
Latest trends in global trade and the business case for Port Centric Logistics

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1. Trade and the role of the port

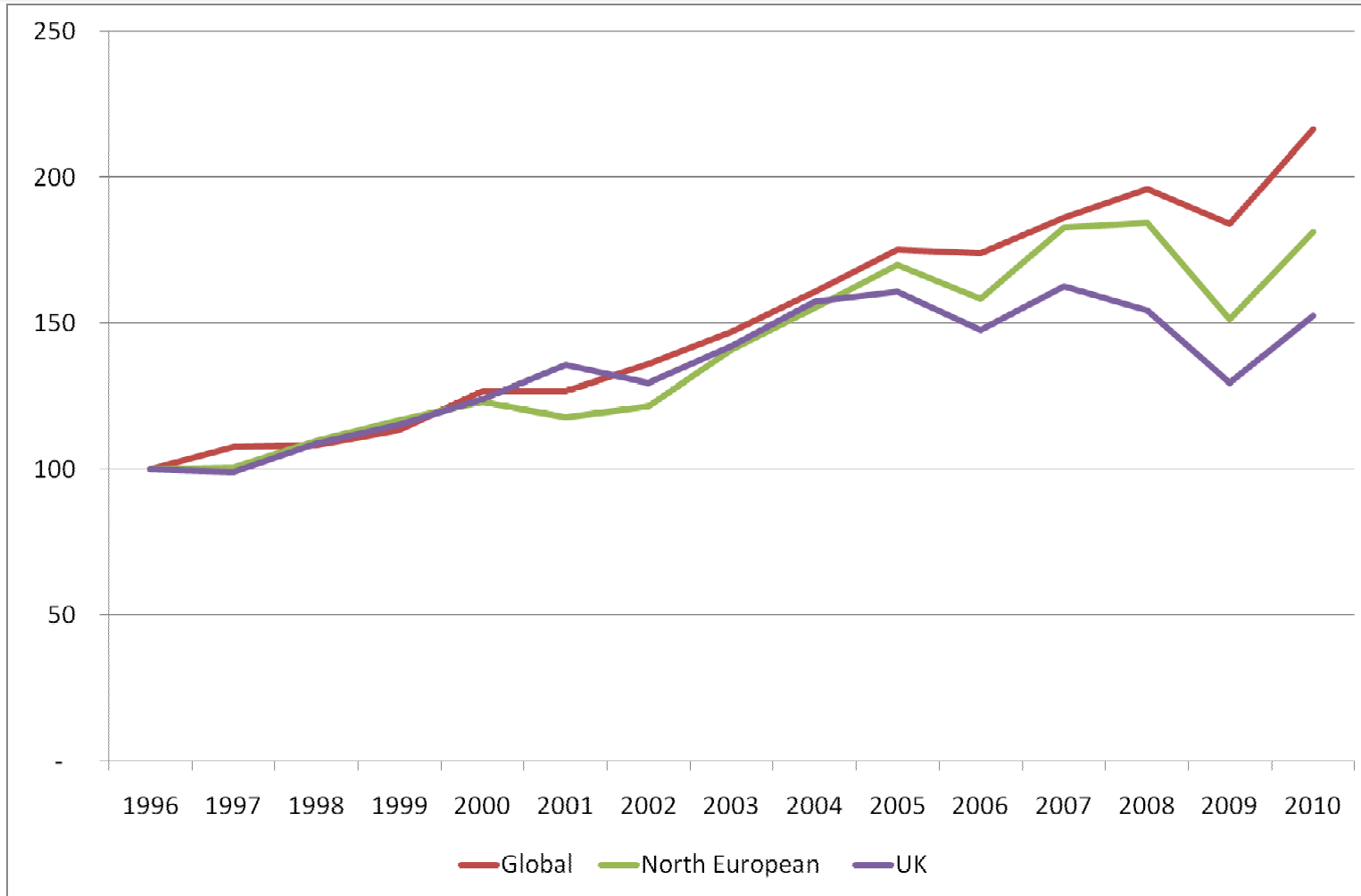
- Despite recession global trade growing more rapidly than GDP.
- The longer are supply chains
 - the greater the volume of goods to be warehoused
 - the more important transport costs and emissions
- The higher the proportion of imports consumed
 - the higher the proportion of goods changing modes
 - the greater the role for the ports
- But are the warehouses in the right place?
- Are the commercial and institutional structures dictating warehouse investment suitable for the ports industry?

