Agenda – 28/06/2019

09:00-10:30	Sea and Costal Water Transport
10:30-10:45	*Tea break*
10:45-12:00	Accommodation and food service activities
12:00-14:00	*Lunch break*
14:00-15:30	Road Freight transport and Postal and Courier Services
15:30-15:45	*Tea break*
15:45-16:15	Countries examples
16:15-17:00	Countries examples

SEA AND COSTAL WATER TRANSPORT

Session outline

- Group discussion
- Presentation
  - Industry overview
  - Industry and products classification
  - Sample selection
  - Data collection
  - Pricing methods
  - Index calculation
  - Quality changes adjustment
  - Weighting
  - UK experience
- Peer discussion

Group discussion: Sea and costal water freight

- What do you know about this industry?
- How important is this industry in your country?
- Is there any specific national characteristics to this industry (e.g. specific regulation, market conditions etc)?
- What do you think are the main drivers of prices in this industry?

Industry overview

- Complex transport industry, particular important for countries with large maritime sectors
- Include both:
  - Short sea shipping – preponderant in EU (40% of goods transported between member states via sea routes)
  - Deep sea shipping – intercontinental routes, concentrated around countries with large ports
- Cross border trade and companies global organisation – highly internationalised sector
- High level of specialisation
- Multiple categories of services
- Very sensitive to international trade development

Type of goods

Unpacked (bulk cargo)

- Dry bulk –Coal, grain, Iron ore, Bauxit, cement, etc
- Liquid bulk – petroleum products, chemicals, liquefied gas

Packed (general cargo)

- Break bulk – bags, barrels, drums, pallets etc
- Neo bulk – Lumber, paper, steel, cars etc
- Unitised cargo - containers

Type of cargo ship

Bulkers

- Dry bulk carriers
  - Geared bulk carriers
  - Gearless bulk carriers

Tankers

- chemical tankers
- oil tankers
- liquefied gas carriers
- specialised cargo (wine tanker, fruit juice tankers, water tanker)

