

PORT MANAGEMENT REFORMS IN NEW SOUTH WALES

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ABSTRACT

In Australia, research into port management issues is a relatively new pursuit. Recent Government-initiated investigations into waterfront cost and performance problems have provided impetus for wide ranging port management reforms. Such is the pace of change that research is currently lagging behind action. Desirably, the growing national interest in ports will correct this.

As a major port management entity undergoing reform, the Maritime Services Board of NSW considers itself to have exercised a pioneering role among public bodies in some facets of organisational restructuring and performance improvement. A wealth of issues for further study has been tapped in this process.

The authors trace the rapid progress of port management reform in NSW since 1983 and refer to the main influences.

Looking ahead, the paper points to the ports' role in intermodal transport initiatives, to corporatisation within the NSW port system and to attendant reforms in port pricing.

As well as serving as a record of important changes taking place, the paper postulates that the MSB may serve as a useful model to other transport bodies contemplating reform. It concludes that the empirical approach on which the MSB has had to rely has left the way open for closer investigation of some as yet 'uncharted waters' into which the MSB has ventured.

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A INTRODUCTION

Until recent times, relatively little research effort in Australia has been directed toward the field of port management.

Though we are now in the era of the Interstate Commissions' Waterfront Investigation and, to some parties, it may seem that ports have been undergoing intensive scrutiny, there is not much more than 15 years history of serious examination of how ports in Australia are run.

In the mid 1970's, the Commonwealth Government attempted by various means to initiate formal procedures to encourage port planning and research. The prospect of an enabling Act and financial assistance to State Governments and their port authorities was proffered only to be rejected, along with the concept of structured research, because all but one State felt that a spotlight on ports would add little to knowledge already available.

The 'Study of Western Australian Ports' (SWAP) (BTE/DGT 1981) was one visible benefit resulting from the initial Commonwealth thrust. But interest which this work created spread slowly. In 1983, thinking provoked by the SWAP report reached NSW during an Efficiency Audit of the Maritime Services Board. This signalled the beginnings of port management reforms in NSW.

Six years on, there is evidence of significant improvement as well as considerable further promise due to the reforms which NSW has embraced for its ports.

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Because of the sparsity of research into Australian ports, most aspects of the MSB's reform program have been exploratory rather than derived from published research. In a sense, this paper is an appeal for more attention to be given to port management as a distinct subject of study.

There is presently immense need and scope for research into all aspects of port management within an Australian context.

It is commonly agreed that port management is a key factor in performance on the Australian waterfront as well as an influence on what it costs to ship goods either locally or internationally.

Throughout the course of recent national debate on how waterfront performance can be improved, the Maritime Services Board of New South Wales (MSB of NSW) has been introducing its own steps to make the NSW ports more efficient and effective. This has been an example of practitioners plotting their own course, addressing the options while on the run.

B. THE DIRECTION OF PORT MANAGEMENT REFORM IN NSW

As port authority for NSW, the MSB has had to examine whether it needs to act as team leader and motivator on the waterfront in order to ensure the ports function as integrated service systems.

A number of the concepts with which the MSB has been dealing extend well into the transport chain. The authors suggest that these concepts, if accepted by all operators throughout the waterfront community and transport chain would generate greater system efficiency, as sought by shippers.

Opportunities for greater effectiveness appear to be:

- * reduction in the number of players or links.
- * rationalisation of union arrangements.
- * a change of emphasis from individual profits or 'wins' to optimising efficiency for the whole system

These are areas which the MSB has addressed within its own diverse organisation

To underpin its innovative thrust, the MSB has progressively become more commercial in its relationships both with those it serves and those who participate in the operation of the NSW ports. With a recent move toward greater independence for Government Trading Enterprises in NSW, the MSB has begun to address the prospect of corporatisation of individual ports within its Statewide structure

Many of the reforms taking place in the MSB are drawn together through plans for introduction of a new pricing philosophy derived from a thorough study of the businesses the MSB is in and what it is actually selling to its customers. The paper brings together these various elements of the MSB's change program and offers some hints to other port operators and transport service providers who may not yet have addressed such issues as thoroughly.

