# Liner shipping markets, networks and strategies.

The implications for port development on the West Coast of South America

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## To create opportunities we need to be able to differentiate

- symptom/ˈsɪmptəm/
  *a feature which indicates a condition of "disease", an indication of an undesirable situation.*
- cause/kɔːz/
  *a thing that gives rise to an action, phenomenon, or condition.*

**Real opportunities are those who tackle the cause of the current challenges. Curing symptoms and not eliminating the cause of the challenge will only provide short term relieve**

# Objective

- Analyse the evolution of symptoms of change in the liner shipping industry

- Identify causes and drivers of change

- Discuss direct drivers for port infrastructure and port system development

- Reflect on habitual and perceived challenges for port development in Chile

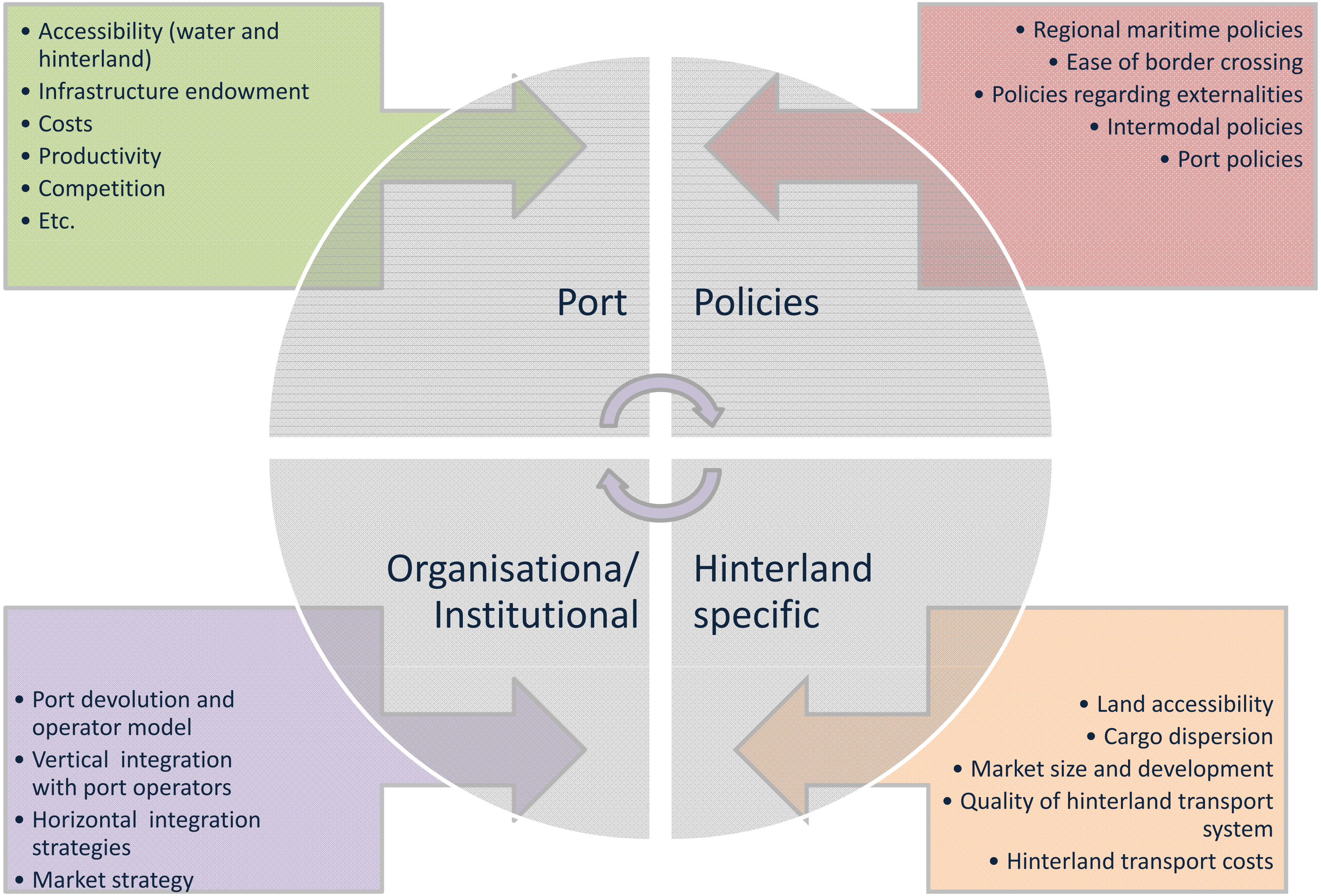
# Outline

- Liner shipping network evolution
- Critical moments in port development
- LAC and WCSA port system development
- Liner shipping technological change
- Liner shipping market structures
- Discussion topics

