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Research

The Future of Shipping

CRSL Shipbuilding Club

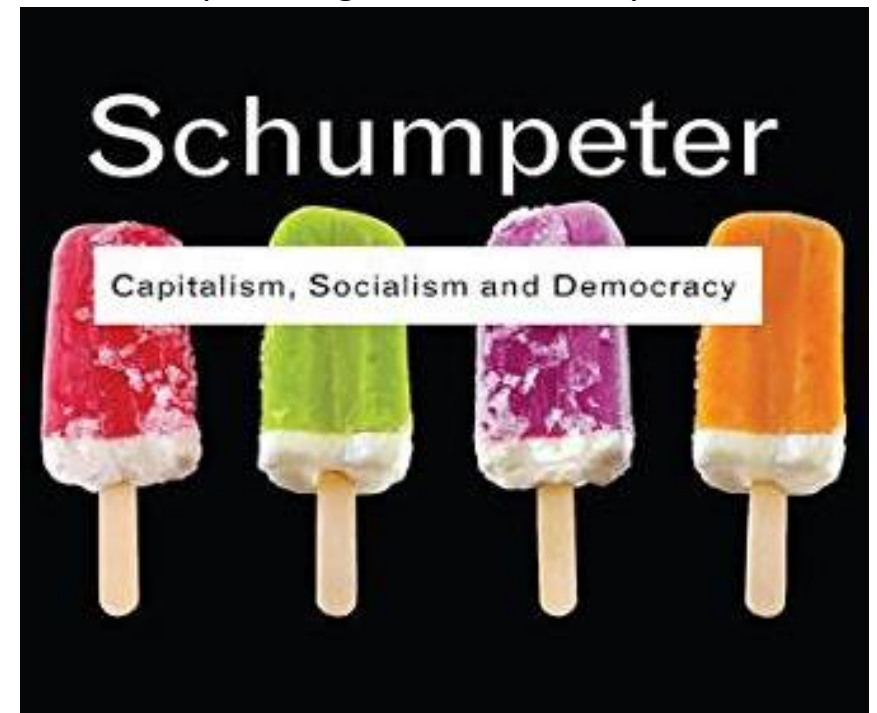
Surviving the present whilst managing for the future

- “*Creative destruction*” refers to product and process innovations, which radically improve current products and processes. It can be messy for companies whose products or processes become obsolete!
- The term was used by J Schumpeter, who considered it ‘the essential fact about capitalism’ (1).
- Evaluating the “degree of destruction” is important. Some technical new products are quickly available and decisively better (e.g. smartphones). Others take time and the process changes are manageable (e.g. electric cars).
- We need to think how this applies to shipping and shipbuilding today

(1) Joseph A. Schumpeter (1942) *Capitalism, Socialism and Democracy*, Routledge, p82



J. Schumpeter – great 20th century economist

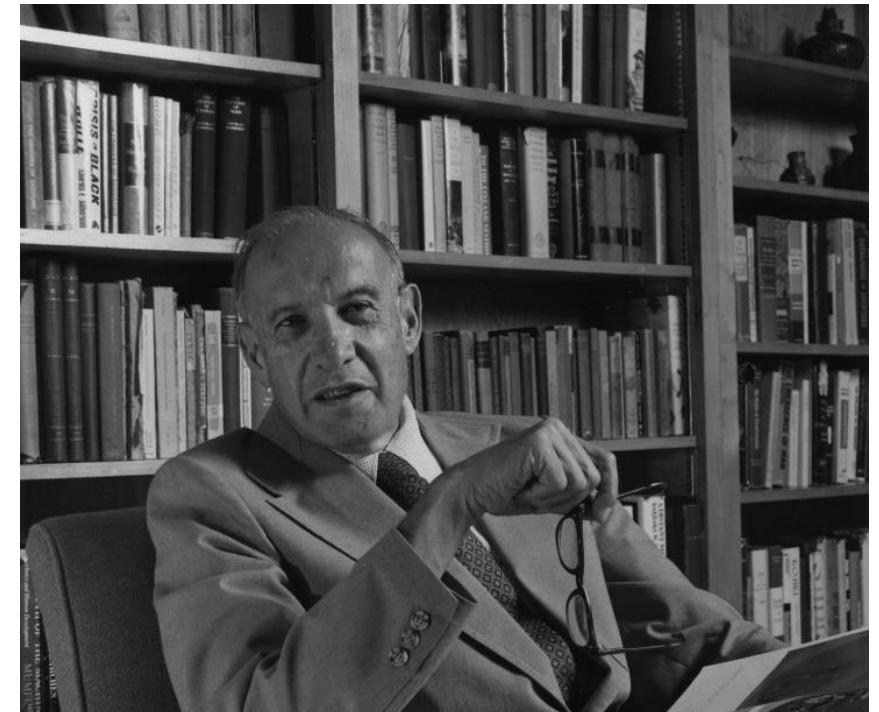


How should you think about the future?

Before an executive can think of tackling the future, he must be able to dispose of the challenges of today.

This needs a systematic approach:-

1. The present business must be made effective
2. Its potential must be identified and realized
3. It must be made into a different business for a different future



Peter F Drucker The Executive in Action p 16

Managing change in coming decades

Four things to focus on:-

1. **Manage:** the “shipping cycles”.
2. **Adapt:** to a new regional trade structure.
3. **Engage:** with the emerging global B2B market place.
4. **Evolve:** smart shipping management systems.