Containers

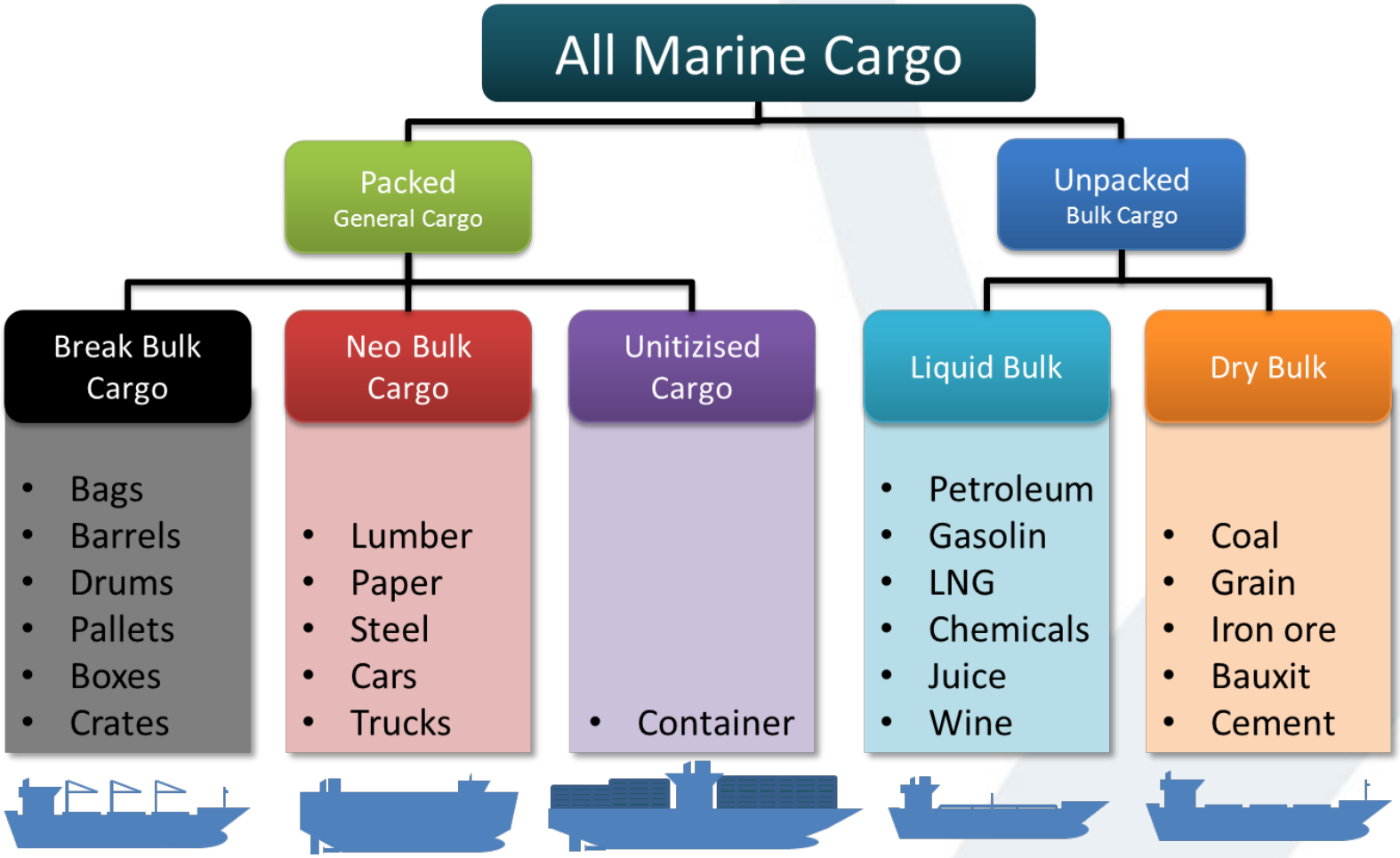
- Container ships
- Cargo incl refrigerator

Roll-on roll-off (versus Lift-on lift off)

Reefer ships

Multi purpose vessels

Type of cargo



Source: shippipedia.com

Other characteristics

- Vessel size
  - Bulker and tanker measured in DWT (dead weight tons)
    - Bulker ranging from 10,000 DWT to over 80,000 DWT
    - Tankers generally larger – up to 520,000 DWT for ultra-large crude carrier
  - Containers are measured in TEU (twenty-feet equivalent unit)
    - Ranging from 4,000 TEU to over 15,000 TEU
  - Roro are measured in Car Equivalent Unit or gross tonnage
    - Up to 8,000 CEU

