

DRY BULK SHIPPING IN AN EVER CHANGING ENVIRONMENT

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**Plus ça change plus c'est la
même chose**

and

“The This Time its Different Syndrome”

(Reinhart-Rogoff)

BASIC TRUTHS

Collectively we are where we are because our thinking brought us here

- **The world is a global market and generally follows the laws of supply and demand. When demand falters production slows.**
- **Market forces help balance external stimuli so as to re-establish cost efficiency.**
- **Input and output costs must be kept under control in order to sustain growth.**

GREEK SHIPPING

- Greeks control probably the biggest fleet in carrying capacity (tdw). The average size of Greek controlled ships is about 63.500 tdw. The world's average ship is about 24.600 tdw. The average size of world ships, excluding Greek ships, is about 22.250 tdw. Therefore **Greek ships are on average 2.85 times bigger than the rest.** It follows that Greek shipping transports a major share of international trade.

The Greek fleet is considered a reliable, strategic partner for the transport requirements of all major trading nations.

- In the 19th century Greeks were mostly merchants who had fleets to service their trade.
- In an attempt to improve efficiency, now we mostly have ships to service international trade. **The bulk of the Greek fleet gets its efficiency from cross trading, something we appear to be good at.**
- In this way we eliminated cargo price risks but we remain vulnerable to freight market and ship price fluctuations. This improves our potential to generate greater profits from shipping demand imbalances in a rapidly changing world.

This is both a benefit and a disadvantage

The benefits:

- Lower overheads and capital requirements, as we do not need to have cargo and commodity trading offices to finance and to support their risks.
- We can take advantage of opportunities on good markets. If our ships are charter free we prosper.

The disadvantage:

- On a downturn shipowners are more exposed since they do not control the cargo. **Cargoes will always exist to be transported at a price.** Some voyages' provide better income than others.

Shipping is self correcting. Hence its variously cyclical performance. Better times will always come.

In shipping investments the risk element is the ship's purchase price.

BUBBLES

2003-2008 was compounded bubble territory because of temporary constraints:

- Bubble in iron ore prices
- Bubble in steel prices
- Bubble in the freight market for lack of shipyard capacity leading to a
- Bubble in ship prices

Shipyards are a freight market destruction mechanism. As early as 2003 China had said that by 2015 it would be the world's largest ship builders. Some did not believe this. They were wrong.

5% on the earth's crust is iron ore. With high iron ore prices more prospecting was inevitable. More mines were created and iron ore prices dropped. So did the price of steel and newbuilding steel related prices.

Now that the bubbles burst most everyone is suffering.

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“When the tide goes out you see who is not wearing swimming trunks” (Warren Buffet)

- **Shipowners** are suffering because of the “animal spirits” which guided their investments.
- **Shipping bankers** are suffering because they did not understand the business they financed well enough, despite the tons of data and research they invested in.

Understanding freight market and ship price fluctuations would go a long way to improve the performance of both owners and their bankers.

CONTRACT TYPE USED IN MAIN DRY BULK MARKETS BY THE PRIMARY CHARTER TYPE

BULK	T/C %	VOYAGE CHARTER %	COA %
Iron ore	not used	40	60
Coal	not used	40	60
Phosphate	40	55	5
Bauxite	50	40	10
Grain	not used	80	20
Aluminum	55	35	10

Source: EU Report COMP/2006.D2/002

CoAs generally characterize industrial shipping. This is mostly limited to iron ore and coal operating in shuttle trades and gains efficiency through larger ship sizes. The bulk of the other trades is covered on voyage charters contracted by owners or operators. This is known as tramp shipping. **Tramp shipping gains its efficiency from triangulation in order to reduce ballast legs and uses more flexible ship sizes.**

CONTRACTING PARTIES IN TIME CHARTERS

The Contracting Parties in Time charters of 12 months or longer are:

SHIP TYPE	OWNERS & OPERATORS	TRADERS	END USERS
Capesizes	80%	11%	9%
Panamaxes	88%	9%	3%

(Source: Lloyd's List October 30th, 2007)

In the dry bulk trades the vast majority of the charterers are operators

Operators' offices, much like shipowners' offices, are staffed with chartering clerks of similar qualifications.