In outlining the MSB's overall strategy and the limited research behind it, the paper links:

- * the MSB's views on *organisational culture* resulting from which it has been introducing a new human resource development program for its internal workforce
- * ideas for developing this internally successful approach into a means of inspiring more *team effort and better performance* within the wider waterfront community and the associated transport chain
- * the stimulus which has been given by the concept of corporatisation and the opportunities thus created for *better service, more rational pricing and a better defined relationship between the MSB as a trading enterprise and its shareholders and customers.*

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Mention must be made of the climate within which the MSB's strategy has developed. Initial reforms stemming from the NSW Public Service Board Efficiency Audit of 1983 were given fresh impetus with the release of the report of the Industry Task Force on Shore-Based Shipping Costs (1986). Subsequent influence was created by the onset of the Interstate Commission's Waterfront Investigation (ISC 1987) and the Industries Assistance Commission's inquiries into Coastal Shipping (IAC 1988a) and Government (Non-tax) Charges (IAC 1988b).

A Review of Maritime Administration in NSW (Joy 1988) following on from impressions of the MSB formed by the NSW Commission of Audit (1988) provided guidance on the direction to be taken in reforming the port authority role and improving port management within the State.

C. ORGANISATIONAL CULTURE

Investigation of Australia's ports has placed the credibility of port authorities on the line. Small or infrequent shippers, as well as the general community, expect port authorities in Australia to behave as leaders within the waterfront industry. Large, regular shippers are less likely to call for such leadership. They prefer to 'do their own thing', although when problems develop for them they tend to direct some blame at the port authority.

The fact that port authorities mean different things to different user groups helps to explain why port management is a very complex field.

However, it remains correct to say that the port authority is usually the only body able to exercise an effective overview of the total activity in a port. It is also correct to observe that the power a port authority can effectively wield is affected by the differing user demands as well as by many a bid for self determination among service providers.

Generations of port authority officials have attempted to simplify administration by devising standard policies, most of which were never a suitable fit for the problems which subsequently occurred. Customer dissatisfaction and distrust therefore became endemic. It may well be for this reason that many port authorities resorted to the ultimate policy decision to retreat as far from the frontline as they could to become little else but lessors and fee collectors. But, try as they might to shed responsibility for port performance, in the final analysis port authorities have remained stuck with it. As the custodians of land and waters dedicated for port purposes, port authorities are "where the buck stops".

The public expectation that its port authority is in command cannot be brushed aside with excuses such as that lessees and franchisees carry delegated responsibilities. In NSW, criticism of the MSB's performance resulted in amendments in 1984 to the Maritime Services Act. This presented the MSB with a call to throw off the image of a construction-oriented authority with an insular attitude toward port users. A process had to be

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developed to give the organisation better rapport with its customers and the foundation for a flexible, commercial management style.

After 6 months of planning, the MSB published a statement declaring how it would tackle this challenge.

Initially, skilled managers were appointed to take over from administrators whose rigidity had contributed to the organisation's problems. The published change program identified the organisation's remaining human resources as its most essential and valuable assets and the first area to be addressed in heading for reform.

With this participative human resources strategy as the basis, the MSB has been successfully developing:

- * Decentralisation of decision making;
- * Commercial orientation;
- * Better management practices;
- * Technological change;
- * Efficiency, effectiveness and cost reduction programs on inefficient activities;
- * Staff development and training.

A summary of achievements thusfar in these areas is as follows:

Decentralisation of Decision Making - achieving internal transparency

Between 1984 and 1986, four regional divisions based on the major NSW ports were created into distinct business units, each accountable for service, costs and income associated with the port.

Each business division makes its own decisions and runs its own business and marketing. Accordingly, closer regional contact has been established with customers, and better service has resulted. Correspondingly, the size and function of the MSB's central activities have been reduced.

The regionalisation of the ports also allows more clearly defined lines of authority and responsibility for decision making. Accountability has been enforced through the operating budget which has become a serious management business tool. Use of the budget has become part of day to day business control, instead of a once a year event.