- Journey/destination

  Distance

  Port size

  Gearless/geared requirements

Pricing mechanisms

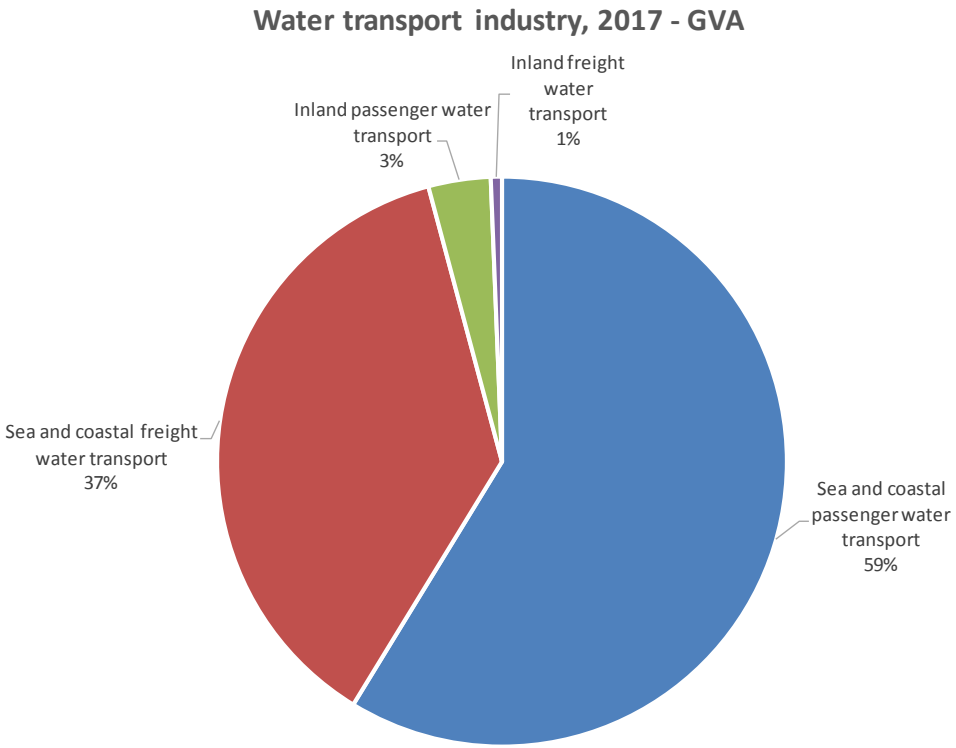
- Freight rates
- Very complex and depending on a number of costs:
  - Distance covered
  - Type and value of goods
  - Cost of operating the vessel (crew wages, fuel, maintenance, insurance)
  - Capital costs of buying the vessel (deposit, interest, depreciation)
  - Cost of shore-side operation (office personnel, rent, marketing)
- Complex shipping arrangements with different costs born by different entities (shipowners versus charterers)
- Two main categories: liner and tramp market

Shipping modes

- Liner shipping
  - Typically container vessels
  - Calling at a published schedule of ports
  - Users book cargo for shipment as required
  - Published freight rates
  - Normally includes Ro-Ro traffic
- Tramp/charter shipping
  - Transport arranged between shipper and receiver
  - Vessel owner or operator(charterers) hire out their vessel to facilitate the transport
  - No fixed schedules
  - Spot market
  - Contract to lease the vessel at individually negotiated prices for short period of times
  - Vessels chartered out on a long term basis less common
- Shipbroker operates as intermediaries between shipowners and cargo charterers

UK water transport industry

- It contributed around £3 billions to the UK economy (around 0.25%)
- It covers around 3.8% of the UK Transport and Storage industry in GVA value
- Freight transport accounts for around 38% of the water transport industry



UK waterborne freight transport

Domestic waterborne freight goods moved and lifted, 2016 to 2017 (PORT0701)

	Goods Moved (bt-k)			Goods lifted (mt)		
	2016	2017	Percentage change	2016	2017	Percentage change
Inland waters	1.6	1.6	▲ 2%	50.8	51.2	▲ 1%
Coastwise	21.7	16.2	▼ 26%	39.7	34.6	▼ 13%
One-port	7.4	7.5	▲ 2%	21.0	22.3	▲ 6%
Total	30.4	24.9	▼ 18%	102.0	97.1	▼ 5%

Inland waters

Traffic carried by barge or sea going vessels on the inland waterways network (rivers and canals).

Coastwise

Traffic carried around the coast from one UK port to another.

