

# Water Transport Services

ABS approach to the Producer Price Index for  
Water Transport Services



# 1. Service being Priced

- ANZSIC 93 - division 63
  - ISIC4.0 - division 50
  - CPC2.0 - division 72
- Water Transport Service
  - Excluding:
    - Ocean cruise service (between domestic and foreign ports, between domestic ports)
    - Passenger transport service (international sea transport, coastal sea transport, river, harbour or lake)
    - Boat charter, lease or rental (with crew; for any period; for coastal water transport)
    - Ship charter, lease or rental (with crew; for any period; for coastal sea transport)

# 1. Service being Priced *(continued)*

- Ship management service or international sea transport, and coastal sea transport (i.e. operation of ships on behalf of owners)
  - Cruise operation (river, harbour or lake; with or without restaurant facilities)
  - Freight transport services (river, harbour or lake)
  - Passenger ferry operation (river, harbour or lake)
  - Water taxi service (river, harbour or lake)
- 
- Excluded due to limited volume of such activities within the Australian Economy

# 1. Service being Priced *(continued)*

- Measures (quarterly) prices of Water Transport Services received by producers
  - Business to business
- Similar actions are measured elsewhere:
  - Freight-forwarding
  - Logistics (supply chain solutions)
- ABS is only concerned with pricing Water Transport Services
- Measures the transport by water of commodities on behalf of the buyer/ owner or seller.

## 2. Pricing Unit of Measure

- No standard pricing mechanism
- Service defined by:
  - Origin and destination
  - Vessel transporting goods
  - Commodity being transported
    - And volume
  - Customer type
- Recent changes include separate collection of fuel surcharge price

# 3. Market Conditions and Obligations

- Water Transport Services \$4.8 billion AUD
- Gradual move to intergrated solutions
  - Freight-forwarders/ Logistics
    - Road
    - Rail
    - Air
    - Warehousing
    - Stock control

### 3. Market Conditions and Obligations (continued)

- Levels of operation
  - Australian vessels in Australian coastal waters
  - Australian vessels in international waters
  - Foreign owned vessels in Australian coastal waters
  - Foreign owned vessels in international waters
- Australian shipping fleet = 96 vessels
- Australian Navigation Act is a disadvantage to Australian operators

