Changing dynamics of Middle East Container Trade

The Gulf in the context of Global Trade

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Global trade development 1996 - 2011

- Inter – regional global trade grown from 3.5 to 6.5 billion tonnes p.a. (4.2% p.a.).
  - total global international trade now 10 billion p.a.
- Excluding energy goods, inter – regional trade doubled from 1.64 to 3.30 billion tonnes (4.8% p.a.)
- Rapid growth to 2007 encouraged high investment in port and shipping assets, but despite the global economic crisis:
  - volumes now well in excess of pre-recession levels
  - global economy capable of continuing growth requiring expanded maritime services!
- First half of this paper will consider lessons statistical analysis of world and Gulf trade can offer to further investment strategy
  - second half will consider the options available

Global trade development 1996 - 2011

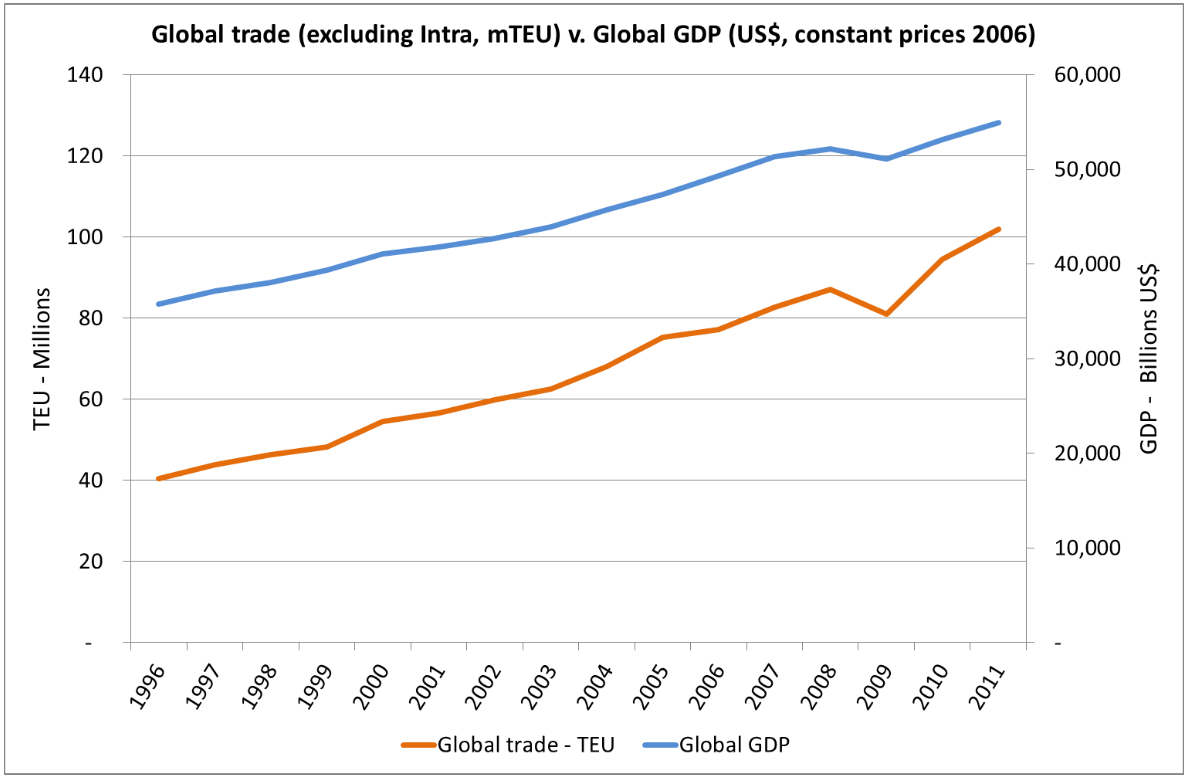
Trade by cargo category

	1996	2001	2006	2011	CAGR 1996-2011
Food (0,1)	673	760	897	1,108	3.4%
Energy goods (3)	3,331	4,978	4,826	5,243	3.1%
Raw materials (2,4)	1,382	1,703	2,212	2,818	4.9%
Industrial semi-manufacturers (5,6)	1,204	1,394	1,986	2,096	3.8%
Manufactured/consumer goods (7,8,9)	350	361	483	590	3.6%
Grand total	**6,939**	**9,197**	**10,404**	**11,854**	**3.6%**
Of which estimated total Unitised Tonnes	*1,070*	*1,280*	*1,611*	*1,948*	*4.1%*
Of which estimated inter-regional loaded Maritime TEU	*38*	*52*	*69*	*89*	*5.9%*