One-port

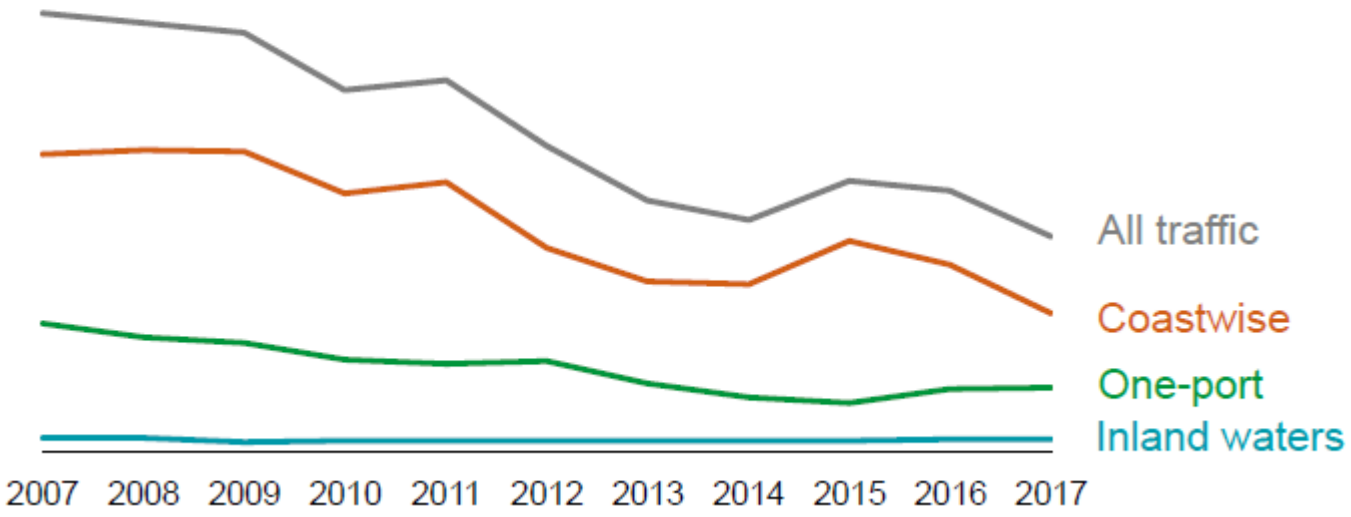
Traffic to and from offshore locations - such as oil rigs and sea dredging.

The total amount of goods lifted for all domestic waterborne freight in 2017 declined by 5% to 97.1 million tonnes (mt).

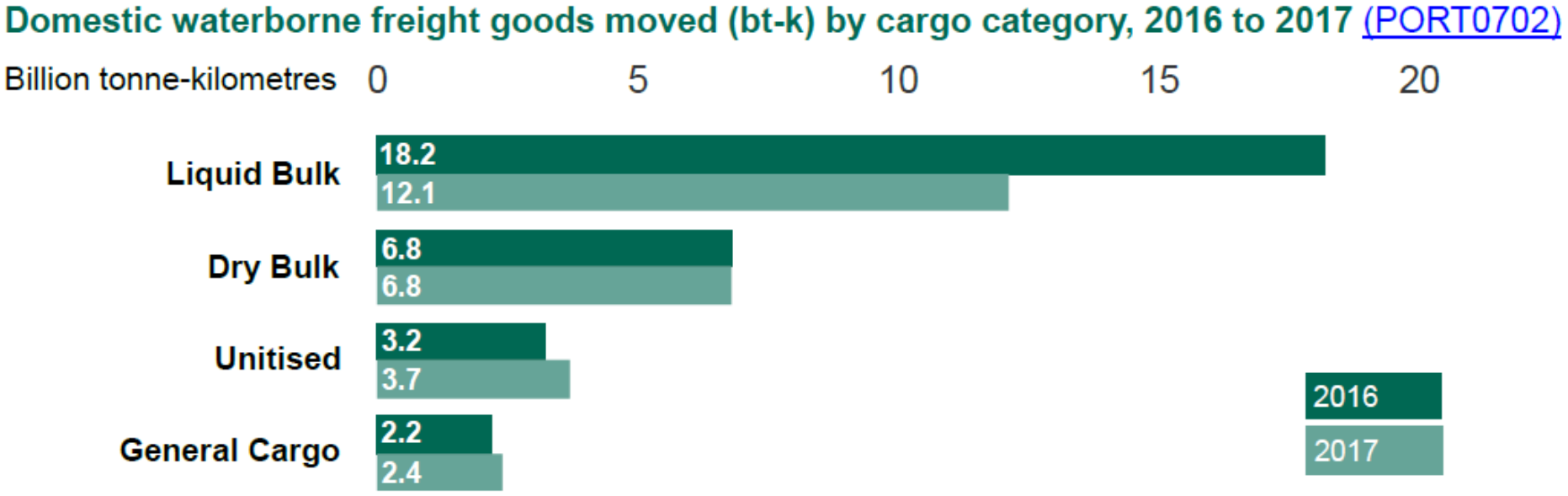
Trends over time

Domestic waterborne freight goods moved, 2007 to 2017 (PORT0701)

