TPR
Departement of Transport and Regional Economics
University of Antwerp

28/02/2017

EUROPEAN SHIPPING WEEK 2017
BRUSSELS | 27 February-3 March

Ship finance in the Basel IV era

Organised by the BNP Paribas Fortis Chair Transport, Logistics and Ports @ EU Shipping Week

Feb. 28th, 2017

TPR
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Program

WELCOME

14h00 – 14h10: Welcome by *Yvan De Cock, Advisor to the CEO at BNP Paribas Fortis*

SETTING THE SCENE

14h10 – 14h40: Market developments in the shipping sector by *Mr. Nicolas Besse, Industry Research Department, BNP Paribas*

14h40 – 15h10: Regulatory perspective of ship finance by *Prof. Christos Gortsos, the Law School of the National and Kapodistrian University of Athens*

15h10 – 15h30: Outlook on Ship financing by *Mr. Vincent Pascal, Co-Head of Shipping Finance EMEA, BNP Paribas*

Program (2)

AWARENESS

Moderator: Prof. Thierry Vanelslander

Panel members:

- Mr. Fabrizio Vettosi, Managing Director - Venice Shipping and Logistics S.p.A. / Confitarma (Italian Shipowners Association, Italy
- Mr. Kai Fahnenbruck - DGFISMA
- Prof. Eddy Van de Voorde - University of Antwerp
- Mr. Philippe Louis-Dreyfus, Chairman Louis Dreyfus Armateurs S.A.S., France
- Ludwig Criel, Chairman of the Board of the Royal Belgian Ship owners Association / Chairman of Executive Board CMB, Belgium

Yvan De Cock

Advisor to the CEO at BNP Paribas Fortis

Nicolas Besse

Industry Research Department, BNP Paribas

SHIP FINANCE IN THE BASEL IV ERA

"SETTING THE PICTURE"

MARKET DEVELOPMENTS IN THE SHIPPING SECTOR

ORGANISED BY THE BNP PARIBAS FORTIS CHAIR TRANSPORT, LOGISTICS AND PORTS

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NICOLAS BESSE, CFA, EIS INDUSTRY RESEARCH

Brussels, February 28th, 2017

RISK

Opinion of the EIS industry expert does not necessarily reflect the position of the bank

BNP PARIBAS

The bank for a changing world

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WHAT SHIPPING WILL ALWAYS BE ABOUT…

RISK

Volume	Cargo inventory value	Cost of capital
Distance	Energy	Seamanship

Source: BNP Paribas EIS

CONTENTS ELEMENT

RISK

1

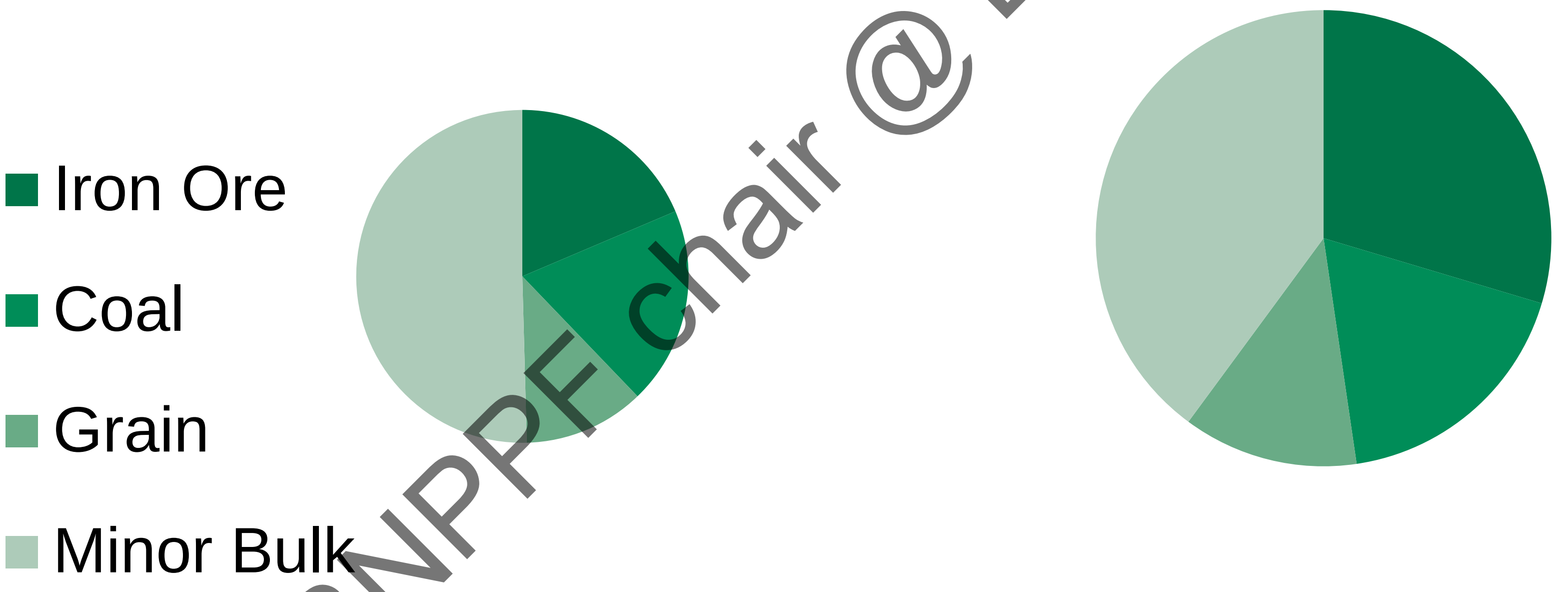
GROWTH! GROWTH?

DRY – DEMAND (in Tera (10^{12}) Tonnes x Nautical Miles)

