



INTERNATIONAL FINANCIAL INSTITUTIONS (IFI)  
KEY  
TECHNICAL FACTORS FOR FINANCING PORT PROJECTS

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# BLACK SEA- PORTS

- Balaklava
- Batumi
- Bilhorod-Dnistrovskki
- Costanta
- Illichivsk
- Navadari
- Norossiysk
- Odessa
- Sochi
- Sulina
- Varna
- Yuzhne



# MULTILATERAL DEVELOPMENT BANKS

- INSTITUTIONS PROVIDING FINANCING & PROFESSIONAL ADVICE FOR THE PURPOSE OF DEVELOPMENT
- HAVE A LARGE NUMBER OF MEMBERS THAT INCLUDE BOTH DEVELOPED DONOR COUNTRIES AND DEVELOPING BORROWER COUNTRIES
- FINANCE PROJECTS IN FORM OF LONG TERM LOANS AT MARKET RATES
- VERY LONG TERM LOANS KNOWN AS CREDIT BELOW MARKET RATES
- GRANTS

# MULTILATERAL DEVELOPMENT BANKS

- World Bank
- European Investment Bank ( EIB)
- Asian Development Bank (ADB)
- European Bank for Reconstruction and Development ( EBRD)
- Inter-American Development Bank (IDB)
- African Development Bank
- Islamic Development Bank

# SUB - REGIONAL MULTILATERAL DEVELOPMENT BANKS

- CAF - Latin American Development Bank
- Caribbean Development Bank (CABEI)
- East African Development Bank (EADB)
- West African Development Bank (BOAD)
- Black Sea Trade and Development Bank (BSTDB)
- Eurasian Development Bank (EDB)

# OTHER INSTITUTIONS

- European Commission
- International Finance Facility for Immunisation
- International Fund for Agricultural Development
- Nordic Investment Bank
- OPEC Fund for International Development
- FMO

# WORLD BANK GROUP

- IBRD International Bank for Reconstruction & Development - 1945
- IDA International Development Association -1960
- IFC International Finance Corporation - 1956
- MIGA Multi Investment Guarantee Agency - 1988
- ICSID International Center for Settlement of Investment Disputes - 1965

# WORLD BANK GROUP

- Headquarters - 1818 H Street NW, Washington DC
- Low - Interest loans
- Interest free credit
- Grants to developing countries
- Cofinancing with governments, other multilateral institutions, commercial banks, credit agencies and private sector investors



# INTERNATIONAL DEVELOPMENT ASSOCIATION - IDA

- Established in 1960
- Reduce poverty by providing loans and grants
- Repayment can be stretched over 25 to 40 years
- Including a 5 to 10 years grace period
- Annual commitments \$16 billion over the last 3 years ( 15 % were grants )
- Eighty-two countries are eligible to receive IDA resources
- Relative poverty defined as GNI per capital below 2013 at \$1,195
- Lack creditworthiness to borrow on market terms

# INTERNATIONAL DEVELOPMENT ASSOCIATION ( IDA)

- Largest multilateral source of concessional financing for world poorest countries
- In fiscal 2013 a total of 82 countries were eligible for receiving IDA assistance

# INTERNATIONAL FINANCE CORPORATION

- Investment Services
- Advisory Services
- Asset Management Company
- Total of 182 member countries

# IFC FUNDING CRITERIA

- Located in a developing country that is a member of IFC
- Private Sector
- Technically Sound
- Good prospects of being profitable
- Benefit the local economy
- Environmentally and Socially sound
- Range of typical investment
  - from \$1 million to \$100 million

# IFC InfraVentures

- IFC Global Infrastructure Project Development Fund
- Helps Public Private Partnership
- Private Infrastructure Projects
- Front end development serving as a co-developer

# IFC InfraVentures

- Taking lead in developing projects
- Covering - Consulting expenses & fee
- Planning & feasibility studies including environmental and social assessment and related community engagements
- Permits, land acquisitions and pilot studies

# EBRD

- Opened for business 1991
- Headquarters in London
- Shareholders include 65 countries
- Invest in Ports

# EBRD - BLACK SEA REGION COUNTRIES

- Romania
- Ukraine
- Turkey
- Georgia
- Russia
- Bulgaria



# ISLAMIC DEVELOPMENT BANK

- Founded in 1973
- Began activities in 1975
- Based in Jeddah, Saudi Arabia
- Has 56 shareholding member states

