

## Why are maritime ports (still) urban?

Peter V. HALL  
Simon Fraser University

With Jacobs Wouter  
Utrecht University

# Ports and Cities, 1990s

- “The emergence of post modernism on the waterfront”
  - Norcliffe, Bassett and Hoare (1996)
- In the late 1980s, of the 100 biggest cities only 21 contained one of the 100 largest ports by tonnage
- The rise of non-port places and non-place ports...?



# Ports and Cities, 2008

- In 2008, of the top 50 urban agglomerations:
  - 29 were coastal / tidal (not included are... Madrid, Delhi, Kinsasha, etc)
  - 14 contained top-50 container ports, plus 8 in top 100, plus 3 with bulk ports
  - Only London, Kolkota, Dhaka and Lagos do not
- 6.2m – the average population of the urban agglomerations of top 50 container ports



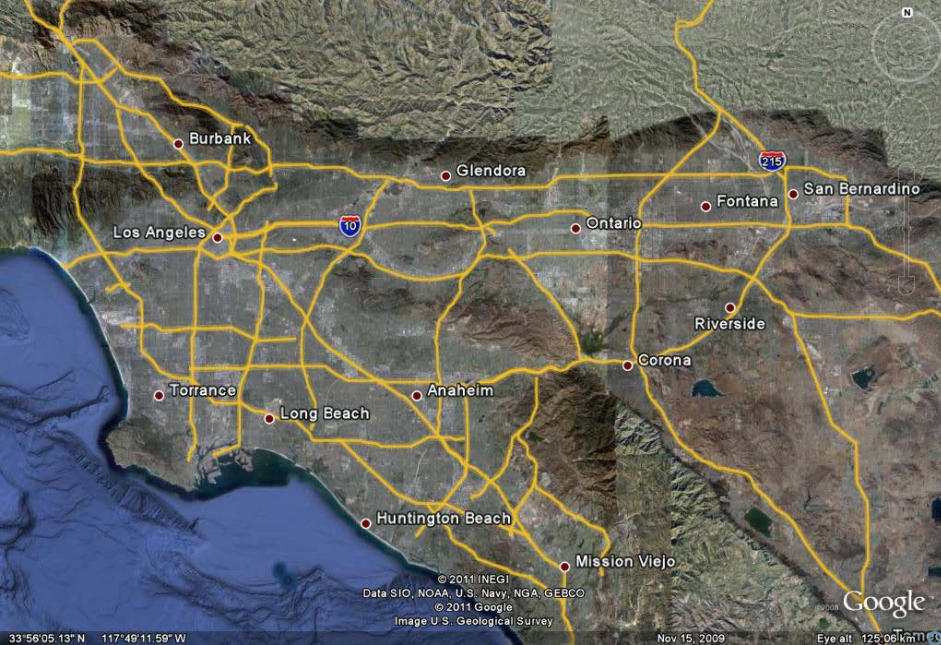
# The “concentrated urbanization” of port activity (2008)

- 6.75bn - Total world population.
- 3.37bn – World urban population (49.9% urbanized).
- 1.33bn – Live in urban areas of 1m or more (19.7%).
- 0.46bn – Live in the 65 urban areas of 1m or more people, which host ports handling 1m TEU or more (66.5% of global TEU throughput).
- 6.9% - the percentage of the world’s population that lives in the urban agglomerations that handle two-thirds of the world’s container moves.

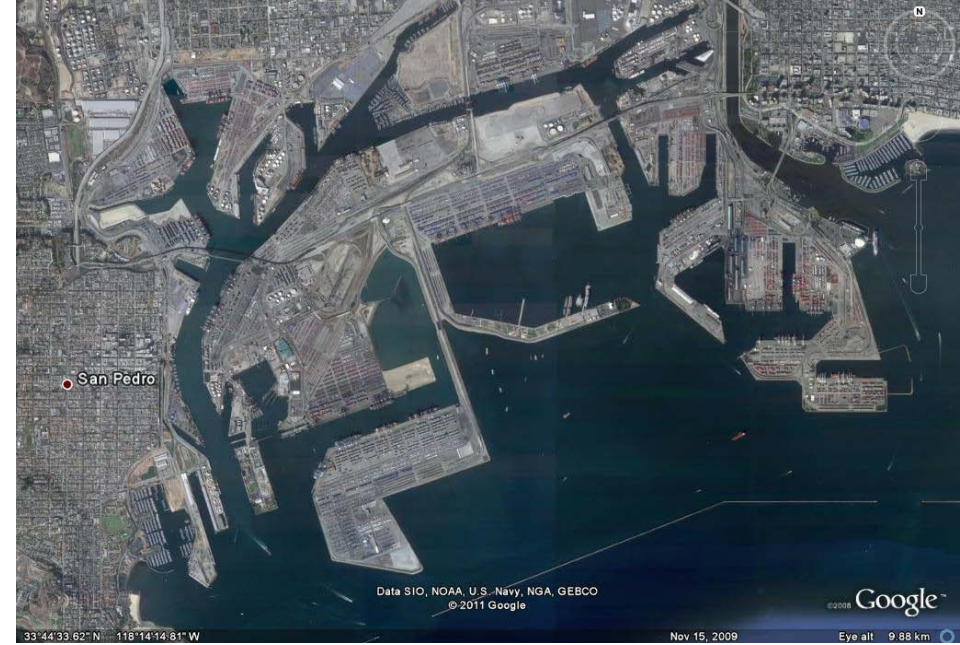
Port / Urban Agglomeration	Country	Thousands of TEUs (2008)	Thousands of Tons (2008)	Population in millions (2010)
<b>Ports in Top 50 Urban Aggloms (17)</b>				
Tokyo & Yokohama & Chiba	Japan	7,616	388,235	34
Inchon / Seoul	South Korea		141,815	24.2
Shanghai	China	28,006	508,000	18.4
Los Angeles & Long Beach	USA	14,338		17.9
<b>Other urban ports (35)</b>				
Singapore	Singapore	29,973	515,415	4.9
Durban	South Africa	2,642		3.7
Suzhou	China	2,570		2.6
Vancouver	Canada	2,492	114,574	2.4
Rotterdam	Netherlands	10,800	421,136	1.5
<b>Non-urban Transshipment Ports (6)</b>				
Port Said	Egypt	3,258		0.6
Algeciras	Spain	3,324		0.3
Gioia Tauro	Italy	3,468		0.02
<b>Non-urban Bulk Ports (11)</b>				
Port Hedland	Australia		159,391	0.01
Richards Bay	South Africa		84,534	0.3
Primorsk	Russia		75,582	0.005
<b>Historic Port Cities (4)</b>				
Antwerp	Belgium	8,664	189,390	0.5
Le Havre	France	2,450	80,527	0.2
Bremen / Bremerhaven	Germany	5,501		0.5
Savannah	USA	2,616		0.3
<b>Non-urban container gateways (3)</b>				
Lianyungang	China	3,001	101,000	0.7
Laem Chabang	Thailand	5,134		0.1
Felixstowe	UK	3,100		0.03

Of 76 ports (or port complexes) on the 2008 lists of the top 50 container ports or top 50 ports by volume, 52 are in urban agglomerations of 1m or more.

