

# Measuring shipping connectivity and performance

Perspective on the need for statistics and data

Christopher Pålsson Head of Consultancy & maritime-insight Lloyd's List Intelligence

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### Commercial

#### **Vessel characteristics and activities**



4-Tier vessel tracking: Human intel (Lloyd's Agency Network + Land & Satellite AIS

- Vessel Characteristics
- Ownership detail
- Casualty and repair
- Port state control inspections and arrests
- Order book and demolitions
- Port details
- Company reports
- Charter Fixture Information

Vessel
Owner
Location
Event

Date

LLIS sel Databas

#### Systematic intelligence for gathering of data



#### 4-Tier vessel tracking: Human intel (Lloyd's Agency Network + Land & Satellite AIS

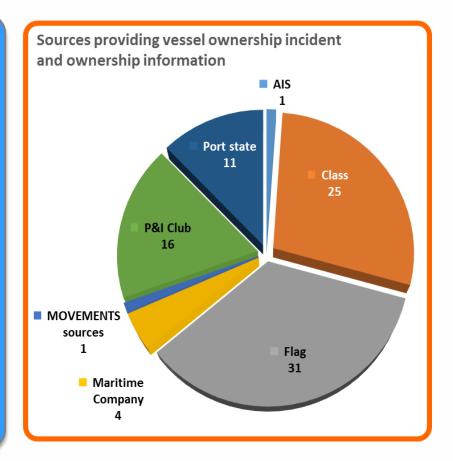
- Extensive land-based AIS network

  We run the world's largest AIS network recievin 100 million position reports per day from 72,000 live vessels and 6,900 ports and terminals in 206 countries.
- 2 Satellite AIS for ocean coverage
  Our satellite AIS reports an additional 1 million positions from vessels around the world that are out of range from land-based AIS
- Human observations Lloyd's Agency Network

  Even if vessels switch off their AIS we still track and report on them. Over 40% of total movements recorded or verified by Lloyd's List intelligence originate from our unique agency network relationship.
- 4 Analytical assessment unique insight
  Our analysts add further detail by combining movements and trade information to provide a unique insight into the commercial deployment of vessels.

Vessel Owner Location Event Date

> LLI S Vessel Database



Risk	Score	%
Vessel type is fully cellular containership (UCC)	52.5	69%
No recent gaps in voyage history	0	0%
Has not moved outside its normal operating area	0	0%
Inactive Indicator Not Applicable	0	0%
Flag is Danish International Register (DIS)	7.5	10%
Vessel has not had a recent flag change	0	0%
Vessel has not had a recent name change	0	0%
No recent change of owner	0	0%
Owners country of location is Denmark(DNK)	6	8%
Owners nationality is Denmark (DNK)	6	8%
No recent change of manager	0	0%
Managers country of location is Denmark(DNK)	6	8%
Managers nationality is Denmark (DNK)	6	8%
Class Society is American Bureau (AB)	7	9%
Casualty History for Owner	76.5	100%
Casualty History for Manager	8.5	11%
Detention History for Owner	52.5	69%
Detention History For Manager	7.5	10%
Owner flag change history	16	21%
Manager flag change history	16	21%
Vessel Age: 11 Years	9	12%
Vessel Gross Weight is 171542	22.5	29%
Vessel Speed is 25 knots	2.5	<b>3</b> %
Vessel has not had a recent class change	0	0%
Build Material is Steel	12	16%
Vessel Engine: 14RT-FLEX96C	5	7%



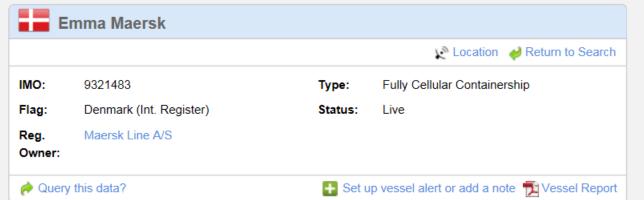
Overall Risk Score 364.5 Maximum Score 76.5 Average Risk 27% Maximum Possible Score 1314





