Terminal Operators Conference 2018

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Key talking points

- Insight into latest developments and challenges of Asia and Middle East infrastructure projects?
- The impact of the new alliances and implications for regional ports?
- The impact of OBOR and future investment across Asia and Middle East?
- The winners and losers for transhipment hubs in Asia and Middle East?
- Where are the emerging ports in Asia and Middle East?
- What impact do the increase of trade free zones have on the increased port activity?
- ‘If you build it, they will come’ – Is this no longer a viable strategy for port development?

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Forecasting container volumes

- Top down
  - Overall scale of world economy
  - How the world will evolve
  - Percentage share for specific trades/countries
- Hinterland growth
  - Link between GDP (or an element of GDP) and TEU throughput
  - Changes in the hinterland (including SEZs)
    - Economy
    - Competition
- Bottom up
  - Survey of potential users
  - Understand each generator and its sector
  - Build a model of the hinterland

Supply and demand balance

Demand

- India(?)
- Indonesia
- Bangladesh
- Philippines
- Myanmar(?)
- Cambodia

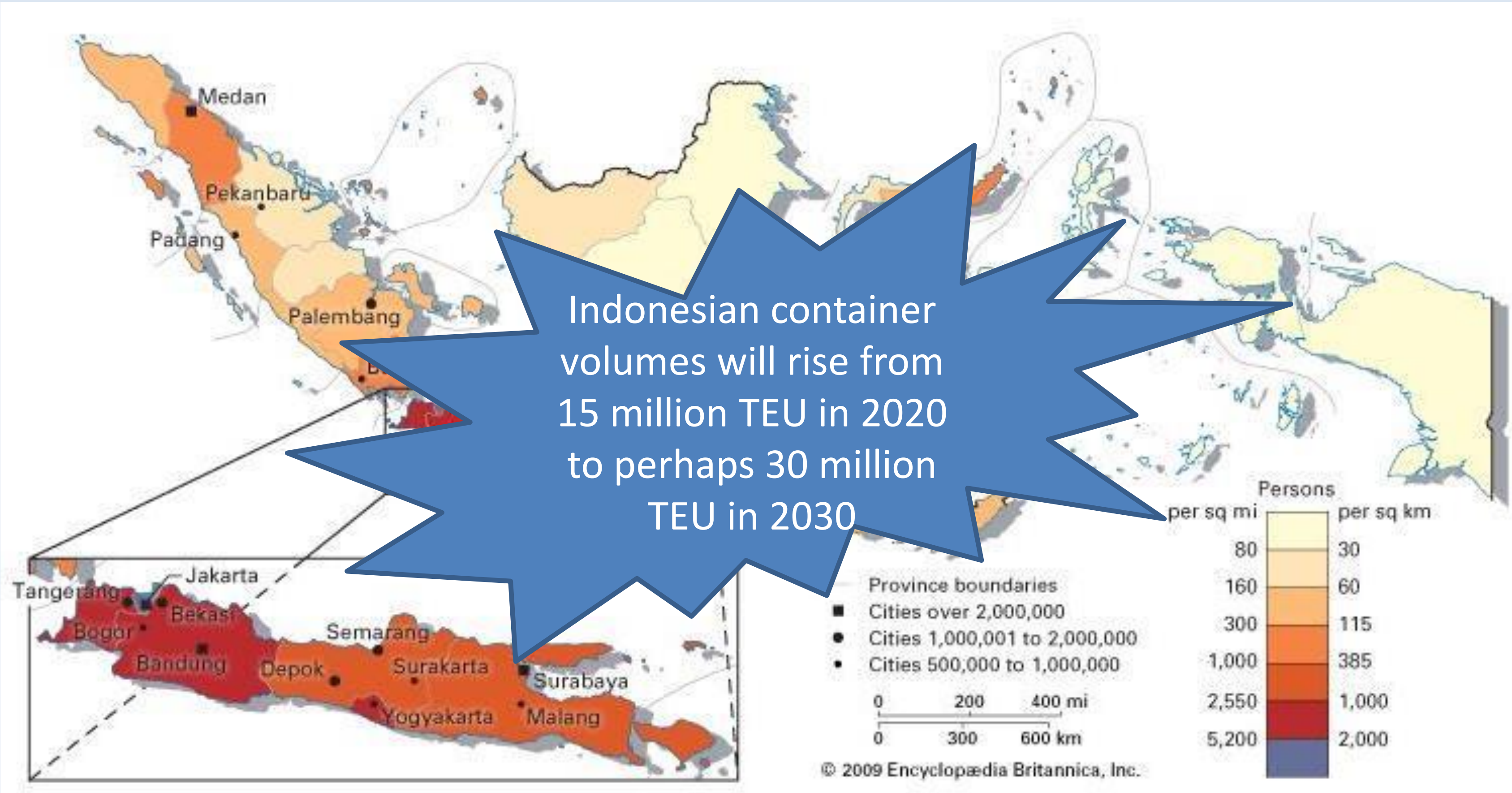
Capability

- India(?)
- Indonesia
- Bangladesh
- Philippines
- Myanmar
- Cambodia

Over supply/competitive

- China
- Thailand
- Vietnam
- Sri Lanka
- Malaysia

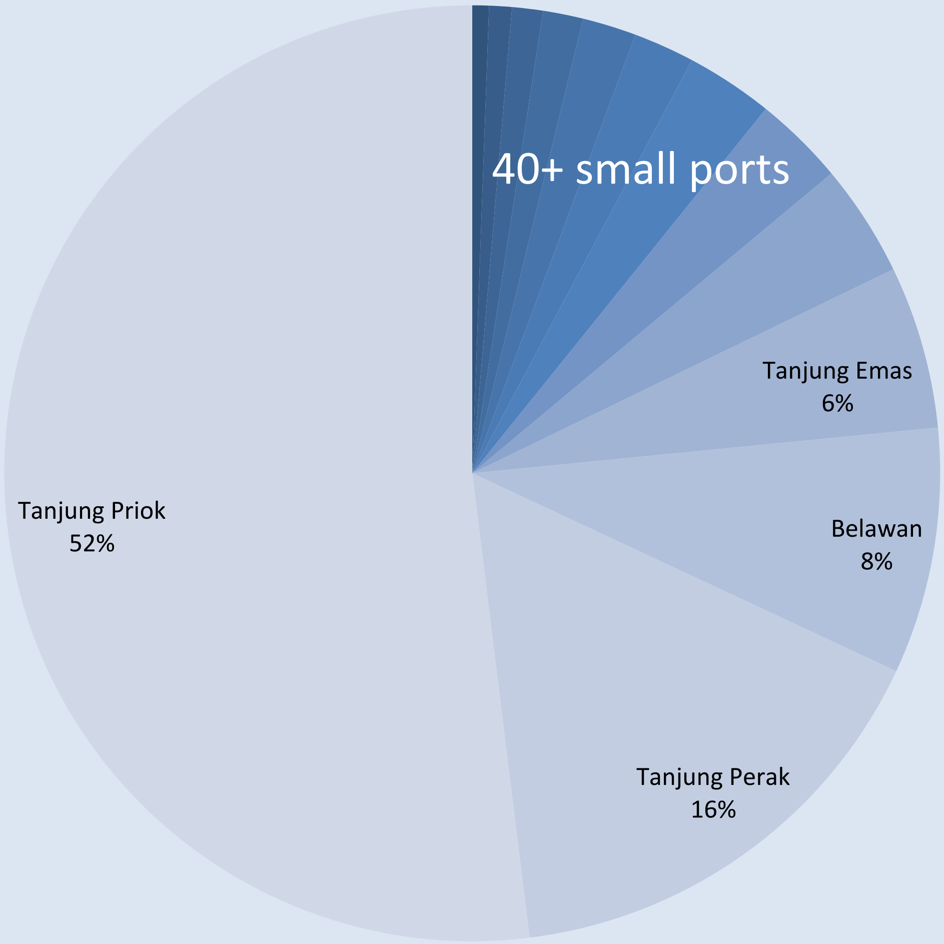
Indonesia the last great container story