Over the years the attrition rate of charterers has been much higher than that of shipowners indicating that the shipowners' market acumen is generally better.

About 65% of the first class charterers that my company SBT has contracted with in Panamaxs over the last 25 years have ceased operating. Most shipowners we know are still around. Some charterers have folded more than once. A very large number have renegotiated (downwards) their charter rates. **Time charters give only notional security in a market downturn.**

Financiers who insist in employment "security" (charters) boycott the shipping investments they finance. They should instead rely primarily on the abilities and judgment of their client, the shipowner.

A shipowner's capital commitment to his business is very substantial

To have survived is also indicative of his business acumen. Few operators have the staying power of shipowners.

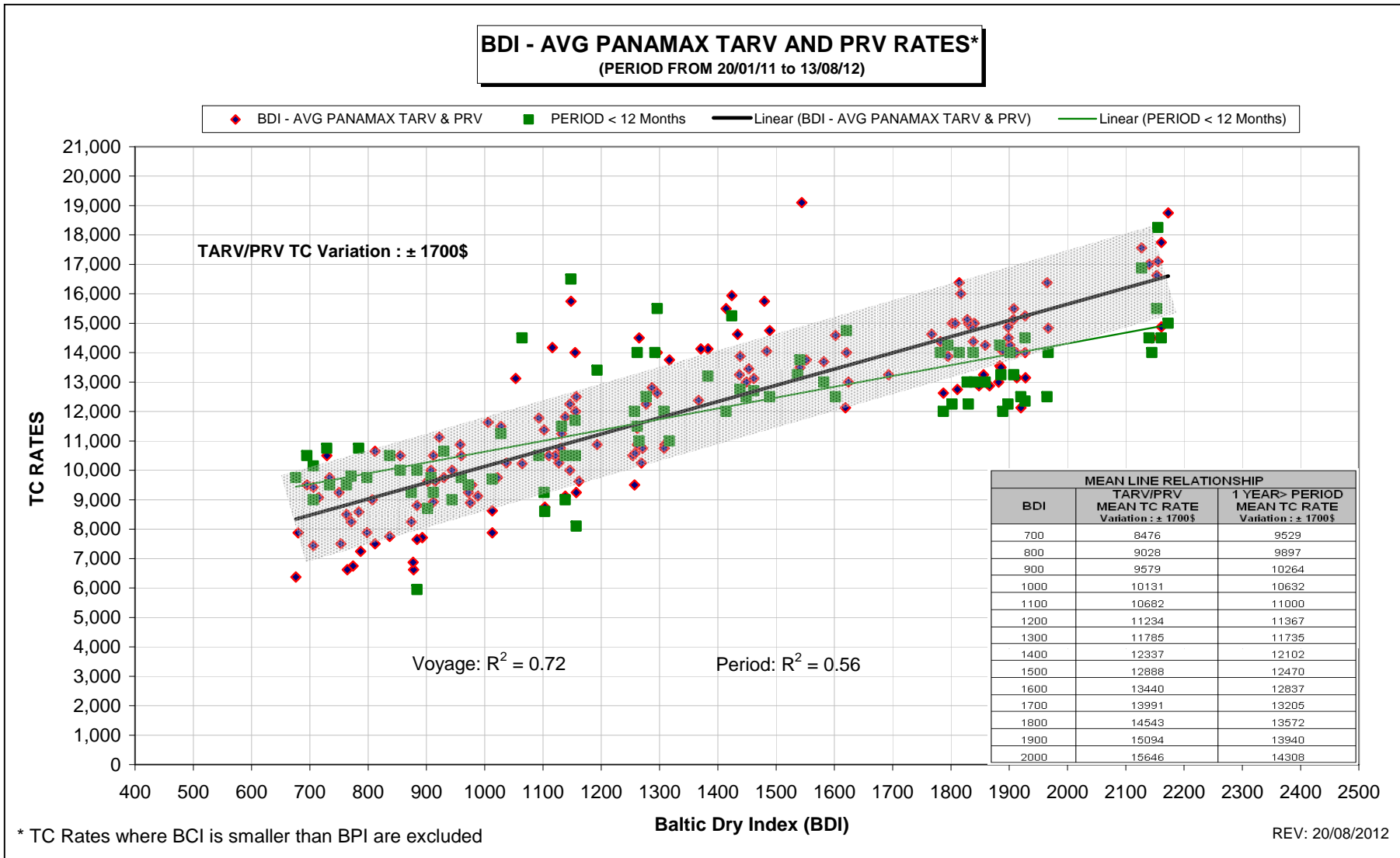
Under the circumstances **when bankers** of shipowners in the tramp trades **trust the abilities of operators more than these of the owners they finance, they should instead build** the ships themselves **and lease** them to their favorite operators!

