

Road Freight PPI

ABS approach to the Producer Price Index for
Road Freight Services



1. Service being priced

- ANZSIC93 class 6110
 - ISIC3.1 6023
 - CPC 6433
- Road freight transport service
 - Excluding:
 - Delivery services
 - Taxi truck service (with driver)
 - Truck hire (with driver)

1. Service being priced (continued)

- Measures (quarterly) prices of road freight transport services received by producers
 - Business to business *and*
 - Business to household, government and NPISH
- Excludes **own account** activities
- Similar activities measured elsewhere:
 - Logistics (supply chain solutions)
 - Road Freight Forwarding
 - Courier Services
- Only concerned with road freight services

2. Pricing Unit of Measure

- No standard pricing mechanism
- Service defined by
 - Origin & destination
 - Commodity being transported
 - And volume
 - Customer type
- Recent changes include *fuel surcharge*

3. Market Constraints and Conditions

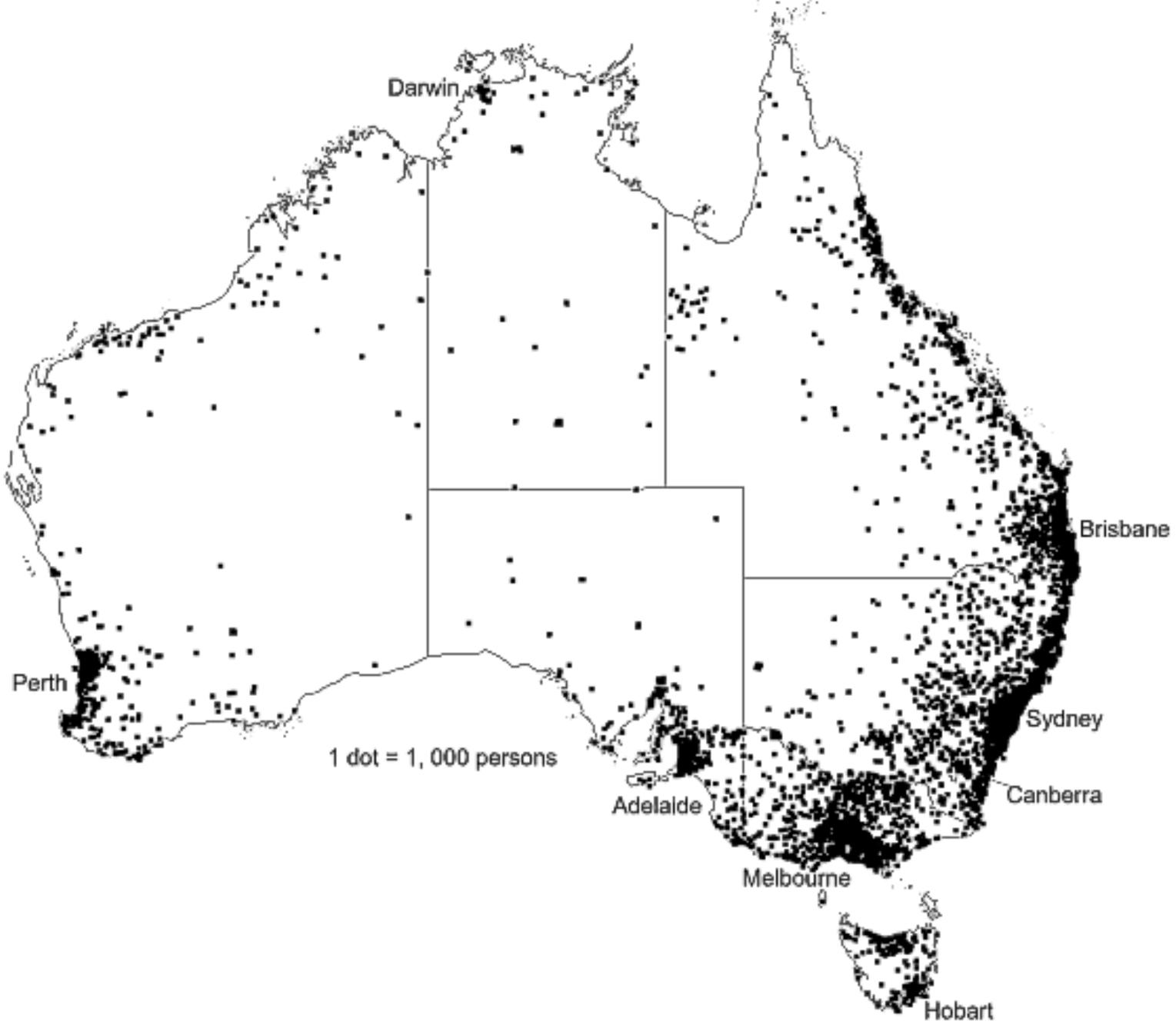
- Road freight services \$16.5 b AUD
 - \$1,100 b AUD for total production (98-99 IO)
- Small companies & owner-drivers represent 12% of revenue but 66% of businesses
 - Dominated by large companies
- Gradual move to **integrated solutions**

