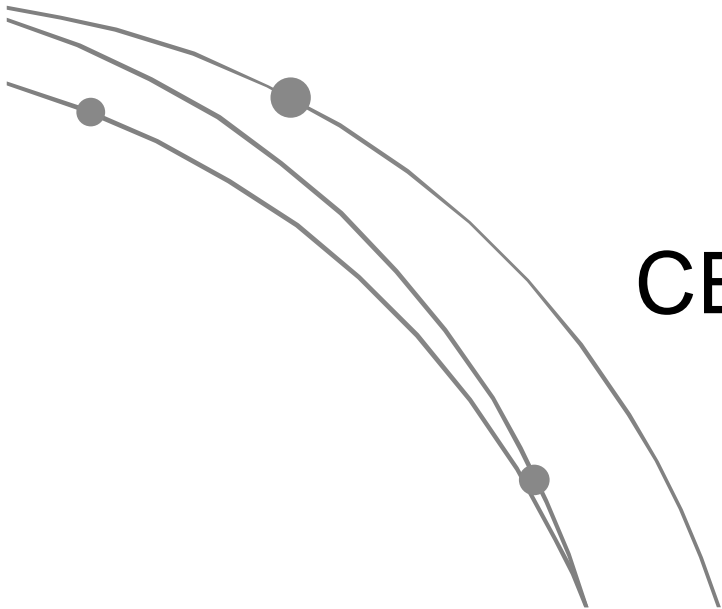


Competitiveness of Shanghai Port and Yangtze- River-Pacific-Ocean Gateway

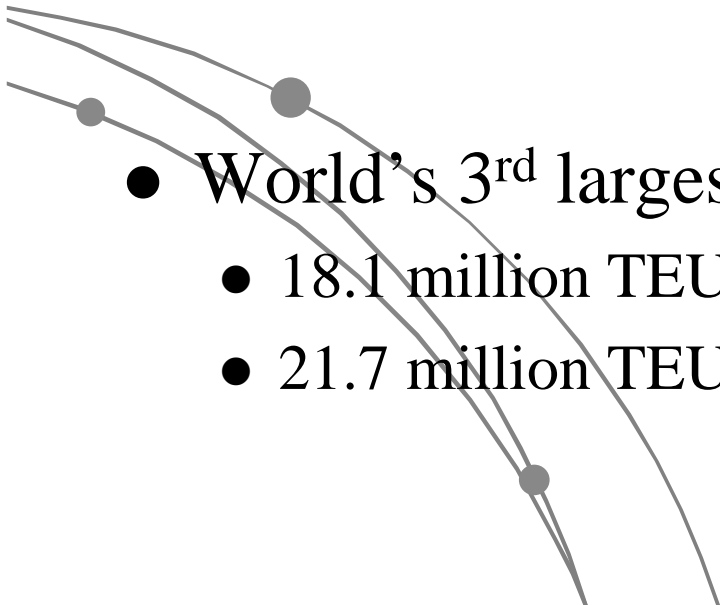
Yimin Zhang
CEIBS, Shanghai



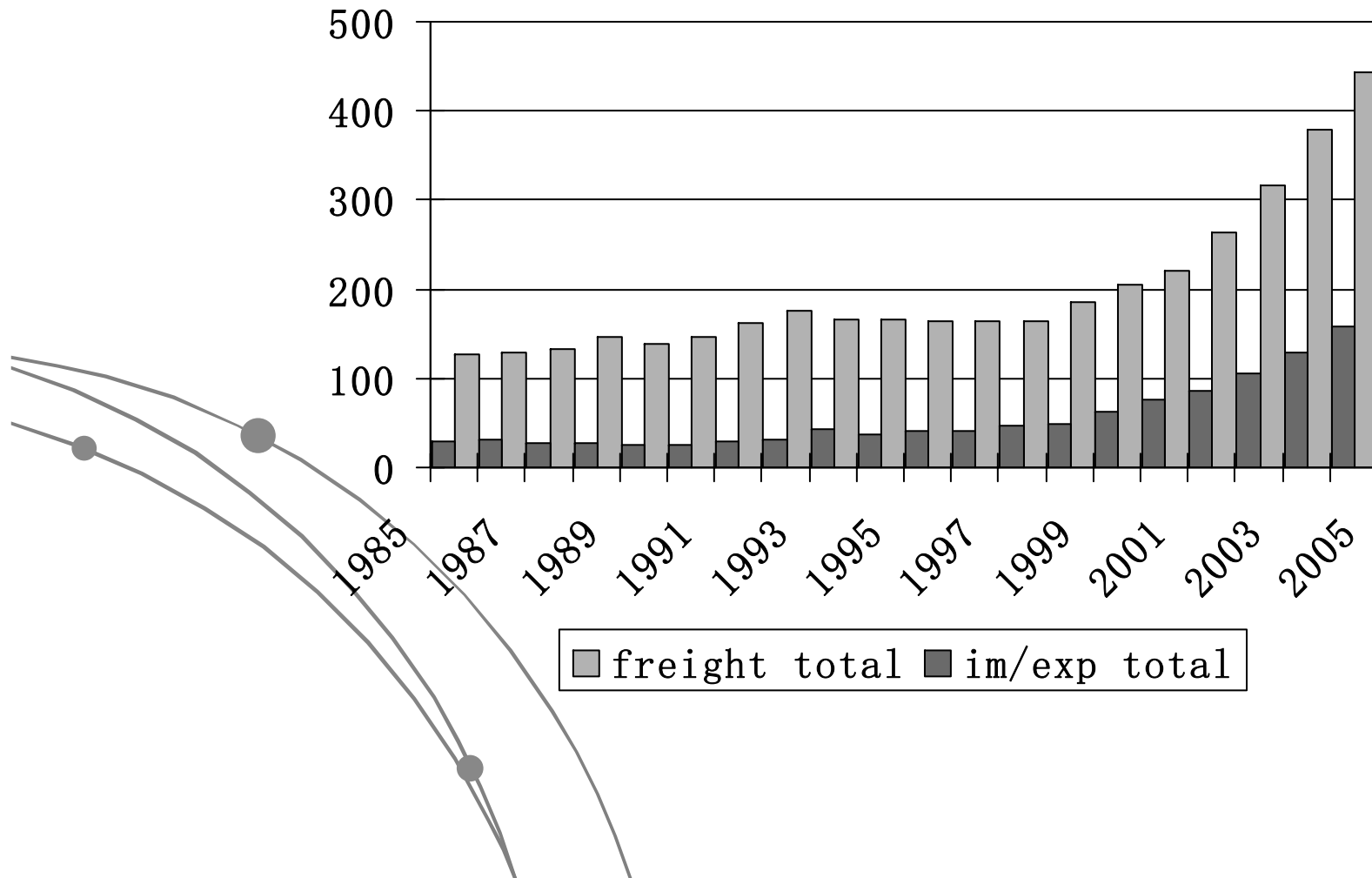
Growth of Shanghai Port

- Shanghai port is the largest port in China
- World's largest in terms of freight handled
 - 443 million tons in 2005
 - 537 million tons in 2006