million tonnes

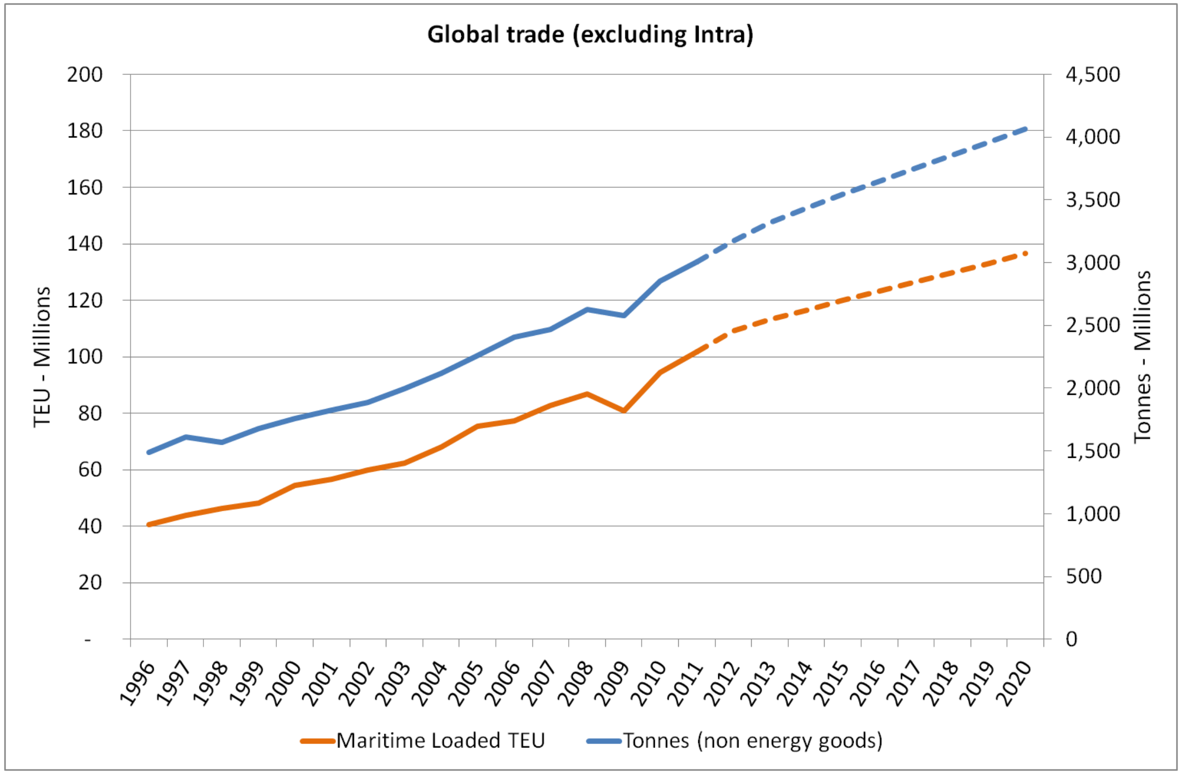
Global container development exc. Intra-regional

- Historic growth in TEU approximately 60% faster than real global GDP growth
- mean GDP growth + 2.9% per annum
- mean TEU growth + 4.7% per annum
- TEU volumes proved sensitive to GDP dip and recovery during recession
- Global trade v. Global GDP (excluding intra-regional trade)



