CAPITAL LINK FORUM

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Global Shipping Markets
Current Developments & Outlook

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The view in the deep ocean

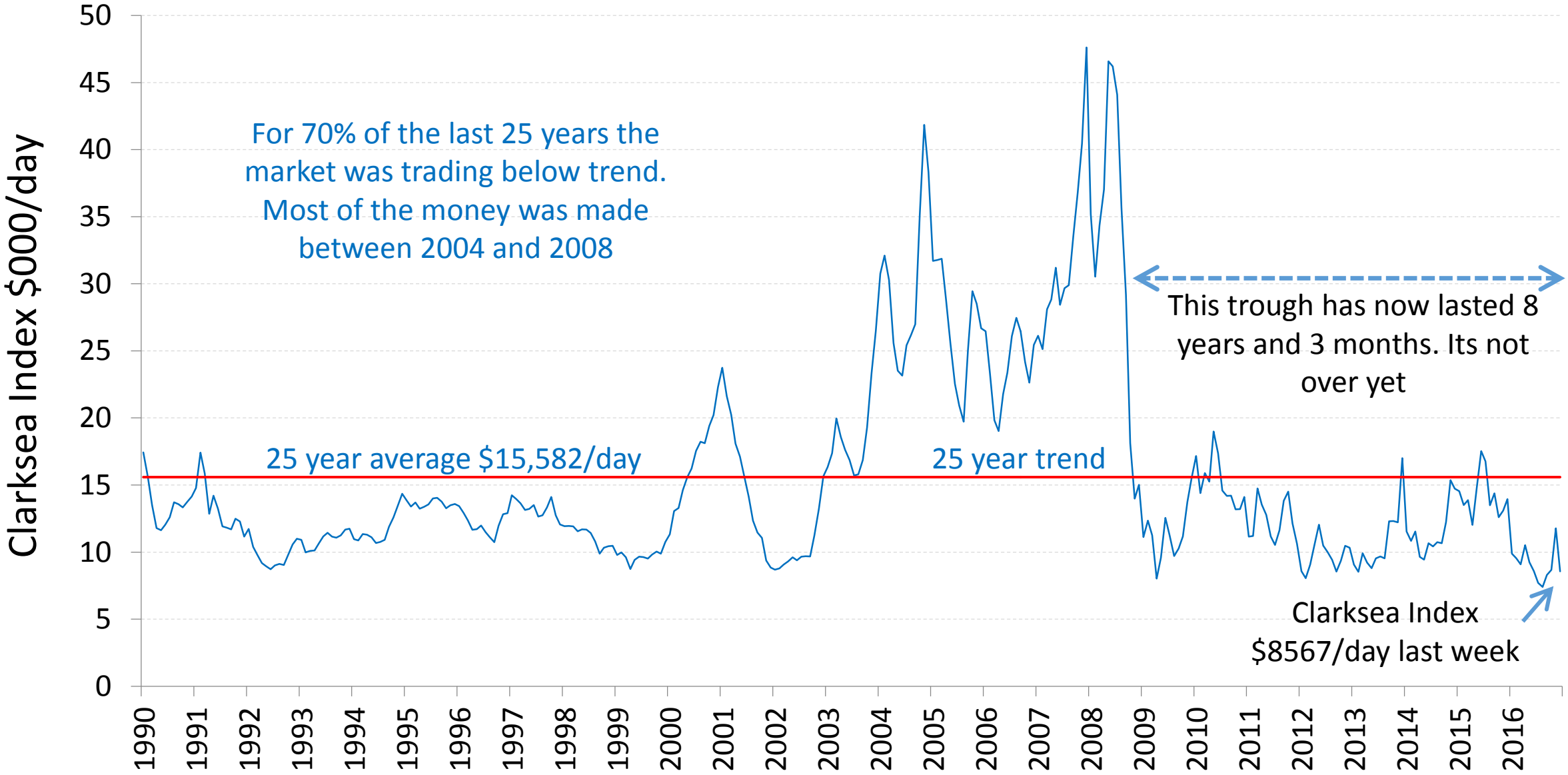
SHIPPING MARKET TODAY, MANY NEW CHALLENGES

1. Shipping cycles getting longer
2. Sea trade growth changing
3. Shipyard capacity management
4. The zero emissions agenda
5. Digital revolution is accelerating.

1. Shipping cycles getting longer

In today's simplistic business model, cycles are the drivers of change

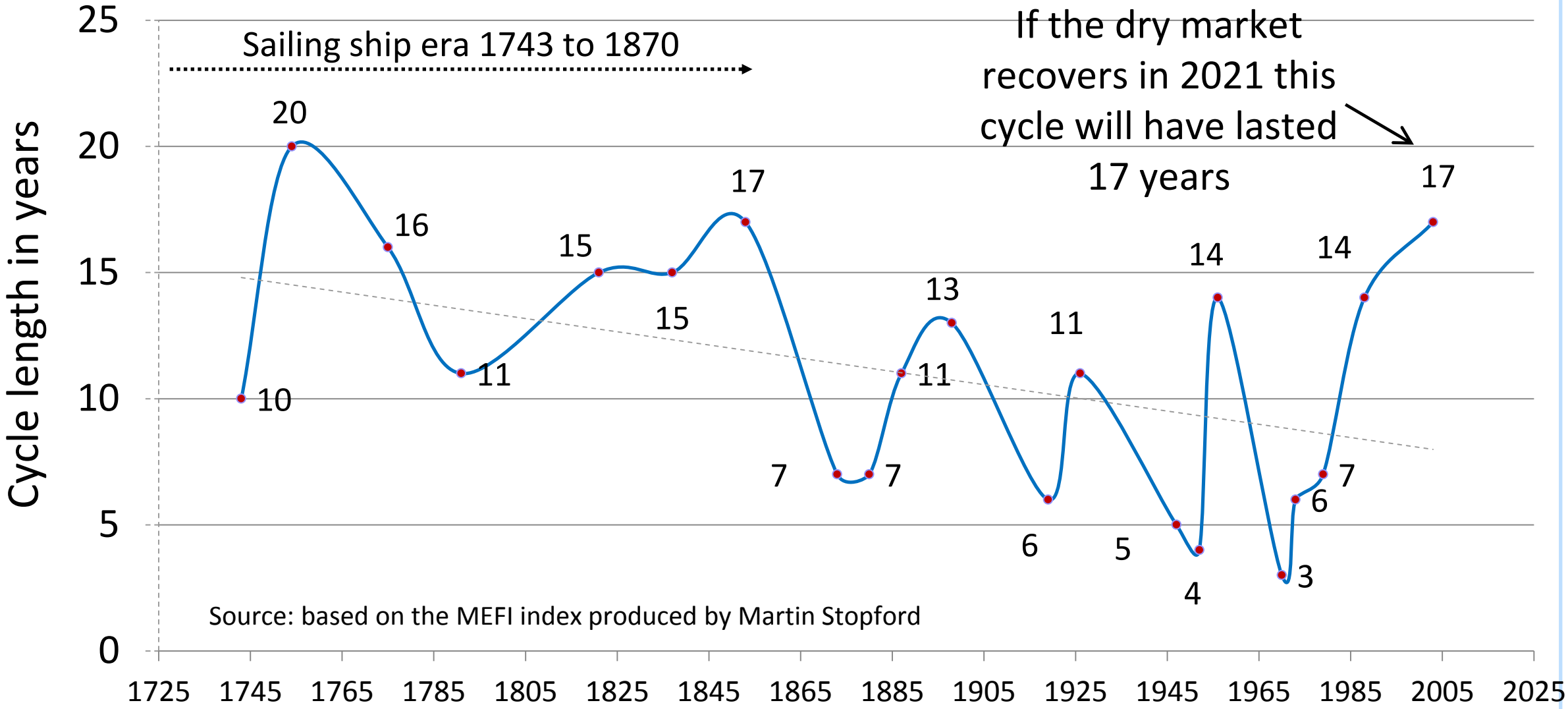
The Shipping Market Cycle Today - 25% below 25 year trend