2. The recovery of global trade

- Global containerised trade recovered rapidly in 2010:
+ 16% over 2009
- Growth in 2009 has been across the board
- But the recession was not even handed!
- Growth 2006 to 2010:
 - Global + 23%
 - European imports + 17%
 - North American imports + 5%
 - UK imports + 1% (and still 6% less than 2008)

Source: MDST World Cargo Database

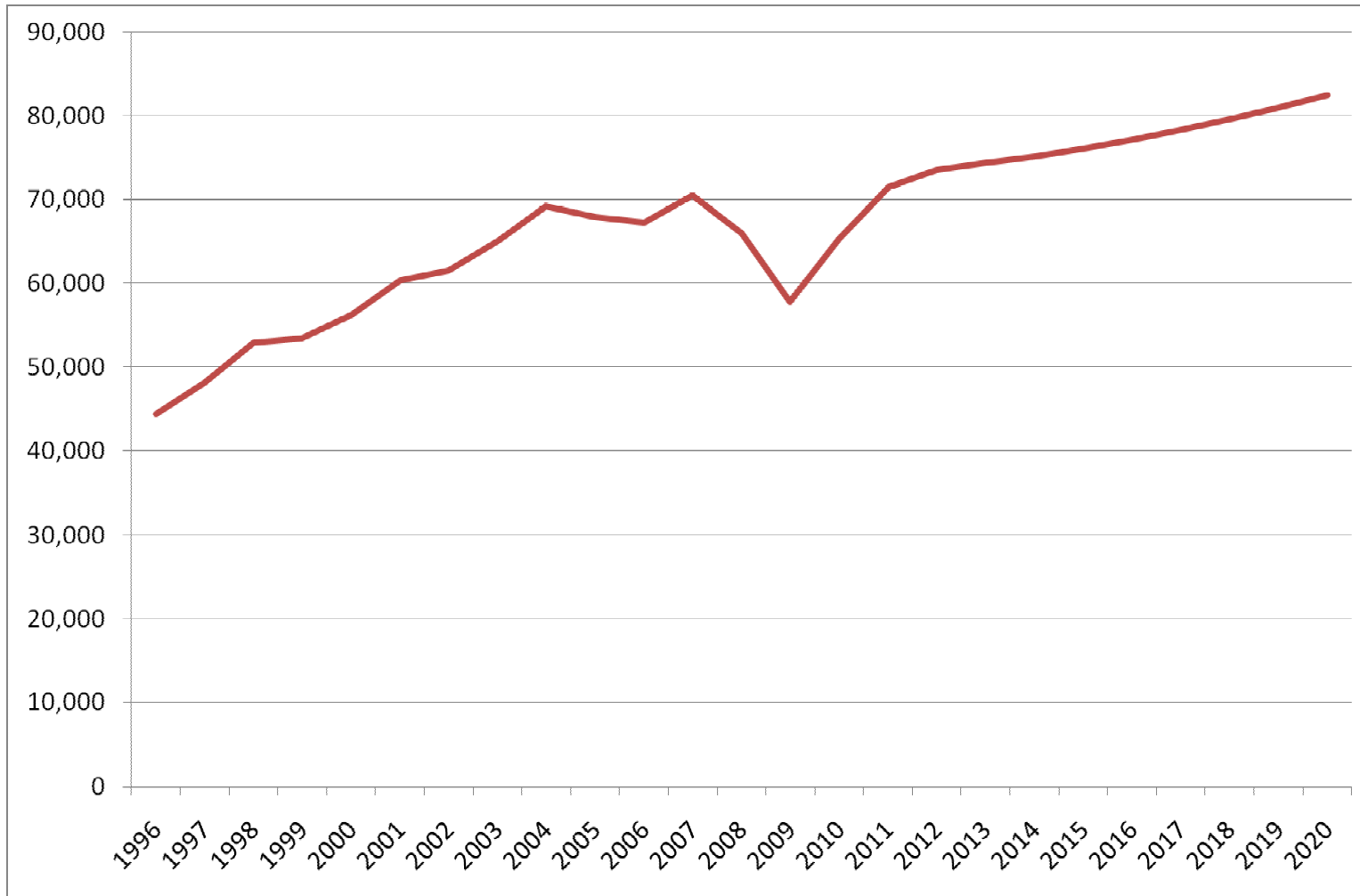
3. Revised unit load forecasts: Global, North European & UK



