“Looking globally from Athens”

Lessons from long term cycles

Dr. Andreas Vergottis
Shipping ROCE

<table>
<thead>
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<th>Region</th>
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Trade growth p.a.: CHINDIA 4.6%

Source: Tufton Oceanic based on broker reports
Hard Tobin’s Q – dry cargo

Source: Tufton Oceanic based on broker reports
New orders – no new orders during red ink periods

1886 - 2013
as % of fleet on the water

Source: Tufton
Lots of scrapping during red ink periods

1890 - 2013
as % of fleet on the water

Source: Tufton
In between newbuilding upcycles... 
...shipyard **red ink** downcycles

1896 to 1913 – Tramp cargo
7000 dwt newbuild price

1921 to 1939 – Tramp cargo
7500 dwt newbuild price

1946 to 1970 – Liberty replacement
13000 dwt newbuild price

1970 to 2013 – Panamax bulker
75000 dwt newbuild price
Newbuilding Price Upcycles

* All newbuild price upcycle starting point indexed at 100
Lessons

• The return on capital will mean revert to cost of capital, say 8%
• Supply will catch up with demand, though...
• ...New orders will go from boom to bust
• Tobins Q will mean revert to 1
• Any next 10 years will not resemble at all the previous 10 years but may resemble some decade further back in the past