Driven by: Population (consumption), GDP, Manufacturing, Mining, FDI…

Probable headline container growth same as GDP (5 to 7%)

International container volumes



- 95% of imports and exports by volume are handled through Indonesia's ports
- Almost all manufactured goods are handle in containers through public ports (most coal, grains and other commodities are handled at special terminals)
- Tanjung Priok dominates international container handling in Indonesia
- Just 4 ports handle over 80% of all international containers in Indonesia
- Tanjung Perak acts as the main hub for domestic containers with Tanjung Priok providing a supporting role
- Only Tanjung Priok is capable of handling ships over 8,000 TEU

Opportunities in the "big" ports?

- Tanjung Priok, able to handle 18,000 TEU ships
  - Forecast 12m TEU, Capacity 14.0m TEU
  - Existing capacity 7.5 to 8.5 m TEU (NPCT1, JICT, ... MAL, T300)
  - Planned capacity 3.0 to 3.5m T... CT1 ...
  - Planned comp... 0m+ T...
- Tanjung Perak, ab...
  - Fore...
  - Existing c...
  - ... oposals)
- Belawan (... ...ips
  - C... ...g to handle 18,000 TEU+ ships
- Semarang, able t... ...dle 3,0... TEU ship
  - Plans impracti...al, will be capacity limited, no competition
- Makassar, able to handle 6,500 TEU +ships
  - Capacity to significantly exceed demand in Pelindo IV are to be believed

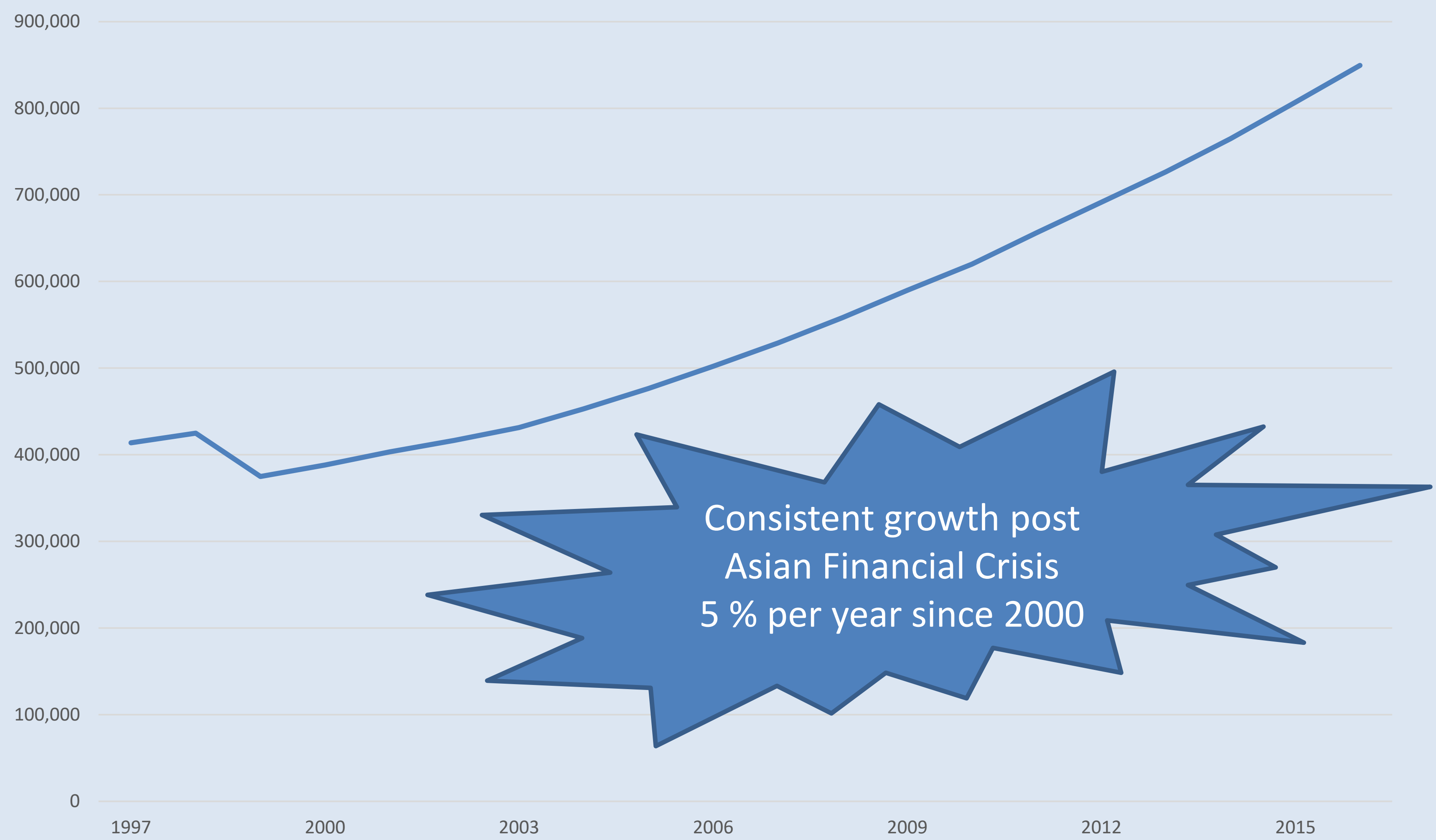
No competition developing in the big commercial ports as envisaged by Shipping Law 17/2008. Few significant opportunities to take advantage of the last great story…