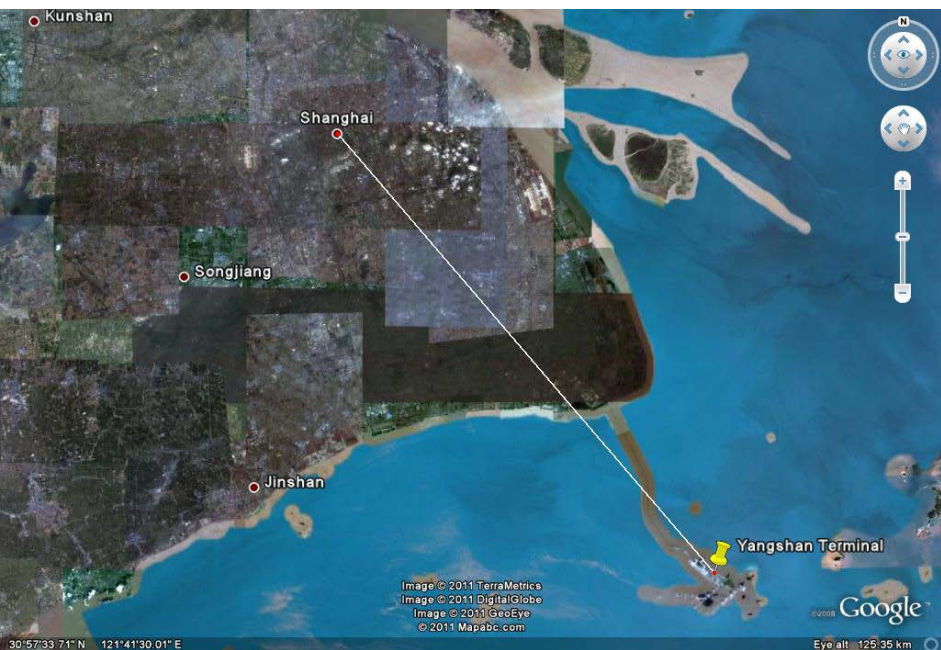




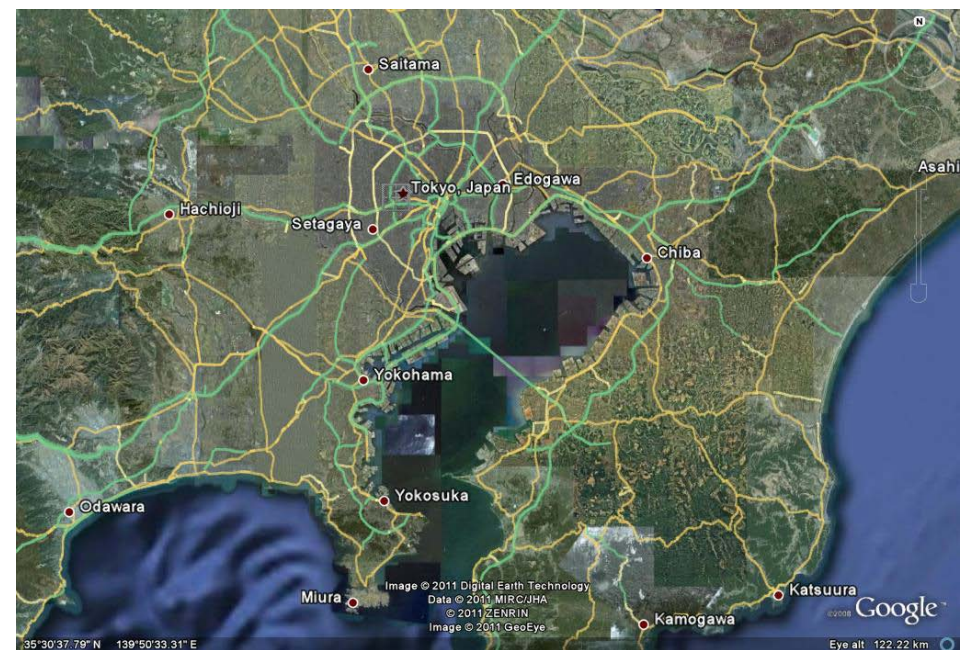
Los Angeles/Long Beach (125km)



Los Angeles/Long Beach (10km)

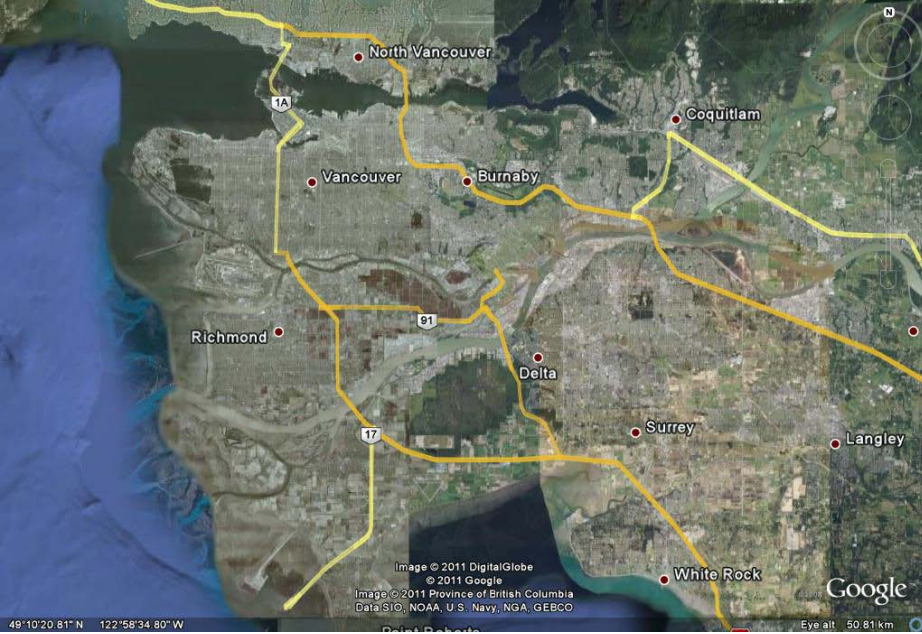


Shanghai (125km), 90km to Yangshan terminal

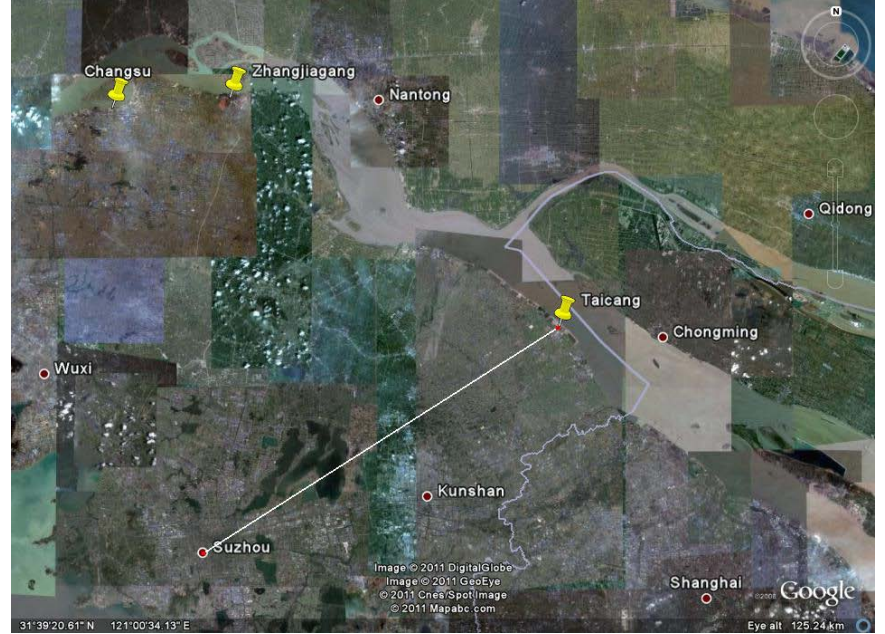


Tokyo/Yokohama/Chiba (125km)