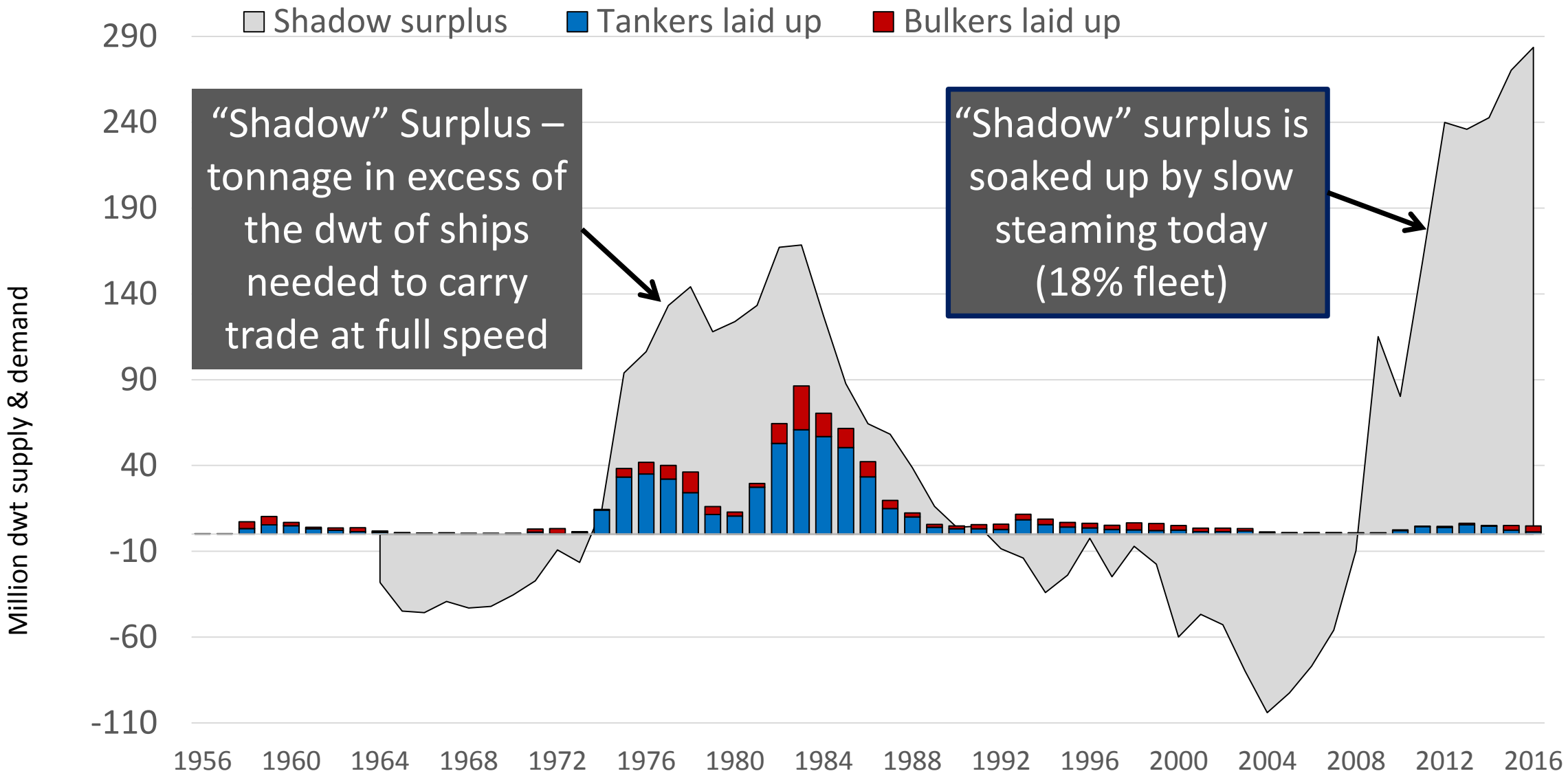
The Clarksea index shows the average earnings of tankers, bulkers, containerships & gas

Looks like the longest dry cargo cycle since 1845!

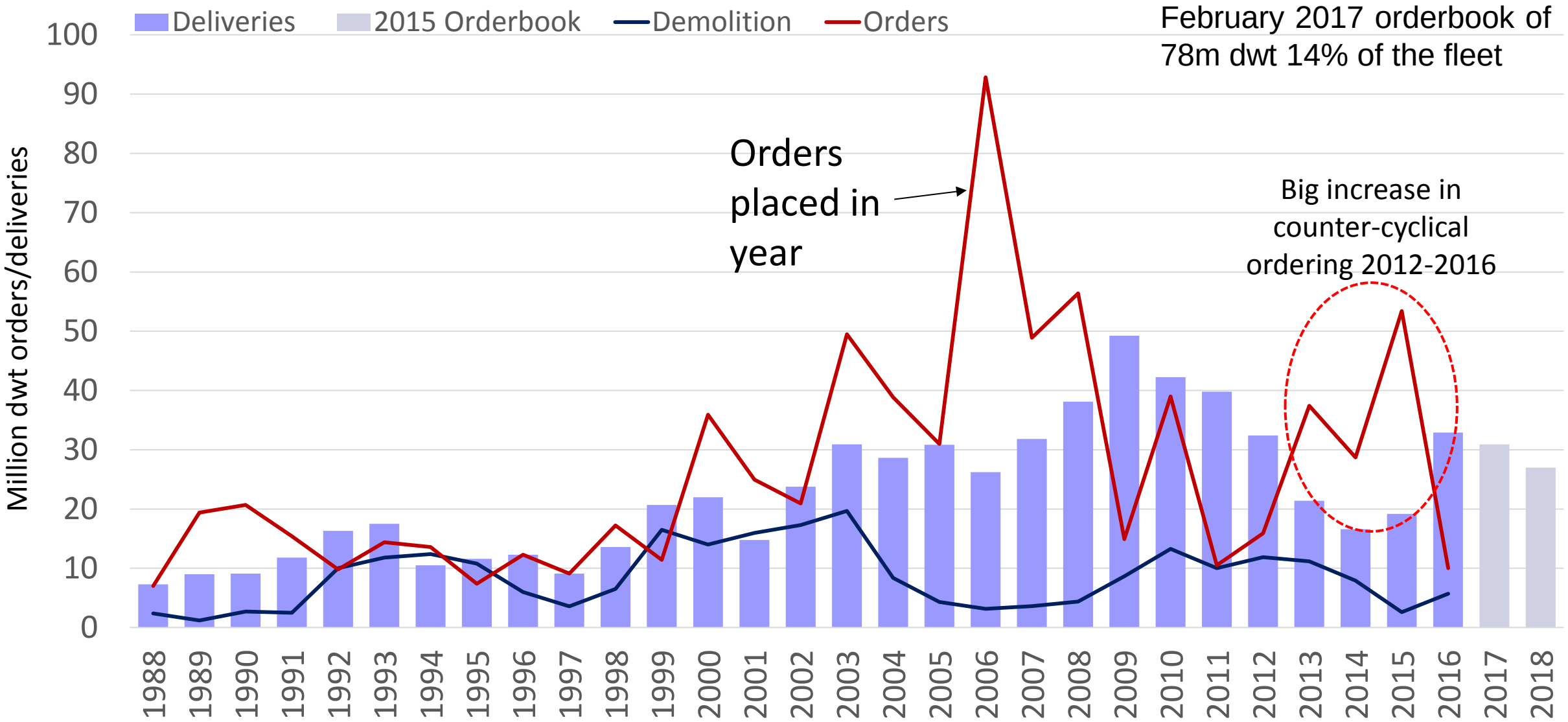
Shows FIRST year of each cycle & length from beginning of peak to beginning of next peak



