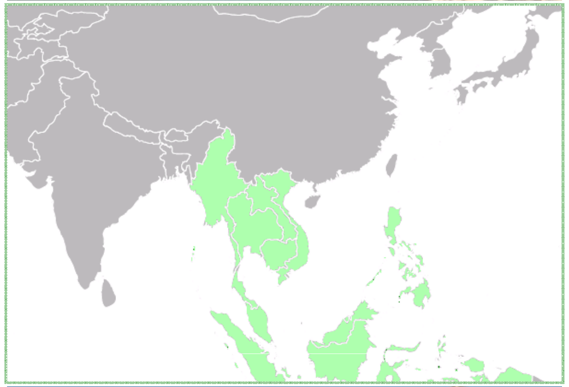

# PPPs and Port Investment: Back to Basics v1

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TOC Europe
Bremen 16 June 2009

# CT Investment and PPPs in Transition?

- Looking back
  - Globalisation will drive trade growth and CT's will secure robust traffic growth
  - High barriers to entry
  - CT's are not subject to regulatory intrusiveness
  - PPPs preferred
  - New *entry* into CT business – financial interests as owners – focus on deal structure and financial engineering

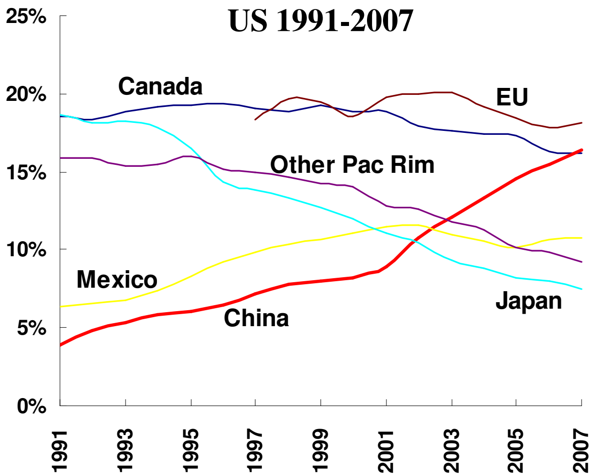
- Looking Forward
  - Trade growth is maturing and also CT traffic growth: More attention to specific markets
  - Competition has been underestimated: Market and commercial risks higher than anticipated
  - Port performance a priority
  - Regulatory & planning risk remain
  - Re-thinking risk allocation
  - Focus on quality of asset