Decoding some bankers' insistence of time charter cover security reads like this:

“The use of the prospective shipowner's cash in order to cover operational risks and as a buffer for a disguised forced ship leasing agreement to the charterer combined with a back to back manning agreement to the shipowner in exchange for which the shipowner would get a management fee”.... Some deal!!!

Shipowners “put their money where their mouth is”. In a downturn charterers very often renege on their commitments or fold.

PERIOD CHARTERS CAN ONLY LIMIT A SHIP'S UPSIDE EARNING POTENTIAL



Shipping serves an integrated transport system

Understanding the needs of the cargo receiver is important. The receiver (end user or distribution system) is the ultimate client and the shipowner's long term counterparty not the charterer.

- **Client requirements:** Stable prices, cost efficient and timely cargo throughput. The receiver will choose the lowest CIF cost at his door for equivalent domestic or imported goods. **This factor will change the sourcing decision, therefore ton mile demand. It will also prompt infrastructure development and therefore increases in ship size.**
- **The freight cost has historically been a percentage of the delivered cost.**
- **System evolution driver:** Lower overall transport cost, trade-offs.

The cost of transport represents input and output costs to the economy.

Countries with large import-export trade build shipyards to produce ships in order to ensure reasonable freight rates.

The price of ships

Shipowners invest in expensive, long term assets. For the right ship, cargoes will always be available for transport, at a price.

