Transport Economics
Lecture 9

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1

The Role of the Public and Private Sector in Transport Infrastructure : PPP Options

2

2

■ Private Sector

Capital Financing (i.e., equity and debt)

Construction of Transport Facilities

Operations of Transport Services

■ Private Public Partnerships : Leveraging Public Money

■ Why it is important?

- Need to **reconcile** transport infrastructure **development needs** with criteria for **fiscal prudence** (i.e., public sector resources available for infrastructure investments will be limited – **financing gap**).

3

3

- Need to **mobilize additional private capital** to match the gap if infrastructure development is to keep its pace sustaining economic growth.
- Need to develop PPPs approaches as a **procurement tool** for better and efficient allocation of scarce public sector resources.

Public Private Partnerships: Basics

Definition **Public Private Partnerships**

PPPs are **contractual arrangements** between the public sector and a private sector party for the **private delivery** of public infrastructure services or other basic services.

4

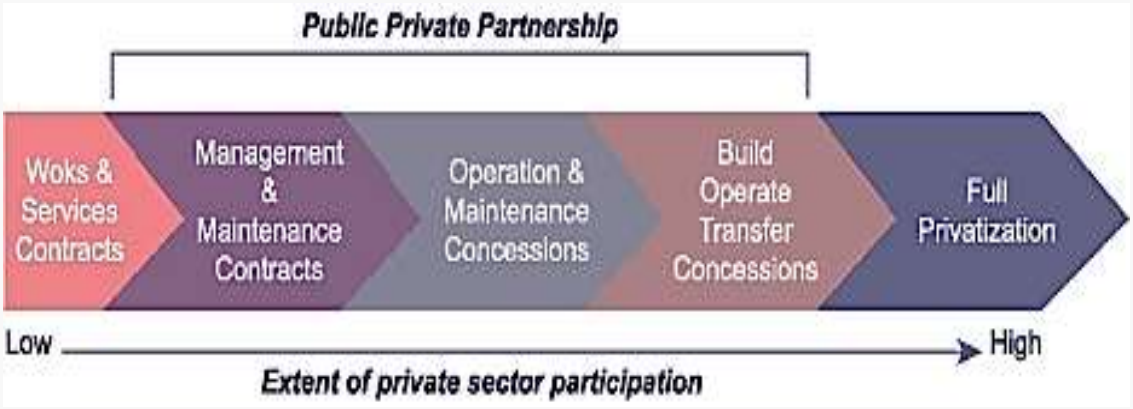
4

- PPPs are **complex structures**, involving different parties, long and demanding negotiations and relatively high transaction costs.
- PPPs are a **procurement tool** where the focus is payment for delivery of services rendered (outputs – outcomes). **Transfer of the performance risk**.
- **Project related risks** (i.e., technical, performance, market and financial risks are transferred (to a great extent) **to the private entity**. **Political, regulatory and macro-economic** risks should be allocated to the party best suited to deal with them (government, international financial institution, private insurers).
- Contract payments are usually structured in such a way that the public authority and / or users pay only for **services rendered satisfactorily and not for assets, which are inputs to service provision**. Revenues are generated via: (i) user fees, (ii) government payments (subsidies) and (iii) multilateral / donor grant funding and or (iv) a combination of all of the

5

5

PPPs : Spectrum of Options



6

6

Maritime Transport

7

Introduction

- **Shipping** has been an important **human activity** throughout history, particularly where **prosperity** depended primarily on **international** and **interregional** trade.
- Maritime transportation has been called one of the four cornerstones of **globalization**, along with **communications**, **international standardization**, and **trade liberalization**.
- Many countries achieved economic growth in the recent past decades due to their willingness to open **their borders** and markets to **foreign investment** and trade.
- There exists a **symbiotic relationship** between globalization and maritime shipping.

8

Maritime Shipping and Goods Movement

- Global **goods movement** is a critical element in the global **freight transportation** system that includes ocean and coastal routes, inland waterways, railways, roads, and air freight.
- The freight transportation network connects locations by multiple modal routes, (functioning as modal substitutes).
- Maritime transport is divided into **six cargo groups**:

1- The liquid bulk cargo

For the transport of crude oil its products and other liquids, E.g., petroleum products, chemicals, liquid gas and fruit juice concentrate.

9

2- The solid bulk cargo

for the transport of minerals, wheat and other grains, E.g., ores, coal, grain; Bulk carriers for large-volume unit loads such as motor vehicles and iron.

3- The general cargo

for the transport of manufactured products.

4- Container ships

which are increasingly taking on the tasks of general cargo ships on long-haul routes.

10

5- Refrigerated vessels (reefers)

for fruit from the Southern Hemisphere.

6- Ferries

for shipping trucks and general cargo vessels on short-haul routes.

11

Modern ships characteristics

- Marine **innovations** have helped to fuel **the growth of maritime freight traffic**. Modern ships are characterized by **large**, **fast** and **highly specialized** structures.

These characteristics include:

1- Size

The average **size** of ships has **increased** substantially.

- Larger vessels reduce the **shipping costs** per load unit for **crew**, **fuel**, **demurrage**, **insurance**, **servicing** and **ship maintenance**.
- Port authorities must respond to increasing vessel sizes by **expanding port infrastructure**

12

2- Speed

- The average speed of a new merchant ship **increased substantially**.

3- Design

- Ship **design** has changed radically – from **timber** to **steel** to **vessels** built mainly of **aluminum** and **composite materials**.
- **Design innovations** were aimed at dramatically **reducing fuel consumption** and **construction costs** while **increasing safety** at the same time.

13

4- Specialization

- **Specialization** has been responsible for **reducing** the costs per **transported unit**.
- Where **special ships** can be utilized to **capacity**, therefore, **economies of scale** have been achieved.
- Special ships have increasingly been constructed for different and **specific types of freight.**

5- Automation

- Various automation technologies have been introduced to **shipbuilding** and **ship operations**, including: (1) self-loading/unloading systems, (2) computerized navigation, and (3) the global positioning system (GPS).
- Automation has reduced the **number of crew** needed and at the same time improved **safety** standards.

14

Thank you

15