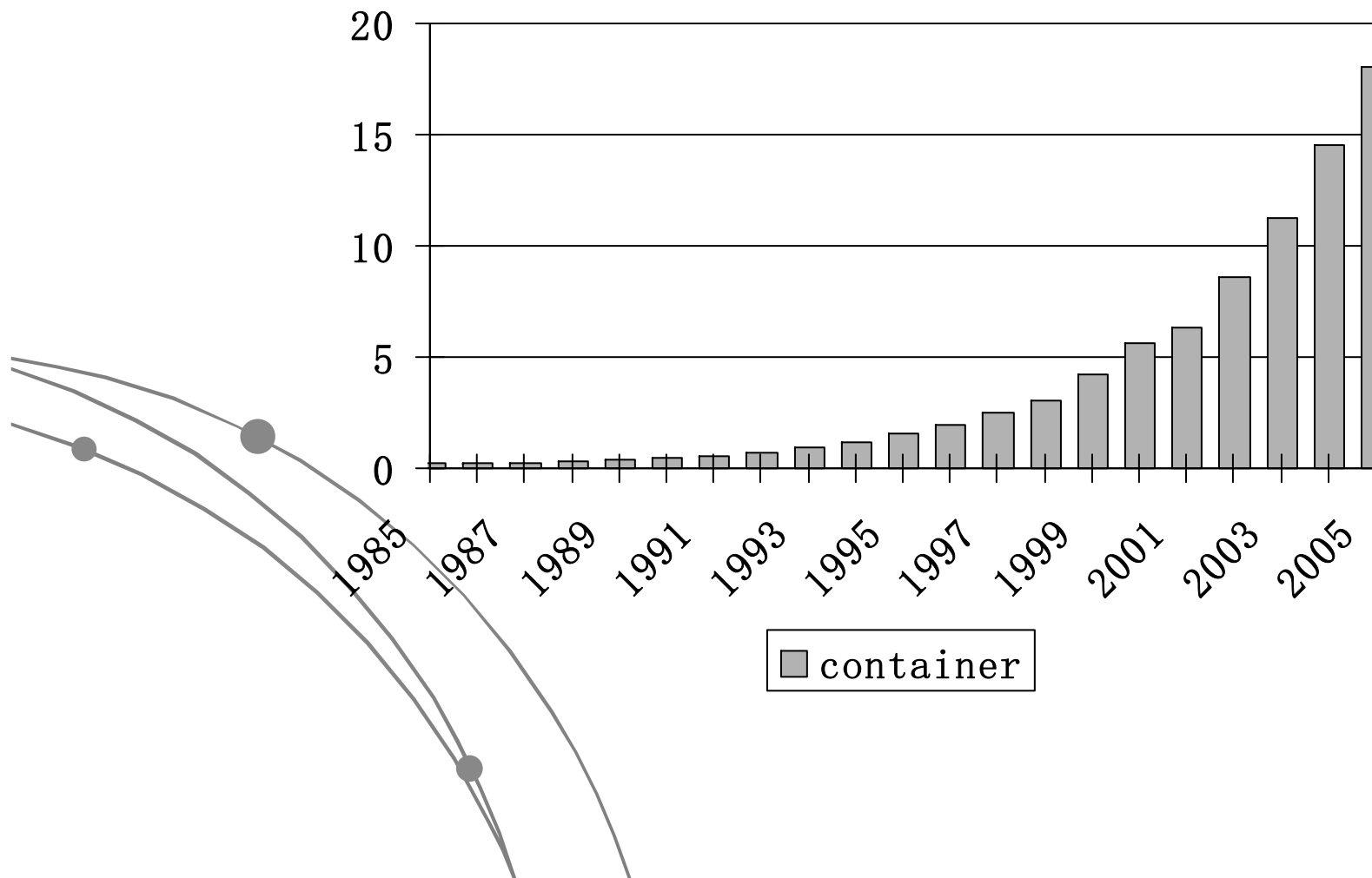
- World's 3rd largest in terms of container handled
 - 18.1 million TEU in 2005
 - 21.7 million TEU in 2006



