KARATZAS MARINE ADVISORS & Co.

Shipping Finance Advisory | Marine Appraisals & Surveys | Ship-brokerage & Auctions

Coal Market: The Surprise Variable, Reliably

Bulk Terminals Riga October, 2022

Presentation Not Intended for Investment Purposes © 2022 All Rights Reserved

"Safe Harbor" Statements

****And seas but join the regions they divide**

Alexander Pope

In Sea affairs, nothing is impossible, and nothing is improbable"

Admiral Lord Nelson, writing from HMS Victory in 1804

"If you want to build a ship, don't drum up the men to gather wood, divide the work and give orders. Instead, teach them to yearn for the vast and endless sea"

Antoine de Saint-Exupéry

- **Karatzas Marine Advisors & Co.: Company Introduction**
- **Coal: Present State of the Market**
- Coal: Present Market Drivers
- What the Future Holds
- **Karatzas Marine Advisors & Co.: Contact**

Karatzas Marine Advisors & Co: Company Introduction

- Established in 2011, headquartered in New York City with representative offices in Houston, TX and Hamburg, Germany
- Management team bears decades of diverse shipping expertise, including husbandry agency and port operations, chartering, ship brokerage / demolitions, shipping finance and vessel appraisals & marine surveys, co-placements and JVs
- Expertise by Service Segment
 - Marine Appraisals & Valuations
 - Marine Surveys & Inspections
 - Ship-brokerage (Jones Act / American flag for inland, coastal, blue water / ocean; International Shipping)
 - Market Industry Expertise & Advisory
 - Financial Advisory & Business Brokerage
- Expertise by Market Segment & Geography
 - Geographic Distribution Jones Act & USA, Americas, Europe, SE Asia, Far East, China
 - Market Segmentation: Jones Act Assets (Inland, "brown" water, coastal, blue water, offshore; Dry bulk vessels, Tankers, Containerships, Offshore & Drilling)
 - Capital & Operational Segmentation: Lessors / Lenders / Institutional Investors / Passive Owners;
 Privately- held and Family-owned companies to Publicly-listed companies and "Bulge Bracket" Operators
 - Complementary Industries Charterers, Refineries & Oil Companies, Cargo Interests and Traders
- Demonstrably strong credentials & references (gladly provided upon request)

Karatzas Marine: Scope of Services | Corporate

Marine Appraisal & Marine Survey Services

- D Marine Appraisals & Valuations (Jones Act & International)
- D Marine Surveys & Inspections (Jones Act & International)
- D Business Valuations (Companies active in the maritime industry)
- D Fully-accredited marine appraisers & surveyors with strong qualifications
- D Nationwide and International Network & Capability
- D Prompt, Professional and Independent Analysis & Reporting

Marine Brokerage Services

- D Ship Brokerage Services / Judicial Sales / Insolvency Administrator / Liquidation Trustee
 - D Jones Act / American flag for Inland, Coastal, Blue water / Ocean; International Shipping
 - D Exclusive Representation of Lessors / Banks / Lenders / Passive Owners
- D Ship Brokerage Services allow for real world market info and intelligence based on transactions, actual commercial activity, and interaction with buyers and sellers of marine assets
- D Ship Brokerage Services allow for better understanding of commercial features of appraised / surveyed marine assets and more accurate estimates of residual values

Accreditations & Professional Memberships

- **Accredited Senior Appraiser (ASA)**, American Society of Appraisers
- **Accredited in Business Valuation (ABV),** AICPA
- **Certified Marine Surveyor (CMS), NAMS**
- Fellow of Institute of Chartered Shipbrokers (FICS), ICS in UK
- American Water Operators (AWO), (Associate) Member
- **ELFA**, (Associate) Member
- **The Baltic Exchange**, Member
- **BIMCO**, Member



- Society of Naval Architects & Marine Engineers (SNAME), Member
- **American Bureau of Shipping (ABS),** Member (past)
- **Leading Academic Credentials**
 - MBAs from top-tier Business Schools (Jones, Rice University, etc)
 - Rigorous Professional Development (Owner / President Management Program (OPM51),