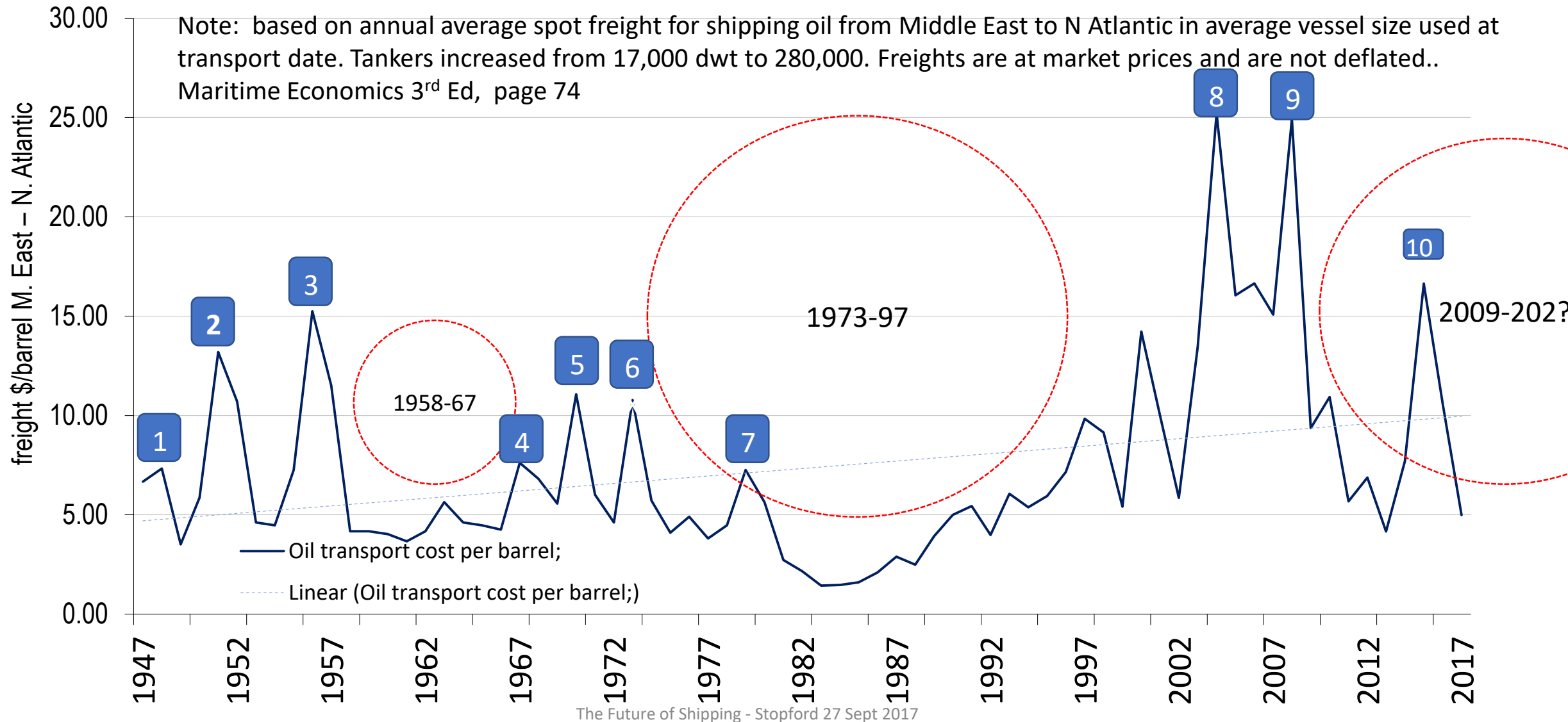


Alexander Onassis “We must free ourselves of the hope that the sea will ever rest. We must learn to sail in high winds”.



1. Manage: the shipping cycles better

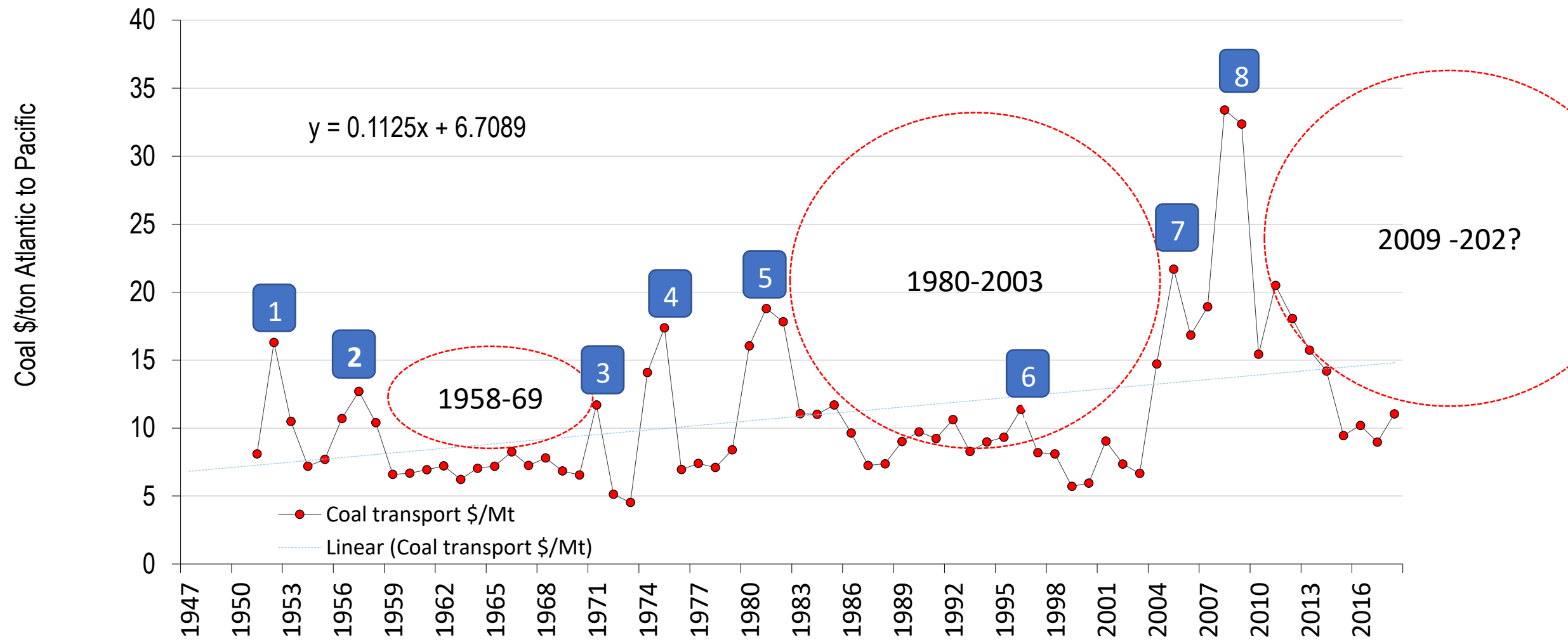
Wet shipping cycle – the cost of shipping OIL from M East to N Atlantic over 70 years