Туре	Stay	Nearest Port	Distance	From	То	Destination	ETA
Stopped	10h21m	Jurong Port	2.4	14/05/17 08:23	14/05/17 18:44		
Approaching		Jurong Port	2.4	14/05/17 07:43	14/05/17 08:02	EGSUC > SGSIN	13/05/17
Distancing		Pulau Bukom	2.6	14/05/17 07:12	14/05/17 07:43	EGSUC > SGSIN	13/05/17
Approaching		Pulau Bukom	1	14/05/17 06:51	14/05/17 07:12	EGSUC > SGSIN	13/05/17
Distancing		Singapore LNG Terminal	2.7	14/05/17 06:40	14/05/17 06:51	EGSUC > SGSIN	13/05/17
Approaching		Singapore LNG Terminal	2.5	14/05/17 05:52	14/05/17 06:19	EGSUC > SGSIN	13/05/17
Distancing		Nipah Anch.	5.2	14/05/17 04:42	14/05/17 04:52	EGSUC > SGSIN	13/05/17
Approaching		Nipah Anch.	5.2	14/05/17 03:10	14/05/17 04:08	EGSUC > SGSIN	13/05/17
Distancing		Kukup	9	14/05/17 03:15	14/05/17 04:10		
Approaching		Kukup	7.3	14/05/17 02:57	14/05/17 03:15	EGSUC > SGSIN	13/05/17
Satellite		Batu Phat	21.4	13/05/17 23:57	13/05/17 23:57		
Distancing		Muar	17.2	13/05/17 19:13	13/05/17 20:33	EGSUC > SGSIN	13/05/17
Approaching		Muar	9.8	13/05/17 17:56	13/05/17 19:13	EGSUC > SGSIN	13/05/17
Distancing		Malacca	14.4	13/05/17 17:49	13/05/17 17:56		
Distancing		Sungai Udang	13.1	13/05/17 16:55	13/05/17 17:00		
Distancing		Sungai Linggi Anch.	12.3	13/05/17 16:03	13/05/17 16:42		
Approaching		Sungai Linggi Anch.	10.1	13/05/17 14:06	13/05/17 14:37	EGSUC > SGSIN	13/05/17
Distancing		Port Dickson	13.5	13/05/17 13:30	13/05/17 14:06	EGSUC > SGSIN	13/05/17
Approaching		Port Dickson	12.2	13/05/17 12:32	13/05/17 13:30	EGSUC > SGSIN	13/05/17
Approaching		Port Klang Anch.	8.1	13/05/17 08:42	13/05/17 09:39		
Satellite		Kuala Tanjung	37.2	12/05/17 23:19	13/05/17 00:35		
Satellite		Langsa Terminal	33.4	12/05/17 13:54	12/05/17 13:54		
Satellite		Lhoknga	127.5	11/05/17 13:37	11/05/17 13:37		
Satellite		Lhoknga	177	11/05/17 10:04	11/05/17 10:04		
Satellite		Lhoknga	265.1	11/05/17 00:34	11/05/17 03:50		
Satellite		Lhoknga	339.1	10/05/17 20:25	10/05/17 22:29		
Satellite		Lhoknga	419.4	10/05/17 10:40	10/05/17 16:42		
Satellite		Hambantota	261	09/05/17 20:28	10/05/17 03:21	EGSUC > SGSIN	13/05/17
Satellite		Hambantota	133.2	09/05/17 18:09	09/05/17 18:09	EGSUC > SGSIN	13/05/17





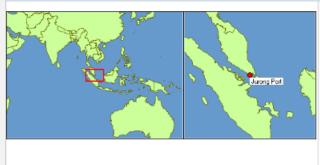
Vessel	
Overview	Ownership
Movements	Hull Risk
AIS Sightings	Vigilance
Fixtures	Sanctions
Incidents	News
Notes	Reports



#### **Vessel Movements**

Filter Movements

The vessel's latest position and movement history combining AIS and Lloyd's Agency Network data, with all movements back to 1997



Key

Advanced Sorting

- Last Position: Jurong Port, Singapore 14-May-
  - 2017 11:35:25 Location
- Position: 1° 16' 43.58" N -- 103° 45' 9.28" E
- Distance: 2.41nm
- Speed (SOG): 0 knots
- Course (COG): 315°

Layout

- Voyage origin: n/a
- Voyage Singapore Singapore,
- destination: Singapore

View Last AIS Report

Place Name	Country Name	Area Name	Arrival Date	Sailed Date	Details
Singapore	Singapore	Far East - Asean	14/05/17 07:54		
Bab el Mandeb Strait	Yemen	Red Sea	02/05/17 14:24	02/05/17 14:24	Passed South
Suez	<b>Egypt</b>	N Africa	28/04/17 14:35	28/04/17 14:35	Passed South
Marsaxlokk	Malta	S Europe	22/04/17 15:01	24/04/17 08:35	
Tangier-Mediterranee	Morocco	N Africa	19/04/17 16:11	20/04/17 03:08	
Felixstowe	₩ U.K.	UK/Eire	15/04/17 06:08	16/04/17 14:50	
Le Havre	France	N Cont Europe	13/04/17 00:09	14/04/17 12:52	
Southampton	U.K.	UK/Eire	11/04/17 16:00	12/04/17 13:23	



