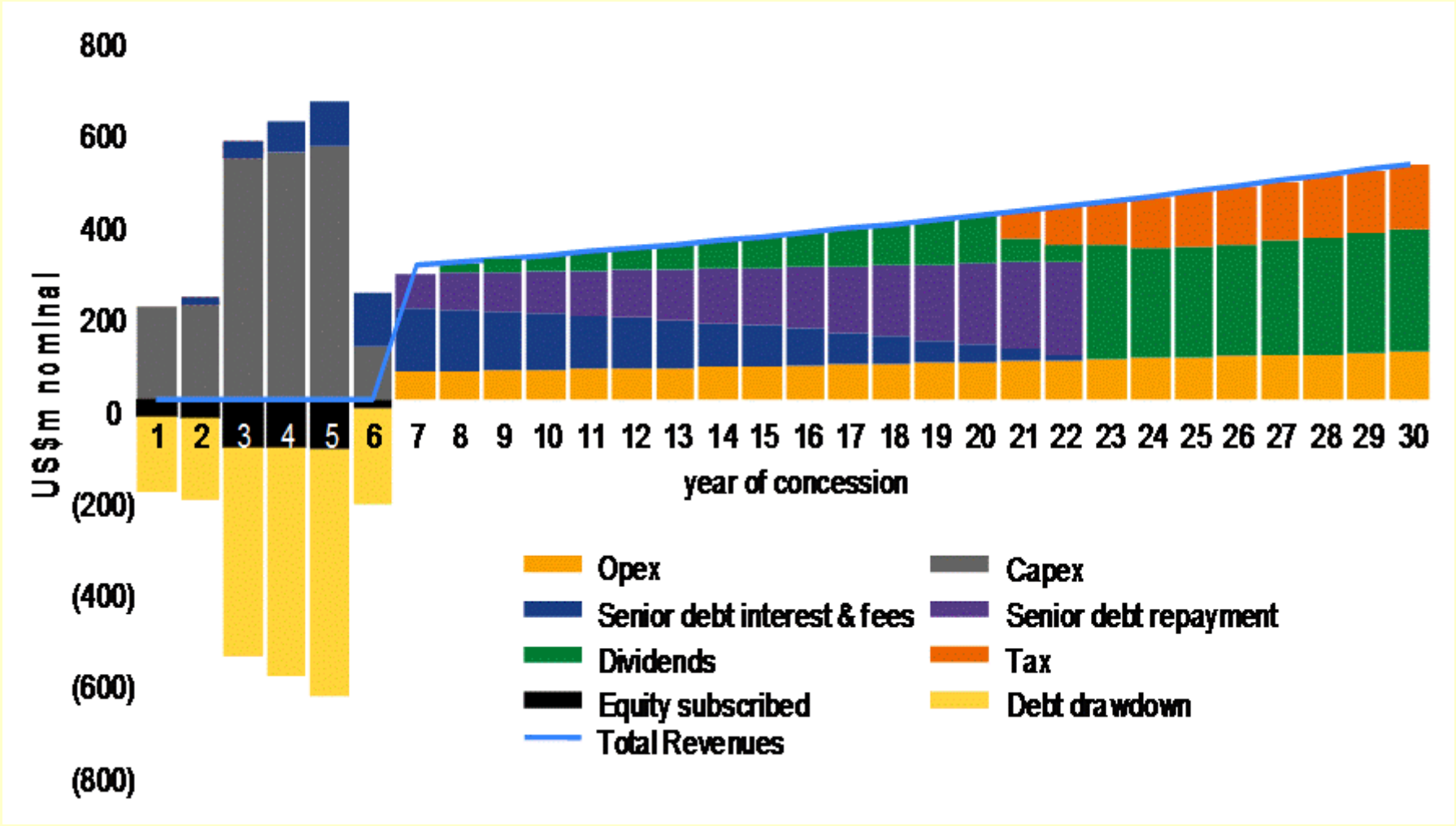
$$\beta_i = \frac{\sigma_{im}}{\sigma_m^2} = \frac{\sigma_i \sigma_m \rho_{im}}{\sigma_m^2} = \frac{\sigma_i}{\sigma_m} \rho_{im}$$

r_e: Cost of equity
r_f: Rate of return free of risk
r_m: Average return of the market
β_i: Beta of the project
σ_i: Volatility of the project returns
σ_m: Volatility of the market returns
ρ_{im}: Correlation between the market and the project returns

Cost of capital depends on the project risk

How the concessionaires bid? (IV)

Cash Flow of a Concession Contract

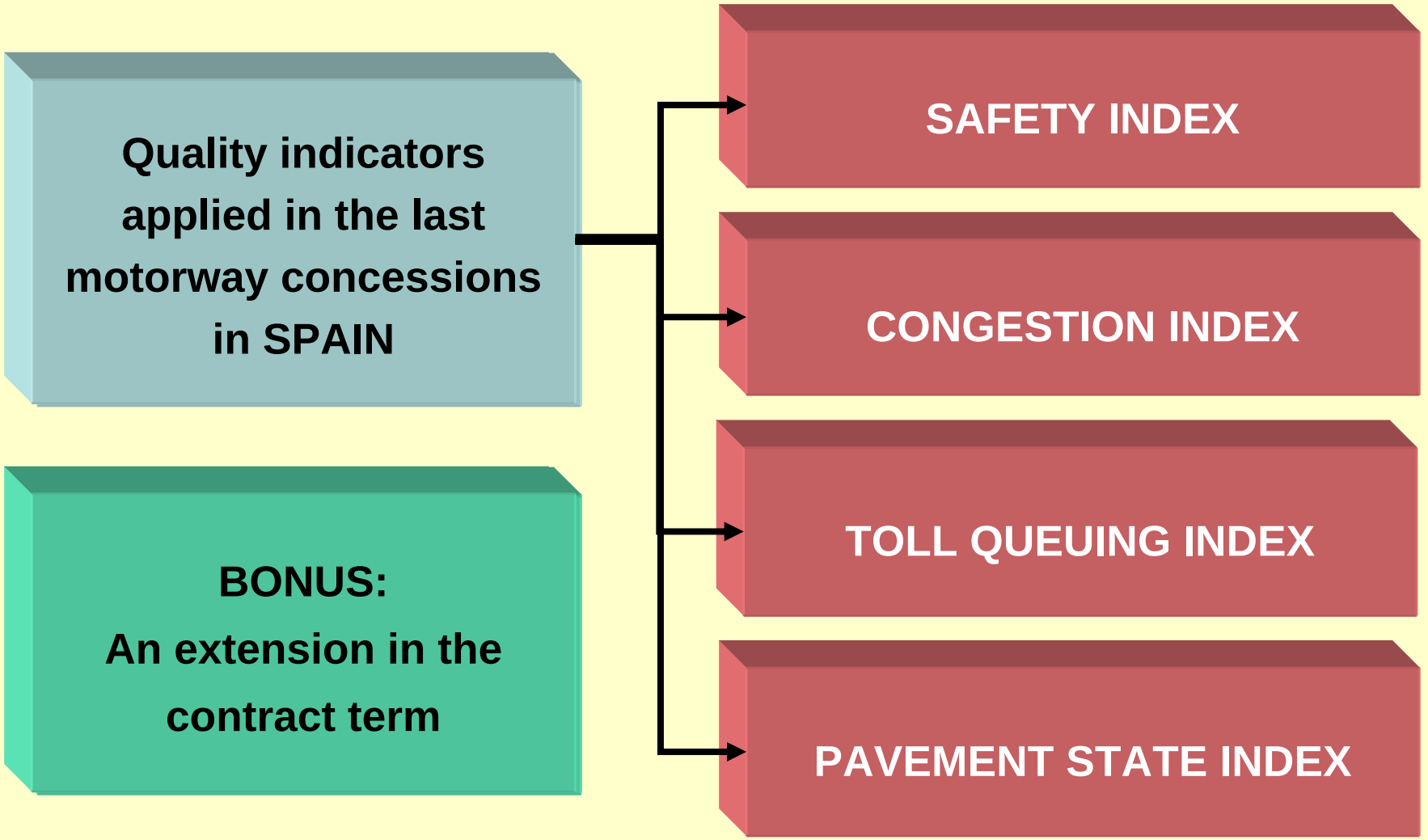


Regulation of Concessions

TWO KEY ISSUES

1. Encouraging the private sector to provide the best QUALITY OF SERVICE
   - By including incentives in the contract
2. Protecting the PUBLIC INTEREST
   - By defining some clauses in the contract

Regulation of Quality (I)

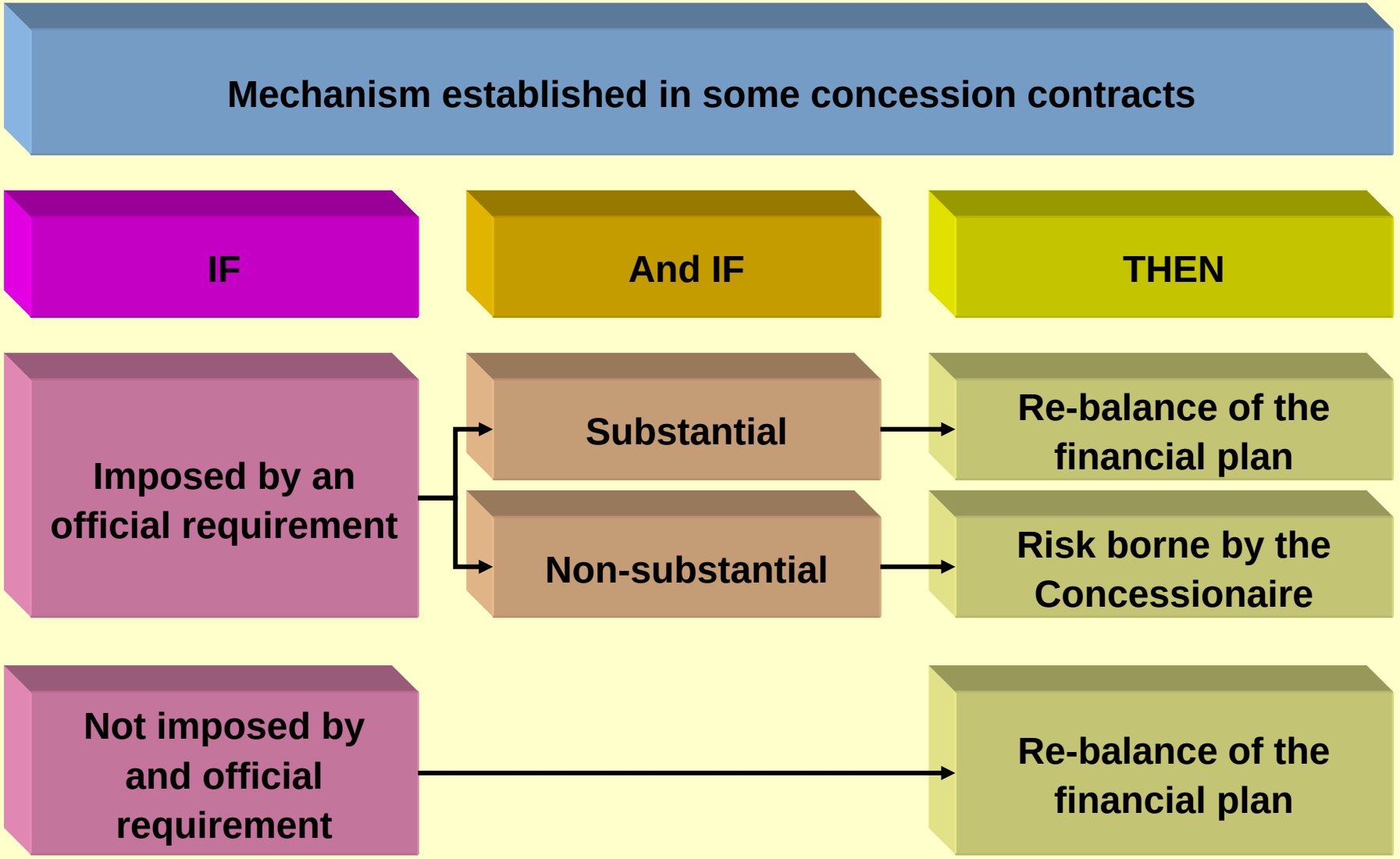


Regulation of Quality (II)

- The "progress clause", implemented in Spain, is *the obligation of the concessionaire to maintain and operate the infrastructure according to technical, environmental and safety regulations that may be applicable at each moment*