Source: MDST World Cargo Database

UK trade growth below global and European averages

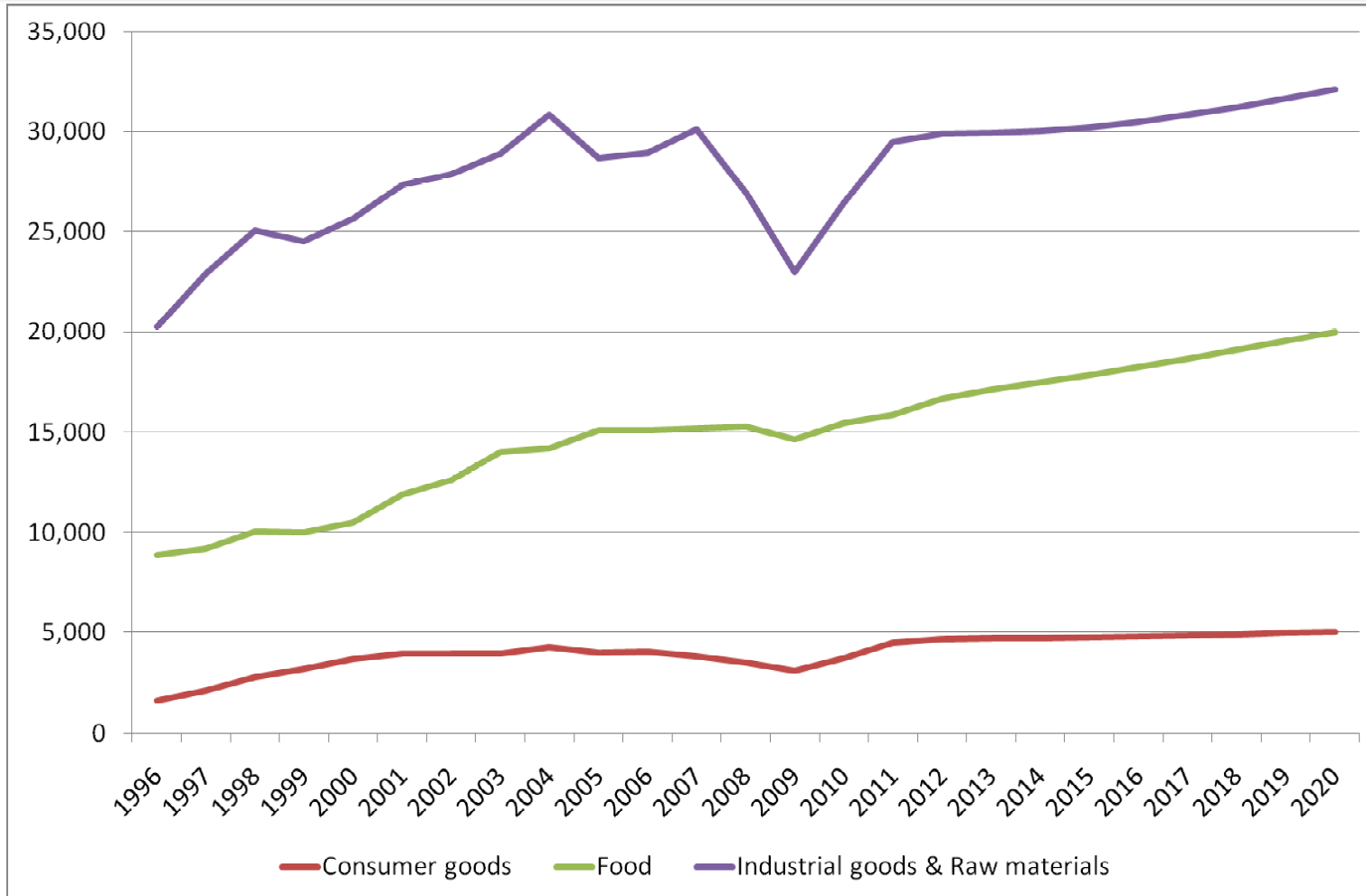
4. UK Imports of unitised cargo, 1996 - 2020 ('000s)



Source: MDST World Cargo Database

Steady foreseeable growth reflecting continuing import substitution.