Harvard Business School; HBS Alumnus)





CHARTERED

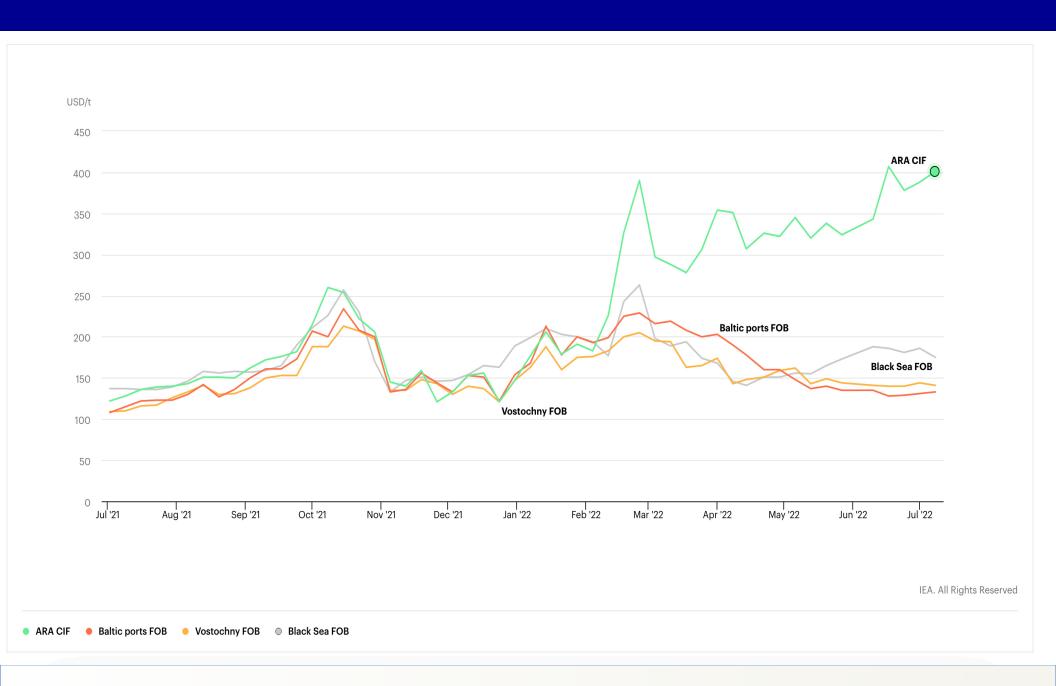






- **Karatzas Marine Advisors & Co.: Company Introduction**
- **Coal: Present State of the Market**
- Coal: Present Market Drivers
- What the Future Holds
- **Karatzas Marine Advisors & Co.: Contact**