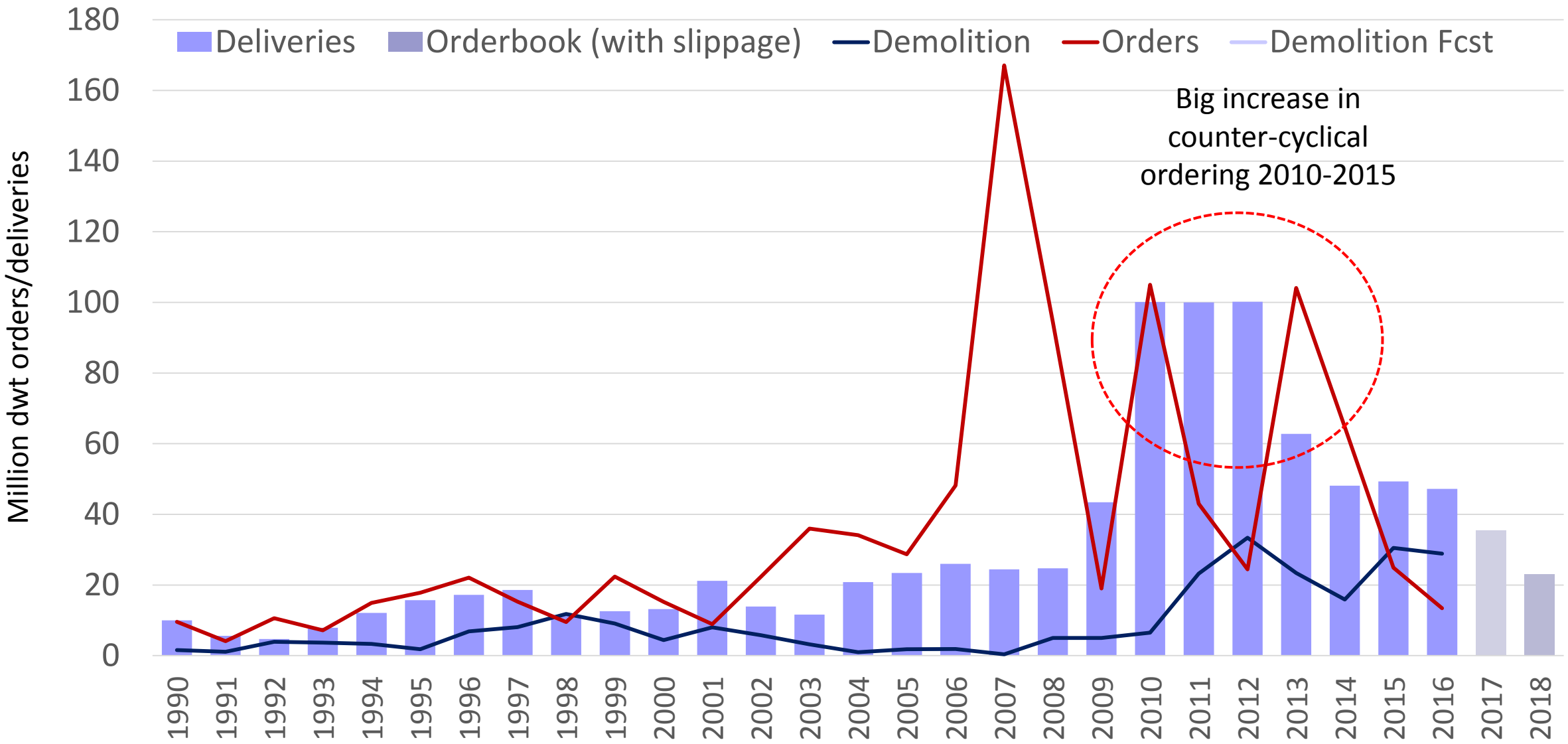
“Shadow” Surplus & Laid Up Tonnage estimate end 2016



Tanker Orders, Deliveries & Demolition



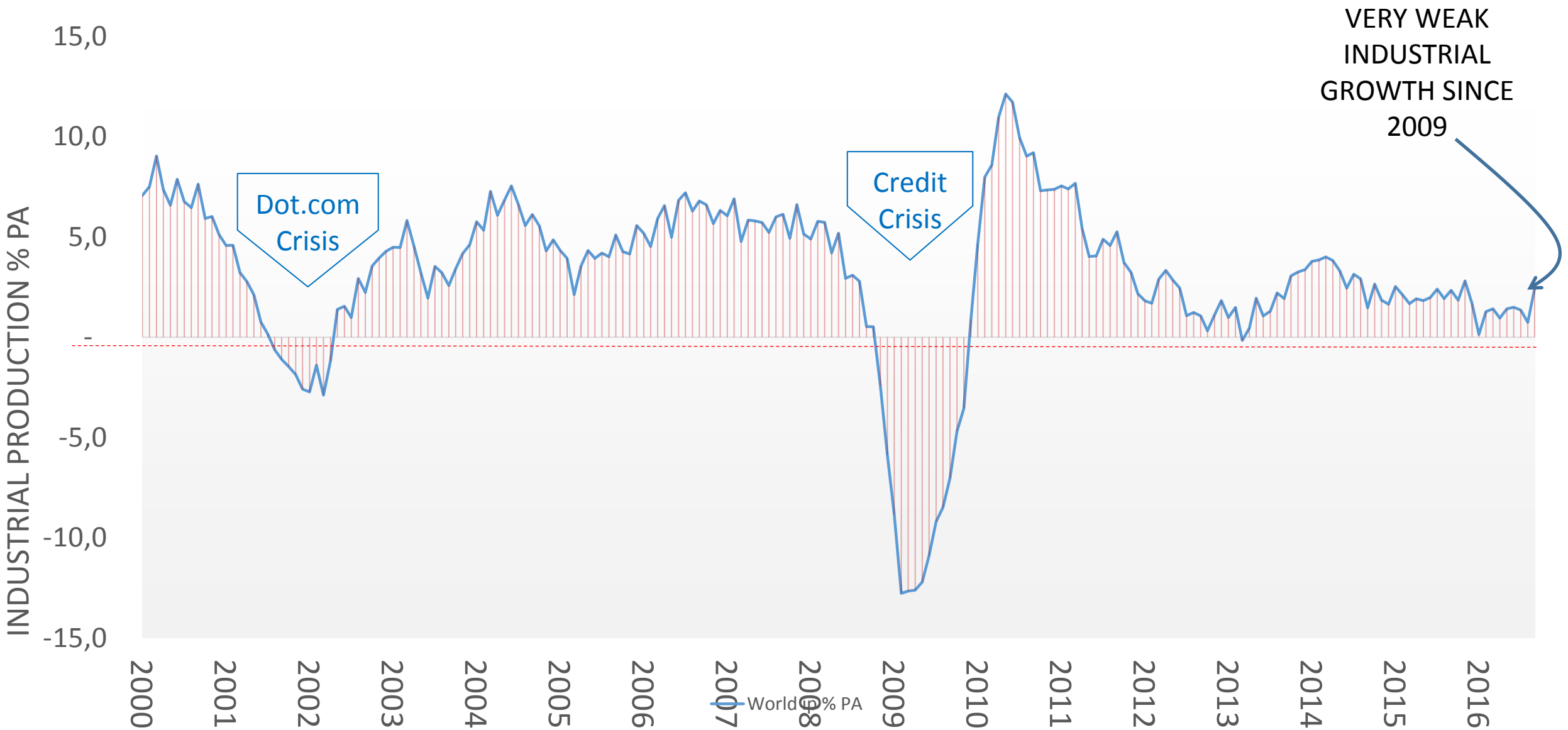
Dry Bulk orders, deliveries & demolition