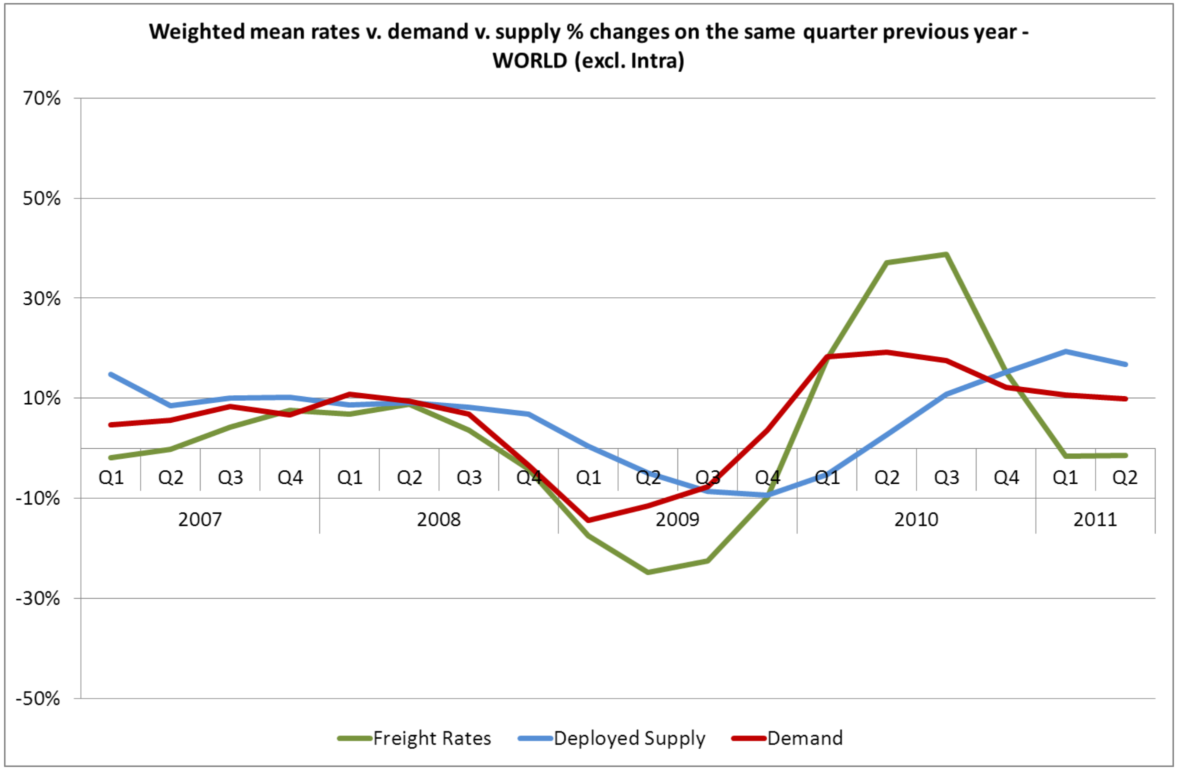
Projecting all non-energy world trade

- Global consumer good production will continue to depend upon shipping raw materials and industrial manufacturers
  - Growth since 1996 almost as fast as container traffic



Supply, demand & freight rates: global level - container trades

- Failure to forecast reliably is expensive!
  - a case for shipping being better informed.
- Demand versus supply and freight rates, 2006 – 2011 (exc. intra-regional)



