



M O D U L E 8

IMPLEMENTING PORT REFORM



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INTRODUCTION

Shifting the boundary between the public and private sectors entails four kinds of preparations:

Strategic preparation, which results in the considered adoption of a particular institutional model and service ensemble that best matches a port's competitive environment and its growth prospects;

Redefinition of authorities and powers, which results in regulations, rules, tariffs and procedures that ensure that the provision of all port services is fully coordinated and that the proper incentives to spur efficiency are in place;

Legal adaptation, which establishes the sectoral legal framework based on the principles agreed upon as a result of the strategic analysis and the redefinition of institutional rules; and

Transaction preparation, which results in the development of tendering processes that are transparent, open and competitive.

This module describes how to undertake this series of tasks in a practical and effective way.

STRATEGIC PREPARATION

Because of the wide-ranging implications for the national economy of port reform, deciding to embark on the path



to reform must be an initiative fully supported at the highest levels of Government. Once the principle is agreed upon by the Cabinet, an effective way to overcome the traditional difficulties inherent with working across several ministerial departments is to set up an Interministerial Working Group (IWG) under the chairmanship of a high level public official, and give it an explicit mandate. Drafting and getting this mandate approved will be the first step to set the reform process in motion.

Mandate of the IWG. The Interministerial Working Group will have to define the objectives of port reform, have them approved by the Government, and will then have to prepare, based on those objectives, a Port Sector Policy Paper that will propose the new institutional framework within which the sector will develop. In particular, this Policy Paper will propose a preferred choice for the new port management model to be implemented.

Composition of the IWG. The skills of the people appointed to the Interministerial Working Group will be critical. First, IWG members must represent the various ministerial departments directly interested in port sector activities, i.e., Transport, External Trade, Finance, Labor, Environment, and possibly Agriculture, Industry, etc. Second, they must collectively gather the required competence in terms of economic, financial, technical, and social aspects of the port industry both domestically and regionally. Third, they must be seen as independent from any interest group, and the key staff must have a recognized reputation in their field of

competence. While the IWG may, and should, consult with all interested stakeholders and representatives of the professional port and maritime community, it must be able to view the reform process from a broader economic perspective, focusing on the overall public interest of the country.

Hiring Advisers. Designing and implementing a port sector reform program involving increased private sector participation in port services requires substantial economic, financial, technical and legal expertise, and the coordination of this expertise. The process requires detailed work, first refining the institutional option to be implemented, then preparing the legal and regulatory measures required to support it, and finally drafting many complex documents, such as the necessary enabling laws, the bidding documents for private sector applicants, and the draft contracts with private port operators. Preparing these documents often involves several iterations, as preliminary versions are distributed to the national professional community and to prospective private partners for comment, and then amended in accordance with those comments and with the Government's policy concerns.

Governments often lack the full range of expertise within the civil service to carry out these tasks. Some countries may have few of the necessary skills available locally and will need international advisers. All Governments will need to contract out at least some of these tasks to external advisers. Managing these advisers then becomes a primary task of the IWG.



Various kinds of advisers may be helpful. Economic and regulatory consultants can advise on how the market for port services can be structured and how competition can be promoted, depending on domestic and regional contexts; they can also help devise adequate regulatory and monitoring mechanisms when needed. Legal consultants can help prepare draft legislation and regulations, bidding documents and contractual agreements. Technical consultants can undertake technical assessments of port facilities and help prepare technical specifications and requirements for both general regulatory purposes and specific

concession contracts. Environmental consultants can prepare environmental studies, baseline surveys of existing conditions at the outset of the reform process, and environmental impact assessments of specific development options. Finally, investment bankers and financial consultants can help prepare financial projections for both the sector as a whole and for specific investment options, determining the bankability of potential development projects from a private investor's perspective. For more information on how best to select and hire advisers, see Box 1 on the separate Toolkit for Hiring and

Box 1

Hiring and Managing Advisers

The Public Private Infrastructure Advisory Facility (PPIAF) has funded the Toolkit for Hiring and Managing Advisers for Private Participation in Infrastructure. This Toolkit will assist governments to hire and manage economic consultants, financial advisers and legal experts, as well as other specialists required to increase the role of the private sector in all infrastructure services. The main components of the Toolkit include a CD-ROM overview of the material as well as an Executive Summary and three volumes of publications which contain nine modules as follows:

Volume 1: What is PPI and how can advisers help?