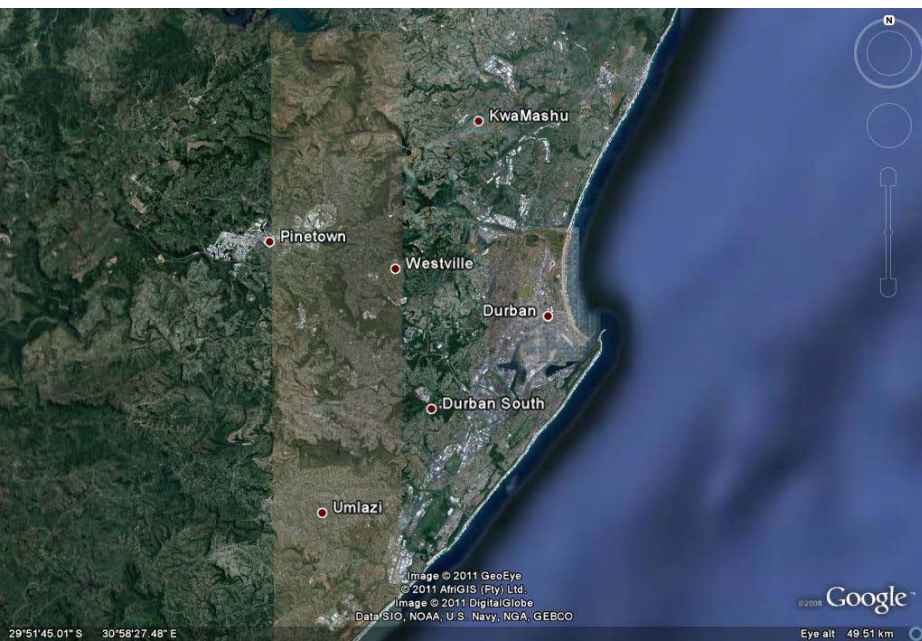




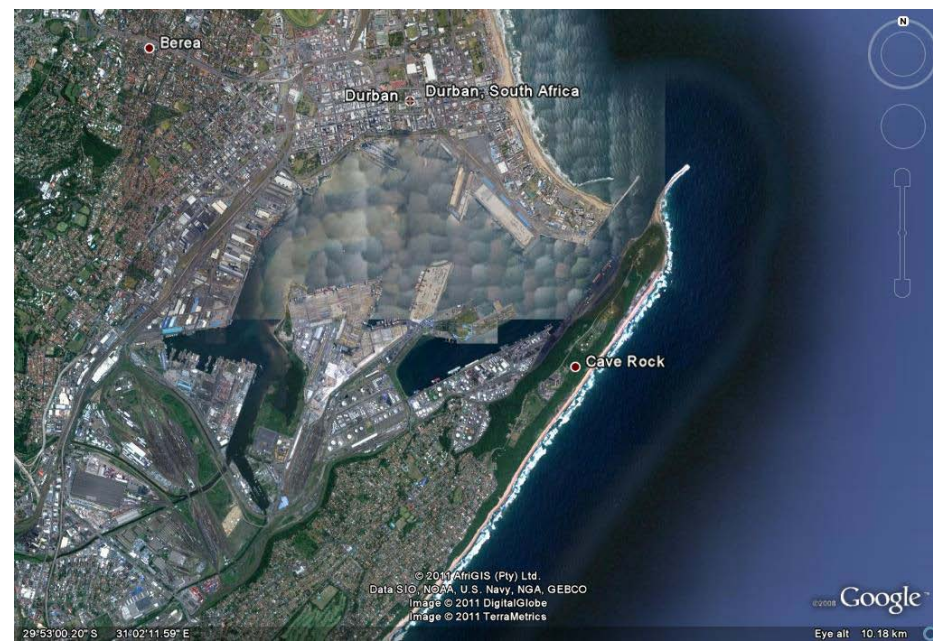
Vancouver (50km), pop. 2.4m



Suzhou (50km), pop. 2.6m, 70km from Taicang Terminal

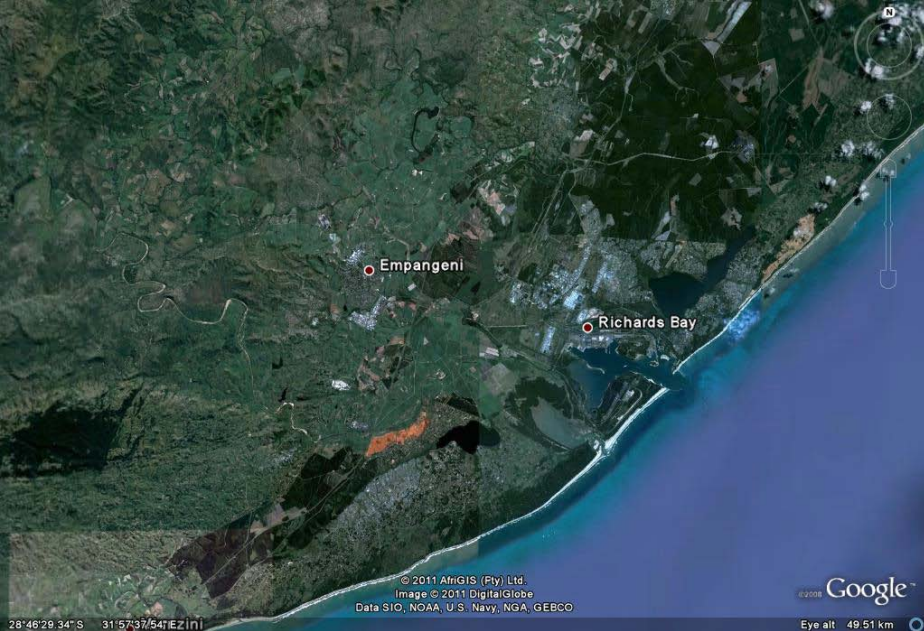


Durban (50km), pop. 3.7m



Durban (10km), pop. 3.7m

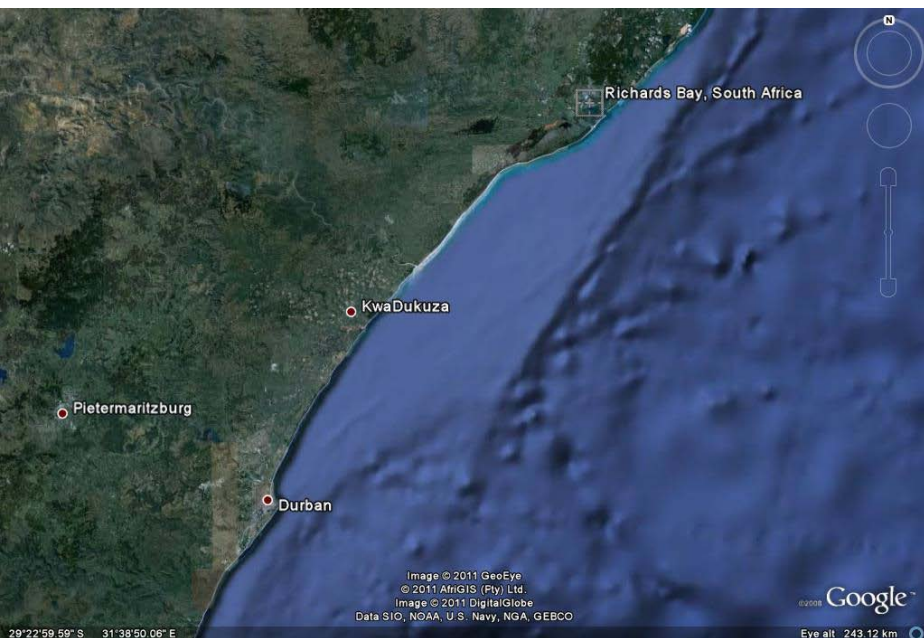




Richards Bay (50km), pop. 0.3m