Commercial Orientation

The MSB has changed significantly from being engineering oriented to being commercially oriented.

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Five years ago, capital works expenditure proposals were not evaluated on a commercial basis. Today all capital investment proposals must be supported by full justification in the form of benefit/cost analysis and a rate of return calculation.

The content of the MSB's current Capital Works Program now reflects efforts to maximise the performance of existing assets. To match its endeavours in bringing its productive assets under more effective control, the MSB has been successfully rationalising and shedding redundant assets. In the last two years, a review of the MSB's pricing structure has been undertaken with the aim of relating the real costs incurred in providing the service to the revenue earned from the service. In 1986 the MSB began the process of formulating dynamic development strategies to guide the long-term growth of the commercial ports.

Better Management Practices

A number of modern management information systems have been introduced. Business based information data is used to make decisions. An effective management reporting system is in place with strong emphasis on unit and organisation performance measures. The next stage will involve improved costing to enable more reliable use of Profit and Loss and Balance Sheet driven management systems.

Frequent consultations with customers and unions is now of key importance to the MSB, particularly in regard to the development of port facilities and pricing policy. Consultative and/or Port Advisory Bodies have been in operation in the 4 major ports of NSW and for the Clarence River, to gather and distil relevant viewpoints from the wider community.

Technological Change

Major upgrades have been made in the use of computers, in computer systems and software packages with staff educated accordingly.

MSB's capital works programs reflect a replace, rather than repair, maintenance philosophy. New workshops have been either provided or planned in each port. Special allocations have been made to replace vessels (many 30 to 40 years old), and to modernise and upgrade plant and equipment, to improve both performance and the working environment.

Efficiency, Effectiveness and Cost Reduction Programs

A significant contribution towards internal efficiency is being made under a Plan for Efficiency, Effectiveness and Cost Reduction. Some 45 projects have been completed or are in progress under the supervision of a Joint Union/Management Steering Committee. Each project has been targetted at management or work practices existing in a particular functional area. Not all of the projects involve cost savings; some seek to increase income, others are aimed at better service.

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The inherent aim behind each project has been to clearly identify the scope of the task, identify an individual line manager with project responsibility and then progress the issue through a forum where all the "players" can participate. This philosophy of clearly identified accountability has been assisted by a reduction in the number of layers of management within the organisation.

Major achievements to date include:

- i. the rationalisation of redundant and inefficient activities in many of the MSB's services.
- ii. the formation of an independent profit centre (MARENG) able to respond to the maintenance needs of commercial berths and facilities
- iii. a computerised invoicing system which enables invoices to be processed quickly.
- iv. a new computerised General Ledger system along with a new Accounts Receivable and Accounts Payable System and a new Payroll system
- v. lifting of many restrictive management and work practices.
- vi. Introduction of an on-line, computer based port management system for the four major ports.
- vii. Substantial reduction in staff numbers with no forced retrenchment.
- viii. Other highlights include:
 - * a strengthening of emergency response capabilities, particularly firefighting and oil pollution control; and
 - * consultation with all relevant unions in the change process. In particular, an agreement has been negotiated with the NSW Labor Council regarding the use of contract labour on MSB projects.

Performance Indicators

The initiatives described above have resulted in major efficiency improvements throughout the MSB. For example:-

- * "Non financial" operating costs have been reduced by 11% in real terms from 1983/84 to 1987/88
- * Staff numbers have dropped from 3,330 in June 1984 to 2,970 in January 1989. A further reduction to 2,750 is anticipated by June 1989.
- * Staff absenteeism has dropped by 40% from 9.1 days/employee in 1984/85 to 5.5 days/employee in 1987/88

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- * The number of lost time accidents per million hours worked in the Port Divisions has dropped from 86 in 1984/85 and 100 in 1985/86 to 74 in 1987/88.
- * Operating revenue earned per employee has increased by 37% from \$71,300 in 1983/84 to \$98,000 in 1987/88.
- * Ship turnaround times for the same size vessel at MSB run berths have decreased on average by 10% over the last three years
- * In the last four years port charges have increased by 7% whilst the consumer price index has increased by over 35% - a saving to the customer in real terms of some 28%.