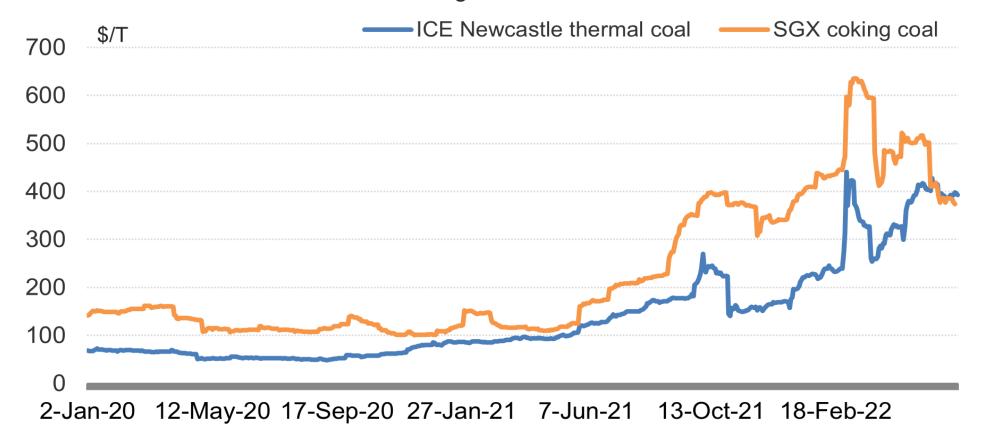
Thermal Coal Pricing in Europe



Thermal vis-à-vis Metallurgical Coal Pricing

THERMAL COAL OVERTAKES COKING

ICE Newcastle thermal coal vs SGX coking coal



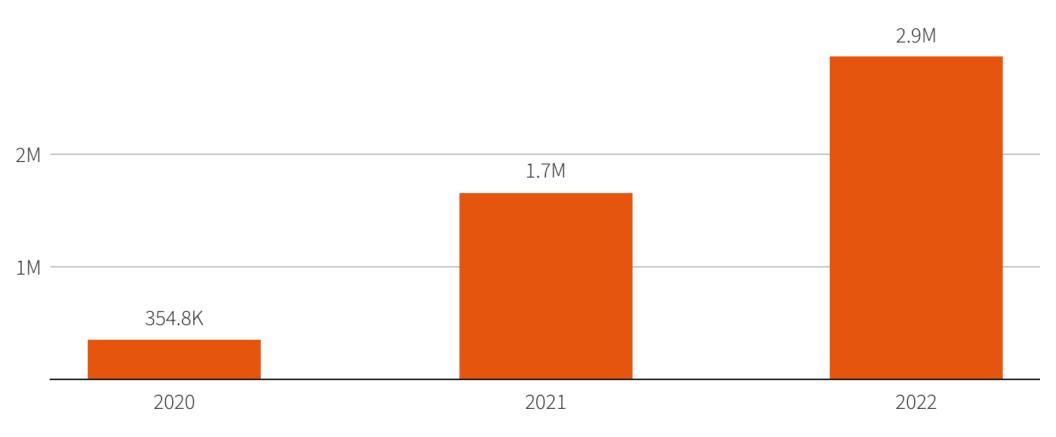
Source: Refinitiv Eikon Reuters graphic/Clyde Russell 28/06/22



Australia's Thermal Coal Exports to Europe

Australia's thermal coal exports to Europe jump

Australia shipped 2.9 million tonnes of coal this year to July, 73% more than in the whole of 2021