RISK

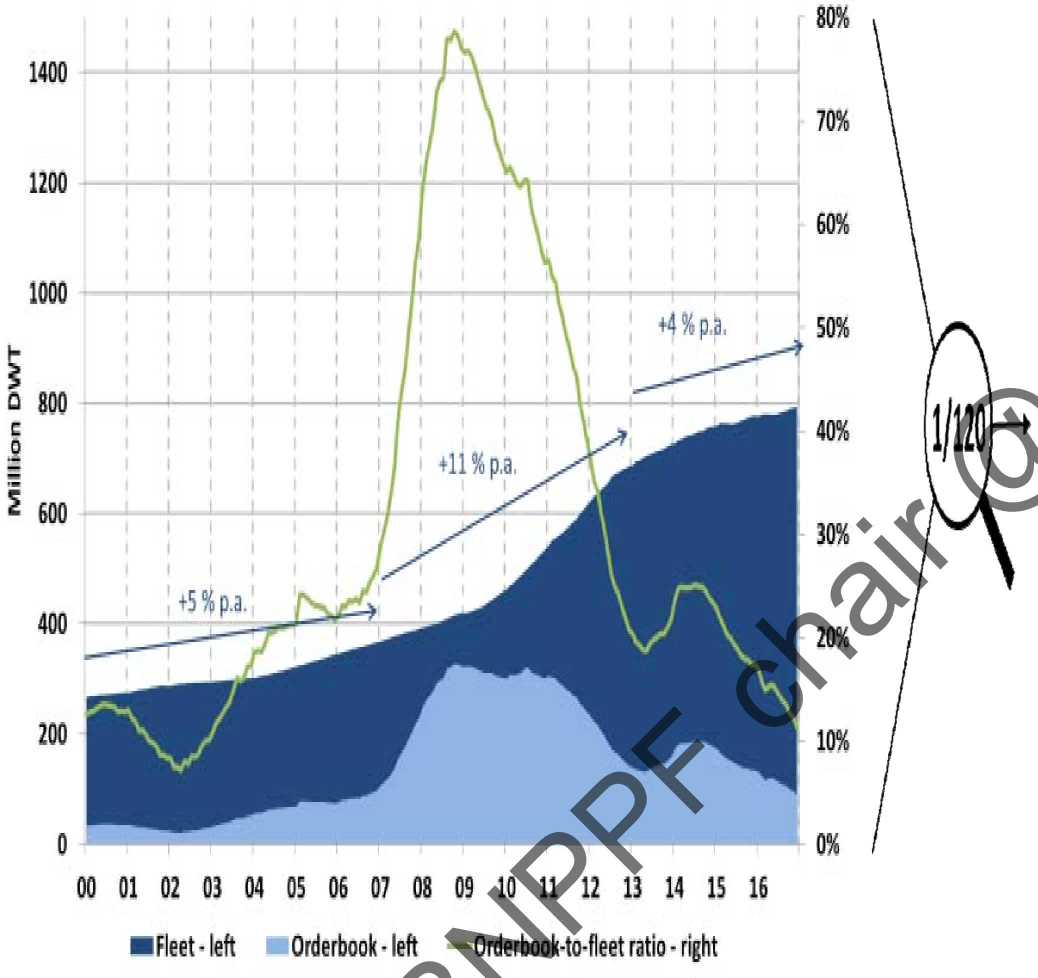
2000
13

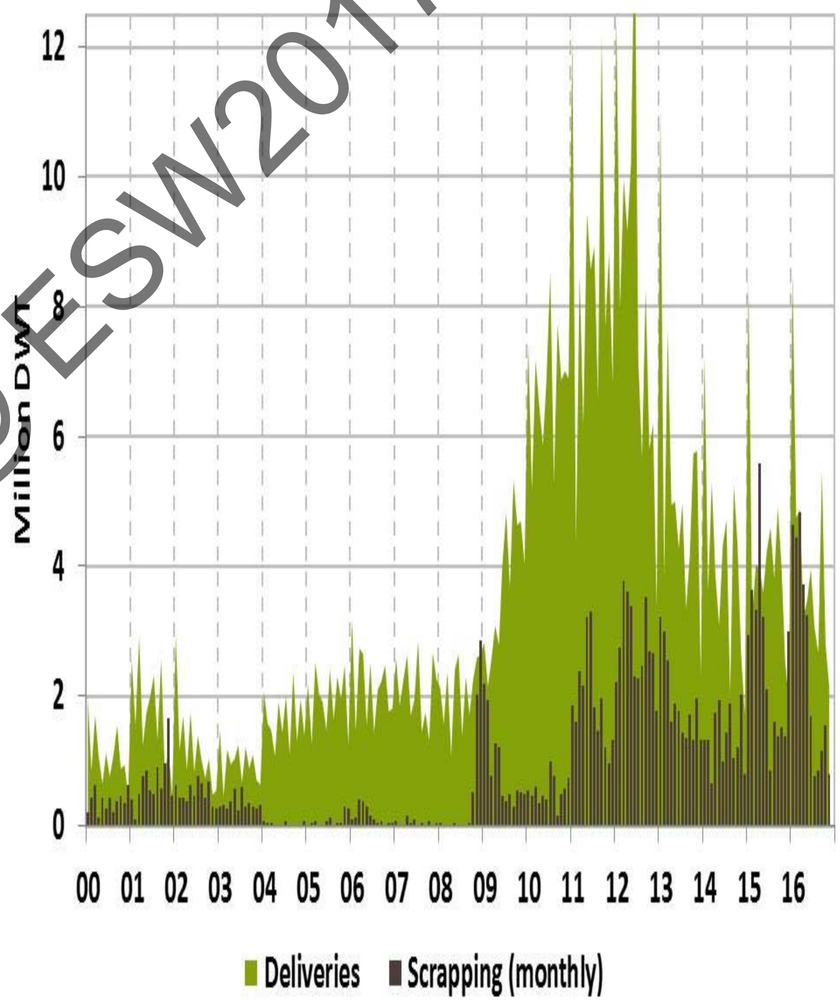
2016
27



Source: Clarkson Research, BNP Paribas EIS

DRY-BULK VESSELS – SUPPLY (in million dwt)





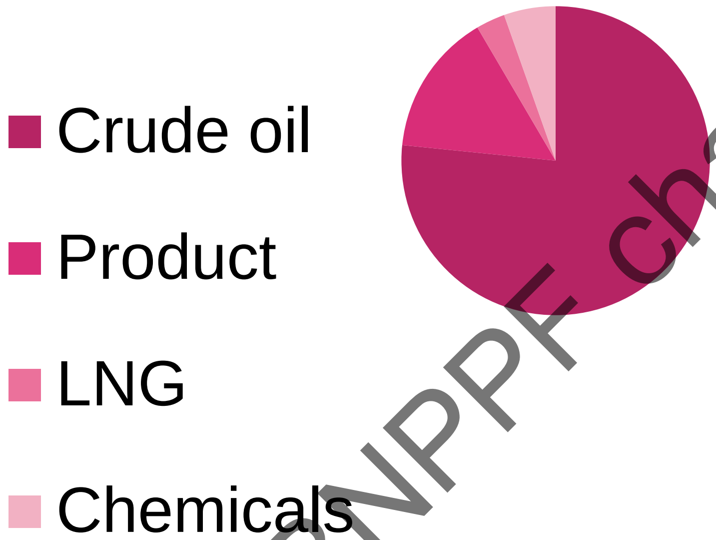
Source: Clarkson Research, BNP Paribas EIS

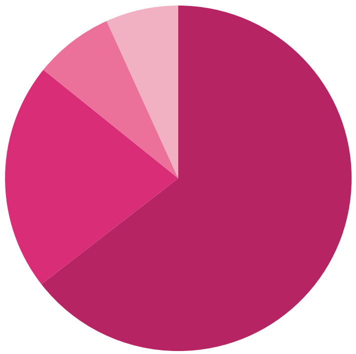
WET – DEMAND (in Tera T.NM)

RISK

2000
10.5

2016
14.6

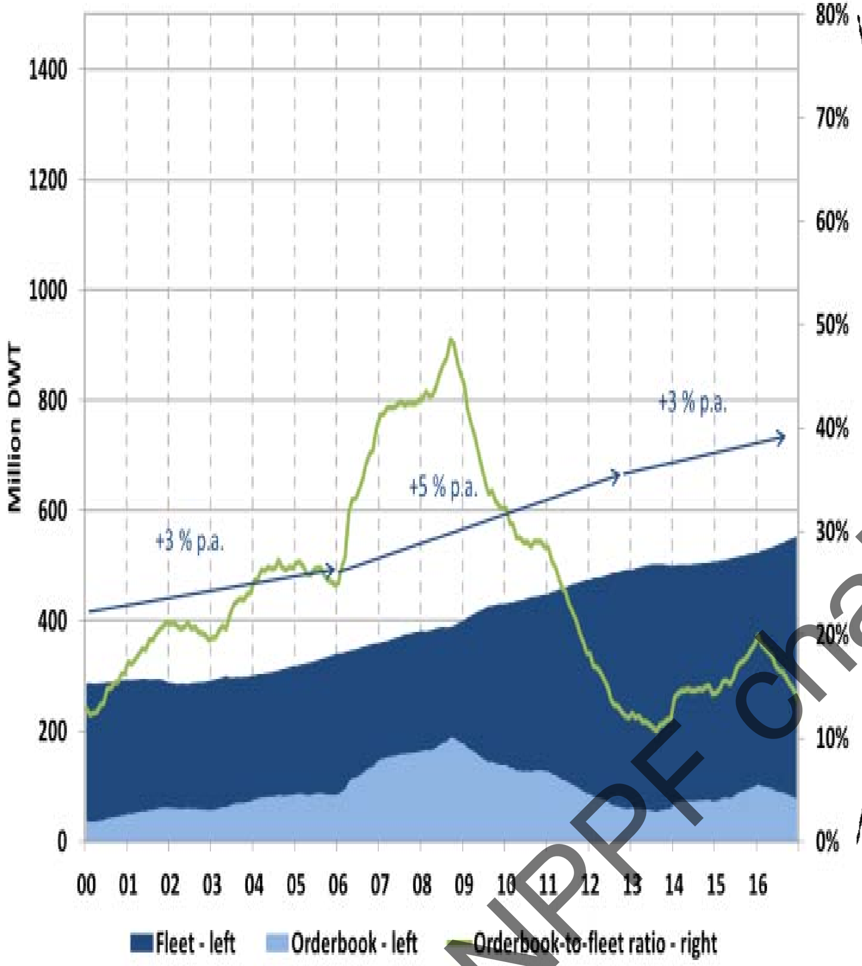


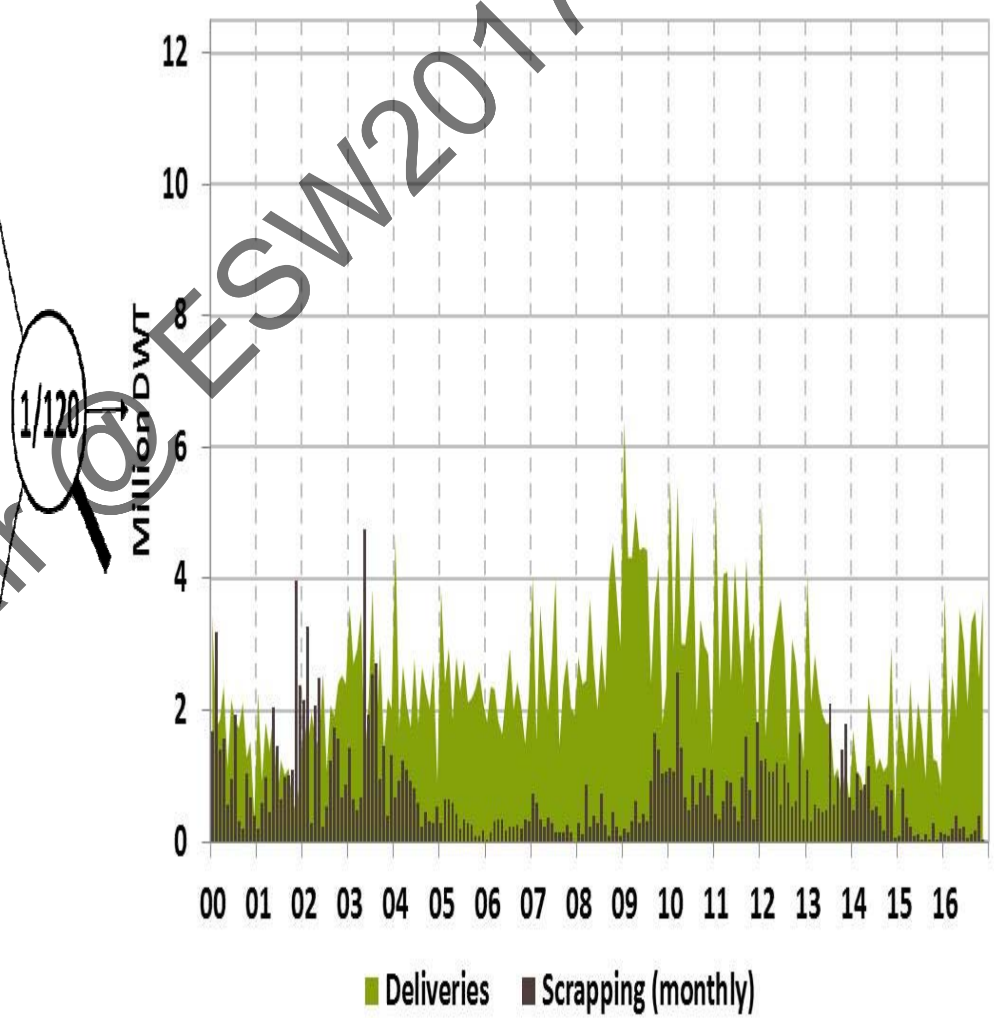


Source: Clarkson Research, BNP Paribas EIS

CRUDE TANKERS – SUPPLY (in mio dwt)