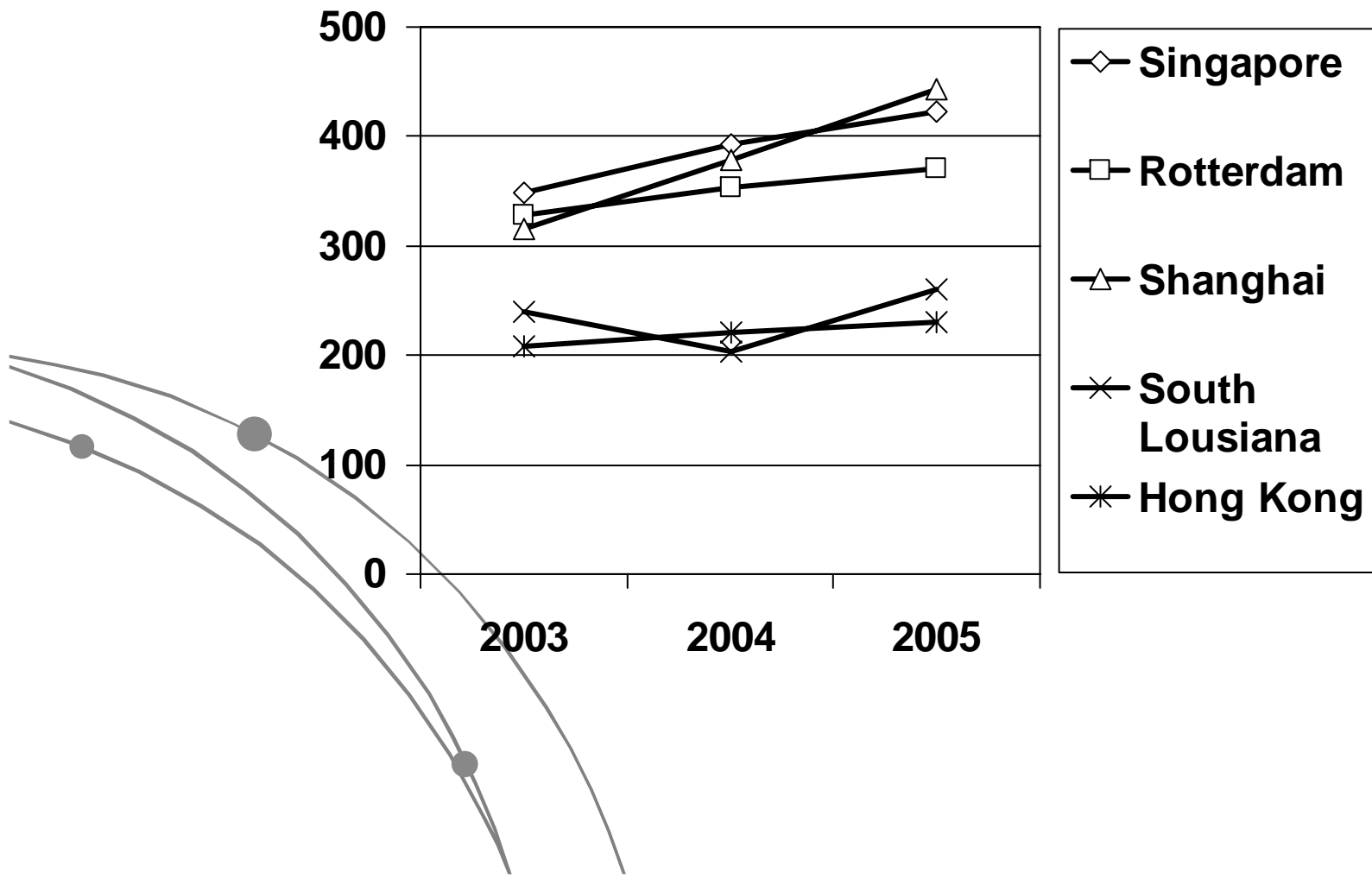
Shanghai Port freight handling (million tons)



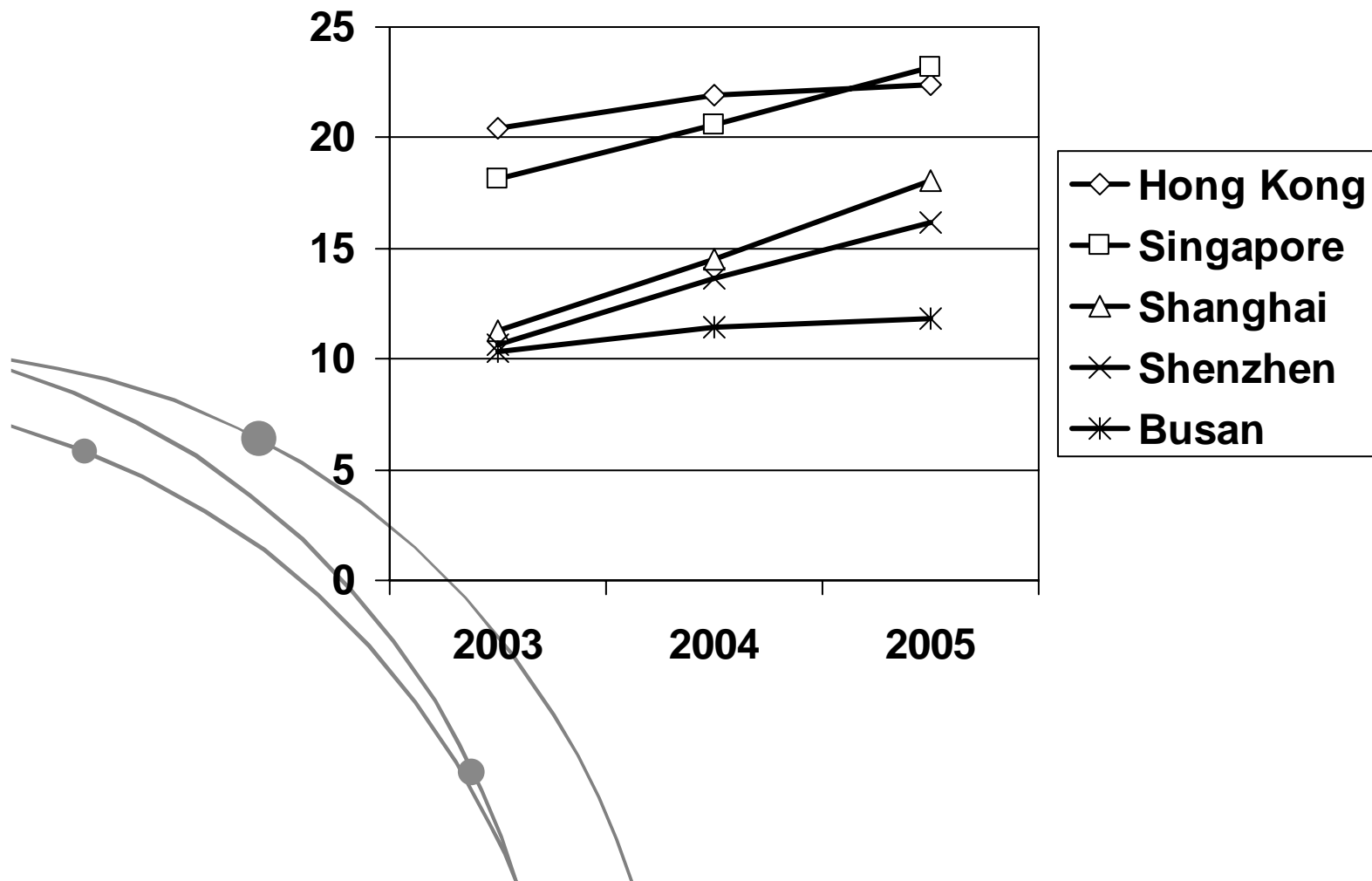
Shanghai Port container handling (million TEU)