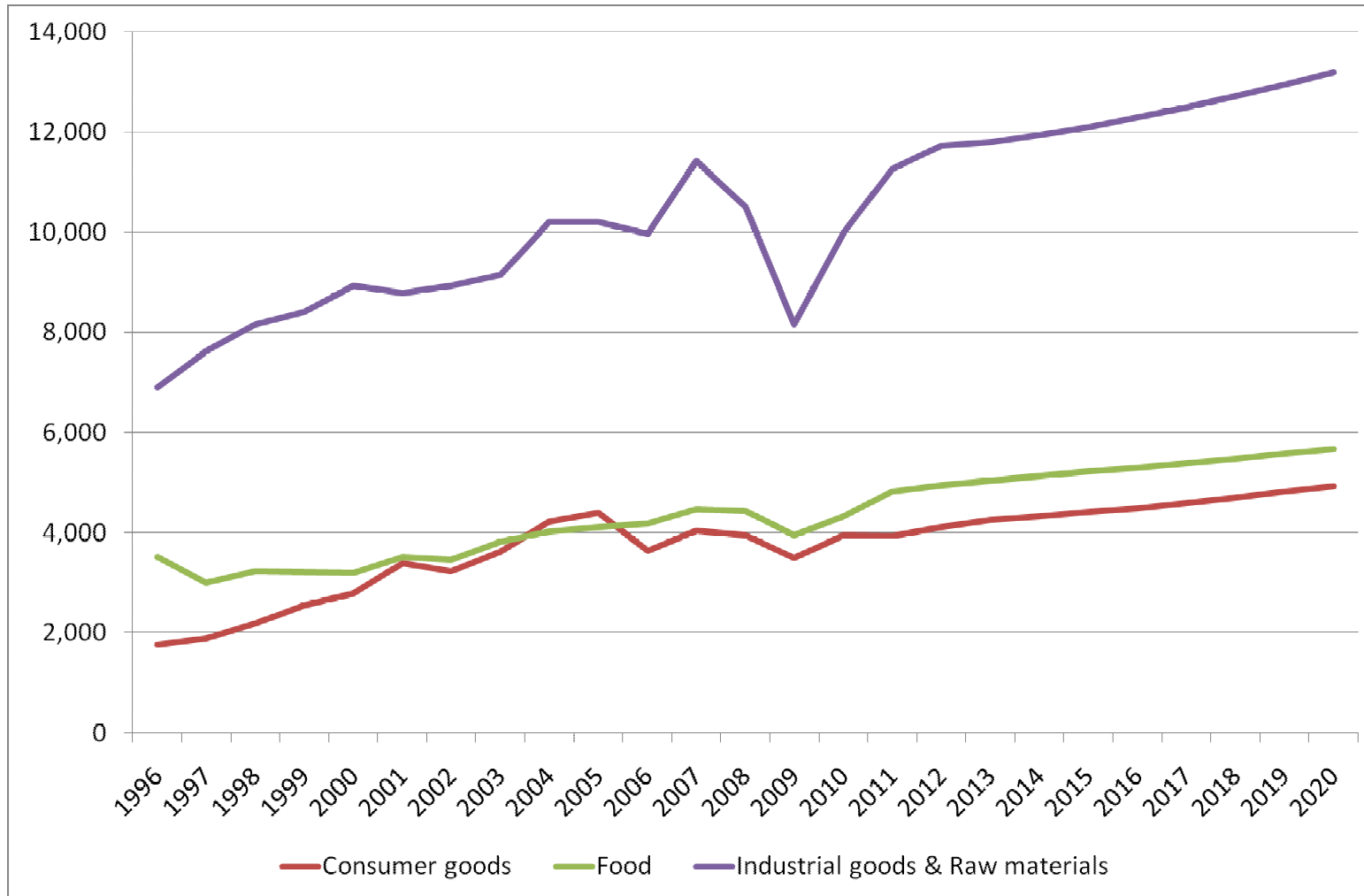
5. Import cargo mix: shortsea unitised



Source: MDST World Cargo Database

Industrial goods most affected most by recession

6. Import cargo mix: Deepsea unitised



Source: MDST World Cargo Database

Deepsea cargoes recovering faster post recession

7. Import unitised commodities showing strongest growth: 1996 - 2010

	Absolute growth (‘000s tonnes)	% growth
Waters <u>inc</u> flavouring	536	+376%
Stoppers/lids/caps etc	475	+234%
Waters <u>not</u> flavoured	412	+199%
Wine (not sparkling)	410	+52%
‘Other’ bread/pastry etc	359	+325%
Peat	358	+183%
Furniture	321	+285%
Beer	317	+55%

(excluding miscellaneous chemicals and plastics)

- all these commodities requiring warehousing
- generally non perishable (ambient)

8. Other import unitised goods with high growth (electrical & consumer sectors): 1996 - 2010

	Absolute growth ('000s tonnes)	% growth
Wooden seats	159	276%
Bathroom furniture	149	305%
Storage batteries	140	249%
TV receivers etc	135	406%
Other books	130	120%
Washing machines < 10kg	111	175%
Apparel (plastic)	98	762%
Trousers	94	107%
Refrigerators	88	148%
Trade catalogues etc	87	126%