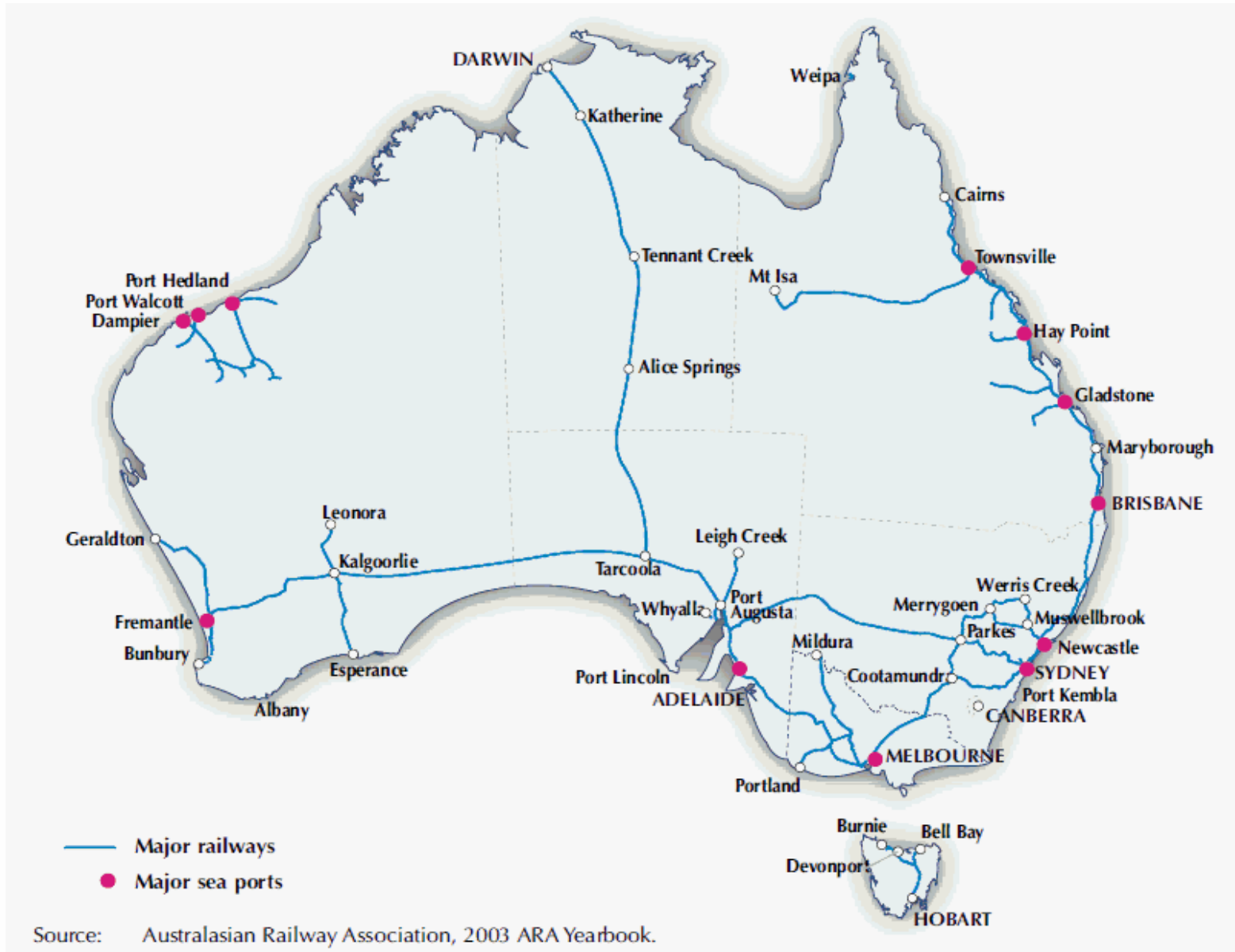


### 3. Market Conditions and Obligations (continued)

- Overseas vessels need to apply for permits to undertake water transport within Australian coastal waters:
  - Single Voyage Permits (SVPs)
  - Continuing Voyage Permits (CVPs)
- Fuel surcharge offset by increased competition
  - Margins tightening
- Australia's geography and population distribution
  - Large area
  - Low population density - both sparse and bunched
- Australia is an island with little inland shipping



# Australian major railways and sea ports



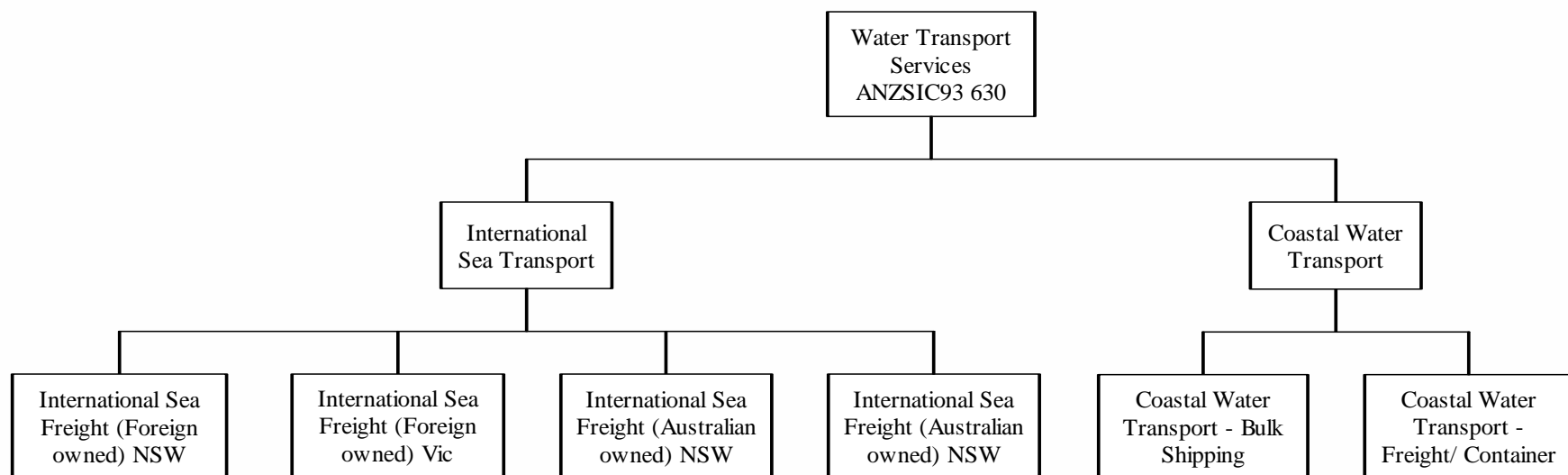
# 3. Market Conditions and Obligations (continued)