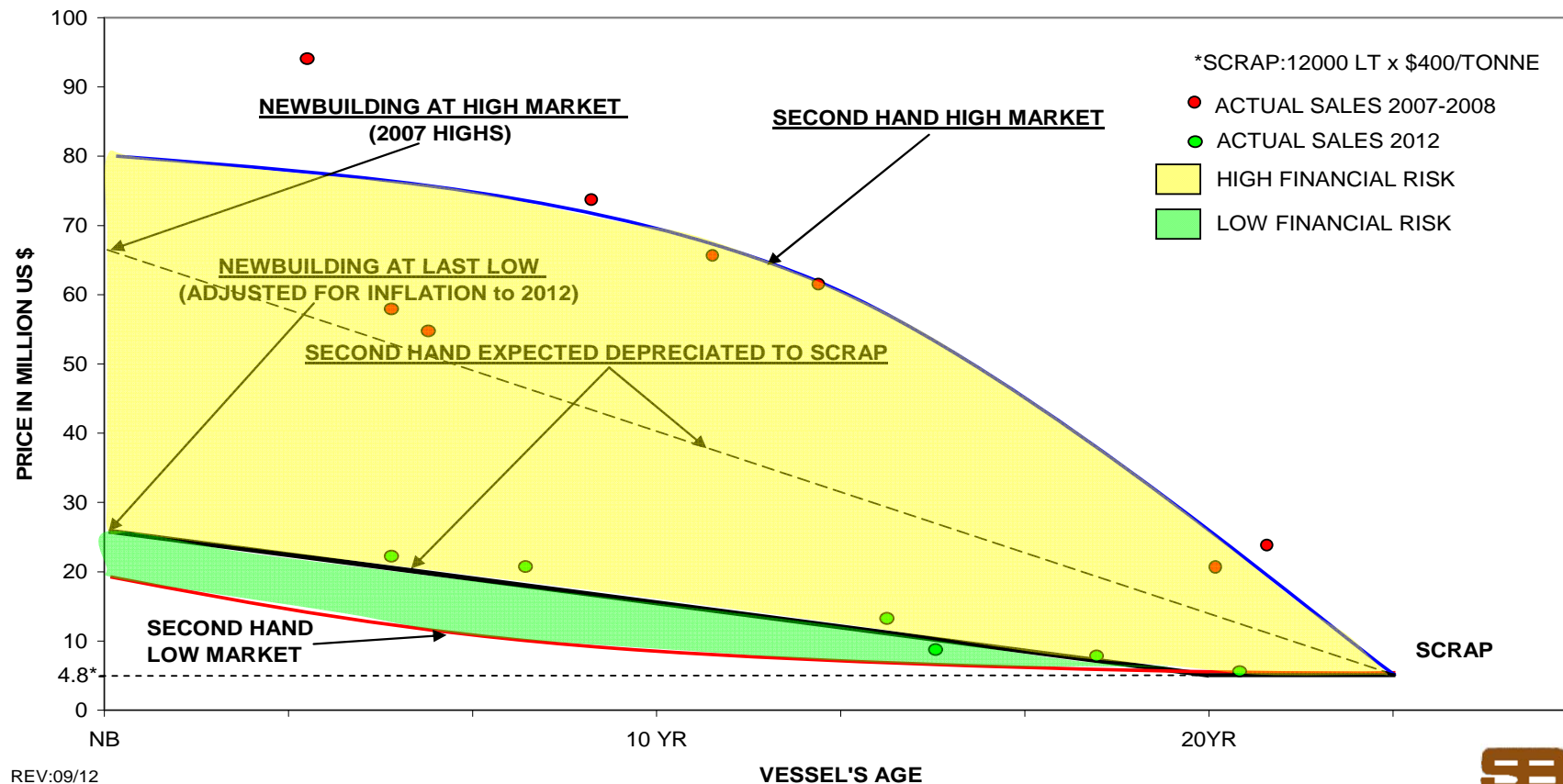
To be successful, shipowners must be good judges of the type of ship the market will require going forward and its price. A large proportion of the ship's price represents estimation of future profits if and when they occur. Such thinking includes a large element of risk in a business notorious for its cyclicity. *“Caveat emptor”*

Ships bought at low prices have nowhere to go but up.

New technology newbuilding ship prices over the years have had an inflation adjusted low price below which they are unlikely to drop *ceteris paribus*. Scrap price fluctuates around 65% of the new steel price. **These two parameters could define a base line for ship valuations. The risk element is the portion above the base line. Financiers should concentrate their attention on that.** Average prices over a period of time are of little relevance as they will invariably include “bubble” valuations.

TIMING OF PURCHASES MUST ALSO BE RIGHT

73000 TDW PANAMAX REFERENCE PRICE (INDICATIVE)



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VESSEL'S AGE



GAME CHANGERS

- **Fuel costs** are set to rise further either through market costs or legislation. Low sulfur fuels will cost more than higher sulfur fuels.
- **Carbon taxes** will in all probability be imposed within a few years with price estimates of \$177/ton of fuel in 2002 and \$3,229/ton of fuel in 2050!
- **Energy efficient ships** presently being designed for the present high energy cost environment consume between 10% and 30% less fuel at the same conditions with only little loss in deadweight. The profitability trade off is deadweight capacity to fuel consumption. This will change with the ratio of profitability between freight rates to bunker prices.