World's largest ports in freight handling (million ton)



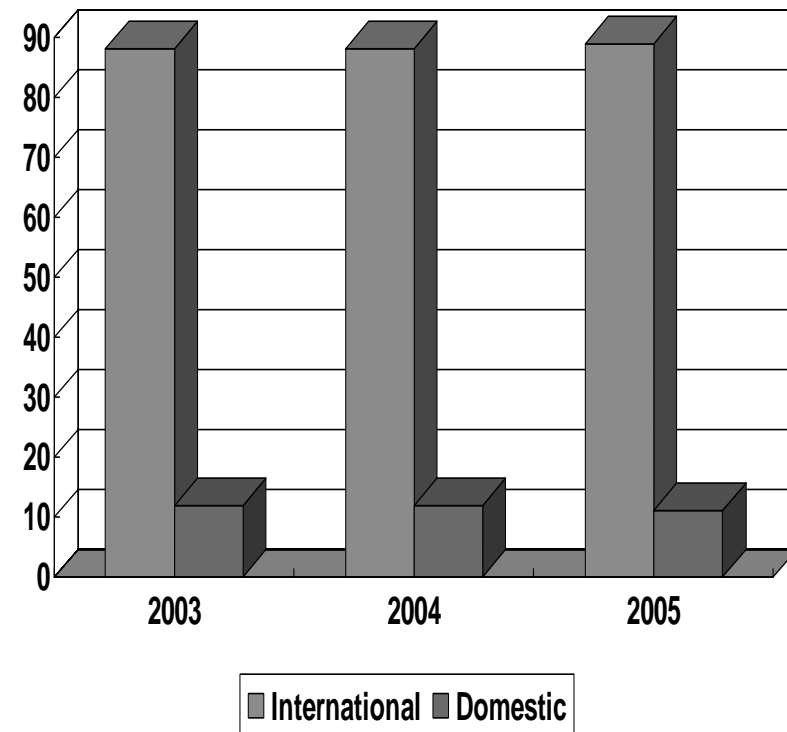
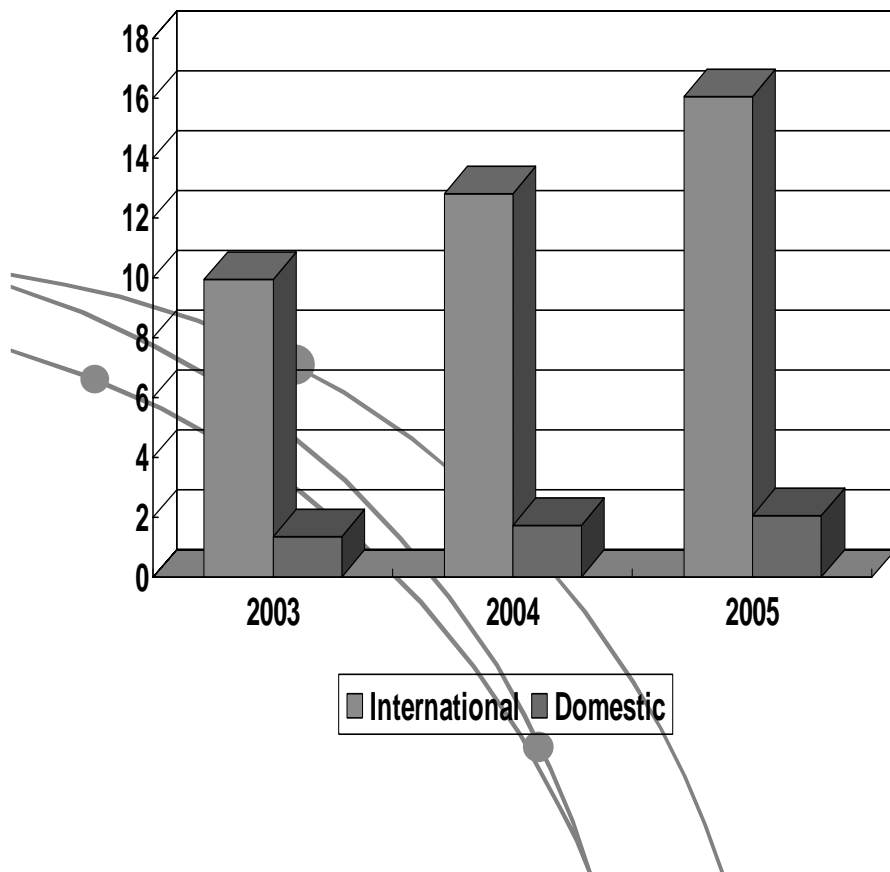
World's largest ports in container handling (million TEU)