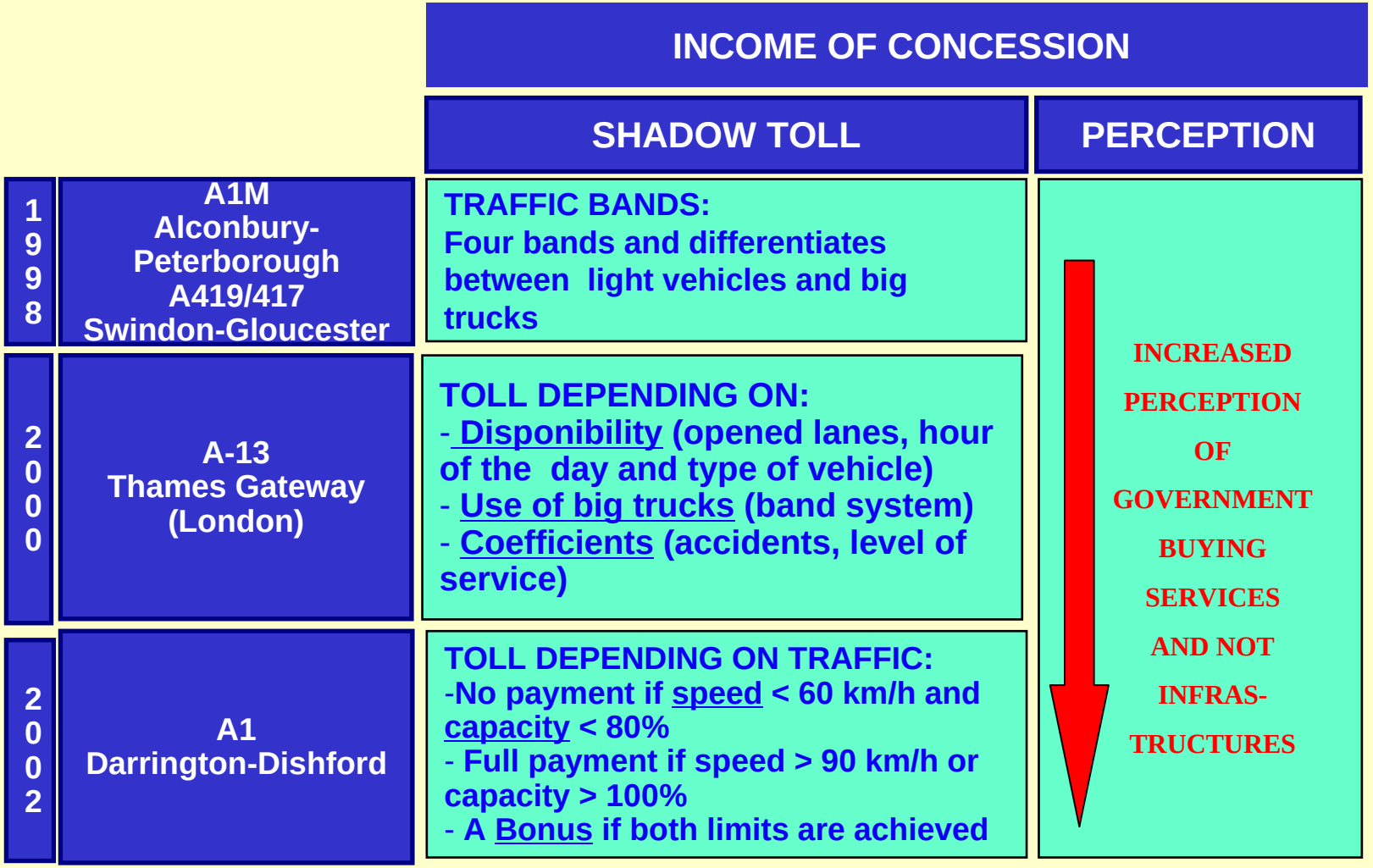
- It may increase substantially the operational risk due to:
  - Relevant modifications on the environmental requirements
  - Relevant changes on the technical issues required

Regulation of Quality (III)



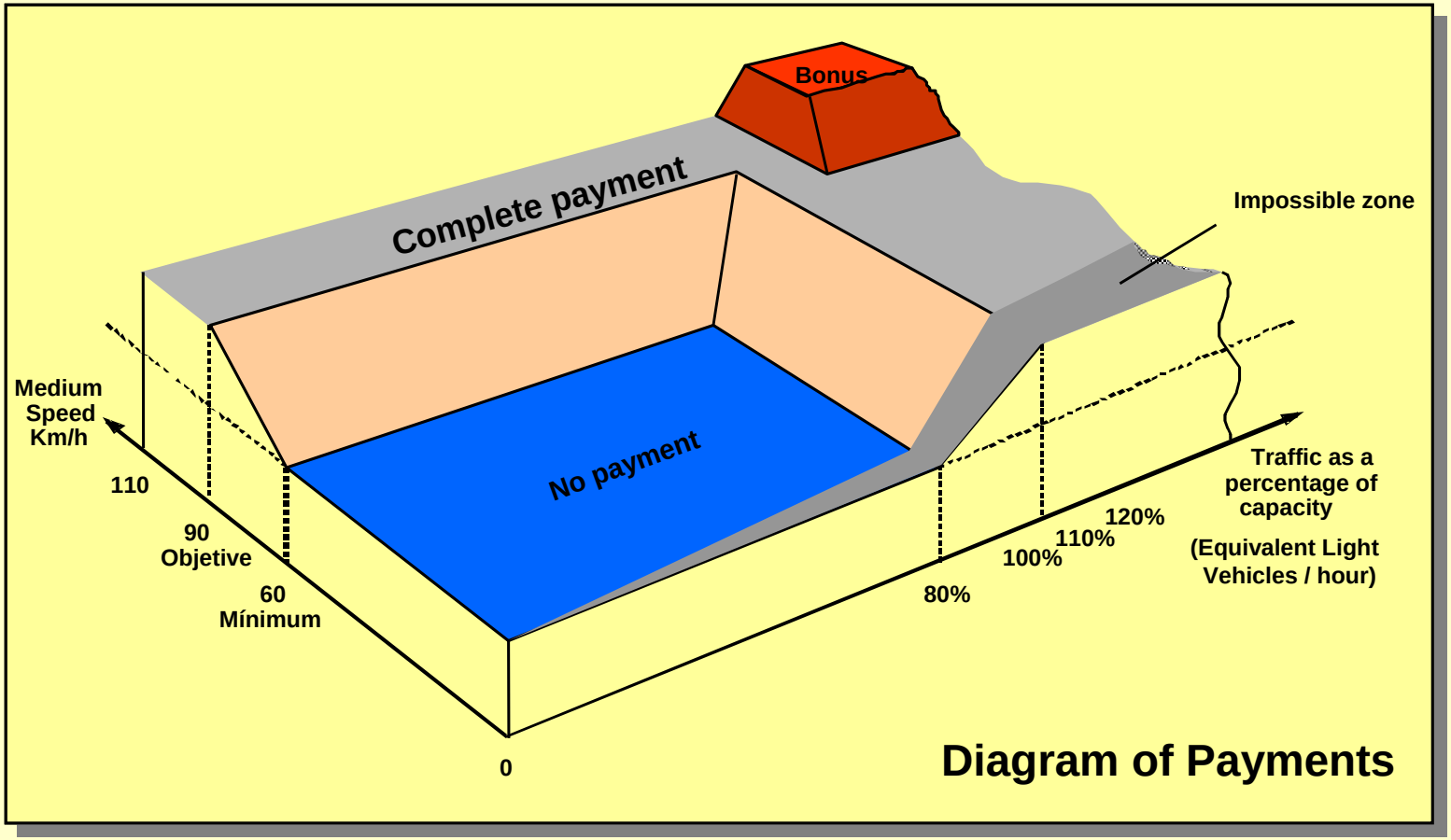
Regulation of Quality (IV)

Trend followed by DBFO contracts in the United Kingdom



Regulation of Quality (V)

Toll depending on the relationship between traffic flow and average speed (DBFO Contracts)



Protection of the Public Interest (I)

- Legal limitation of the contract duration:
  - 40 years for Design-Build-Maintain-Operate-Transfer in Spain
  - Extendable to 60 years if the economics of the contract are to be rebalanced according to the contract
  - 50 years in Chile
- The USA and Canada are granting concession up to 100 years long
  - The objective is to raise as much money as possible upfront
  - It is not a good practice:
    - It reduces competition
    - It gives much power to the concessionaire

Protection of the Public Interest (II)

- Maximum toll levels are often regulated in the contract
  - Adjusted to Inflation – X% (in Spain X% depends on traffic)
  - The concessionaire can reduce the tolls whenever it wants
  - In urban areas the maximum tolls applicable can vary depending on the congestion of the road or the time of the day
- Giving a lot of power to the companies to fix tolls can be a dangerous practice for the government
  - Case of the ETR-407 Highway in Toronto (Canada)

Protection of the Public Interest (III)

- The government should keep the right to take over and operate the concession if:
  - The concessionaire is not able to operate the concession correctly
  - This situation may affect the users
- In any case, the government should keep the right to get the concession back whenever it wants
  - In this case the government should compensate the concessionaire

Risk Allocation in Concession Projects (I)

- It is important to distinguish between:
  - Risk → statistical behaviour → MANAGEABLE
  - Uncertainty → unpredictable behaviour → UNMANAGEABLE
- Risks in long-term contracts exists regardless the mechanisms implemented to mitigate them
  - Risks are merely allocated to different stakeholders

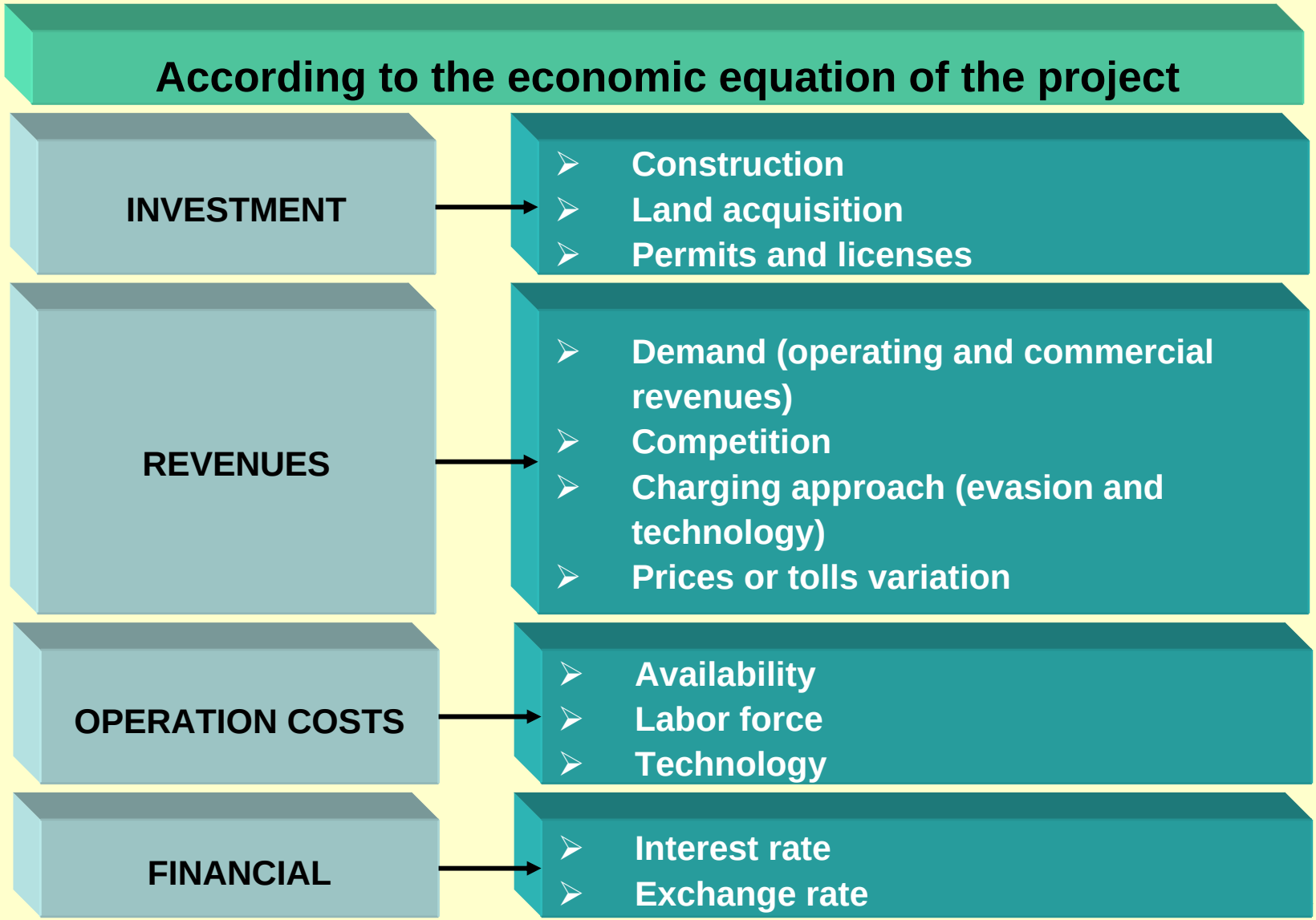
Risk Allocation in Concession Projects (II)

- General principle: “Risks should be allocated to the stakeholder best able to control them”
- Some risks have a clear stakeholder to be allocated:
  - Construction
  - Operation
- Some risks does not have a clear stakeholder to be allocated:
  - Traffic
  - Force Majeur