Port Hedland (10km), pop. 0.01m

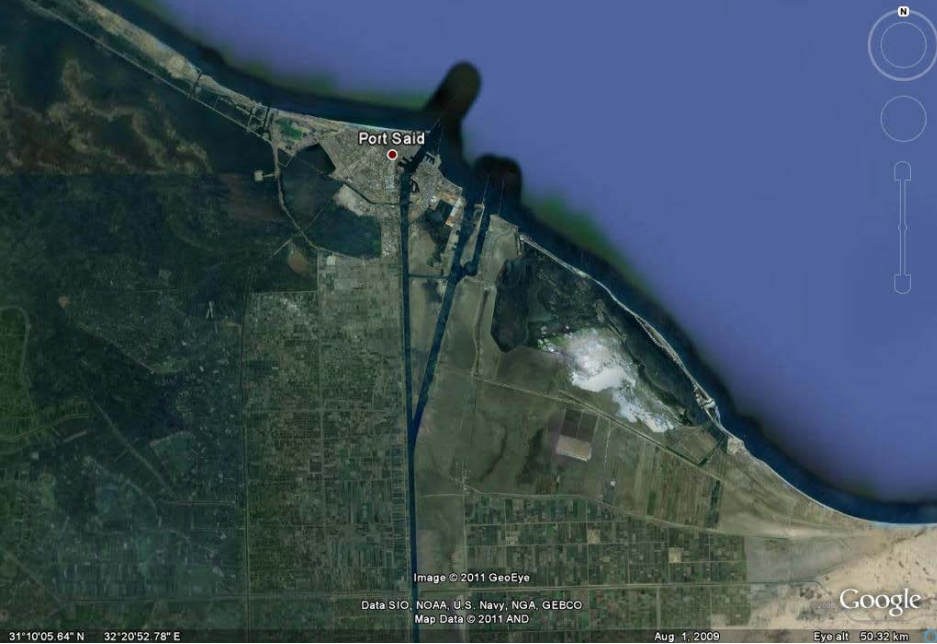


Richards Bay and Durban (250km)

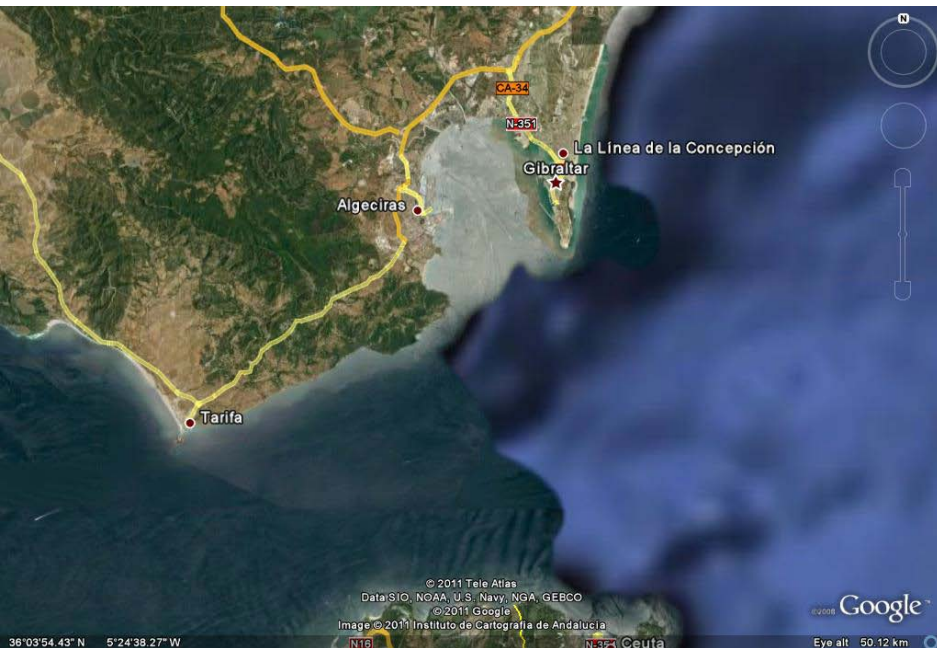


Port Hedland (125km), pop. 0.01m





Port Said (50km), pop. 0.6m



Algeciras (50km,) pop. 0.3m

Non-urban  
transshipment ports (6)  
(left).

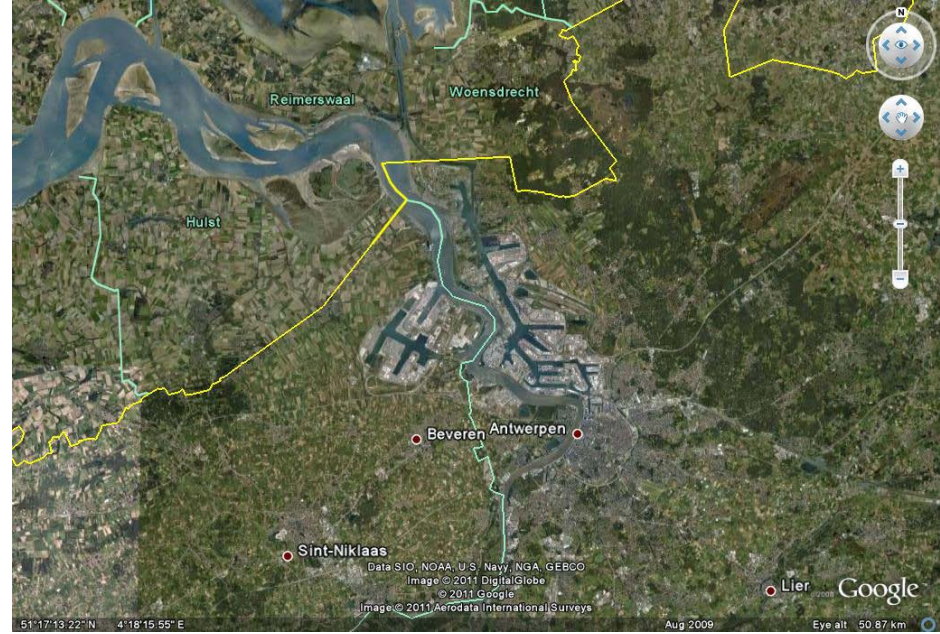
Urban transshipment  
port (below).



