



EXPLORING HOW SUPPLIERS CAN FIND SOLACE FROM RETROFITS DUE TO BUDGET CUTS FOR NEWBUILDINGS

DAMEN SHIPYARDS



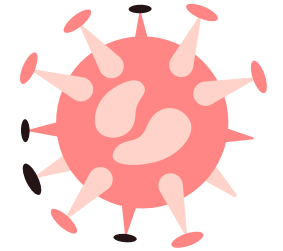
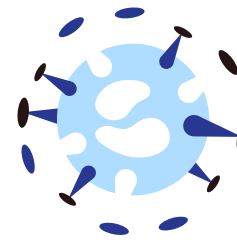
- Family owned maritime multinational from The Netherlands
- Niche markets for new building
- Repair & conversions
- 36 yards world wide
 - 23 new building
 - 18 repair and conversions
- 2018: 2 B€ turnover
- >12.000 people employed

INTRODUCTION MICHEL GOEDEGEBUURE

- Master of Science in Aerospace Engineering, Delft University of Technology
- Experience
 - Aerostructures industry
 - Industrial production
 - Maritime Industry (Damen Shipyards)
- International experience
 - Supplier to European Aerospace and Industrial Clients
 - Managed entities in The Netherlands, Spain and Singapore
- This webinar: my personal opinion

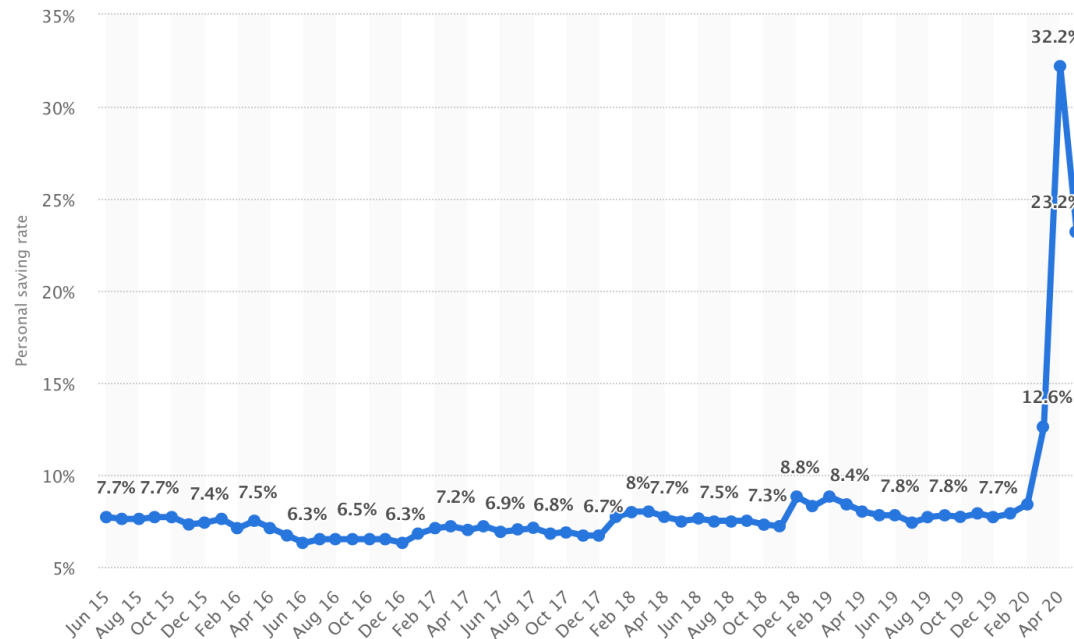


COVID-CRISIS: OUTLOOK



- Opinion: the economy is not going to 'bounce back'
- Less demand for maritime transport and services
 - People are careful spending money (see savings chart)
 - Less travel
 - Less consuming of goods