Central Java's port, Tanjung Emas

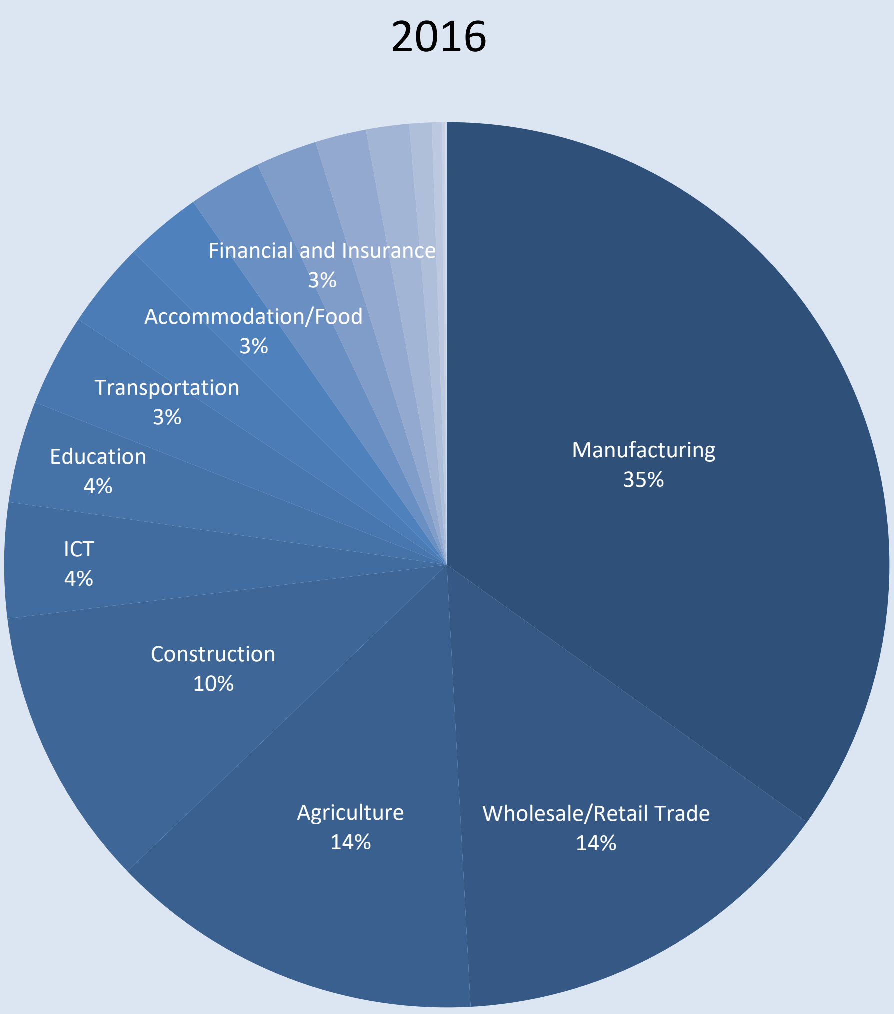
User reports:

- Semarang "at capacity"
- Terminal inadequate for future of Central Java
- Needs to attract larger ships and Intrasian calls (needs channel dredged)

Central Java GRDP Growth

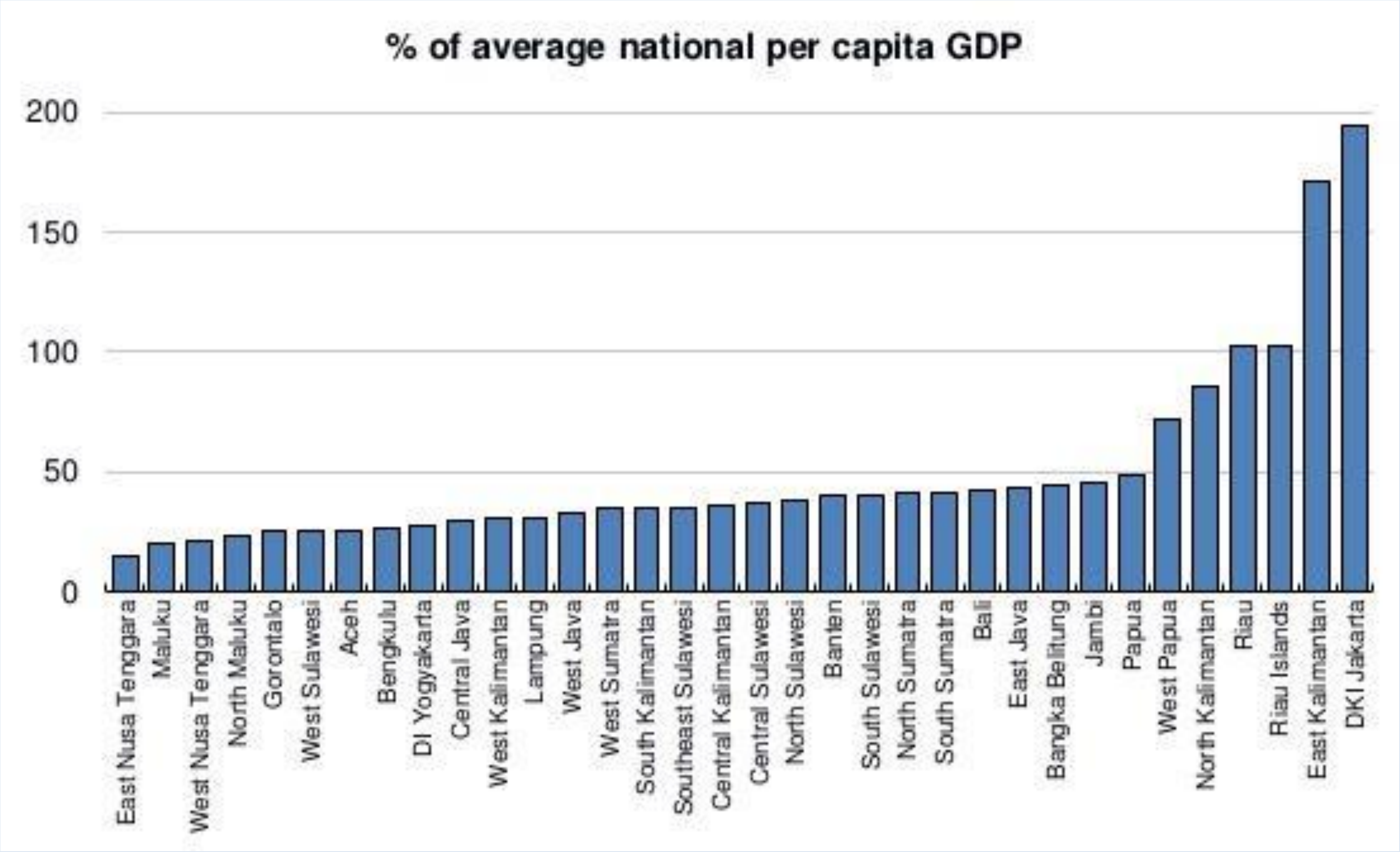


Structure of economy of Central Java