Sources of container in Shanghai Port

Million TEU

%

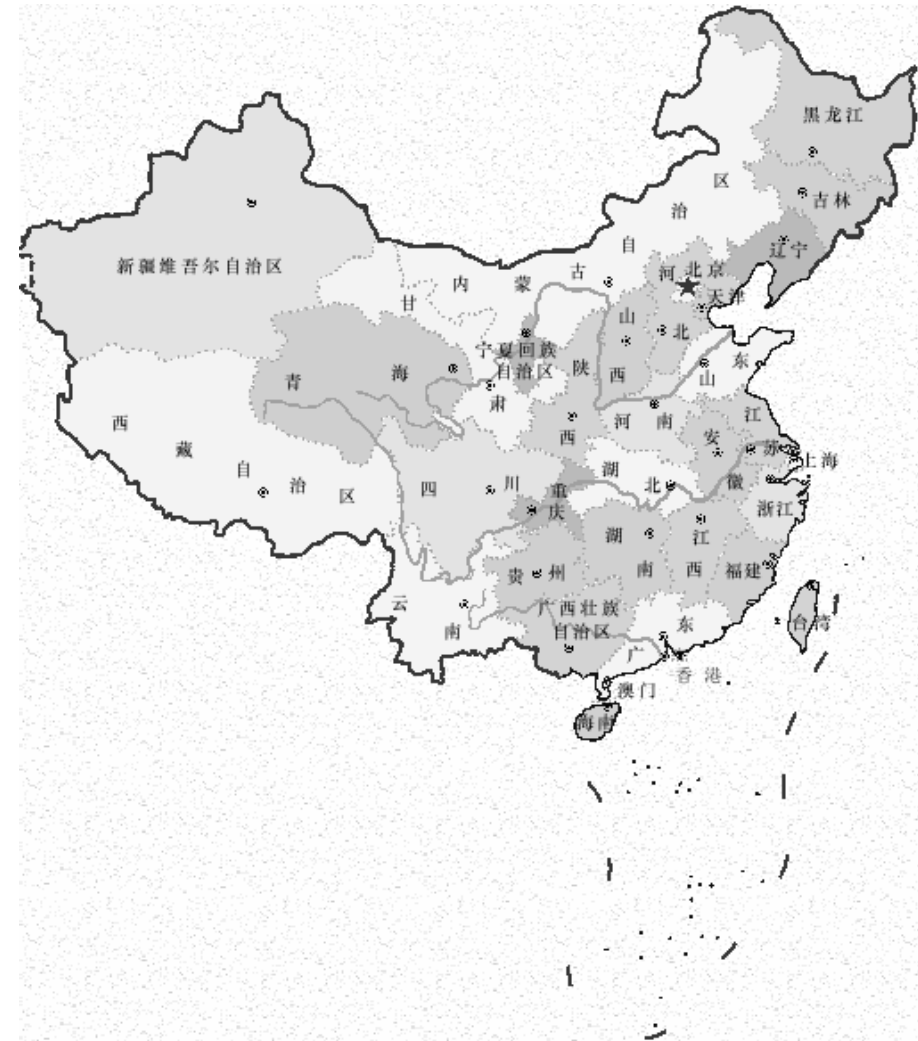


Shanghai Port as a gateway

- Yangtze-River Delta
- Yangtze-River region

- Coastal region

- T-shaped waterway



Yangtze-River Delta

- Yangtze-River Delta
 - Consists of 16 cities around Shanghai, total area around 100,000 square km with 100 million population
- Around 20% of Chinese GDP, 30% of foreign trade, 50% of foreign investment in China
- 2005
 - GDP about 400 billion US\$, growth 13.4%
 - Export 270 billion US\$, import 225 billion US\$

Water transport in Yangtze-River Delta (2005)

- Container handled by the ports in Yangtze-River Delta
 - About 34% of national total

- Freight handled

- About 43% of national total
- Ports in Jiangsu province handled 450 millions of freight
- Shanghai, Jiangsu and Zhejiang
 - Coal handled: about 35%
 - Crude oil: about 48%
 - Metal ore: about 55%

Upper reaches of Yangtze-River region

- Chongqing port is main transshipping center
 - About 40% of container come from neighboring provinces
- Freight for international trade
 - Export: motorcycles, chemical products and food
 - Import: automobile parts, machinery
- About 30% of containers generated in the upper reaches of Yangtze-River region are transshipped in Shanghai Port

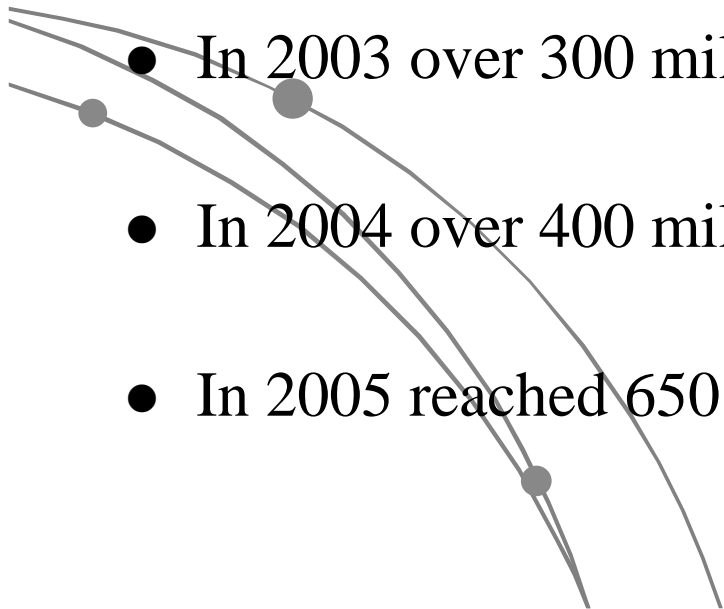
Middle reaches of Yangtze-River region

- Wuhan is the main port and transshipping center
- Freight for international trade
 - Agricultural and chemical product, machinery and food
- 30~60% of containers generated in the region are transshipped in Shanghai Port

The Golden Waterway along Yangtze River

- 25 major ports along the Yangtze River
- In 1984 total freight handled about 100 million tons
- In 2000 reached 200 million tons

- In 2003 over 300 million tons
- In 2004 over 400 million tons
- In 2005 reached 650 million tons