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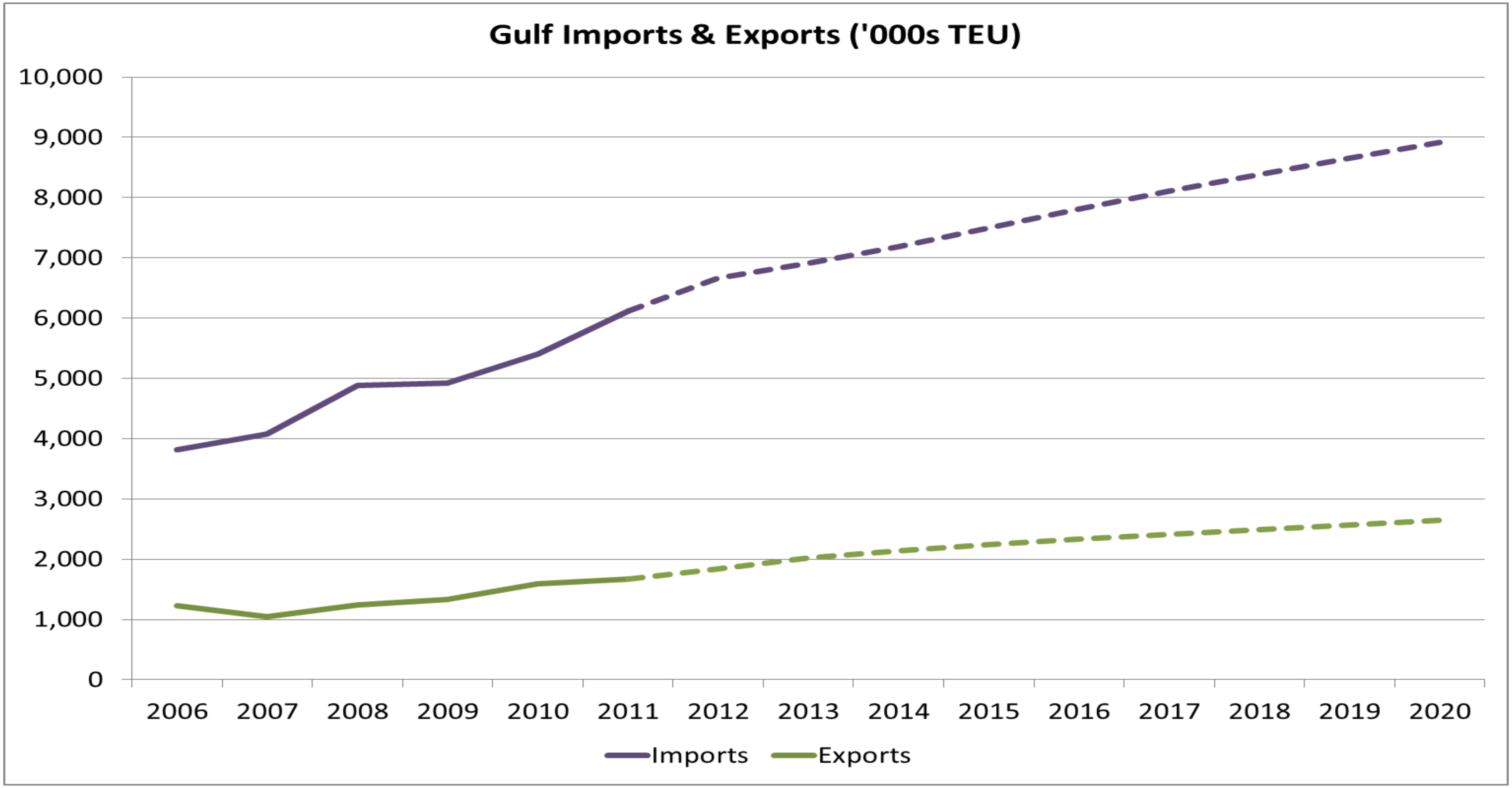
All trade development to the Gulf 1996 - 2011

	1996	2001	2006	2011	CAGR 1996-2011
Food (0,1)	33	37	46	58	3.8%
Energy goods (3)	11	17	45	41	9.0%
Raw materials (2,4)	12	48	64	88	14.5%
Industrial semi-manufacturers (5,6)	25	32	73	92	9.1%
Manufactured/consumer goods (7,8,9)	8	9	18	23	7.6%
Grand total	**88**	**142**	**246**	**301**	**8.5%**
Of which estimated total Unitised Tonnes	***35***	***32***	***61***	***81***	***5.7%***
Of which estimated inter-regional loaded Maritime TEU	***2***	***2***	***4***	***6***	***7.9%***