Staff Training and Development

At the present time the MSB has entered a further stage in the process of change - that of training staff and developing new skills to meet the challenges of a modern commercial organisation in an ever changing environment. A major aspect that is being addressed is the encouragement of multi-skilling of the workforce. This strategy offers both improved organisational flexibility and reduced labour costs. Another vital task is to ensure that managers are trained to take the initiative and make appropriate decisions as the need arises (proactive), and not be merely supervisors of existing systems and procedures (reactive).

D. TEAM EFFORT AND BETTER WATERFRONT PERFORMANCE

If Australia's ports were 'reliable', there would be no need for the MSB to continue improving its own housekeeping and operations.

But, because importers, exporters and ship operators do not gain adequate satisfaction from their encounters with Australian ports, there is pressure on port authorities and service providers within ports to lift their game.

If a port authority provides sufficient berths to eliminate any possibility of delays to arriving vessels, it may well resolve a major problem experienced by ship owners. However, the port authority would quickly be taken to task by other interests for over-investing, creating an expensive port and encouraging inefficient utilisation of waterfront sites.

On the other hand, a port authority which closes berths faces a different dilemma. The result may involve much greater competition for access to remaining berths, to the extent that stevedoring performance improves significantly and handling rates at the ships' side accelerate to new heights. Port authority charges may be contained and the wider community may congratulate the authority for freeing up waterfront sites for other uses. However, ship and land transport queues would inevitably cause

affected parties to declare the port inefficient and unreliable

It is not an easy matter to gain a single specification as to what constitutes acceptable port performance. Seldom will any two parties agree upon appropriate targets and measures

Even within organisations, the factors which influence quality of outputs can be difficult to define.

From the analysis it has undertaken regarding its own situation, the MSB has recognised that the performance of an organisation is a function of the

- * People
- * Facilities
- * Skills

with which the organisation approaches its tasks.

In striving for better achievement both within and between organisations, it is ultimately these ingredients which determine the quality of outputs. The real challenge is to find the mix which gives the best results.

Along the way to improving its performance and in looking at why its customers may experience a sense of frustration, the MSB has identified as major problem areas the following constraints which affect not just its own efforts as port authority but also the work of other parties on the water and waterfront and within the transport chain:

Issues

Structural:

Complexity of the transport chain.

Ports, being at one end or other of the transport chain, are more visible than other components and, hence often assumed to be the scene or cause of all delays to goods in transit.

Diverse and fragmented market for port services.

Randomness of shipping demands and seasonality of some trades

Challenges

Organising the several players into a cohesive unit with a common purpose.

Educating users to the interactions between all components of the transport chain, including the impacts of particular user demands

Satisfying all needs, not just the lowest common denominator.

Living with occasional port congestion or, alternatively, extracting higher payments in order to fund the capacity to cover peaks.

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Issues

Challenges

Structural: (Contd)

Ownership, scale and scope of port service firms.

Living with a high degree of foreign ownership and/or a low degree of competition.

Cultural/Attitudinal:

Management emphasis on profit ahead of service.

Heightening the vision and commitment of management.

Port users blame the Government for things that go wrong.

Improving the willingness of all parties to accept/share responsibility.

Subsidised port services as a means of stimulating trade?

Gaining acceptance of the user pays principle.

Management blames the workforce. Workforce blames the management.

Reforming work organisation to clarify the responsibilities of all.

"We get paid to come to work, not for working"

Dispelling some of the notions resulting from over-indulgent behaviour by some unions

The waterfront and transport industry cannot afford to be burdened with unnecessarily complicated challenges, particularly any which have nothing to do with the real problems. The common aim should be such that measurable actions can be taken in relation to problems which have been properly quantified.

For example, it would certainly not be pertinent to lead shippers to believe that solving industrial problems on the waterfront would alone result in eliminating delays at NSW ports. MSB figures for Sydney show that union or workforce inspired delays to ships have accounted for less than 50% of the downtime experienced over a recent 6 month period.