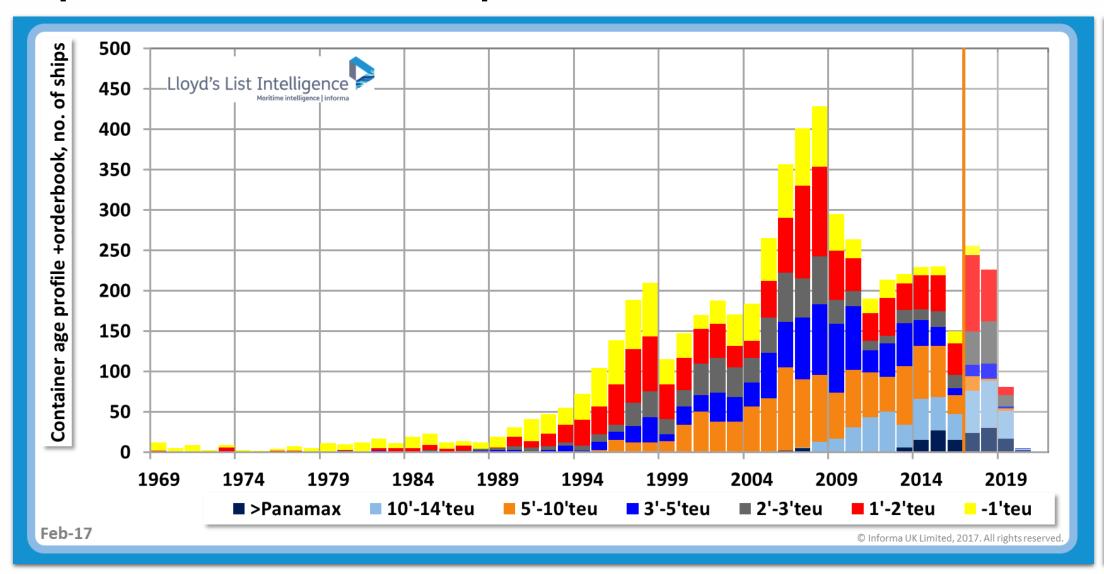
# Combining ship characteristics, vessel tracking & insight