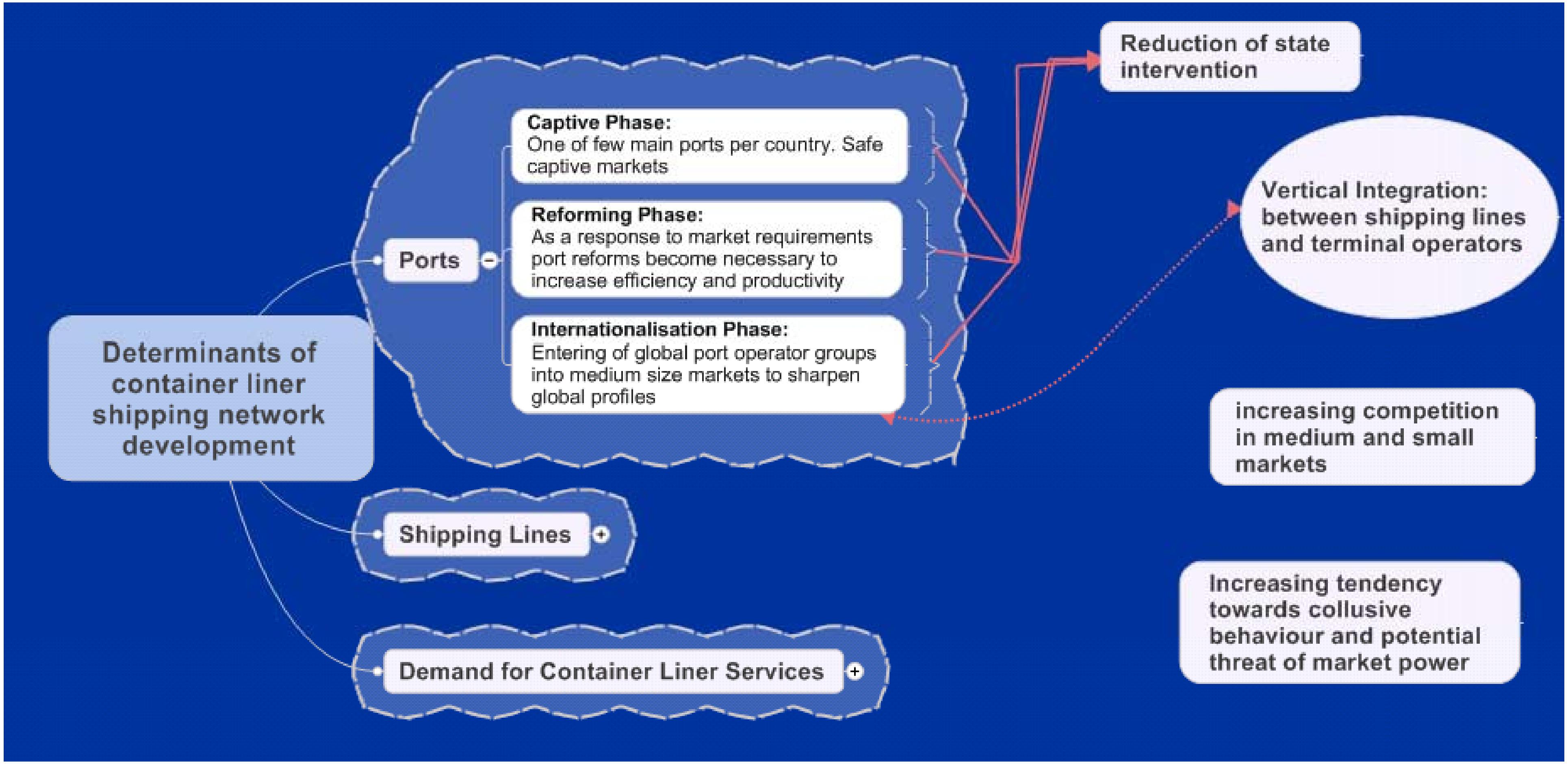
Network evolution

# LINER SHIPPING

# Relevant factors in liner network configurations

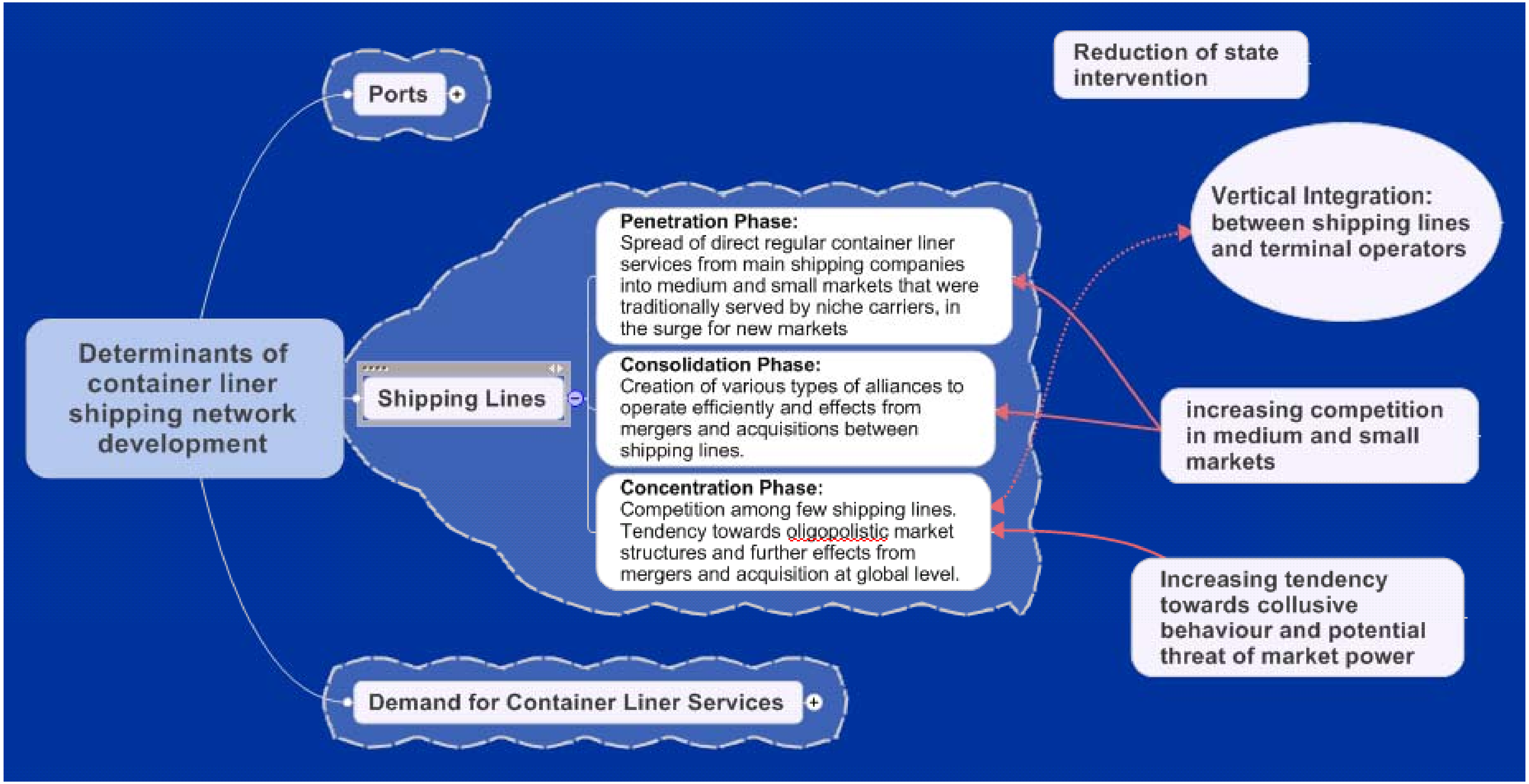


# Evolutionary patterns of liner shipping network configuration (1)

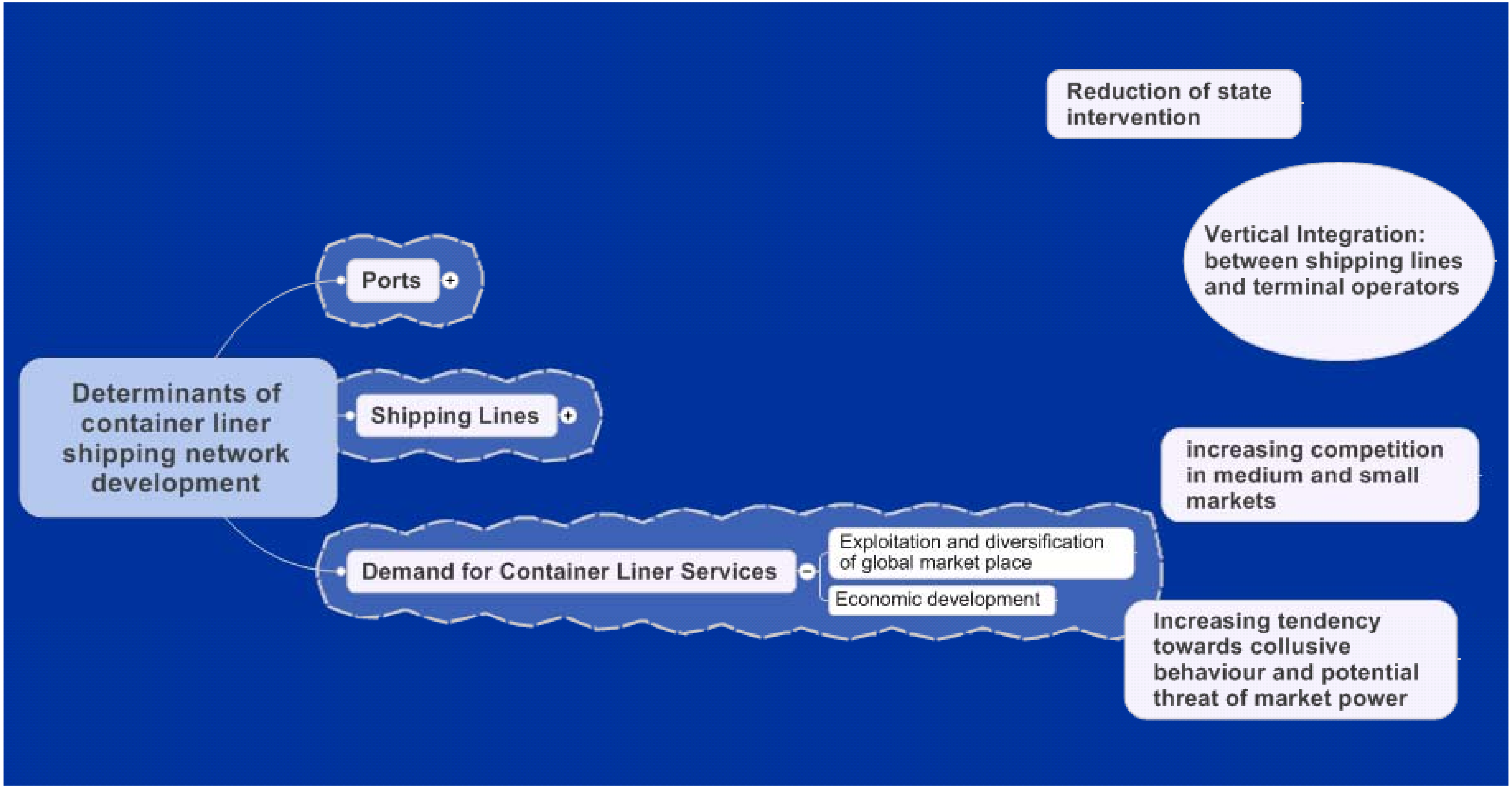



Source : Wilmsmeier and Notteboom 2009

# Evolutionary patterns of liner shipping network configuration (2)



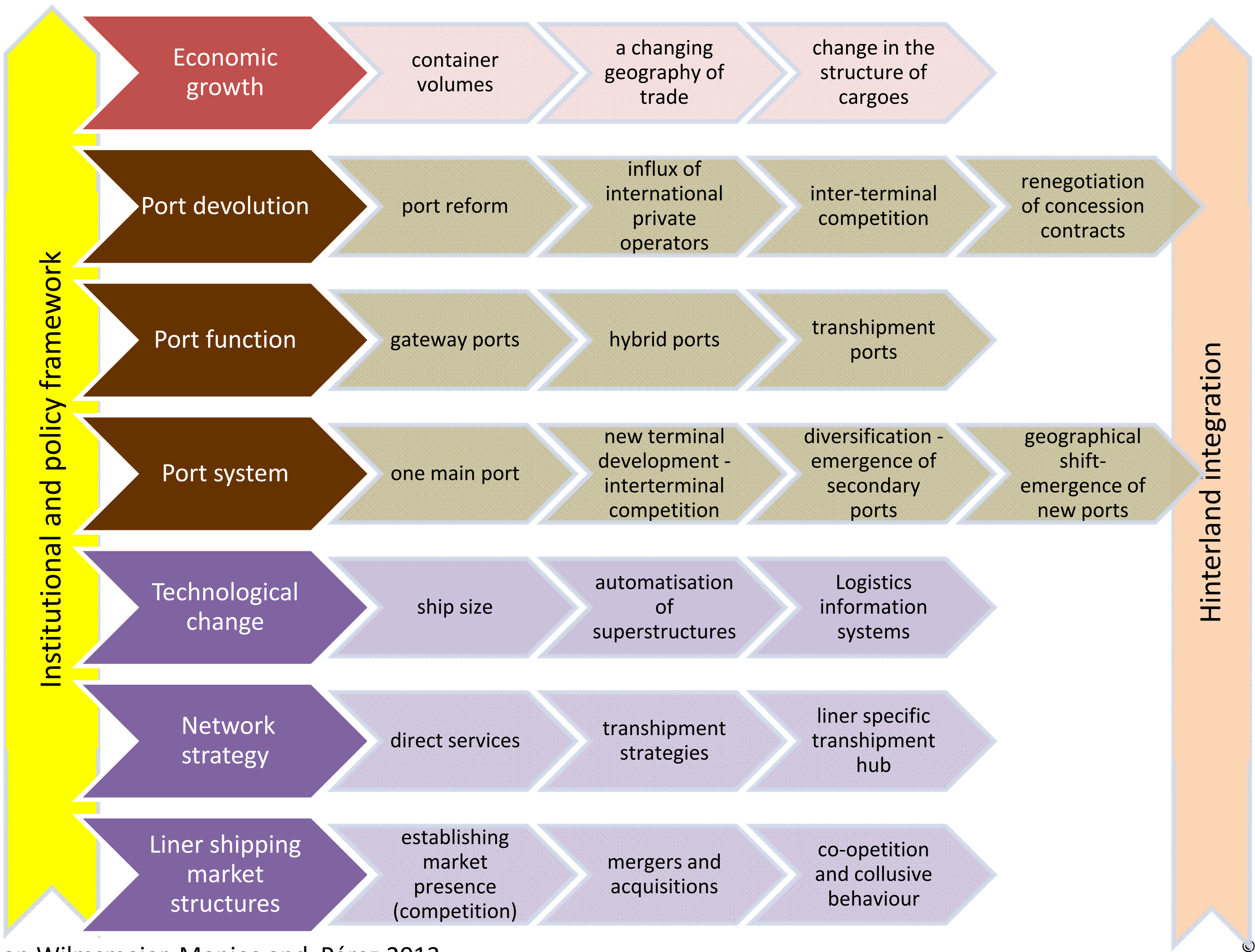
# Evolutionary patterns of liner shipping network configuration (3)