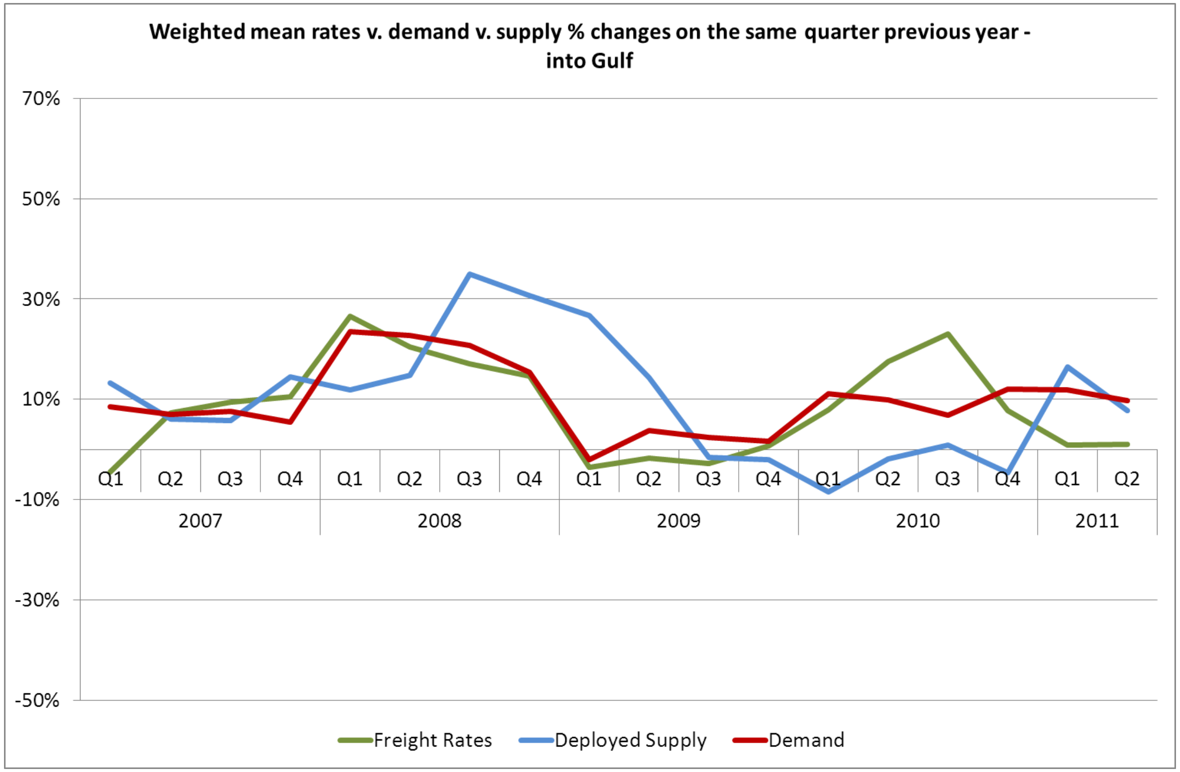
million tonnes

Container traffic with the Gulf 2006 - 2011



Supply, demand & freight rates: Gulf only - container trades

- Operators to the Gulf also failed to ‘read’ the market.
  - Similar consequence on freight rates and investment decisions



Gulf: distribution by export trading partners

- Export loaded TEU, 2011 (projected)

	'000s TEU	Share (%)
Far East	595	35%
Intra Arabian Gulf	290	17%
Mediterranean	204	12%
Red Sea	131	8%
North Europe	107	6%
East Africa	104	6%
North America	71	4%
Indian S.C	63	3%
Latin America	49	2%
South Africa	36	2%
West Africa	28	1%
Australasia	23	1%
	1,702	

Dominated by Far East

Gulf: projected changes by export regions

	2011 – 2020 per annum	
Intra Arabian Gulf	+8.0%	But projected growth highest to 'local' regions
Indian Sub Continent	+7.0%	
West Africa	+6.8%	
Far East	+6.4%	
Mediterranean	+5.2%	
Red Sea	+4.8%	
Australasia	+4.7%	
North Europe	+4.5%	
Latin America	+3.7%	
East Africa	+3.4%	
North America	+2.2%	
South Africa	-0.8%	
	+5.8%	