Dry shipping cycle – the cost of shipping COAL from Atlantic to Pacific over 70 years

8

9

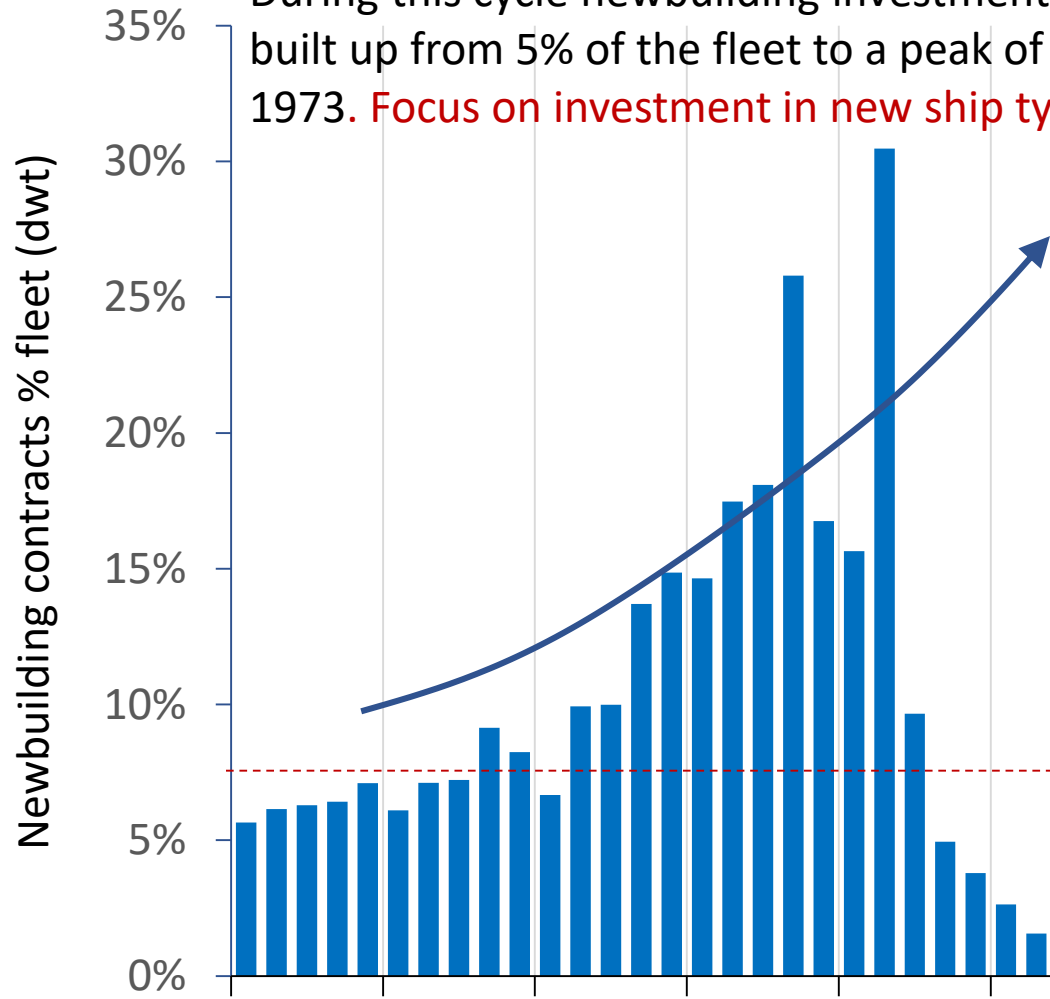


Note: costs based on spot rates for average size at transport date which increased from about 10,000 to 77,000dwt. The route was Hampton Roads to Japan until 1987 when trade disappeared, then Roberts Bank to Japan/China. Freight rates at market prices and are not deflated. Maritime Economics 3rd Ed, page 74

Shipbuilding Investment - the two “super cycles”