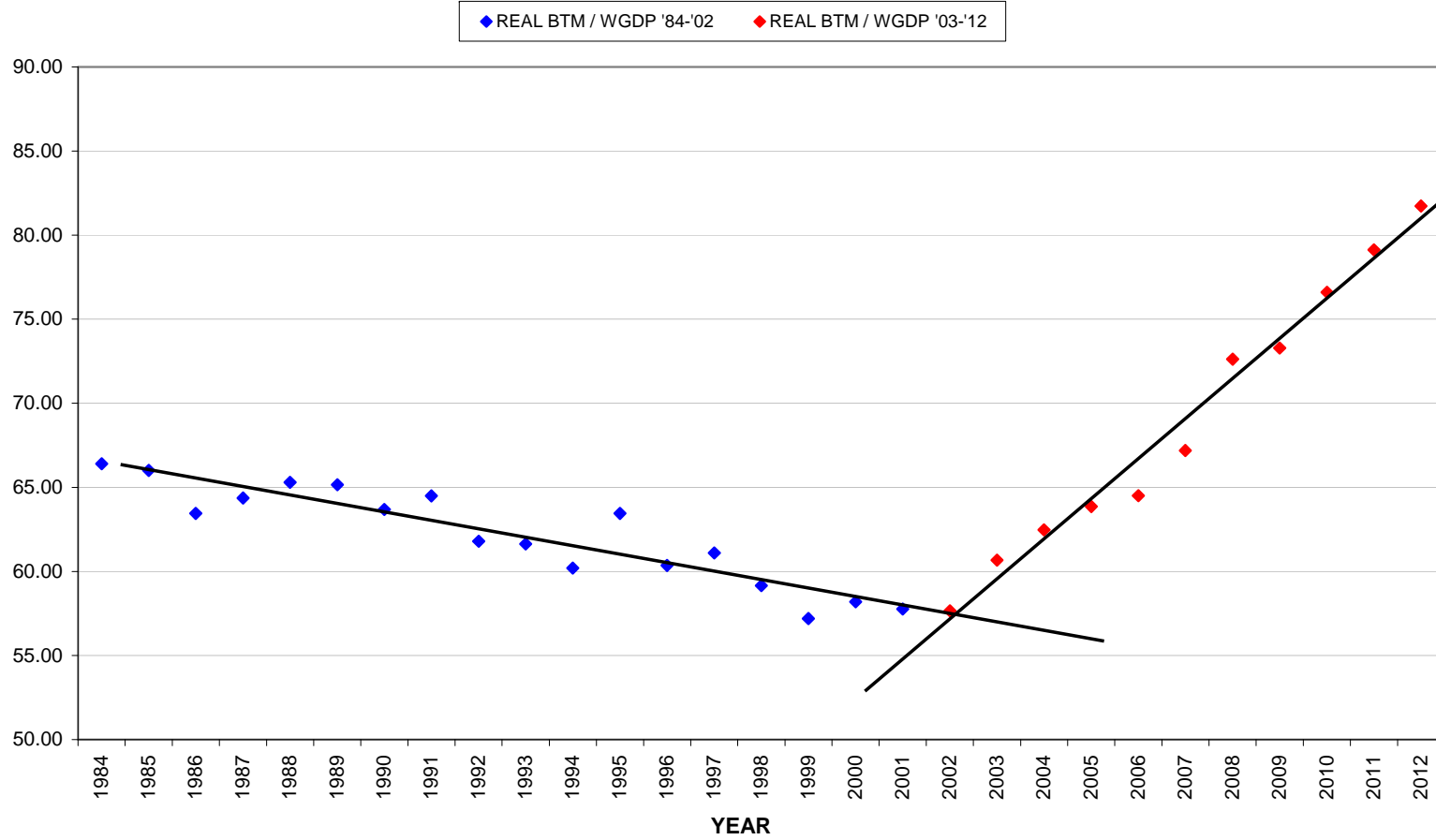
New energy efficient designs will change ship economics obsolescing older designs.

- **To ensure continued employment in shipyards**, countries will provide export credit and may attempt to impose age limits for ships calling at their ports, which in turn would force older ships out of the market.