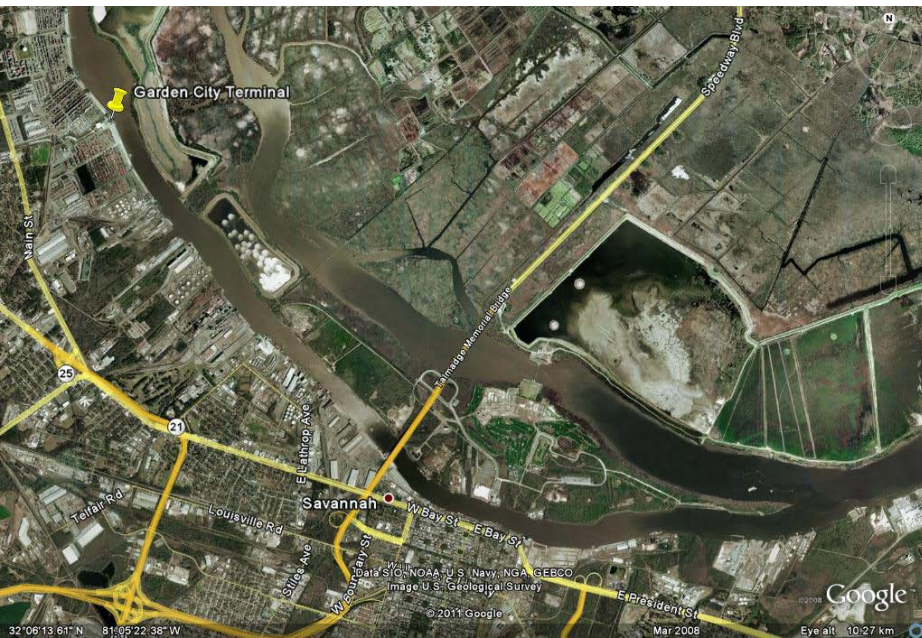
Tanjung Pelepas (50km) 25km from centre  
of Johor Bahru, pop. 1.1m



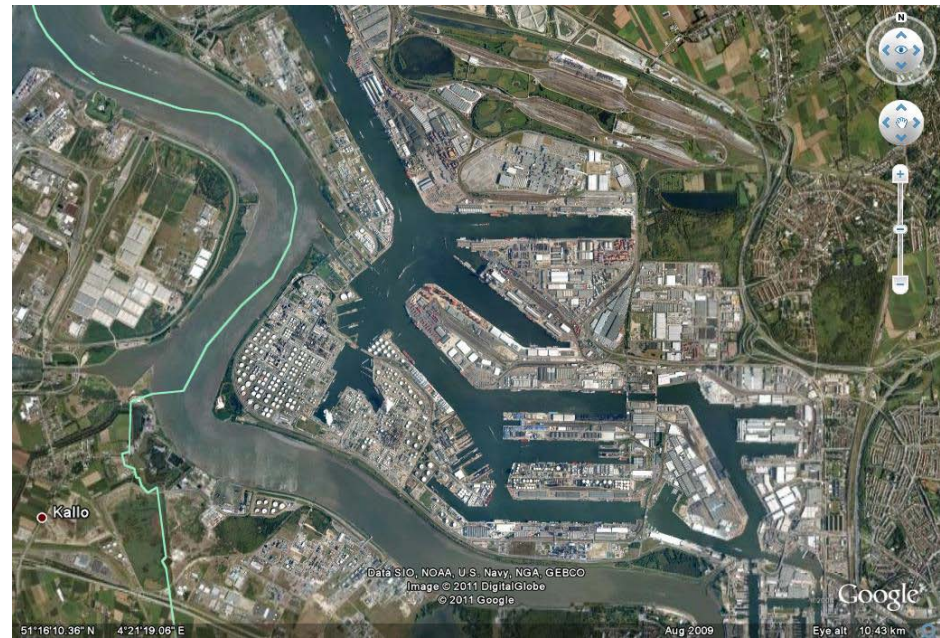
# Historic Port Cities (4)