- rapid growth in imports of consumer durables

9. Forecast growth commodities based on recent trends, 2010 - 2020

	Absolute growth ('000s tonnes)	% growth
'Other' bread/pastry etc	256	55%
Stoppers/lids/caps etc	251	37%
Dyes	233	101%
Brewing dregs/waste	229	78%
Waters inc flavouring	218	32%
Fresh tomatoes	198	57%
Washing & cleaning preps	194	43%

- the market for extra warehousing capacity
- GDP growth likely to be under 30%

10. The role and strengths of the port

Roles

- To discharge and load ships
- To store cargo until it is required by receivers
- To reload imports to inland modes of transport
- To process imported raw materials
- To provide the infrastructure to minimise supply chain costs
 - providing access to large and economic ships
 - to load full length trains
 - to handle goods at the lowest cost
- To provide immediate access to maritime resources

Strengths

- To maximise synergies from the above
- To minimise the inland distances covered to final destination

11. The Role in practice

Commercial opportunities include

- Accommodating bio-mass and coal fired power stations
 - carbon capture being an opportunity and a challenge
- Assembly and maintenance of windfarms
 - the new 'North Sea Oil'
- Investing for ever larger new vessels and (returning) growth
 - new container port infrastructure at Felixstowe & London Gateway
 - newer & larger (slow steaming) container ships to cut costs and emissions
- Rail network upgrade from the ports
- New warehousing on the Tees and London Gateway and other ports
 - to cut inland distribution costs (and emissions)

