

IEA Bioenergy



Sustainable International Bioenergy Trade, Securing Supply and Demand

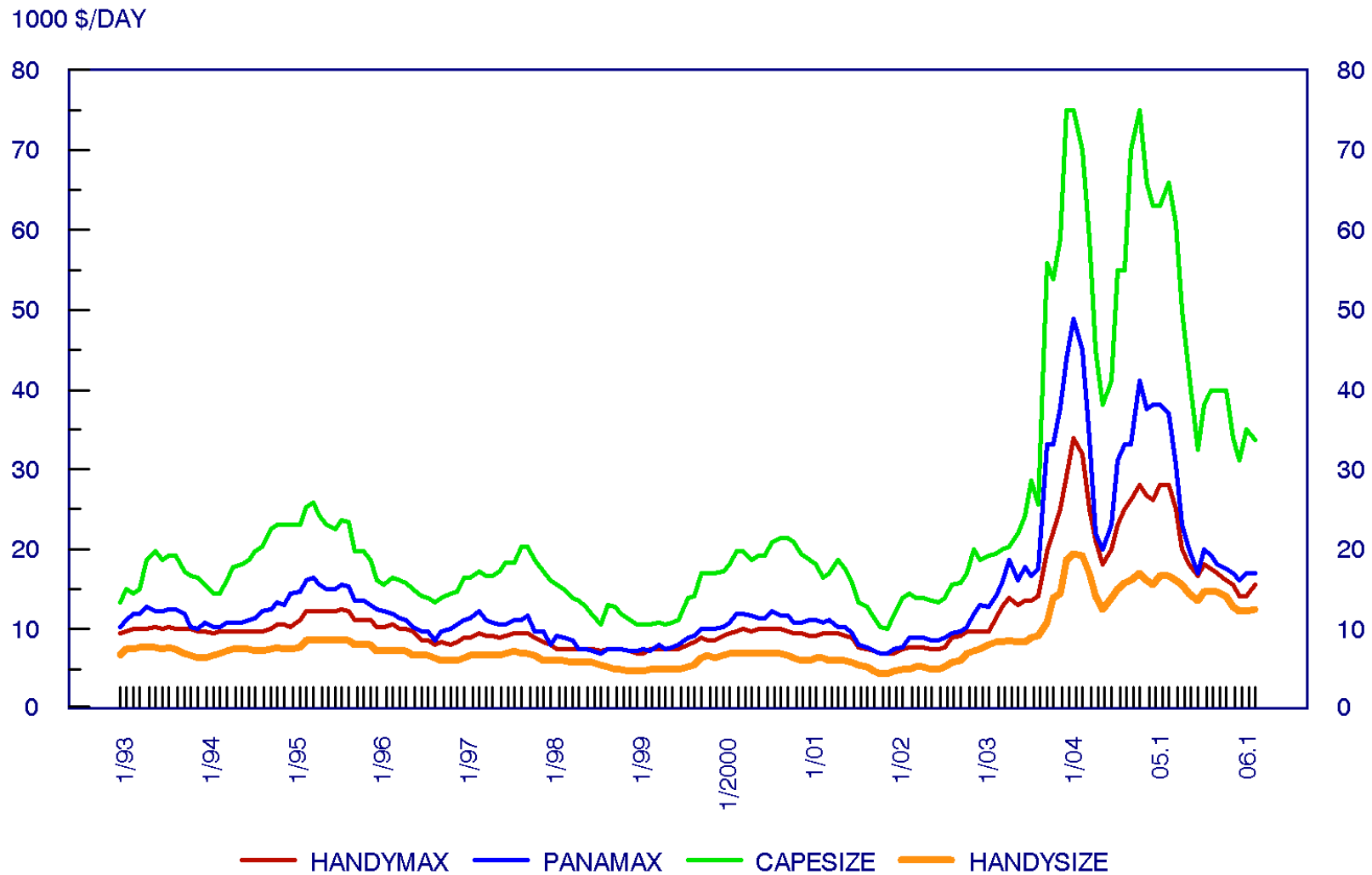
Dry Bulk Shipping, An Essential in Developing Efficient Biofuel Supply Chains

Trondheim 6th April

**Presented by
Thor Emil Brandrud**

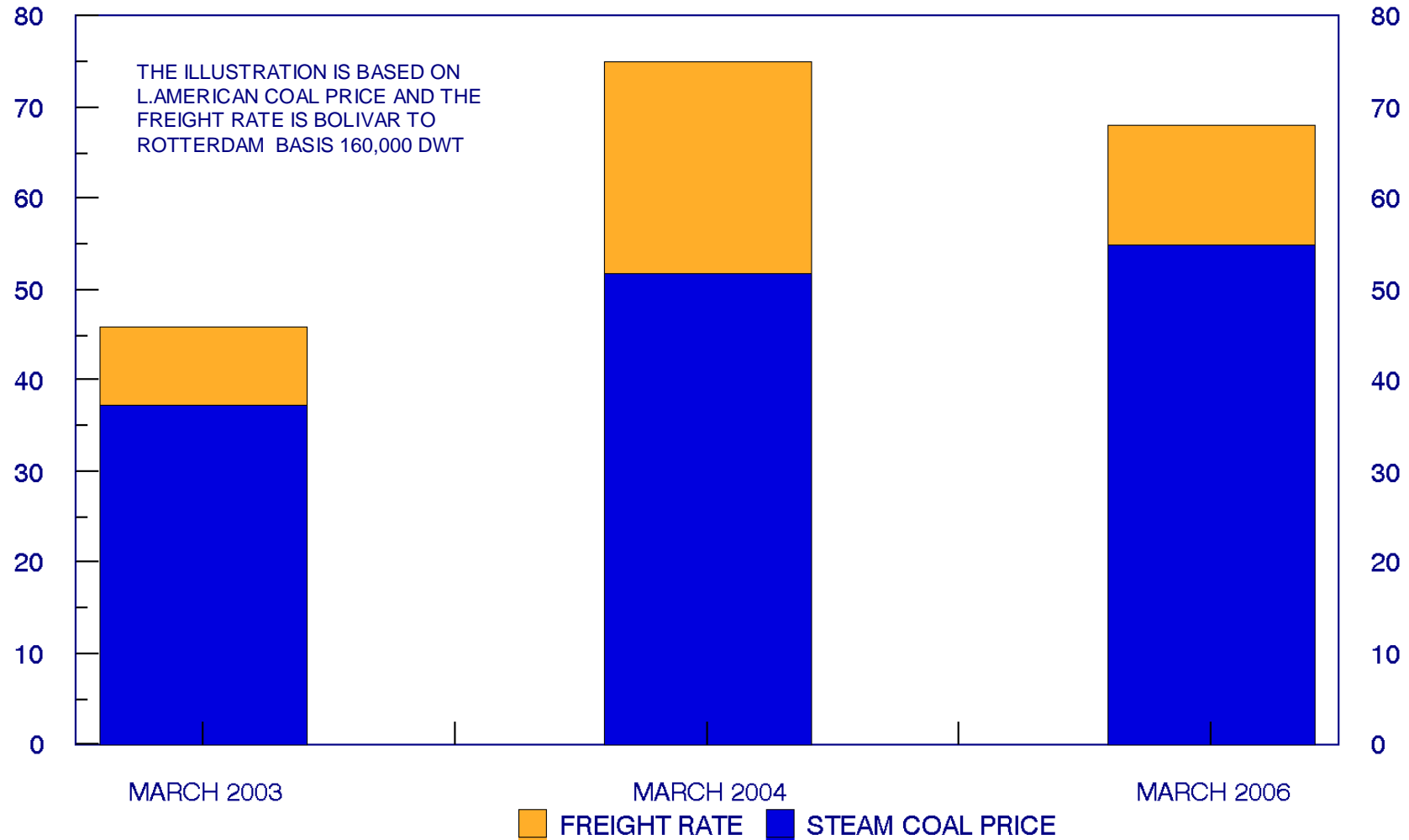
EXTREMELY HIGH FREIGHT RATES SINCE 2003.....