Critical moments

# PORT SYSTEM

# Critical Moment s in LAC port development between 1990 and 2013




Source : based on Wilmsmeier, Monios and  Pérez 2013

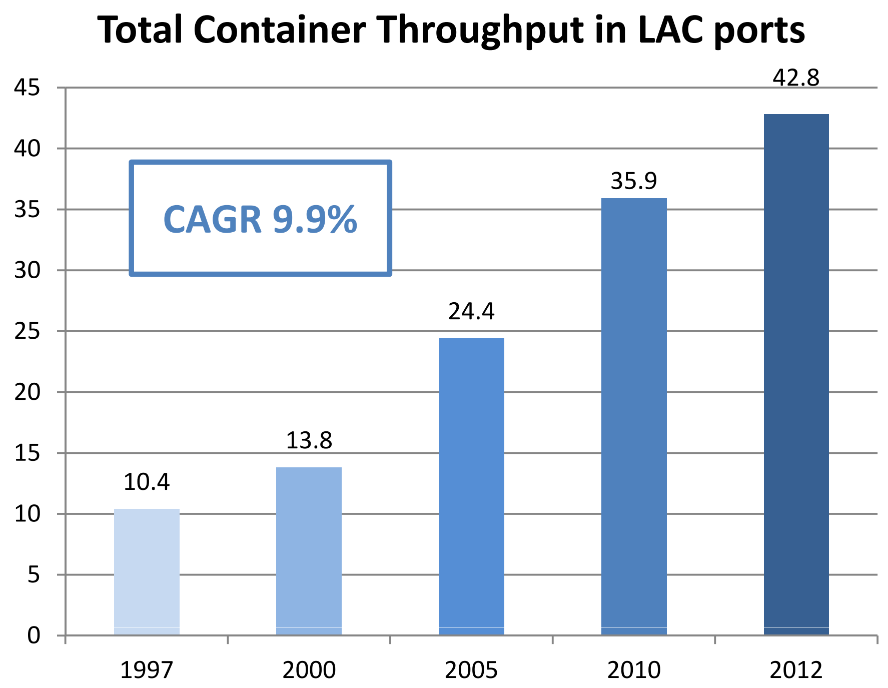
Latin America & the Caribbean

# PORT SYSTEM

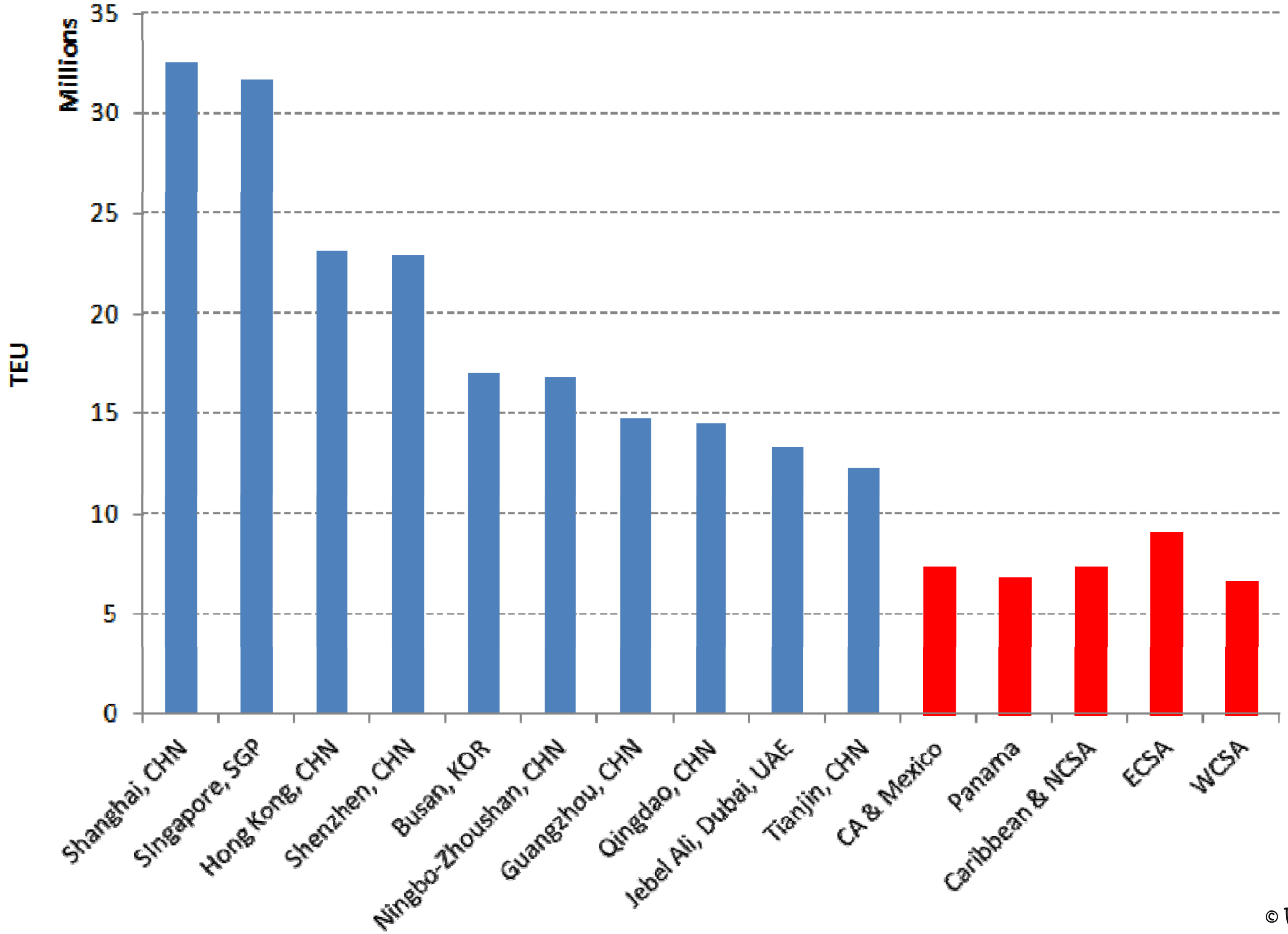
# LAC container market

- Port throughput:
  – 1997 - 10.4 million TEUs
  – 2012 - 42.8 million TEUs
  – equivalent to just above 7% of all global port movements.

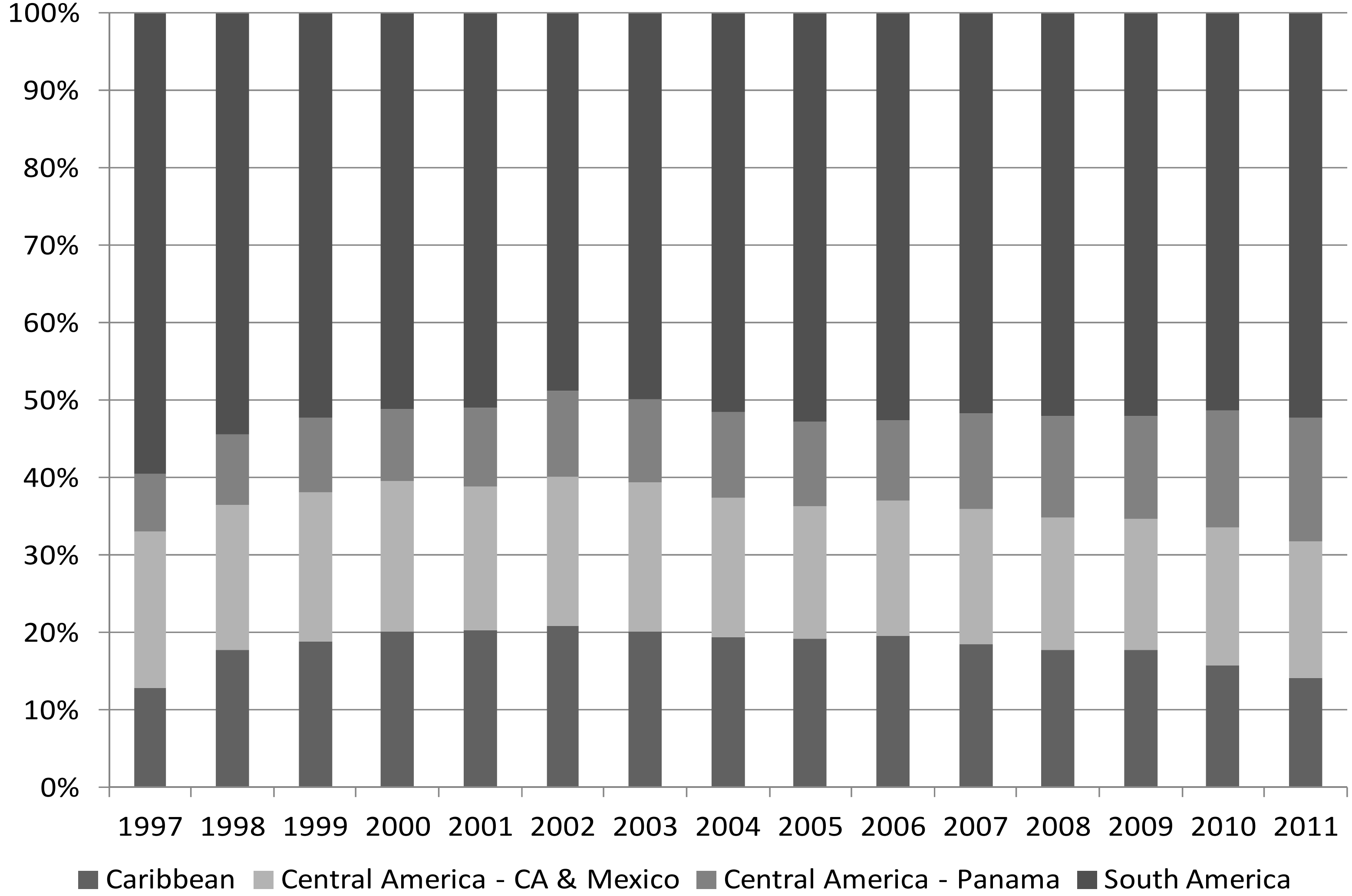
- 5 top countries in container throughput:
  – One fifth of all containers in LAC are moved in Brazil
  – Panama (16%)
  – Mexico (10%)
  – Chile (8%)
  – Colombia (5%)