Risk Allocation in Concession Projects (III)

- Only few risks in long-term contracts can be covered by insurance companies
  - Traffic risk is not insurable
- Monoline insurance companies are becoming quite popular to improve the rating of the long term contract loans
  - They require a minimum rating → they are not applicable for many developing countries

Risk Allocation in Concession Projects (IV)



Risk Allocation in Concession Projects (V)

Risk Allocation in Concession Projects (VI)

According to the stakeholder that ultimately bears the risk

- Risks borne by the project itself (Sponsors)
- Risks transferred to third parties through contracts
- Risks that can be insured
- Risks borne or mitigated by the government
- Risks covered or mitigated by the sponsors as a guarantee for the lenders

Risk Allocation in Concession Projects (VII)

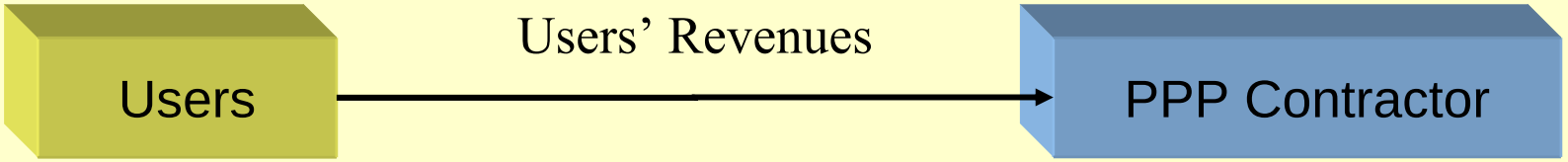
- The main risk allocation principles of the Spanish Concession Law:
  - The private sector should take on all the market risks
    - Construction and operation risks
    - Traffic risk up to a certain level
  - Risks that are difficult to manage by the private sector may be mitigated:
    - The mitigation is carried out through re-balancing the economics of the concession contract if some events eventually happen
    - The re-balance of the concession contract can be in favour either the concessionaire or the government

The Traffic Risk Problem (I)

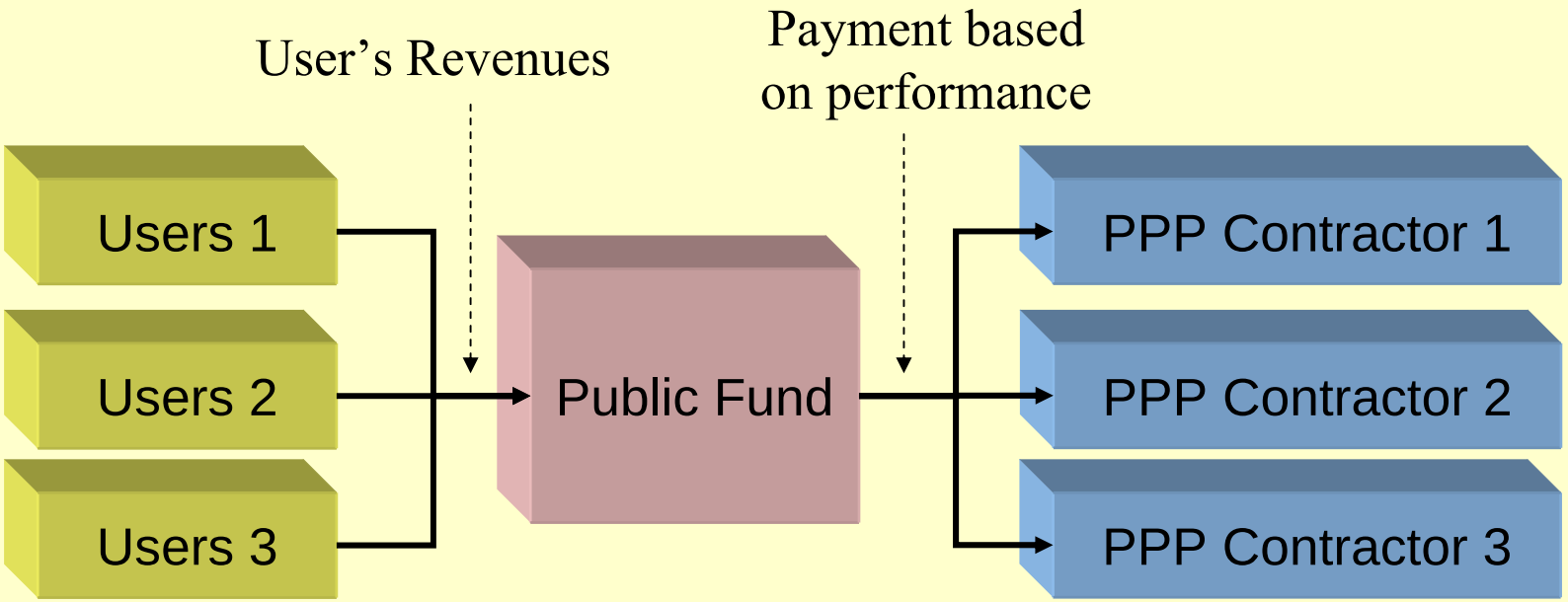
- Who can control traffic risk?
  - The government?
  - The concessionaire?
- Traffic depends on:
  - The evolution of the economy → Difficult to manage
  - Urban development → Difficult to manage
  - Competition → Government in a certain way
  - Quality of service → Contractor in a certain way

The Traffic Risk Problem (II)

Traditional concession approach



Alternative concession approach



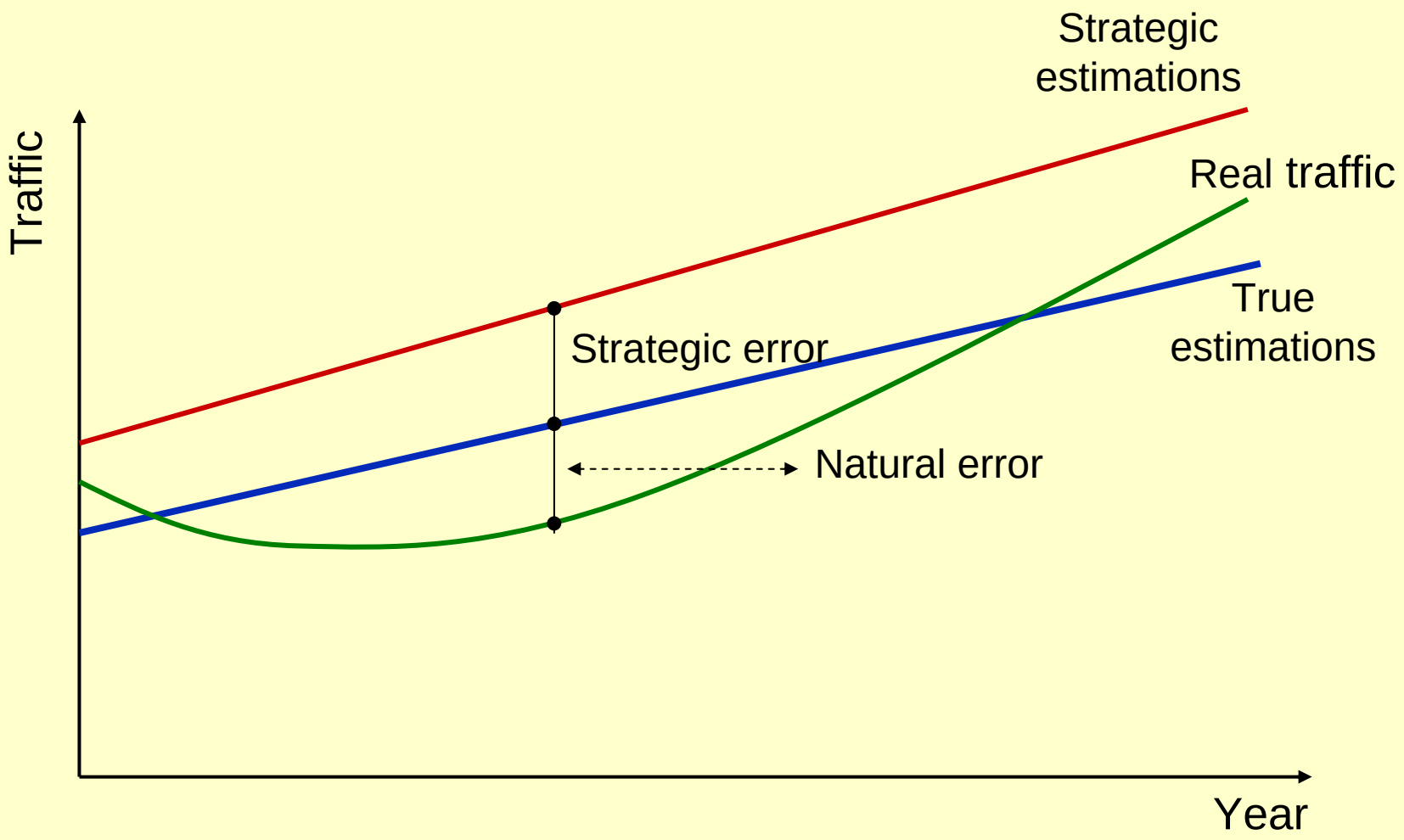
The Traffic Risk Problem (III)

First year traffic forecast deviations in road projects

$$Deviation = \frac{Traffic(year1)}{TrafficForecasted(year1)}$$

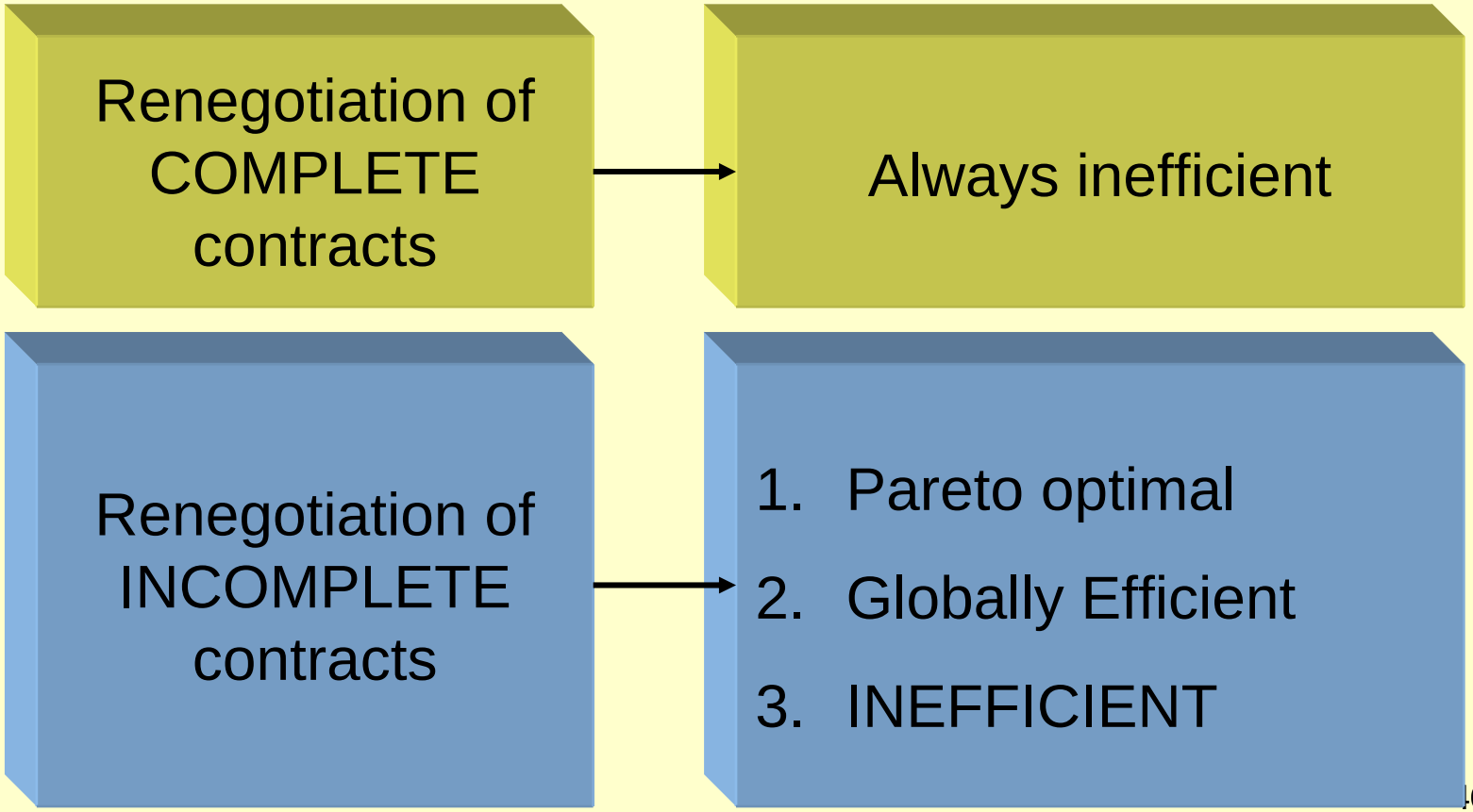
Study	Projects	Main geographical areas studied	Sample size	Mean (Real/Forec.)	Standard Deviation
Standard&Poor's (2004)	**Toll roads**	**North America, North Europe, Asia, South Europe,**	**87**	**0.76**	**0.26**
Baeza (2008)	**Toll Roads**	**Spain**	**14**	**0.57**	**0.26**
Flyvbjerg et al. (2004)	**Mostly Free roads**	**Mostly European Union**	**183**	**1.09**	**0.44**