- Record keeping practices
  - No one rule covers everything
  - Detailed records for commodities transported
  - The commodity determines if additional requirements or restrictions are needed
    - e.g. petroleum, grain, livestock
- Priced by:
  - distance covered
  - weight
  - type of commodity
- Recent innovations:
  - Smaller vessels being replaced with larger holding capacity vessels

## 4. Standard Classification Structure

- Current structure ANZSIC 93
- ANZSIC 93 6301 International Sea Transport and 6302 Coastal Water Transport are the lowest levels of the Australian industrial classification
- Index structure currently reflects type of water vessel is conducting business, and if vessel is Australian or foreign owned

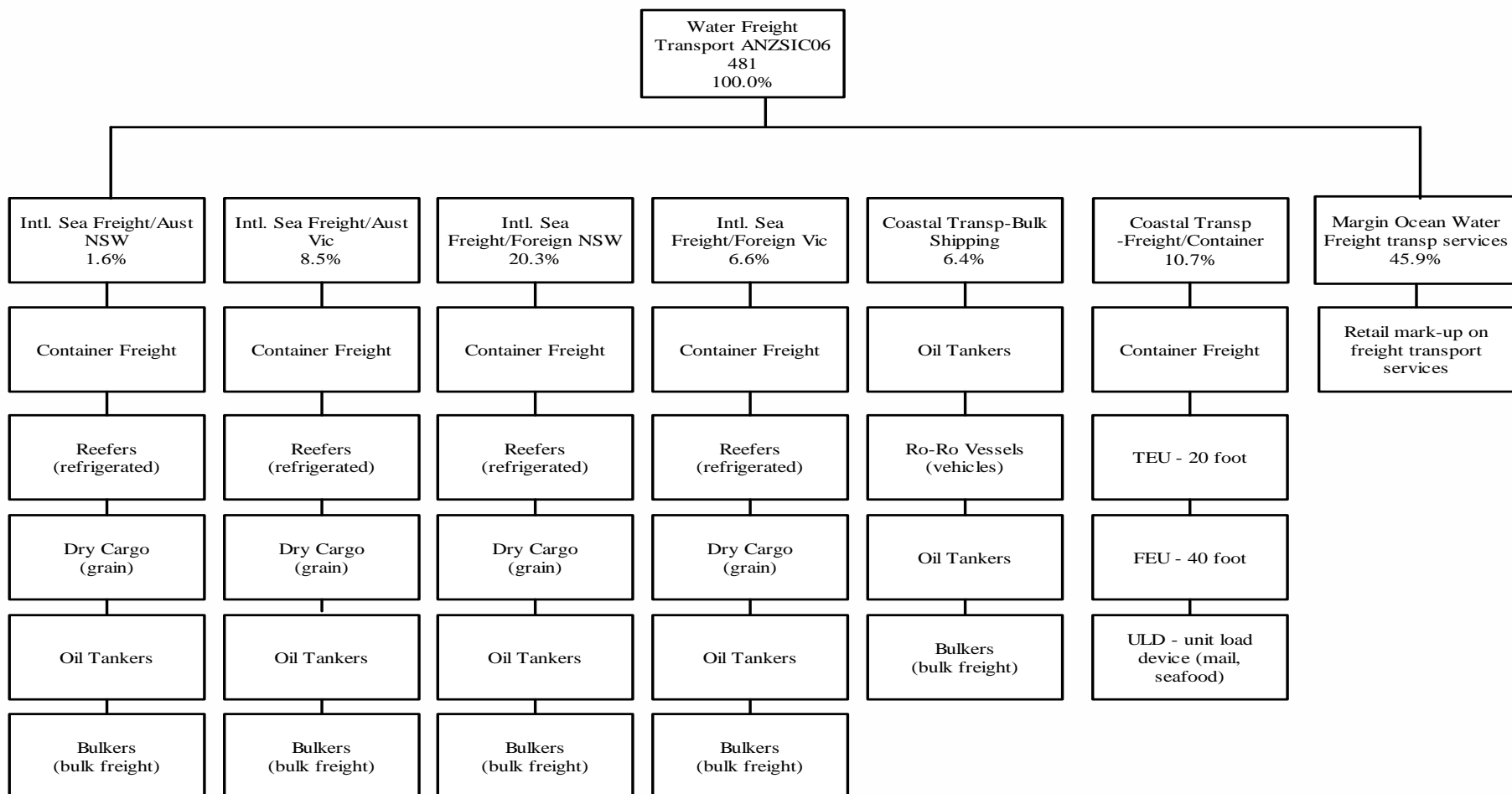
# Figure 1 Current Structure of the Price Index of Water Transport Services