INVESTMENT SUPER-CYCLE 1 1950-1973

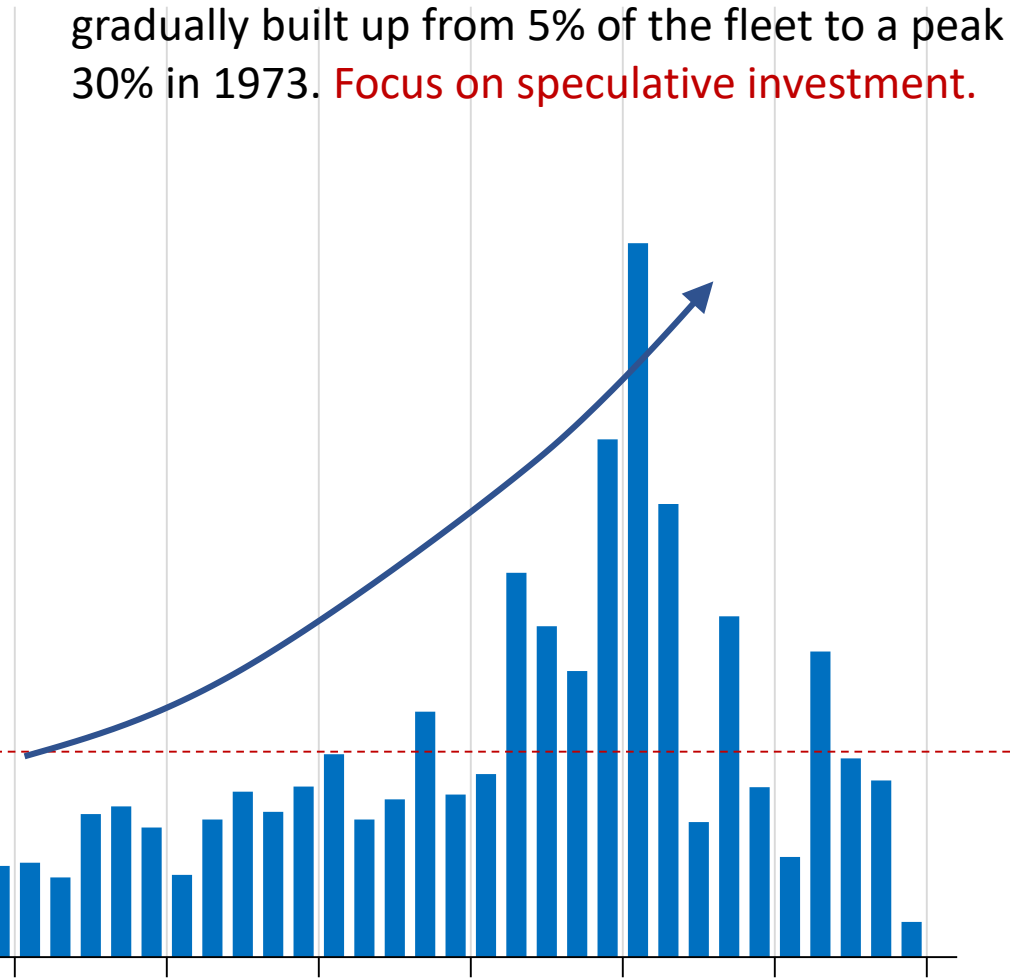
During this cycle newbuilding investment gradually built up from 5% of the fleet to a peak of 30% in 1973. **Focus on investment in new ship types.**



Source: data compiled by Martin Stopford from several sources

INVESTMENT SUPER-CYCLE 2 1987-2007

During this cycle newbuilding investment gradually built up from 5% of the fleet to a peak of 30% in 1973. **Focus on speculative investment.**



2. Adapt: to new global trade structure

Sea trade growing but OECD losing market share

1. OECD now imports only 37% of cargo
2. China and Asia driving trade
3. Non-OECD 63% and maybe 75% soon
4. Non-OECD has six times the population

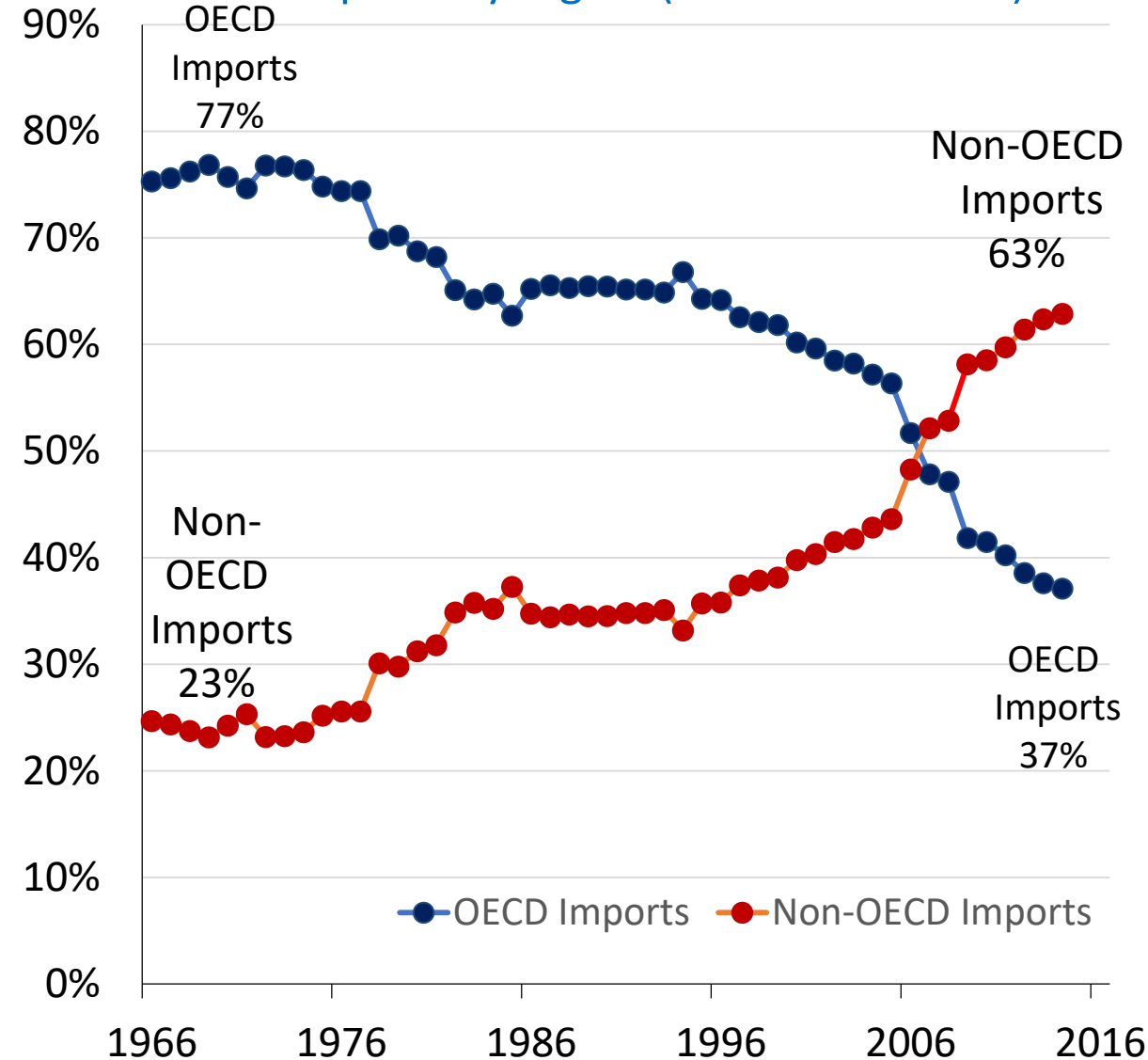
The bulkers & liners struggle with mature technology

