

Seaborne Traffic in the Strait of Malacca

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Outline

- Data Sources : Trade and Shipping
- Methodology
- Key Figures & Trade Dependencies: *Who uses and who benefits from using the Strait ?*
- Conclusion: *The Importance of The Malacca Strait in a Global Context*

Trade Data Sources

- UN (COMTRADE) Site 4 Digit:
 - 1260 Commodities
 - 20,000 Trade Routes
 - \$ Value + Volume in Tonnes, Cbm, Units, Pairs etc
- Global Insight Trade Database
 - Trade Splits : Seaborne, Overland, Air
 - Seaborne by mode: Container, General, Dry Bulk, Liquid Bulk
- LMIU Seaborne Crude Oil Database (APEX)

Trade Data Issues

- Standardise Unit of Measurement for Volume – *Metric Tonnes:*
 - *Value/Volume Relationships by exporter and mirror reporter*
- De-duplicate Mirror Trades
- Identify Inconsistencies
- Benchmark Seaborne Splits Against Observed Shipping Capacity



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Desti	Comm	CommodityDescription	SITC4	OriginCountry_UN	Destination	Count	TradeValue_ \$	TradeVolume	SITC	SITC_1Descrip	SITC_2Co
586	5623	Potassic chem.fertilizer		SINGAPORE	PAKISTAN		51,000	233	5	CHEMICALS A	56
598	5623	Potassic chem.fertilizer		SINGAPORE	PAPUA N.GUIN		171,000	596	5	CHEMICALS A	56
608	5621	Nitrogenous chem.fertlzl		SINGAPORE	PHILIPPINES		28,000	155	5	CHEMICALS A	56
608	5629	Fertilizers, nes		SINGAPORE	PHILIPPINES		9,000	4	5	CHEMICALS A	56
643	5623	Potassic chem.fertilizer		SINGAPORE	RUSSIAN FED		134,000	480	5	CHEMICALS A	56
699	5629	Fertilizers, nes		SINGAPORE	INDIA		11,000	3	5	CHEMICALS A	56
710	5629	Fertilizers, nes		SINGAPORE	SOUTH AFRICA		131,000	242	5	CHEMICALS A	56
764	5621	Nitrogenous chem.fertlzl		SINGAPORE	THAILAND		10,000	55	5	CHEMICALS A	56
764	5623	Potassic chem.fertilizer		SINGAPORE	THAILAND		176,000	634	5	CHEMICALS A	56
764	5629	Fertilizers, nes		SINGAPORE	THAILAND		165,000	49	5	CHEMICALS A	56
784	5629	Fertilizers, nes		SINGAPORE	UNTD ARAB EM		1,000	1	5	CHEMICALS A	56
040	5621	Nitrogenous chem.fertlzl		SLOVAKIA	AUSTRIA		5,342,000	34,105	5	CHEMICALS A	56
040	5629	Fertilizers, nes		SLOVAKIA	AUSTRIA		150,000	694	5	CHEMICALS A	56
191	5621	Nitrogenous chem.fertlzl		SLOVAKIA	CROATIA		72,000	503	5	CHEMICALS A	56
191	5629	Fertilizers, nes		SLOVAKIA	CROATIA		441,000	1,896	5	CHEMICALS A	56
203	5621	Nitrogenous chem.fertlzl		SLOVAKIA	CZECH REP		32,858,000	254,587	5	CHEMICALS A	56
203	5623	Potassic chem.fertilizer		SLOVAKIA	CZECH REP		62,000	300	5	CHEMICALS A	56
203	5629	Fertilizers, nes		SLOVAKIA	CZECH REP		399,000	1,828	5	CHEMICALS A	56
251	5621	Nitrogenous chem.fertlzl		SLOVAKIA	FRANCE		1,384,000	9,400	5	CHEMICALS A	56
276	5621	Nitrogenous chem.fertlzl		SLOVAKIA	GERMANY		16,891,000	110,975	5	CHEMICALS A	56
276	5629	Fertilizers, nes		SLOVAKIA	GERMANY		1,785,000	9,104	5	CHEMICALS A	56
300	5621	Nitrogenous chem.fertlzl		SLOVAKIA	GREECE		1,249,000	6,811	5	CHEMICALS A	56
348	5621	Nitrogenous chem.fertlzl		SLOVAKIA	HUNGARY		24,161,000	176,396	5	CHEMICALS A	56
348	5622	Phosphatic chem.fertlzrs		SLOVAKIA	HUNGARY		74,000	263	5	CHEMICALS A	56
348	5629	Fertilizers, nes		SLOVAKIA	HUNGARY		2,456,000	13,081	5	CHEMICALS A	56
381	5621	Nitrogenous chem.fertlzl		SLOVAKIA	ITALY		551,000	3,571	5	CHEMICALS A	56
616	5621	Nitrogenous chem.fertlzl		SLOVAKIA	POLAND		353,000	2,785	5	CHEMICALS A	56
705	5621	Nitrogenous chem.fertlzl		SLOVAKIA	SLOVENIA		195,000	1,088	5	CHEMICALS A	56
757	5621	Nitrogenous chem.fertlzl		SLOVAKIA	SWITZ.LIECHT		303,000	1,826	5	CHEMICALS A	56
826	5621	Nitrogenous chem.fertlzl		SLOVAKIA	UNTD KINGDOM		70,000	510	5	CHEMICALS A	56
036	5622	Phosphatic chem.fertlzrs		VIET NAM	AUSTRALIA		66,000	1,012	5	CHEMICALS A	56
116	5622	Phosphatic chem.fertlzrs		VIET NAM	CAMBODIA		3,257,000	31,366	5	CHEMICALS A	56