12 MONTHS T/C RATES FOR BULK CARRIERS



COMPARISON OF FREIGHT RATES AND COMMODITY PRICE

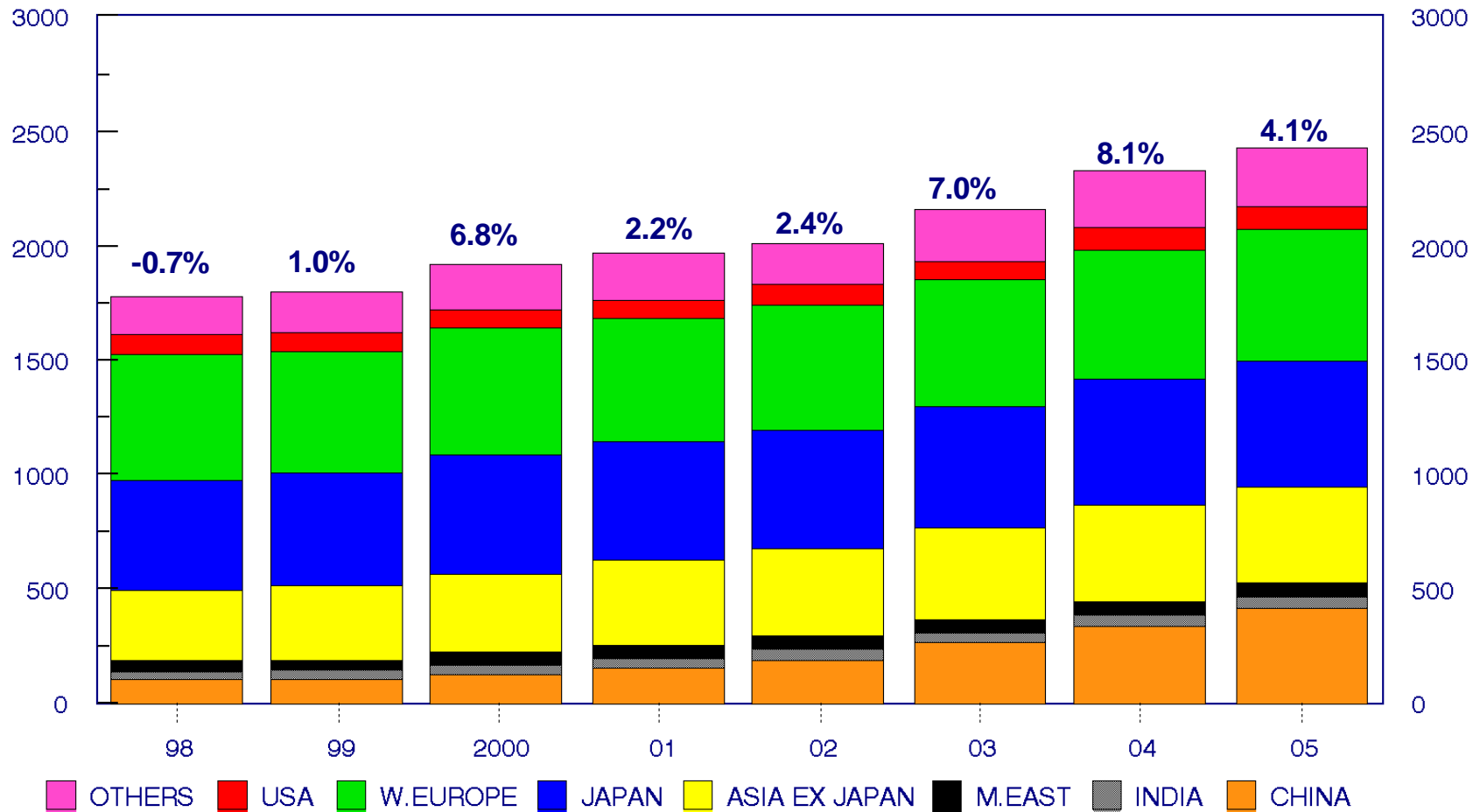
\$/TONNE



DRIVEN BY VERY STRONG GROWTH IN TRADE.....