# KEY TECHNICAL FACTORS IFI REVIEW ON PORT PROJECTS

- Hydraulic & Coastal Conditions
- Siltation & Dredging
- Design Wave height
- Breakwater - Down Time 10%
- Structural Rigidity
- Design life of Structures - 50 years
- Port Services
- Power Supply
- Yard layout
- Equipment
- Gate control and circulation

# KEY TECHNICAL FACTORS IFI REVIEW ON PORT PROJECTS

- Design Ship
- Design Wave
- Type of Equipment
- Lay out
- Weather related issues - Ice Breakage in access channel
- Project Management
- Operator

# SILTATION & DREDGING

- Fairway Draft
- Channel Depth
- Draft at Berth
- Dredging Operations
- Responsibility of Dredging
- Cost of Dredging

# QUAY SIDE CONTAINER CRANE

- Out Reach
- Hoist Speed Load
- Trolley Speed
- Type of Spreader
- Washing System
- Elevators
- Operation Cabins

# RTG

- Stacking Capacity 1 over 5
- Width 7 plus 1
- Spreader
- Span of Gantry
- Anti Sway
- Test Load for overload

# TYPICAL CAPITAL COST

- Land Acquisition Cost
- Civil Works
- Dredging
- Filling
- Container Yard
- Berth
- Permits & Fee
- Contingency

# O & M COST

- Fuel
- On going Maintenance
- Salaries
- Insurance
- Administration
- Stevedores



# BULK TERMINALS

- Cement loading rates 6,000 tons per day
- Clinker loading rates 10,000 tons per day
- Fertilizer loading rates 10,000 tons per day

EQPT	NET HANDLING HOURS	NO OF BREAKDOWNS	PERCENTAGE AVAILABILITY
QC	292	7.25	98.66
MHC	117	3	98.28
RTG	906	1.37	99.90

	POWER USAGE	SPARE PARTS COST	REPAIR AFTER 15 YEARS	TOTAL COST
STS CRANES	7.5 to 8.5 kw hr / container	Euro 10-20 k per year	Euro 60 -100k	Euro 2.6 to 3.2 million
RTG	16,5 liters/hr	Euro 7.5 -10k per year	Euro 30-60k	-
RMG	3.5 to 4.5 kW hr/ container	Euro 5 -8 k per year	Euro 30-60k	Euro 2 to 2.5 million

# FACTORS IMPACTING TERMINAL CAPACITY

- Ships Arrival Pattern
- Exchange per call
- Size of ship - larger the better
- Performance of customs in releasing containers
- Weather conditions such as masons

# TYPICAL CIVIL WORKS COSTS( per cubic meter )

- Dredging \$2.25 to \$8.0
- Quay 35 meters wide \$54,000 to \$75,000
- Container Yard \$ 70
- Sheds \$ 400

EQUIPMENT	% of Capital Cost
Quay Crane	2.5%
Yard Gantries	3%
Straddle Carrier	9%
Reach Stacker	7%
Vehicles	5%

# CONTAINER CRANES HANDLING SPEED

- Up to 20 m/ hr - 12%
- 21 - 25 m/ hr - 39%
- 26 - 30 m/hr - 33%
- 31 - 35 m/ hr - 14%
- Over 35 m/h - 1%

# EPC CONTRACT

- Differing Site Conditions Clause
- Changes Clause,
- Constructive Change Orders
- Cardinal Changes
- Excusable and Inexcusable delays
- Concurrent Delays
- No Damages for Delays Clause



# KEY RISK FACTORS

- Political
- Completion
- Market
- Tariff
- Environmental
- Exchange Rate
- Interest Rate

# TYPICAL PORT PROJECT REVIEW CYCLE ELEMENTS

- Initial Review to seek Management Approval to proceed
- Repetitional Risks with Sponsor Check is key
- Review of Project Fundamentals - Market & Technical
- Mandate Letter
- Field due diligence
- Internal Management Approval based on due diligence
- Board Approval
- Funding Available for 1 st Disbursement

# KEY TAKE AWAYS

- Contact in country IFI Representative
- Prepare credible Market & Technical Study
- Detailed Financial Model
- Team up with good construction company
- Need an experienced operator with name recognition on the team
- Focused approach to minimize time & cost
- Seek guidance & advice on the IFI Process