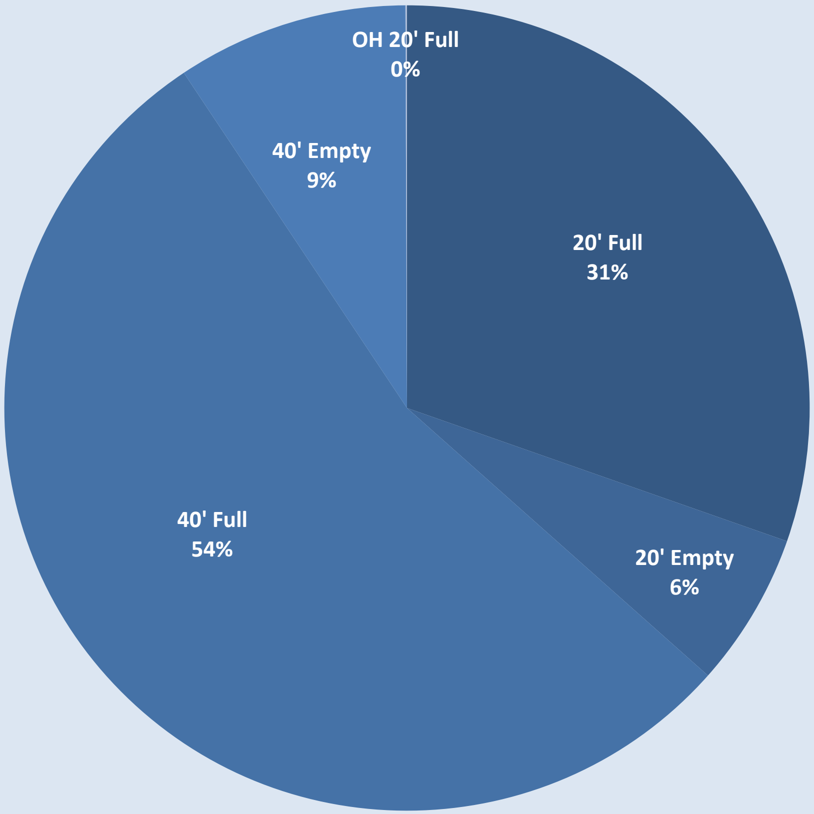
- Manufacturing is the dominant sector in Central Java
- It is growing in importance increased from 30% in 1999
- Construction is supporting the manufacturing sector
- Otherwise economy stable in structure