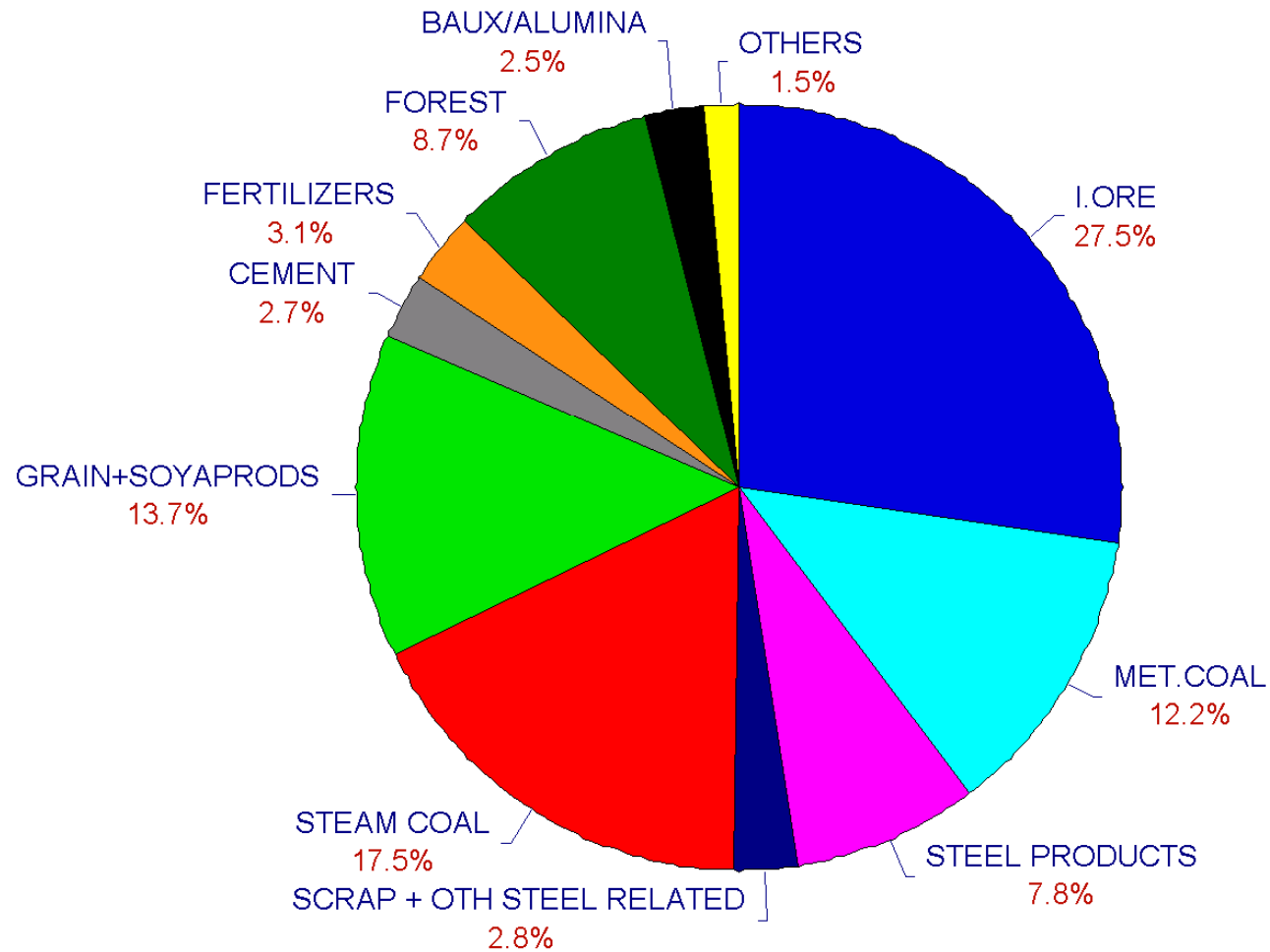
TOTAL DRY BULK IMPORTS BY COUNTRY/REGION

MILL. TONNES



DRY BULK DEMAND STRONGLY DRIVEN BY THE STEEL INDUSTRY.....