Shipping Data Sources

Lloyd's MIU Shipping Information Database:

- Fleet Information – 91,000 Live Merchant Vessels > 100 gt
 - Technical Characteristics/Ownership Details
- Ship Deployment
 - 4 mil. Observed Vessel Movements
 - 4,000 ports
 - 180,000 Active Port to Port Routes
 - AIS

Matching Trade & Vessels

- Finding a Common Unit of Measurement
 - Trade: *Tonnes*,
 - Vessels: *DWT Capacity*,
- Establishing Trade Route Specific Commodity/Vessel Type Relationships
- Identifying Trade Route and Vessel Routeing Correlations
- Match Trade To Shipping via Allocation Process

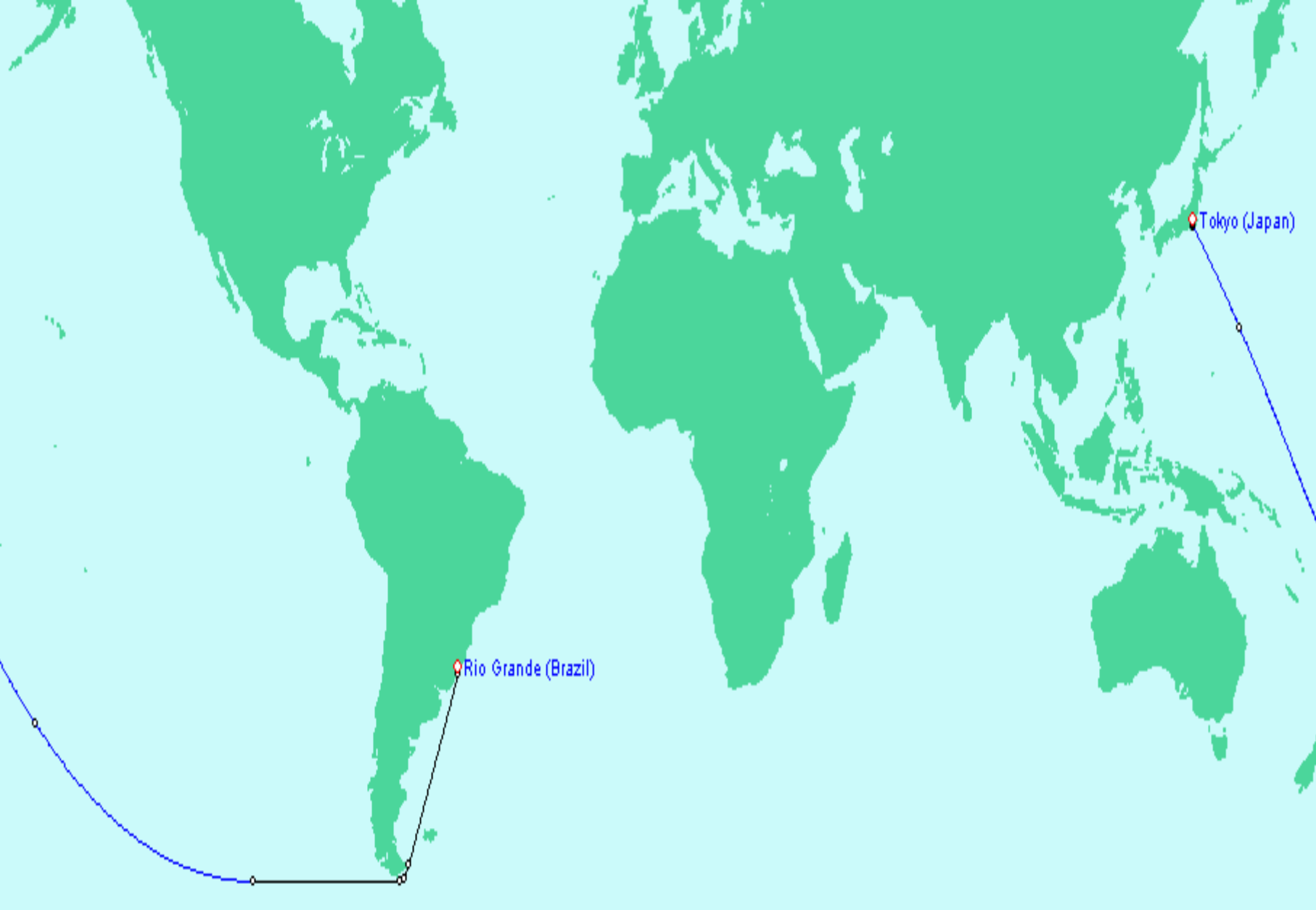
India - Japan Trade & Shipping

	D	E	F	G	H	I	J	K	L	M	AM	AN	AO	
		Meat/Dairy/Veg/Fruit s Requiring Refrigeration	Meat/Dairy/Veg/Fruit s not Refrigerated	Grain Animal Feedstuffs	Foodstuffs/Beverag est/obacco/Sugar	Animals/Plants/Skins/ Animal Other Agriculture(Live)	Animal and Vegetable Oils	Minerals/Cement/Abri asi	Stone, Clay and Other Crude	Fertilizers and Pesticides	Orss	Total Trade	DWT Capacity	
go Tonnes		85088	11259	168366	13131	26767	44196	710033	611	10809724	12672960			
		0	0	0	0	0	0	0	0	0	0			
h Cargo >10K DWT		62,804	11,259		13,131	19,757	32,621		611		284,924	359,674	74,75	
h Cargo <10K DWT		22,284				7,010	11,575				53,260	127,615	74,35	
ular <1000 TEU											-	3,206	3,20	