PERSONAL SAVINGS RATE USA



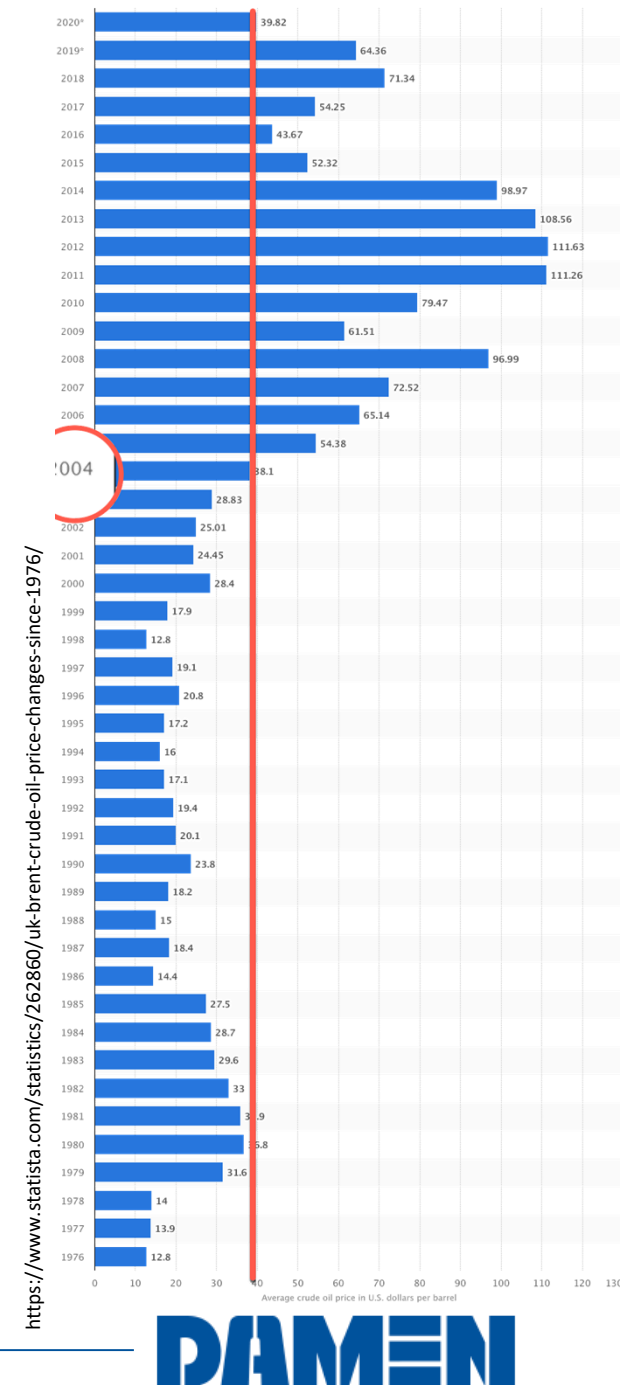
<https://www.statista.com/statistics/246268/personal-savings-rate-in-the-united-states-by-month/>