WORLD SEABORNE TRADE 2005 DRY BULK COMMODITIES

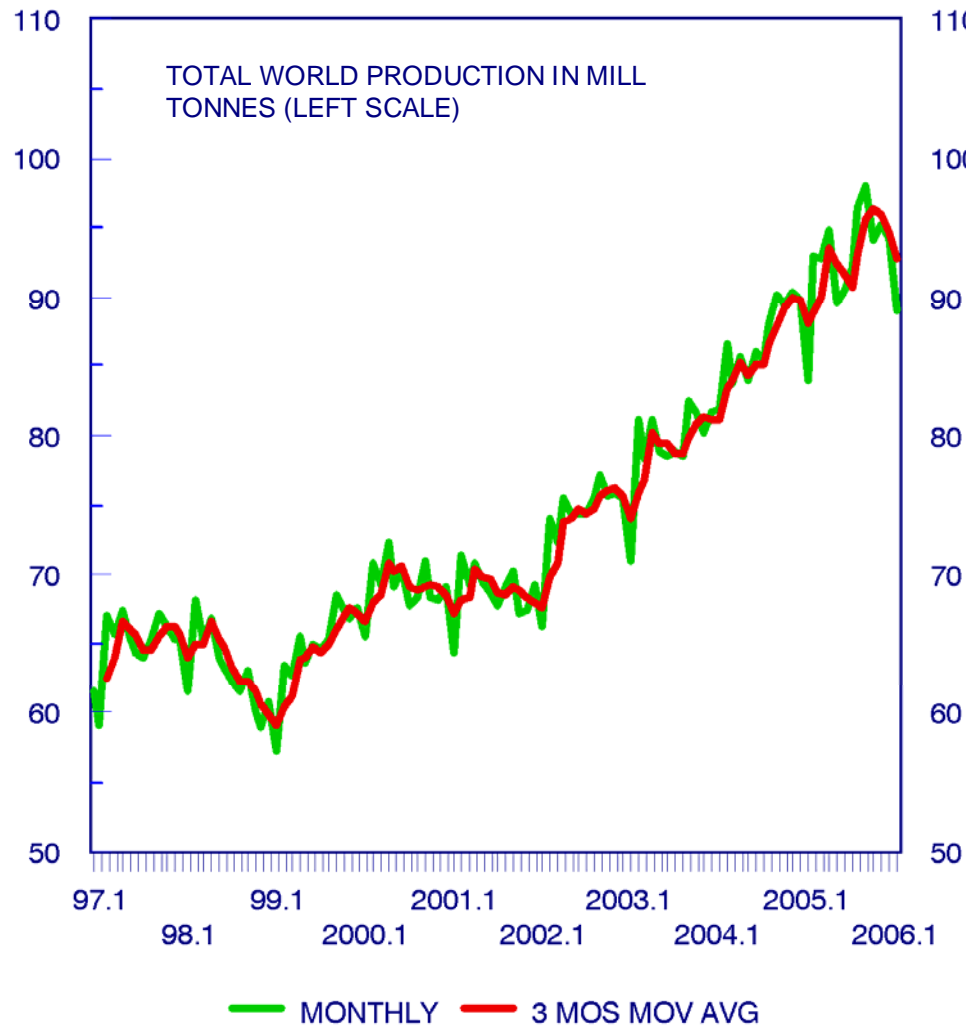


VOLUME 2005:
2425 MILL TONNES

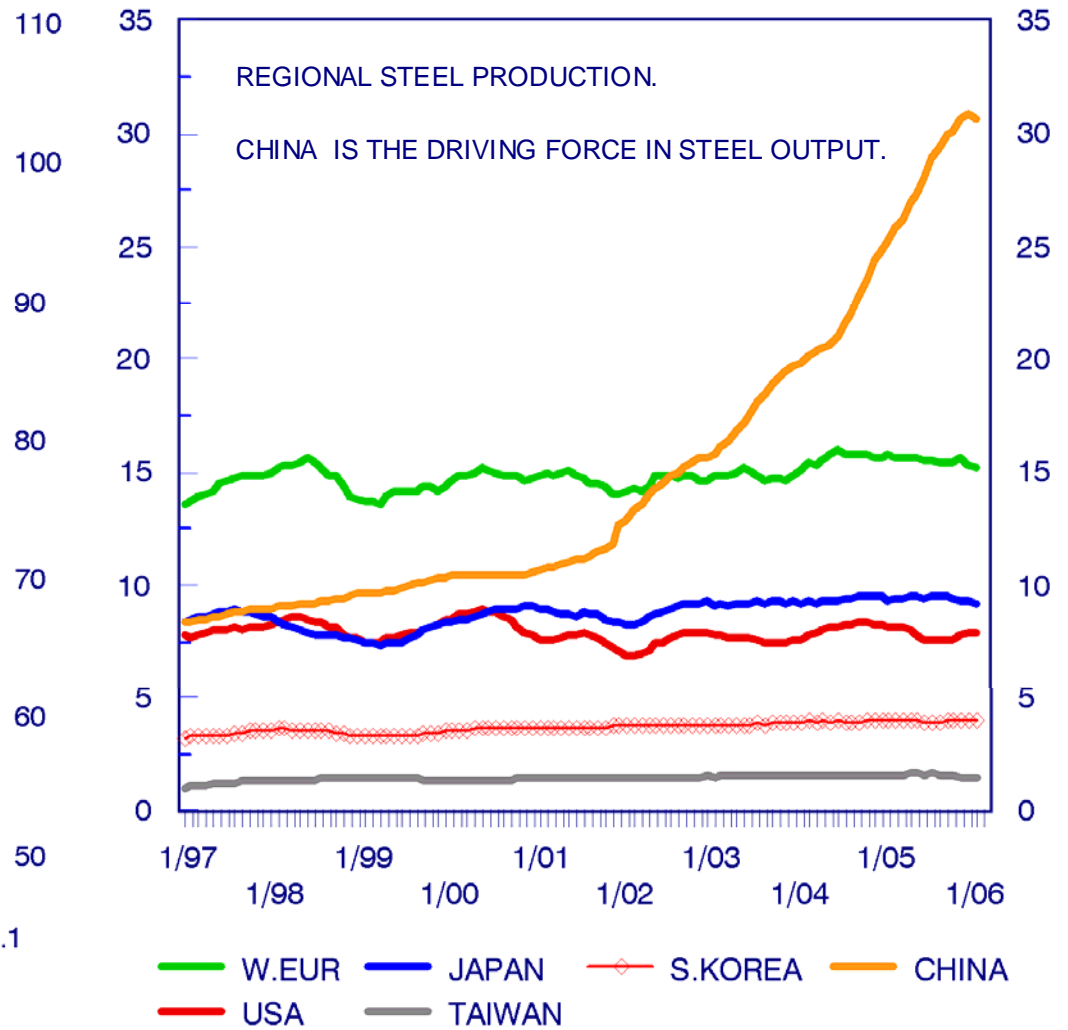
SUBSTANTIAL UPTURN IN CHINA'S STEEL PRODUCTION RECENTLY...