ular 1000-2499 T											-	30,204	30,20	
ular 2500-3999 T											-	-	-	
ular 4000-5999 T											-	122,025	122,02	
ular >5999 TEU											-	-	-	
Ro >10K DWT											-	3,793	3,79	
Ro <10K DWT											-	30,201	30,20	
refer											-	7,156	7,15	
k <20K DWT				20,000							20,000	32,491	12,49	
k 20-40K DWT				148,366							148,366	209,501	61,13	
k 40-80K DWT								710,033		6,400,000	7,145,768	7,631,422	485,65	
k 80-100K DWT										83,000	83,000	87,052	4,05	
k 100-175K DWT										3,426,724	3,426,724	3,666,544	239,82	
k >175K DWT										900,000	900,000	947,404	47,40	
nbo <20K DWT											-	-	-	
nbo 20-40K DWT											-	-	-	
nbo 40-80K DWT											-	-	-	
nbo 80-100K DWT											0	0		
nbo 100-175K DWT											0	0		
nbo >175K DWT											0	0		
aker <16.5K DWT											0	0		
aker 16.5-25K DWT											0	0		
aker 25-45K DWT											0	41035	410	
aker 45-80K DWT											0	46000	460	

MalAlloc02

Deriving Transits

- Calculate distance for each port to port movement
- Establish whether transit via Malacca represents the shortest *Navigable* distance for each movement allowing for:
 - *Commercial Practice*
 - *Operational Constraints*
 - *Consistency with waypoint observations e.g. canals, AIS*
- Link each transit to a voyage origin and destination in the voyage stack