5. The bulk & liner revolutions are over
6. Cargo owners have stepped away
7. Designers struggling to improve ships
8. Very big containerships disappointing

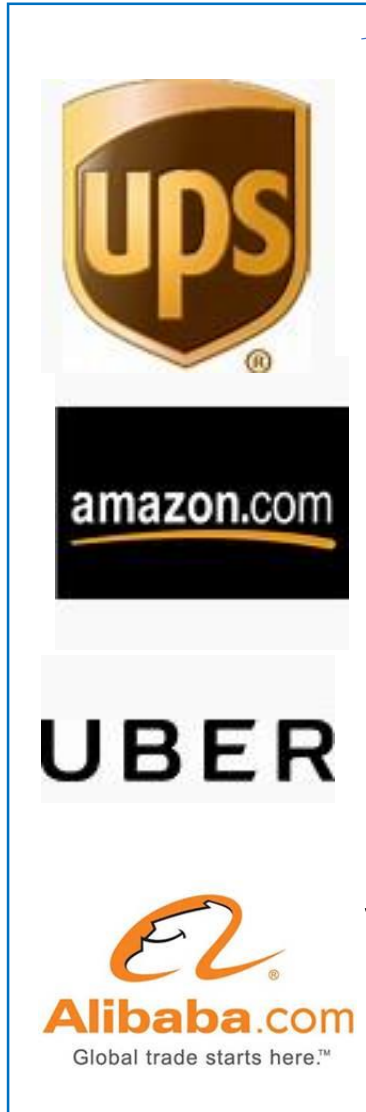
The future – another revolution desperately needed

9. Shipping investors need a new vision
10. World economy needs new services

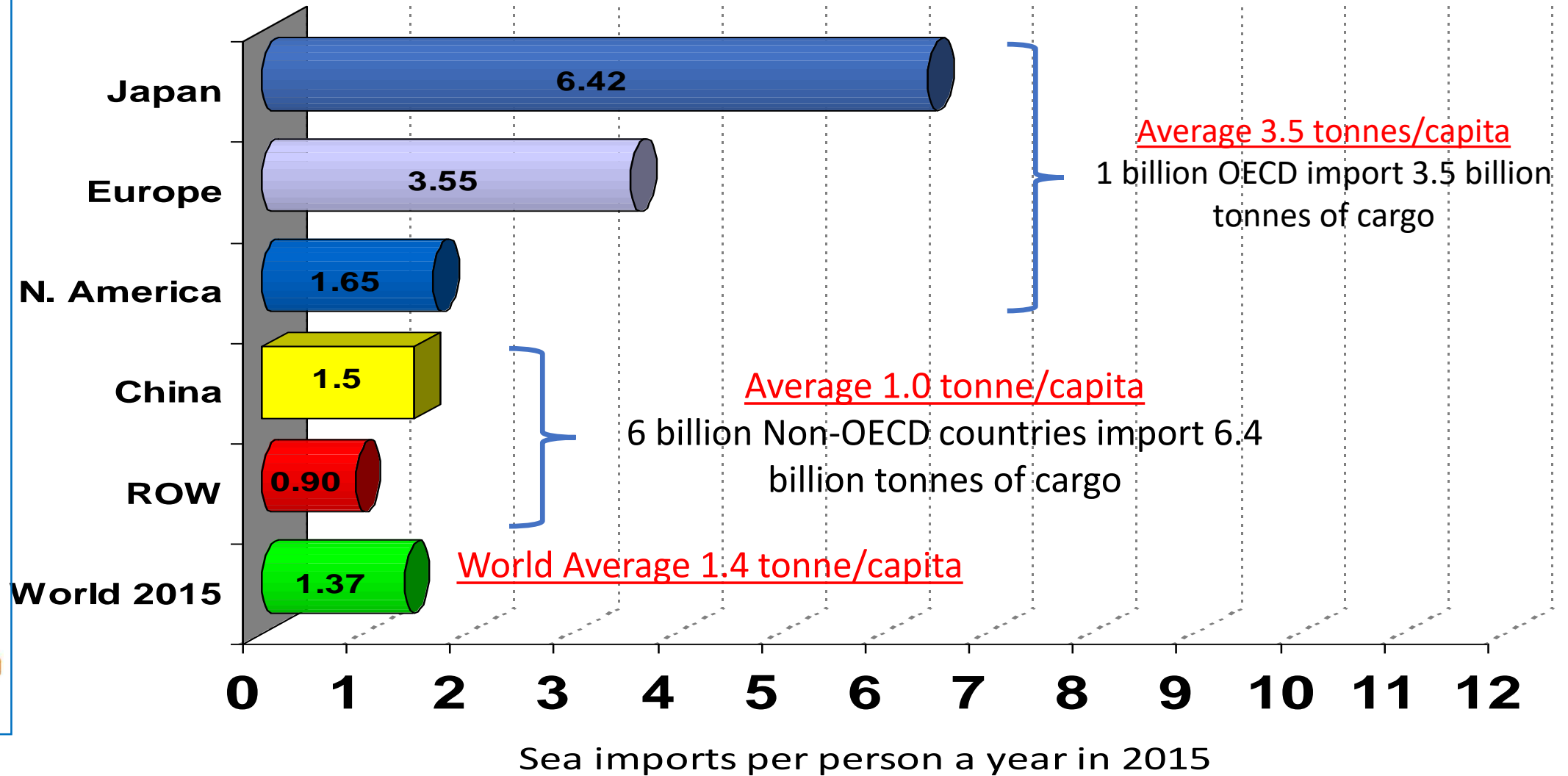
Seaborne imports by region (% of world trade)