Distribution by import trading partners

	'000s TEU	Share (%)
Far East	2,853	47%
North Europe	899	15%
Mediterranean	892	15%
North America	606	10%
Arabian Gulf	290	5%
Indian Sub Continent	225	4%
Latin America	153	3%
South Africa	72	1%
Australasia	65	1%
Red Sea	37	1%
West Africa	15	0%
East Africa	15	0%
	6,122	100%

Even greater domination by Far East

Gulf: projected changes by import regions

	2011 – 2020 per annum	
East Africa	10.6%	Projected growth also highest from 'local' regions
Intra Arabian Gulf	8.0%	
Indian Sub continent	7.8%	
Latin America	5.1%	
Far East	4.5%	
North America	4.5%	
Australasia	4.3%	
Red Sea	3.1%	
North Europe	2.6%	
Mediterranean	2.3%	
South Africa	0.9%	
West Africa	-0.56%	
	4.3%	

Containerisable cargo mix by commodity: - principal Gulf imports

Leading SITC at 2-digit level in 2011	2006	2011	Absolute change 2006-2011	% change 2006-2011
Mineral Manufactures	285,564	494,694	209,130	73%
Animal Feeding stuffs	74,932	485,106	410,174	547%
Rubber Manufactures	204,148	352,487	148,338	73%
Vegetables & Fruit, Nuts	242,036	299,615	57,579	24%
Electrical Machinery	179,187	291,009	111,823	62%
Metal Manufactures - Other	201,551	276,481	74,930	37%
Textiles & Made-Up Articles	165,362	268,884	103,522	63%
Road Vehicles Parts	180,241	246,755	66,514	37%
Miscellaneous Manufactures	145,335	225,022	79,687	55%
General Industrial Machinery	127,523	204,388	76,866	60%
Paper & Paperboard	127,123	183,478	56,355	44%
Specialised Machinery	113,005	168,492	55,487	49%
Furniture	83,761	155,186	71,425	85%
Miscellaneous Food Products	80,344	139,817	59,473	74%
Meat & Meat Preparations	56,103	134,416	78,313	140%
Sanitary/Plumbing/Heating/Lighting	88,311	133,541	45,229	51%
Telecom & Recording Equipment	75,650	132,257	56,607	75%
Dairy Products & Eggs	93,898	120,154	26,256	28%
Iron & Steel	97,541	111,402	13,861	14%
Cereals & Cereal Preparations	93,851	110,994	17,143	18%

Imports diverse not vulnerable to specific industrial changes

Containerisable cargo mix by commodity: - principal Gulf exports

Leading SITC at 2-digit level in 2011	2006	2011	Absolute change 2006-2011	% change 2006-2011
Plastics In Primary Forms	131,760	236,089	104,328	79%
Non Ferrous Metals	91,693	146,287	54,594	60%
Mineral Manufactures	79,172	113,666	34,493	44%
Ores & Scrap	45,660	96,989	51,329	112%
Textiles & Made-Up Articles	40,441	73,741	33,300	82%
Metal Manufactures - Other	47,252	56,505	9,253	20%
Vegetables & Fruit, Nuts	72,129	54,174	-17,954	-25%
Cereals & Cereal Preparations	44,377	53,907	9,531	21%
Manufactured Fertilisers	29,528	50,689	21,161	72%
Animal Feedingstuffs	32,253	49,254	17,001	53%
Textile Fibres	87,574	47,767	-39,807	-45%
Miscellaneous Manufactures	35,121	46,742	11,621	33%
Crude Fertilisers & Minerals	60,734	42,895	-17,839	-29%
Coal/Coke/Briquettes	4,385	40,496	36,111	824%
Electrical Machinery	23,181	37,985	14,804	64%
Sanitary/Plumbing/Heating/Lighting	29,046	32,100	3,054	11%
Paper & Paperboard	17,361	27,928	10,566	61%
Plastics In Non-Primary Forms	7,614	27,487	19,872	261%
Beverages	13,640	26,395	12,755	94%
Iron & Steel	35,590	25,987	-9,603	-27%