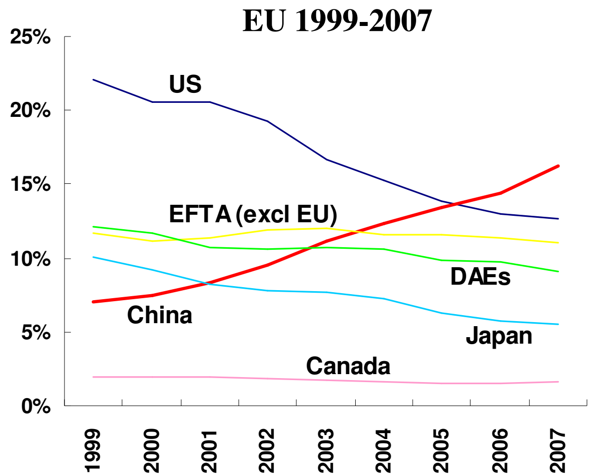
# 1. Market Changes: Demand

# Globalisation and PRC Exports

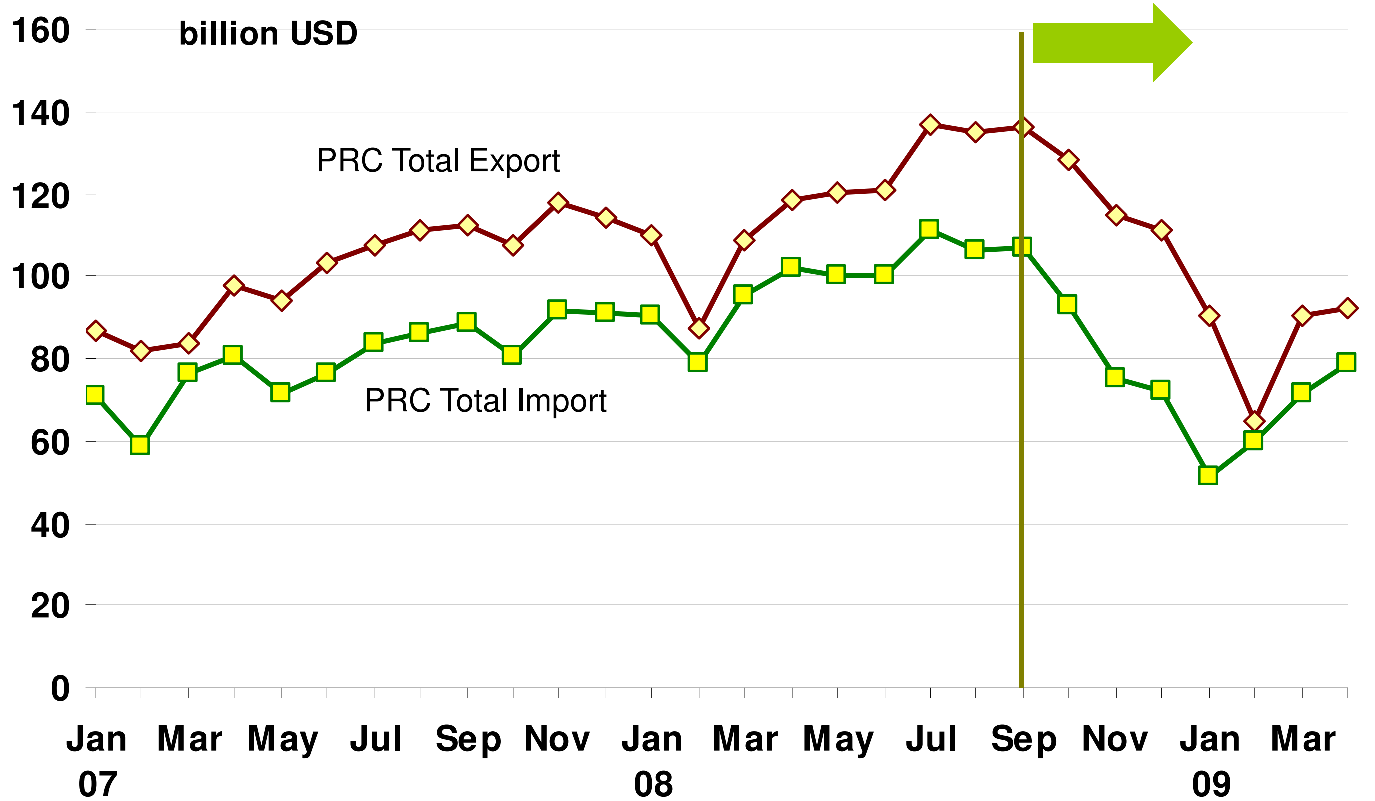
- Global container trade has been driven by the major east west trades linked to NA and European ***consumption and import growth***
- PRC trade growth converts to a growing share of the container trade; displacing other exporters
- *Growth assumptions are now being challenged with recession and capital / credit market changes*
- CT growth going forward but new regional patterns
- Greater consideration of market risks – volume assumptions under review
- Re-thinking PPPs