WORLD STEEL PRODUCTION

MILL. TONNES/MONTH

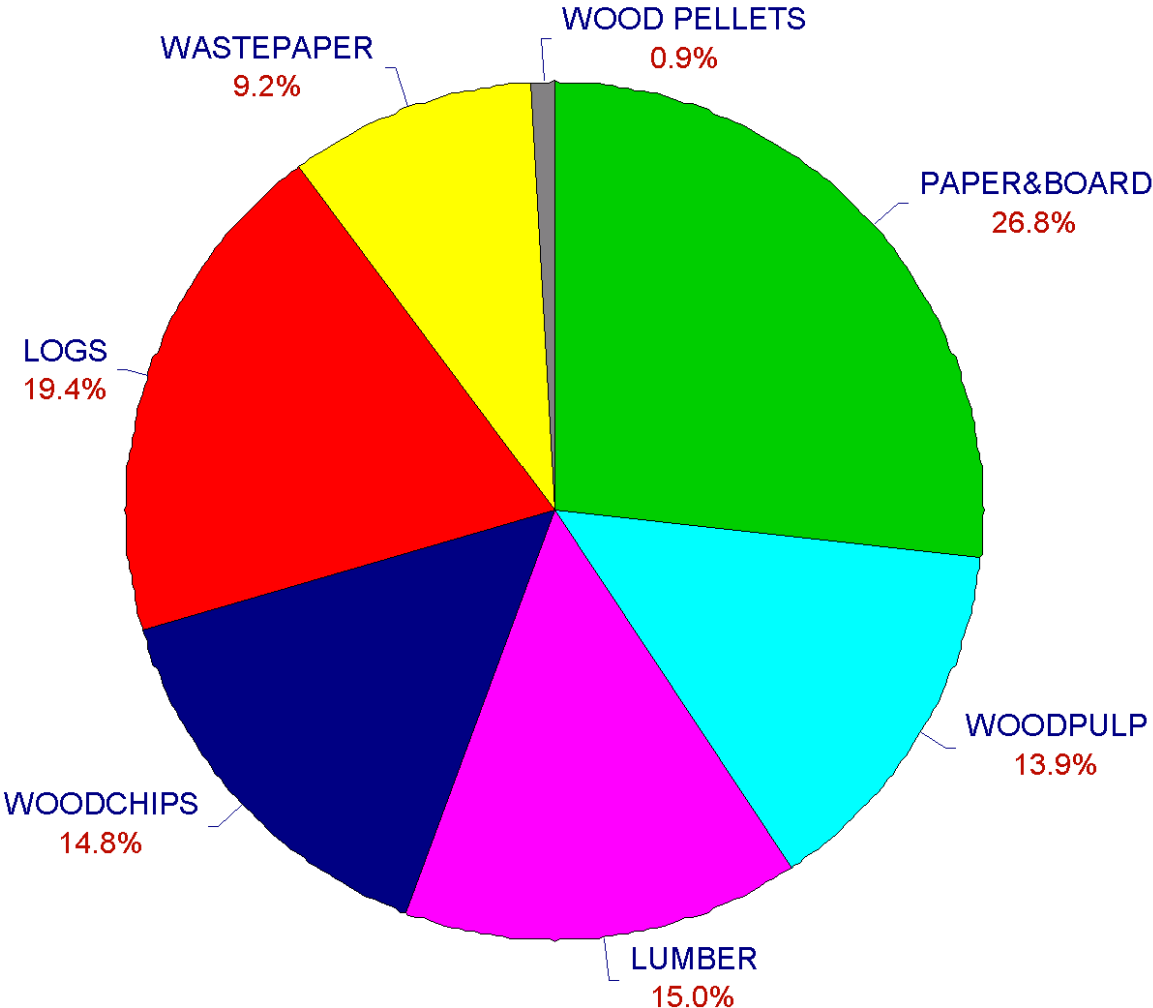


MILL. TONNES/MONTH



THE FOREST INDUSTRY ACCOUNTS FOR LESS THAN 9 PERCENT OF WORLD SEABORNE TRADE IN DRY BULK.....

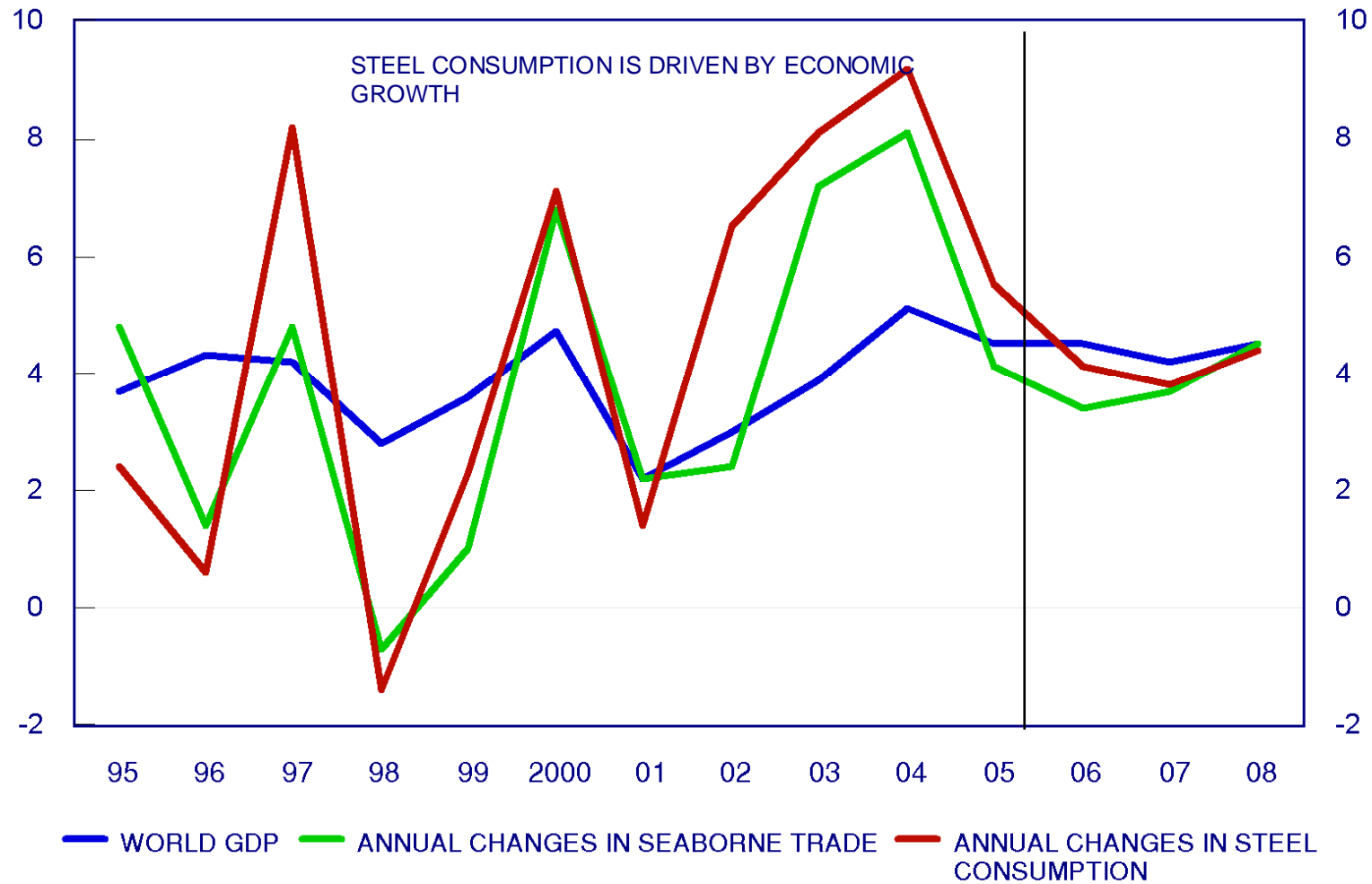
SEABORNE FORESTRY TRADE 2005



TONNAGE DEMAND - A FUNCTION OF ECONOMIC GROWTH.