Headroom for growth…

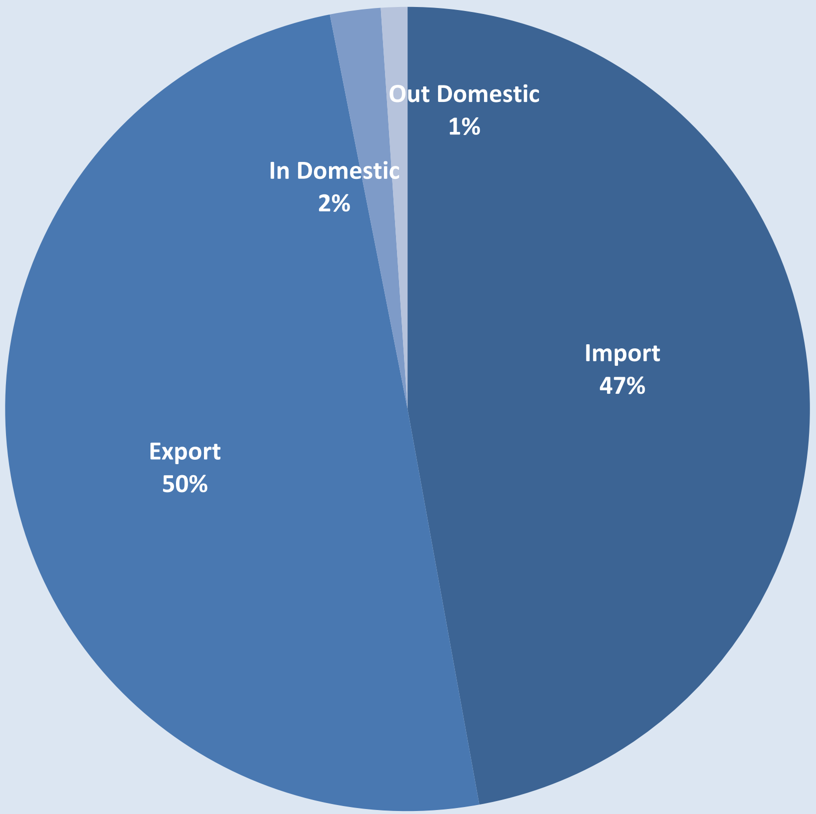


Throughput analysis

Type of box (box)



Type of traffic (TEU)



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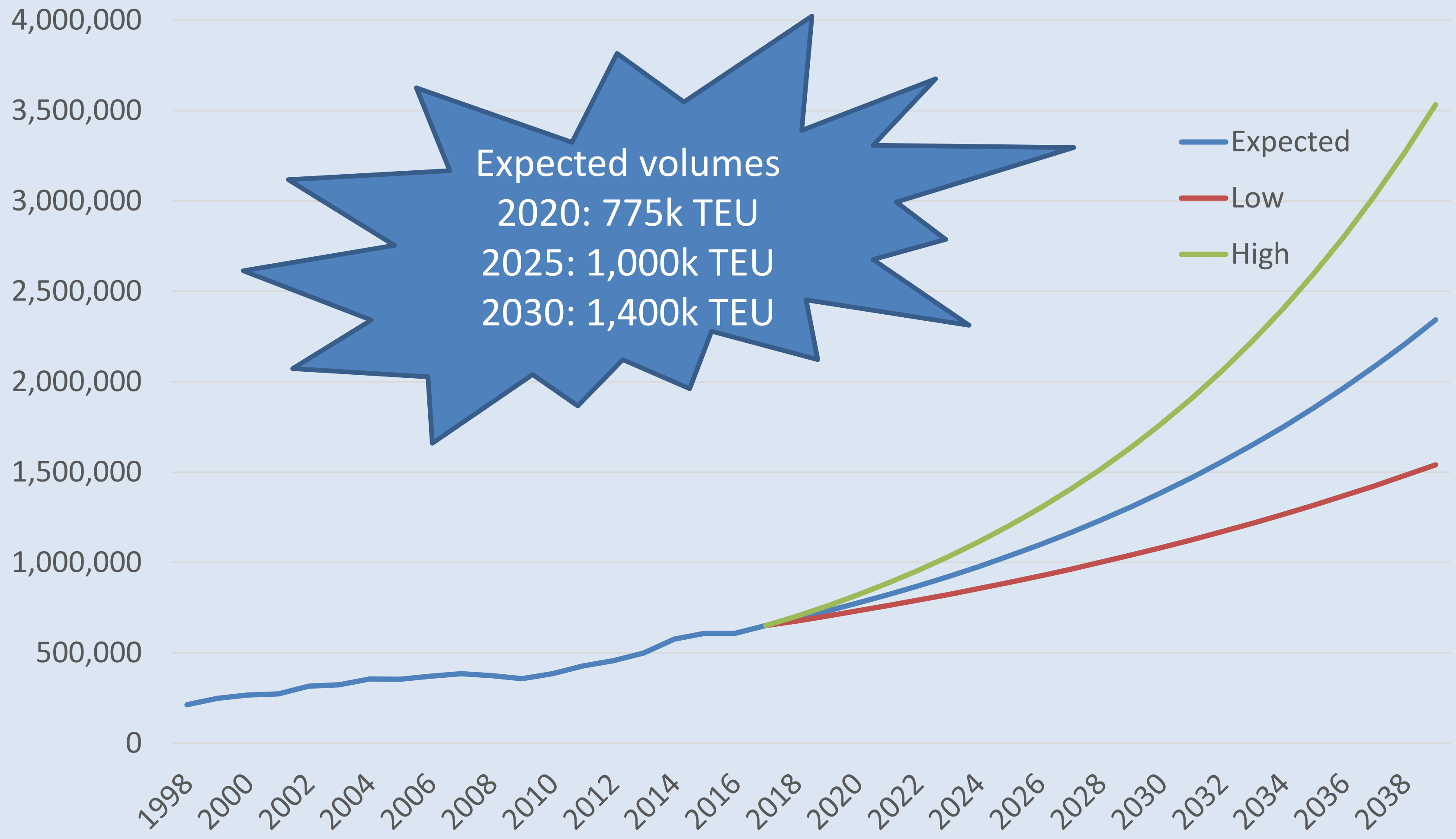
Spread of potential forecasts