US & EU Merchandise Imports



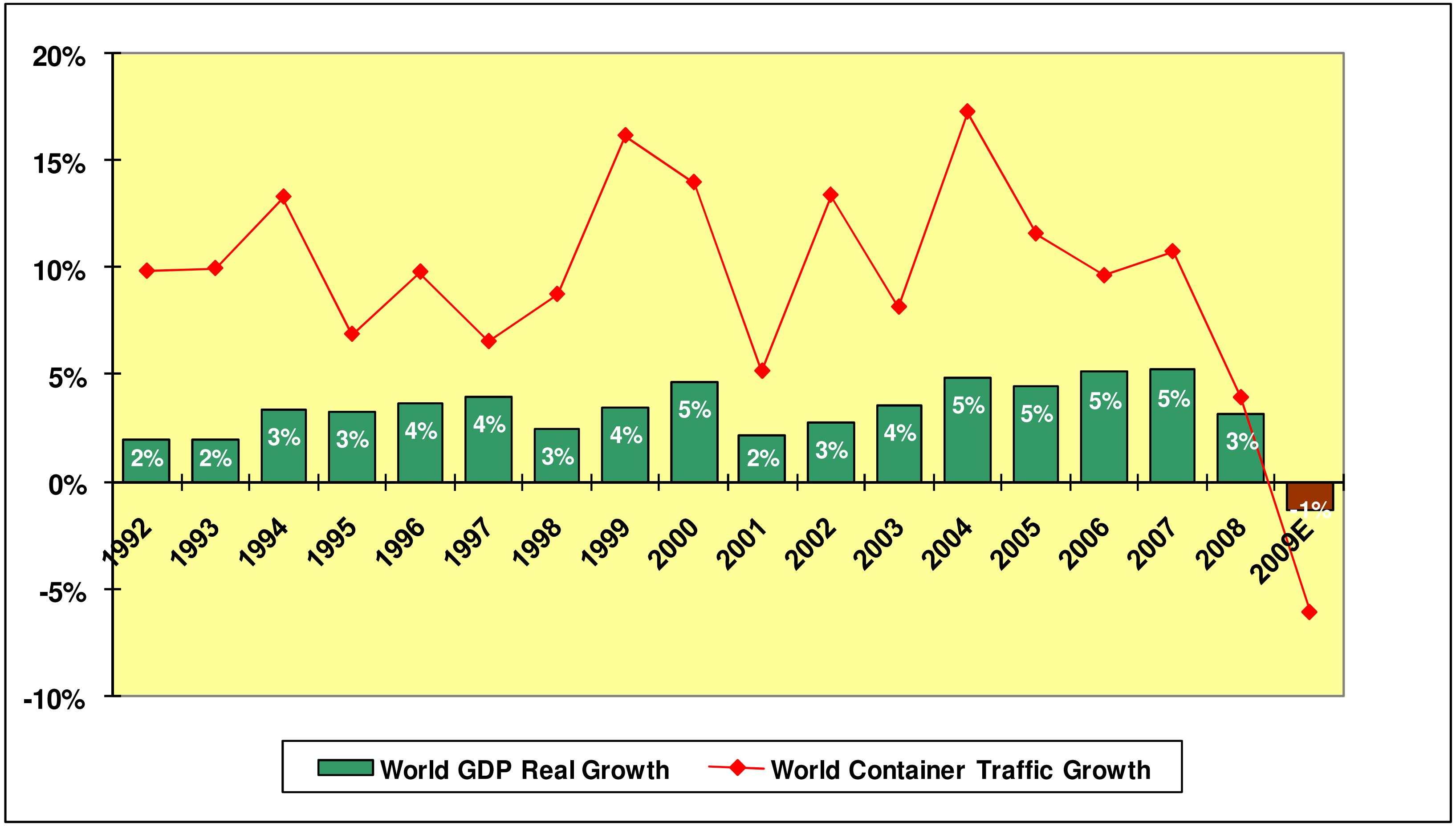
# Even China has Stumbled




- Export & import typically >20% y-o-y most months, slowed starting 2H2008 to below -20% start of 2009
- **So much for "decoupling"**