# Comparison top 10 container ports and LAC regions, 2012

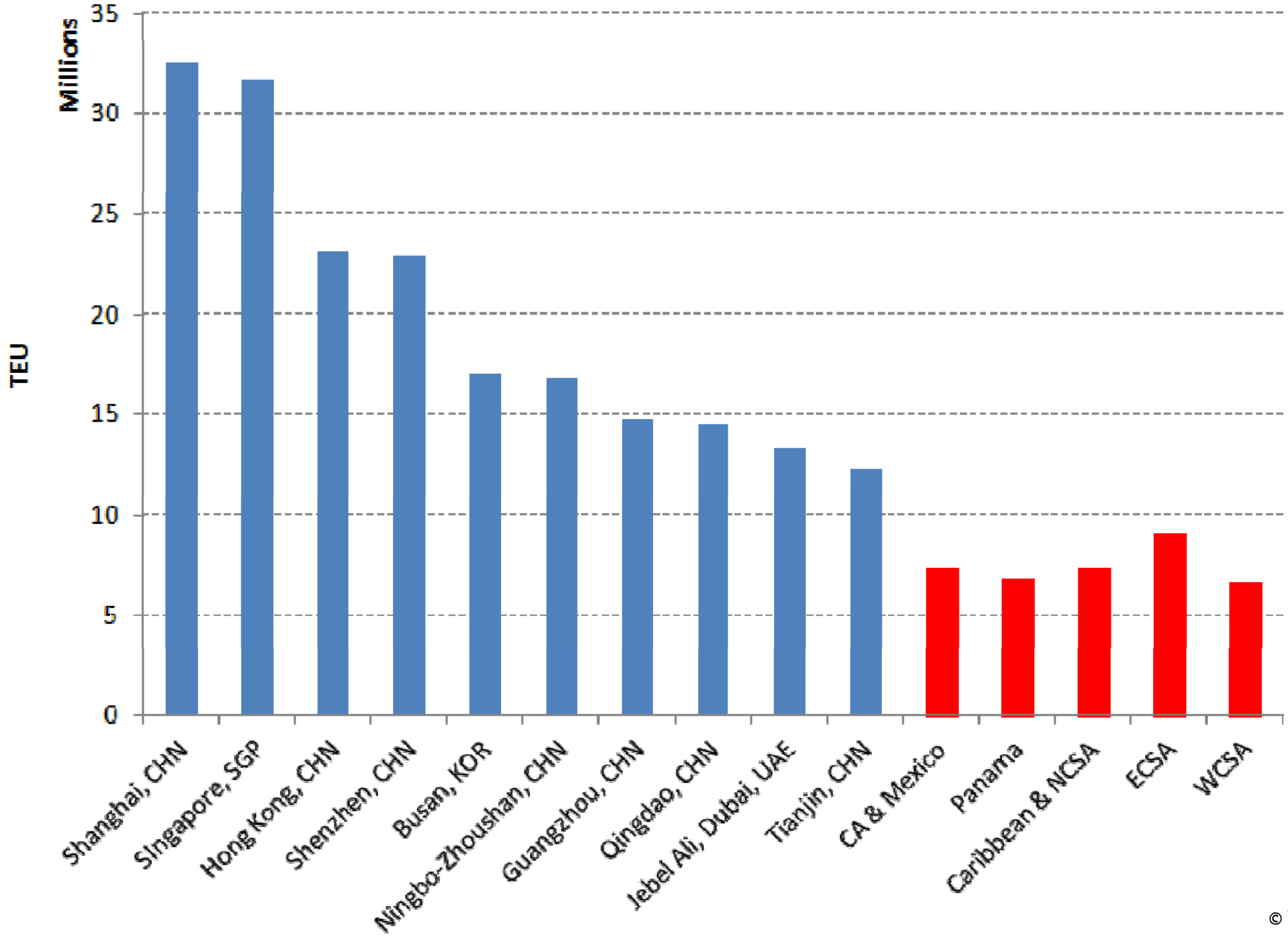


# Sub-regions' shares in container throughput in LAC, 1997 to 2011

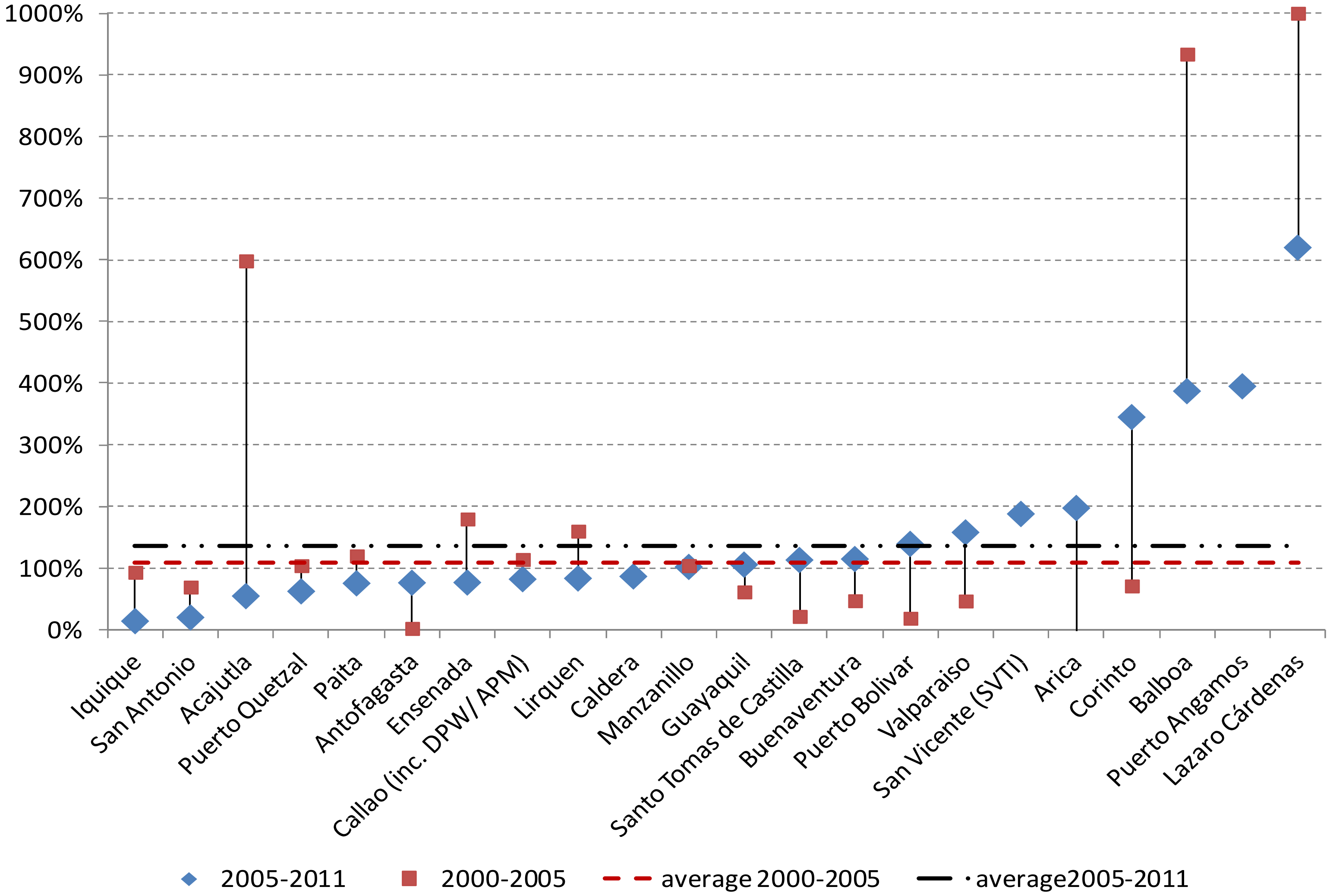



Source : Wilmsmeier, Monios and Pérez 2013

# Comparison top 10 container ports and LAC regions, 2012



# WCSA and WCCA growth rates of container ports, 2000 to 2011



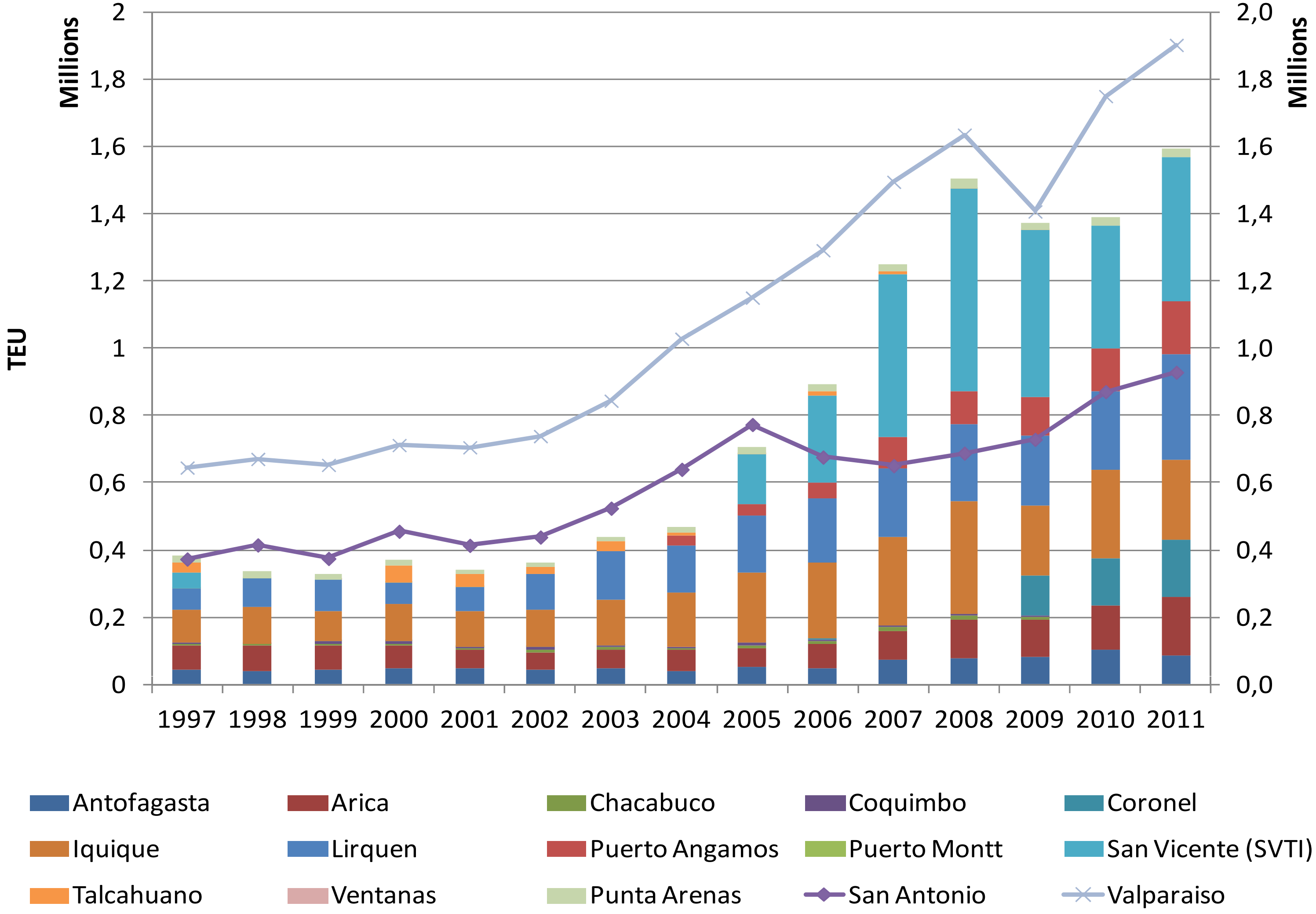

Source : Wilmsmeier, Monios and Pérez 2013

## The  usual questions

- What happens after the Panama Canal expansion?
- Will Callao be the hub port on the WCSA?
- Will Chile be served only by feeder services in the future?
- The more important question is:

**What is the future development of the Chilean port system?**

# Shares in container throughput in Chile, 1997 to 2011

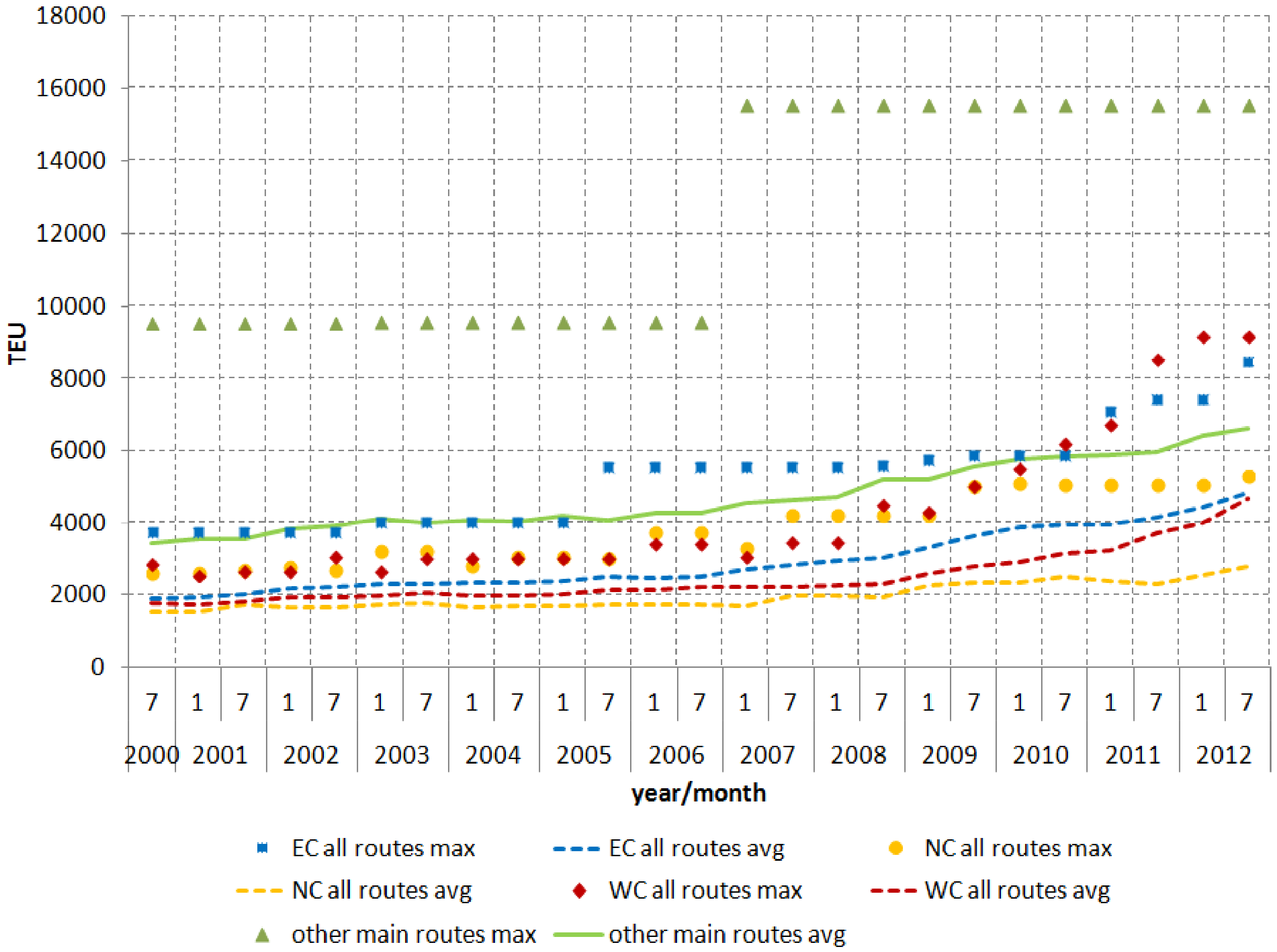



(Source Authors, based on ECLAC)

Technological change

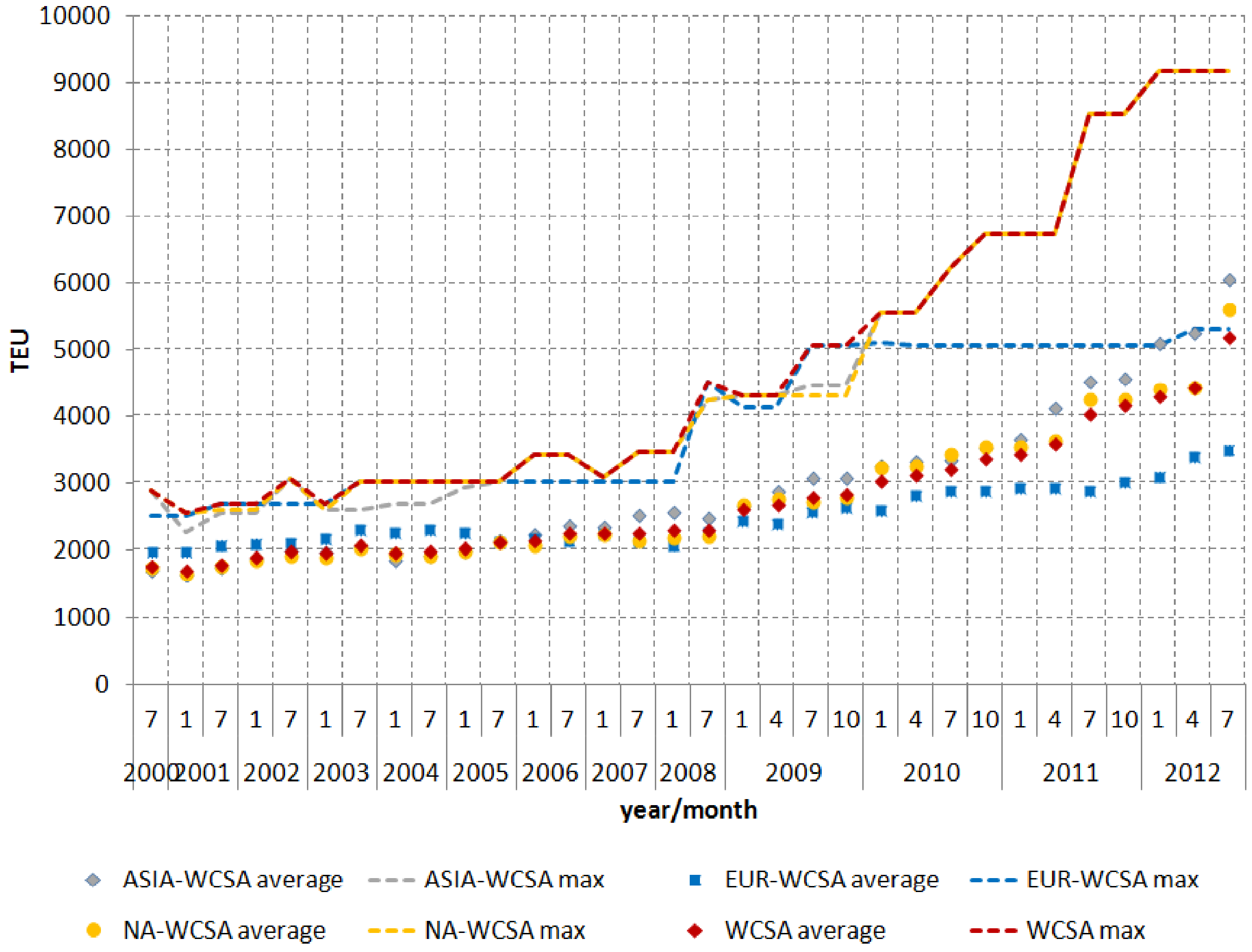
# LINER SHIPPING

# Evolution of vessel capacity on South American and other main trade routes, 2000-2012




Note: main trade routes include transpacific, transatlantic and Europe-Asia.
Source: Wilmsmeier, based on CompairData, Lloyds List and Marine Traffic various years

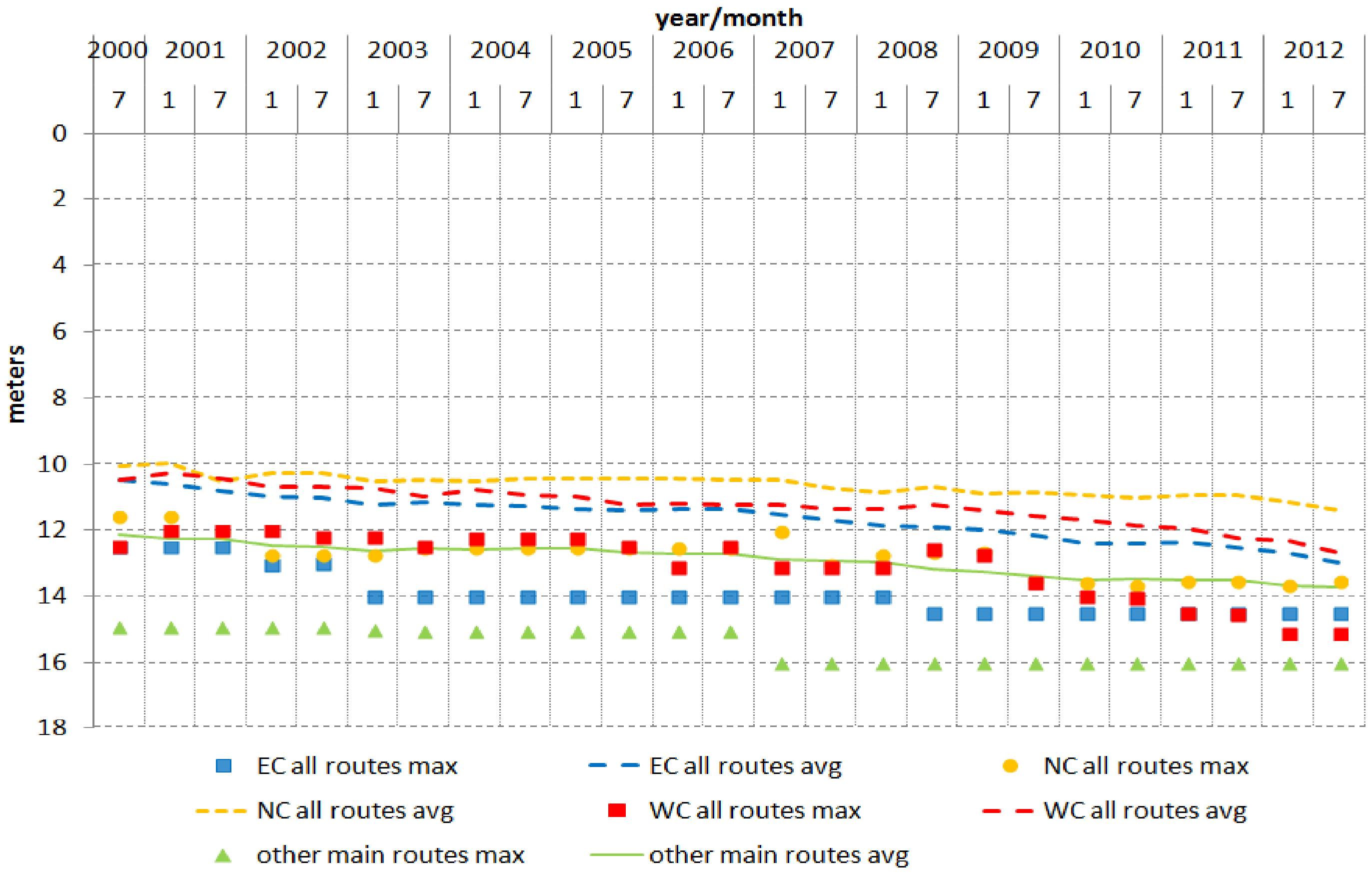
# Evolution of vessel capacity on West Coast South America main trade routes, 2000-2012