- Module 1: Principles of selection for advisory services to support PPI
- Module 2: Identifying the stages of PPI
- Module 3: The role of advisers
- Module 4: Defining the project and the contract
- Module 5: Use of advisers for small-scale projects

Volume 2: Donor agencies and the funding of PPI advisory services

- Module 6: Funding agency requirements

Volume 3: How to select and manage PPI advisers

- Module 7: Selecting advisers
- Module 8: Paying advisers for their advice
- Module 9: Managing the PPI advisory services

It is expected to be available in 2001. Information for ordering the PPI Advisory Toolkit as well as a self-guided tour of the Toolkit's main themes will be available on PPIAF's homepage: www.ppiaf.org. For specific questions on the Toolkit, please email Jordan Schwartz of the World Bank's Private Sector Advisory Services Department at jschwartz3@worldbank.org.



Managing Advisors for Private Participation in Infrastructure.

Time Frame. For the sake of efficiency, it is advisable to give explicit deadlines to the work of the IWG. The time frame for conceptualizing and implementing reform, however, must be realistic. Time requirements obviously will vary country by country, depending on the local economic context and on the physical magnitude of the sector; however, a six-month period is likely to be the minimum time required to establish a sector reform strategy and secure agreement on it from various stakeholders. This phase may extend up to twelve months in more complex institutional and operational environments. Implementing the reform itself -- including transforming public port authorities, setting up regulatory bodies as needed, preparing transactions with private partners, and closing contracts -- may require between one to two years, assuming no political disruptions occur. Altogether, a two to three-year time frame between the inception of the reform process and the time when the new sector organization is up and running would seem a reasonable reference.

Reporting Relationship. Due to its interministerial nature, and to the fact that most of its proposed decisions will have a far-reaching impact across a number of ministerial departments, a logical proposition would be for the IWG to report directly to the Head of Government, Prime Minister or equivalent.

IWG Workplan. The first element of the IWG workplan should be to consider the

strategic situation of the port sector, and to review the operational and economic strengths and weaknesses of the domestic port and maritime industry.

Organizing effective communications with the national port and maritime community as well as with important stakeholders (e.g., the importers/exporters association, chambers of commerce, inland transport carriers), and maintaining this interaction throughout the reform design and implementation process, will be a major responsibility of the IWG. The IWG review should include:

- market conditions, competition conditions (both domestic and regional) and demand forecasts;
- domestic legal and regulatory conditions;
- domestic institutional arrangements; and
- national strategic objectives for the port sector in support of overall national economic development goals.

The IWG must then decide on the port sector institutional and management model that would best suit the national conditions and strategic economic objectives. Information included in Modules 2 and 3 may help in this regard. Once the main organizational principles of the sector are agreed upon within the IWG, the Government must firmly endorse and adopt them so that all parties can be assured that the reform program will be seen through to completion.



REDEFINITION OF AUTHORITIES AND POWERS

As the next step in its workplan, the IWG should define the regulatory principles applicable to the sector and the methods to be employed in implementing reform. This work is complementary to the organizational arrangements, and usually has a bearing on the legal provisions to be developed as part of the new sectoral legislative framework. On the basis on the institutional and management framework decided upon as part of the Strategic Preparation phase, the IWG can then turn its attention to the establishment of the public entities that will be in charge of monitoring the sector and the definition of their mandates.

Regulatory Principles. Following the assessment of the competitive situation in the sector (from both a national and regional perspective), the IWG should assess the need for an economic regulatory mechanism. If such a mechanism is determined to be necessary, the mandate, operating rules and composition of the regulatory body should be established (see Module 6 for guidance in this regard). In all cases, regulatory principles will have to be drafted or updated to take into account the consequences of the new operational framework and of technological changes.

Port Authorities and Consultations. As part of the reform process, the status and mandates of the public port authorities will be redefined, along with their missions and responsibilities. Reporting and monitoring relationships with line Ministries and private operators, respec-

tively, should be defined precisely, together with the appropriate implementation guidelines. In doing so, particular attention should be paid to the establishment of official consultation procedures between the private port and maritime community and the local public monitoring bodies (e.g., the public port authorities). These consultation procedures will be important in making certain that customers' concerns and suggestions about the functioning of the ports can be timely and regularly channeled to the ports' management boards or to the sector regulatory body.