Note: 2022 figure is to end-July

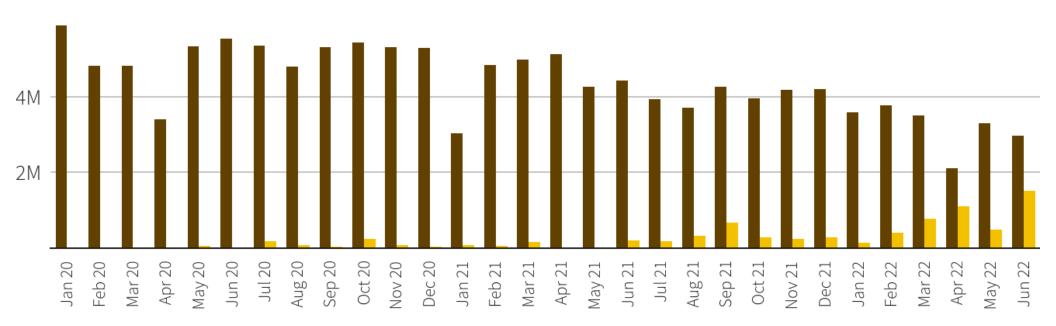
Source: CoalMint

S. Africa's Thermal Coal Exports

South Africa's thermal coal exports

Coal usually sent to Asia is diverted to Europe as demand for the fuel spikes

SA coal exports to Asia
 SA coal exports to EU



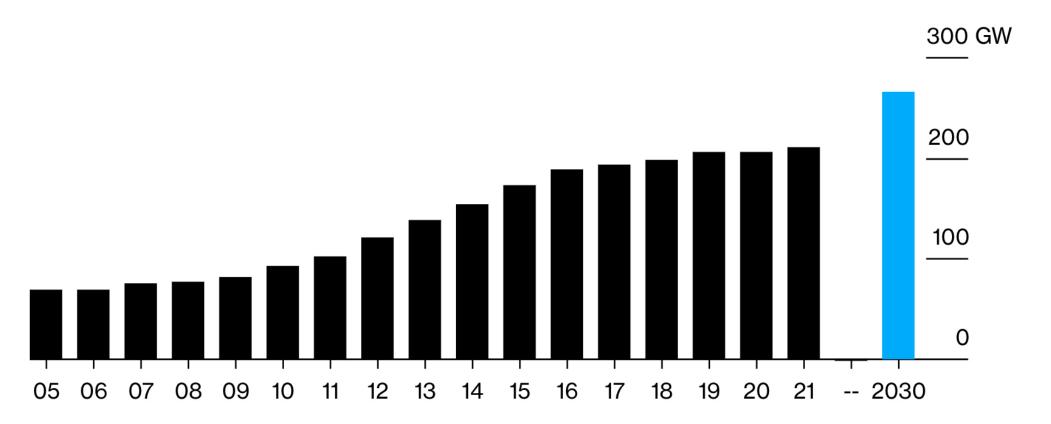
Note: Figures in millions of tonnes

Source: CoalMint

India Coal Power Capacity to Increase by 25% by 2030

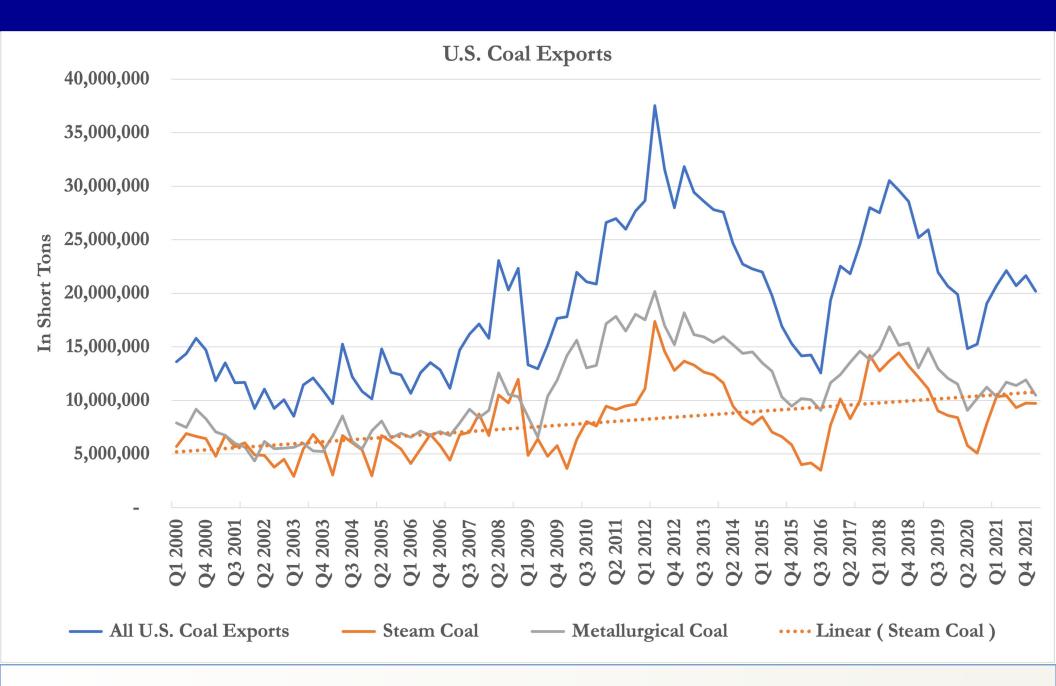
India Wants to Build More Coal Power Plants

