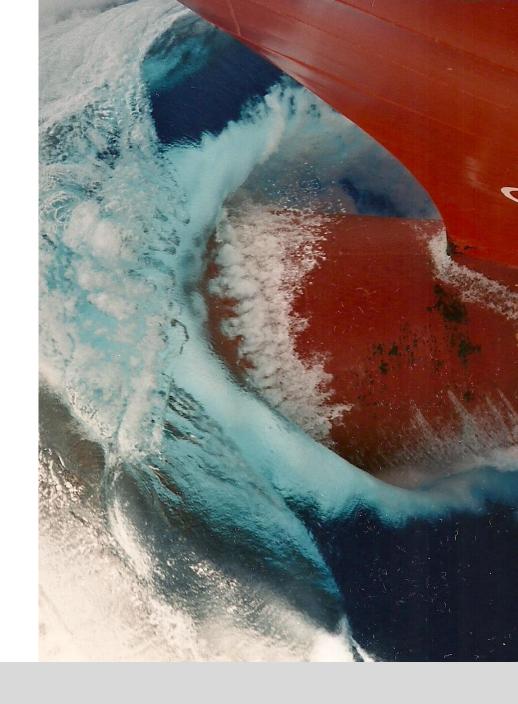
**The Chemical Tanker Market** 

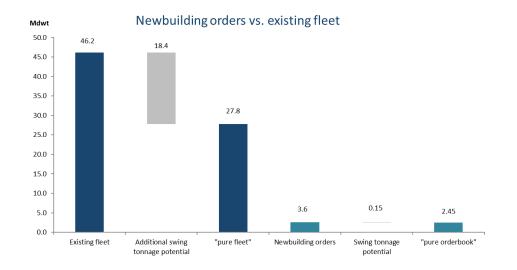
IMSF Annual Meeting 2017 Geneva



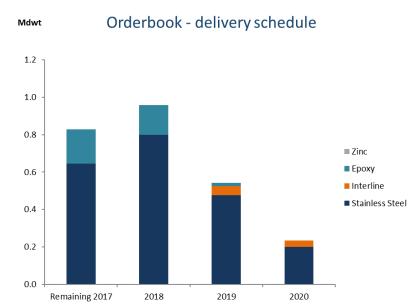
# Segmented, niche fleet providing various challenges...

- Oversupply in some chemical segments, too few vessels in others
- CPP market major impact
- Larger vs smaller vessels
- Financing still an issue
- Lower values and earnings
- Fleet trending towards larger average size
- Swing tonnage harder to define
- But future still promising?

#### Fleet development



- Orderbook is shrinking, as orderbook of 2013-2015 seems to be relenting and deliveries come on water – now
- Emerging bulk chemical trade making fleet developments increasingly challenging to track in terms of swing tonnage



Swing tonnage here defined as epoxy coated IMO II tonnage with dwt/segregation ratio of above 3000

Fleet defined as IMO I/IMO II vessels above 10,000 dwt, not predominantly CPP trading

Lorentzen & Stemoco, KTS Management

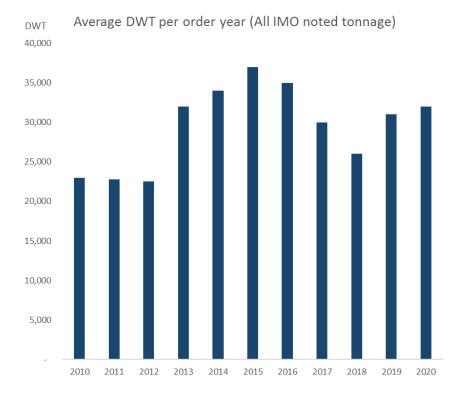


#### Fleet development

- Trend of all IMO noted tonnage (incl IMO 3) is a larger average size, as demand for bulk chemicals increases, and more newbuildings are built with IMO certificates to take advantage of palm oil trade (more MRs with IMO notation)
- Higher number of vessels above 40k dwt built with non-typical tank/segregation patterns (7/14), or typical swing tonnage coating.

Fleet dynamics changing in larger sizes





Source: Lorentzen & Stemoco, KTR



#### Pressure on rates...

- Weakness in CPP trade not helping.
- Volume growth has not kept pace with supply-side growth, a situation made more acute by the recent influx of CPP swing tonnage.
- On the demand side, weak return volumes from China and other Asia ports seem to will decline further
- Surge in Chinese domestic production, will cause declining demand for some chemical imports, pushing down freight rates to Asia.