Antwerp (50km), pop. 0.5m

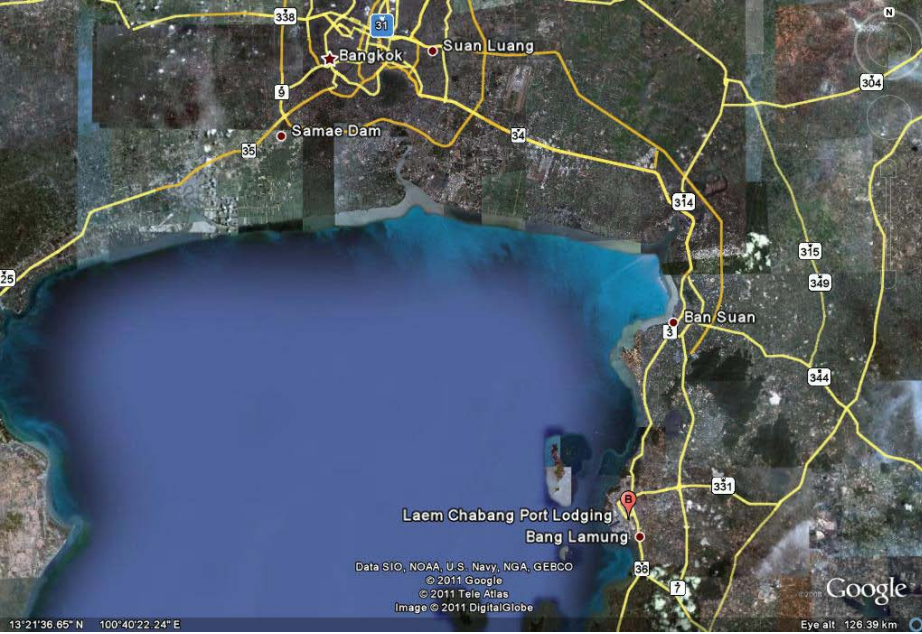


Savannah and Garden City Terminal (10km), pop. 0.3m



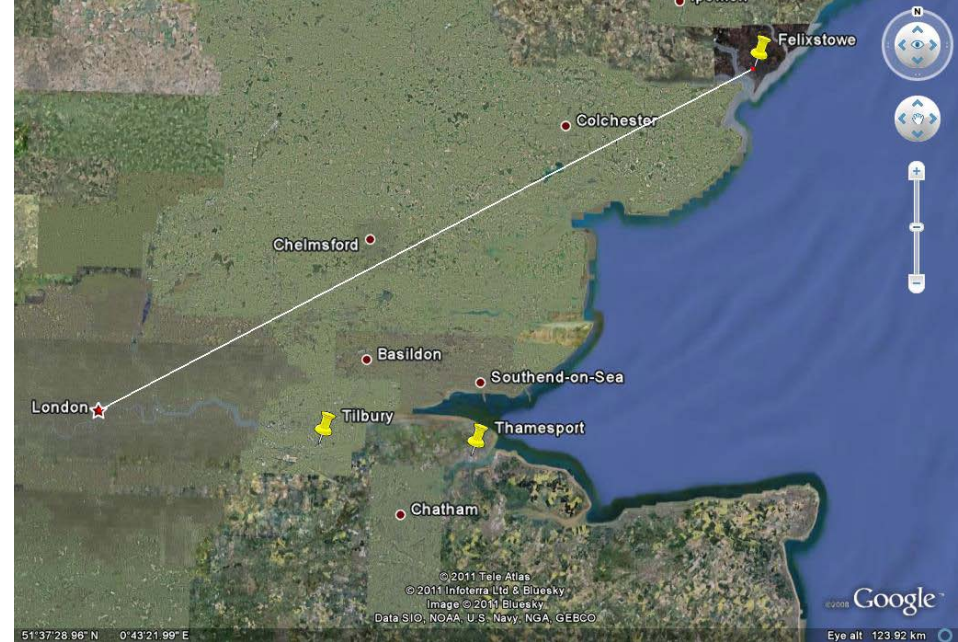
Antwerp (10km), pop. 0.5m





Laem Chabang (125km), pop. 0.7m

# Non-urban container gateways (3)



Felixstowe (125km), 115km to central London



Felixstowe (10km), pop. 0.03m

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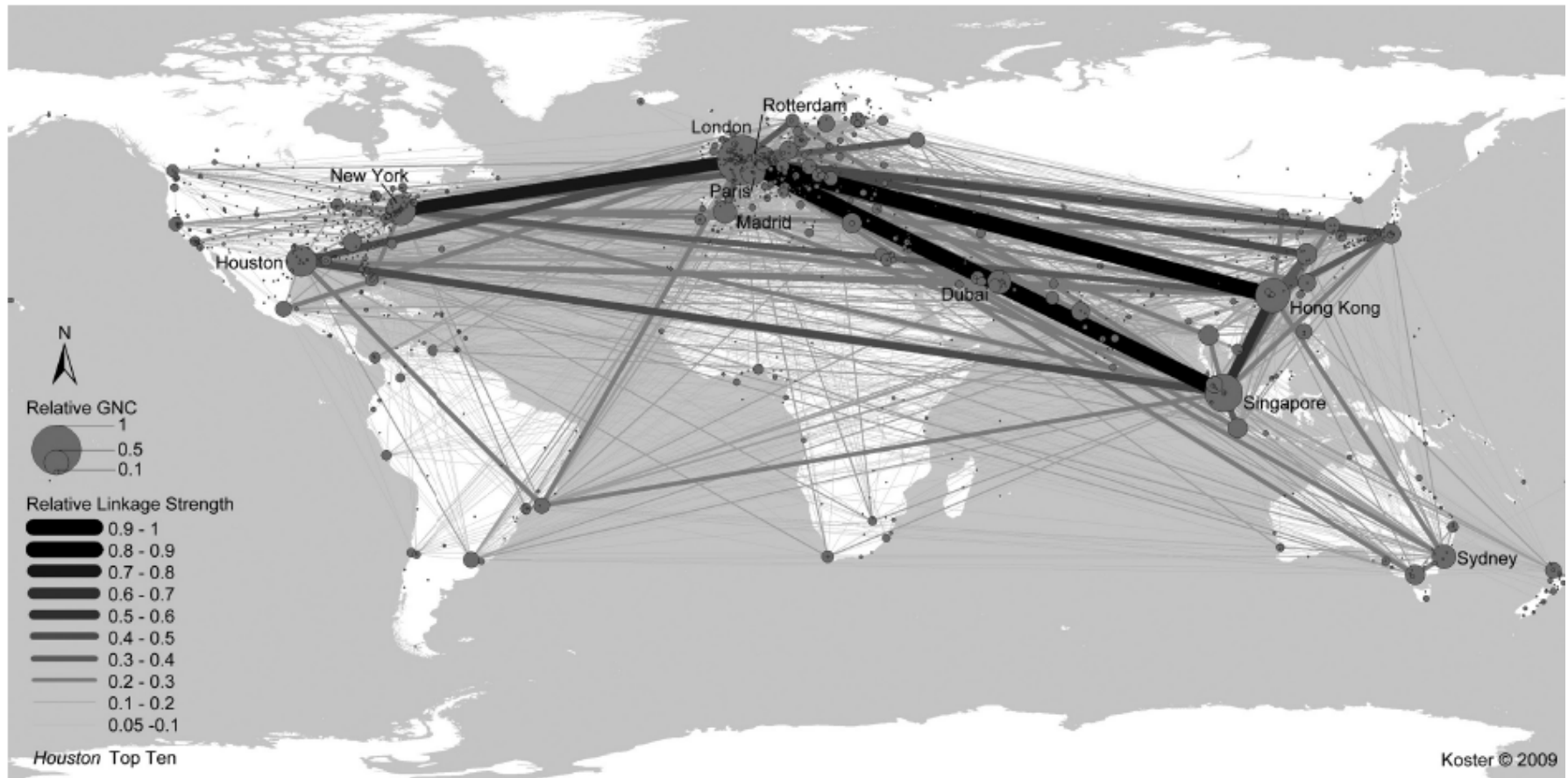
Of 76 ports (or port complexes) on the 2008 lists of the top 50 container ports or top 50 ports by volume, 52 are in urban agglomerations of 1m or more.



# Four propositions – comparative static and not very satisfying...

- More port activity leads to more city activity
  - [Port + → → City +]
  - Productivity, dispersion of benefits?

# Network structure of Advanced Maritime Producer Services



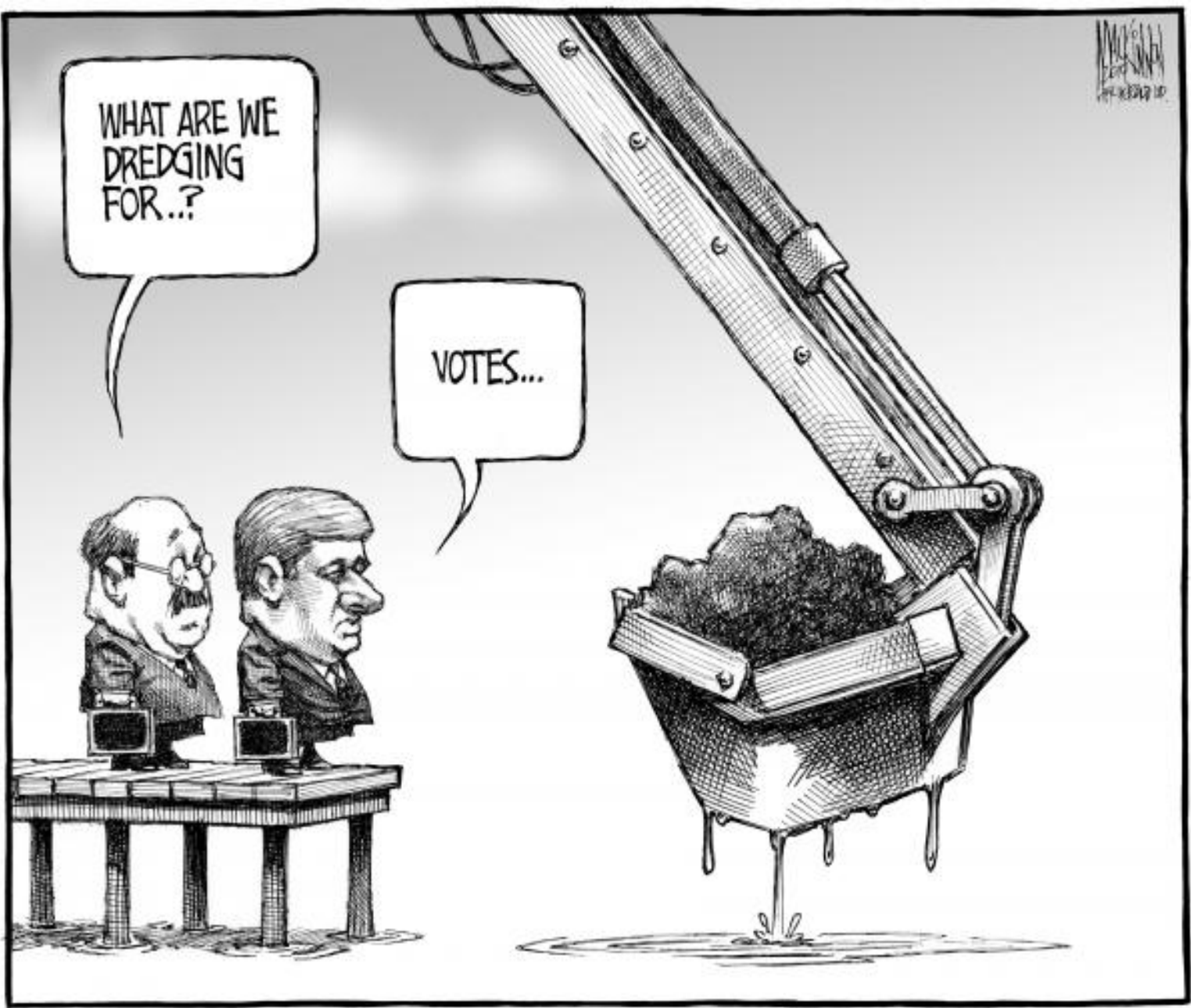
“The empirical results show that the location of AMPS is correlated with maritime localisation economies, expressed in the presence of shipowners and port-related industry as well as APS in general, but not by throughput flows of ports.”