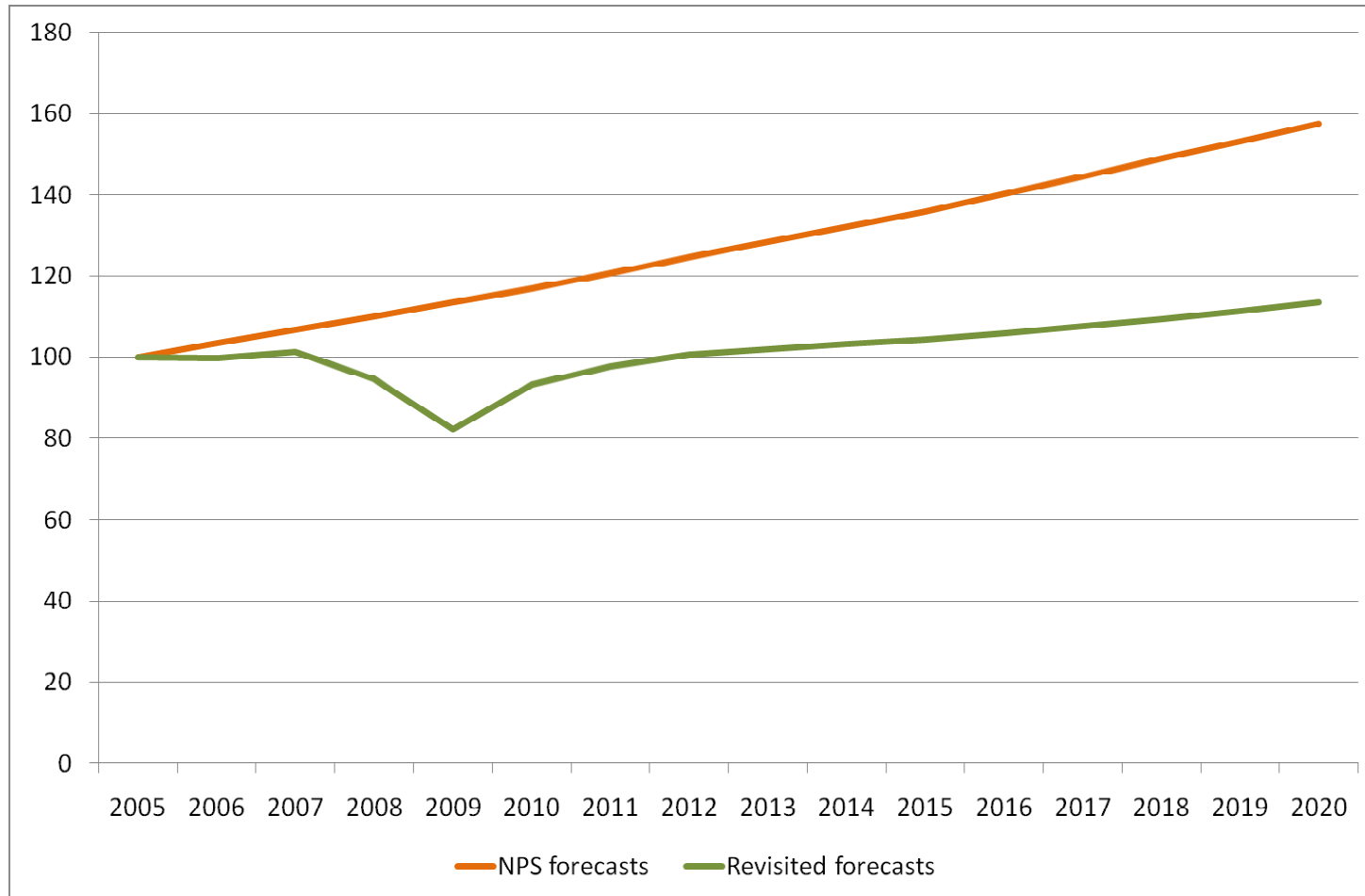
12. Drivers for change

- Proportion of UK consumption imported has grown rapidly
- Domestic energy supplies have dwindled as demand has grown
- Importing is energy and cost extravagant
 - so supply chains have to wise up
 - addressing climate change is the new mantra!
- Recession has been a wake-up call
 - Port themselves cannot simply rely on just more and more containers!
 - Crucial to identify wider means of adding value

13. Port Prospects: National Policy Statement

- Forecasts made in 2006 no longer an accurate guide
 - revised energy policy implies much lower imports of gas and coal
 - current GDP 10 – 12% less (for 2011) than had been anticipated, that itself cutting potential container trades by > 20%.
- Port tonnage growth only parameter used to guide the draft NPS
 - yet cutting cost from supply chains requires space in port estates
 - each imported TEU p.a. generates demand for around one square metre of distribution centre floor space somewhere.
- Energy projects also space hungry
- Crucial that as planning policies re-invented the role that ports can play is better understood

14. GB total port tonnage forecasts: pre & post recession



Source: MDST forecasts

Ports have a strong interest in re-focussing from catering for growth to expanding their role!

15. Growing proportion of imports

- Imports have grown while tonnes of domestic cargo have fallen
- Total tonnes lifted of non bulk goods*:
 - Growth 1996 to 2009 – 3%
- Total tonnes imported of unitised goods:
 - Growth 1996 to 2009 + 45%
- But does the pattern of warehouse development match this?
 - no!

* food, drink, tobacco, machinery & transport goods and miscellaneous and manufactured articles

16. Regional warehouse distribution

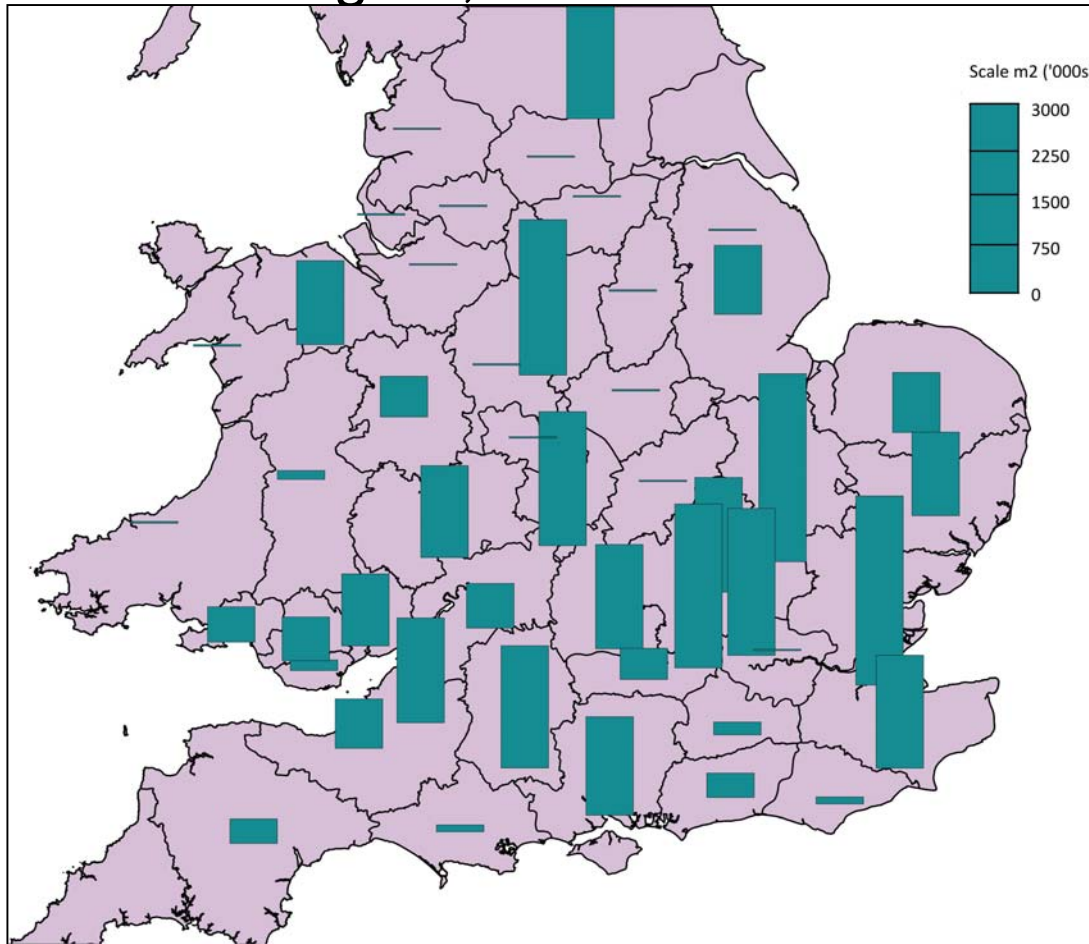
	Warehouses			2009 unitised port traffic	
	>10,000m ²	<50,000m ²			
North West	16%	8%}		11%}	
North East	4%	5%}	33%	3%}	27%
Yorks & Humber	16%	20%}		13%}	
East Midlands	18%	27%}	43%	-	
West Midlands	16%	16%}		-	
East of England (inc.Thames)	11%	11%}		31%}	
South East/ London (inc. Tunnel)	11%	6%}	19%	38%}	70%
South West	5%	2%}		1%}	
Wales	4%	5%		3%	
	100%	100%		100%	