DAMEN

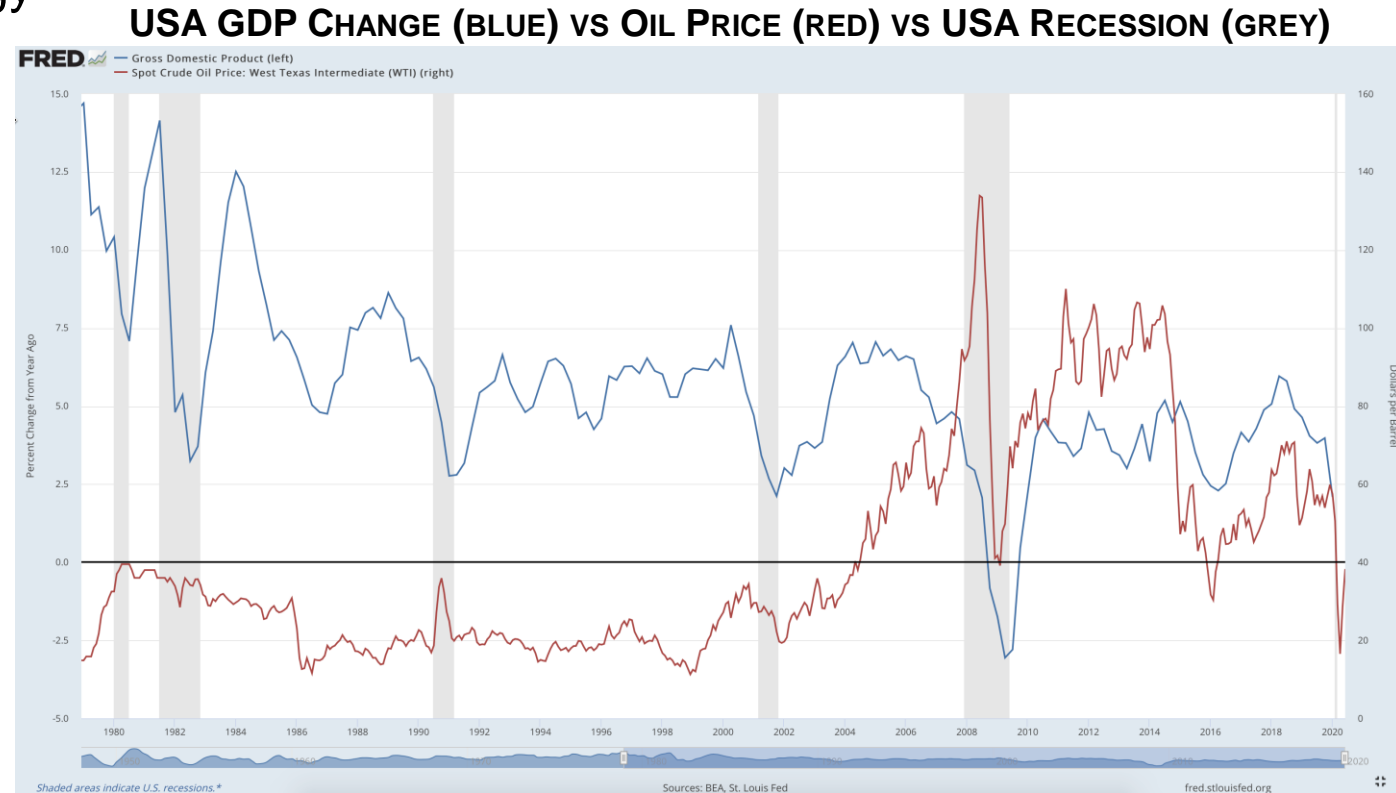
SILVER LININGS

- Oil price is at the lowest point since 16 years (see graph)
- Interest rates are low
- Talented people are searching for work
- Staff and other companies are open for change
- There is time now to redesign your product and business model
- Time available to upgrade staff and hardware



MARITIME INDUSTRY - OVERALL

- Historically: lagging economic development
- Low oil price has large impact on maritime activities in oil & gas and renewable energy (ref: 2015 oil price drop and subsequent effect on marine industry)
- Some sectors in marine industry flourish with low price of energy, e.g. public transport new building
- 2020
 - Low oil price and economic recession / depression coincide
 - World wide, no regions exempt
- Expectation: ship owners will delay investments
- Further price fighting



<https://fred.stlouisfed.org/series/GDP#0>

- Market is uncertain for immediate future
- High speed of technological development
- Investing in new vessel
 - Return on investment is long and high risk
 - Fit with future business model could be weak
- Retrofit
 - Low CAPEX upgrade of ship
 - Necessary to comply with rules and win the trust of crew and clients
- Mothballing and disinvestment
 - Reduce OPEX



RETROFIT, REPAIR AND MAINTENANCE: WHY NOW?

■ License to operate

- Safe distance rules for crew and clients



■ Opportunity

- Maintenance and repair does not hurt earning capacity
- Extend the (economical) useful life of the asset
- Lower OPEX
 - Smaller crew by more automation and autonotation
 - Remote monitoring and maintenance

OPPORTUNITIES FOR YARDS AND SUPPLIERS

- Remote sensing and control
- Automation of operating the vessel
- Educating crew to perform 'higher level' maintenance and repair
- Telecommute of engineer