Public Infrastructure Pricing. The principles for port public infrastructure pricing will also have to be agreed upon at this stage. Recently, a great deal of attention has been devoted to this very issue within the European Union, resulting in the publication of two papers of significant interest (Green Paper on Sea Ports and Maritime Infrastructure, 1997; and White Paper on Fair Payment for Infrastructure Use: A Phased Approach to a Common Transport Infrastructure Charging Framework in the EU, 1998). Those papers, following the conclusions of an earlier study (European Sea Port Policy, 1993), basically endorse the view that there is no fundamental difference between investments in port infrastructure and other capital intensive investments in industrial complexes. Therefore, there should be no reason for adopting a completely different approach to port investments, and consequently no reason why direct users should not bear the costs of such investments. The study went on to suggest that the introduction of market princi-



ples in infrastructure pricing would be the most effective remedy to avoid the risk of creating wasteful overcapacity and possible distortions of trade flows (except in the case of pricing maritime access and protection infrastructure).

This distinction made between port access and protection infrastructure (which can take the form of basic infrastructure and operational infrastructure) and other forms of port-related investments relates well to the new sharing of responsibilities between public authorities (as owners and developers of basic infrastructure) and private service providers (as operators and/or concessionaires, licensees and/or investors in operational infrastructure).

The result is that operational infrastructure (e.g., berths) increasingly is being priced on commercial terms. The commercial transaction may be structured as a BOT concession contract, where the operator/investor will include its capital cost in the cargo handling charges it will levy on its customers. Or, the transaction may be structured as an operating concession (where the operational infrastructure already exists), where the Port Authority includes in the concession fee the amount required to cover the full depreciation of its previous investment, a cost that the concessionaire will again transfer to its own customers through its charges for services. The key to getting a fair tariff for the customer hinges on the competitive conditions prevailing for awarding the contract, and, sometimes, on the award criteria themselves. (Generally, award criteria should rely predominantly on maximizing total discounted revenues to the Port Authority

in cases where strong competition exists for the services to be concessioned, and predominantly on minimizing the cost for the customer in cases where competition is deemed weak or non-existent.)

Pricing of basic port infrastructure (mostly access and protection assets like channels, breakwaters, and navigation aids) presents a different challenge. Most of these assets have unusually lengthy depreciation periods. It is common in official depreciation schedules for financially autonomous port authorities to find breakwaters being depreciated on a 80-year, sometimes 100-year basis. This feature of basic port infrastructure raises two issues. First, these depreciation periods are, in the best of cases, about 5 to 6 times longer than any available commercial financing in the market (when there is a market for financing long-term infrastructure). And second, technical obsolescence (e.g., insufficient access draft) may occur well before the end of these depreciation periods, effectively rendering worthless the original investment.

The EU documents referenced above list three well-known pricing options for basic infrastructure:

- average cost pricing, which would guarantee full recovery including of past infrastructure investments;
- charging for operating costs only, which would leave capital costs out, in particular for new investments; and
- marginal cost pricing, which is deemed to best meet economic efficiency requirements.



The research recommends an infrastructure charging policy based on long-term marginal social costs, which would cover the cost of new capital, operating and external costs of infrastructure use. In other words, port basic infrastructure charges should be set in line with marginal costs, which would also take into account the continuing need for new investments and the existence of externalities relating to environment, congestion and accidents.

Public landlord port authorities increasingly are organized as autonomous financial entities required to recover their full costs to the largest possible extent. As a consequence, these authorities have been confronted with the question of whether full cost recovery of basic infrastructure investments through user charges would weaken their competitiveness in the market to the point of seriously undermining their contribution to the attainment of public policy objectives. Government authorities, from their perspective, while eager to curtail budget contributions to port infrastructure investments, sometimes worry that increased port user charges may divert traffic flows to other routes, which might prove less economically efficient for the country as a whole. Competitiveness issues in relation to port infrastructure charges are certainly worthy of attention, but must also be seen in perspective -- on average, they amount to only 10% of the costs incurred during a port transit. This may be critical for ports facing strong competition (in particular when competing for transshipment traffic), but relatively minor in other circumstances. Of course, because of specific geographic

settings, some ports may face higher than average access and protection infrastructure costs (e.g., periodic maintenance of a long entrance channel).

The level of cost recovery required for basic infrastructure is contingent not only on the amount invested, but also on the terms under which it is financed. Because balanced budgets are now a must for port authorities, financing schemes will heavily drive the depreciation schedule built into infrastructure charges (i.e., amortization schedules will supersede technical or economic life depreciation formulas). Since commercial financing of infrastructure, when available, offers much shorter maturities than the economic life of the port assets to be financed, this would tend to drive up port charges significantly. To mitigate this phenomenon, governments sometimes agree to finance part of the access and protection costs of ports as part of the national budget, which effectively splits basic infrastructure costs between the user and the taxpayer. One approach is typified by that of the United States, where dredging of access to ports from the high seas is carried out by the U.S. Corps of Engineers and is funded through the federal budget (while dredging of port basins are left to the port authorities). Another example is the approach taken in France, where the 1965 Law on Autonomous Port Authorities split port infrastructure costs between the port authority and the state budget, the latter bearing 100% of access dredging costs and 80% of protection costs (breakwaters). From an accounting standpoint, French port authorities register the government's contribution in their balance sheets as a