Transits by Vessel Type

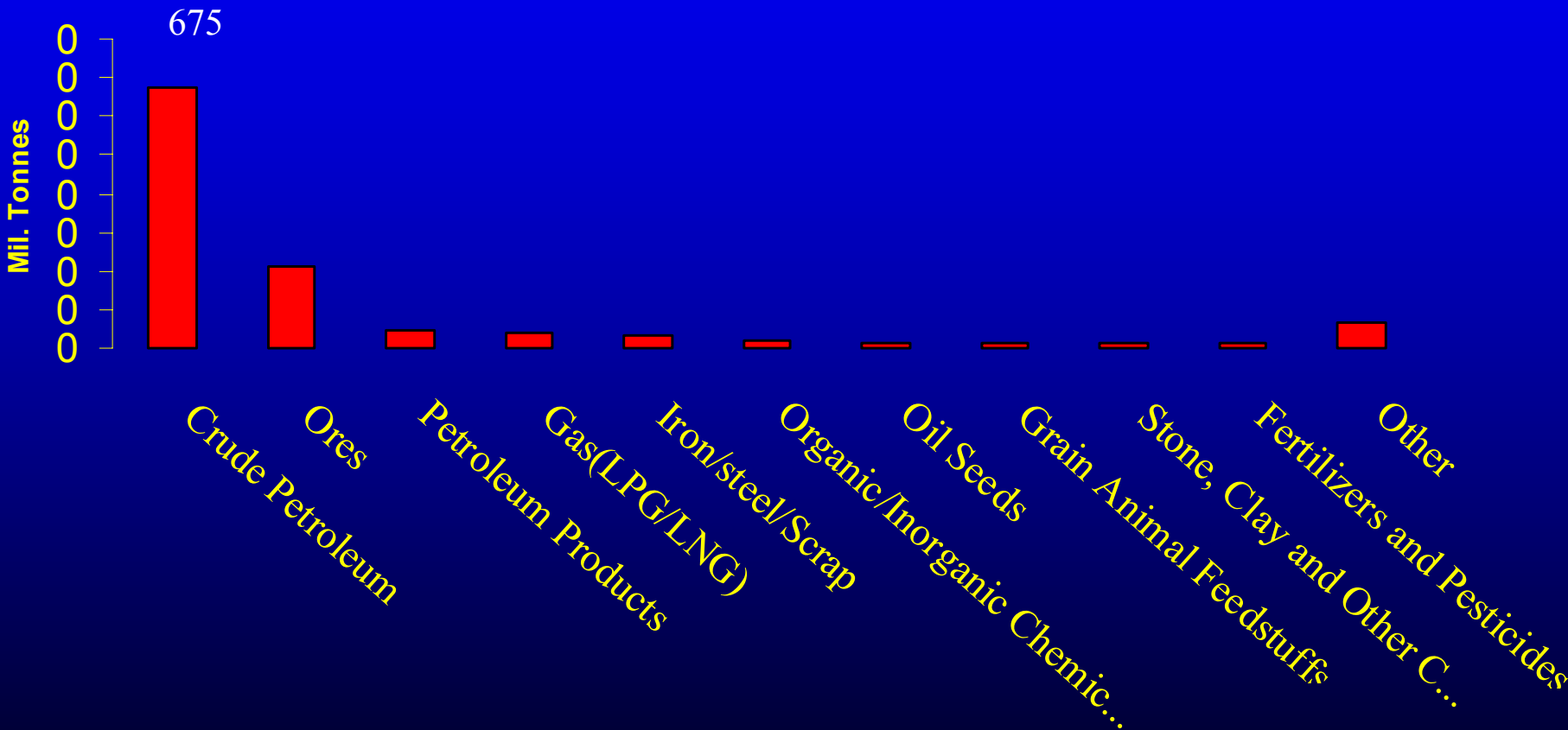
Vessel Type	<u>Transits</u>	<u>% Transits</u>	<u>DWT</u>	<u>% Dwt</u>
Container				
Dry Bulk/Combi				
Other Dry Cargo				
Tanker	19,500	28%	1.9 Bil	55%
Total	70,0000	100%	3.4 Bil	100%

Fleet Profile

<u>Vessel Type</u>	<u>No. Ships</u>	<u>DWT (Mil)</u>	<u>% World Cargo Fleet (No)</u>	<u>% World Cargo Fleet (DWT)</u>
Container				
Dry Bulk/Combi				
Other Dry Cargo				
Tanker	2,692	229,6	22%	57%
Total	10,170	535,9	24%	55%