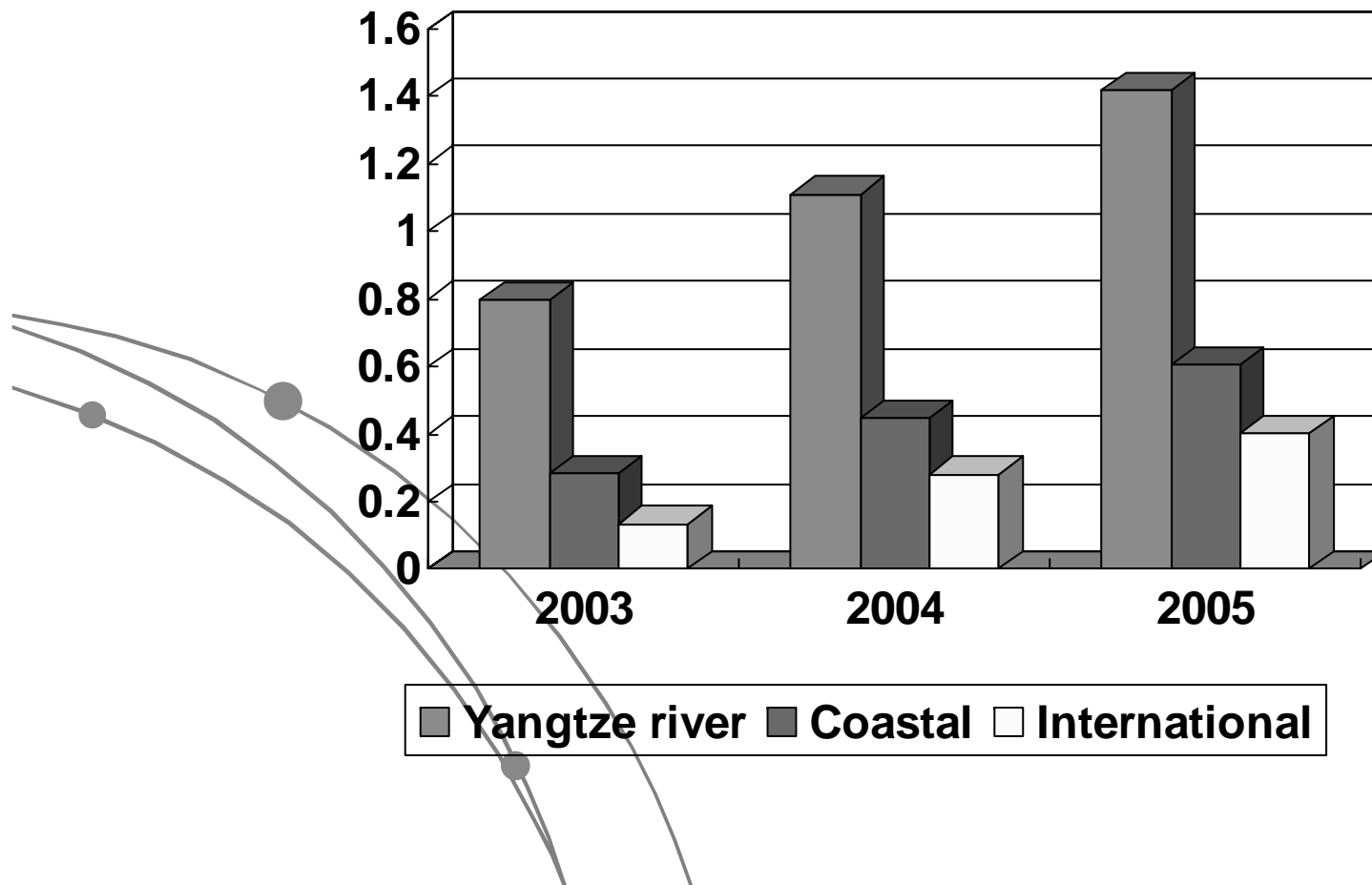


Freight transshipping between Yangtze River and coastal region

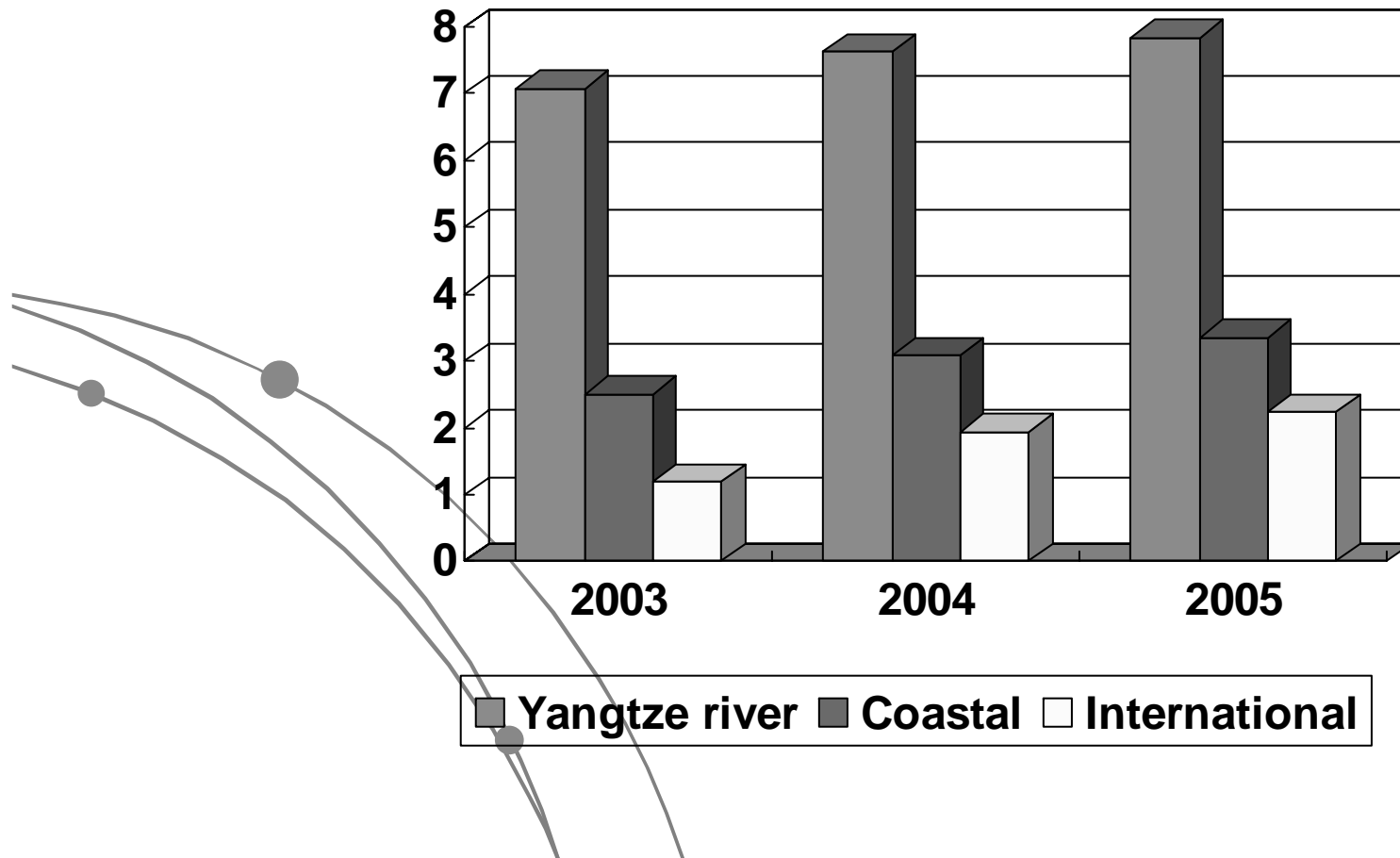
- Freight flow from coastal region to Yangtze River
 - Coal and ore as large amount of steel manufacturer and power plant are located along the river

- 
- Freight flow from Yangtze River to coastal region
 - Iron and steel, construction materials