The Traffic Risk Problem (IV)



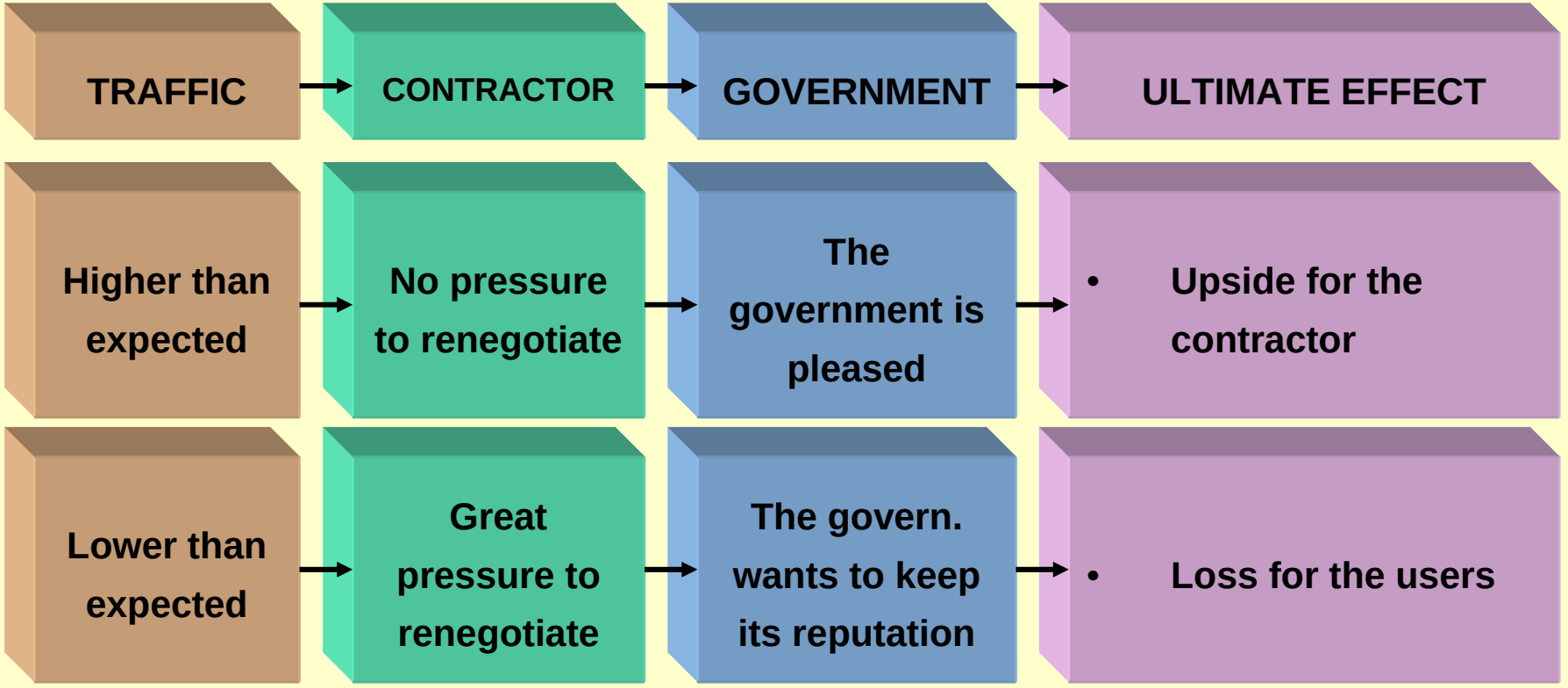
Traffic Risk and Renegotiation (I)

Contracts and renegotiation: What does the literature say?



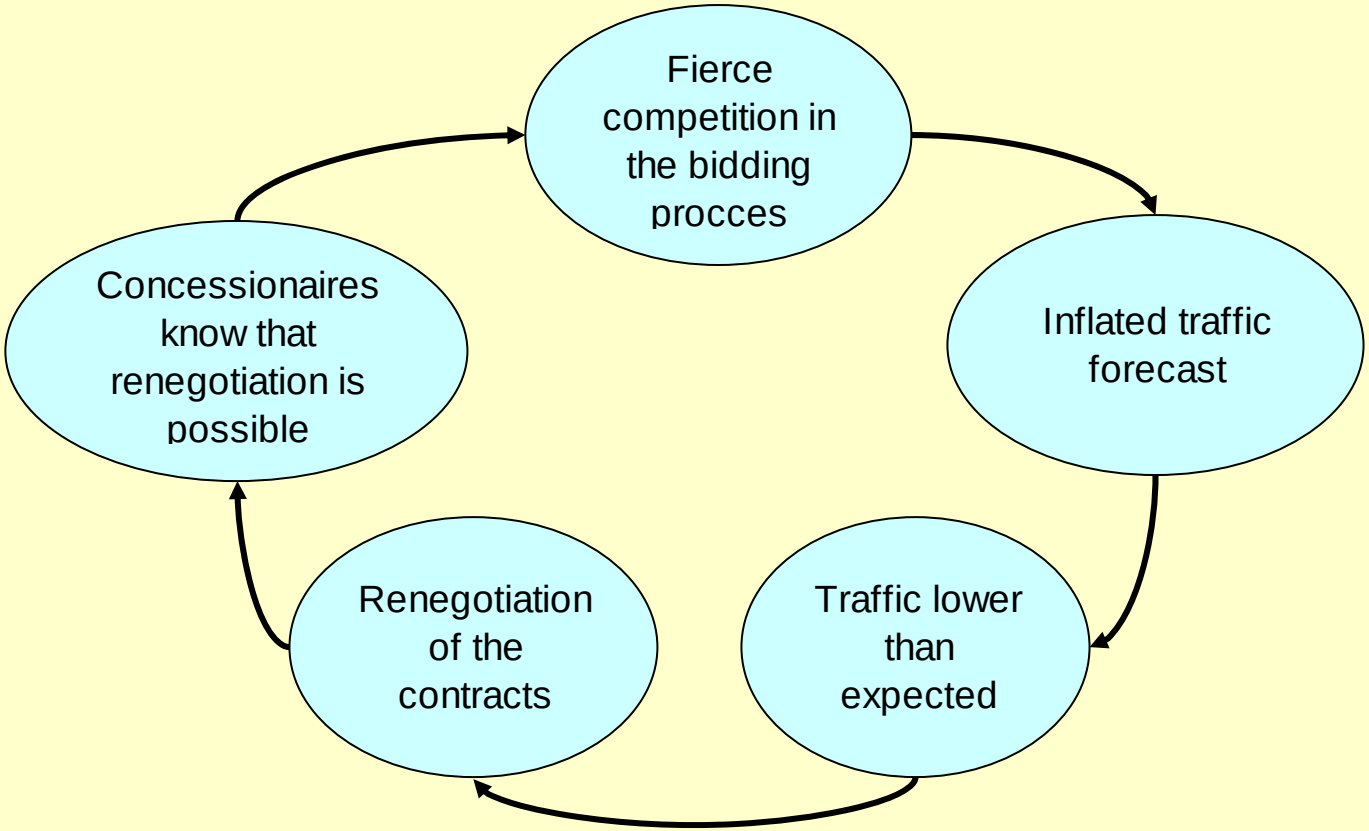
Traffic Risk and Renegotiation (II)

Asymmetric behavior when traffic risk is fully allocated to the PPP contractor



Traffic Risk and Renegotiation (III)

Vicious cycle when contractors know that renegotiation is possible



Traffic Risk Mitigation Mechanisms (I)

- Traffic risk mitigation mechanisms can be classified according to:
  - The **trigger variable**
    - Internal Rate of Return (IRR)
    - Revenues
    - Profits
    - Etc.
  - The **compensation mechanism** adopted
    - Subsidy
    - Toll modification
    - Contract length modification

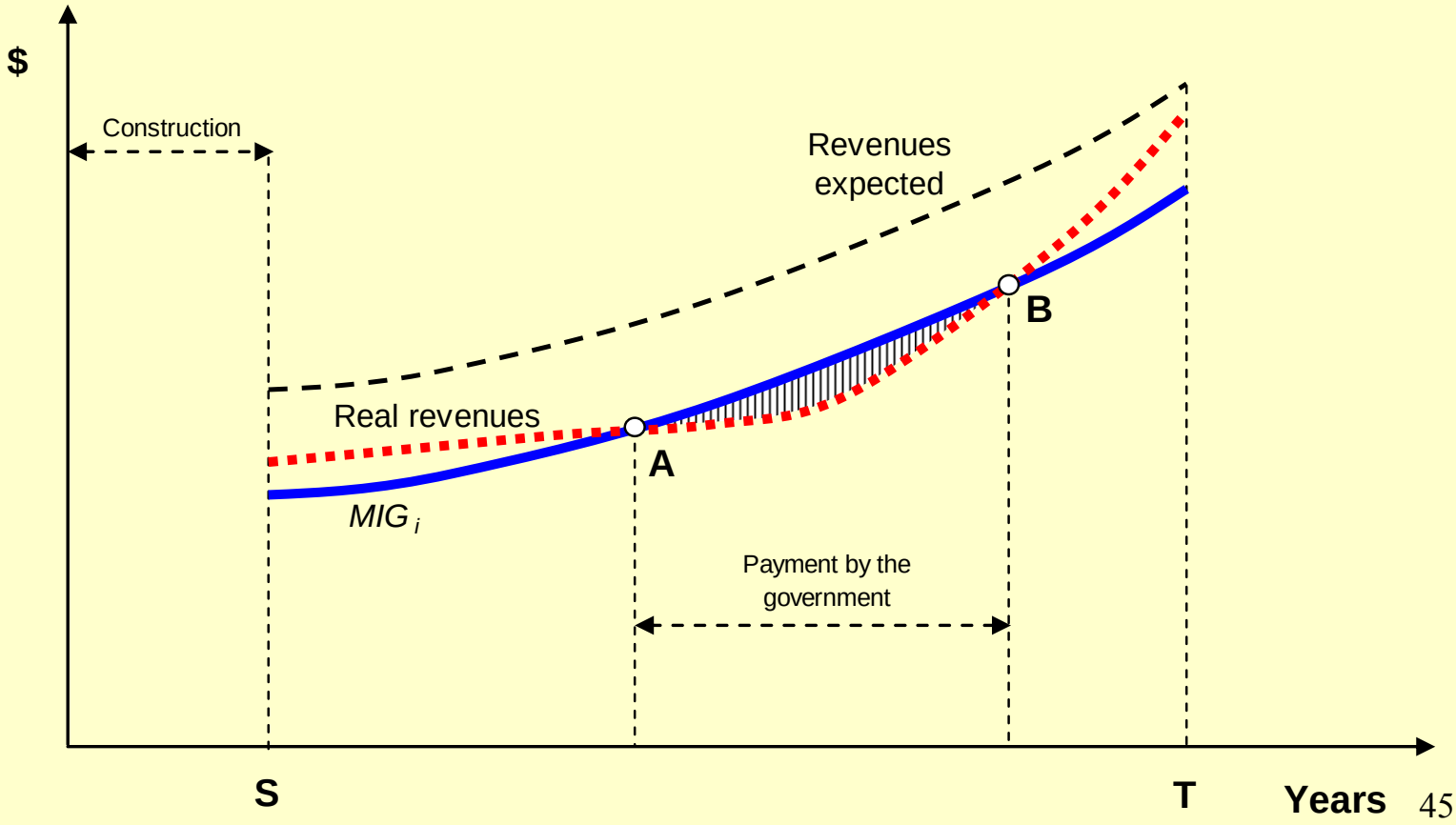
Traffic Risk Mitigation Mechanisms (II)

Classification

RISK SHARING APPROACH		TRIGGER VARIABLE: Annual Traffic or Revenues	TRIGGER VARIABLE: Accumulative Traffic or Revenues	TRIGGER VARIABLE: Profits / IRR
COMPENSATION	Subsidy / payment	Approach 1: Cap and floor limits		Approach 4: Modification of the economic balance of the contract
	Toll	Approach 2: Toll bands		
	Contract Lenght		Approach 3: Flexible duration LPVR	