## 4. Standard Classification Structure (continued)

- New structure ANZSIC 06 implemented from September 2009
- Water Transport 630 will change to Water Freight Transport 481
- Transport and Storage Services Index (Division I) will change to 'Selected Output of Transport, Postal and Warehousing Index'

# Figure 2 Proposed New Structure of the Price Index of Water Freight Transport Services



## 4. Standard Classification Structure (continued)

- Benefits of the new structure:
  - Transformability within broad headings
  - More homogenous in terms of price level, price behaviour, and item placement
  - Higher grade of detail
  - Index level of detail accommodates future emerging markets
  - More flexibility
- Improvements:
  - Imputation
  - Output Editing Notes



## 5. National accounts concepts and measurement issues

- Adopts "output indicator" method
  - Begin with measure of current price gross value
  - Extrapolate via output indicator
- Same classification adopted
- Value added approach produces chain volume measure for ANZSIC 6301 and 6302
- Output indicator is changes in income from sales of goods and services from Quarterly Business Indicator Survey (QBIS)
- Sales income deflated by PPI for water transport

## 6. Pricing Methods and Criteria

- Specification pricing
  - Type of commodity transported
  - Origin and destination
  - Type of customer
  - Conditions of sale (of service)
    - Tailored by commodity and/ or business
    - Exclude "non-water freight" components (bundling)
- Pricing methods:
  - Specification pricing
  - Contract pricing

## 6. Pricing Methods and Criteria *(continued)*

- Price
  - Transaction price (price received) within the Australian marketplace
    - Not list price
- Price to constant quality each quarter
  - Specifications tailored to each Respondent
  - Measure price each quarter, bi-annual and annual
- On a reporting basis, if required:
  - Determine variations in specifications from period to period
  - Determine reasons for price change

## 6. Pricing Methods and Criteria (*continued*)

- Representativeness:
  - Sample Reviews
  - Sample Maintenance
- Need to ensure cooperation of respondents
  - Tailored forms
  - Personal interviews at enrolment



# 7. Quality Adjustment Methodologies

- Vital in compilation, to ensure that each specification in the price basket is priced to constant quality over time.
- Overlap pricing method of quality adjustments is used in most instances
  - Essential to determine true market price for changed service in the previous period

## 8. Evaluation of Comparability with Turnover/ Output Measures

- National accounts use QBIS data
  - Gross value at current prices
  - Output indicator (sales of goods and services)
- Classification of Type of Activity Unit (TAU)  
potential issue
  - Bundling of water transport, freight-forwarding, logistics

## 9. Summary

- ABS currently compiles a quarterly producer price index of Water Transport Services.
- The scope of the index is determined by the ANZSIC 93 classes 6301 International Sea Transport and 6302 Coastal Water Transport.



## 9. Summary (continued)

- Industry practice shows that providers of Water Transport Services have increasingly diverse business structures
  - Some establishments have developed the ability to substitute between water transport and other method of transport (freight-forwarding)
- The ABS will be implementing ANZSIC 06 into its current structure, from September 2009.