Government eyes 56 gigawatt capacity increase to meet growing demand

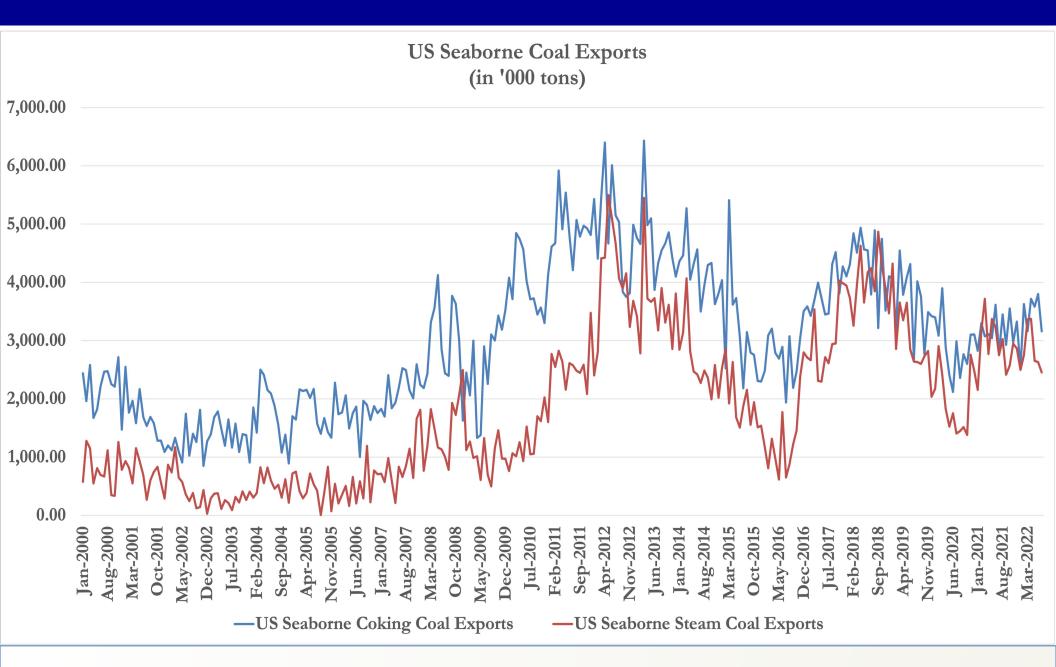


Source: BloombergNEF

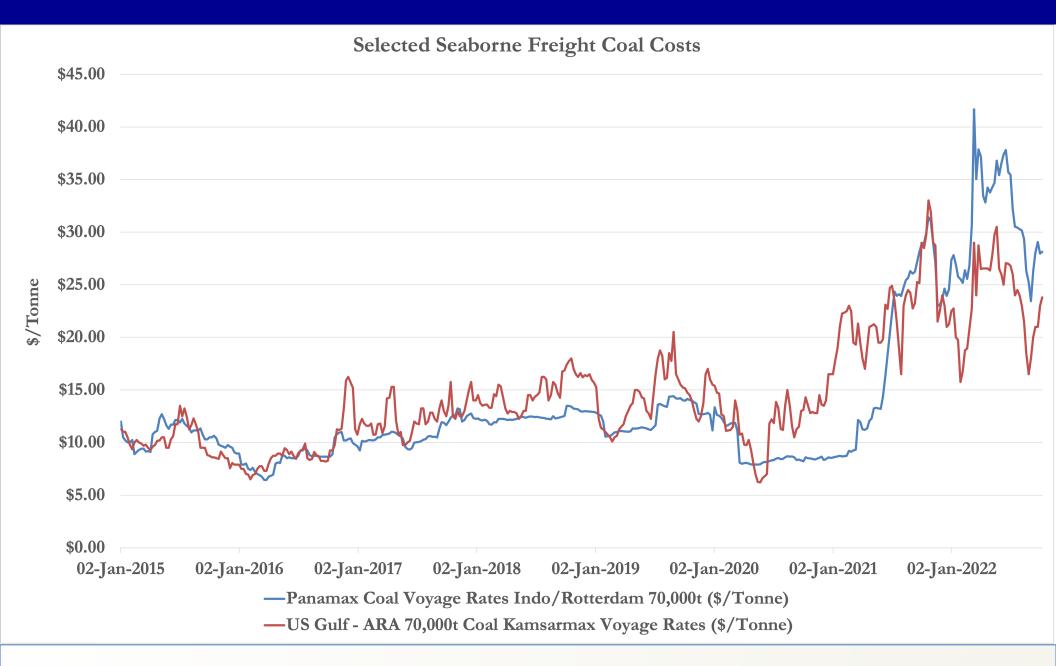
Historical U.S. Coal Exports (Source: EIA)