3. Market Constraints and Conditions (continued)

- Tiers of operation
 - National competitors, large fleets
 - Contracting companies (usually State based)
 - Small companies & owner-drivers
- Large fleet owners contract out business to smaller operators during peak demand
- Fuel increases offset by increased competition
 - Margins being squeezed

3. Market Constraints and Conditions (continued)

- Australia's geography and population distribution
 - Large area
 - Low population density
 - Both sparse and clustered
- Road network
 - Relatively large compared with number of people
 - Relatively small compared with area
- Island
 - No international road freight component
 - Still have exports of freight purchased by non-residents
- Conditions dissimilar to other countries



Population, area and roads

Selected country	Population (persons)	Area (km ²)	Roads (km)	Population density		Road density	
				Persons per km ² of area	Persons per km of road	Metres of road per person	Metres road km ² of area
Australia	20,264,082	7,686,850	811,601	2.6	25.0	40.1	1
Austria	8,192,880	83,870	133,718	97.7	61.3	16.3	1,5
China	1,313,973,713	9,596,960	1,809,829	136.9	726.0	1.4	1
Denmark	5,450,661	43,094	71,847	126.5	75.9	13.2	1,6
European Union	456,953,258	3,976,372	4,634,810	114.9	98.6	10.1	1,1
Finland	5,231,372	338,145	78,168	15.5	66.9	14.9	2
France	60,876,136	547,030	891,290	111.3	68.3	14.6	1,6
Germany	82,422,299	357,021	231,581	230.9	355.9	2.8	6
Italy	58,133,509	301,230	479,688	193.0	121.2	8.3	1,5
Japan	127,463,611	377,835	1,177,278	337.4	108.3	9.2	3,1
Mexico	107,449,525	1,972,550	349,038	54.5	307.8	3.2	1
Netherlands	16,491,461	41,526	116,500	397.1	141.6	7.1	2,8
New Zealand	4,076,140	268,680	92,662	15.2	44.0	22.7	3
United Kingdom	60,609,153	244,820	387,674	247.6	156.3	6.4	1,5
United States	298,444,215	9,631,420	6,407,637	31.0	46.6	21.5	6