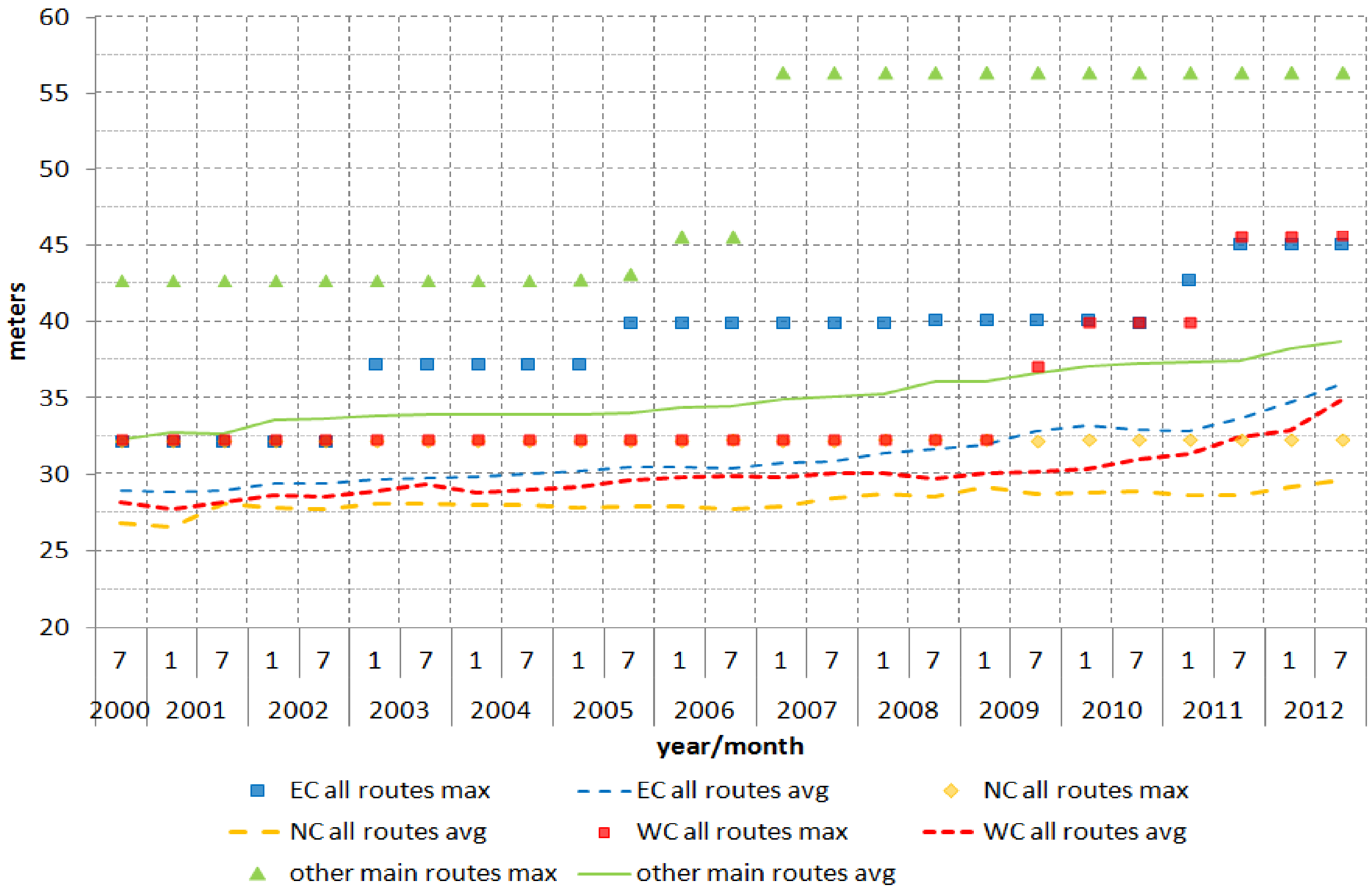

Source: Wilmsmeier, based on CompairData, Lloyds List and Marine Traffic various years

# Evolution of vessel draft on South American and other main trade routes, 2000-2012



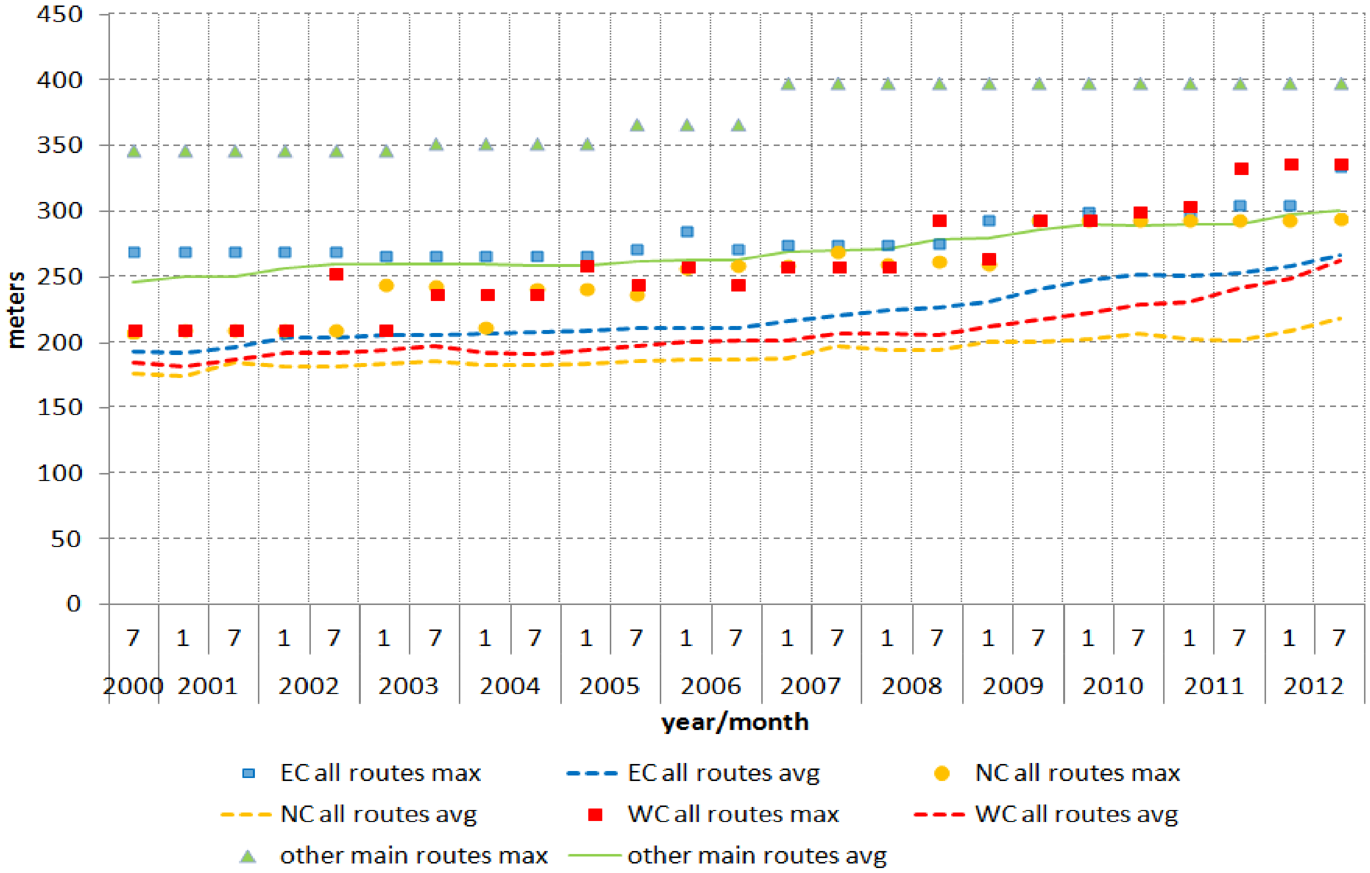

Note: main trade routes include transpacific, transatlantic and Europe-Asia.
Source: Wilmsmeier, based on CompairData, Lloyds List and Marine Traffic various years

# Vessel breadth on South American and other main trade routes, 2000-2012




Note: main trade routes include transpacific, transatlantic and Europe-Asia.
Source: Wilmsmeier, based on CompairData, Lloyds List and Marine Traffic various years

# Evolution of vessel length on South American and other main trade routes, 2000-2012

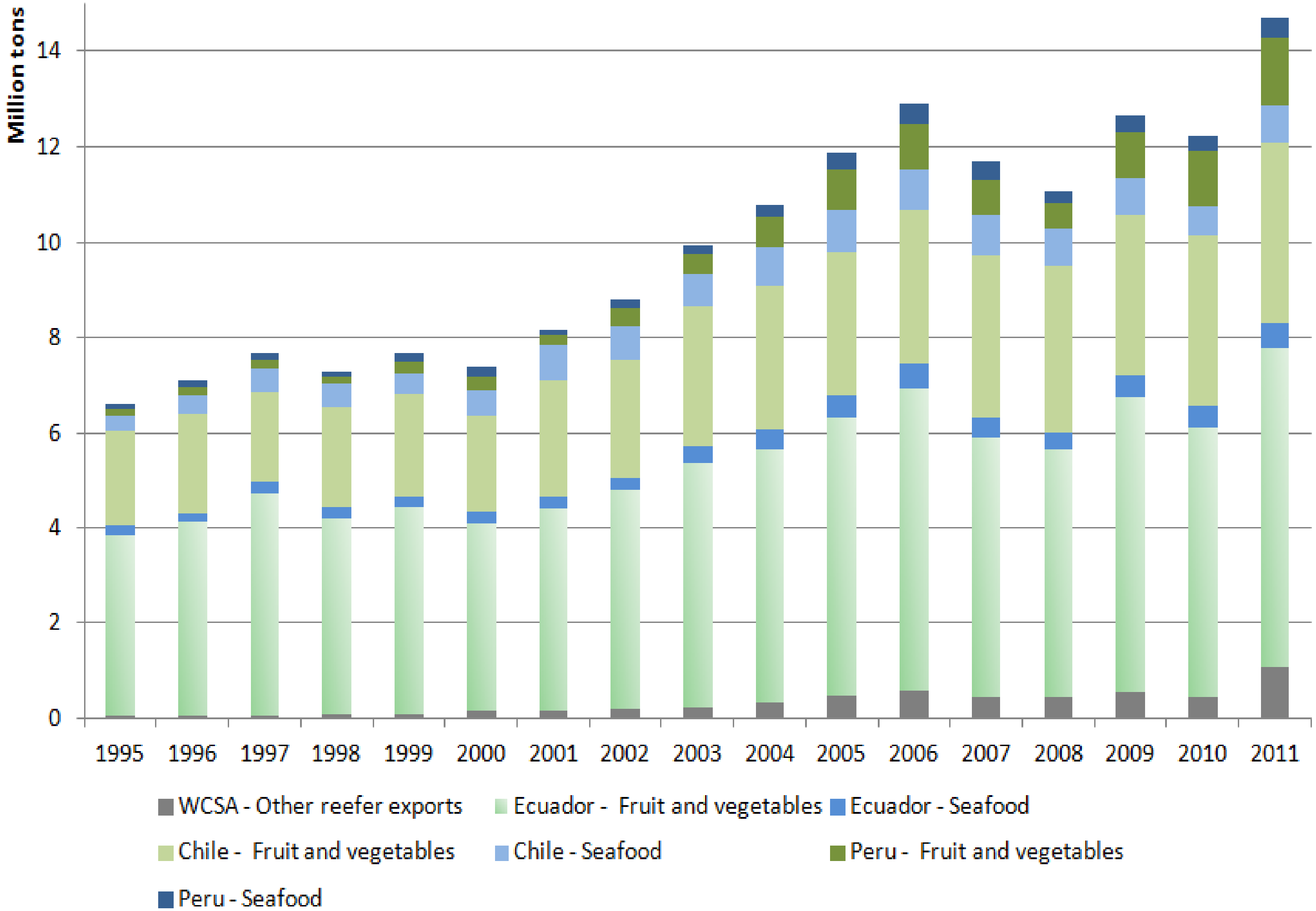



Note: main trade routes include transpacific, transatlantic and Europe-Asia.
Source: Wilmsmeier, based on CompairData, Lloyds List and Marine Traffic various years