subsidy, which is renewable, and, consequently, not depreciated. However, scarcity of budget resources in many countries is making these arrangements increasingly difficult to sustain, and while infrastructure subsidies of this kind may still exist, more often than not there is no guarantee that such subsidies will continue. Consequently, port authorities must fully depreciate the investment, subsidies included. These port authorities still benefit from the subsidy scheme, though, since their tariffs can reflect the depreciation of assets over their full economic lives.

Finally, the question of allocating these infrastructure charges between the ship and the cargo must be addressed. In the past 50 years a number of port authorities and government have attempted to rationalize this allocation through analytical methods (e.g., the Freas Formula in the United States), and later through cost accounting techniques. Historically, when infrastructure charges were actually split between ship dues and cargo dues, the cargo ended up paying a much higher proportion of the total cost than the ship. Beside any formula-embedded rationale, this situation may also have had to do with the respective bargaining power of the shipowners on one side (usually well organized) vis-à-vis the shippers on the other (typically not well organized and often much less able to negotiate effectively with port authorities).

This debate tends to become somewhat academic today, since in well-functioning shipping markets infrastructure charges assessed against vessels ultimately transfer back to shippers through

the freight rates. Indeed, there is some rationale for the port to assess charges only against vessels, the physical characteristics of which largely determine the size and cost of the basic infrastructure required to accommodate them. There is, therefore, some logic in establishing a schedule of infrastructure dues based on those physical characteristics rather than on the characteristics of the cargo.

Labor Redeployment. More often than not, port sector reform will entail a significant adjustment in the number and qualifications of port workers, both dockworkers and clerical staff. Module 7 provides a detailed overview of how to address this issue effectively.

Authorities should organize interactions with the unions early on in the reform process to give reform the best chance to succeed. Areas that need to be discussed with unions include staff redeployment, retraining, and procedures and compensation principles in case redundancies prove unavoidable.

Contract Management Principles and Procedures. Once the mandates of all public entities are clearly defined, explicit procedures and regulations governing the award, management, and monitoring of contracts with private sector partners will have to be drafted. These procedures should be widely publicized through workshops organized with all domestic stakeholders, and be open to interested foreign investors and operators so that the rules of the game are unambiguously known to all potential players.



LEGAL ADAPTATION

If the organizational changes contemplated should require changes in legislation, any necessary legal work should get underway very early in the reform process. Often, port-related entities enter into commercial arrangements ahead of the legislative changes that are necessary to fully reform and liberalize the sector. Subsequent legal changes may complicate the contractual relationships for these initial deals. Or, these early investors may try to slow down the broader reform process so that they can enjoy as long as possible a competitive edge stemming in part from an advantageous legal situation.

Once the strategic choices for the reform process have been made, the main priority of the IWG will be to translate them into national legislation. This will generally include, without being limited to, the following elements:

- Conduct legal due diligence, identifying the pieces of legislation in need of being updated, changed, or scrapped altogether, and the missing pieces to be added;
- Conduct legal review of all aspects associated with port labor reform, which can have significant consequences when it comes to funding the required transition measures;
- Draft new port sector legislative framework;
- Draft by-laws of reorganized and/or restructured public entities, port authorities, and regulatory authorities;
- Draft legislation governing contractual arrangements between public authorities and private commercial partners (e.g., licenses, leases, and concessions);
- Draft standard bidding documents and standard contractual documents; and
- Prepare all necessary briefing documentation to present the new legislative package for Government and parliamentary approval.

TRANSACTION PREPARATION

There are myriad details that must be attended to as any port reform initiative moves into its final stages. Dozens of documents and analyses must be prepared and made available to the public and prospective investors and port operators, the key among them being described below.

Financial Model. Establishing the viability of any given reform package will involve testing its overall financial sustainability, as well as its sensitivity to a few critical variables. Financial modeling should help the public authorities identify the transactions that will prove attractive to private sector partners, while providing them with the revenue streams they need to meet their own financial obligations. The Project Financial Model included in Module 5, with a number of adjustable parameters, should help those responsible for port reform develop a financial picture reflecting the particular conditions of the transactions under consideration, thereby further helping decision-makers select feasible packages to offer for bid-



ding by private investors and developers.