Market analysis & forecasting

MRV

# Parts of the container fleet are getting old, replacements of small ships have started





-1999

1,222 ships
1.9 mteu

2000
4,041 ships
18.1 mteu

Orderbook

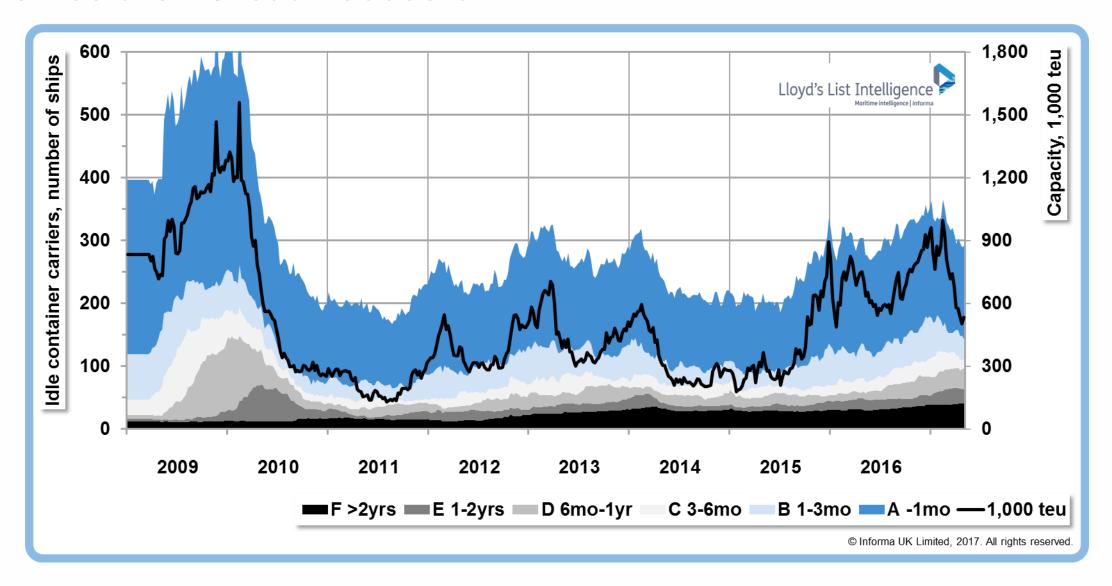
593 ships

4.3 mteu

21% of fleet

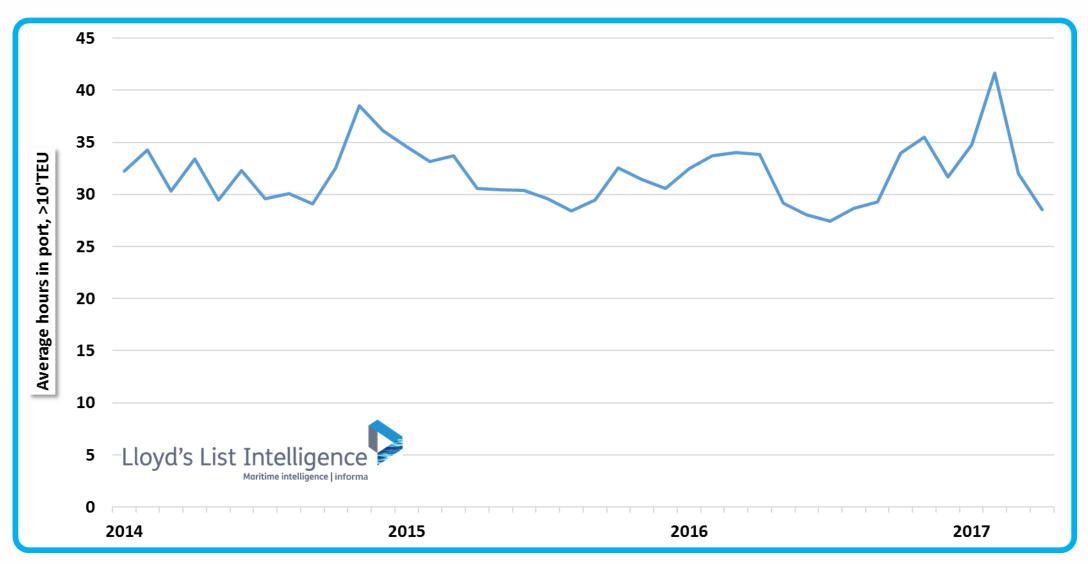
## The number of idle ships have not been high since the "Great Recession"





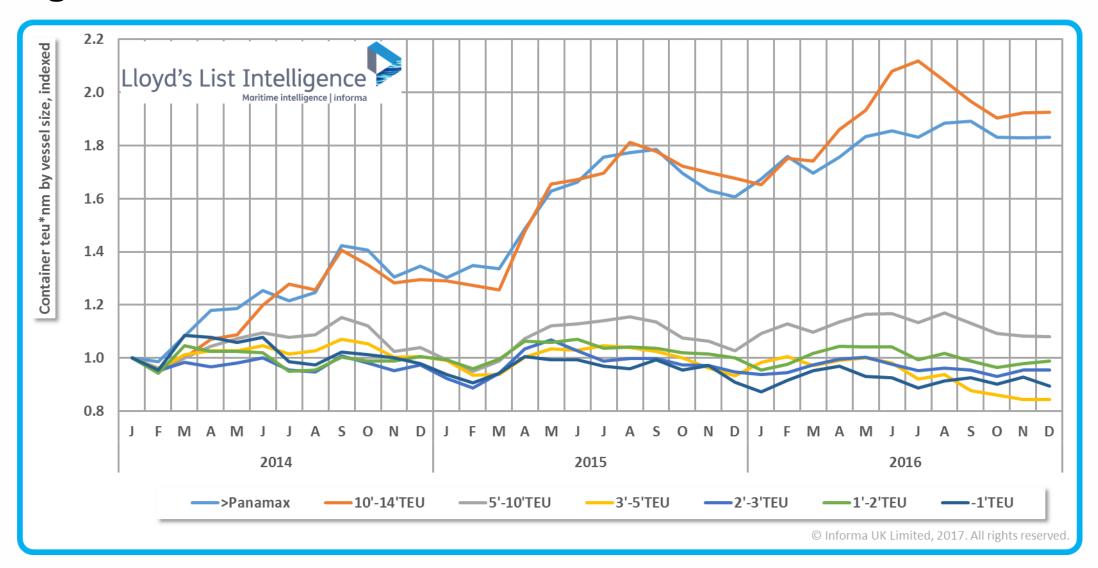
# Average time in port varies – no clear trend in sight though