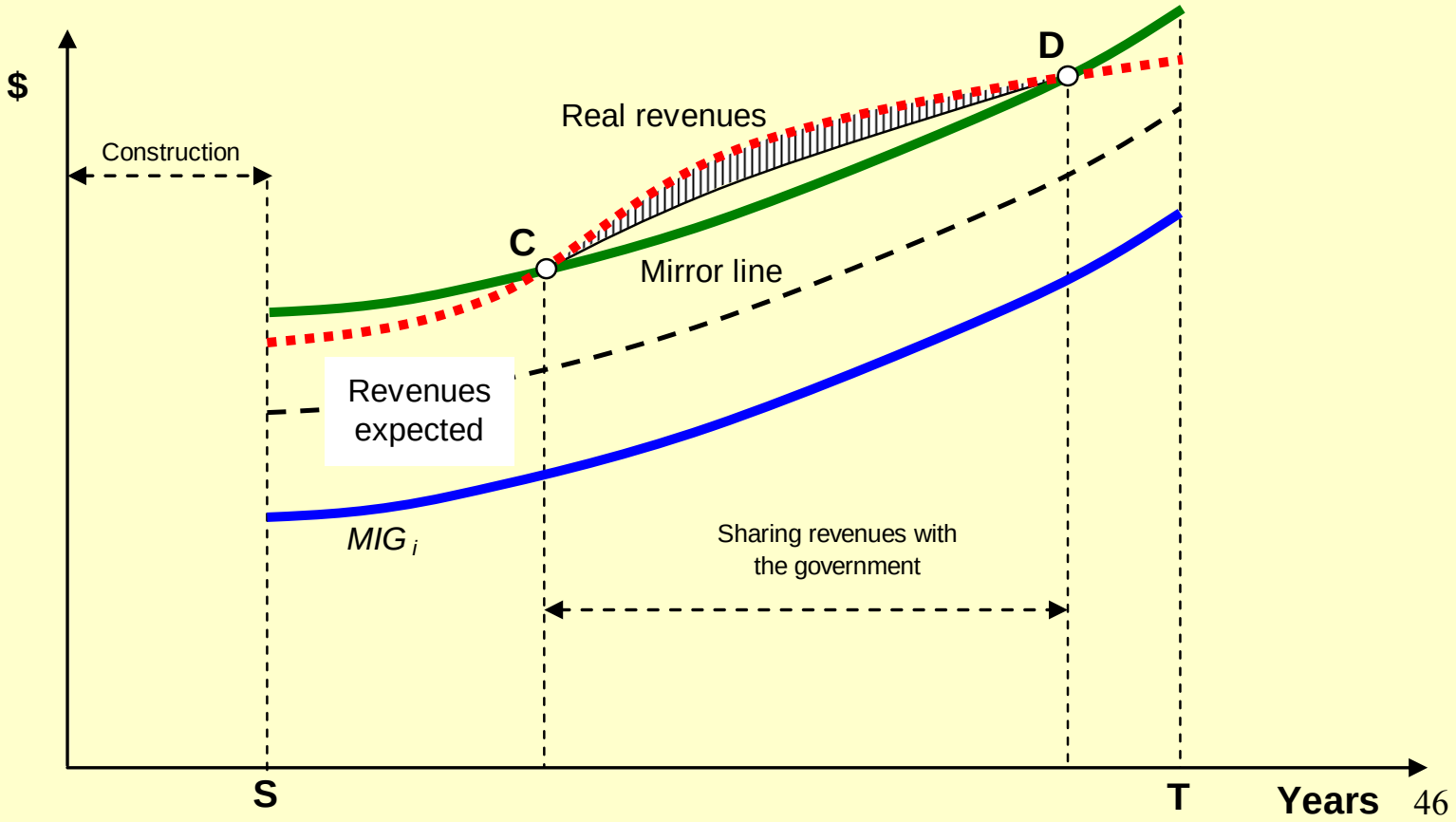
Cap and floor limits (I)

Traffic lower than expected



Cap and floor limits (II)

Traffic higher than expected

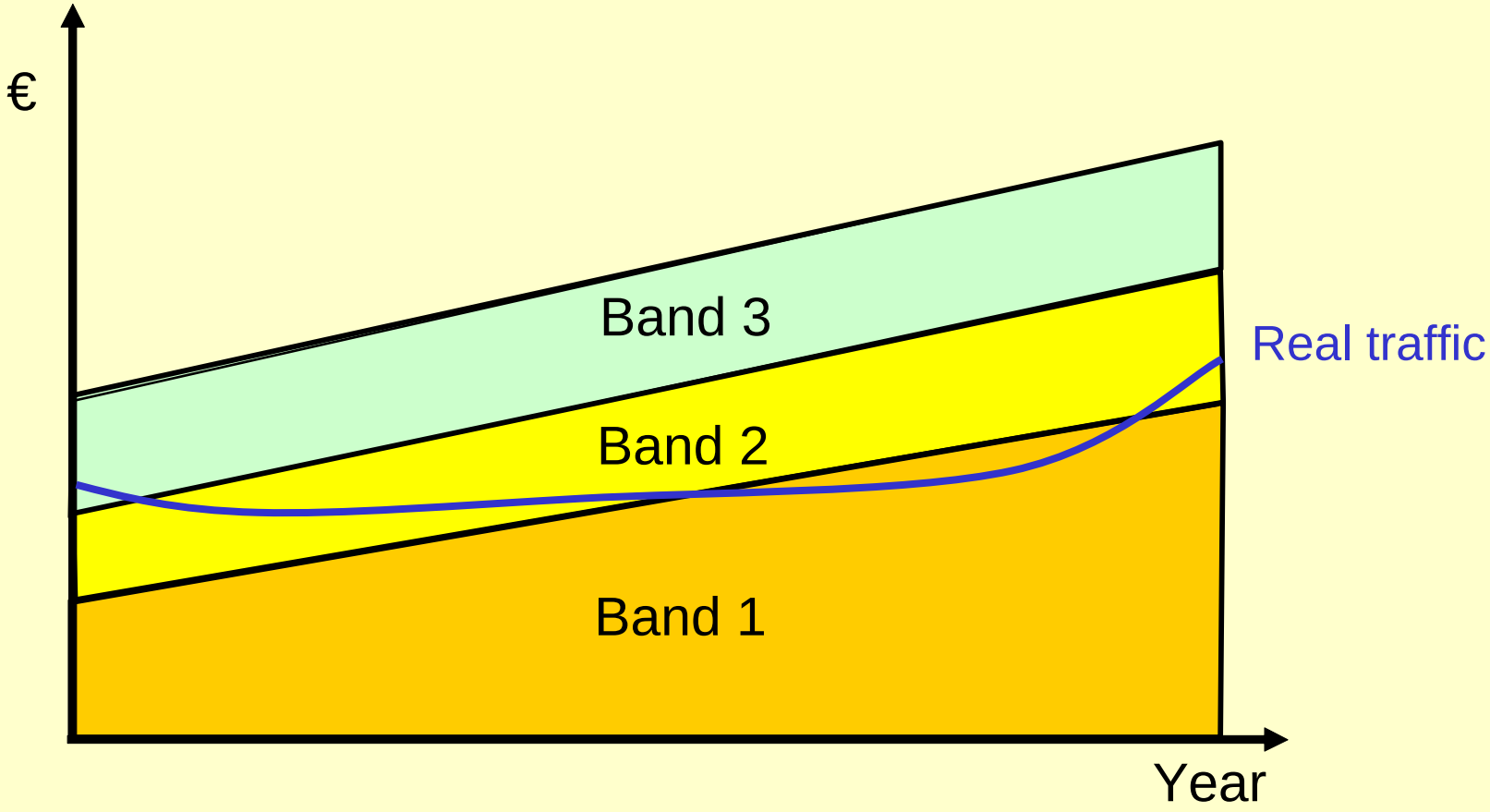


Cap and floor limits (III)

- Main **advantage**:
  - Improvement of the LENDERS' PERCEPTION of the project $\Rightarrow$ reduction of the financial cost
- Main **drawback**:
  - HIGH CORRELATION in case of an economic crisis so the government may be bearing an important risk

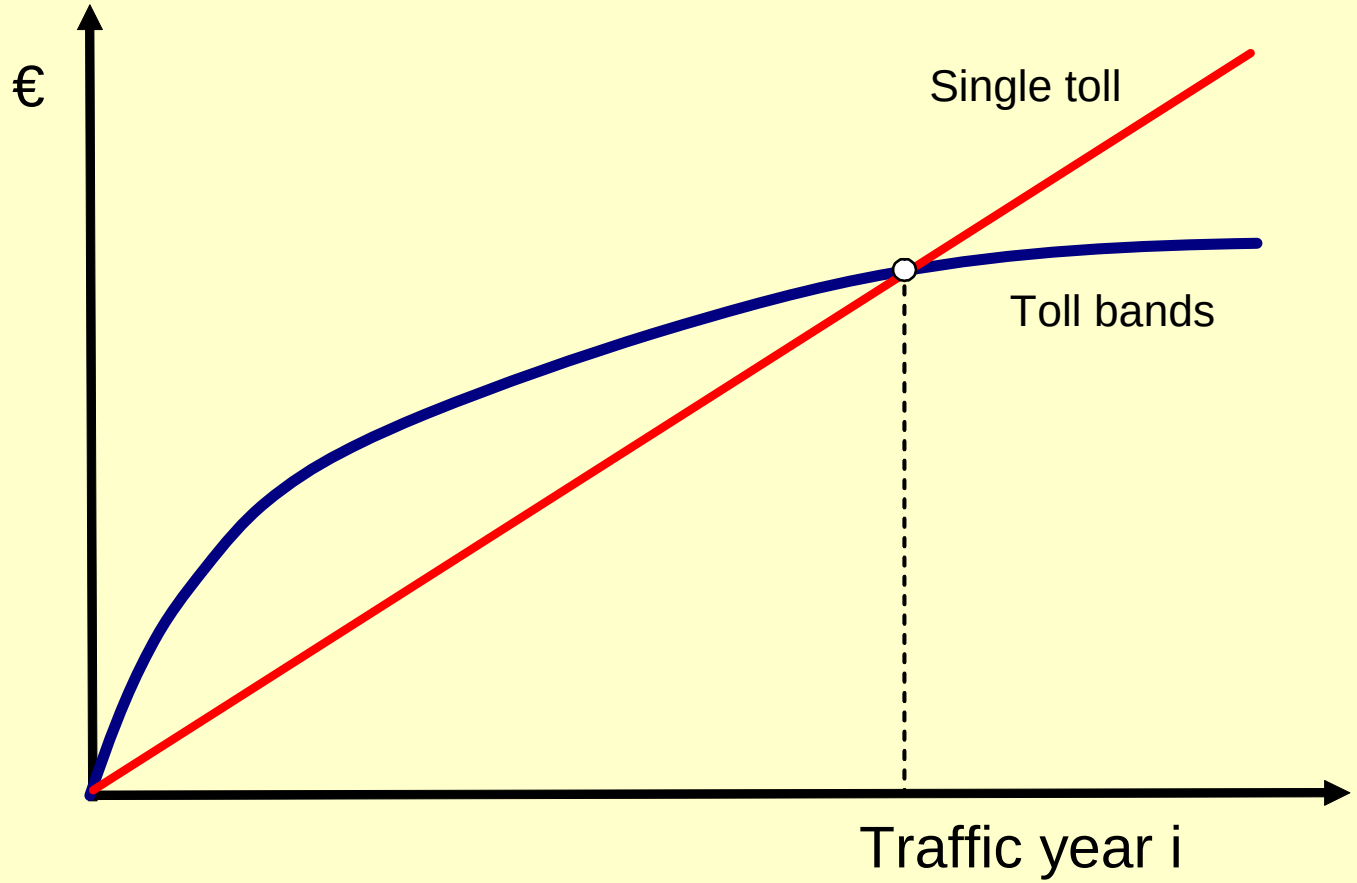
Toll bands (I)

Toll bands approach



Toll bands (I)

Sensitiveness analysis



Modification of the economic balance

- A provision to change contract terms if a target goal is reached
  - The target goal is often fixed in terms of IRR or PROFITS
  - The compensation is usually NEGOTIATED
- Main **advantage** → flexibility
- Main **drawbacks**:
  - IRR and PROFITS are difficult to monitor by the government
  - A future NEGOTIATION may be costly and tough for the government