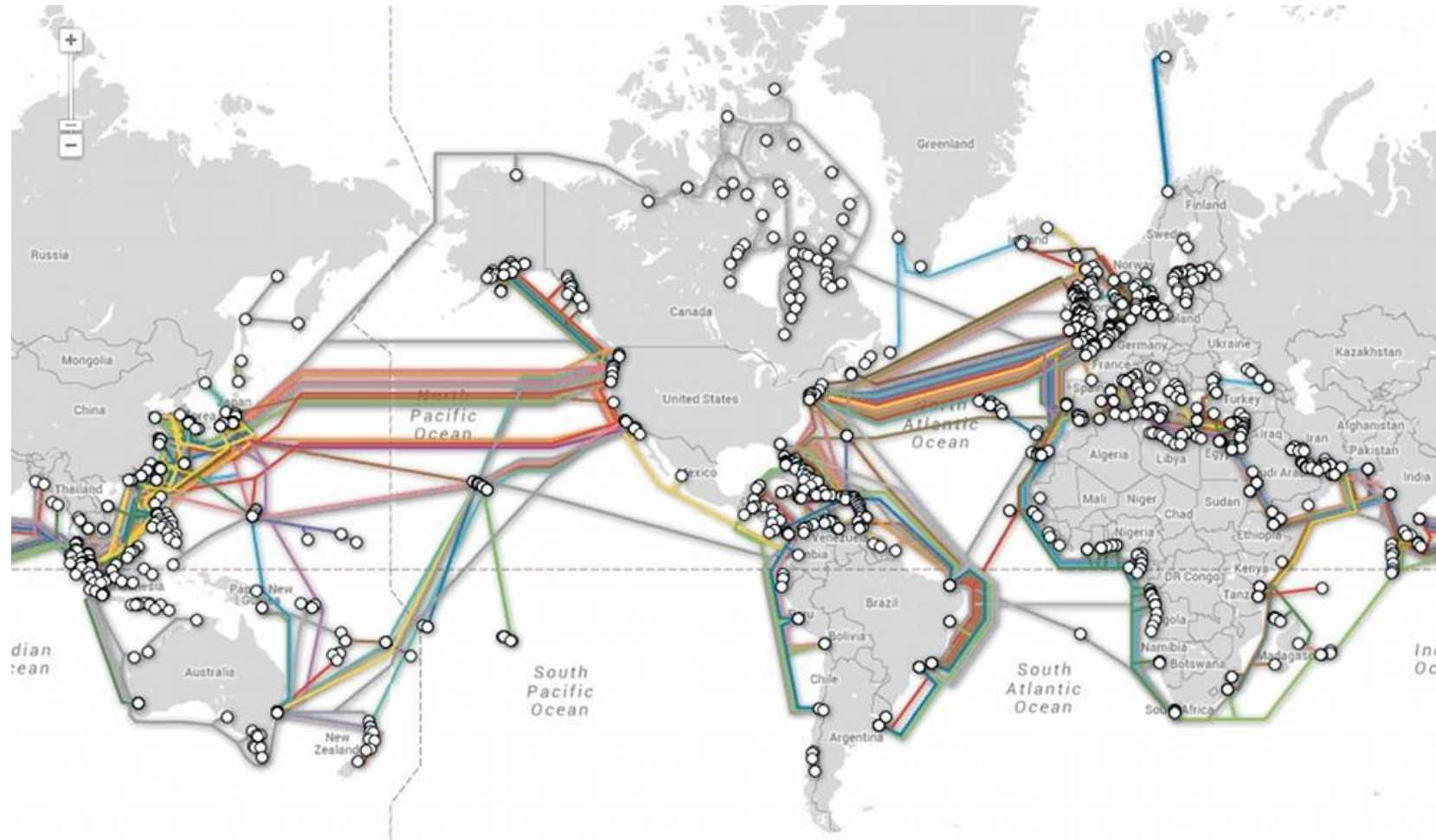
3. Engage: with the emerging global B2B market place



guys like these WANT TO go global



Submarine CABLE NETWORK now links the world's towns & cities



B2B trade: will be boosted by Road and Belt Initiative?

Western Asia

Armenia
Azerbaijan
Bahrain
Cyprus
Georgia
Iraq
Israel
Jordan
Kuwait
Lebanon
Oman
Qatar
Saudi Arabia
State of Palestine
Syrian Arab Republic
Turkey
United Arab Emirates
Yemen

Central Asia

Kazakhstan
Kyrgyzstan
Tajikistan
Turkmenistan
Uzbekistan

Southern Asia

Afghanistan
Bangladesh
Bhutan
India
Iran
Maldives
Nepal
Pakistan
Sri Lanka

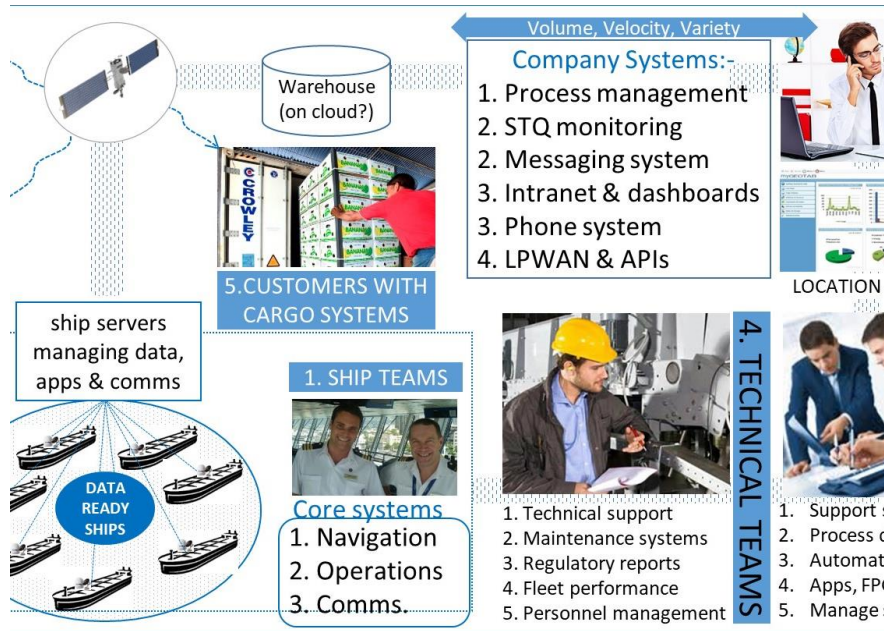
Eastern Asia

China
China, Hong Kong
China, Macao SAR
N Korea
Japan
Mongolia
Republic of Korea
Other non-specified areas