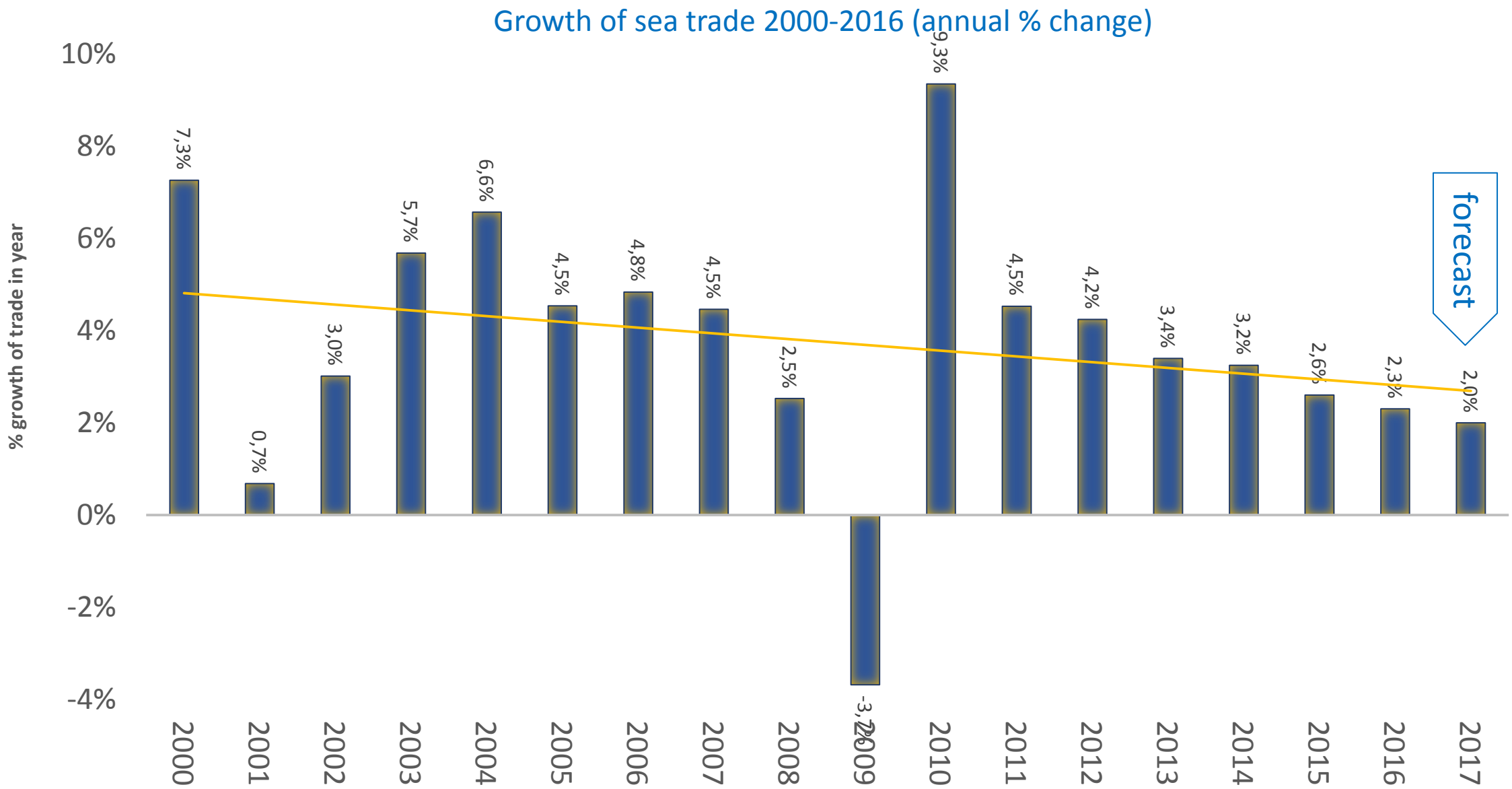
The trend growth rate of trade on a slowing trend

2. Sea trade growth changing

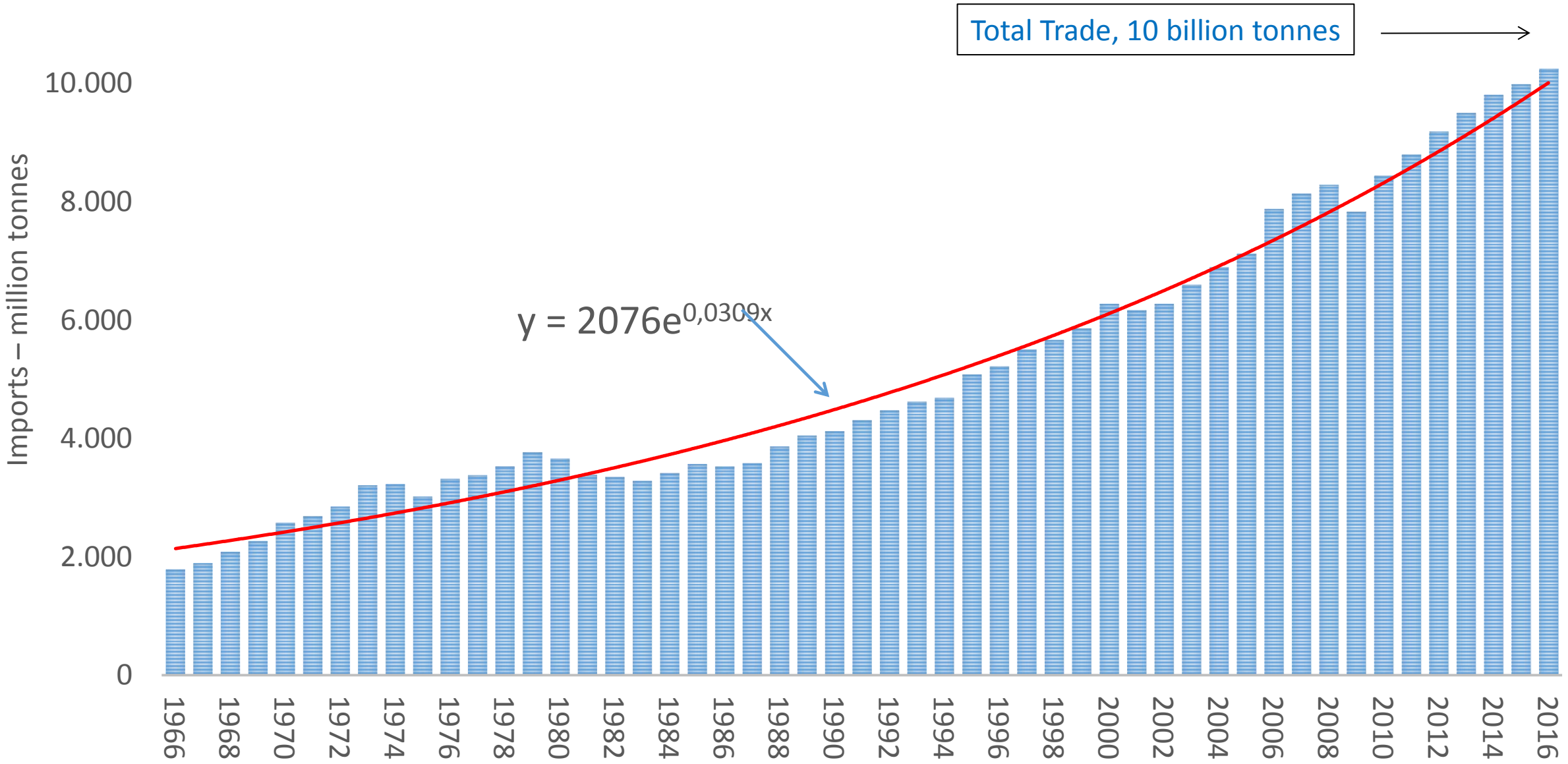
S6: World Industry growth rate to September 2016 – very sluggish