Reasons for less than 100% performance quality in services to a ship in port can be many. A simple examination suggests the following list (not exhaustive) of possible delay causes:

* PEOPLE NOT AVAILABLE

- Industrial action
- Peak demand (all available labour engaged elsewhere)
- Poor management

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* DESIRED BERTH NOT AVAILABLE

- Port congested (peak demand)
- Restricted choice of berths due to:
 - special ship or product(s)
 - owner preference for a particular berth
- Maintenance activity in progress or berth(s) in disrepair.
- Adverse weather/tides (affecting ship movements in/out or within port)
 - Operational restrictions (eg daylight-only movements for ships posing certain hazards)
- Cargo from previous ship not collected.

* CARGO NOT AVAILABLE

- Mismatch between warehouse and wharf operating hours.
- Holdup in land transport/delivery system.

In looking at delays in cargo movement, an additional cause which often arises is that the ship does not arrive in keeping with the schedule set before commencement of its voyage.

The MSB has reviewed recent delays in the Sydney ports and found the chief causes to be:

- * labour disputes
- * weather effects
- * cargo unavailable
- * breakdown to shore plant
- * ship faults.

Close analysis confirms that no one party is in a position to deal with all these delay causes.

What is needed is teamwork which spans across organisational boundaries and endeavours to link up all participants in the transport chain.

The concept touched upon here can be recognised as that commonly referred to as *intermodal transport*.

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Frankel (1989) refers to the effective integration of sequential or series links of transport by diverse modes as being among the most important developments in modern transport. His view is that "all participating modal links must be effectively integrated, share information, subjugate their operational requirements to those of the intermodal chain and adjust their rates to form a logical and reasonable part of integrated intermodal transport rates". Further, he stresses that "modal operators cannot each attempt to optimise their individual operations and expect the total intermodal chain of operations to operate optimally". Just-in-time (JIT) delivery is considered by Frankel to be an important element in intermodal transport efficiency, allowing savings in:

- * turnaround time of ships, trucks, trains
- * investment in storage and handling facilities
- * storage, handling and opportunity costs of cargo movement through terminals.

The Interstate Commission's Waterfront Investigation Conclusions and Recommendations (ISC 1989) have addressed the operation of transport chains for Australia's import and exports without drawing in any overt sense upon this concept of intermodal transport. Yet, like Frankel, the ISC has recognised and is advocating the development of worldwide telecommunication networks for assigning and scheduling the movements of cargo. Had the ISC focussed strongly on the intermodal concept it may have been a case, given the current Australian transport and waterfront situation, of too much, too soon. Nevertheless, the leading ports of the world are being reconceptualized and restructured on the basis of dramatic integrated innovation in information technology.

New information networks are providing port authorities with a vehicle for restructuring waterfront activities to provide a just-in-time response to concurrent and diverse needs. Port authorities are becoming logistic centres and chain managers of the fifth flow of transport, ie. information.

The MSB has over the last five years accepted the challenges provided by information technology and now has in place the infrastructure to embark on a broad based maritime community information network. Experience has shown that for such endeavours to be afforded the greatest chance of success, it is vitally important that all parties be united early in the endeavour and become committed to achieving the significant gains that have flowed to other maritime communities. The most successful, such as Rotterdam, have felt it necessary to establish a broad participative working party to inform, enhance, negotiate, guide and implement the networks.

NSW is to mirror this successful procedure and has therefore established a small industry Task Force focussing on the utilisation of information technology to reconceptualize and restructure the nature of the maritime industry for NSW. The MSB will be continuing its programme of port management reform and development of teamwork on the NSW waterfront by:

- * co-ordinating a forward port operating plan to focus the attention of all players in the transport chain on prospective delays and other factors presently resulting in port 'unreliability'.
- * developing the use of and access to its information systems so as to increase transparency throughout the service chain and facilitate joint problem solving.

In the final analysis, the aim is to improve port performance through better relations between users and providers.