Billion tonne-kilometres



Commodities



Industry classifications

ISIC Rev.4							
H	Transportation and storage						
50	Water transport						
501	Sea and coastal water transport						
ISIC Rev.4		NACE Rev.2		2007 NAICS		ANZSIC	
5011	*Sea and coastal passenger water transport*	50.1	Sea and coastal passenger water transport	483112 483114	Deep Sea Passenger Transportation Coastal and Great Lakes Passenger Transportation	4820	Water Passenger transport
				487210	Scenic and Sightseeing Transportation, Water*		
							Inland Passenger transport is included
5012	*Sea and coastal freight water transport*	50.2	Sea and coastal freight water transport	483111	Deep Sea Freight Transportation	4810	Water freight transport
				483113	Coastal and Great Lakes Freight Transportation		
							Inland freight transport is included

Source: OECD/Eurostat (2014), *Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services: Second Edition*, OECD Publishing. *http://dx.doi.org/10.1787/9789264220676-en*

Product classification

ISIC Rev. 4					
H	Transportation and storage				
50	Water transport				
501	Sea and coastal water transport				
ISIC Rev. 4		CPC Ver.2		CPA 2008	
5012	*Sea and coastal freight water transport*	65211	Coastal and transoceanic water transport services of freight by refrigerator vessels	50.20.11	Sea and coastal water transport services of frozen or refrigerated goods by refrigerator vessels
		65212	Coastal and transoceanic water transport services of freight by tankers	50.20.12	Sea and coastal water transport services of crude oil by tankers
				50.20.13	Sea and coastal water transport services of other bulk liquids or gases by tankers
		65213	Coastal and transoceanic water transport services of intermodal containers by container ships	50.20.14	Sea and coastal water transport services of intermodal containers by container ships
				50.20.15	Sea and coastal water transport services of dry bulk good
		65219	Other coastal and transoceanic water transport services of other freight	50.20.19	Other sea and coastal freight water transport services
				50.20.22	Towing and pushing services on sea and coastal waters
		66022	Rental services of freight vessels for coastal and transoceanic water transport with operator	50.20.21	Rental services of sea and coastal water vessels for freight with operator

Source: OECD/Eurostat (2014), *Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services: Second Edition*, OECD Publishing. *http://dx.doi.org/10.1787/9789264220676-en*

Key classification considerations

- Industry or product classification?
- Type of goods transported
- National or international transport

UK classification

- Existing UK index split into 3 components:
  - Sea and coastal (domestic transport and transports into the UK)
  - Europe
  - Rest of the world
- Moving to CPA 2.1 classification later this year

Scope of survey

- Main users of water freight services are businesses – need for a dedicated SPPI to capture B2B activity
- Service users can be resident or non residents – prices need to be collected separately for deflation of domestic and export aggregates
- Tramp prices are difficult to collect – pragmatic decision to collect only liner shipping may be appropriate
- Importance of determining residence of service providers – this is determined from its base of operations rather than point of delivery.