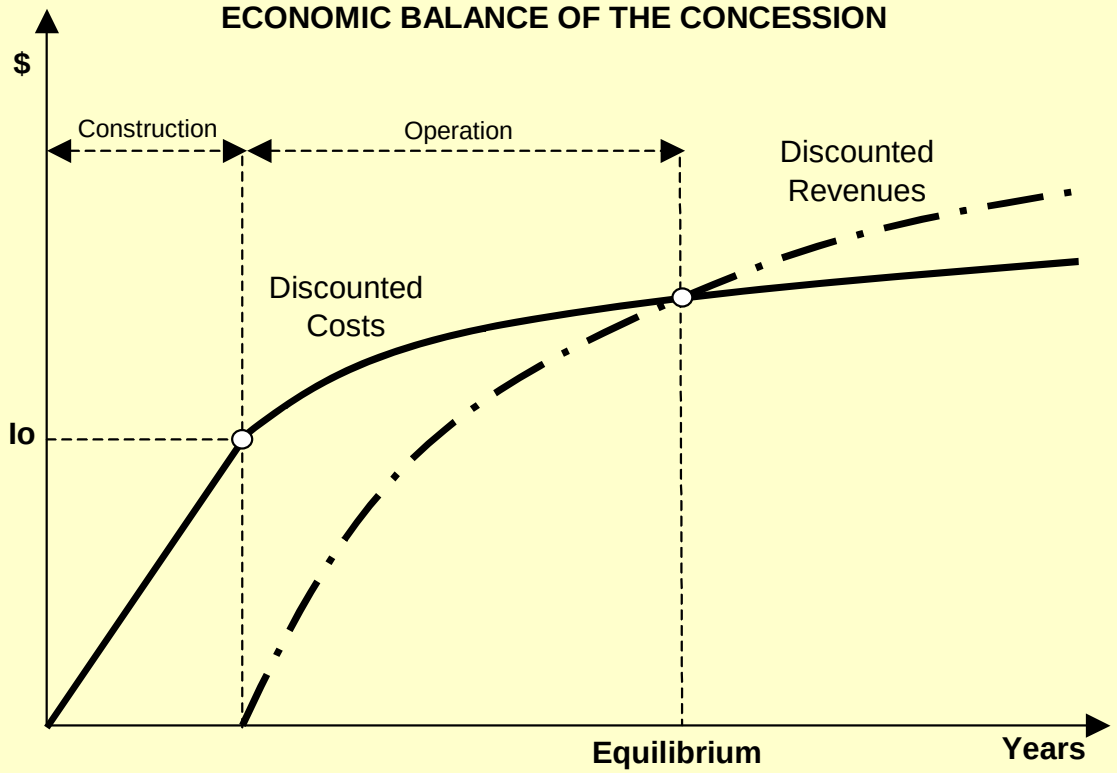
Contracts with flexible duration (I)

- Foundation:
  - Traffic lower than expected → extension of the contract duration
  - Traffic higher than expected → reduction of the contract duration
- These contracts have been implemented in:
  - United Kingdom: Severn Bridge
  - Portugal: Lusoponte
  - Colombia: several highway concessions
  - Chile: implementation of the “Least Present Value of the Revenues” approach in several highway concessions

Contracts with flexible duration (II)

$$I_o + \sum_{i=1}^{n} \frac{c_i + t_i}{(1+\alpha)^i} = \sum_{i=1}^{i=n} \frac{(p_i \cdot q_i(p_i))}{(1+\alpha)^i}$$

PVR



Io: Initial investment

S: Upfront subsidy

α: Cost of capital of the project

n: Concession term

p_i: Price for year i

q_i: Annual traffic in year i

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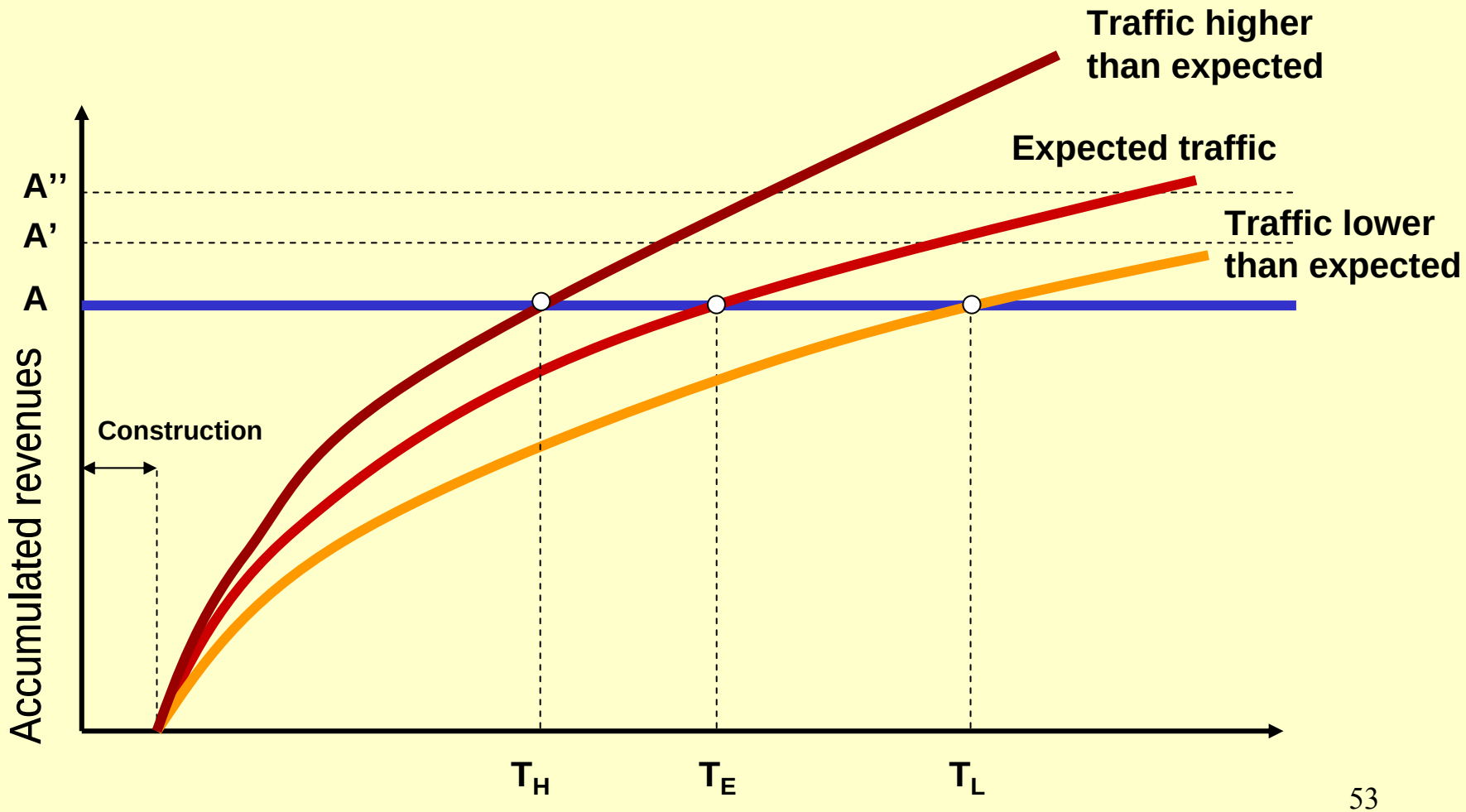
t_i: Corporate taxes in year i

Contracts with flexible duration (III)

Variable duration of the contract due to LPVR

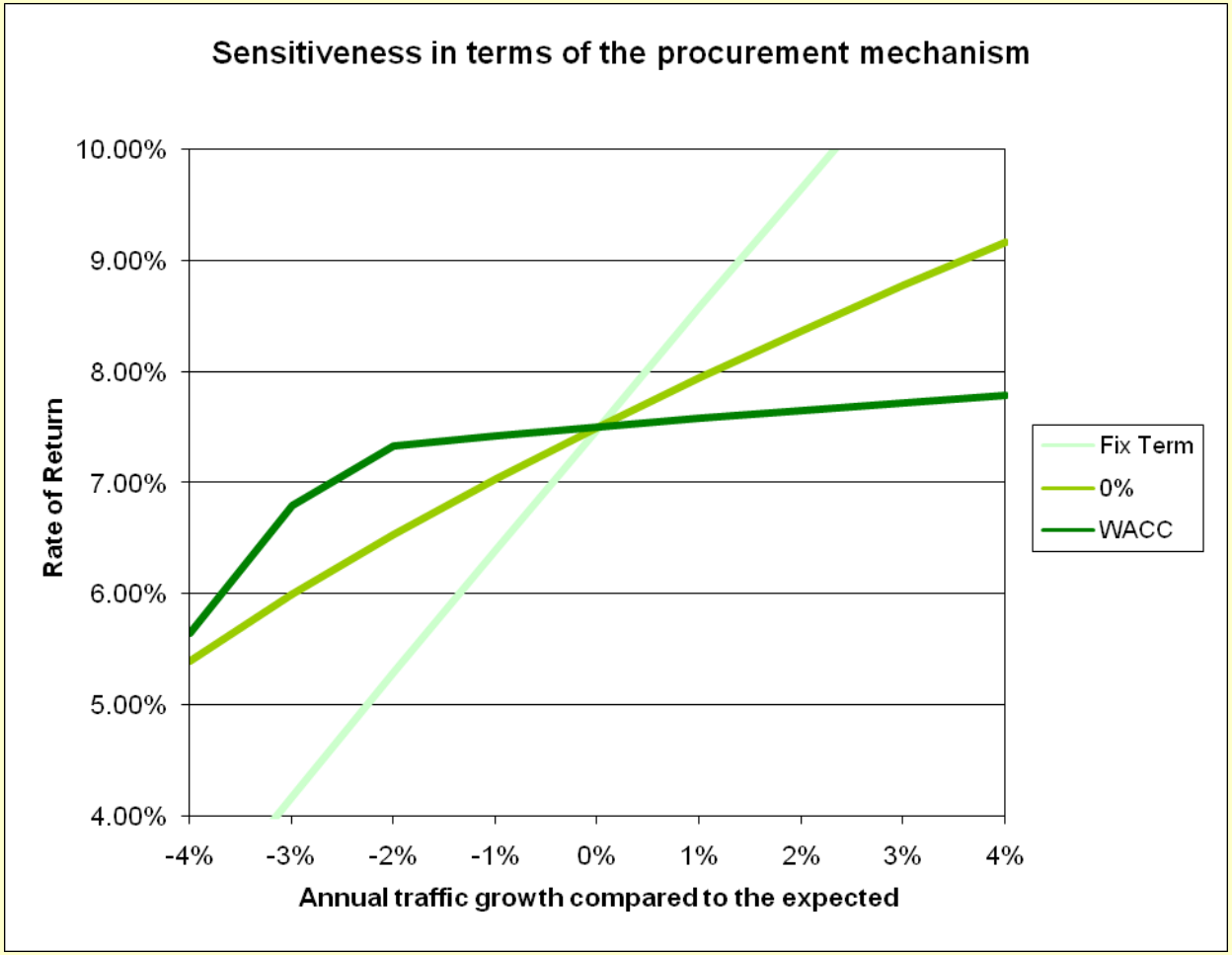


Contracts with flexible duration (IV)

- LPVR has important advantages for the government
  - A compensation based on a variable term does not commit public resources
  - LPVR sets up a clear buy out price
  - LPVR reduces renegotiation expectations so bidders have less incentives to inflate their offers
- However LPVR was applied only few times
  - Strong opposition from private promoters
    - Upside almost inexistent
    - Possible downside is there is a maximum duration established

Contracts with flexible duration (IV)

Profitability of a concession under traffic uncertainty (LPVR vs. fixed term)



Highway Concessions in Spain (I)

Periods in the construction of highway concessions in Spain

1967-1975

- Many highway concessions were awarded
- The government granted important guarantees to facilitate private financing (exchange rate insurance)
- These guarantees turned out to be costly for the government