E. PORT PRICING STRUCTURES

The final report of the Industry Task Force on Shore-based Shipping Costs (1986, p.18) stated there is a need for "firm, publicly available commercial guidelines on the pricing policies and operations of port authorities".

The MSB has been addressing this issue for some time and a summary of the major findings is outlined below:

Pricing as a Planning Strategy

Pricing, as an element of corporate strategy, has an important place as a fundamental business planning tool in public sector organisations. This approach utilises pricing to achieve longer term directions and goals rather than as a mechanism to raise revenue (albeit, an important consideration). The emphasis is then on the maintenance of a pricing structure which meets the needs of both the organisation and its customers.

The MSB's Current Pricing Structure

The majority of Australian port pricing structures were, in the main, established at the turn of the century to meet revenue requirements of the day rather than commercial objectives. A general characteristic of these structures was that they embodied taxing concepts rather than pricing concepts and are not related to the cost of the provision of the service.

The N.S.W. port pricing structure as at March 1989 is typical of Australian ports. MSB revenue is currently derived from statutory charges, commercial charges such as coal loading charges, and rentals. The most important charges are the statutory charges, which are constituted by Acts, and have their levels set by Regulation.

The relevant Acts give little specific guidance on the philosophy and the basis for the charges. Table 1 details the MSB's statutory charges, the relevant Acts and the basis of each charge. The harbour rate has traditionally been structured on a commodity basis. The rate varies according to

TABLE 1
EXISTING PRICING STRUCTURE

STATUTORY CHARGE	ACT	BASIS OF CHARGE	BILL	ULTIMATE PAYER OF CHARGE
Harbour Rate	Port Rates Act 1975	<u>Bulk:</u> By type of commodity per tonne <u>Containers:</u> By type of container and size	Shipping Agent	Charge on cargo paid by consignor or consignee of cargo
Tonnage Rate and Berthing Charge	Port Rates Act 1975	By GRT of the vessel per six hourly period	Shipping Agent	Charge on vessel paid by shipowner
Pilotage	Pilotage Act 1971	By GRT of the vessel per service	Shipping Agent	Charge on vessel paid by shipowner
Harbour and Light Rate	Pilotage Act 1971	By GRT of the vessel per 6 months period	Shipping Agent	Charge on vessel paid by shipowner
Wharf Storage Charge	Maritime Services Act 1935	By tonne of cargo and storage time	Shipping Agent	Charge on cargo paid by cargo owner

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the type of commodity and whether the commodity is imported or exported from overseas or interstate. The rate is then levied on the volume or mass of the commodity which ever is the greater. A manual of conversion factors, based on the chemical properties of the commodities, is required

Containers are charged on the basis of type (eg reefer, dry, etc.) and size, and further differentiated according to whether the container is imported or exported from overseas, or interstate, and whether it is handled at a container terminal or common user wharf.

Tonnage rates are charged on the GRT of the vessel per period of six hours or part thereof. Part tonnage rates are charged in some circumstances such as mooring at dolphins and, in other cases, exemptions are given for privately constructed wharves and can be embodied in Acts of Parliament. The Harbour and Light rate is charged on the basis of the GRT of the vessel and is valid for six months

Who Pays Port Charges

The MSB normally bills the shipping agent for port charges. Port charges on vessels are borne by the shipowner/charterer and included in the sea freight rate. Port charges on cargo are normally passed on to the shipper or cargo owner.

In the case of grain, port charges are paid by the producer after being passed on by the marketing authority as deductions from payments to growers. However, in the case of liner vessels, liner terms can vary from port to port and it has not been uncommon for shipowners to bear the cost of port cargo charges and include them in the sea freight rate.