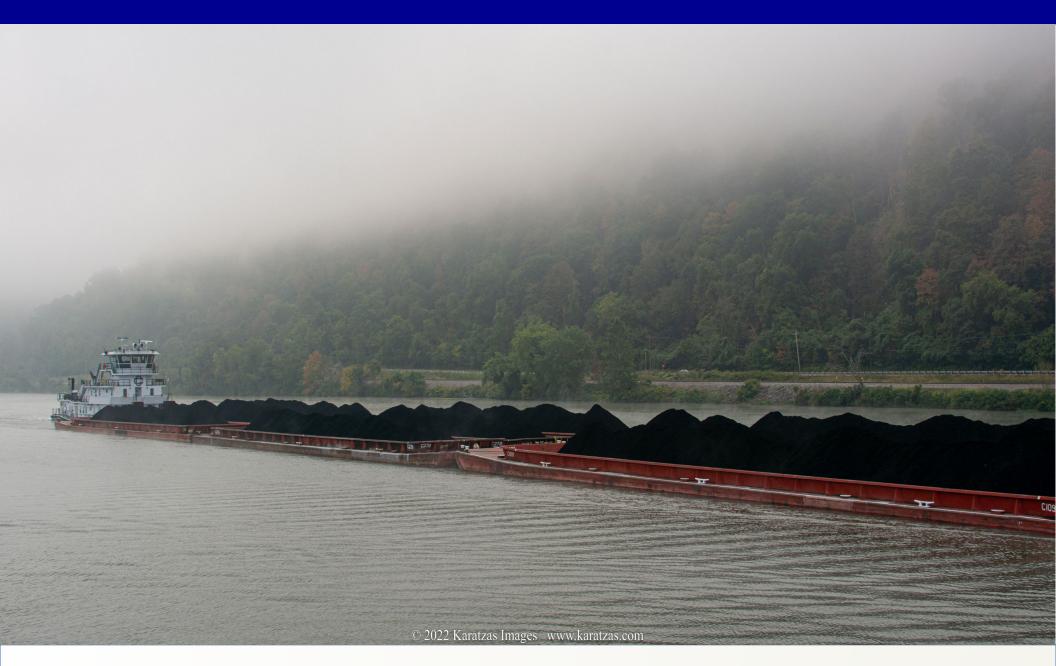
International Dry-bulk Baltic Indices since 2016



Selected Seaborne Freight Coal Costs



Shipping Coal through the Mississippi River



- **Karatzas Marine Advisors & Co.: Company Introduction**
- Coal: Present State of the Market
- Coal: Present Market Drivers
- What the Future Holds
- **Karatzas Marine Advisors & Co.: Contact**