1975-1995

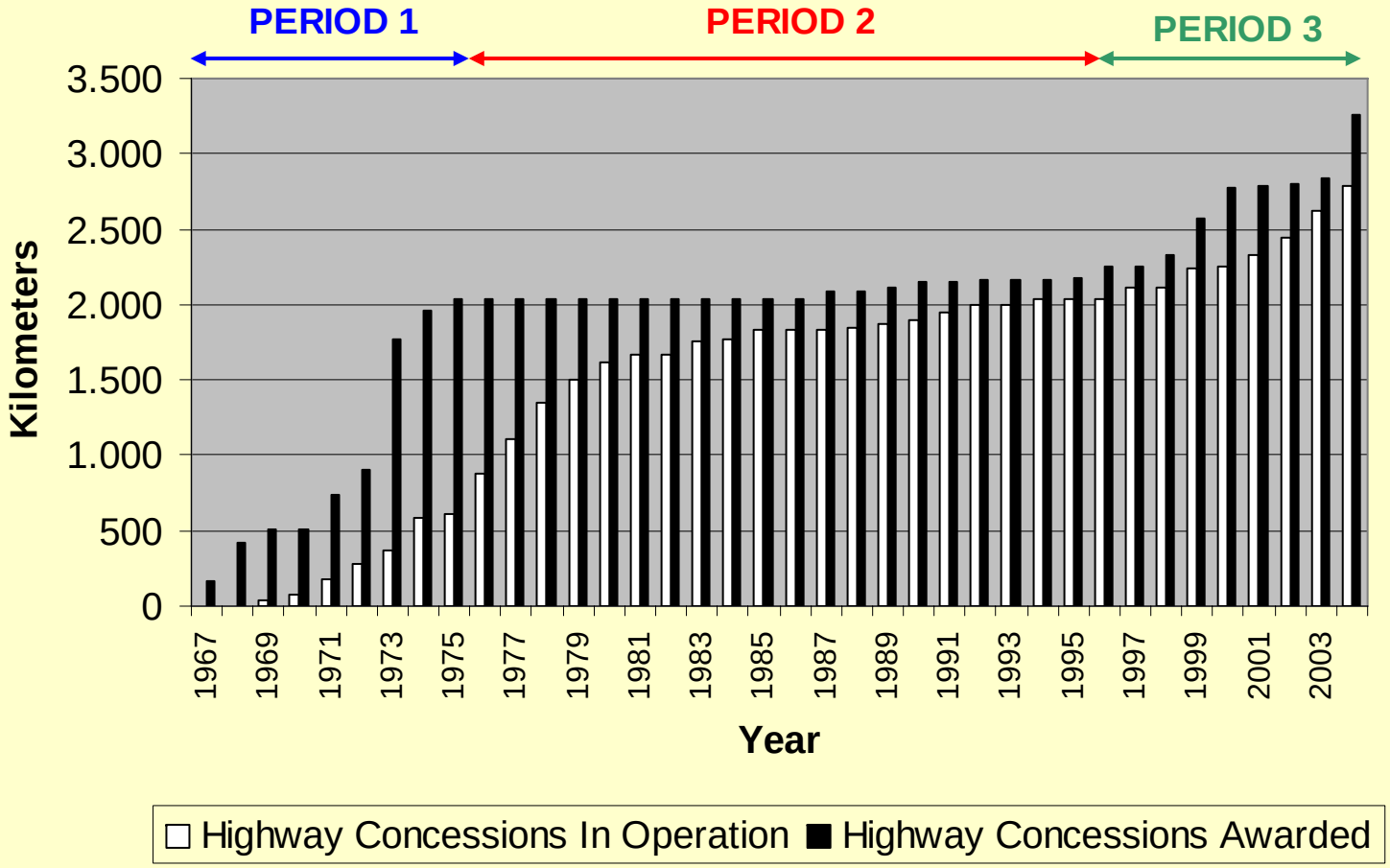
- The socialist government decided to stop the construction of toll concessions
- New free highways were built
- The decision was burdensome for the Spanish budget

1995-2006

- The EU demanded a reduction of public deficits to reach the single currency
- Spain returned to private financing mechanisms
- A new Concession Law was passed
- Public guarantees were limited

Highway Concessions in Spain (II)

Periods in the construction of highway concessions in Spain



Highway Concessions in Spain (III)

Year 2006	Central Government	Regional Governments	Total
Paved Interurban Roads (Km)	25,804	140,535	166,339
Free Highways (Km)	7,741	3,316	11,057
Toll Highways (Km)	2,337	477	2,814
		Total Highways (Km)	13,871

The Spanish Concession Law (I)

- A new Law was necessary:
  - To extend the concession model to every type of public infrastructure
- To promote private financing
  - To reinforce the legal framework by defining a new risk-sharing approach
- The Law was approved in May 2003
- Regulatory dispositions for each type of infrastructure can be developed

The Spanish Concession Law (II)

MAIN CONTRIBUTIONS OF THE NEW LAW

- The concession contract does not imply necessarily the construction of a new infrastructure
- The Law introduces what is called the “progress clause”
- Private persons and entities may propose concession projects to the Public Administration
- The Law introduces a new mechanism to mitigate traffic risk
- The Law introduces bonuses or penalties related to quality criteria
- The Law regulates new private funding sources to finance concession projects
- Maximum term of 40 years for DBOT concessions

The Spanish Concession Law (III)

- The revenues of the concessionaire come from:
  - Tolls charged to the infrastructure users
  - Revenues obtained from the operation of commercial areas that belong to the infrastructure
  - Contributions from the government if necessary
    - Lump subsidy upfront
    - Subsidies to the users (shadow toll)

The Spanish Concession Law (IV)

- The Law establishes the circumstances that may cause the re-balance of the economics of the contract
  - Contract modifications required by the government
  - *Force majeur* events
  - Large traffic deviations
- Ways to re-balance a concession contract:
  - Extension or reduction of the contract duration
  - Modification of tolls
  - Subsidies

The Spanish Concession Law (V)

UNPREDICTABLE EVENTS

- **Impossible to foresee at the beginning of the contract**
- **Impossible to do a checklist of them at the beginning**

THE LAW SAYS THAT:

The government must re-establish the economic balance of the contract only due to *force majeure* causes

→

***FORCE MAJEUR* EVENTS ARE:**

1. **Fire caused by Atmosphere electricity**
2. **Natural phenomena with catastrophic implications**
3. **Damages caused by war and alteration of public order**

The Spanish Concession Law (VI)

- Construction risks have to be borne by the private contractor
- The concessionaire should carry out the final design in order to avoid future claims
- The concession contract can be re-balanced in case that some specific events cause cost overruns:
  - Design changes imposed by the government
  - *Force majeur* events

The Spanish Concession Law (VII)

- Operational risks have to be borne by the private sector
- Concession contracts should include bonuses and penalties to encourage the concessionaire to render a good quality level
- The “progress clause” has to be applied

The Spanish Private Promoters (I)

World's Top Transportation Developers		
	No. of Concession/P3 Projects	
Company	Under Contract'	Active Proposals
ACS Dragados (Spain)	46	21
MIG / Macquarie Bank (Australia)	36	8
Ferrovial / Cintra (Spain)	26	29
FCC (Spain)	21	16
Abertis / La Caixa (Spain)	21	3
Laing / Equion (UK)	20	5
Sacyr Vallehermoso (Spain)	19	11
Cheung Kong Infrastructure (China)	17	7
OHL (Spain)	17	5
Vinci / Cofiroute (France)	15	22
Acciona / Necso (Spain)	15	18
Alstom (France)	13	6
Hochtief (Germany)	12	15
EGIS Projects (France)	12	12
Balfour Beatty (UK)	12	1
Andrade Gutierrez (Brazil)	10	4
AMEC (UK)	10	4
Bechtel (US)	8	6
Skanska (Sweden)	8	4
Alfred McAlpine (UK)	8	3
BRISA (Portugal)	7	2

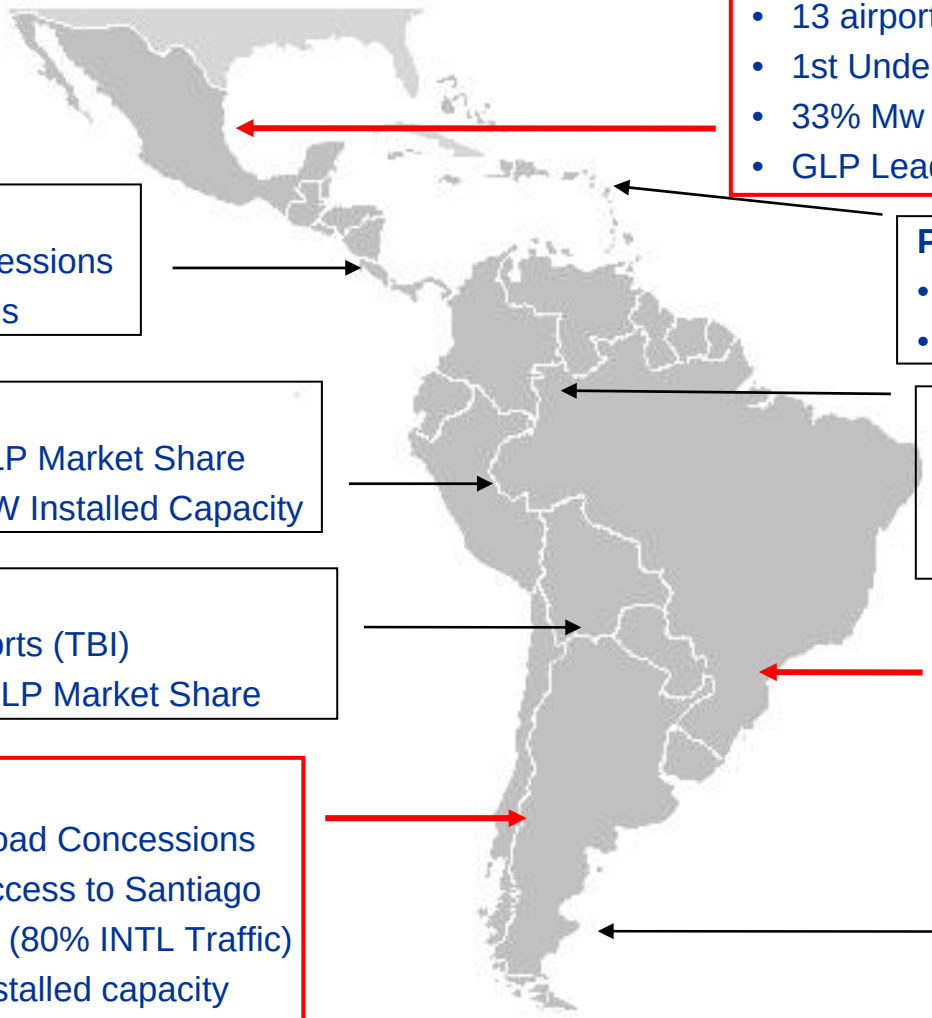
Spanish developers consistently rank amongst the world's top transportation developers

PUBLIC WORKS FINANCING

The Spanish Private Promoters (II)

	LATIN AMERICA	EUROPE (excl. Spain)	NORTH AMERICA
abertis	▪ Toll roads: - Elqui (Chile) - Ausol and GCO (Argentina) - Coviandes (Colombia) ▪ Bolivian Airports	▪ 57.5% SANEF toll roads (France) ▪ 10% of Brisa (Portugal) ▪ 6.7% of Autostrade (Italy) ▪ Road Management Group (UK) ▪ TBI: 4 Airports (UK and Sweden)	▪ TBI Airports: - Toronto (Canada) - Orlando Stanford (US) - Atlanta (U.S.) - Burbank (U.S.)
ACS	▪ Toll roads: - Americo Vespucio Norte (Chile) - Autopista Central (Chile) - Santiago - Valparaiso (Chile) - San Cristobal Express (Chile) ▪ Airports: - SCL (Chile) - AMP (Mexico) -> 12 airports	▪ Toll roads: - Dundalk (Ireland) - A1 and A13 (UK) - NC25 (UK) - SCUT da Beira Interior (Portugal) ▪ 25% Hotchief (Germany)	
ferrovial / Cintra	▪ Toll roads: - Temuco- Rio Bueno (Chile) - Talca-Chillan (Chile) - Santiago-Talca (Chile) - Chillan-Collupuli (Chile) - Collipulli-Temuco(Chile)	▪ BAA Airports (UK) (146M Pax) - London: Heathrow, Gatwick, Stansted - Edimbourg, Glasgow, Aberdeen ▪ Toll roads: - N4/N6 and M3 toll roads (Ireland) - 3 shadow toll roads (Portugal)	▪ Toll roads: - 407 ETR (Canada) - Chicago Skyway (US) - Indiana Toll Road (US) - Trans Texas Corridor (US) - SH-130 Motorway (US)
SyV Sacyr Vallehermoso	▪ Toll roads: - Ruta 68 (Chile) - Ruta 5, Norte y Sur (Chile) - Autopista Litoral Central (Chile) - Américo Vespucio Sur (Chile) - Acceso Nororiente (Chile) -Triangulo do Sol (Brazil) - Autopista del Valle (Costa Rica)	▪ Toll roads: - Autostradas do Atlántico (Portugal) - Lusoponte Bridge (Portugal) - Trakia motorway (Bulgaria) ▪ 33% Eiffage (France)	
acciona	▪ Toll roads: - Litoral Centro (Chile) - Américo Vespucio Sur (Chile) - Rodovias do Norte (Brasil)	▪ Envalira tunnel (Andorra):	
FCC Fomento de Construcciones y Contratas, S.A.	▪ Toll roads: - Coatzacoalcos tunnel (Mexico) - S. José - S. Ramón toll road (Costa Rica) - San Jose to Caldera (Costa Rica) ▪ SCL Airports (Chile)	▪ Toll roads: - Envalira tunnel (Andorra) - Scutvias (Portugal) ▪ 80.7% Alpine Mayreder Bau (Austria)	
OHL	▪ Toll roads: - Autopista de los Andes (Chile) - Autopista del Sol (Chile) - Autopista de los Libertadores (Chile) - Ruta 60 (Chile) - Norte Sao Paulo (Brazil)	- Centro Sao Paulo (Brazil) - Intervias (Brazil) - Vial Norte (Brazil) - Ezeiza-Cañuelas (Argentina) - Concesion Sistema Carretero (Mexico)	▪ Toluca Airport (Mexico)

The Spanish Private Promoters (III)



Mexico
- 13 airports (26M Pax)
- 1st Underwater Tunnel
- 33% Mw Installed capacity
- GLP Leaders

Costa Rica
- 4 Motorway concessions
- 250 km. Toll roads

Puerto Rico
- Puente Teodoro
- 47,5% Mw Installed Capacity

Perú
- 34% GLP Market Share
- 26% MW Installed Capacity

Colombia
- 1,484 km. Railways
- 2.1 M Clients (Electricity)
- 25% MW Installed Capacity