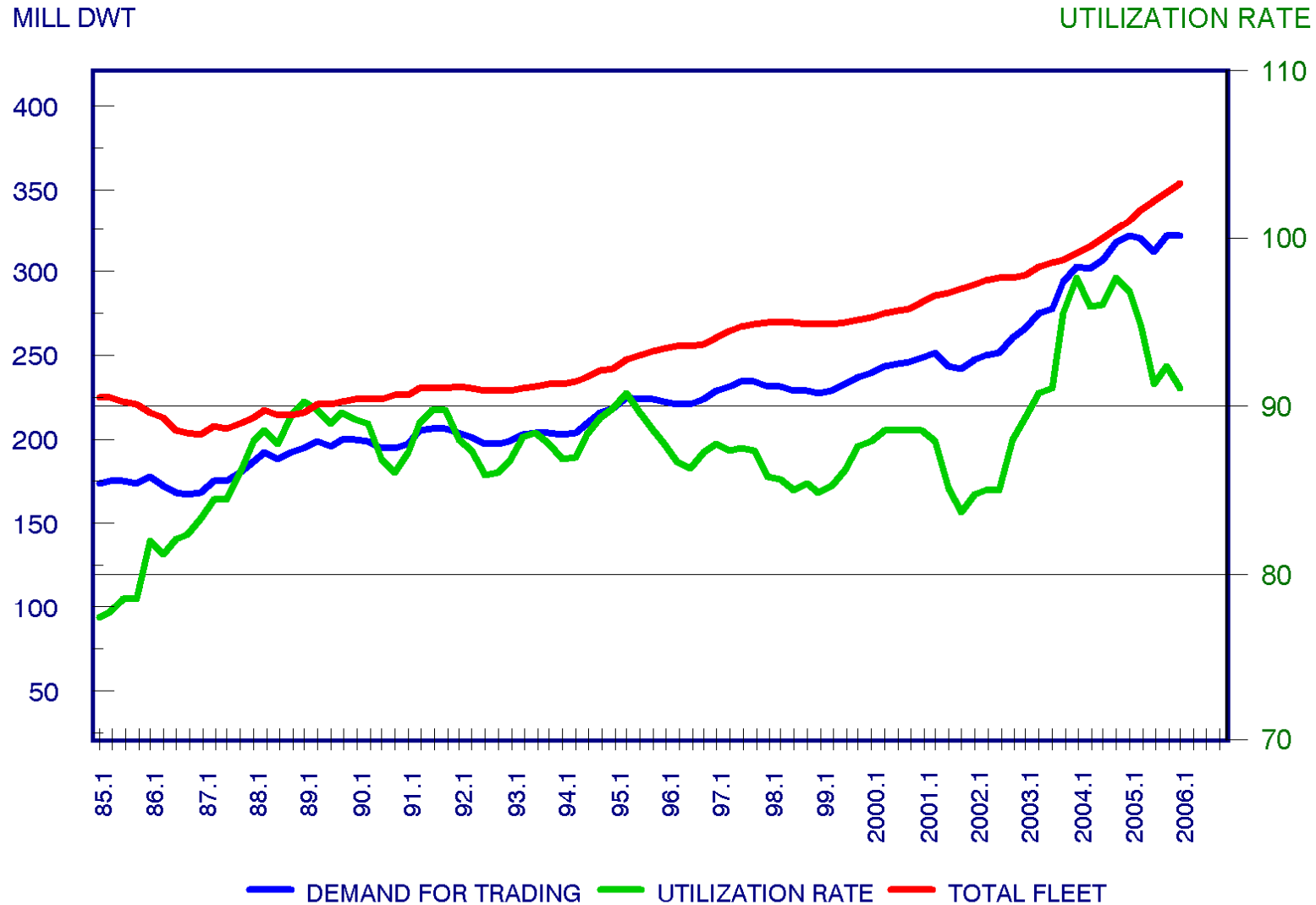
ECONOMICS VS STEEL PRODUCTION AND SEABORNE TRADE

PERCENT GROWTH FROM YEAR BEFORE



ALL SHIPS ARE FULLY UTILIZED.....