Exports mainly petro-chemical and metallic

The Port Market: estimated shares

- Rapid growth in TEU

	TEU
1998	6m
2008	23m
2010	24m

- Increasing dominance of Lower Gulf/Oman

	1998	2010
Upper Gulf	6%	5%
Central Gulf	11%	9%
Lower Gulf/Oman	78%	85%

- Gateway (non transhipped) 2010

	TEU
Upper Gulf	1.3m
Central Gulf	2.2m
Lower Gulf/ Oman	6.0m
Lower Gulf-Iran	2.6m

- Including all Saudi Arabia + Yemen

	TEU
Total throughput	28.6m
- of which transhipment	14.1m
- implied Gateway	14.5m
- implied inbound	7.2m
- of which demand model estimate of loaded TEU	6.0m

Market in relation to population - Local Area

	Population		Gateway traffic	
Kuwait	3	8%	0.9	8%
S. Arabia	25	66%	3.4	31%
Bahrain	1	3%	0.4	4%
Qatar	1	3%	0.3	3%
UAE/Oman	8	21%	6.0	54%
	38	**100%**	**11.0**	**100%**

- Gateway traffic therefore already heavily concentrated
  - half of total port throughput transhipped
  - local maritime redistribution therefore accounts for high proportion port demand
- Majority of market within 1,000 kms of main hub
- Introduction of rail option therefore significant factor in estimating port demand

Change in liner services to the Gulf 2006 - 2011

- Continuing growth in demand
  - but net increase in number of deep-sea services modest
  - + 4% (just 3 more services)
- Considerable increase in mean vessel capacities
  - + 53%% for deep-sea services
- Implication that more service capacity calling in Gulf ‘en-route’, expanding transhipment opportunities
- Fall in vessel speeds (slow steaming)

Supply of Gulf Services: 2006

Trade Lane	Weekly services	Mean vessel TEU	Mean required speed
Europe – Asia	10	5678	21
Europe – Indian Ocean	8	3612	20
Indian Ocean	43	1858	18
Indian Ocean – West Africa	1	1155	14
Americas (inc RTW)	9	3482	18
Intra Gulf	20	914	9

Supply and change in Gulf Services: 2011

Trade Lane	Weekly services		Mean vessel TEU		Mean required speed	
Europe – Asia	11	(+1)	8468	(+49%)	18	(-3)
Europe – Indian Ocean	10	(+2)	4697	(+30%)	17	(-3)
Indian Ocean	43	(-)	3260	(+75%)	15	(-3)
Indian Ocean – West Africa	3	(+2)	2011	(+74%)	11	(-3)
Americas (inc RTW)	7	(-2)	5125	(+47%)	18	(-)
Intra Gulf	33	(+13)	1273	(+39%)	9	(-)

A foreseeable future

- Ever larger ships to cut costs on arterial routes
- Larger ships imply consolidation of more different trade lanes into same services
- But considerable growth in ‘local’ flows requiring smaller ships
- Implication is higher proportion of hub and spoke

  - therefore more interlining opportunities in the Gulf
- Most growth with ‘local’ markets (Indian Sub Continent/East Africa/Intra Gulf)
- Potential implications from development of Gulf rail freight services

So what are the infrastructure implications?

- Port developments to guarantee extra supply
- Rail network to facilitate state interconnectivity and inland operations

Proposed major port developments

Jebel Ali	UAE
Khalifa Port	UAE
Al Marjan Island	UAE
Dana Island	UAE
Fujairah	UAE
King Abdullah	Saudi Arabia
Dammam	Saudi Arabia
Jeddah	Saudi Arabia
New Doha Port	Qatar
Ras Laffan	Qatar
Al-Ruwais Port	Qatar
Mesaieed	Qatar
Duqm Port	Oman
Salalah	Oman
Port Sultan Qaboos	Oman
Sohar Industrial Port	Oman
Boubiyan Island	Kuwait