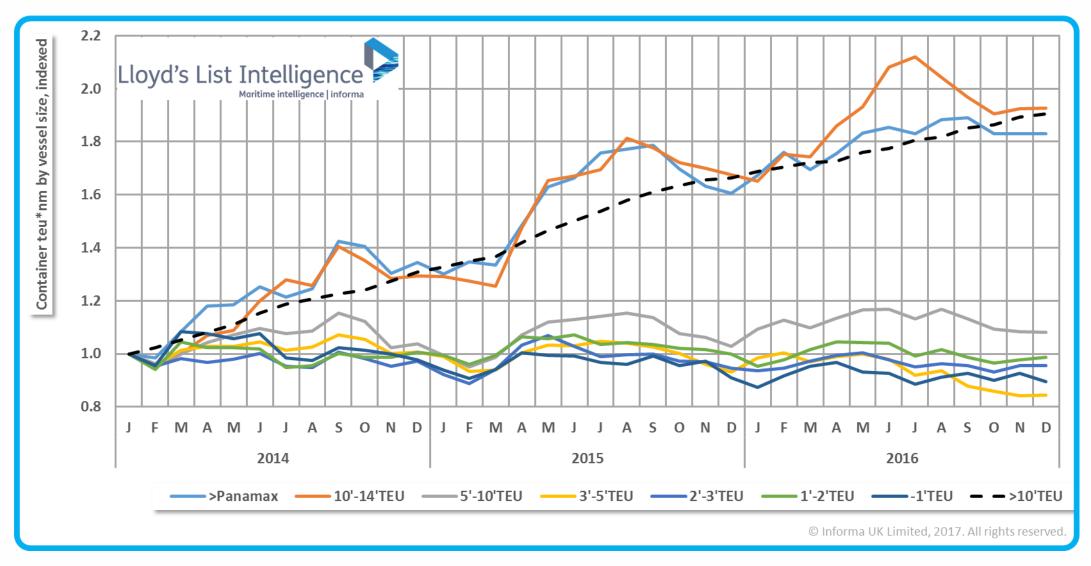
#### The vessel activity growth is high in the large size Lloyd's List Intelligence segments





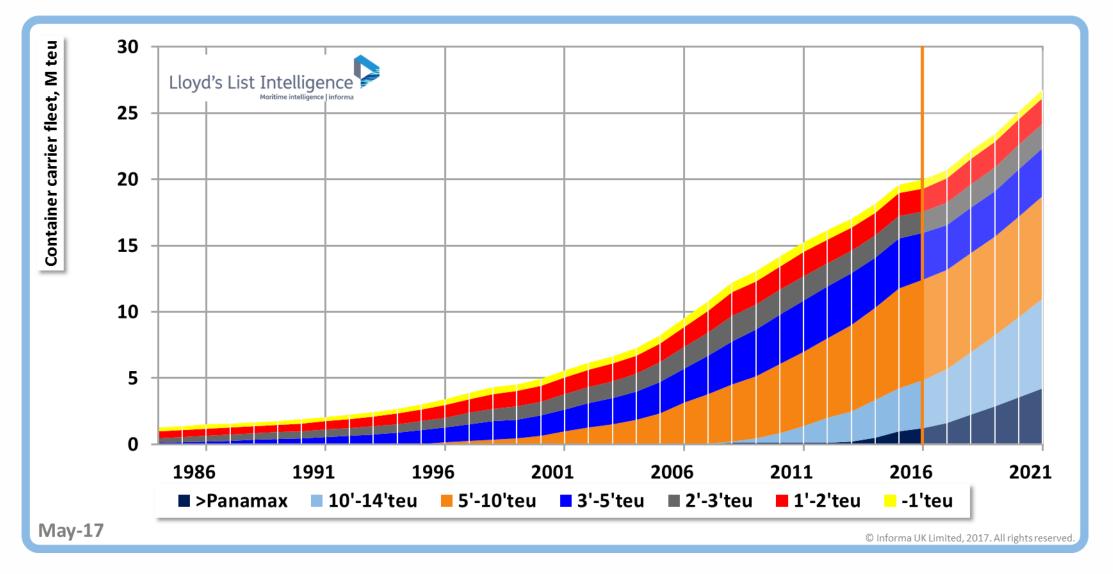
# Sometimes activity growth and fleet growth are out of sync