The Project Financial Model will be fed with data resulting from the following tasks:

- preparation of project cost estimates (capital, operations, maintenance);
- establishment of tariff principles, structure and levels;
- estimation of market demand and of corresponding revenues;
- determination of the prospective capital structure (debt/equity ratio);
- identification of the level of government support (guarantees, investment contribution); and
- assessment of tax, dividend, and foreign exchange requirements and their cash flow implications.

Assessment of staff restructuring costs stemming from the review of labor practices and needs must be built into the overall cost estimate of the reform program at this stage. Any redeployment of labor necessitated by port reform should preferably be carried out under the auspices of public authorities. Similarly, the attendant cost associated with any such redeployment should be borne by public authorities as well, before the formal launch of the reform process. However, if all or part of these staff restructuring costs are left to the private sector, they should be factored into the financial model used to assess the feasibility of the reforms.

Due Diligence. Public authorities, possibly with help from specialized financial advisors, will next have to prepare the required due diligence reports to certify the financial status of the assets and activities to be tendered.

Preparation of Contractual Documents. Public authorities should next draft the contractual documents defining the operational and financial relationships between and among the contracting authority, the regulatory authority and the private operators. These should include, in particular, all required operational and financial covenants that may be deemed necessary. The details of concession contracts are treated in Module 4.

Preparation of Bidding Documents. In addition to the proposed draft contract, the tendering documentation should include all documents pertaining to the organization and rules governing the bidding process, with enough information provided to guarantee its transparency and fairness, thereby ensuring the widest participation by potential interested investors/operators as possible. All documents and information relevant to the proposed transaction will then have to be displayed for review by potential bidders in a dedicated Data Room. For more detailed advice on how to structure and manage the bidding process, please see M. Kerf, R. David Gray, T. Irwin, C. Levesque, R. Taylor. 1998. *Concessions for Infrastructure - A Guide to Their Design and Award*. World Bank Technical Paper No. 399. Order from World Bank Publications.

Box 2 and 2a depicts in detail a typical



sequence of actions associated with port reform, with rough timeframes associated with each action. This information should be useful in guiding reform decision-makers through the entire process – from conceptualization through implementation.

Box 2

The Critical Path	Preparation Phase	Implementation Phase
<p>Strategic Preparation</p> <p>Setting up of the Interministerial Working Group (IWG) and definition of its mandate</p> <p>Organize interaction with the port and maritime community</p> <p>Port and maritime industry analysis (Module 2)</p> <p>Review market conditions, competition conditions and demand forecasts</p> <p>Legal and regulatory review of current status</p> <p>Institutional review of current arrangements</p> <p>Draft port sector policy paper with principal reform objectives</p> <p>Choice of port sector institutional and management model</p> <p>Validation by Government</p> <p>Redefinition of Authorities and Powers</p> <p>Determination of technical and economic regulatory needs</p> <p>Establishment of regulatory authority</p> <p>Establish consultation principles with port and maritime community</p> <p>Draft technical regulations</p> <p>Adopt economic regulation principles as needed</p> <p>Establish principles for public infrastructure pricing</p> <p>Draft port authorities statutes and mandates</p> <p>Organize interactions with unions on ports staff redeployment</p> <p>Agree on procedures and compensation principles to handle staff redundancies</p> <p>Draft procedures for managing and monitoring new public/private partnerships for commercial operations</p>		



Box 2a

The Critical Path	Preparation Phase	Implementation Phase
<p>Legal Adaptation</p> <ul style="list-style-type: none"> Prepare legal due diligence report Review legal aspects of labor issues Draft new sector legislation Draft port authorities by-laws Draft legislation on contractual arrangements with the private sector (licenses, leases, concessions) as needed Draft standard bidding documents Draft standard contractual documents Prepare briefing papers on new legislative package Enact necessary enabling laws 		
<p>Transactions Preparation</p> <ul style="list-style-type: none"> Develop financial modeling Estimate costs (capital, operations, maintenance) Establish tariff principles Estimate market demand and revenues Propose capital structure (debt/equity ratio) Determine government support (guarantees, investment contribution) Assess tax, dividend, and foreign exchange requirements implications Review staff restructuring costs (as needed) Prepare preliminary financial statements Prepare financial due diligence report Define contractual operational and financial covenants Prepare bidding documents Prepare data room 		
<p>Transactions Implementation</p> <ul style="list-style-type: none"> Launch prequalification process Prequalify bidders Launch bidding process Assess technical offers Evaluate bids Negotiate final terms with preferred bidder Issue award letter Reach financial closing 		