Structural change

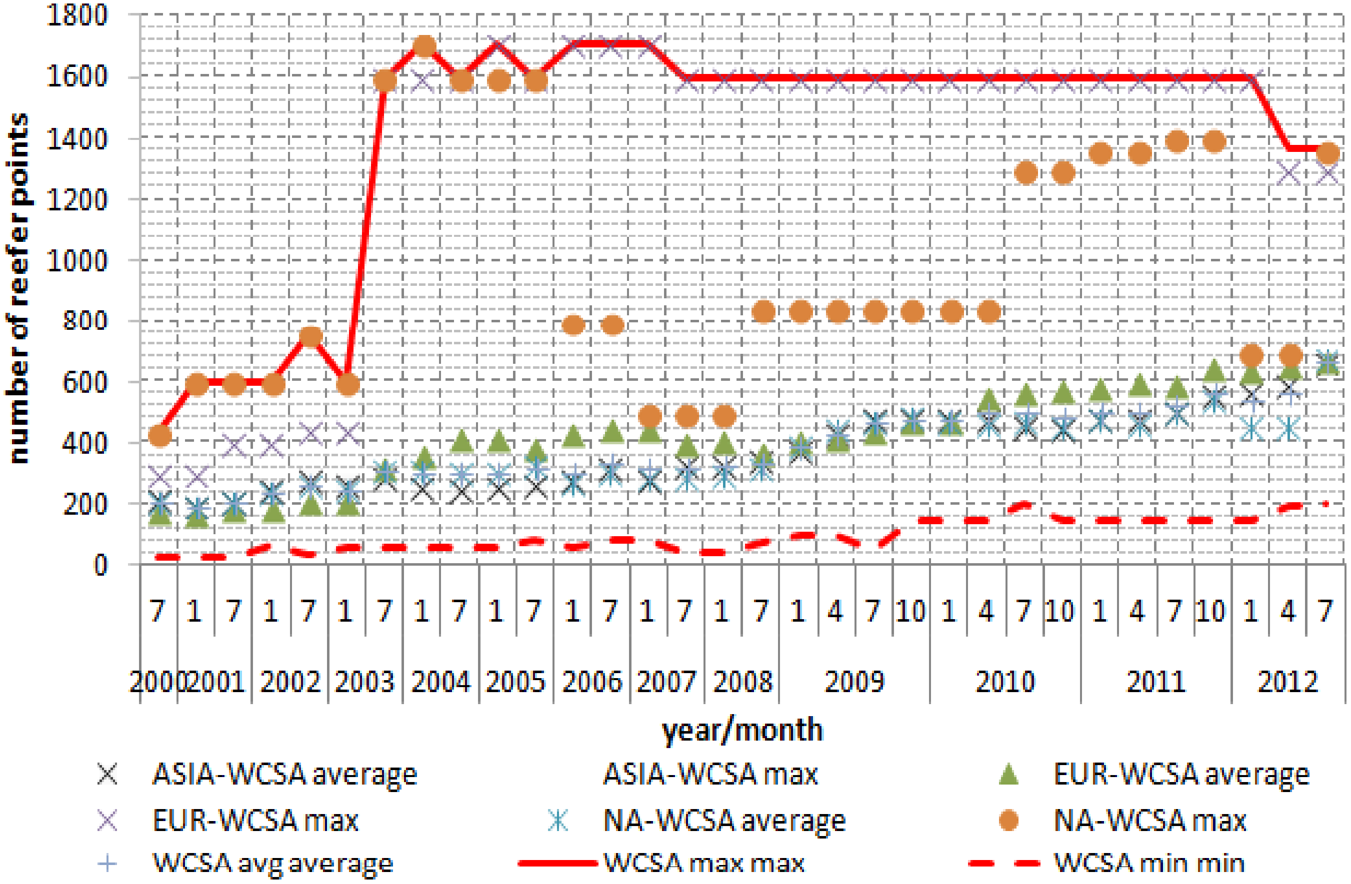
# LINER SHIPPING

# West Coast South America Reefer export evolution 1995-2011




Source: Vagle, based on (BADECEL 2012)

# Reefer capacity on vessels deployed in WCSA main routes, 2000-2012

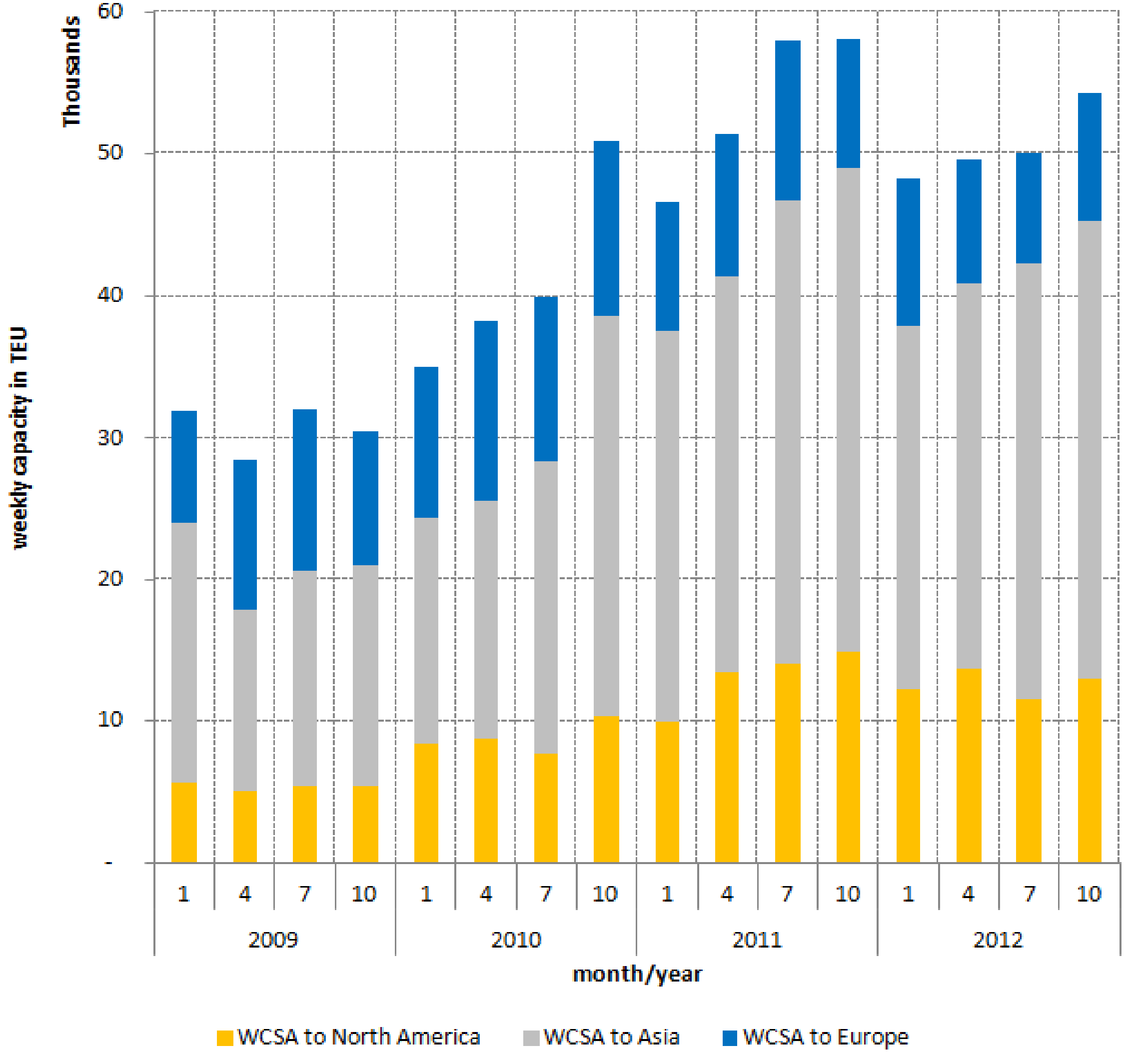



Source: Wilmsmeier, based on CompairData, Lloyds List and Marine Traffic various years