S. E. Asia

Brunei
Cambodia
Indonesia
Lao People's
Democratic
Republic
Malaysia
Myanmar
Philippines
Singapore
Thailand
Timor-Leste
Vietnam



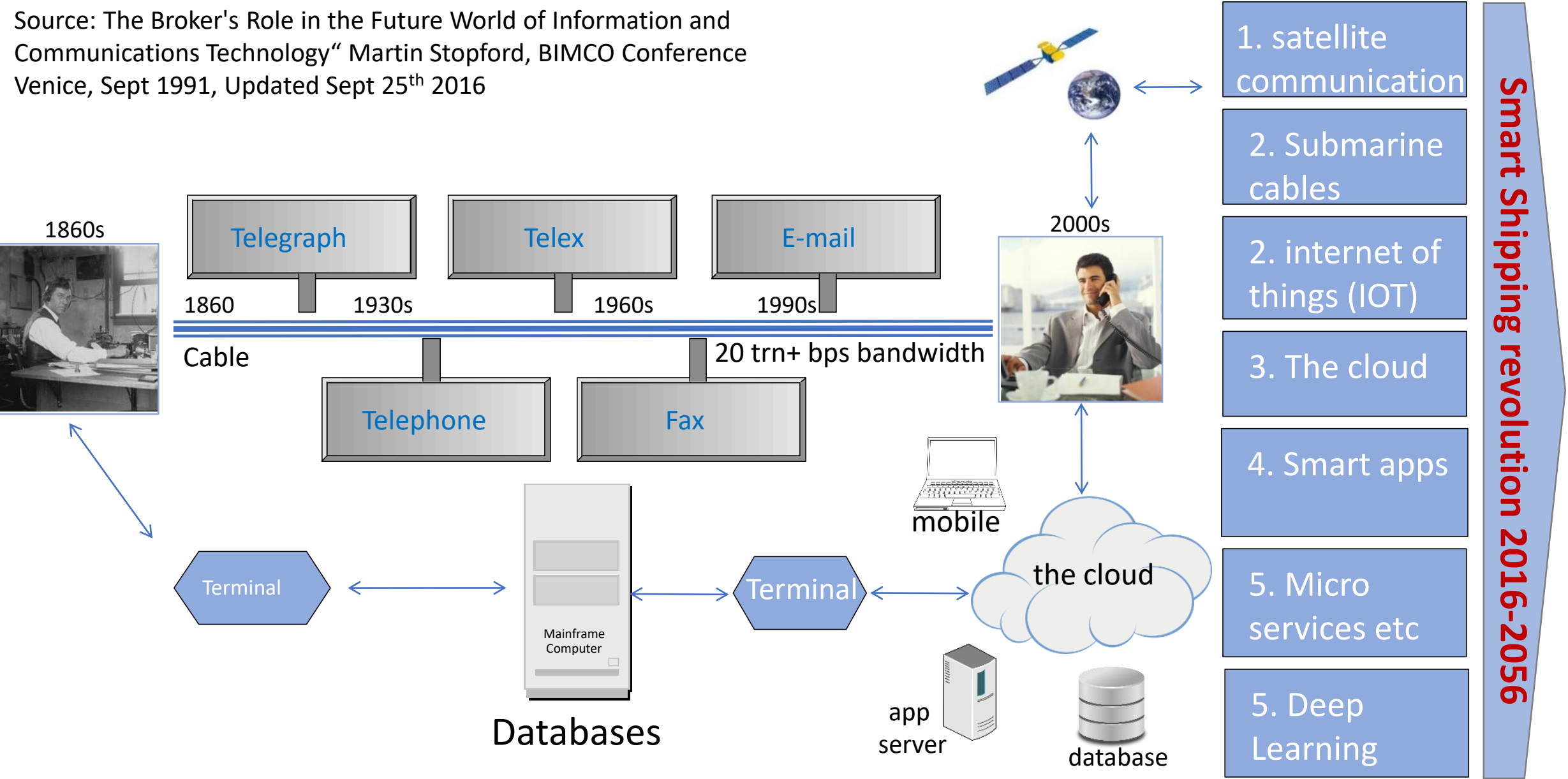


4. Evolve: smart shipping management systems



Maritime information & communications take a BIG step forward

Source: “The Broker's Role in the Future World of Information and Communications Technology” Martin Stopford, BIMCO Conference Venice, Sept 1991, Updated Sept 25th 2016