Transshipment of container in Shanghai Port (million TEU)

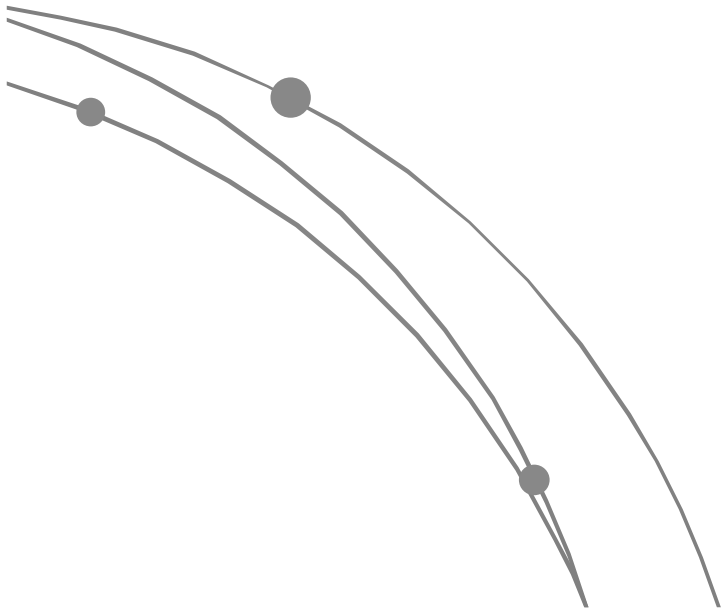


Shanghai as gateway for hinterland (% of container transshipment)



Capacity shortage in Shanghai Port

- Shanghai Port is strategically located, but suffers from capacity shortage
- Limited role as international shipping center compared with Hong Kong, Singapore and Busan



Capacity expansion in Shanghai Port

- Wusongkou port
 - For domestic container
 - Capacity already saturated
- Waigaoqiao port
 - For hinterland-generated international container
 - Capacity already saturated
- Yangshan port
 - For transshipment
 - For future expansion

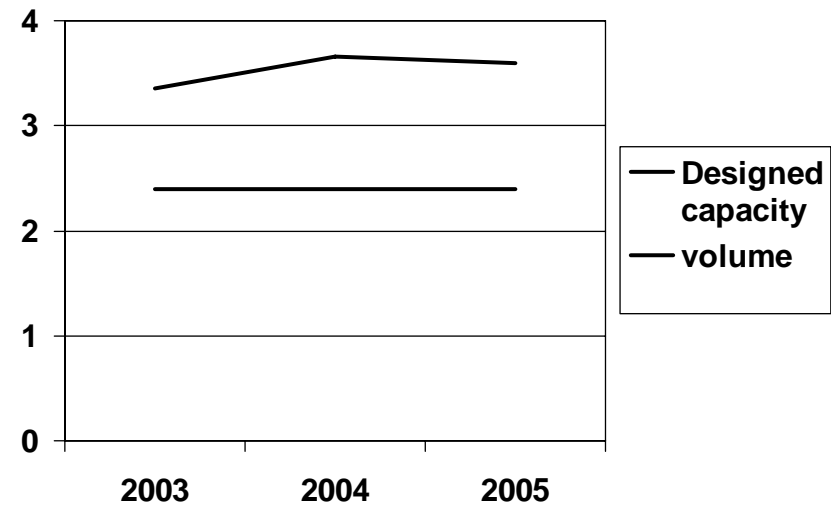
Wusongkou Port

- Number of berths
 - 9

- Water depth
 - 10 ~ 12.5 m

- Designed capacity
 - 2.4 million TEU

- Container handled in 2005
 - 3.6 million TEU



Waigaoqiao Port

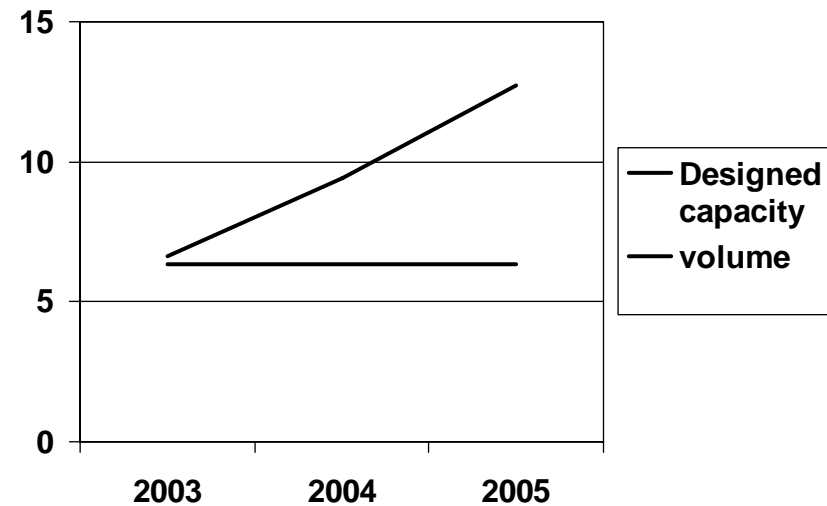
- Started in 1991, total investment over 1 billion US\$ in 5 phases

- 26 berths

- Water depth: 10.5~13 m

Capacity

- Designed: about 8 million TEU
- Actually handled 12.7 million TEU in 2005



Yangshan Deepwater Port

- Development in 4 phases
- Phase 1
 - Investment about 7.5 billion US\$
 - Completed in Dec. 2005
 - 5 berths
 - Designed capacity: 2.2 million TEU
 - First-year operation: 3.1 million TEU
- Phase 2
 - Investment about 7 billion US\$
 - Completed in Dec. 2006
 - 4 berths
 - Designed capacity: 2.1 million TEU

Yangshan Deepwater Port

- Phase 3

- Investment about 20 billion US\$
- Construction started in Dec. 2006
- Expected to complete in 2010
- 7 berths
- Designed capacity: 5 million TEU