RISK





Source: Clarkson Research, BNP Paribas EIS

FINISHED PRODUCTS – DEMAND (in Tera T.NM)

RISK

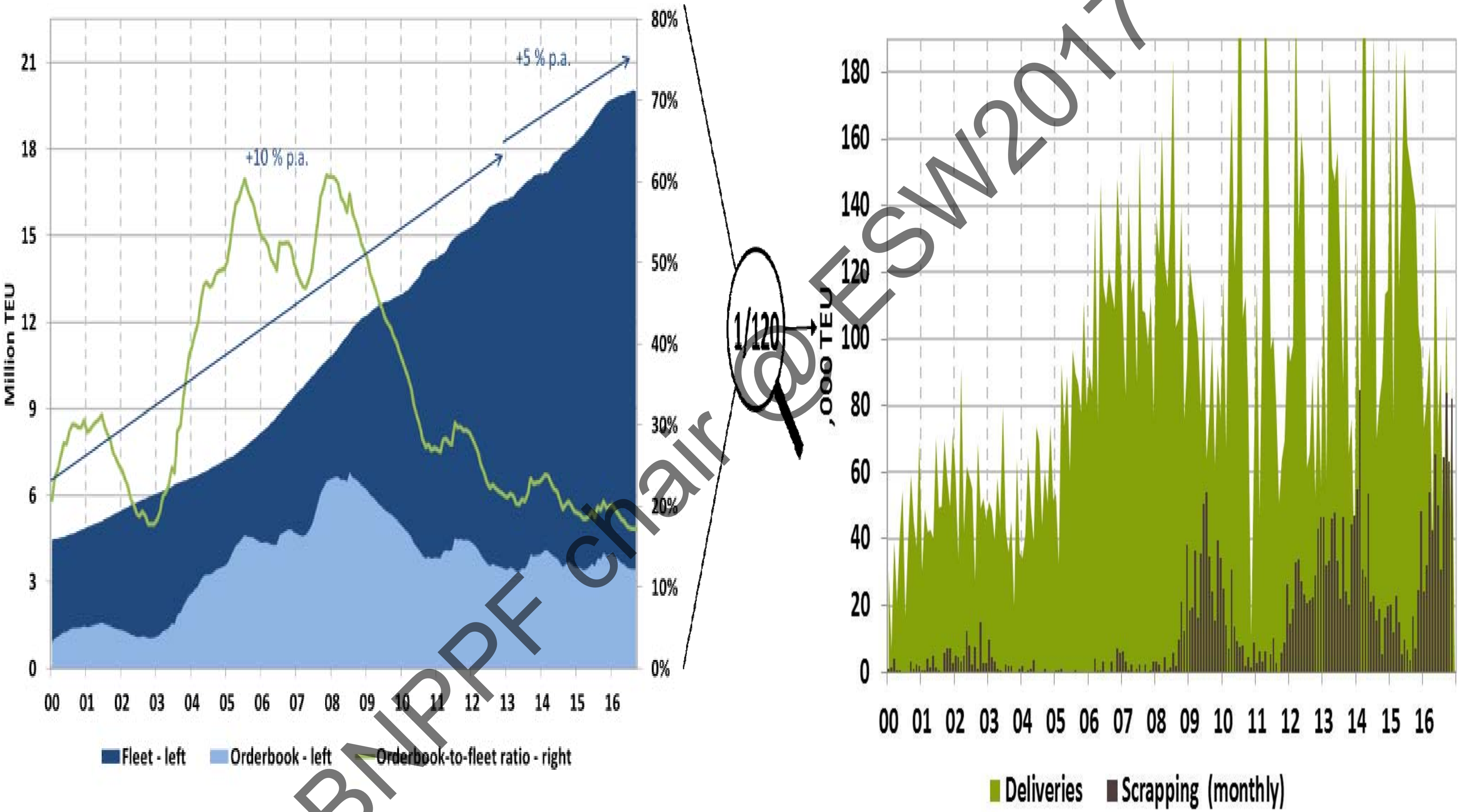
2000
7.4

2016
12.8

Source: Clarkson Research, BNP Paribas EIS

CONTAINERSHIPS – SUPPLY (in TEU)

RISK



Source: Clarkson Research, BNP Paribas EIS

2 TOO MANY, TOO MUCH...

Strong decrease in fleet productivity…

RISK

Segment	2000			2016	% change
	Demand Tonnes.miles (trillion)	Supply dwt (million)	Productivity (t.NM/dwt)	(t.NM/dwt)	2016/2000
Dry-bulk	13.1	270	48 500	34 200	-30%
Crude tanker	8.1	220	36 900	26 100	-29%
Containership	3.1	65	47 700	34 800	-27%

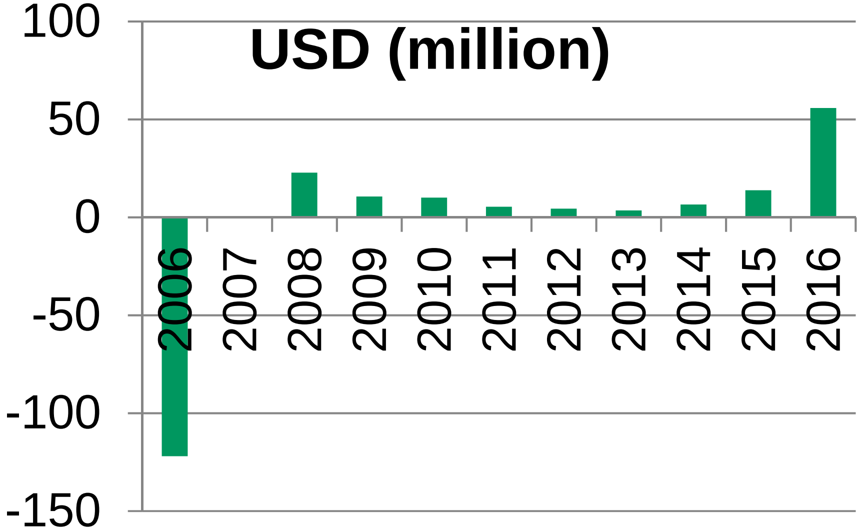
Source: Clarkson Research, BNP Paribas EIS

… very favorable terms for cargo interests!

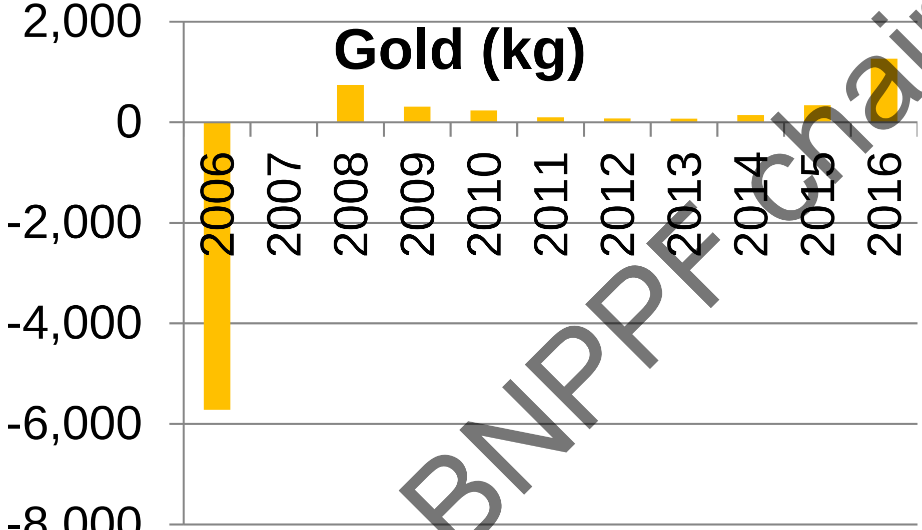
Vessel type	*Indicative spot Freight Cost as of Today*		
	USD	**Terms (per)**	**Freight compared to cost delivered**
Capesize	3	t / 10,000 miles	5-10 %
VLCC	0,2	bbl / 10,000 miles	2-4 %
Containers	700	TEU / 10,000 miles	2-5 %