© 2016 ICIS

Source: ICIS

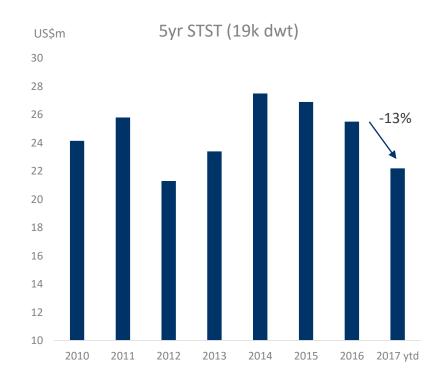


## Oversupply and swing tonnage+ stiffled demand side bringing market and values down

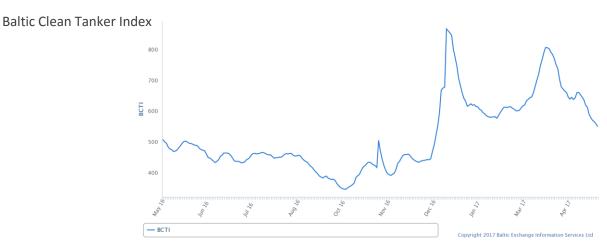
Average 1 YR TC 19k STST



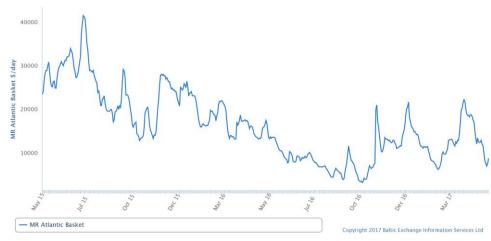
Average values SH5 19k STST



## Improving Product Tanker Market removes Swing Tonnage



Baltic MR Atlantic Basket US\$/day



Source: Baltic Exchange



#### What is the outlook on the demand side?

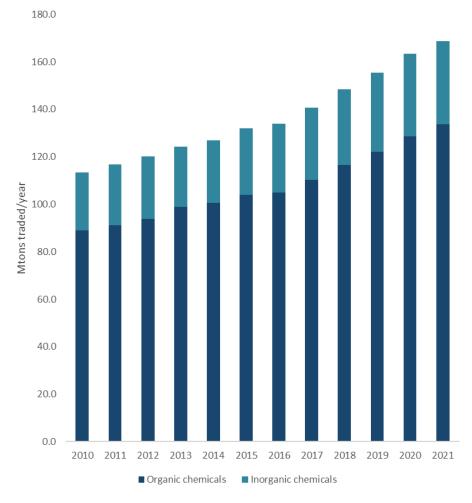
#### **Seaborne trade (tons) Deadweight demand** Mill. tons Annual change Annual change mdwt 300 7% 60 7% 6% 250 6% 50 5% 5% 200 40 4% 4% 150 30 3% 3% 100 20 2% 2% 50 10 1% 1% 0 0% 0 0% 2005 2007 2009 2011 2013 2015 2017 2019 2021 2005 2007 2009 2011 2013 2015 2017 2019 2021 ■ Inorganic chemicals Organic chemicals Organic chemicals Inorganic chemicals Vegetable oils Vegetable oils Other cargoes Other cargoes Change Change

- Chemical demand growth is expected to grow with a CAGR of 5% between 2017 and 2021
- Strongest growth expected from organic chemicals as structural shifts unfold in locations like US, based on cheaper feedstock access



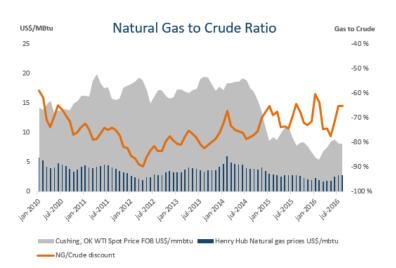
Organic chemicals with most pronounced growth – why is this?



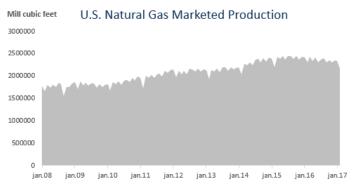




#### Despite lower oil price – natural gas is here to stay



- Cheap feedstock continue to support US chemical market fundamentals
- Whilst low crude prices have challenged the beneficial discount previously enjoyed by natural gas, natural gas based feedstock locations like the US and the Middle East are still competitive compared to other producing regions