Source: Wouter Jacobs, Hans Koster and Peter Hall (2011) “The Location and Global Network Structure of Maritime Advanced Producer Services” *Urban Studies*, 48(13): 2749-2769.



# Four propositions – comparative static and not very satisfying...

- More port activity leads to more city activity
  - [Port + → → City +]
  - Productivity, dispersion of benefits?
- Growing cities attract cargo for their ports
  - [City + → → Port +]
  - Yes, but what explains ability exploit this advantage?



Bruce Mackinnon's Editorial Cartoon, The Chronicle Herald (Halifax, Nova Scotia) of 10 December 2010, on the announcement by Prime Minister Stephen Harper of \$19m in Federal government funding for dredging the Sydney, NS harbour in anticipation of a \$200m container port. <http://thechronicleherald.ca/brucemackinnon/mackinnon-cartoon-2010-12-10>



# Four propositions – comparative static and not very satisfying...

- More port activity leads to more city activity
  - [Port + → → City +]
  - Productivity, dispersion of benefits? (Hall, 2004)
- Growing cities attract cargo for their ports
  - [City + → → Port +]
  - Yes, but what explains ability exploit this advantage?
- Port activity externalities displace other urban activities
  - [Port + → → City -]
  - Yes, but likely more localized than city-wide (Grobar, 2008)
- City growth might displace port activity
  - [City + → → Port -]
  - Surely, but then why is displacement not more complete?

# More dynamic possibilities...?

- Putting port-cities into a development process:
  - Old marxian (Vance, Innis...)
  - New economic (Krugman, Fujita) geography
- Ports benefit cities which lock in their advantage over time
  - [Port<sub>t1</sub> + → City<sub>t1</sub> + → City<sub>t2</sub> +]
  - But what explains continued success of ports?
- Ports eventually benefit from urban areas they helped create
  - [Port<sub>t1</sub> + → City<sub>t1</sub> + → City<sub>t2</sub> + → Port<sub>t2</sub> +]
  - How did the failed port learn to succeed?
- Port-city growth benefits the port which allows further city growth
  - [Port<sub>t1</sub> + → City<sub>t1</sub> + → Port<sub>t2</sub> + → City<sub>t2</sub> +]
  - Still relies upon strong positive port externalities

# Dynamic and co-evolutionary

- Dynamic, evolving, interactive relationship between:
  - The port sector which combines urban and non-urban place based actors operating within distinctive institutions, knowledge systems, routines, capital cycles, labour markets... and
  - Broader urban agglomerations that provide infrastructure and local markets

•  $\text{Port}_{t_1} + \rightarrow \rightarrow \text{Port}_{t_2} +$

$+ \updownarrow +$

$+ \updownarrow -$

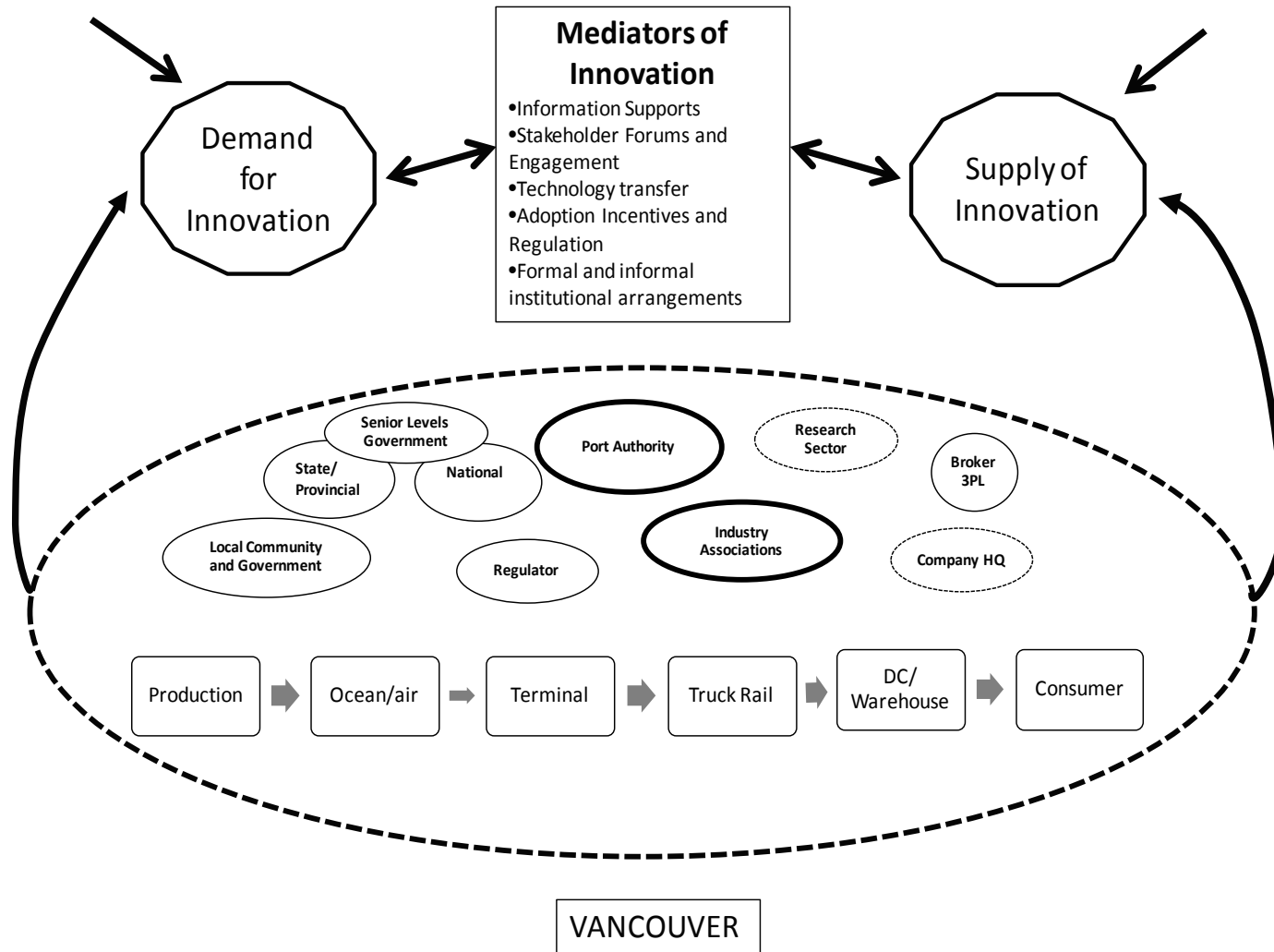
•  $\text{City}_{t_1} + \rightarrow \rightarrow \text{City}_{t_2} +$