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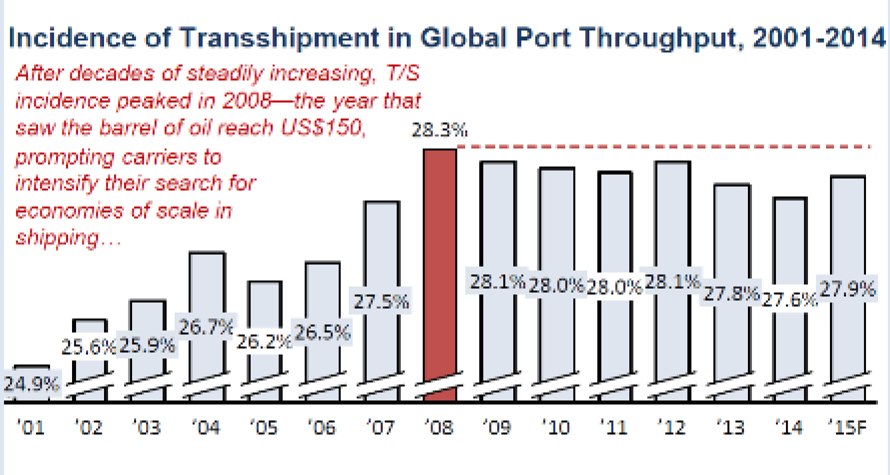
Key users

- 10-16 ships a week 200-2,000+ exchanges
- International lines (capacity 600-2,800+ TEU)
  - MSC, weekly to Malacca Straits and China
  - MCC, weekly to Malacca Straits and China
  - Evergreen, weekly service to Malacca Straits/Yangon
  - Zim, weekly service to Hong Kong and Shanghai
  - SITC, Wan Hai etc…
- Domestic lines (capacity <300-1,800+ TEU)
  - Samudera, slot charters
  - Meratus, slot/time charters

Losing connectivity

- The imminent arrival of the big ships
  - Most middle east, European and US services will be provided by 12,000 to 18,000 TEU ships
  - Intra-asia services are moving rapidly to 8,000 to 12,000 TEU ships
  - Feeder services are moving to 3,500 to 5,000 TEU
  - Ports unable to handle these services will be bypassed and the transport costs of their hinterlands will increase

	Freight (US$)	Time	Cost of time	Total(US$)
Seaweed	2,000	2-3 weeks	US$ 600	2,600 (3-4%)
Beef	2,500	2-3 weeks	US$ 300	2,800 (6-10%)
Imports	1,200	3-4 weeks	US$ 400	1,600 (10%+)



The Hinterland of Tanjung Emas

	Jakarta	Surabaya
Distance to Semarang	420 km	260 km
Time to Semarang using Toll Road	10 hours	7½ hours
Road haulage cost for a 20’ container	US$ 625	US$ 455

Impact of Solo-Semarang Toll Road

	Distance (km)	Time (hours)		Cost for 40’ container (US$)	
		No toll	With toll	No toll	With toll
Semarang (Tanjung Emas)	85	4	2.5	250	150
Surabaya (Tanjung Perak)	220	7	-	400	-
Jakarta (Tanjung Priok)	470	12½	-	750	-

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Thank you