DEMAND FOR TRANSPORT

- Demand for seaborne transport **increases in line with changes in World GDP growth** with fluctuations. The observed fluctuation around the trend line is about $\pm 2\%$.
- Demand will increase because of the industrialization of about 3+ billion people in Asia.
- **As economies expand it is natural for their rate of growth to go down.**
- In the early stages of industrialization countries require disproportionately more raw materials. **As economies mature they become more efficient and recycle more.** “Off-shorting” will reverse as emerging economies mature

TONNE MILES OF DRY BULK CARGOES PER UNIT OF WORLD GDP 1983 -2012



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IRON ORE IMPORTS (in million tonnes)						
YEAR	CHINA	YoY CHANGE (Tons)	PCT CHANGE	WORLD	YoY CHANGE (Tons)	PCT CHANGE
2000	70.00			485.40		
2001	92.30	22.30	31.86%	475.00	-10.40	-2.14%
2002	111.50	19.20	20.80%	510.20	35.20	7.41%
2003	148.20	36.70	32.91%	559.90	49.70	9.74%
2004	208.00	59.80	40.35%	635.50	75.60	13.50%
2005	275.20	67.20	32.31%	700.60	65.10	10.24%
2006	326.30	51.10	18.57%	762.10	61.50	8.78%
2007	383.70	57.40	17.59%	826.30	64.20	8.42%
2008	444.00	60.30	15.72%	894.10	67.80	8.21%
2009	629.80	185.80	41.85%	931.80	37.70	4.22%
2010	618.60	-11.20	-1.78%	1041.20	109.40	11.74%
2011	686.80	68.20	11.02%	1120.90	79.70	7.65%
2012 (anl)	758.11	71.31	10.38%	1201.47	80.57	7.19%

INCREASE IN AVERAGE ANNUAL IMPORTS (in million tonnes)		
	CHINA	WORLD
2004 - 2012	67.77	71.29
2009 - 2012	78.53	76.84
2009 - 2010	87.30	73.55

SOURCE: SSY

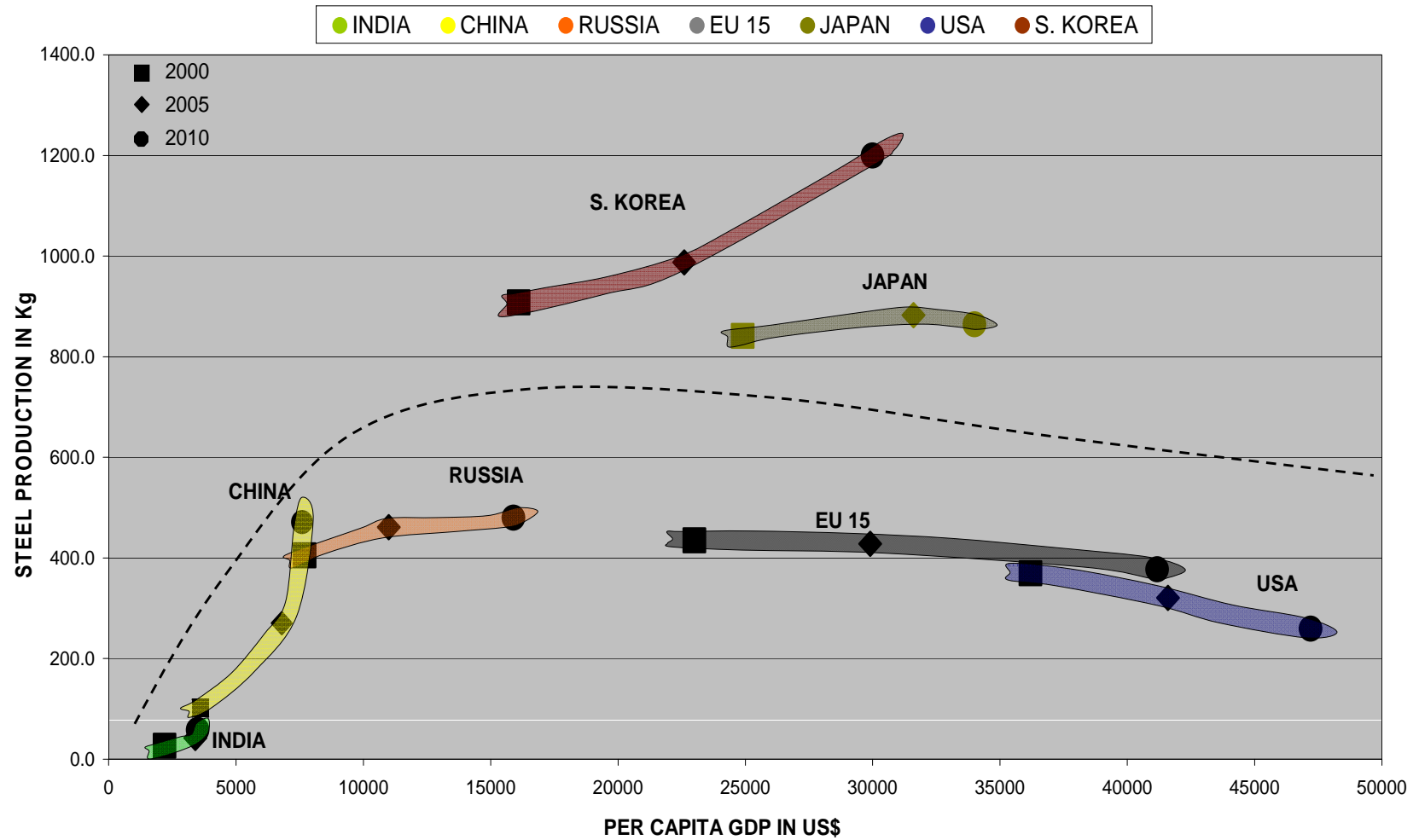
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Steel is manufactured in Blast Furnaces and Electric Arc Furnaces (EAF). Blast Furnaces use up to 30% steel scrap as feedstock. Electric Arc Furnaces use 100% steel scrap as feedstock and only about 50% of the energy required by Blast Furnaces. As countries develop they create more scrap and start using more EAF.