MSB Pricing Objectives

The MSB's existing pricing structure has been evaluated according to five primary objectives:

- * price the true output of the organisation
- * achieve allocative efficiency by reducing cross-subsidies
- * seek administrative efficiency
- * provide accountability to stakeholders
- * achieve revenue stability

Bases on which the present structure fails to satisfy these objectives are:

Price the true output

The product or service of the organisation should be priced. The MSB's harbour rate as at March 1989 prices commodities not the port services delivered by the facilities. It is not possible to achieve service pricing

when commodities are charged different rates for using the same facilities or services

Reduce cross-subsidies

The price of the service needs to be matched to the cost of its provision. Each service or group of services needs to be clearly identified and the cost or group of costs incurred allocated accordingly. The charge for the service can then stand scrutiny for relevance and fairness.

Seek administrative efficiency

Calculation of the harbour rate requires:

- * precise commodity definition, detailed analysis in some cases and customer certification
- * the receipt of ship's manifests itemising the cargo and their processing before bills can be raised
- * the development of complex computer systems to speed up the calculation and processing times thus solving the problem the wrong way

A pricing structure which discriminates on the basis of services rather than by commodity is required.

Provide accountability to stakeholders

The recent introduction of rate of return legislation to apply to five N.S.W. statutory bodies including the MSB means that:

- * the MSB will be required to earn a real rate of return (rather than an operating surplus) on the written down replacement value of assets employed
- * a dividend will then be payable based on this level of profit rather than the current dividend of 6% of revenue
- * profits will be regulated to prevent exploitation of monopoly powers

It is certain that this legislation will require a pricing structure which relates the charge for the service to the written down replacement cost of the facilities providing the service

Achieve revenue stability

The MSB, under its current pricing structure, is exposed to the vagaries of international trade. High import levels suit the MSB because, on average, one tonne of import cargo provides four times as much revenue as an equivalent amount of export cargo. Import substitution would therefore erode the MSB's revenue base.

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Continuing pressure will be forthcoming from customers to keep charges down in a climate of continued cost increases due to inflation (despite improved efficiency measures).

These forces have signalled the need for a port pricing structure which offers some stability to the revenue base and, at the same time, increases the utilisation of existing assets to minimise charges.

Pricing for Realistic Full Cost Recovery

Full cost recovery may mean an increase in charges to some users, particularly those users who have not been previously charged. It may also mean a reduction in charges for some users who have been cross-subsidising others.

In order to control port charges and levy a realistic and competitive charge that will achieve full cost recovery, it will be necessary to:

- * defer or reduce port charges for obsolete assets and assets not in service.

These would not be included in the rate base and would not attract a charging component for rate of return.

- * defer or reduce port charges for excess capacity

The normal method of dealing with excess capacity is to discount the rate base by a predetermined percentage. This is done by identifying the actual costs and then making the necessary adjustments to the attributable cost base to reflect facilities or services which may be considered in excess of requirements. This approach was adopted by the water industry in the United Kingdom and the gas industry in the United States when they implemented full cost recovery.

- * defer or reduce port charges for non-attributable overheads

The MSB has a mix of operational, regulatory, and advisory responsibilities which has significant implications for cost recovery.

For cost recovery purposes, those costs which the MSB incurs in the provision, operation and maintenance of port infrastructure can be considered attributable to vessel and cargo services. Those costs which relate to the MSB's regulatory and/or policy functions can be excluded from the charging structure on vessels and cargo. Those costs which are not directly attributable to and therefore chargeable to cargo and vessel services, such as costs associated with the administration of Government policy, could be offset against the payment of dividend to Government.

- * reduce and control port charges through cost reduction

The MSB's major programme of expenditure reduction is allowing reduction in the cost of port operations in real terms.

- * increase rentals for land

It is common practice to under-value land in ports. The aim of this practice has been to attract private sector investment. A more realistic approach is necessary which emphasises and recognises the scarcity of the area where land meets water.

- * spread the costs to commercial users by the introduction of new charges on Government.

Many Government Departments use the ports but do not bear the cost of services and facilities provided. These are borne by commercial port users. Examples are the State Transit Authority and the Department of Defence. Discussion in this area is still at an embryonic stage.

The MSB's concept for pricing reform puts forward definitions of four service groups and, through the range of services identified in each group arrives at a logical pricing structure. These four groups are:

Navigation Group

Covers all the services and facilities necessary for the ship to move to or from the open sea.