Over $40bn to be invested

40m tons

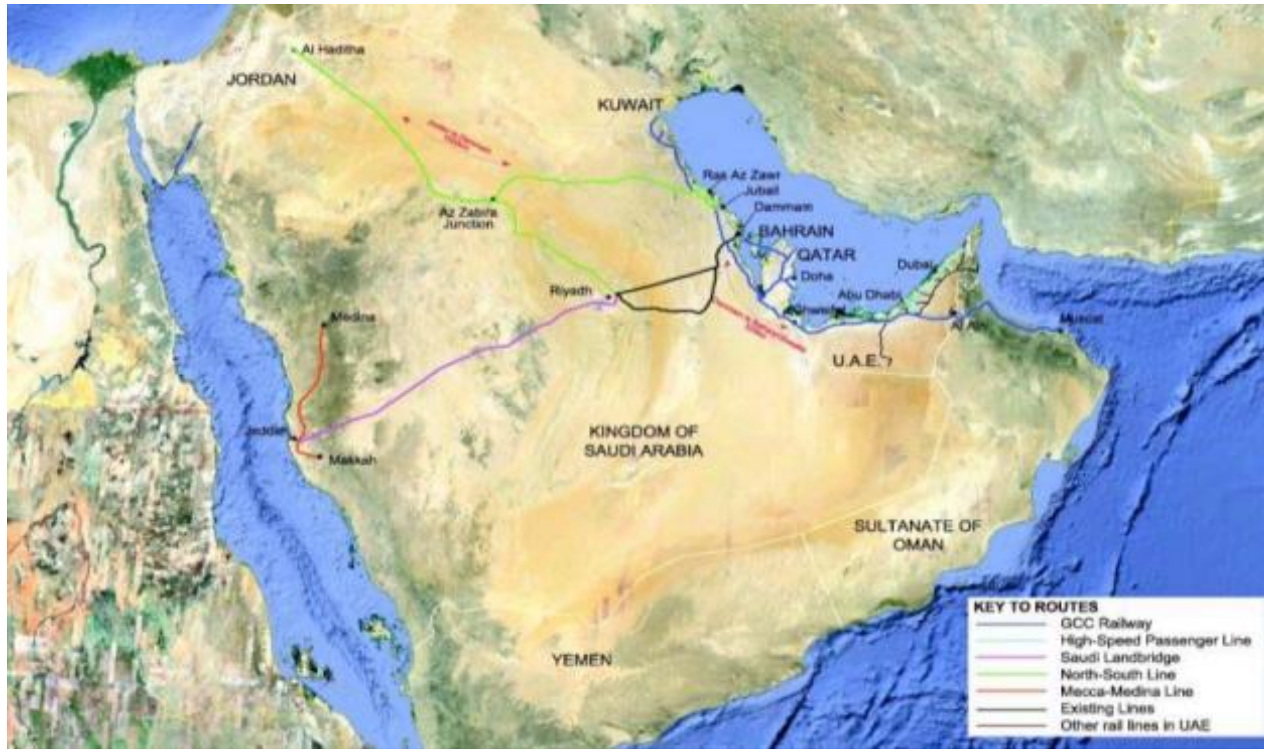
10m TEU added capacity by 2014

Rail freight

- The GCC states have recognised the importance of railway transportation of freight
- Each sovereign state is in charge of its part of the network
  - Kuwait
  - Saudi Arabia
  - Bahrain
  - Qatar
  - UAE (Etihad Railways)
  - Oman

GCC rail network

- 2177-kilometre regional railway
- Expected to be completed in 2017
- Etihad Rail covers a network of up to 1,200 km stretching across the Emirates
  - Phase 1 by 2013



Implications of an efficient railway

- Facilitate movements
  - origin/destination and port
  - between ports
- Delivery of social and environmental benefits.
  - One train can remove 300 lorries from the road thus improving safety and congestion.
  - A fully loaded train can produce as little as 15%-20% of the CO_2 emissions of equivalent trucks
- Delivery of economic benefits.

But also....

It might redesign regional logistics!

Why and how can logistics change? (1)

- Possibility to double stack plus long trains (1.2 km, 300 TEU capacity per train)
- Economies of scale
- Railway transport becomes competitive to transhipment
- Change in logistics patterns (transhipment v. import-export)
- Changes in competition dynamics? Fewer hubs?

Why and how can logistics change? (2)

- Fewer hubs might imply port specialisation
- Need for high quality logistics terminals (integrated rail-port-warehousing → port-centric solutions)

Thank you

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