Sea trade growth edges down - about 2.0% growth likely in 2017



In 1966 sea import trade was 1.8 billion tonnes – 10.2 billion tonnes in 2016



Source: data collected by martin stopford from various sources, mainly United Nations and UNCTAD

OECD share of imports half what it was 50 years ago

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

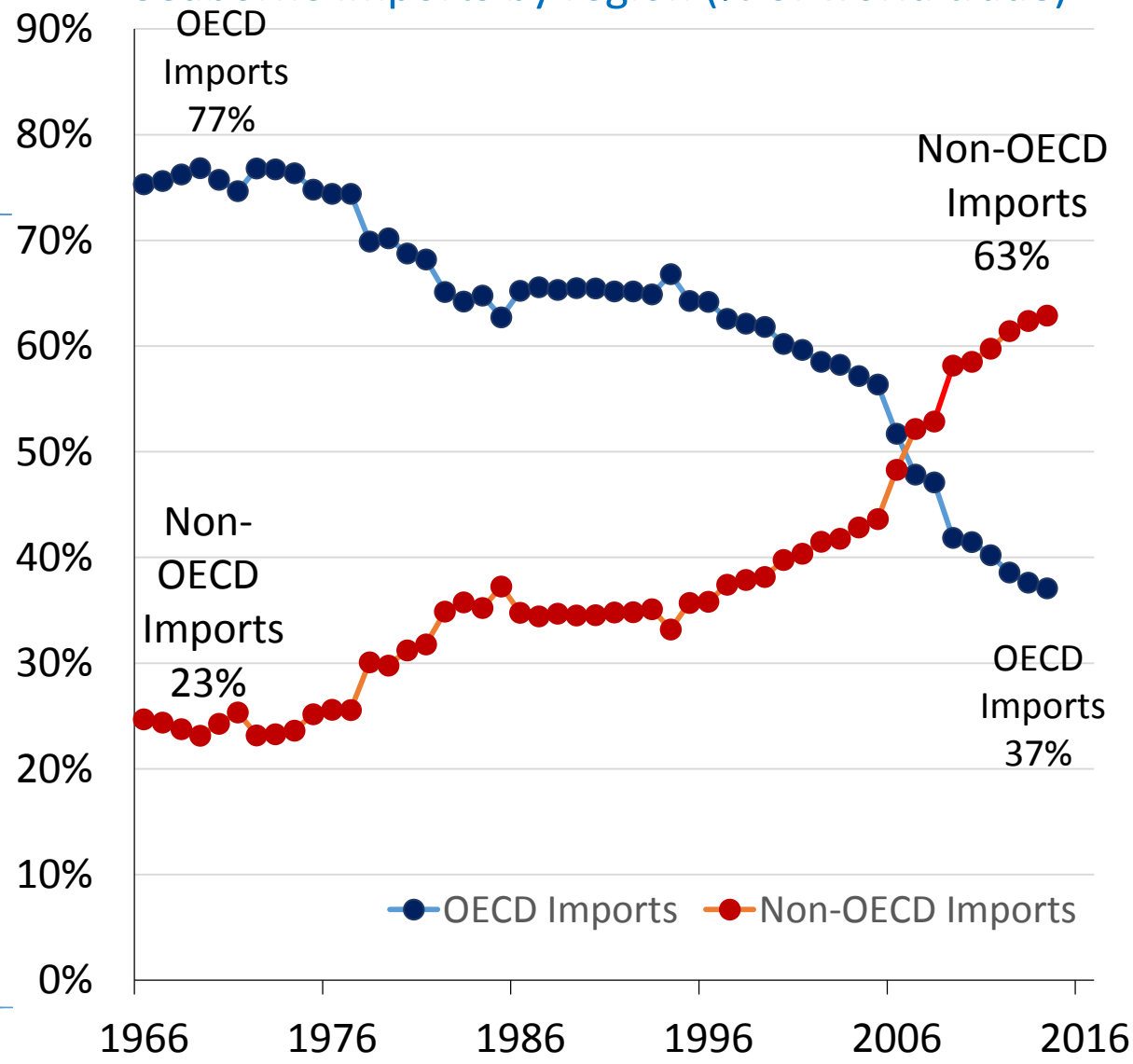
The bulkers & liners struggle with mature technology

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

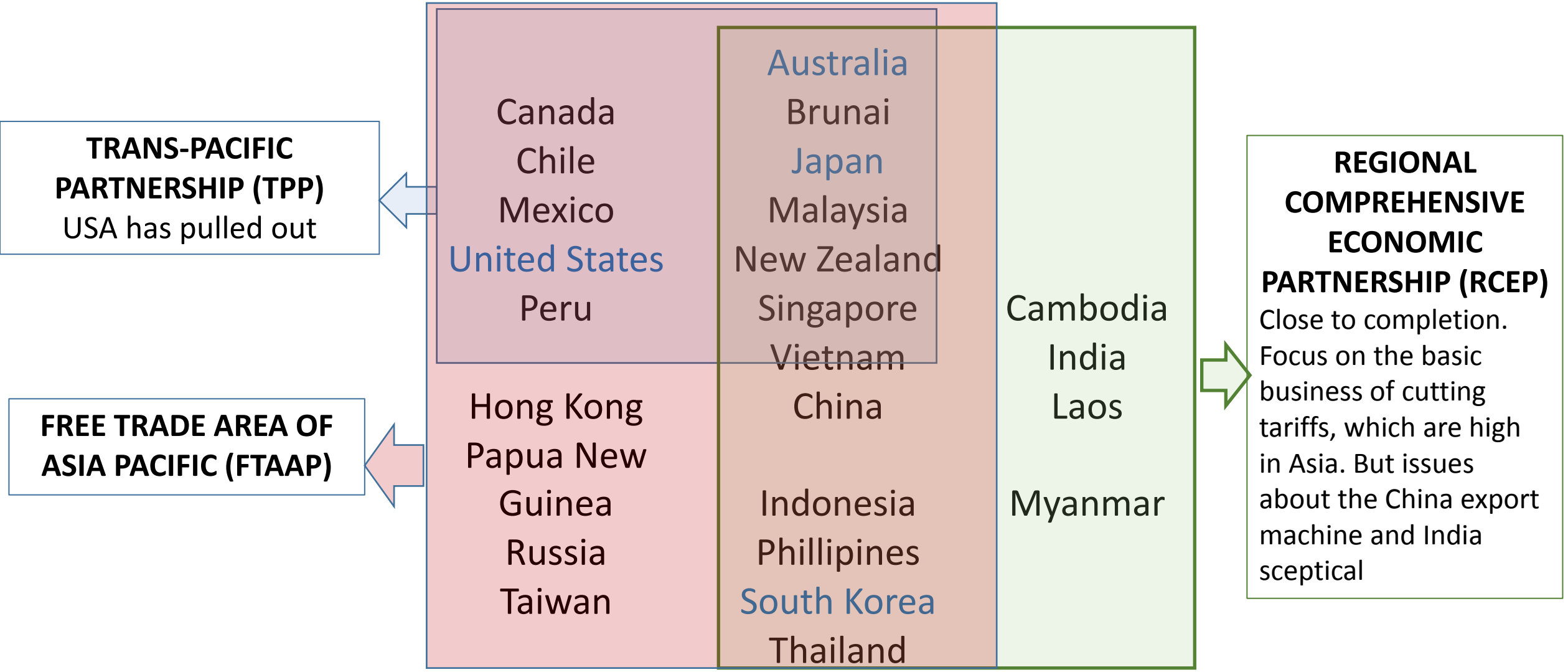
The future – another revolution desperately needed