Berth Group

Covers all the services and facilities available at the berth to the owners and stevedores of cargo.

Cargo Operations Group

Covers all the services and facilities for handling cargo at an MSB-operated terminal.

Other Business Group

Covers all other port facilities and services not covered above

Whilst ship operators or their agents would continue to be responsible for paying navigation charges and recouping them through the sea freight rate, a major change is foreshadowed for payment of the berth rent. The key proposal is that the stevedores pay this charge, which they would recover from their customers on an appropriate commercial basis.

This approach would firmly establish a contractual relationship between the stevedores on the one hand and the exporters and importers on the other hand. It would also identify the port authority assets used by the stevedores and simplify the allocation of maintenance and damages costs. Incentives in the form of demurrage charges are suggested for berths, storage areas and container cranes.

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ESCAP has developed a model port tariff structure over a series of meetings attended by representatives from ports and Governments in the Asia/Pacific region. The MSB has compared the ESCAP approach with its own pricing objectives and found a large degree of similarity in both objectives for pricing reform and the overall framework proposed.

F. CORPORATE REFORM

A package of changes announced by the NSW Government on 5 April 1989 will involve:

- * Establishing separate subsidiary corporations of the MSB responsible for the operation of Newcastle, Port Kembla and Sydney Ports
- * Encouraging private sector involvement in development and ownership of port facilities and provision of port services.
- * Reform of MSB pricing structures along user pays lines.
- * Streamlining the MSB's central management function.

The subsidiary corporations will take increased responsibility for port management matters in Sydney, Newcastle and Port Kembla and will have close affiliation with the local regions. All three subsidiaries will report individual financial results and be expected to pay a dividend based on their assets rather than the current practice which involves cross-subsidisation.

These reforms stem largely from recommendations from the Review of the Maritime Administration (Joy 1988), the NSW Commission of Audit (1988) and a report by the NSW Steering Committee on Government Trading Enterprises (1988). This last-mentioned report described the MSB as a commercial service body operating as a self-sufficient monopoly. Among its various policy proposals for improving the performance of Government Trading Enterprises (GTE's), the report developed a framework for corporatisation which is now to be implemented with the MSB port subsidiaries among the first "trial-horses".

Such arrangements allow the MSB to move further down the path upon which it set out in 1984.

Clarified corporate identity, structure and objectives, which allow the MSB to conform with the model normally reserved for trading enterprises in the private sector, open up opportunity for a wide range of further reforms.

Progress to date has centred on the philosophy of establishing a management style under which the name of the MSB will be synonymous with action and efficiency. Because the pace of change in the MSB has been rapid and the process effective, the MSB may serve as a useful case study for other organisations facing similar reforms. The authors also consider that the MSB's experiences may stimulate new endeavours in port and port-related research for Australia.

G. CONCLUSIONS

In the short period since port management became an issue of political and economic significance in Australia, affected organisations such as the MSB have been changing rapidly.

To date, little has been documented by the organisations experiencing these changes. Moreover, there have not been strong schools of thought within Australia on the directions to be taken in shaping port management changes.

Within six years, the MSB has changed from being largely a constructor of ports to an entity with a commercial outlook, facing corporatisation and viewing its future role as a facilitator of trade through involvement in intermodal transport initiatives.

Though a stimulus for such changes has been created through the extent of national debate on waterfront, port and trade performance, the actions which have ensued have tended to develop through responses devised by practitioners to the various signals they have seen.

In NSW, the Review of Maritime Administration (Joy 1988) concluded that the MSB had developed a fundamentally sound program of reform.

However, practitioners will not always be right. Given the many issues and experiences which this paper has canvassed, the authors consider that much food for fresh thought exists within the area of subject matter referred to herein as 'port management'.

Australia's Governments and port users are in need of better understanding as to how ports can be made to work more effectively for them. The Interstate Commissions' investigations represent a very early stage in an educative process which will take many more years to unfold.

Greater gains may be possible if the work of port management practitioners can be supported by increased independent research effort in this field.

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