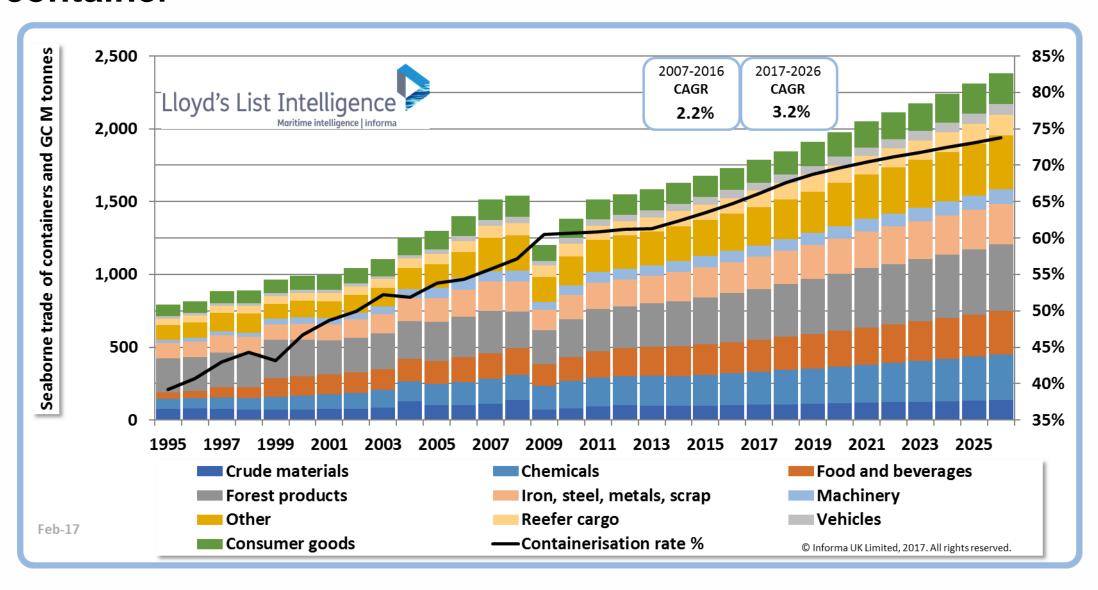
# Fleet growth matches demand growth with a delay, but this is largely a supply driven market





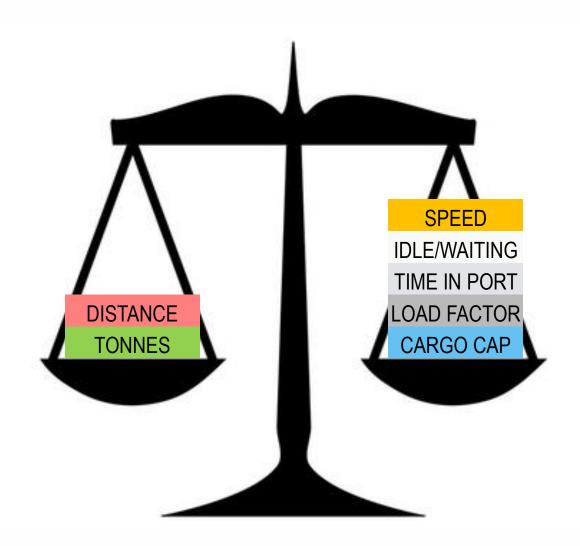
#### Almost all growth of seaborne general cargo is in Lloyd's List Intelligence container





# Supply/Demand balance more than just dwt and cargo tonnes.





#### **MRV**



- We provide calculation of:
  - Distance
  - Speed
  - Fuel consumption
  - Emissions to air
- We have tables of:
  - ship engine characteristics,
  - engine emissions factors for a large number of main engines,
  - representative main engine emissions factors
  - representative auxiliary engine emissions factors,
  - reduction factors for vessels known to have abatement technology,
  - types of fuel for main and auxiliary engines per vessel category,

### Thank you!

Christopher Pålsson @ lloydslistintelligence.com