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

Seaborne imports by region (% of world trade)

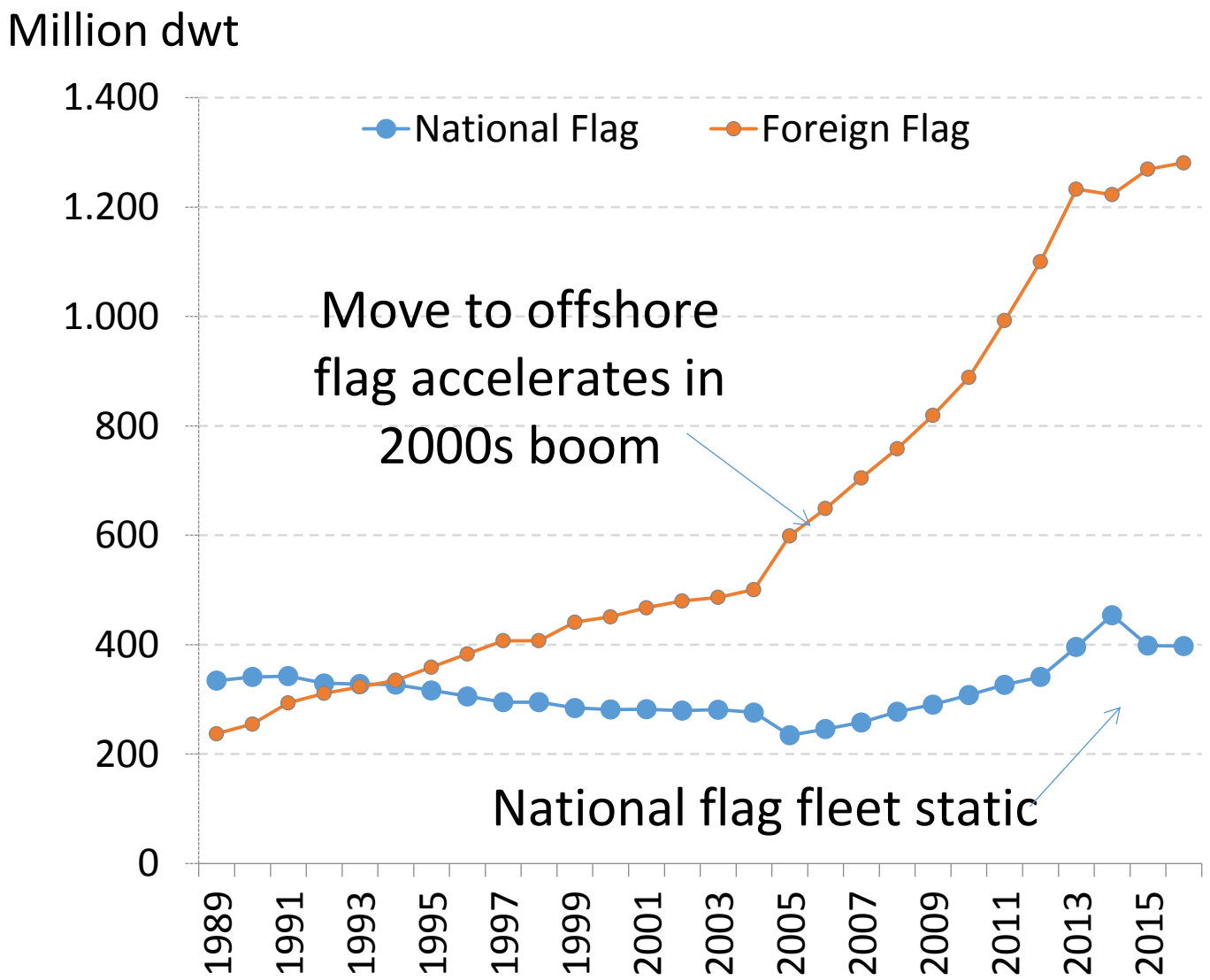


The Pacific Trade Issue



In 1966 only 13% of the fleet was flagged out. Today it is over 70%

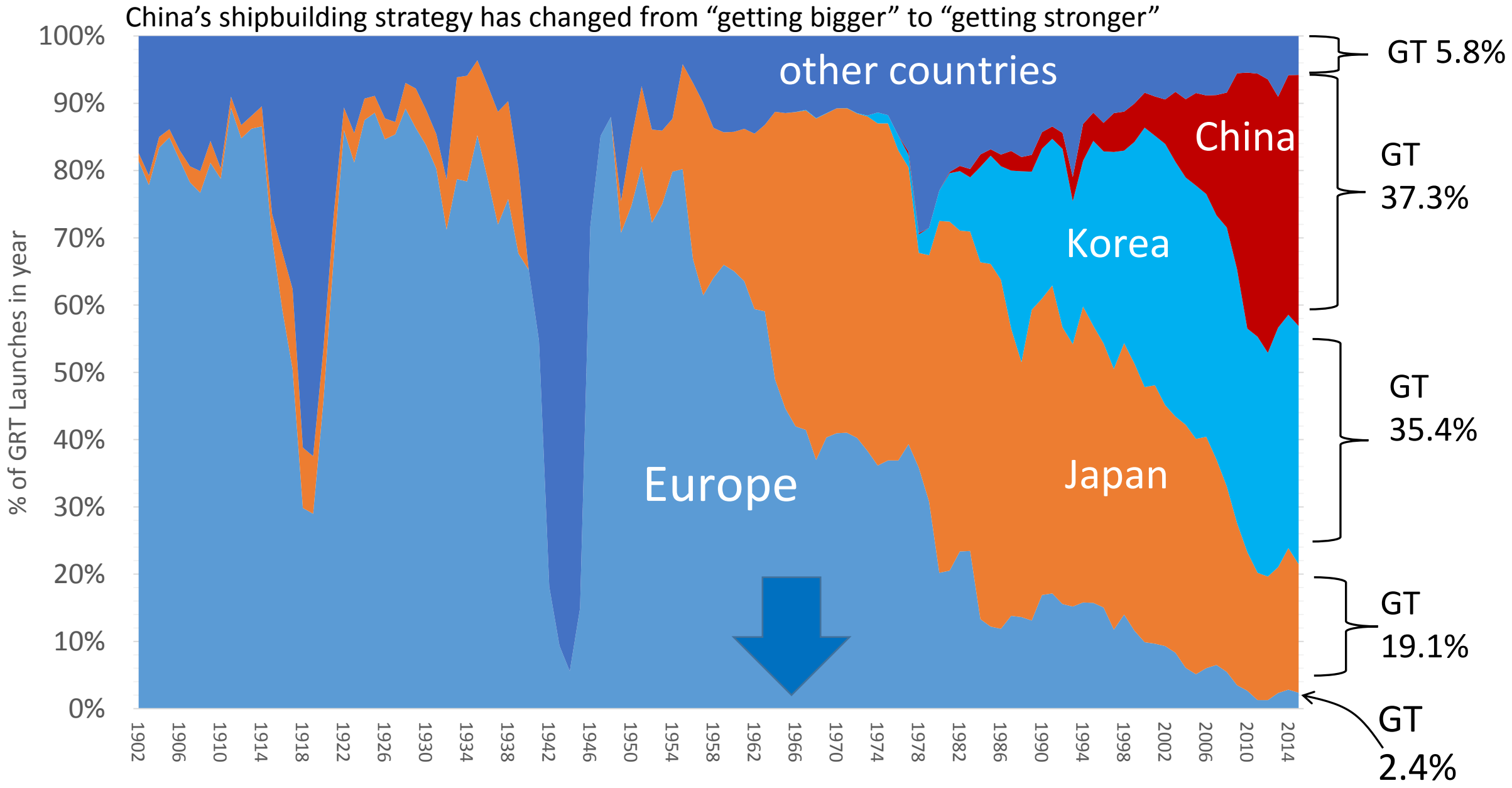
- 1.3 billion DWT of “flagged out” tonnage
- Over 70% of the merchant fleet is now registered offshore
- Up from 42% at the end of the 1980s (see chart)
- Shipping now a global business