- Phase 4

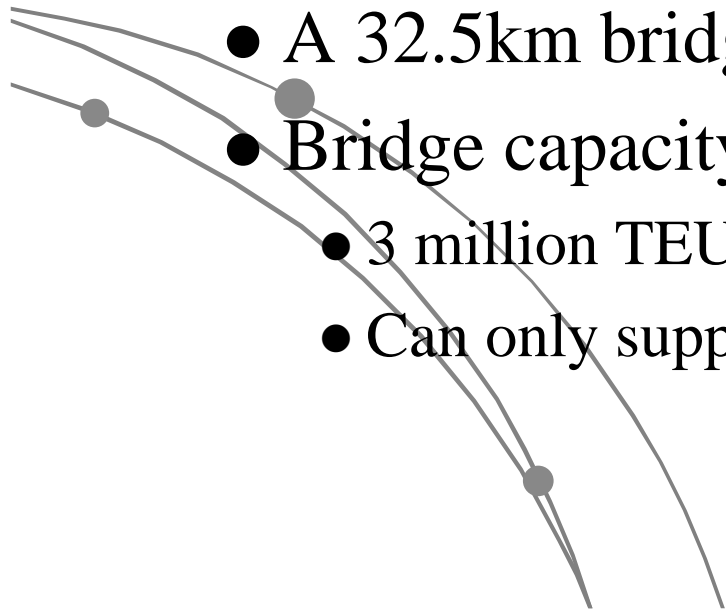
- Expected to completed in 2012
- 13 berths
- Designed capacity: 4.5 million TEU

Yangshan Deepwater Port

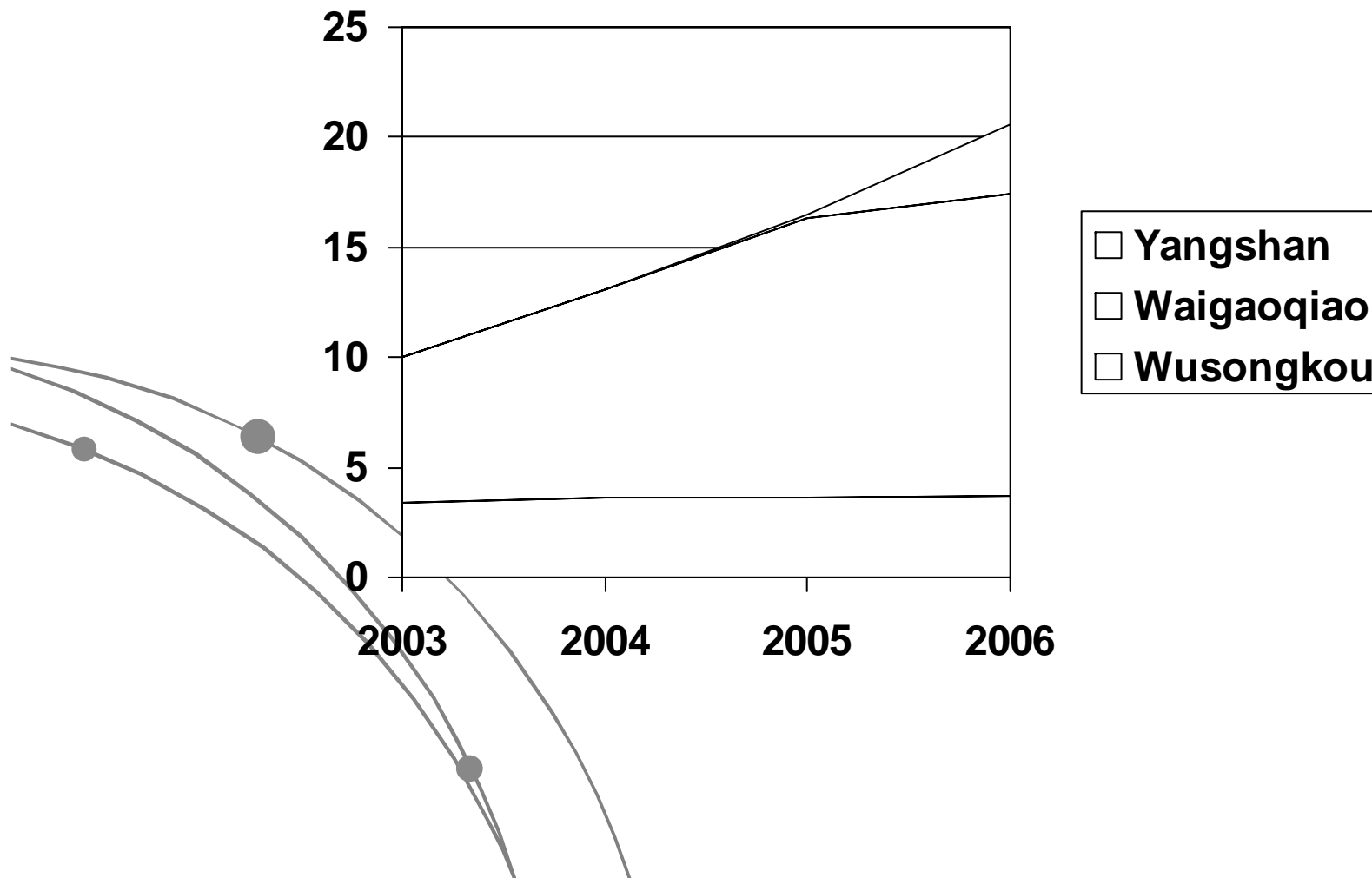
- Located on a island in East Sea
 - 30 km away from Shanghai, water depth 16m

- Limited sea/land interface

- A 32.5km bridge
- Bridge capacity
 - 3 million TEU
 - Can only support phase 1 operation



Yangshan Deepwater Port



Yangshan Deepwater Port

- First-year operation
 - 3.1 million TEU handled
 - 31% transshipment
 - Mostly from Yangtze River region to international

- Problems in transshipping

- Ships from upper-and-middle reaches of Yangtze River cannot sail in sea
- Must reload on coastal barge in Waigaoqiao, then sail to Yangshan for further transshipping

Efficient operation of Yangshan Deepwater Port

- Develop direct shipping from Yangtze River to Yangshan Port
 - Fast growth in export/import demand
 - Container generated in Wuhan Port grow at 30% annually
 - Jiangsu province export growth 25% annually
 - Limited land/sea interface
- Promote international transshipping

Conclusion

- Substantial growth in Shanghai Port both in volume and capacity
- Mainly as gateway for generated traffic and for domestic-international transshipping
 - Hinterland of Shanghai Port
 - Yangtze-River Delta
 - Yangtze-River regions
 - Coastal regions
- To become competitive international shipping centre
 - More efficient domestic-international transshipping
 - Attract more international-international transshipping