Source: MDST analysis of VOA data

- 43% of largest warehouses' capacity in the Midlands
- 70% of unitised freight through southern ports
 - accounting for only 19% of largest warehouses

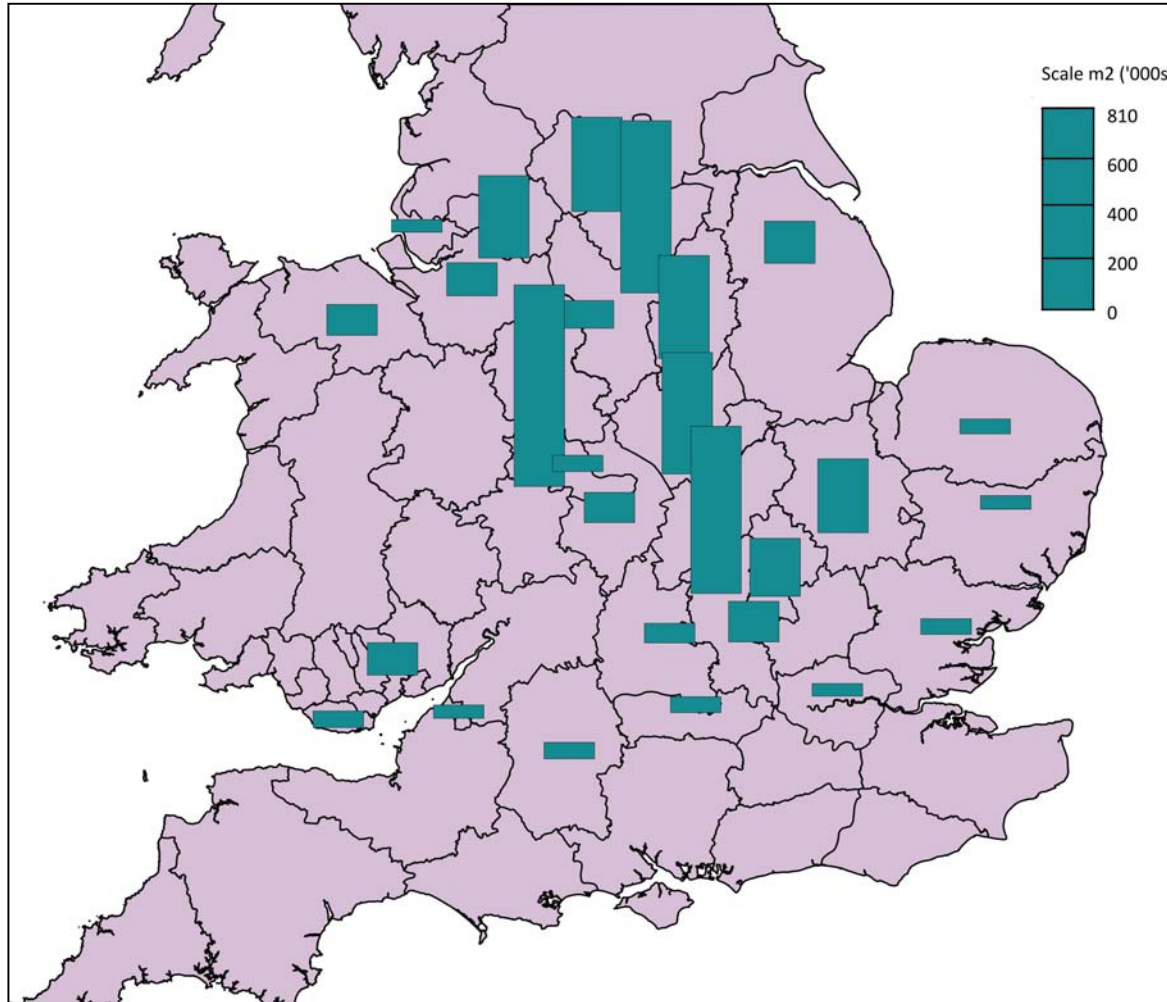
17. The Evidence: Warehouse distribution