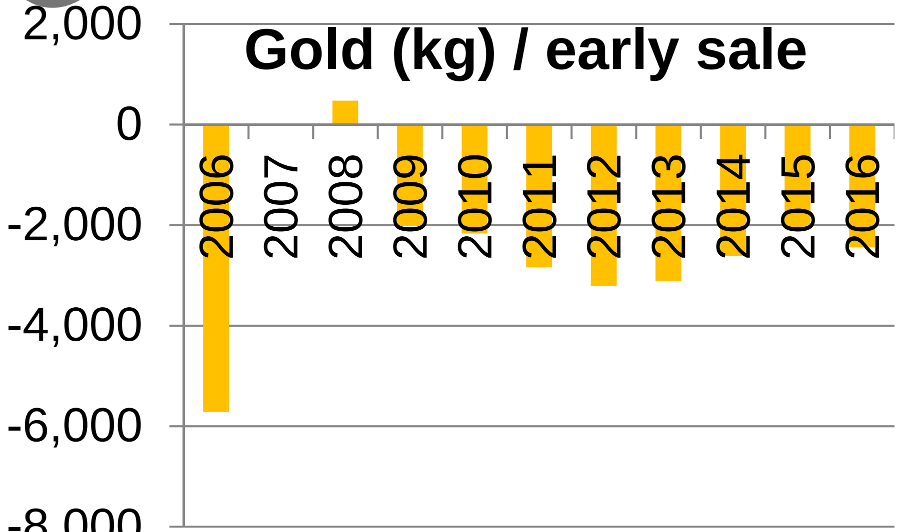
Source: Clarkson Research, BNP Paribas EIS

... but unproductive capital for shipowners: an illustration with a 2008-VLCC ordered in 2006



- Total in USD = +11 (million)
- Total in Gold = - 2,400 (kg)





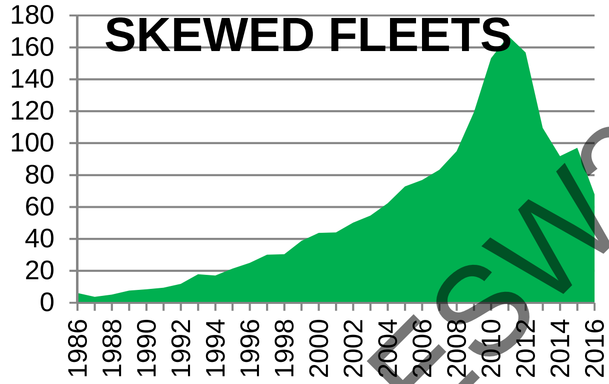
Source: BNP Paribas EIS

3

I SEE NO SHIPS!

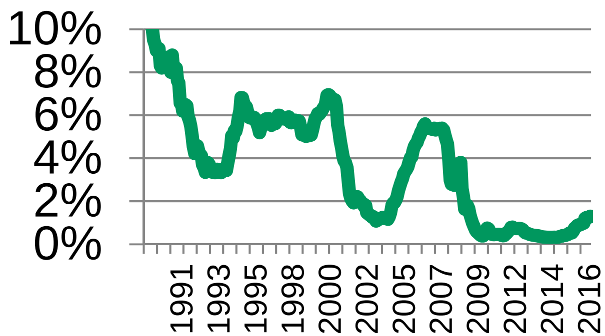
A supply dearth in sight?

- ❑Still young fleets



- ❑Scrapping: next year will be more…

USD-LIBOR-3m



- ❑Low $ interest rate – but increasing

- ❑Shipyards' hard life: 2016 lowest contracting in 35 years.

Source: Clarkson Research, BNP Paribas EIS

Evolving demand drivers?

❑Dry-Bulk ➔ Chinese steel?

- ❑ Chinese capacity restrictions.
- ❑ Very low number of electric arc furnaces yet.

❑Crude-tanker ➔ now OPEC restrictions?

- ❑ Price elasticity to quotas.

❑Container ➔ manufacturing onshoring?

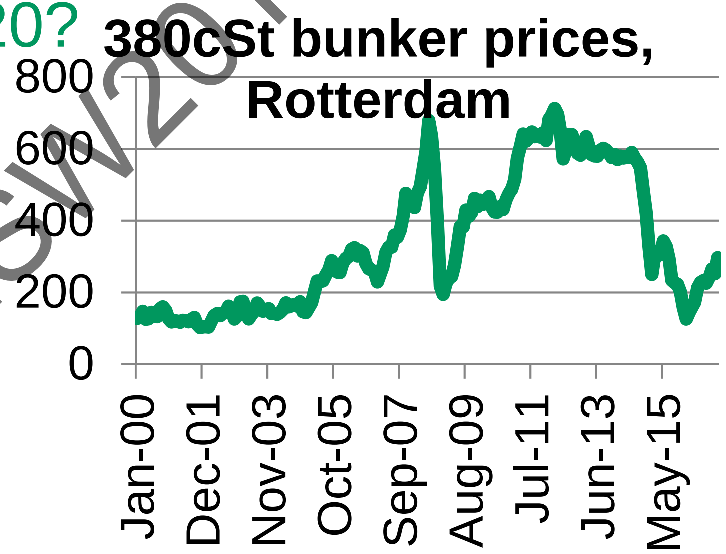
- ❑ Vertical integration.
- ❑ Robotisation, 3D-printing…

Source: Clarkson Research, BNP Paribas EIS

Regulatory « remedies » as accelerators?

RISK

- **MARPOL ANNEX 6**: as from 2020?
  - *Gasoil? Desulfurized fuel oil?*
  - *Scrubbers?*
  - *LNG engine…*



- **Ballast Water Convention**:
  - *High investment pressure at survey time as from 2018?*

- **Financing dearth**… today's topic.

Source: Clarkson Research, BNP Paribas EIS

THANK YOU!

BNP PARIBAS

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nicolas.besse@bnpparibas.com

Prof. Christos Gortsos

The Law School of the National and Kapodistrian University of Athens

Regulatory perspective of ship finance
Professor Christos Gortsos

1. International and EU framework on capital requirements

- Banks established in EU Member States are required to meet the capital requirements lain down in Regulation (EU) No 575/2013 (**CRR**) to cover unexpected losses

- The provisions of the CRR largely reflect the standards adopted by the Basel Committee on Banking Supervision (Basel Committee) and applied – more or less – in the largest jurisdictions, including EU, USA, China, Japan, Hong Kong and Singapore.

Regulatory perspective of ship finance

1. **International and EU framework on capital requirements**

- For the purpose of calculating capital requirements for credit risk banks may use:
  - the **standardised approach**, or
  - the **Internal Ratings-Based approach (IRB approach)**.
-

Regulatory perspective of ship finance

2. Standardised approach

- The standardised approach is less sophisticated

- Banks' exposures to shipping companies are included in the corporate portfolio and receive a risk weight of **100%**, unless they are rated by an External Credit Assessment Institution (*Article 122 CRR*)

Regulatory perspective of ship finance

3. IRB approach

- Pursuant to the IRB approach, capital requirements are calculated based on the following core credit risk parameters:
  - Probability of Default (PD),
  - Loss Given Default (LGD),
  - Exposure at Default (EAD), and
  - Maturity (M)

- The IRB approach is more tailor-made, allowing banks to assign risk weights to exposures based on their own risk assessments (bounded)
- Shipping loans under the IRB approach receive (on average) risk weight of **50%**

Regulatory perspective of ship finance

4. Supervisory slotting approach

- Where an IRB-bank cannot estimate the PD/LGD or its estimates do not meet the requirements of PD estimation, it may use (*inter alia*) for ship finance exposures the **supervisory slotting approach**
- Under this approach, the risk weights are determined on the basis of certain criteria underlying the exposure's credit risk, as well as on the exposure's remaining maturity
- This approach assigns risk weights ranging (on average) from **70% to 90%**

Regulatory perspective of ship finance

4. Supervisory slotting approach (cont.)

- In the EU, the slotting approach has been applied to **only around 25%** of all specialised lending exposures under the IRB approach
- Compared to the standardised approach, the slotting approach allows capital requirements to be determined in a more risk-sensitive way and at a lower level

Risk weights for shipping exposures under the three approaches

IRB (50%) < slotting approach (70-90%) < standardised (100%)

Regulatory perspective of ship finance

5. Basel IV

The Basel Committee has adopted a regulatory reform programme, known as **Basel IV**, concerning, *inter alia*, the revision of:

- the **Standardised approach** (*Revisions to the Standardised Approach for credit risk, December 2015*), and
- the **IRB approach** (*Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches, March 2016*)

Regulatory perspective of ship finance

5. Basel IV (cont.)

Basel Committee – press release (3/1/2017)

- *"…more time is needed to finalise some work, including ensuring the framework's final calibration, before the GHOS can review the package of proposals. A meeting of the GHOS, originally planned for early January, has therefore been postponed. The Committee is expected to complete this work in the near future."*

Regulatory perspective of ship finance

6. Basel IV proposals for ship finance

Standardised approach

- Shipping exposures must receive a 120% risk weight, unless they are rated by an Credit Rating Agency

IRB approach

- Removal of the IRB approach for shipping exposures that use institutions' estimates of model parameters (PD, LGD, EAD, M), since according to Basel Committee: "*banks are unlikely to have sufficient data to produce reliable estimates of PD and LGD*"

Regulatory perspective of ship finance

6. Basel IV proposals for ship finance (cont.)

- If the Basel Committee finally adopts the arrangements included in the consultative papers:
  - IRB-banks will have to use either the standardised or the slotting approach, which implies that they will be obliged to meet significantly **higher capital requirements**
  - Risk weights assigned by banks using standardised approach to specialised lending exposures will be increased **from 100% to 120%** (unless the exposures are rated)