Bolivia
- 3 Airports (TBI)
- 35% GLP Market Share

Brazil
- 2,000 km Toll Roads
- Sao Paulo 3 main Concessions
- 12.5 M Clients (Electricity)
- GLP leaders

Chile
- 84% Toll Road Concessions
- 90% Toll Access to Santiago
- SCL Airport (80% INTL Traffic)
- 30% Mw Installed capacity
- 38% GLP Market Share

Argentina
- 4 Toll Concessions
- 2.1 M Clients (Electricity)
- 15% MW Installed Capacity

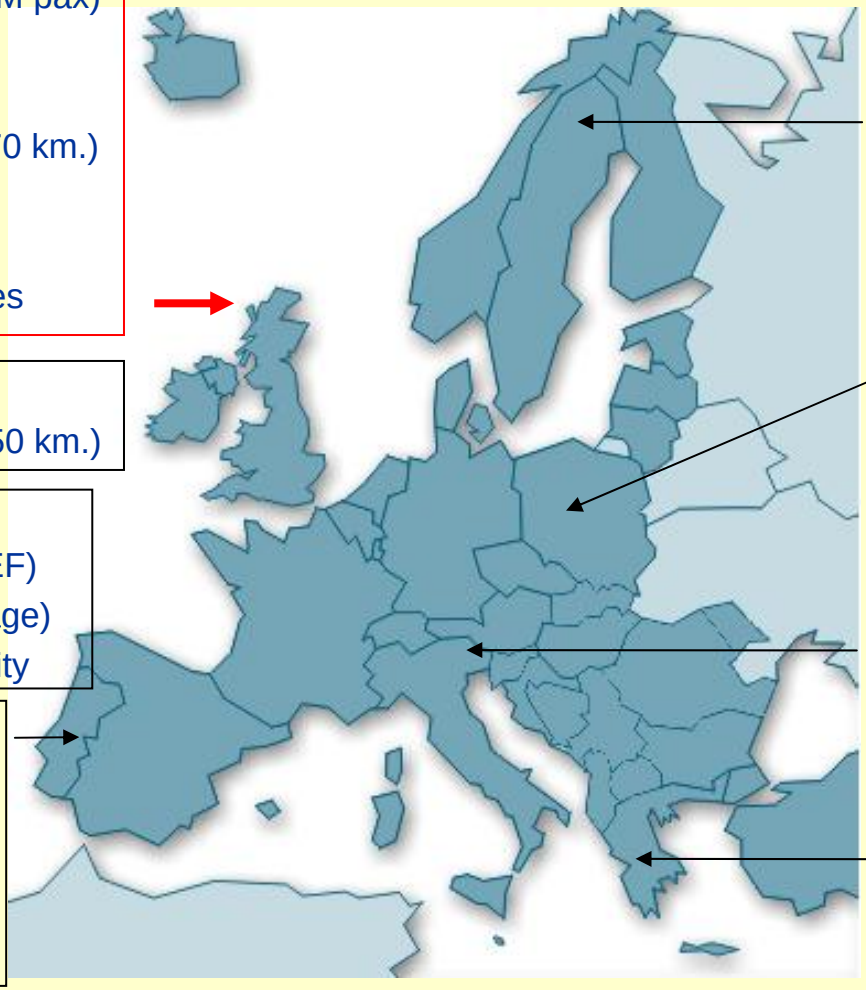
The Spanish Private Promoters (IV)

U.K.
- BAA & TBI: 10 airports (160 M pax)
- 90% London Air Traffic
- 10 incineration plants
- 5 Toll Road Concessions (270 km.)
- 5,413 Mw Installed Capacity
- 5.2 M electricity users
- 112,000 km transmission lines

Ireland
- 4 toll road concessions (250 km.)

France
- 1,771 km toll roads (SANEF)
- 2,000 km. Toll roads (Eiffage)
- 2,600 Mw Installed Capacity

Portugal
- 4 toll roads (375 km.)
- 1,300+ km toll roads (Brisa & Autoestrade)
- 1,000 MW (4 plants)
- 16.5 k parking spaces



Sweden
- Stockholm Skavtsa Airport

Eastern Europe
- SMVAK & ASA-Abfall (Environmental Services)
- Alpine Mayreder Group

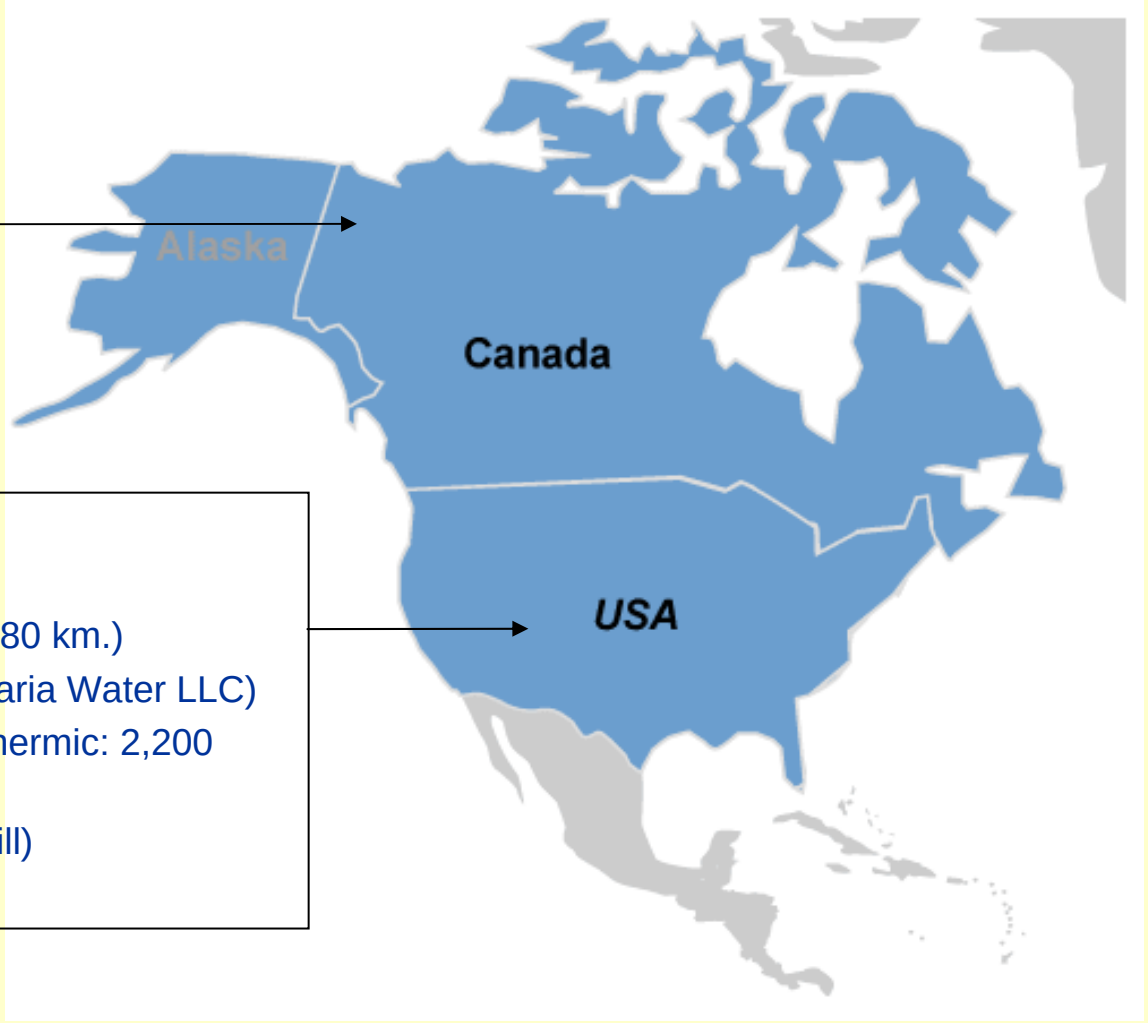
Italy
- 3,400 km toll roads (Autoestrade)
- Naples Airport
- 4,012 km. GLP pipelines
- 6,360 Mw Installed Cap.
- 15.5 k parking spaces

Greece
- Ionan Roads (380 km.)
- Central Motorways
- 260 Mw Installed Capacity

The Spanish Private Promoters (V)

Canada
- 407-ETR Motorway (108 km.)

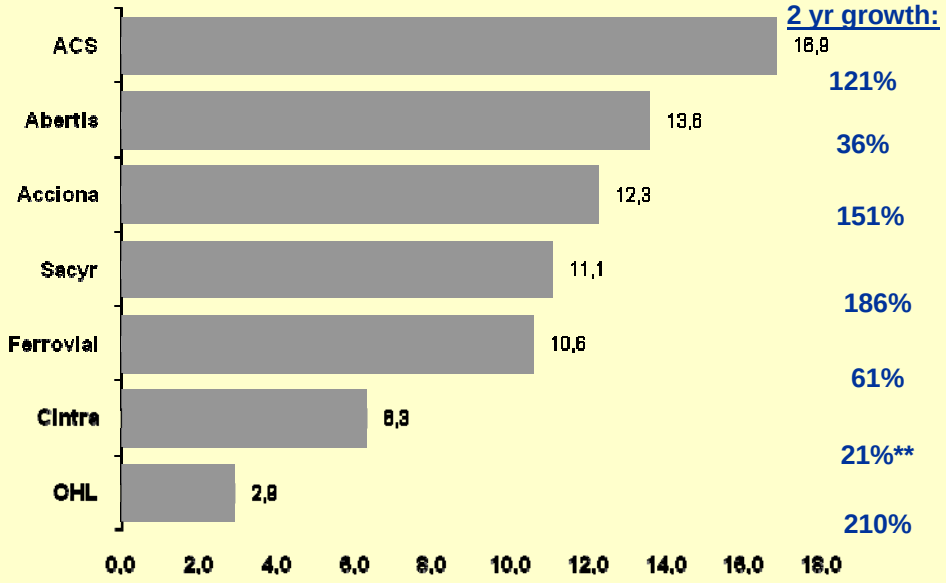
U.S.
- 5 airports (65 M pax)
- 6 Motorway Concessions (380 km.)
- Desalinization Plants (Acquaria Water LLC)
- 16 Power Plants (Wind & Thermic: 2,200 Mw)
- Nevada Solar One (Wind Mill)
- 3 M electricity users



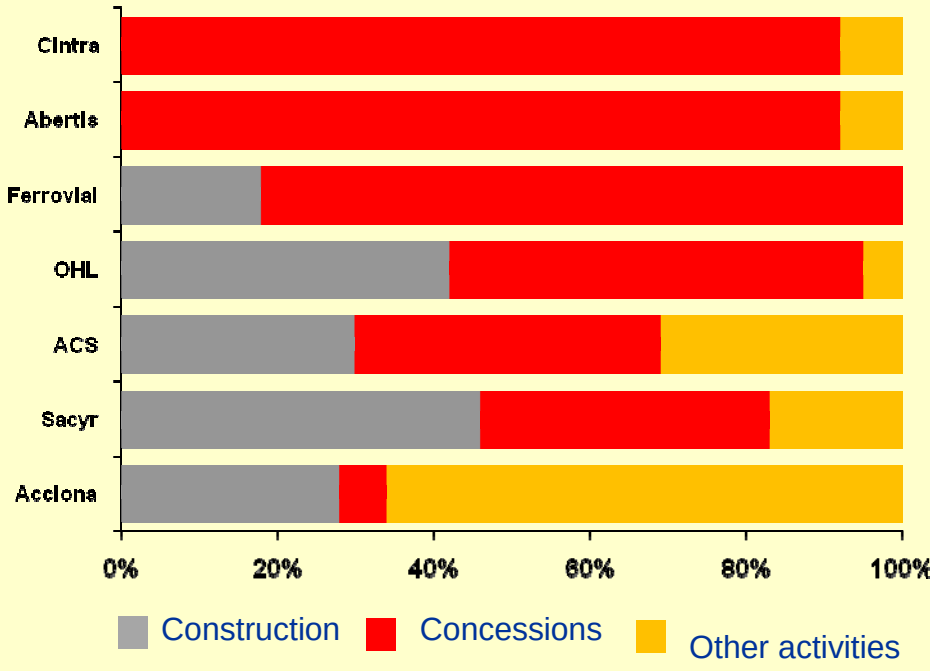
The Spanish Private Promoters (VI)

Spanish firms have grown from pure construction companies into diversified concessions businesses and other activities

Market Cap* (Euro Billion)



EBITDA breakdown



As of June 29th 07

** From June 2005

*** From sept 2005

Source: Santander research

The Spanish Private Promoters (VII)

- Main Characteristics of the new concession developers:
  - Understands the difference between construction and concession business
  - Integrates a multitask team:
    - Design
    - Land expropriation
    - Construction Management
    - Finance
    - Operation and maintenance
    - Electronics
  - Frequently new developers integrate financial institutions as permanent equity partners

Thank you very much for your attention

Further Information:

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