Major Themes for Coal

- At present, the world is short of energy on a timely basis...
 - ✓ Supply Chain Disruptions have had impacted the industrial and energy markets (i.e., China COVID lockdowns affected shipping of commodities and coal)
 - ✓ Post-COVID recovery has not been a smooth ride
- > Several factors were lurking in the background...
 - ✓ Developed economies were shifting away from fossil fuels, in retrospect, based on wishful expectations before having sourced credible alternative sources of energy (i.e., USA and offshore oil and coal)
 - ✓ Political aspirations (i.e., Germany and Japan moving away from nuclear power) before reality
- The invasion of Ukraine by Putin's Russia in February 2022 appears to have been perfectly timed...
 - ✓ Europe appears to be short of energy in the short term with few immediate alternatives
 - ✓ Coal one of the few energy sources with spare capacity for production and shipment (unlike seaborne LNG)
 - ✓ For time being and for the upcoming winter, sourcing energy (heating) takes precedent over any other concern, including ESG and fuel emissions, it would seem
 - ✓ In the short term, probably the sky is the limit

- **Karatzas Marine Advisors & Co.: Company Introduction**
- Coal: Present State of the Market
- Coal: Present Market Drivers
- What the Future Holds
- **Karatzas Marine Advisors & Co.: Contact**

What the Future Holds for Coal

For now, the sky is the limit, but then what?

Let seems almost impossible to project demand and trends for thermal coal beyond 2023

What we know:

- The news of coal's death were exaggerated
- The world needs spare energy capacity for times of emergency, and coal has been a reliable such source
- Transition away from fossil fuels will not be as smooth and expedient as many people may have wished

What we also now know:

- Investment in renewables is highest ever, with increased impetus to accelerate R&D
- New regulations would make use of fossil fuels questionable in the future
- A new line of thinking for investors, as they now prioritize return of money to investors instead of expanding capacity; from crude and offshore drilling, to large and smaller coal mining operations, there is minimal appetite to expand capacity beyond the foreseeable future

- **Karatzas Marine Advisors & Co.: Company Introduction**
- Coal: Present State of the Market
- Coal: Present Market Drivers
- What the Future Holds
- **Karatzas Marine Advisors & Co.: Contact**

Karatzas Marine Advisors & Co. | Contact Details

Karatzas Marine Advisors & Co.

International Maritime Advisory | Marine Appraisals & Surveys | Ship-brokerage

Headquarters:

One World Financial Center, 23rd Floor 200 Liberty Street New York, NY 10821 USA

Germany Office:

Neuer Wall 80 20354 Hamburg

- **USA** (New York City): +1 212 380 3700
- **GERMANY** (Hamburg): +49 152 3736 1205
- Email: INFO@BMKaratzas.com
- Web: <u>www.Karatzas.com</u>
- Web: www.Karatzas.auction
- Blog: www.karatzas.auction/blog



Thank you for your attention!

For Current Commentary, Articles and Updates on Marine Appraisals & Surveys, Market Trends, Shipping Finance, Maritime History Please Feel Free to Visit Our Blog at

www.karatzas.auction/blog

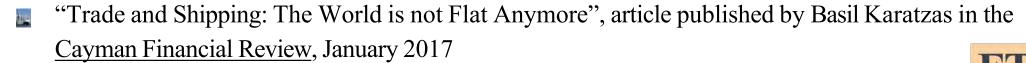
(or email us at info@bmkaratzas.com to be added to our distribution list)



Worldwide Expertise & Credibility

The Economist

- "Still at Sea", Basil Karatzas quoted in The Economist, March 4th, 2017
- "Ruling the Waves", article written by Basil Karatzas in Week in China (Hong Kong), March 3rd, 2017
- "Shipping Crisis Hits German Banks", Basil Karatzas quoted in The Wall Street Journal, February 10th, 2017



- Perfect Storm Looms over Shipping Lenders", The Financial Times, September 21st, 2016
- "Container Ships Stranded At Sea After South Korean Company Goes Bankrupt", Basil Karatzas interviewed on National Public Radio (NPR), September 6th, 2016
- "Stranded at Sea", Basil Karatzas interviewed by the Canadian Broadcasting Corporation (CBC), The Exchange, September 3rd, 2016
- "Fender Benders on Water; See Expanded Panama Canal", Basil Karatzas quoted in The New York Times, July 31st, 2016

The New York Times