Regulatory perspective of ship finance

7. Concluding remarks

- EU shipping is to a high extent backed by bank loans
- 70% of ship loans are provided by banks using the IRB approach
- Basel Committee's proposals would penalize mainly EU shipping financing, since the IRB approach is widely used among EU-based banks
- Ship financing in EU will be less attractive and more costly

Vincent Pascal

Co-Head of Shipping Finance, EMEA chez BNP Paribas

OUTLOOK FOR SHIPPING FINANCE

2017
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VINCENT PASCAL
CORPORATE & INSTITUTIONAL BANKING

Brussels, February 28th, 2017

BNP PARIBAS

The bank for a changing world

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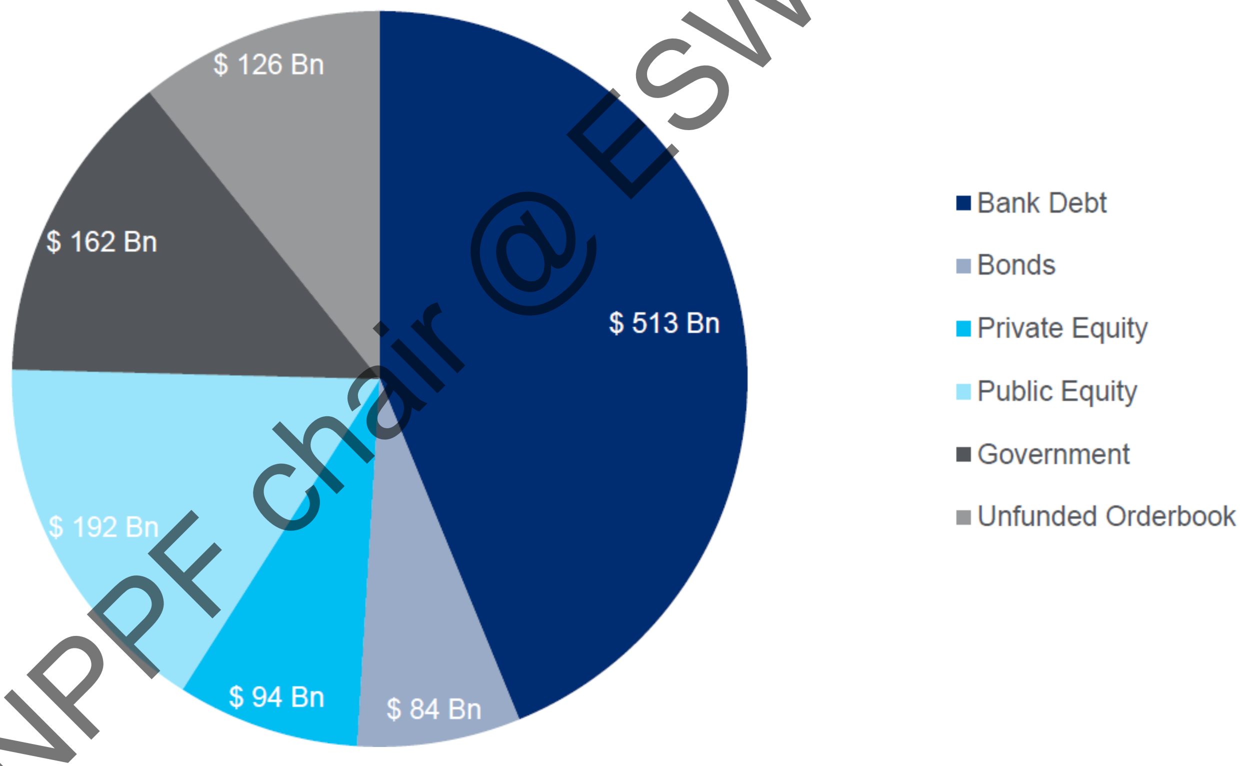
A. How the world fleet gets financed today ?

Predominance of Bank lending (still)

Total invested capital in shipping : $ 1.2 tn



Source : Marine Money

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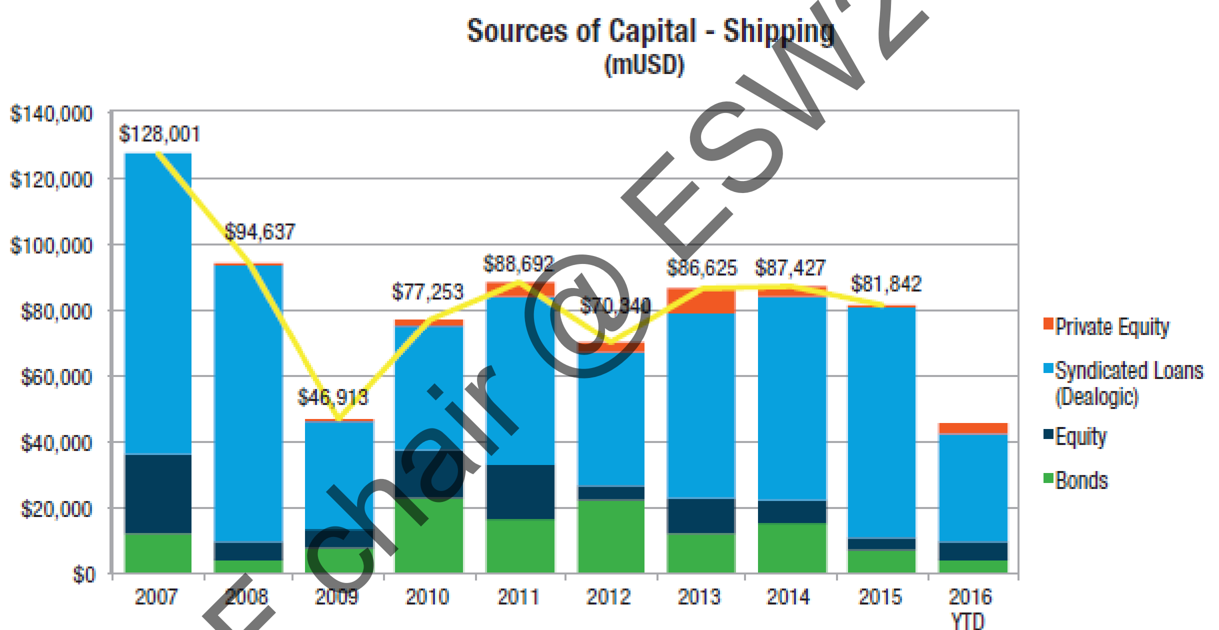
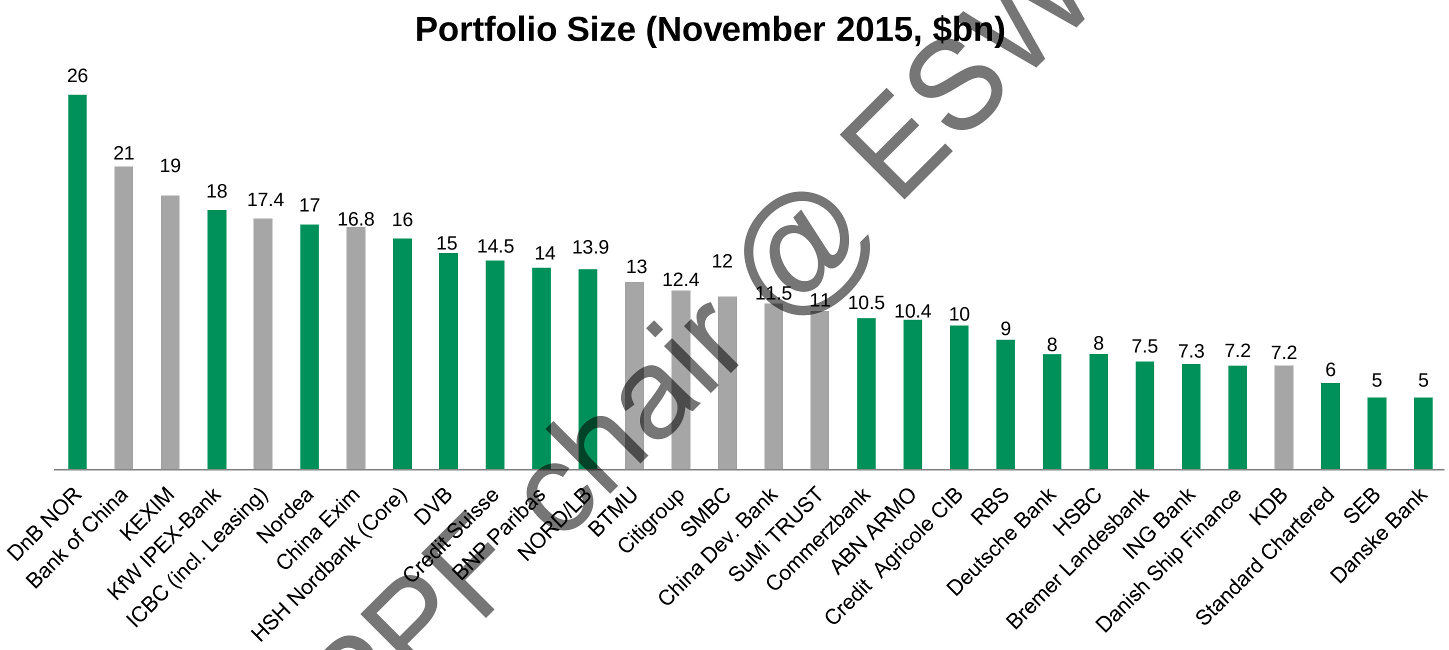