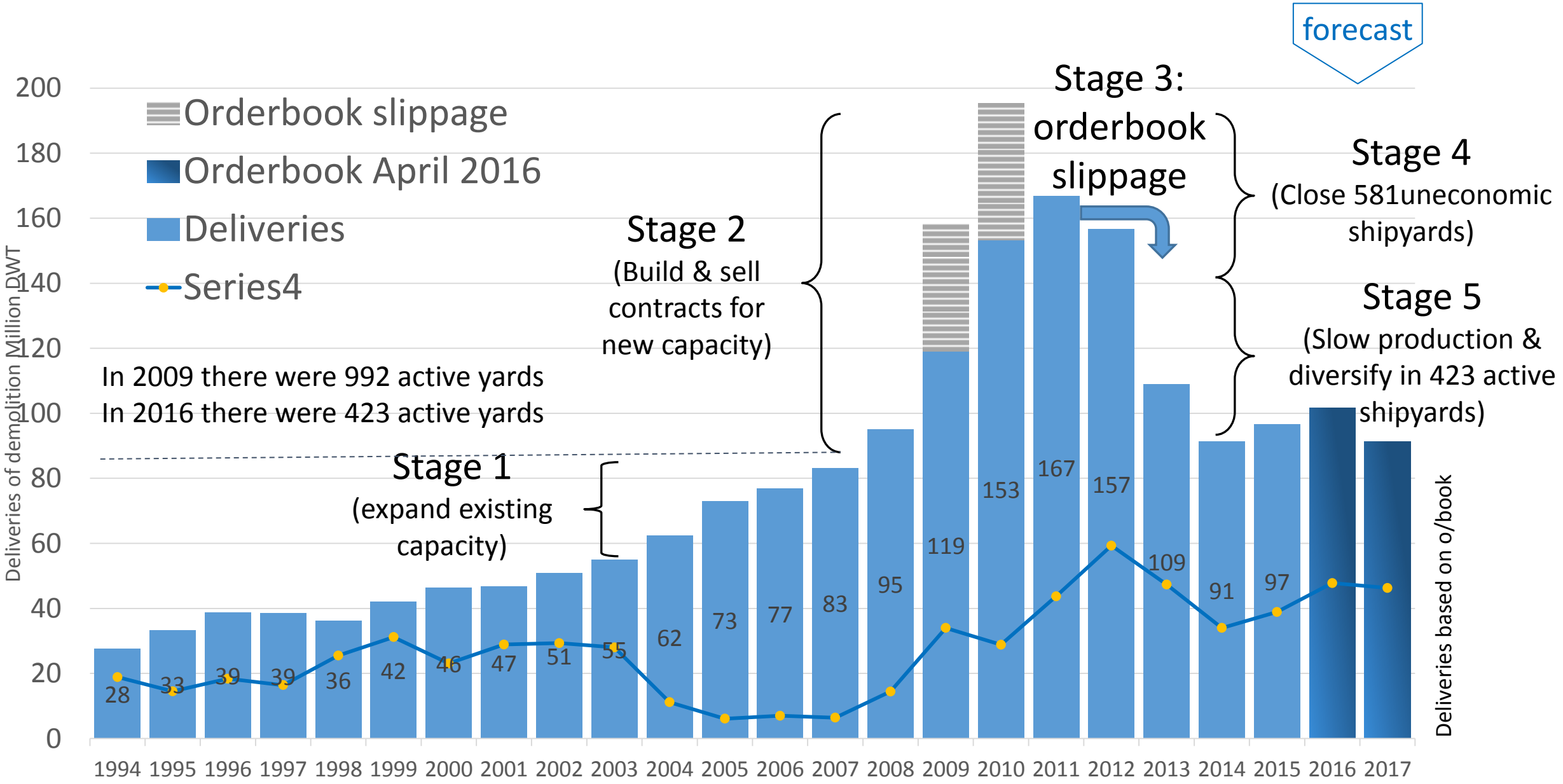
3. Shipyard Capacity management

We need a better strategy for managing the supply of ships, but are not likely to get one

Regional Shipbuilding Trends 1902-2015: different dynamics today



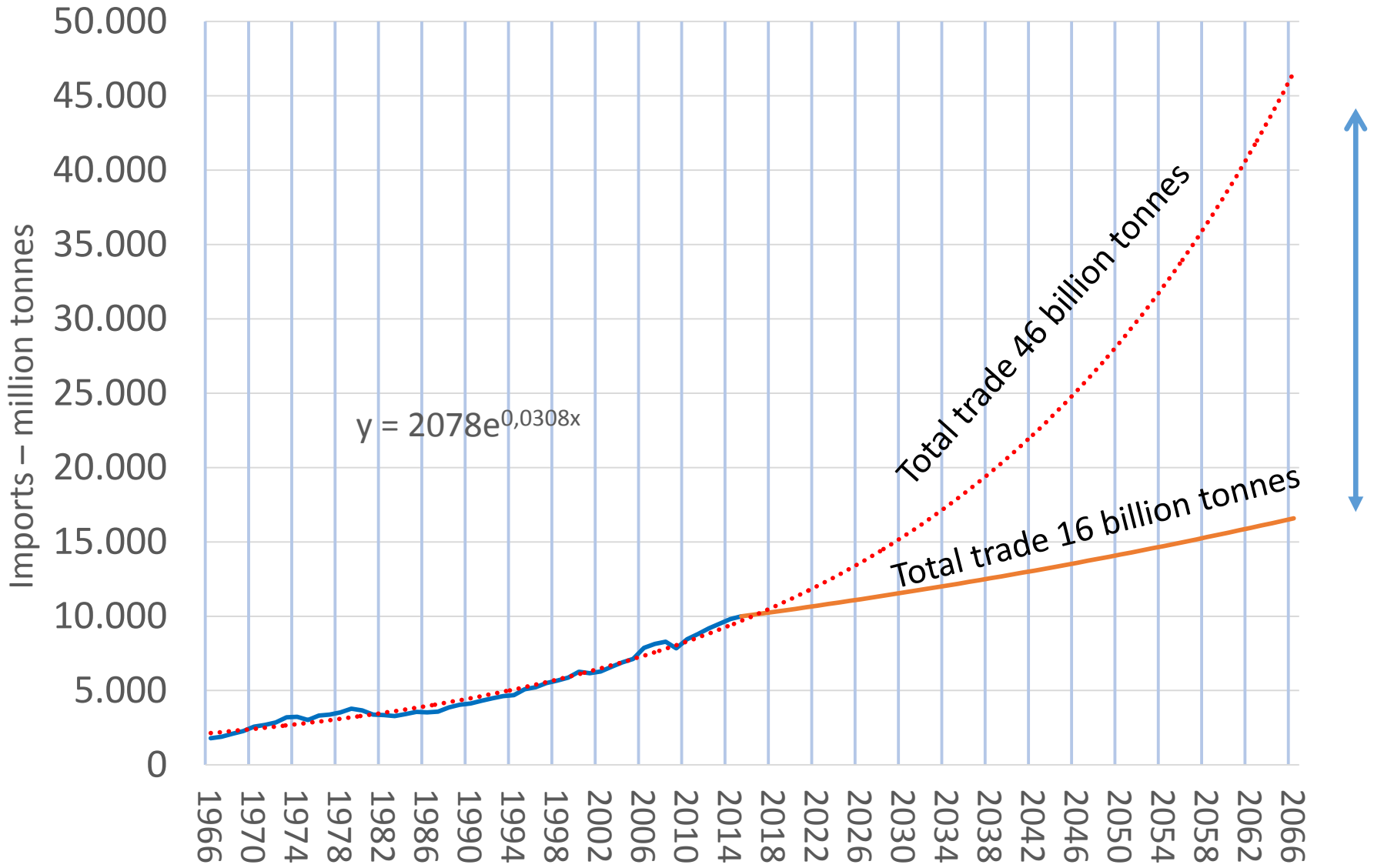
World shipbuilding output & capacity 1994- 2017



Yamaha have a zero emission bike, but a zero emission cargo ship will need extreme technology

4. The Zero Emissions Challenge

In 2066 seaborne trade could be 46 billion tonnes – or just 16 billion tonnes?