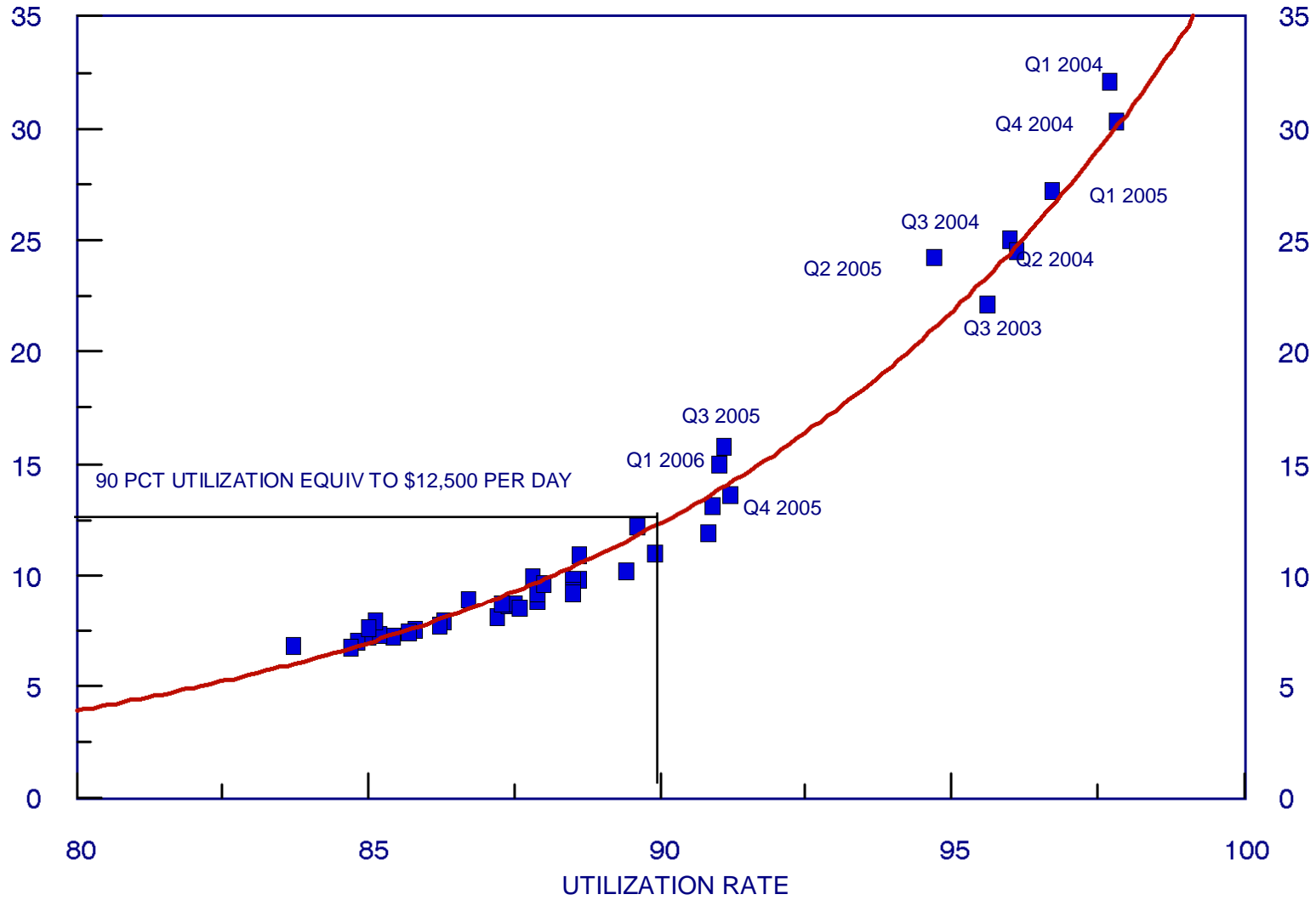
SUPPLY, DEMAND AND UTILIZATION RATE DRY BULK FLEET 10.000 DWT +



FREIGHT RATES VS UTILIZATION RATE HANDYMAX

1995 - 2006

1000 \$/DAY

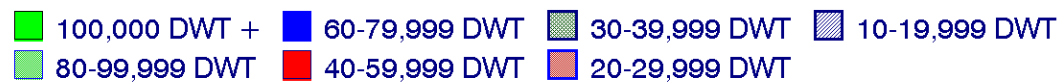
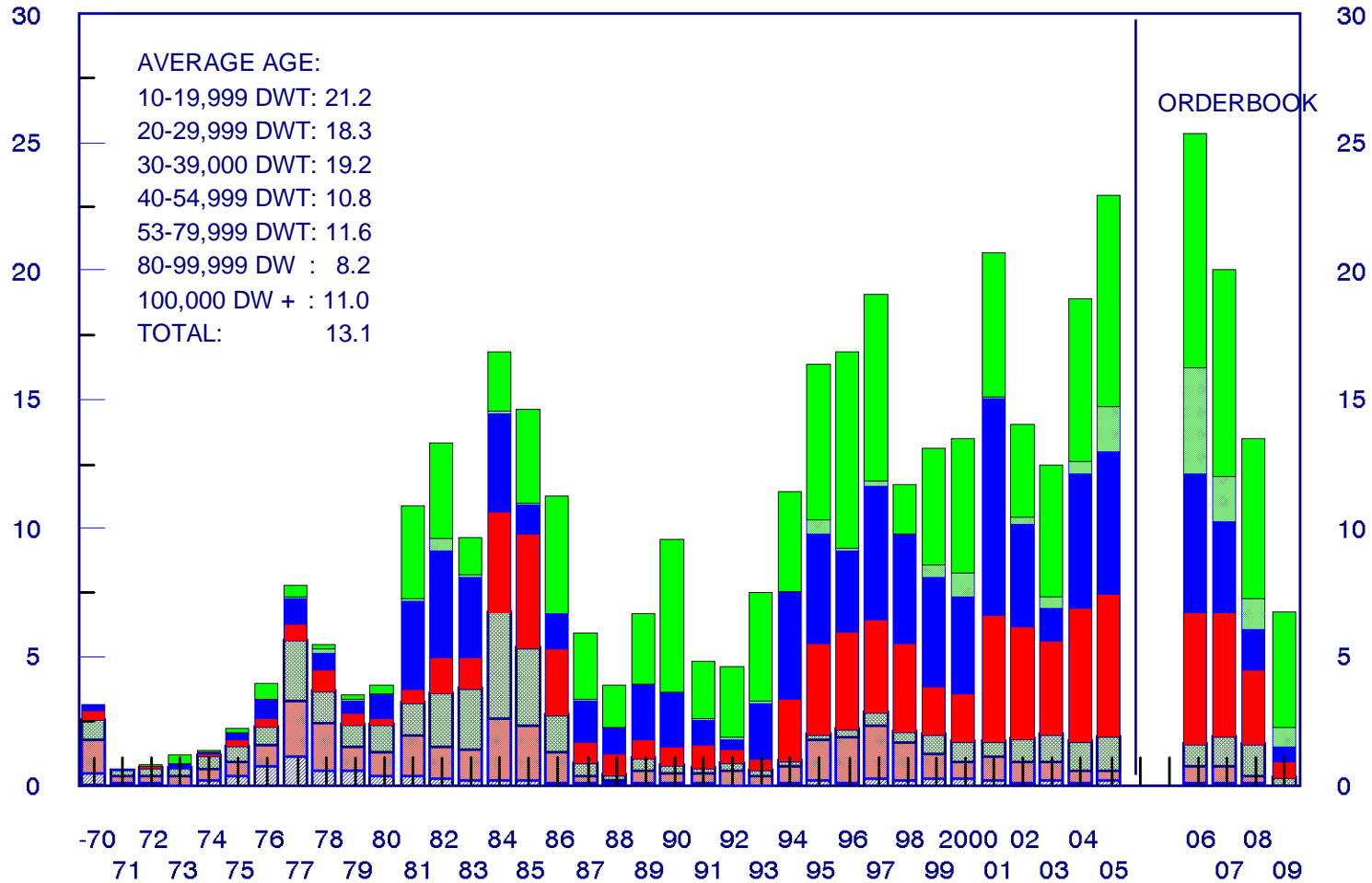


R-square = 0.973 # pts = 44
 $y = 0.000436e^{0.114x}$

,BUT RECORD HIGH DELIVERIES OF SHIPS IN 2006/07....