*2016 Syndicated loans are first 9 months only

Source : Marine Money

A. How the world fleet gets financed today ?

Predominance of European Banks (still)



Source : Clarkson Research

A. How the world fleet gets financed today ?

Predominance of European Banks (still)

Europe

BNP PARIBAS
La banque d'un monde qui change

CRÉDIT AGRICOLE

CREDIT SUISSE

Deutsche Bank

NORD/LB
Covered Finance Bank

Danske Bank

ING

DNB

ABN·AMRO

HSH NORDBANK

DVB

Nordea

DANISH SHIP FINANCE

KfW
Bank aus Verantwortung

Asia

国家开发银行
China Development Bank

SMBC

中国银行(香港)
BANK OF CHINA (HONG KONG)

HSBC

ICBC

DBS
星展银行

Americas

citi

Bank of America
Merrill Lynch

Scotiabank

A. How the world fleet gets financed today ?

But : fewer players and smaller lending volumes

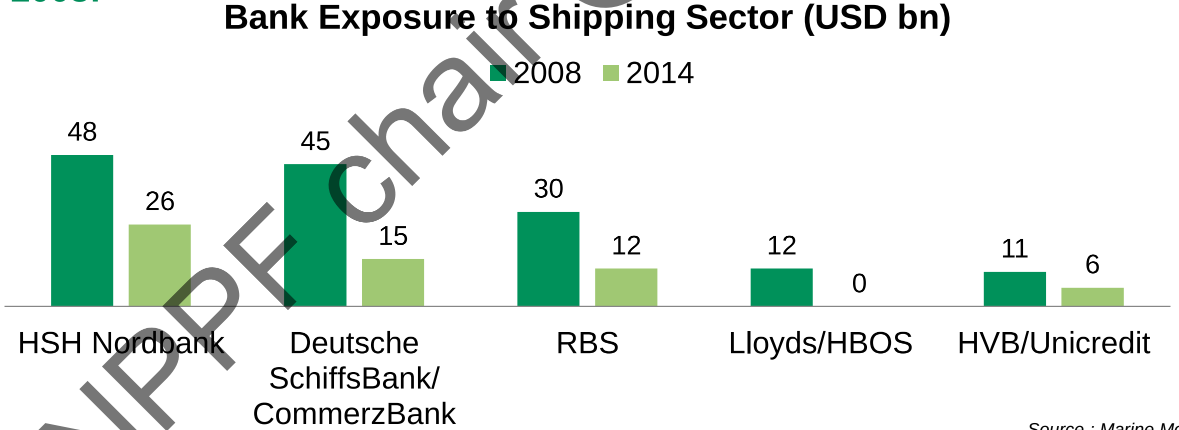
A more constrained environment since 2009 :

- Banking Crisis
- Crises in Shipping & Offshore markets
- Increased regulation

Higher risk focus: more conservative approach to lending

Less available capital for shipping

This has led to a huge **reduction in shipping bank exposure** : around **USD 70 billion withdrawn** from shipping sector **since 2008:**



Source : Marine Money, Deutsche Bank

Heavier than expected credit losses could force any ship lender to exit the business in the next two years

A. How the world fleet gets financed today ?

But : less capital available for ship finance, at least in Europe

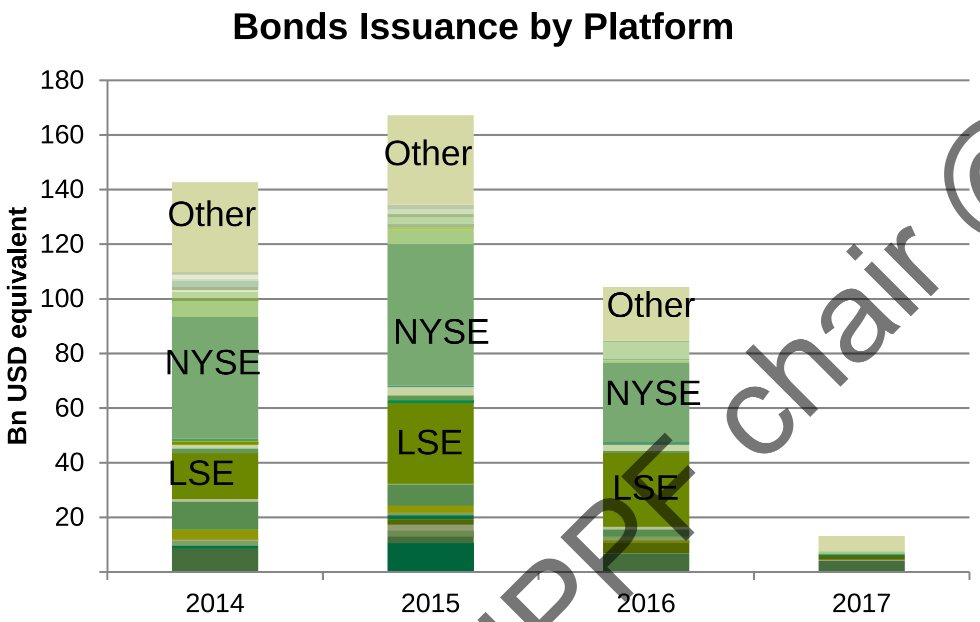
- **Basel 3 is manageable**
- **Basel 4 could still prove a major threat** to the prevalence of Europe in financing world shipping
  - If the initial Basel guidelines were confirmed and then endorsed by the ECB, **the likely consequences for banks would be:**
    - Less capital allocated for shipping finance, hence smaller production of new shipping loans in the future
    - New shipping loans will need to be **priced substantially higher than today**

A. How the world fleet gets financed today ?

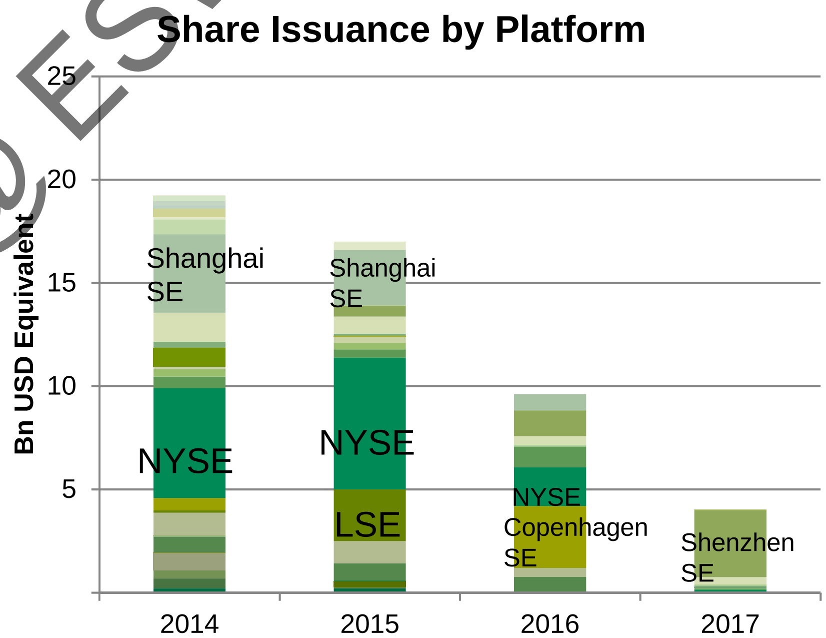
But : less capital available for ship finance, at least in Europe

European shipowners are already diversifying away from European bank lending

- **Foreign Capital Markets**



Source : Clarkson Research



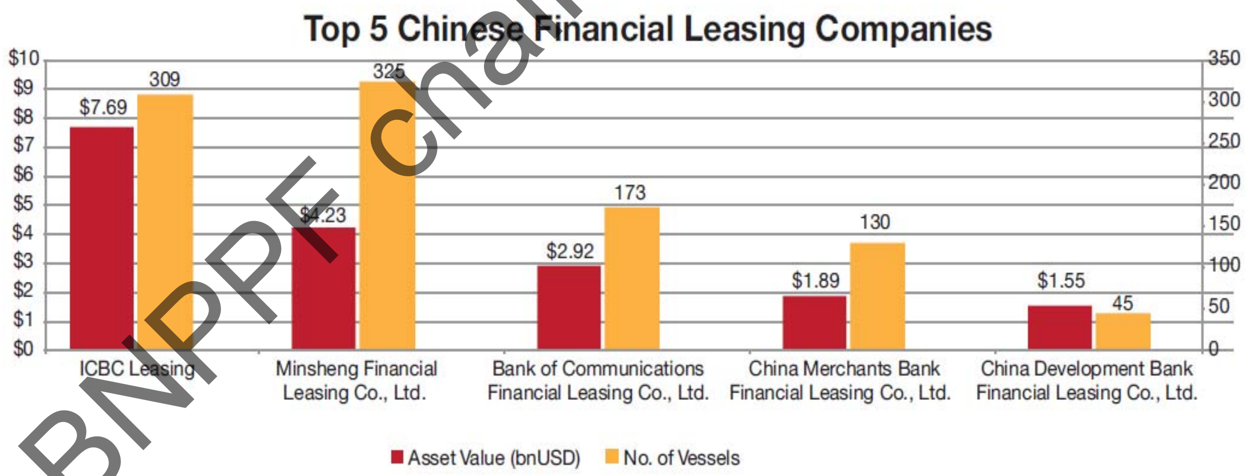
Source : Clarkson Research

A. How the world fleet gets financed today ?

But : less capital available for ship finance, at least in Europe

European shipowners are already diversifying away from European bank lending

- **Chinese lessors**
  - A dramatic rise of Chinese lessors for big deals in both new ships and sale and lease back of second hand ships. **12 major players have arisen, most of which are affiliated to banks or shipyards** (ICBC, Ming Sheng, BOC etc.)
  - Have shown greater risk appetite than their bank parents so far: **higher leverage, longer tenors**
  - **How high will they want to grow their exposure to shipping in the future?**