# More likely to be urban...

- Why are successful port-logistics actors more likely to be urban?
- Non-urban port-logistics actors can create big, specialized ports (Richards Bay) that are often vulnerable and do not create big urban agglomerations
  - Vulnerability and 'superficiality' of transshipment ports
  - Are Chinese city-states the exception?
- Urban port-logistics (often acting in concert with select non-urban actors) seem to be more able to anticipate and innovate
  - Pressures to innovate
  - Related varieties
  - Collective action routines / coalitional advantages
  - Urbanization externalities

# Vancouver's Innovation Framework

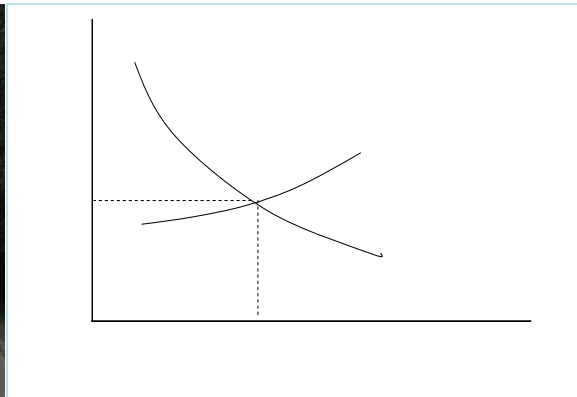


# Why should we care?

- If: water-based transport is already important
  - Likely to be more so given low carbon-intensity
- And: port innovators and urban-based port actors rely on dynamic urbanization externalities to create “concentrated urbanization”...
- But: cities don’t (think they) need ports
- Because: disconnection has left a legacy of local mistrust, ignorance and missing relationships
- Potentially perverse outcomes of reconnection...
  - Fragmentation of urban space and labour markets
  - Elaboration of intra-regional transportation, potential sprawl



# (Un)seamless integration and urban consequences



**Thank you!**

**[pvhall@sfu.ca](mailto:pvhall@sfu.ca)**



**SEMINAIRE EMAR 28 juin 2012**  
**" Why are maritime ports (still) urban?"**  
**Peter V. HALL**

**Participants**

Nom	Prénom	Organisme	courriel
ARRHIQUI	Sara	IFSTTAR - SPLOTT	<a href="mailto:sara.arrhioui@ifsttar.fr">sara.arrhioui@ifsttar.fr</a>
BAHOKEN	Françoise	IFSTTAR - SPLOTT	<a href="mailto:francoise.bahoken@ifsttar.fr">francoise.bahoken@ifsttar.fr</a>
BEYER	Antoine	IFSTTAR/SPLOTT	<a href="mailto:antoine.beyer@ifsttar.fr">antoine.beyer@ifsttar.fr</a>
COOPER	Jasper	Sciences Po - Paris	<a href="mailto:Jasper.cooper@sciences-po.org">Jasper.cooper@sciences-po.org</a>
COSTA	Gilles	Splott/ex-Inrets	<a href="mailto:gillescosta46@gmail.com">gillescosta46@gmail.com</a>
COUTARD	Olivier	LATTS/UMR CNRS-ENPC- Univ Paris Est	<a href="mailto:olivier.coutard@enpc.fr">olivier.coutard@enpc.fr</a>
CRUZ	Cécilia	IFSTTAR DEST	<a href="mailto:cecilia.cruz@ifsttar.fr">cecilia.cruz@ifsttar.fr</a>
DEBRIE	Jean	IFSTTAR/SPLOTT	<a href="mailto:jean.debrie@ifsttar.fr">jean.debrie@ifsttar.fr</a>
DEISS	Hervé	Journal de la Marine Marchande	<a href="mailto:hdeiss@wolters-kluwer.fr">hdeiss@wolters-kluwer.fr</a>
FREMONT	Antoine	RFF	<a href="mailto:antoine.fremont@rff.fr">antoine.fremont@rff.fr</a>
GAMBET	Emmanuel	Cete de l'Ouest Era Fret/Ifsttar	<a href="mailto:emmanuel.gambet@developpement-durable.gouv.fr">emmanuel.gambet@developpement-durable.gouv.fr</a>
GOVERNAL	Elisabeth	IFSTTAR SPLOTT	<a href="mailto:elisabeth.gouveral@ifsttar.fr">elisabeth.gouveral@ifsttar.fr</a>
GRESSEL	Reinhard	IFSTTAR SPLOTT	<a href="mailto:reinhard.gressel@ifsttar.fr">reinhard.gressel@ifsttar.fr</a>
GUERRERO	David	IFSTTAR SPLOTT	<a href="mailto:david.guerrero@ifsttar.fr">david.guerrero@ifsttar.fr</a>
HALL	Peter	Univ. Simon Fraser	<a href="mailto:pvhall@sfu.ca">pvhall@sfu.ca</a>
HUBERT	Jean-Paul	IFSTTAR DEST	<a href="mailto:jean-paul.hubert@ifsttar.fr">jean-paul.hubert@ifsttar.fr</a>
LACOSTE	Romuald	Cete de l'Ouest Era Fret/Ifsttar	<a href="mailto:romuald.lacoste@developpement-durable.gouv.fr">romuald.lacoste@developpement-durable.gouv.fr</a>
LE GLOANNEC	Yves	Consultant Maritime et Portuaire	<a href="mailto:y.leglo@gmail.com">y.leglo@gmail.com</a>
LECOMPTE	Axel	IFSTTAR/SPLOTT	<a href="mailto:axel.lecompte@ifsttar.fr">axel.lecompte@ifsttar.fr</a>
MAGNAN	Marion	Etudiante Univ. Paris 1	<a href="mailto:marionmagnan@gmail.com">marionmagnan@gmail.com</a>
MARINI	Greta	AIVP	<a href="mailto:gmarini@aivp.org">gmarini@aivp.org</a>
MARTELL FLORE	Hipolito	Université de Technologie de Compiègne	<a href="mailto:hipolito.martell-flores@utc.fr">hipolito.martell-flores@utc.fr</a>
MORUCCI	Francesco	Autorité Portuaire de Livourne	<a href="mailto:morucci@porto.livorno.it">morucci@porto.livorno.it</a>
MORVANT	Camille	IFSTTAR/SPLOTT/RFF	<a href="mailto:camille.morvant@ifsttar.fr">camille.morvant@ifsttar.fr</a>
MOULINIER	Jean-Marc	MEDDE	<a href="mailto:jean-marc.moulinier@developpement-durable.gouv.fr">jean-marc.moulinier@developpement-durable.gouv.fr</a>
PAFFONI	Elsa	IFSTTAR/SPLOTT	<a href="mailto:elsa.paffoni@ifsttar.fr">elsa.paffoni@ifsttar.fr</a>
RAIMBAULT	Nicolas	IFSTTAR/SPLOTT/IAU IdF	<a href="mailto:nicolas.raimbault@ifsttar.fr">nicolas.raimbault@ifsttar.fr</a>