- all warehousing >9,000m² units



- 9% in counties with deepwater container ports

18. The Evidence: Warehouses > 50,000m² units



- only 4% in counties with deepwater container ports
- only 8% in counties with ANY utilised port traffic!

19. The transport cost argument for port-centric

- For imported unitised goods
 - Based upon population distribution for secondary deliveries

	<u>Traditional approach</u>	<u>Port centric</u>
		kms
	<u>via Midlands</u>	
Primary leg	180	-
Secondary leg	<u>190</u>	<u>280</u>
total kms covered to RDC:	370	280

- Overall distance covered reduced by 90 km despite longer secondary leg
- At £0.75 per HGV km saving worth **£67 in financial savings per load**
- At mean Sensitive Lorry Mile rate of £0.33 ‘worth’ further **£30 in public sector interest value per load**
- Longer secondary leg distance and consolidation opportunity **better suited to rail**
 - increasing importance for inland DC’s to be rail connected
 - coastal shipping much more viable if redistributed goods ‘originating’ in a port
- A parallel advantage in terms of emissions
 - 90 km return trip saving worth 160 tonnes CO₂/1000 loads by road

20. The Planning Position

- 2008 Planning Act establishes concept of nationally important infrastructure
 - includes new port terminals and rail linked distribution parks
 - new Government will return ultimate decision to Secretary of State but otherwise principal remains
- Policies being enshrined in national policy statements
 - but role of warehousing not apparently appreciated
- For ports threshold definition is >500,000 TEU/250,000 ro-ro units
- For rail linked distribution parks threshold definition is to be > 60 hectares
- No equivalent port centric concept/cut-off in ports national policy statement
 - London Gateway distribution park could be defined as a 'strategic rail freight interchange'!
- Economic regeneration arguments potentially lost if benefit of co-location of port terminals and warehousing not clear.
- Important to provide evidence based arguments for port centric development to both potential occupiers, Government and Infrastructure Planning Commission

21. Some commercial and institutional challenges

- The Planning System and local politics
 - ports attract urban development that is then in conflict with subsequent expansion
 - local authority budgets do not benefit directly from warehouse development
 - system tends to protect status quo (residential resistance!)
 - but Local Enterprise Partnership's role could change attitudes
- The commercial logistics 'food chain'
 - shipping lines base strategies on existing warehouse availability
 - warehousing investment generally conducted within the 'property' rather than 'freight' commercial world.
 - to achieve benefits will require longer term commitments between lines and shippers
- Which port: port-centric implies shipper commitment to a line?
 - in the UK lines less tied to individual ports because warehousing not in the ports
 - which has been a strength for the Golden Triangle

22. Potential steps

- Modelling and forecasting exercise that take a wider view and provide evidence to decision makers
- Proactive (economic) 'planning' that does not simply take line of least resistance
- Long term vision on part of importers if emissions challenge to be addressed
 - some evidence of initial steps being taken
- A transport system able to deal with the 'which port' problem
 - could otherwise be a significant inhibitor
 - rail to shift goods between ports a potential solution
- Development of inland sites explicitly linked to the ports
 - important step for Golden Triangle and rail linkage

23. Summary

- Trade growth and climate change objectives demonstrate case for port centric development
- Energy projects will further expand opportunities for port based industrial development
 - further expanding market for port based logistics
- Port centric development promotes rail and coastal shipping opportunities
 - more origins/destinations at water connected sites and longer single hauls
- Port centric offers (in some areas) opportunity for planning system to support meaningful economic development