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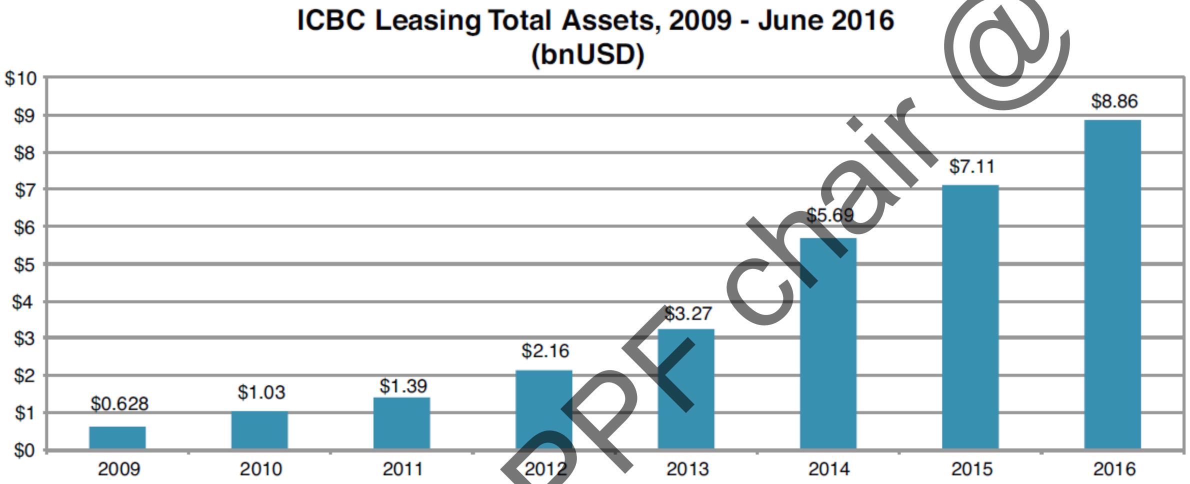
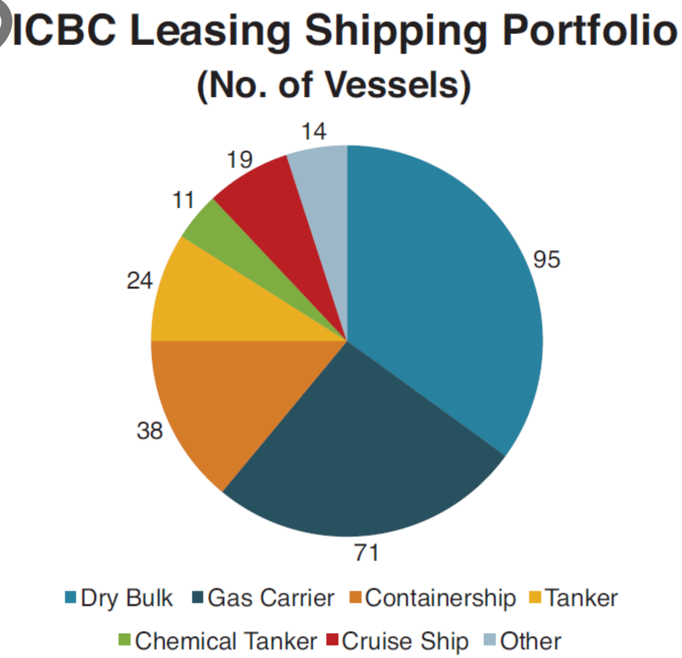


Source : Marine Money



Source : Marine Money

A. How the world fleet gets financed today ?

But : less capital available for ship finance, at least in Europe

Increased focus on relatively **new topics** for the maritime world :
Compliance, Corporate and Social Responsibility

Heightened compliance risks for banks:

- Ships itineraries, exposure to embargo countries
- Processing international payment flows in USD for shipping companies
- Future compliance checks on other stakeholders in a shipping transaction (ship yard, buyer, insurers, brokers)?

Increasing focus by banks on CSR topics:

- Crew, cargo, bunkers, pollution risks
- Conditions of ship demolition
- Future discrimination by financiers on “Eco Ships”, “Clean Ships”, Green Ships”?

Likely impact:

- The assessment of a ship-owner by a bank may become more far-reaching and multi-facetted than before
- This could mean heavier “due diligence” and slower commercial response time

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B. What are the likely evolutions for ship owners ?

More demands on customers …

- **Transparency**, financial reporting
- **Scale of players** : large fleets, modern fleets
- **Concerns** about vessels age, technical obsolescence
- **Expectations of « cross-selling » revenues** against balance sheet commitents

… leading to higher selectivity by mainstream shipping banks

B. What are the likely evolutions for ship owners ?

More demands on customers …

A two-tier world : «the Haves/ the Have nots »

- Access to bank finance at all ?
- **Still access** to bank finance **but at onerous terms** (pricing, LTV, covenants)

Will some ship owners be forced to exit the business because of financing constraints ?

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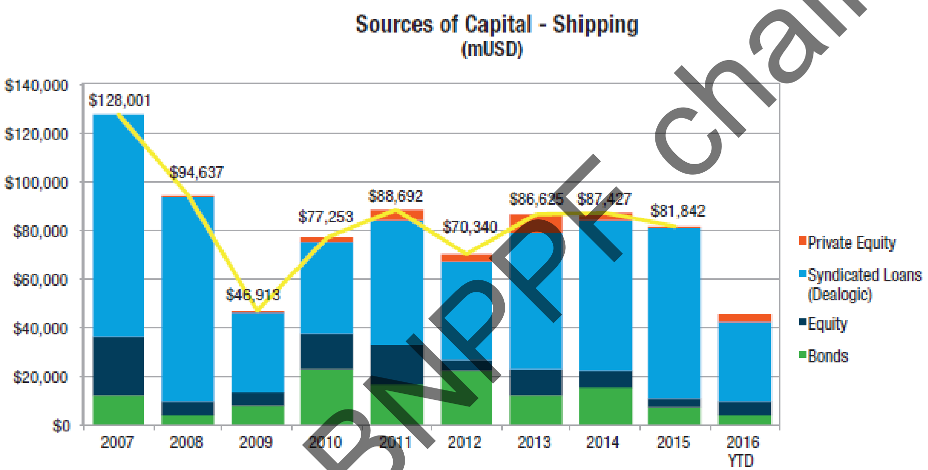
C. Debt Capital markets

- **A chequered history**
- The **industry volatility** poses huge challenges to **credit rating : a "sub-investment grade" industry**
- **Some attractive features for shipowners**: amount, tenor, bullet repayment, incurrence covenants
- **Outside the large mainstream market** (High Yield), some smaller pockets of capital can be explored (unrated, private placements : US, Euro, Schuldschein)

Conclusion : a complementary product with bank loan for debt financing



*2016 Syndicated loans are first 9 months only

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D. Equity for Shipping

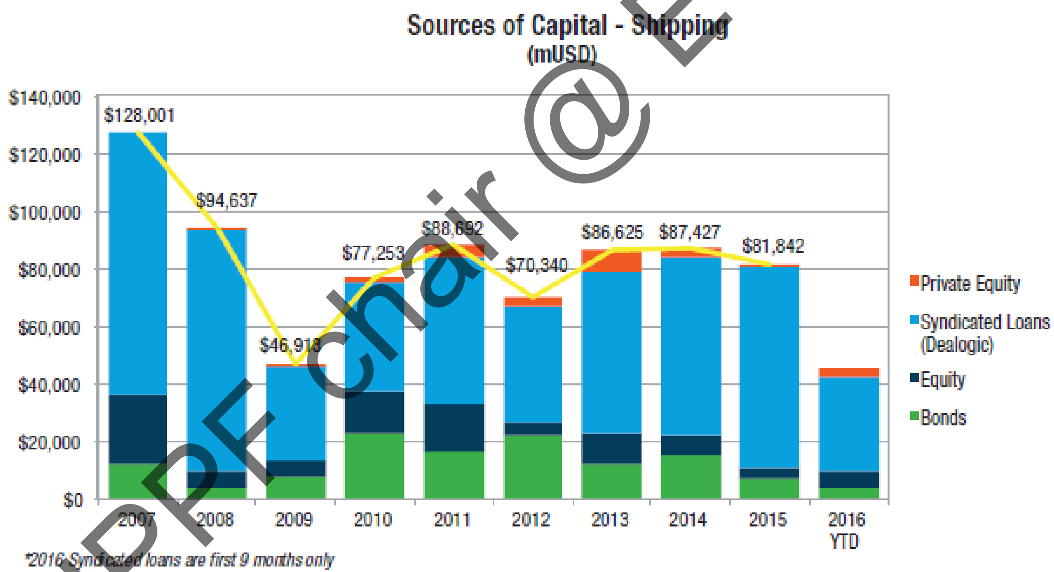
Family money

- **Can family money stay alone** in financing such a capital-intensive industry for the long term ?
  - May be a different answer depending on which shipping segment ?
    - Container liners, LNG carriers, Heavy offhsore, Cruise
    - Dry bulk, tankers, Roros, containerships, LPG