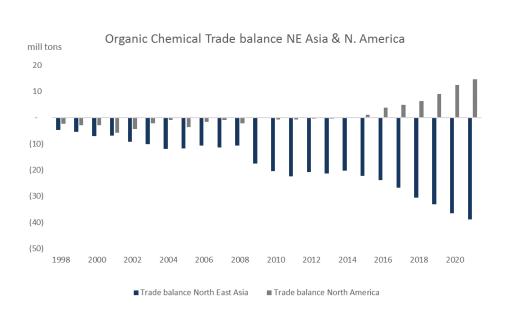


#### **US feedstock still competive**



#### US Feedstock Advantage Growing Organic Chemical Exports

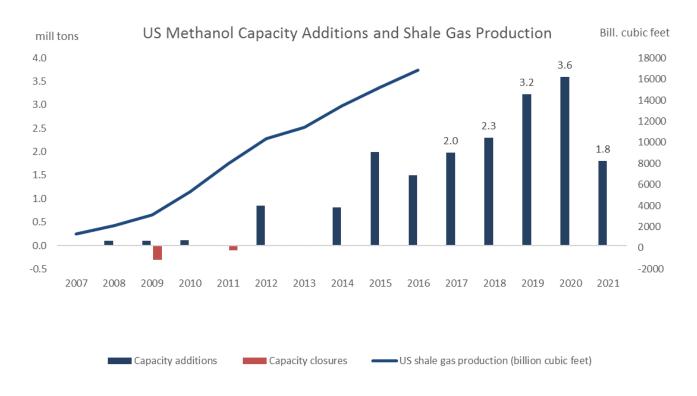
- Cheap feedstock in the US increasing investment into chemical production capacity
- Organic chemicals and petrochemicals primary investment field
- North American chemical trade balance seeing significant improvement as exports increase



#### North American trade surplus chemicals



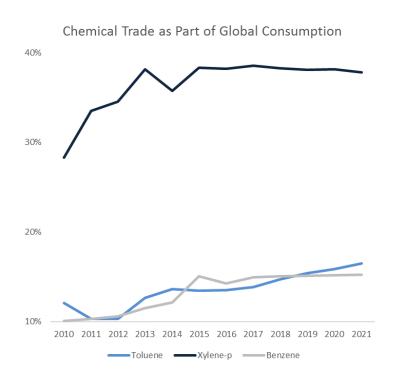
### **US Methanol Development**

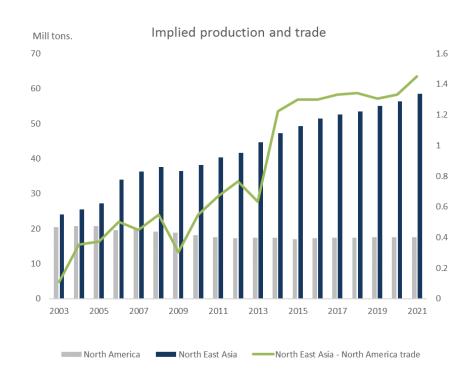


US methanol capacity major driver for organic chemicals going forward



#### Shale changing dynamics in aromatics



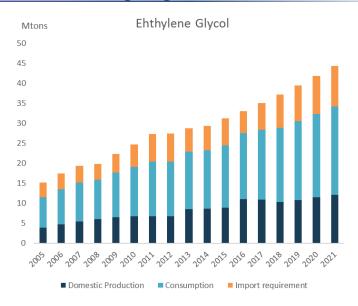


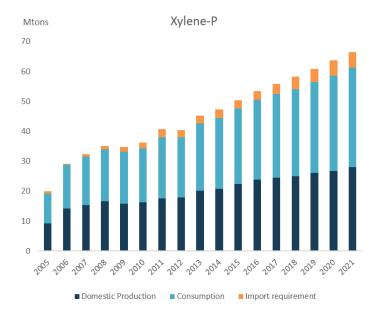
- Shale development has led to a decrease in aromatics yield from crackers as a result of lighter feedslates
- Trade as part of global consumption remaining stable overall, but seeing positive growth in the aromatics segment as regions become less self-sufficient
- Increased trade from North East Asia to North America

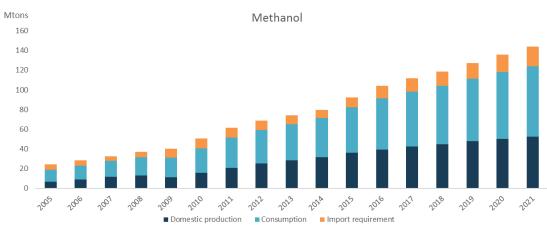
#### Light feedslates bring effect for other chemicals



## US changing in Chemicals – what about NE Asia as demand centre?







Source: Lorentzen & Stemoco, MSI



Oslo (Head office) Lorentzen & Stemoco AS Munkedamsveien 45, 0250 Oslo Norway

Tel +47 2252 7700

Singapore

Lorentzen & Stemoco Singapore 8 Eu Tong Sen street, #21-98 Office 1 The Central 059818 Singapore Singapore

Tel +65 6349 8400

**New York City** 

Lorentzen & Stemoco AS (USA) 8 East 41<sup>st</sup> ST, 8th Floor New York, NY 10017

Tel +1 212 684 2503

London

Lorentzen & Stemoco UK Ltd 5th Floor, Dacre House 19 Dacre Street London SW1H ODJ England

Tel +44 20 7799 4444

Shanghai

Lorentzen & Stemoco Shanghai Representative Office Room 2701, Shanghai Central Plaza 381 Huai Hai Zhong Road 200020 Shanghai China