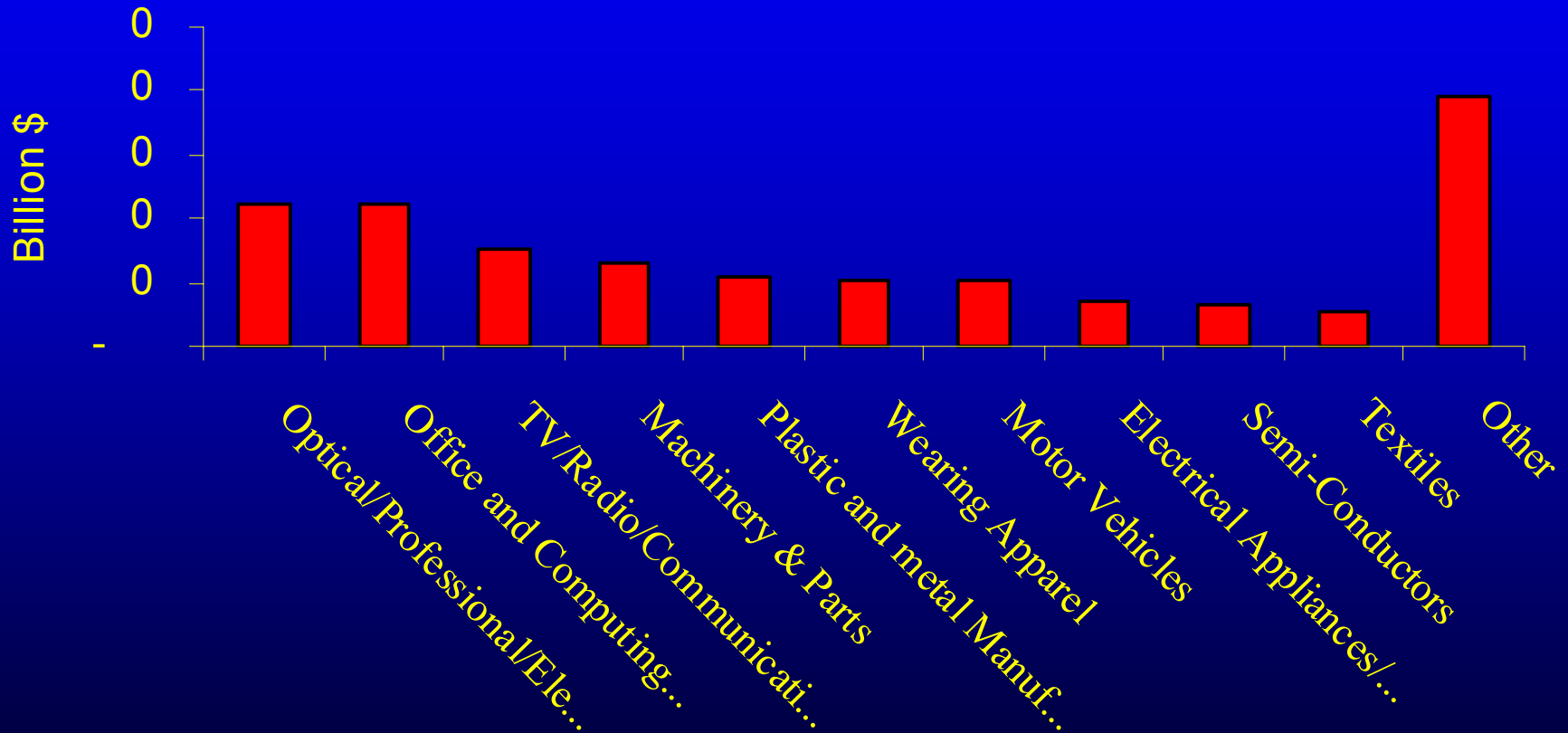
Top 10 Eastbound Commodities by Volume

Million Tonnes

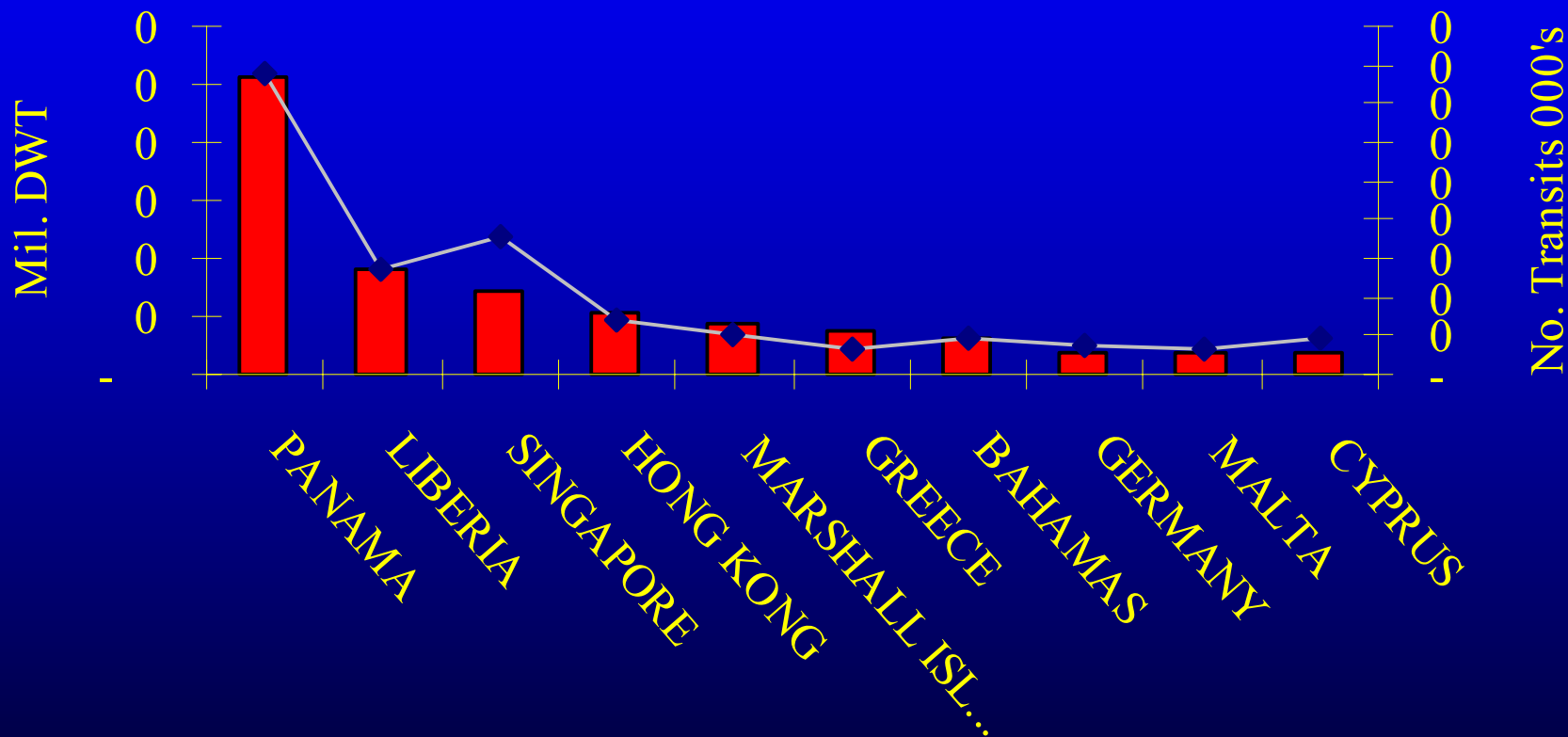


Top 10 Westbound Commodities by Value

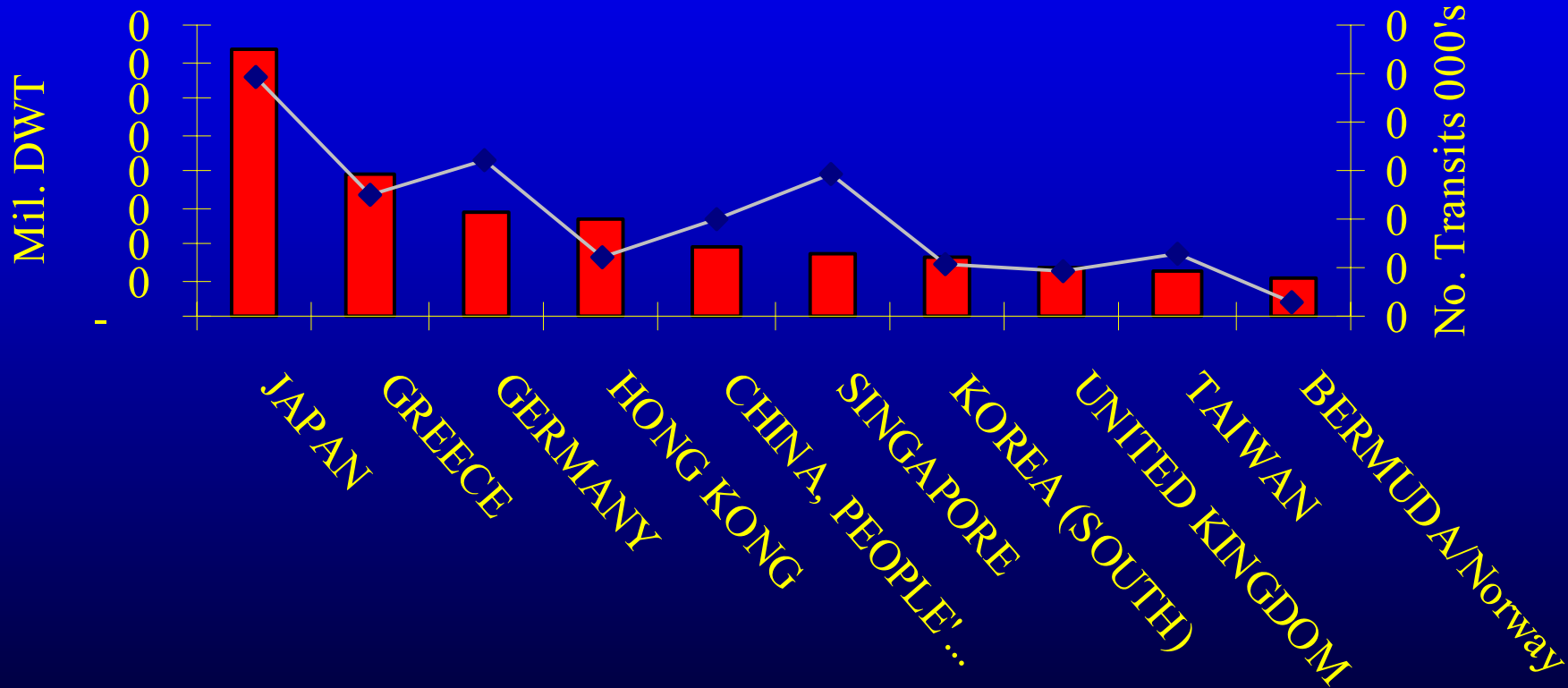