D. Equity for Shipping

Private investors

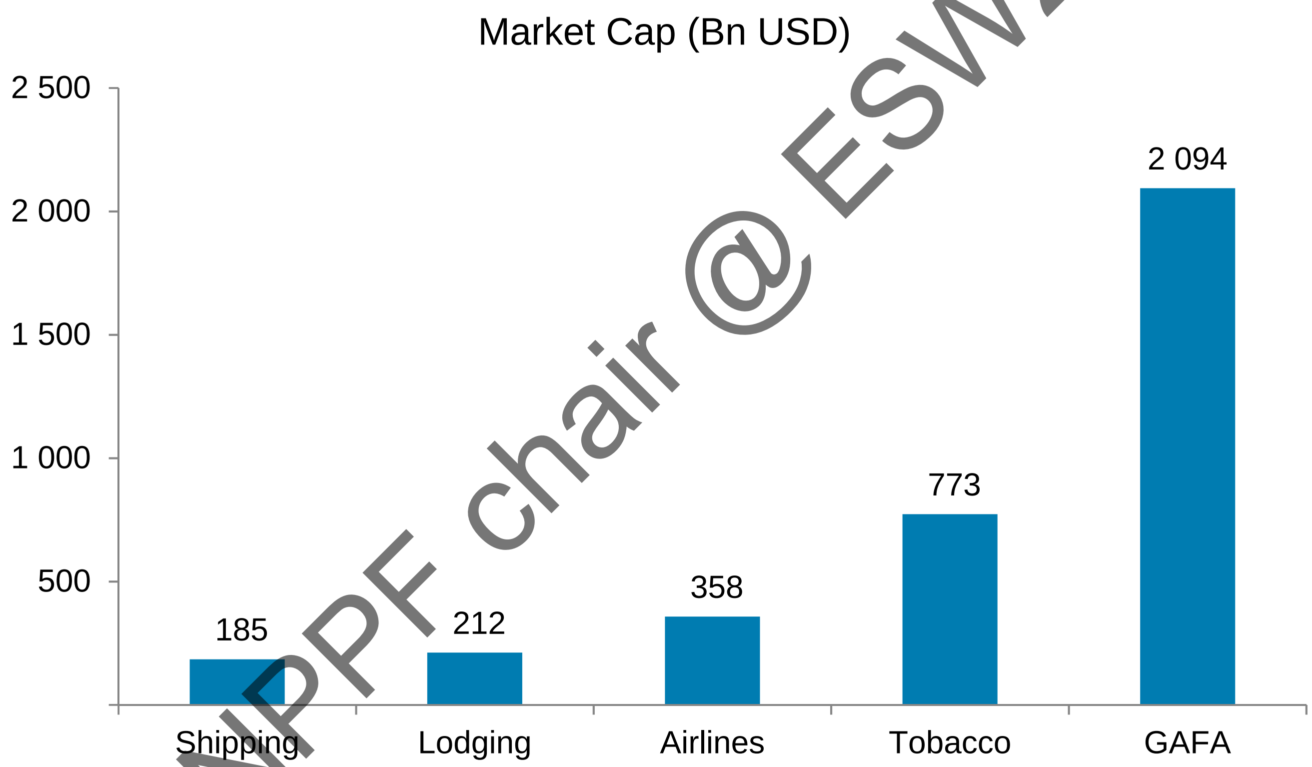
- **A diverse world** : hedge funds, private equity funds, family offices, institutional investors, industrial companies …
- **Could offer relevant solutions** to shipping companies, provided you know **who you partner with** !



D. Equity for Shipping

Public Equity

- **Still a « dwarf »** in relative market capitalization

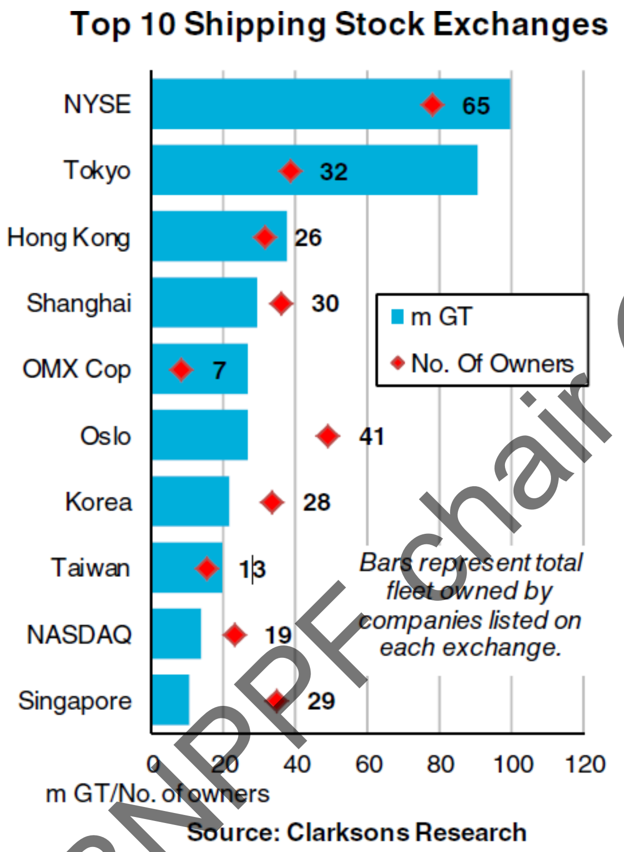


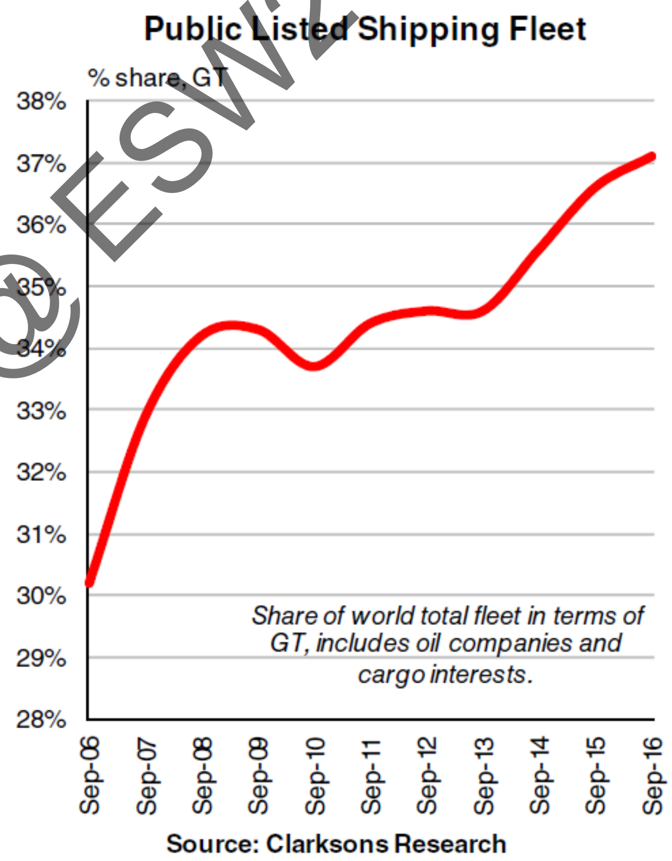
Source: Bloomberg

D. Equity for Shipping

Public Equity

- **Wall Street… or not much else ?**





D. Equity for Shipping

Public Equity

- Can be very **powerful, and fast**
- Risk of **«timing disconnection»** between shipping markets and equity capital markets

Conclusion :

- **Bound to grow ?**
- **Can consolidation of the shipping industries progress without capital markets ?**

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E. Conclusion

- The finance world is changing with **new constraints and brutal adjustments** for banks in particular.
- The business of **ship finance is directly impacted by such changes**, resulting in **more demands on shipping borrowers:** shipping banks tend to be **more selective, more scrutinizing, and slower**
- Depending on **how banking regulations will evolve** (Basel 4), banks may find it much **harder to continue being the "first port of call" for shipping finance**
- Given the **inherent volatility and complexity of the shipping business**, it is **doubtful that capital markets can replace bank lending** altogether

E. Conclusion

One piece of advice : **be gentle to your shipping bankers, they may become an endangered species !**

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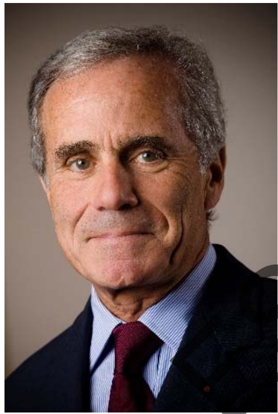
Prof. dr. Thierry Vanelslander

Moderator

Panel

Mr. Fabrizio Vettosi



Mr. Philippe Louis-Dreyfus

Prof. Eddy Van de Voorde

Mr Ludwig Criel

Mr Kai Fahnenbruck - DGFISMA

Network drink