SCRAP USED AS FEEDSTOCK IN STEEL PRODUCTION												
YEAR	Crude Steel Production				Steel Scrap use				PCT of Scrap in steel production			
	World	China	EU	US	World	China	EU	US	World	China	EU	US
2006	1247	419.1	206.9	98.6	500.0	67.2	115.3	64.0	40.10%	16.03%	55.73%	64.91%
2007	1346	489.3	210.2	98.1	540.0	68.5	116.7	64.0	40.12%	14.00%	55.52%	65.24%
2008	1329	500.3	198.2	91.4	530.0	72.0	111.3	66.0	39.88%	14.39%	56.16%	72.21%
2009	1224	573.6	139.4	58.2	440.0	83.1	80.9	53.0	35.95%	14.49%	58.03%	91.07%
2010	1416	626.7	172.6	80.5	530.0	88.1	96.5	60.0	37.43%	14.06%	55.91%	74.53%
2011	1513	683.9	177.2	86.4	270.0	91.0	100.8	56.0	17.85%	13.31%	56.88%	64.81%

PER CAPITA STEEL PRODUCTION, 2000, 2005, 2010 vs PER CAPITA GDP



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Something to think about

Potentially damaging to the rate of growth in shipping ton mile demand of the emerging Asian economies is that **Asia is a vast continent, mostly unexplored for minerals and coal**. Already large coal, iron ore, and other deposits have been found in Mongolia and Afghanistan. More will probably be found. Transport of these commodities to Asian markets will be overland, damping growth in shipping ton mile demand.

On the other hand **India and Indonesia are reducing the volume of their raw material exports in order to conserve them**. Thus imports to China and other Asian countries will come from further afield increasing ton mile demand for shipping. On balance the effect may be neutral or very small.

As Africa, which is resource rich, advances economically the volume of shipment of raw materials for its needs will, in all probability, be limited.

CONCLUSION

- The freight market, as always, will eventually balance either from substantial increase in demand (unlikely) or by high scrapping rates due to low freights (more likely).

After a big party you have a whopping hangover!

- The surviving shipowners and bankers will have to better understand shipping market dynamics in order to avoid “expert” hype.

“It is better to be approximately right than precisely wrong” (John Maynard Keynes)

Focus on the big picture

Thank you

George A. Gratsos