Billion \$



Transits by Flag

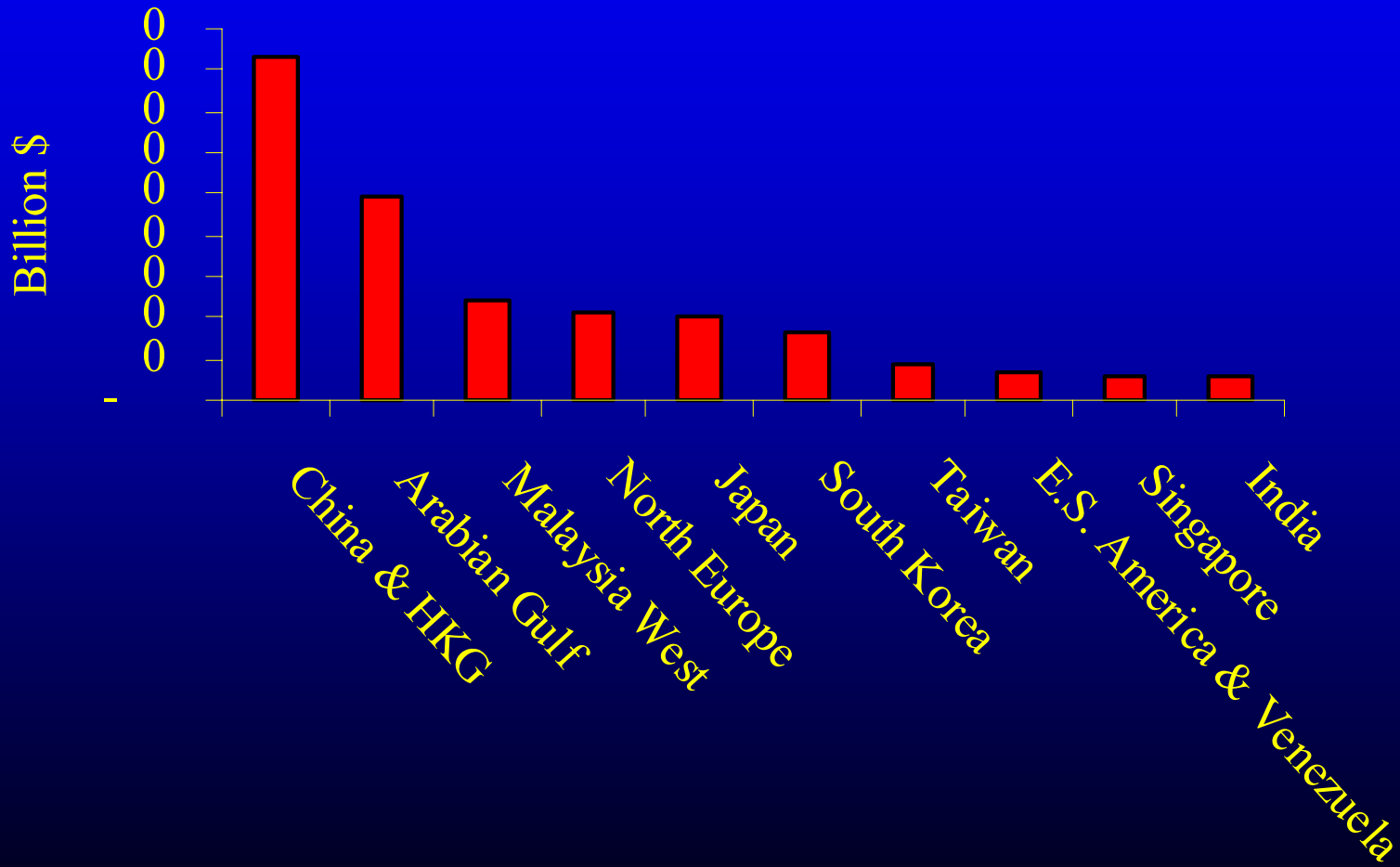


Transits by Owner Nationality

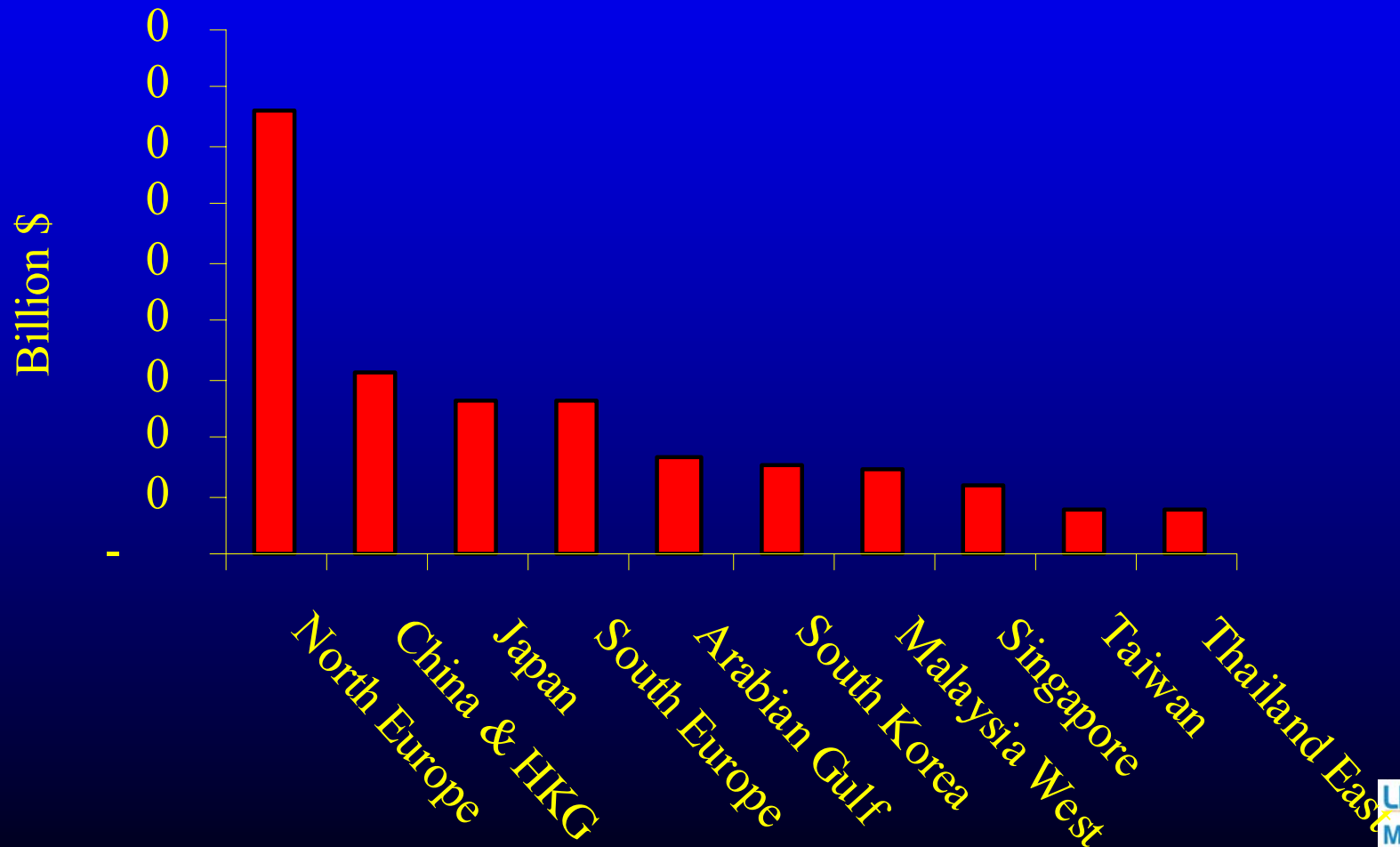


Value of Trade by Origin (Export) Area

Via Malacca



Value of Trade by Destination (Import) Area Via Malacca



Conclusion

- Malacca is strategically important:
 - 20% of World Seaborne Trade
 - 30% of Global Seaborne Crude Oil
 - 55% of Global Shipping Capacity
- Obvious economic and strategic interest of non-littoral states in the continued security and freedom of navigation through the Strait

Thank you



IMB live piracy map 2005