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Low Carbon Shipping –some issues (not all mine!)

1. Shipping has recently decoupled from GNP due to slow steaming
2. No alternative to the big diesel engine at present.
3. Operating ships very slowly would help significantly but who wants it?
4. LNG will not do the trick for shipping on a COP21 pathway, since it is a carbon-based fuel.
5. Low carbon is more political than economic and regulators bodies will move very slowly.
6. The risk is that "by leaving it until 2050 we fail to achieve anything”.
7. IMO has data collection process for MRV. and EU developing separate data system.
8. So we will know more accurately what the true carbon position is.
9. Given current commercial structure, how will owners respond to the carbon challenge?
10. A levy on fuel seems likely outcome say in in 7-10 years.
11. Needs to be simple and global. Who gets the cash? Can it fund research?

Are we smart enough to use the information & communications technology (ICT) revolution to revolutionize sea transport?

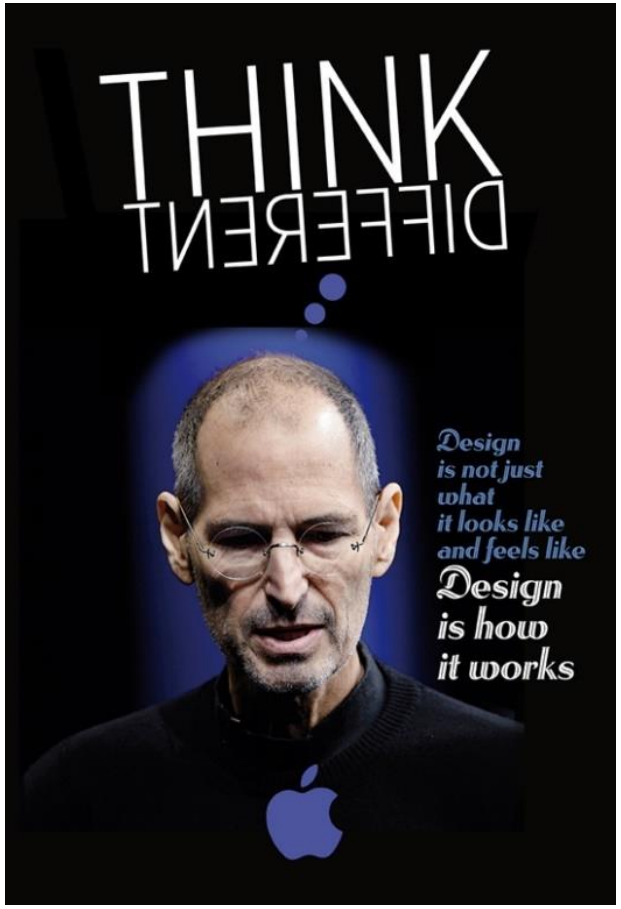
5. How to harness digital technology

Why Smart Shipping is a better investment

1. **Smart Shipping** tackles a historic problem – the global mobility of ships and limited ship-shore communications.

2. For centuries shipping has been restricted by this "fragmented" business model which makes each ship a small management unit.

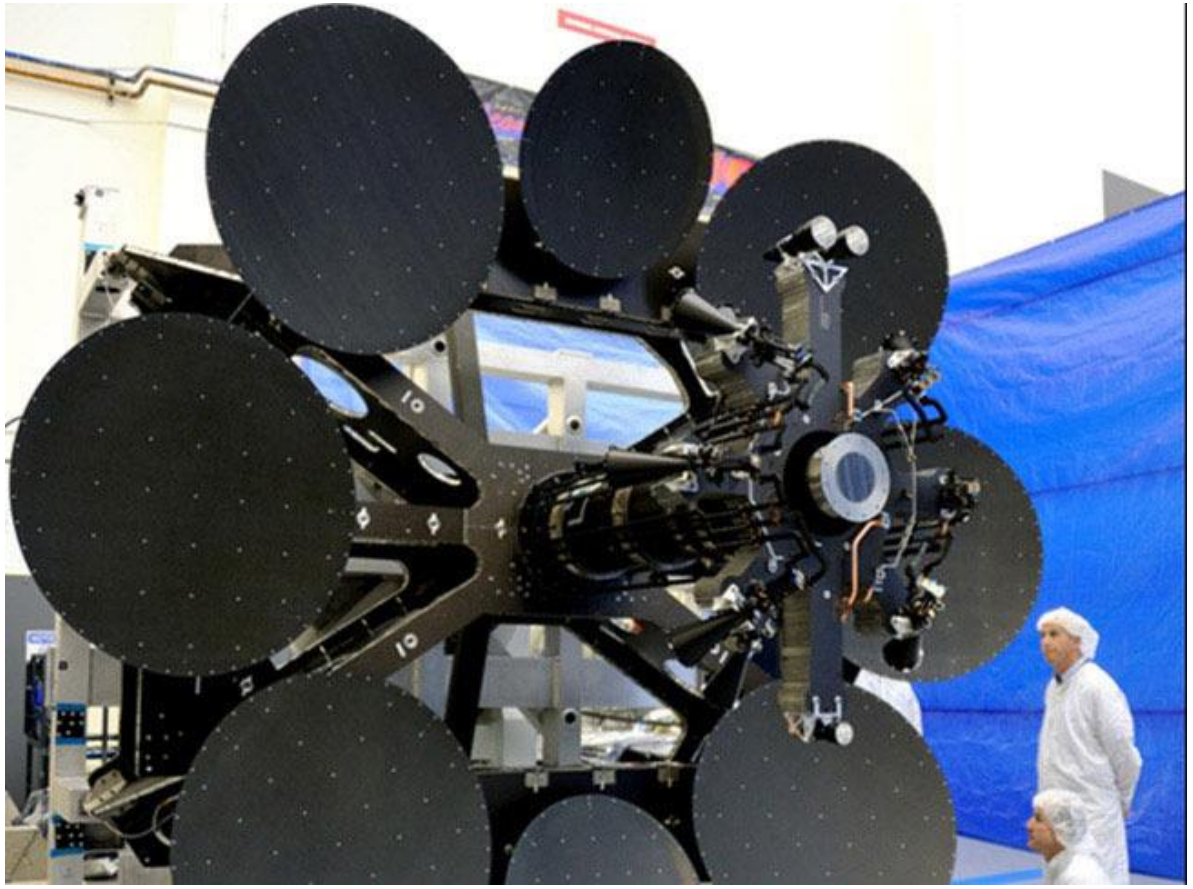
3. Because companies only employ 1 or 2 people on shore for each ship at sea, big shipping companies have limited competitive advantage over small ones.



- **Smart shipping can change this because now have the technology to run a fleet of ships as a "transport factory" (like a BMW car factory).**

Three ways change the business Model

1. **Smart Ships** – with much better QA & efficiency standards;
2. **Smart Fleets** – which manage the smart ships like a transport factory (e.g. a BMW factory).
3. **Smart Global Logistics** – which integrate the whole thing door to door



Massively more efficient satellite communications are removing the 5000 year old need to treat the ship as the business unit

6. Is the business model serviceable?

A challenging time

The End