Sample design

- Probability sampling is recommended; mixture of random and non probability sample can be considered
- Normally a small number of dominant line shipping providers, these could be forced into the sample.
- Probability Proportional to Size (PPS) using turnover/employment for smaller establishments, with a rotational design to manage respondents burden
- For tramp shipping, consider distinguish:
  - One way freight and time charter
  - Short/long distances; small vs large vessels
  - Dry bulk, tankers and container vessels
- Sampling frame from business registers, trade institutions or shipbrokers

Service specification

As detailed as possible to control quality changes to collect prices at constant quality. Need to specify:

- Journey (origin and destination)
- Type of freight
- Weight/volume for non-containerised cargo
- Size and type of container (e.g. refrigerated, dangerous etc)
- Type/size of vessel
- Additional services (e.g. loading/offloading, etc)

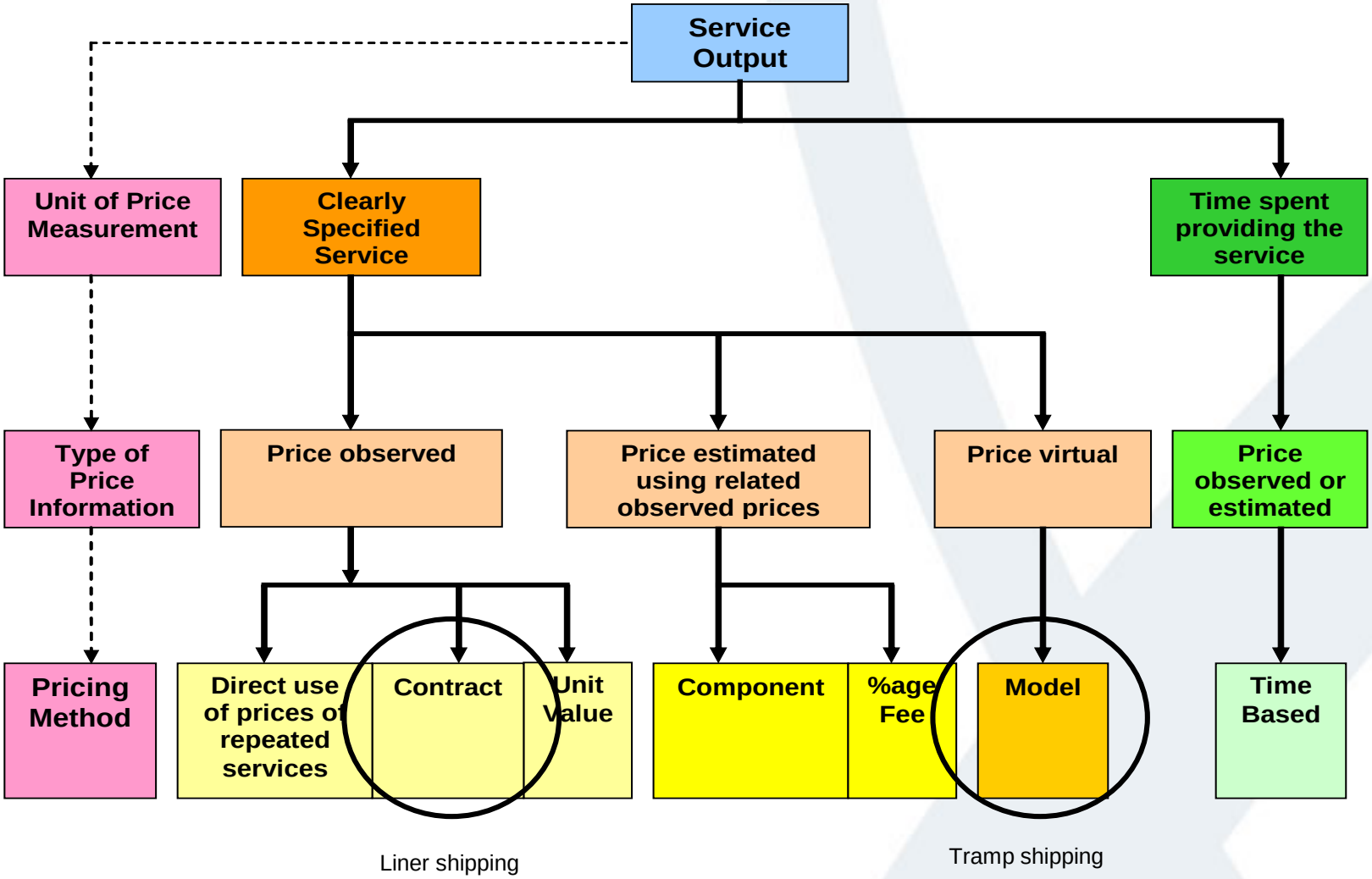
Bundled services and/or different modal transport services should be collected separately