Market structure

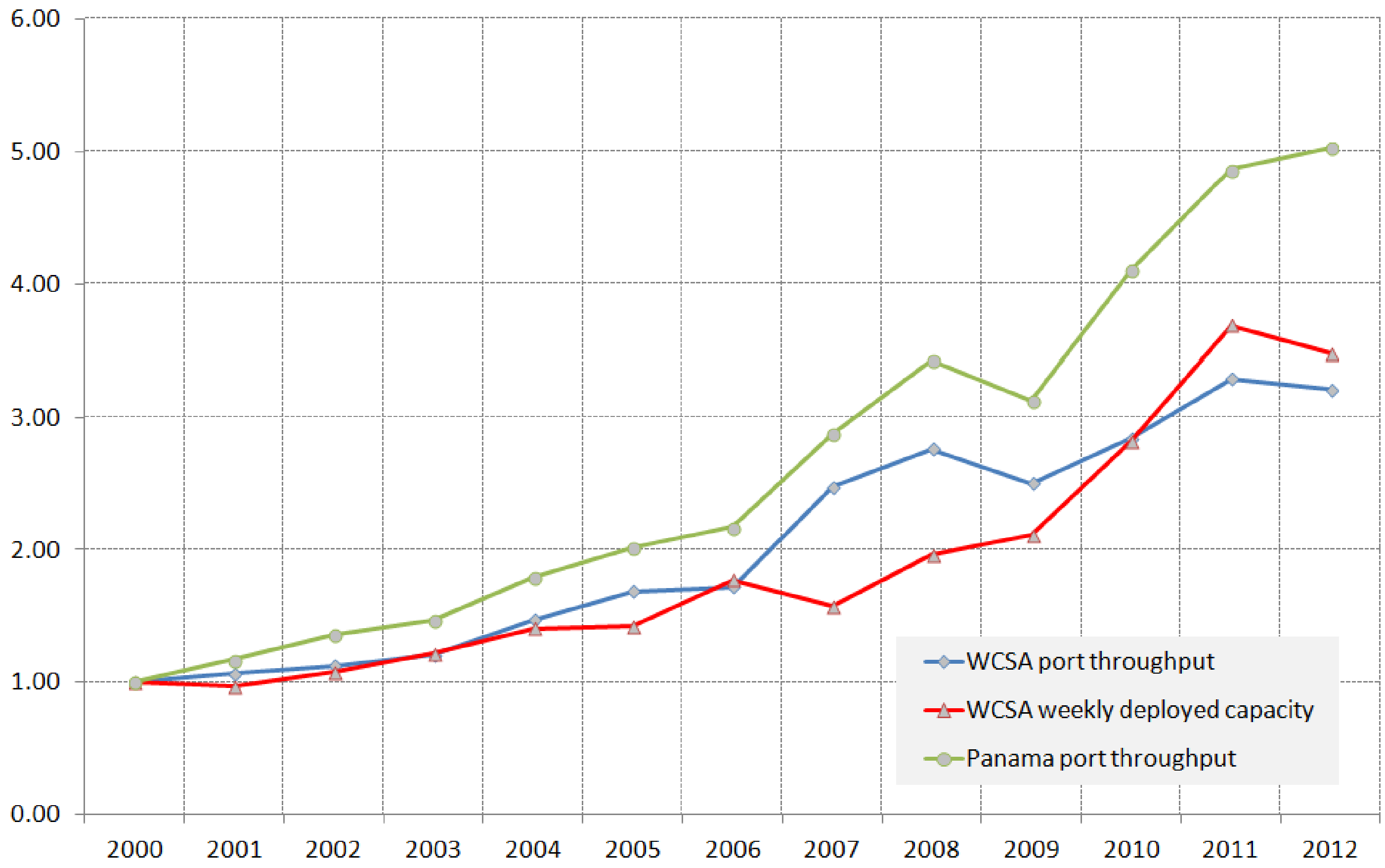
# LINER SHIPPING

# evolution of weekly capacity supply on WCSA main routes, 2009-2012



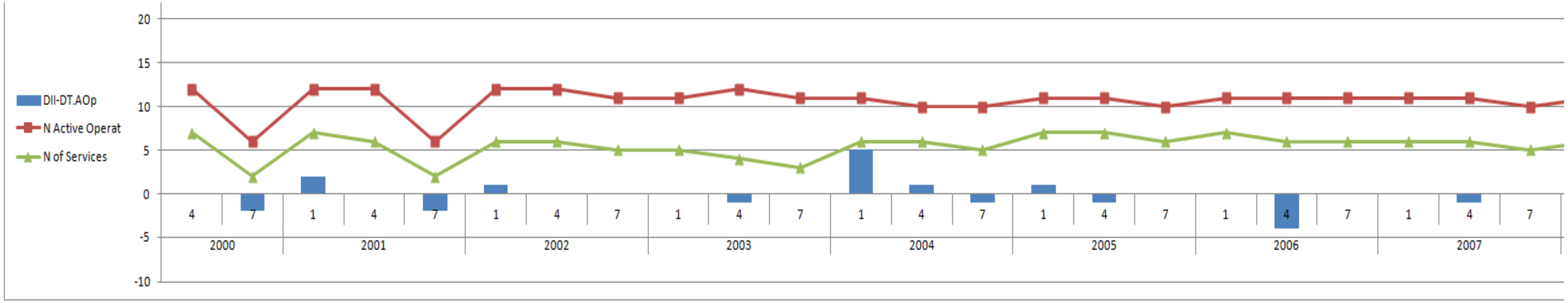

Source: Author based on ComPairData various years

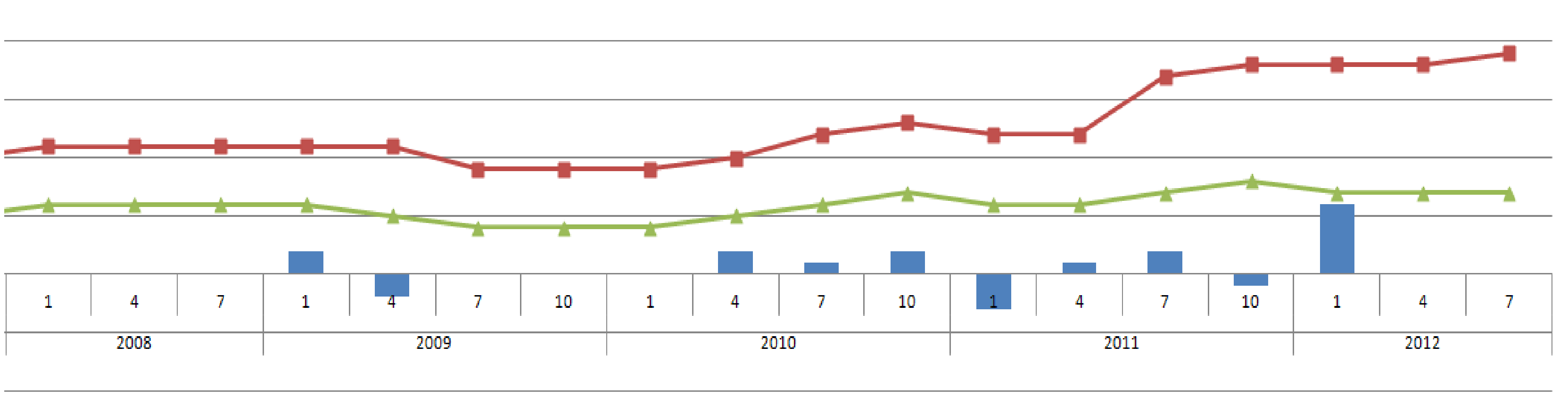
# Growth rates container throughput and capacity, base year 2000




Source: Wilmsmeier and Guidry based on ComPairData and ECLAC maritime profile, various years

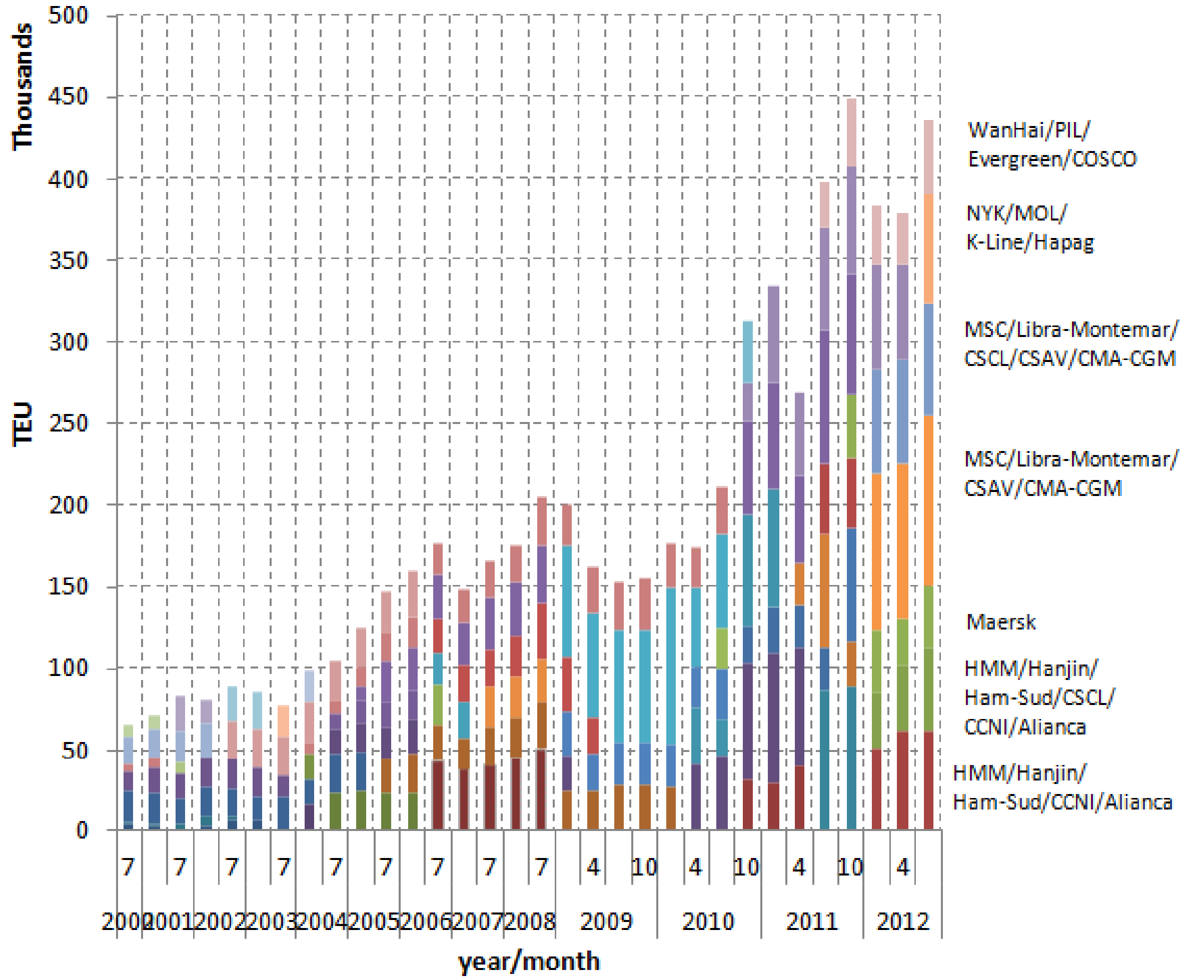
# WCSA – Asia changes in market structure, 2000-2012




Source: Wilmsmeier and Parushev 2013

# Market share in nominal TEU capacity by service WCSA- Asia, 2000-2012




Source: Wilmsmeier based on ComPairData, various years

# Discussion points

Integration in logistics chains

Strategies of market players

Sustainable and systemic vision of port development

Proactive and integrated policies and regulatory frameworks

# Questions?

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## port system changes

- Changes in the port system occur in an almost completely discrete manner
  - port infrastructure
  - superstructure,
  - organizational changes
- port development is very often dependent upon and determined by the degree to which a specific port in question is embedded within local and regional institutional considerations.
- the conditions under which any port system interacts with other subsystems of the wider transport system – in particular, the local port access infrastructure – are very often locally and regionally defined and, therefore, beyond the direct sphere of influence of the port system itself.
- Critical: not only to the port but also to the economy, as it is this which ultimately defines the degree of connectivity enjoyed by the economic system which prevails within a port’s hinterland.

# port development

- port development is a "discontinuous, cumulative process, which develops and appears as a series of innovations"
- differentiate between 'growth' and 'structural transformation'.
- 'location splitting' is a means to extend the port lifecycle when limitations in feasible rationalisation, investment and access are reached.
- the creation of such a subsidiary location in the hinterland provides a potential solution that avoids an inevitable decline, invoked either through
  - the inappropriateness of the actual port location or
  - a newly emergent competitive regime
  - shift in requirements from basic port facilities to logistics facilities