Tel +86 21 6391 5880

**Athens** 

Lorentzen & Stemoco (Athens) Ltd Leof Karamanli 25 166 73 Voula Greece

Tel +30 210 89 000 59

**Hong Kong** 

Lorentzen & Stemoco (Greater China) Hong Kong Ltd Flat A, 22F Sing Ho Finance Building 166-168 Gloucester Road Wan Hai Hong Kong

Tel +852 2530 2164

For more information on Lorentzen & Stemoco and our global representation visit us at Lorstem.com



#### Disclaimer

This presentation is provided by Lorentzen & Stemoco AS or an affiliated company and has been prepared for information purposes only. This presentation is not a solicitation of any offer to buy or sell any security, commodity or instrument or related derivative or to participate in any trading strategy. Any such offer would be made only after a prospective participant has completed its own independent investigation of the instrument or trading strategy and received all information it required to make its own investment decision, including, where applicable, a review of any prospectus, prospectus supplement, offering circular or memorandum describing such instrument or trading strategy (where such information would supersede this presentation, and to which prospective participants are referred).

This presentation is confidential, and may not be reproduced or distributed, in whole or in part, without the prior written consent of Lorentzen & Stemoco AS.

This presentation is based on information obtained from sources which Lorentzen & Stemoco AS believes to be reliable but Lorentzen & Stemoco AS does not represent or warrant its accuracy or completeness and disclaims any and all liability related thereto. Please note that all prices and special levels are indicative, and may not be up to the date specified in this presentation, while the opinions and estimates contained herein represent the view as of the date of the presentation and may be subject to change without any prior notice.

#### Please note that past performance of a market, company or financial instrument is not necessarily a guide to future performance.

Estimates provided in this presentation are prepared by Lorentzen & Stemoco AS. Lorentzen & Stemoco AS expressively disclaim any and all liabilities for any and all losses related to investments caused by or motivated by this presentation. Any person receiving this presentation is deemed to have accepted this disclaimer that shall apply even if the estimates or opinions shown turn out to be to erroneous or incomplete or is based upon incorrect or incomplete facts, interpretations or assessments or assumptions by Lorentzen & Stemoco AS, and irrespective of whether Lorentzen & Stemoco AS or any person related to Lorentzen & Stemoco AS can be blamed for the incident.

Lorentzen & Stemoco AS and/or its employees may have investments in companies/financial instruments featured in this presentation, and may elect to sell or buy additional financial instruments at any time. Lorentzen & Stemoco AS may also have other financial interests in transactions involving these companies/financial instruments. Lorentzen & Stemoco AS may have or has acted as advisor to, broker or manager for a number companies mentioned in this presentation. For an overview of the companies to whom Lorentzen & Stemoco AS has provided advisory, brokering, consultancy or other services to over the latest 12 months, please see contact Lorentzen & Stemoco AS and find the relevant department on <a href="https://www.lorstem.com">www.lorstem.com</a>

This presentation does not provide individually tailored investment advice or offer tax, regulatory, accounting or legal advice. The assets, securities, commodities or other instruments (or related derivatives) discussed in this presentation may not be suitable for all investors. This presentation has been prepared and issued for distribution to professional investors only and all recipients should seek independent investment advice prior to making any investment decision based on any information contained in this presentation. Prior to entering into any proposed transaction, recipients should determine, in consultation with their own investment, legal, tax, regulatory and accounting advisors, the economic risks and merits, as well as the legal, tax, regulatory and accounting characteristics and consequences, of the transaction.

#### Distribution in the United States

This presentation was prepared for information purposes only by Lorentzen & Stemoco AS, a foreign broker-dealer that is not registered in the United States. Lorentzen & Stemoco AS' presentations are intended for distribution in the United States solely to "major U.S. institutional investors" in reliance on the exemption from broker-dealer registration provided by Rule 15a-6 of the United States Securities Exchange Act of 1934, as amended and may not be furnished to any other person in the United States. Each major U.S. institutional investor that receives a copy of a Lorentzen & Stemoco AS presentation by its acceptance thereof represents and agrees that it shall not distribute or provide copies to any other person. Any U.S. recipient of presentation that desires to effect transactions in any securities discussed within this presentation should do so through Lorentzen & Stemoco AS and shall be advised on how to proceed through a U.S. registered broker-dealer.

Financial statements included in the presentation, if any, may have been prepared in accordance with non-U.S. accounting standards that may not be comparable to the financial statements of United States companies. It may be difficult to compel a non-U.S. company and its affiliates to subject themselves to U.S. laws or the jurisdiction of U.S. courts.

This presentation is issued by Lorentzen & Stemoco AS. Lorentzen & Stemoco AS is a company established under the laws of Norway being licensed and supervised by Norwegian regulators, and all matters relating to this presentation shall be governed by the laws of Norway.