Auslink national road network and major international airports



3. Market Constraints and Conditions (continued)

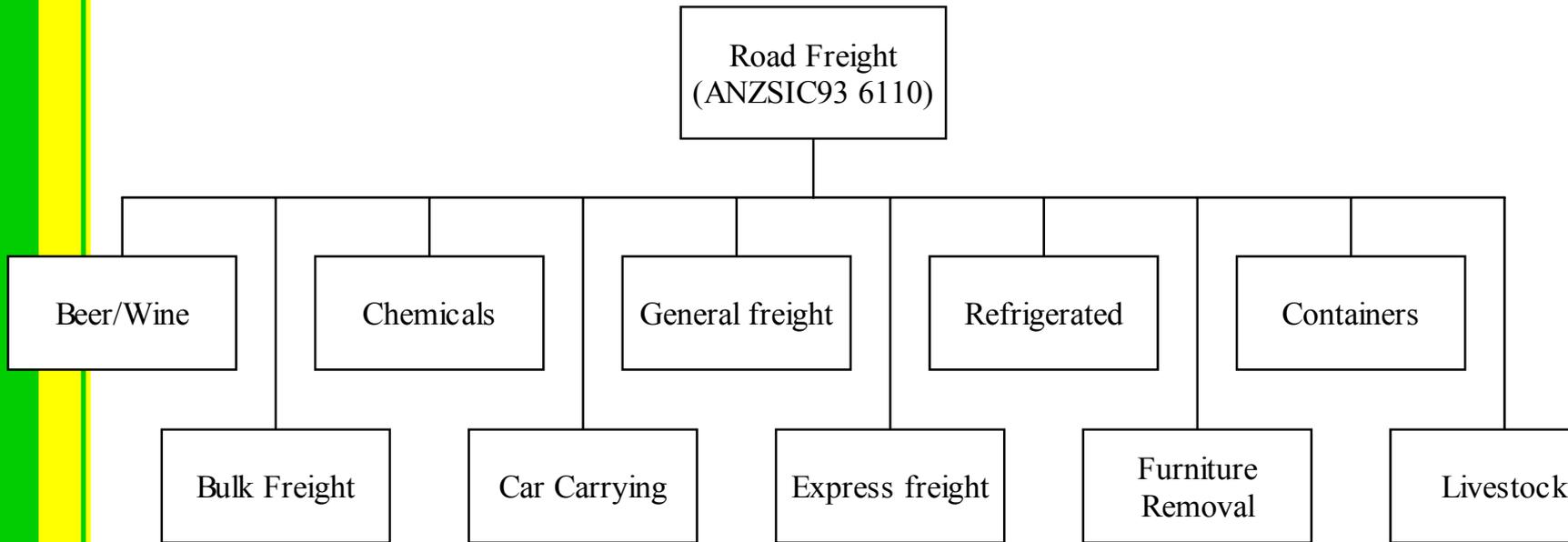
- Record keeping practices
 - Mandatory for some commodities transported
 - No standards for general or express freight
 - Focussed on hours &/or distance travelled
 - And not revenue received by type of service
- Recent electronic innovations
 - e-tags, e-tolls
 - GPS, satellite navigation
 - Difficulties for small operators where initial outlay is high

4. Standard Classification Structure

- ANZSIC 6110 Road Freight Services is lowest level of Australian industrial classification
 - Similarly, no further detail available in product classifications
- **Index** structure currently reflects type of commodity being transported

4. Standard Classification Structure (continued)

FIGURE 1 CURRENT STRUCTURE OF THE PRICE INDEX OF ROAD F



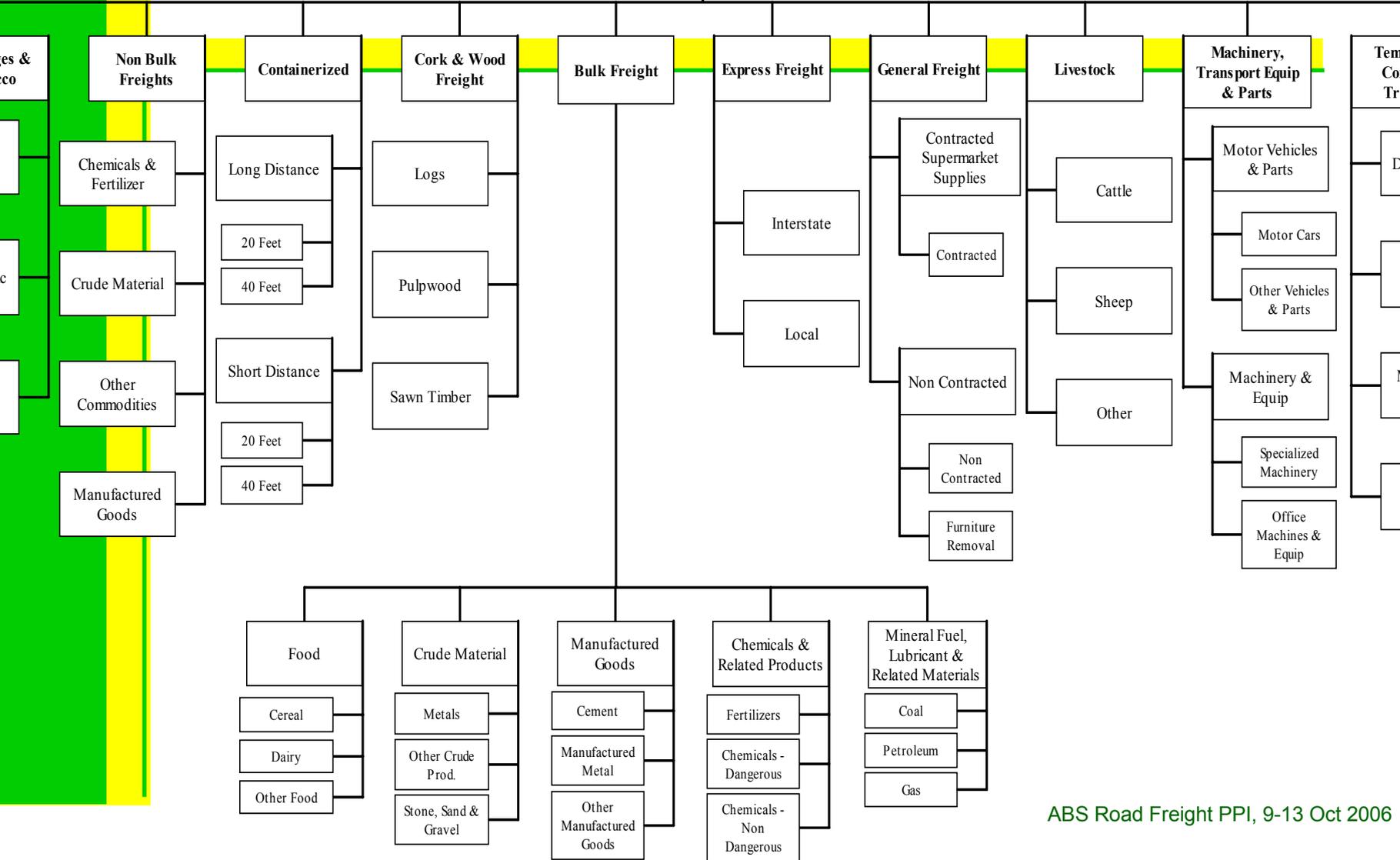
4. Standard Classification Structure (continued)