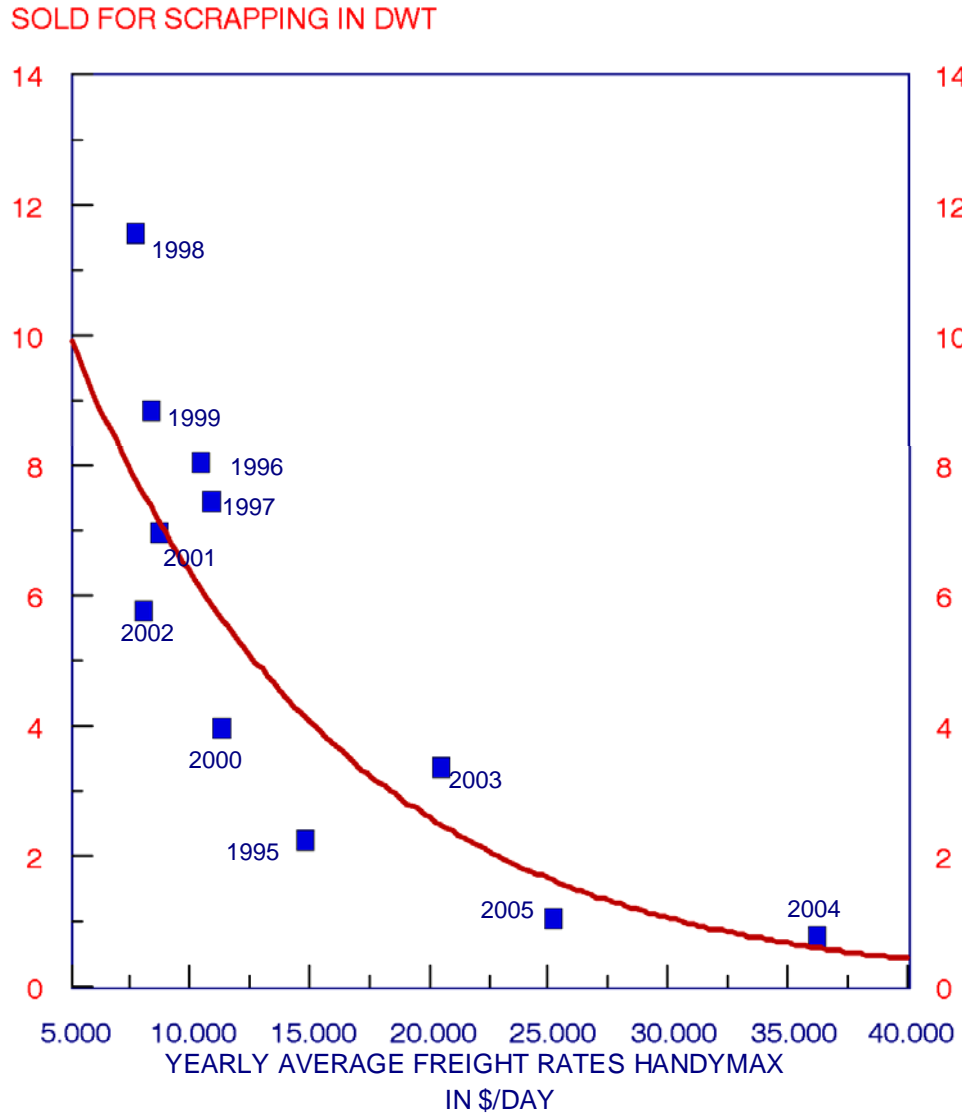
BULK CARRIER FLEET BY YEAR OF BUILT AND ORDERBOOK AS AT 1.3.2006

MILL . DWT

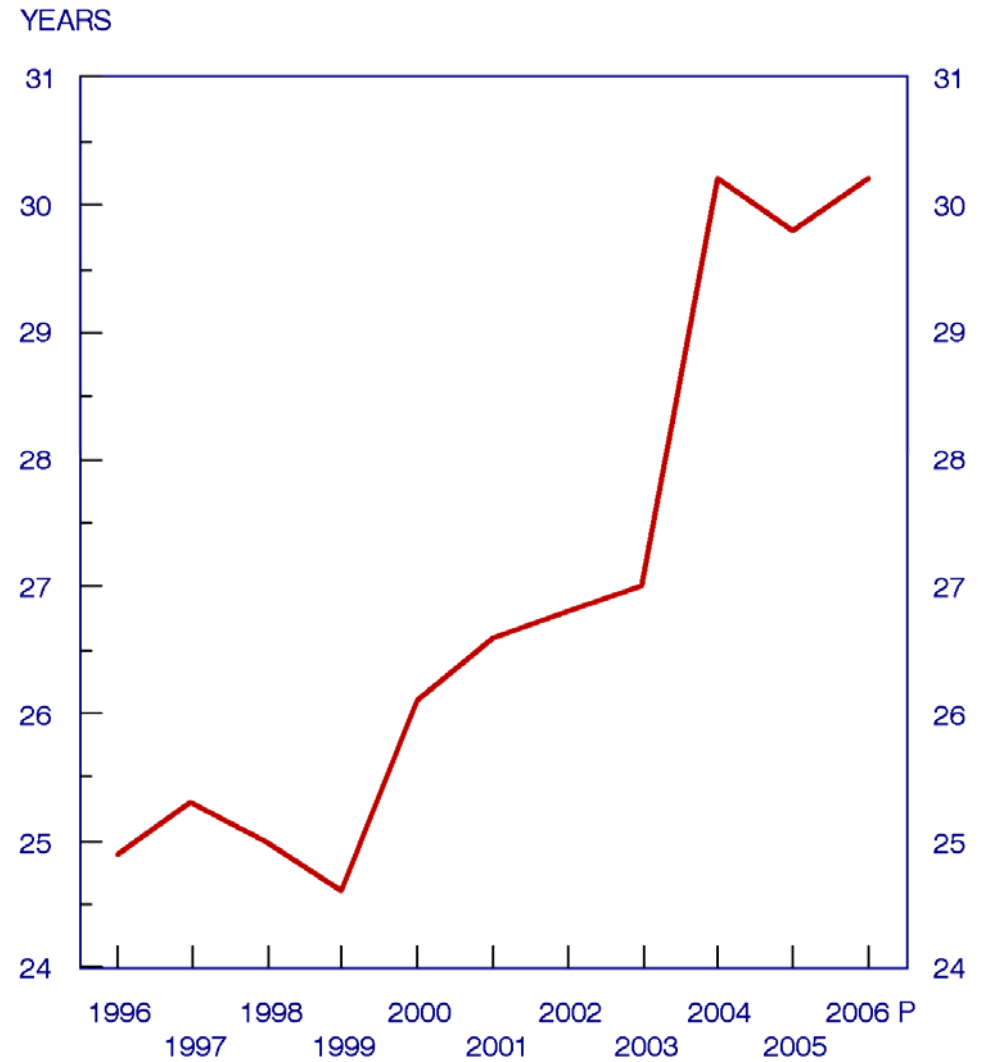


SCRAPPING IS MAINLY A FUNCTION OF FREIGHT RATES ...

FREIGHT RATES VS SCRAPPING DRY BULK SHIPS



AVERAGE AGE OF SCRAPPING DRY BULK SHIPS



SUMMARY

➔ SEABORNE TRANSPORTATION OF DRY BULK CARGOES IS EXPECTED TO INCREASE BETWEEN 4 AND 5 PERCENT IN 2006, BY SLIGHTLY LESS THAN 4 PERCENT IN 2007, AND BY NEARLY 5 PERCENT IN 2008.

➔ TONNAGE DEMAND IS ASSUMED TO INCREASE SOMEWHAT LESS BECAUSE THE LOGISTICS WILL MOST LIKELY IMPROVE AND THEREBY RESULT IN HIGHER FLEET PRODUCTIVITY.
(LESS CONGESTION!!)

➔ THE FLEET WILL EXPAND BY 6 PERCENT P.A. IN 2006/07, LESS THAN 4 PERCENT IN 2008.
(LESS DELIVERIES AND MORE SCRAPPING)

➔ THEREFORE, THE FLEET UTILIZATION IS EXPECTED TO DECLINE THROUGH MOST OF 2007, BUT PROBABLY RECOVER IN 2008. SHORT TERM VOLATILITY WILL REMAIN

➔ MOST IMPORTANT FACTORS TO WATCH:

US AND CHINESE ECONOMY

R.S. Platou Group

R.S. Platou Shipbrokers, Oslo

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Lone Star R.S. Platou, Houston

R.S. Platou, Moscow

Ulwazi Ship Brokers, Cape Town

Riobroker, Rio de Janeiro

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