  - Popularity of containerised and ro-ro cargo makes it difficult to separate costs of different modes

Examples of service specifications

- Service 1
  - Transportation of fuel on ships in tanks
  - From the UK to the Channel Islands
  - Price per tonne
- Service 2
  - Intermodal container to European destination
  - Container of materials from the UK to Asia
- Service 3
  - Refrigerated transport of fruit
  - From US to the UK

Pricing methods: sea and water freight



Contract pricing

- Suitable when repeated delivery of the same or very similar service can be observed over time
- Real transaction prices preferred over list prices, which may not include discounts and/or surcharges (e.g. fuel adjustments, port charges, war risk etc)
- Typically used for liner shipping, where fixed journeys take place within the same origin and destination. Cargo normally containerised

Model pricing

- More suitable for tramp shipping, where it may be difficult to observe the same service repeating over time
- It consists of an estimate of the cost of a pre-defined transport based on a detailed specification
- Model estimates may not be directly provided by the service providers but from shipbrokers

UK experience

- UK SPPI generally uses direct use of prices of repeated services or contract prices
- Not specifically prescriptive to respondents on what method to use as long as prices refer to the same type of service as specified during recruitment/validation discussions

Data validation

- As for other industries, based on unexpected price changes
- Aims at detecting non-genuine price changes
  - Data collection errors
  - Changes in quality
- Validation gates applied on period-on-period growth
  - e.g. validation failures where quarter-on-quarter prices change over a certain threshold (e.g. 7.5%; 15%)
- Validation gates should take into account industry-specific price characteristics:
  - Volatility/price variability
  - Seasonality
- Cases failing validation are contacted by Business data division staff to query large movements

Drivers of price movements

- Cost of petrol key determinant in price movements in the transport industry
- Port costs
- Exchange rate movements
- Costs of operating the vessel, crew wages, insurance
- Highly globalised industry – sensitivity international development (e.g. piracy risks, etc)

Type of quality adjustment methods

Type of quality adjustment methods:

- Overlapping method

  A price for the new service/contract is provided for both the current and previous period. This allows the new service or contract to be linked on the old one

- Comparable replacement/direct price comparison

  The new service is considered perfectly comparable to the old service and as such any difference in price between the current and previous period is a genuine price movement

- Linkage to show no change

  The new service is not comparable to the old service. The difference in price between the current and previous period is attributed completely to the difference in the quality of the two services. It assumes the old service would have had the same price in the current and previous period if it had been available