- 2006 review of structure
 - Substitutability
 - More homogenous service types
 - More detail

 - Improvements:
 - imputation
 - output editing

**Road Freight
Transport
(ANZSIC93 6110)**

FIGURE 2 PROPOSED NEW STRUCTURE
THE PRICE INDEX OF ROAD FREIGHT



5. Evaluation of standard against market conditions

- Greater vertical and horizontal diversification
 - Other road services
 - Freight forwarding
 - Other transport services
 - Rail
- Service provided is “move product from A to B”
 - Mode frequently not an issue for customer
 - Intermediate steps (packaging, warehousing) frequently provider or negotiated by Road Freight provider
- Not addressed by new ISIC or ANZSIC

6. National accounts concepts and measurement issues

- Same classification adopted
- Value added approach produces chain volume measure for 6110
- Adopts **output indicator** method

6. National accounts concepts and measurement issues (continued)

- Output indicator method
 - Begin with measure of current price gross value
 - Extrapolate via output indicator
- Output indicator is **changes in income from sales of goods and services** from QBIS
- Sales income deflated by PPI for road freight

7. Pricing methods

- Specification pricing
 - Type of commodity transported
 - Origin & destination
 - Type of customer
 - Conditions of sale (of service)
 - Tailored on commodity-by-commodity basis and business-by-business basis
 - Exclude “non-road freight” components

7. Pricing methods (continued)

- Representativeness
 - Purposive sample
 - Sample reviews
 - Sample maintenance
- Price
 - Transaction price (price received)
 - Not list price

7. Pricing methods (continued)

- Price to constant quality each quarter
 - Specifications tailored to service provider
 - Measure price each quarter
 - In addition, for each specification:
 - Determine variations from specification (if any)
 - Determine reasons for price changes
 - Tailored mail questionnaire with telephone queries

8. Quality adjustment methods

- Overlap pricing method
 - Necessary to determine true market price for changed service in previous period
 - Need to ensure cooperation of respondents
 - Tailored forms
 - Personal interviews at enrolment and when sample is reviewed

9. Comparability with turnover/output

- National accounts use QBIS data
 - Gross value at current prices (6110)
 - Output indicator (sales of goods and services)
- Classification of TAU potential issue
 - Blurring of road freight, freight forwarding, courier
 - More of a concern for “Services to transport” than “road Freight”
- Index weights below ANZSIC class determined by converting km-tonne data to income
 - Average price

10. Summary

- Physical conditions (population, roads, area) unlike other economies
- Constant quality:
 - tailored specifications and overlap pricing
- Concepts same as national accounts
- Classification issues on boundary
 - Freight forwarding, logistic solutions