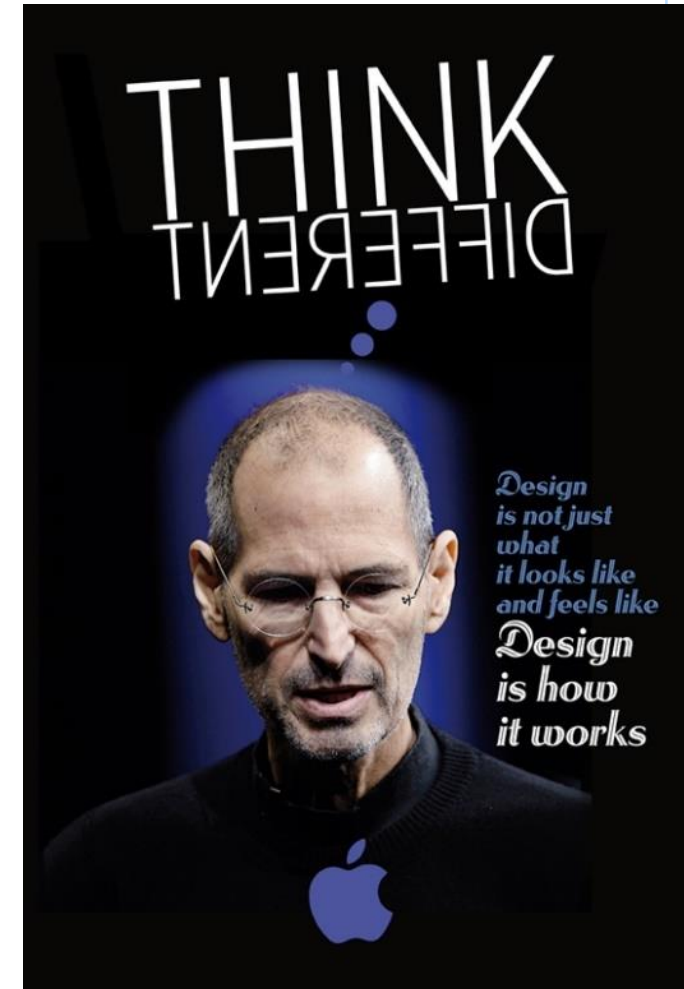


2: Smart Fleet – use technology to run a sea transport factory



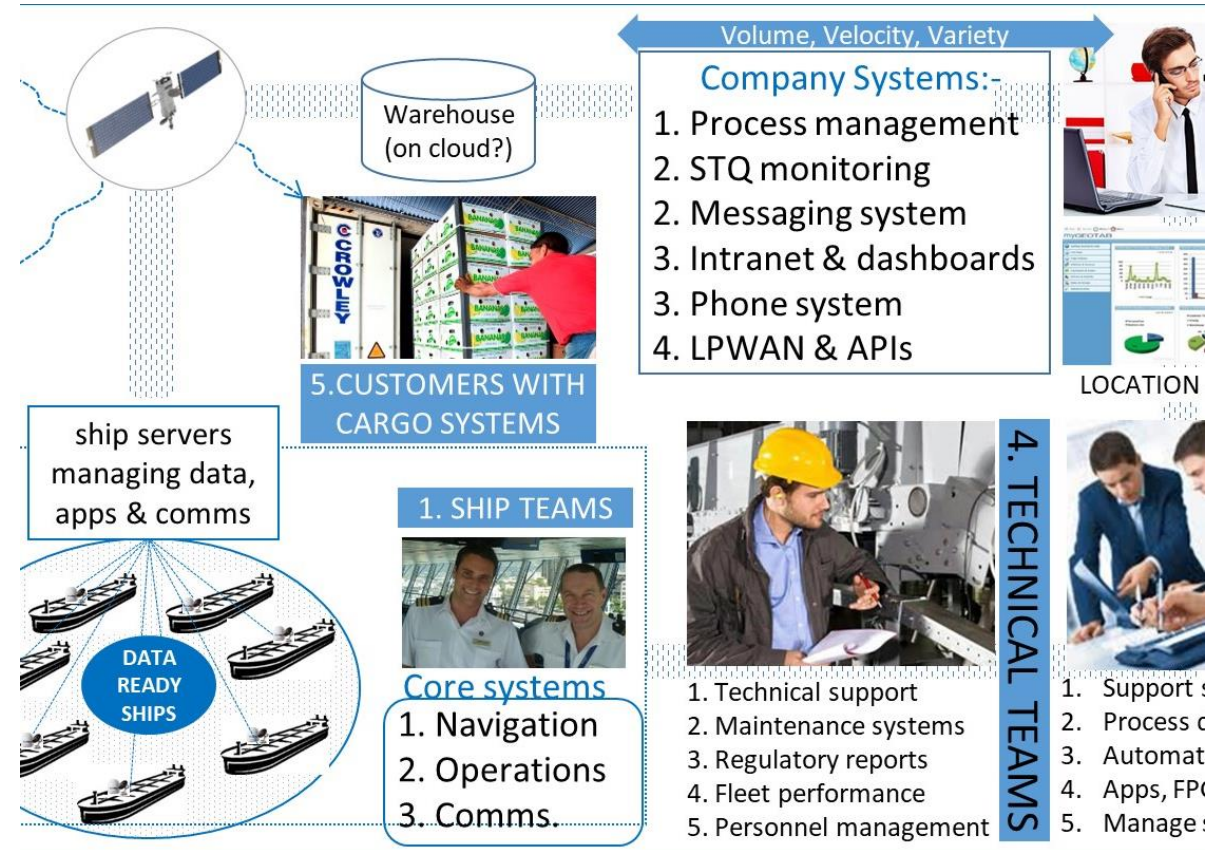
Conclusions for the coming decades

- Slower growth as trade patterns change
- Changing world economy with Non OECD growth focus
- More focus on general cargo, and specialised logistic related transport, especially in short sea trades
- Shipyards must re-think total ship design and production
- Shipping companies managed as “transport factories”
- “Click and collect” B2B services become focus of global transport
- The future, like the past, is about people working together to improve things



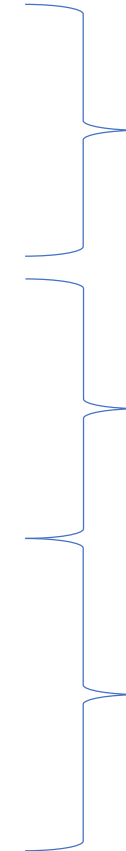
This REVOLUTION is needed to respond to FOUR challenges: -

1. Integrated B2B transport systems.
2. A zero Carbon response to climate change.
3. A new human relations and personnel regime.
4. The need to transport two or three times more (and different?) cargo.



The long range vision is:

1. Seamless “click & collect” cargo transport between all parts of the world
2. Fast, accessible, reliable, flexible services with seamless tracking information.
3. Personnel teams operating across the fleet as an “integrated transport service”
4. Operational efficiency supported by deep learning systems & robotics
5. Economies of scale: as companies develop competitive advantage from systems
6. Unmanned & semi-manned ships: used in suitable trades



The future is not about ships, it's
about improving global transport

The End