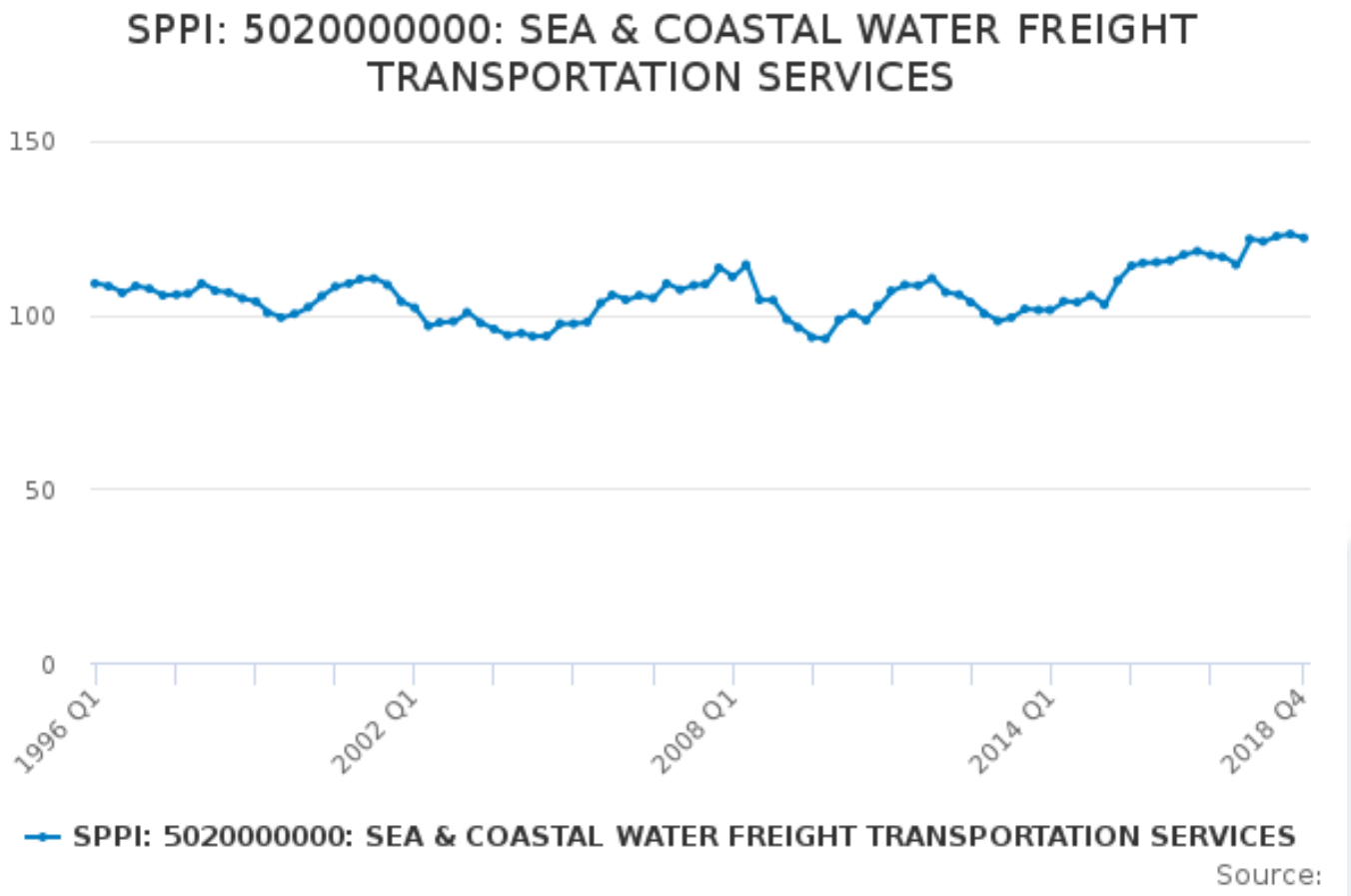
Weights

- Sampling weights
- Index to index weights/Turnover weights
  - Product weights
  - Industry weights

Weights

- Different sources of data depending on availability
  - Annual structural surveys
  - Annual sectoral surveys
  - Annual surveys of transport services
  - Dedicated surveys of service products
  - Transportation statistics providing volume data (i.e. tonne km)

UK SPPI


SPPI: 5020000000: SEA & COASTAL WATER FREIGHT TRANSPORTATION SERVICES
150
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1996 Q1
2002 Q1
2008 Q1
2014 Q1
2018 Q4
SPPI: 5020000000: SEA & COASTAL WATER FREIGHT TRANSPORTATION SERVICES
Source:

Group discussion

- Do you currently have an SPPI available for this sector?
- Any specific strengths/issues with existing SPPI?
- Any challenges in developing a new SPPI for this sector if not available?

Some aspects to consider:

- Any specific characteristic of the national industry/regulation etc
- Survey versus alternative data sources
- Sampling frame availability, advantages and limitations
- Sources of turnover data (industry/product)
- Specific user needs in terms of outputs