Source: GHK based on China National Statistics Bureau

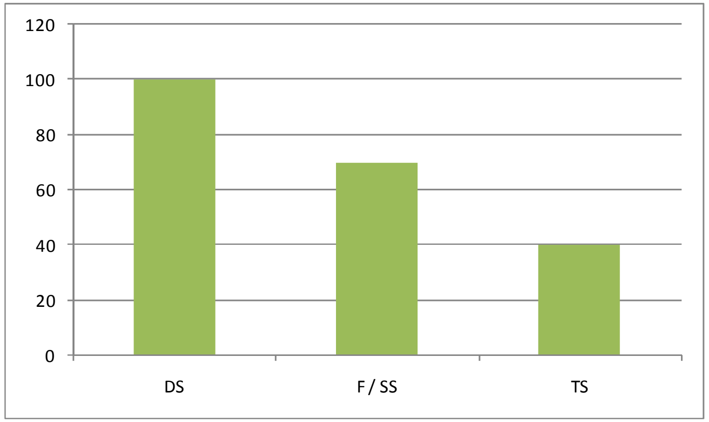
# Unchartered waters



# 2. Barriers to Entry:  Supply

# Port Competition and Risk

- **Do CTs compete?**
  - Barriers to entry can be *lower* than assumed over the medium term
  - *Contested* hinterlands via high degrees of *inland connectivity …*
  - **Yes ports compete!**
- **How do ports compete?**
  - Varies by market segment: deep – sea O/D, short sea and trans-shipment
  - Market size key (local O/D but critically driven by well connected hinterland)
  - Services (handling speeds, reliable berth windows)
  - *Pricing* often insufficient to overcome fundamentals
- **How are market changes shaping port competition and PPPs?**
  - Port customers are financially stressed & trying to restructure fleets and services: *downward pressure* on port tariffs
  - 10,000+ TEU ships are likely to result in fundamental shifts in port calls: *fewer* calls ?
  - Recognition that ports do not control key determinants of the port choice decision
  - **Risk of traffic and revenue growth divergence**



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# Port Choice Determinants

| Relative Weighting of Factor | Evidence Summary |
|---|---|
| Market size and service factors 66 - 75%<br>Port cost (dues & THCs) 25 - 33 % | • **Port Choice is driven by the market size** - how much cargo there is to discharge / load is critical to the economic of a port call - hinterland connectivity is a key driver here<br>• Shipping lines want fast handling speeds and relicable services - disruption to schedules is costly<br>• Larger vessell sizes will strengthen the importance of market access/size and operational efficiency |
| Freight rates; inland transport and THCs 92 - 95 %<br>Port dues 5 - 8 % | • The cost drivers considered by cargo owners tend to focus on *total through costs* of the end to end transport cost / port and route choice - of which **port dues are a modest part**<br>• Supply chain reliability is also important |
| 85 - 90 % THCs<br>Port dues 10 - 15 % | • Of the port call costs the ***THCs are a much more significant component of the cost structure than port dues -*** these are determined by the stevedore and tend to reflect terms of concession agreements and market forces |

# Contested Hinterlands

# Demand and Supply Balances

- Demand and supply balances can shift and port competition can change growth patterns: Evidence from Europe / UK

*(Million TEU)*

| Ports | 1996 | Share | 2006 | Share | Gain (+) vs Loss (-) | Growth 1996-2006 (% p.a.) |
|---|---|---|---|---|---|---|
| **NORTH WEST EUROPE** | | | | | | |
| Rotterdam | 4.97 | 30.3% | 9.6 | 25.5% | -4.7% | 6.80% |
| Hamburg | 3.05 | 18.6% | 8.86 | 23.6% | 5.0% | 11.25% |
| Antwerp | 2.64 | 16.1% | 7.01 | 18.7% | 2.6% | 10.26% |
| Bremerhaven | 1.53 | 9.3% | 4.45 | 11.8% | 2.5% | 11.27% |
| Le Havre | 1.02 | 6.2% | 2.13 | 5.7% | -0.5% | 7.64% |
| Zeebrugee | 0.33 | 2.0% | 1.64 | 4.4% | 2.4% | 17.39% |
| **UK** | | | | | | |
| Felixstowe | 2.06 | 12.6% | 2.73 | 7.3% | -5.3% | 2.86% |
| Southampton | 0.81 | 4.9% | 1.16 | 3.1% | -1.8% | 3.66% |
| **Sub Total** | **16.41** | **100.0%** | **37.58** | **100.0%** | | |

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Capacity | 7,694 | 7,944 | 9,587 | 11,048 | 11,709 | 13,720 | 13,931 | 15,877 |
| Demand (a) | 7,462 | 5,693 | 6,024 | 6,486 | 6,971 | 7,476 | 7,942 | 8,435 |
| Surplus/ Deficit | 233 | 2,251 | 3,564 | 4,562 | 4,738 | 6,244 | 5,989 | 7,442 |

# 3. Investment & Performance

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# The World is not Flat

- **Old World**
  - Variable performance across port ranges
    - TEU/m of quay – 3000 (Asia) to 1200 (Europe).
    - TEU/ha of CY – Far East (40K) vs Europe (20K)
    - Moves / crane hour: <20 to 35
  - State funding to support CAPEX
- **New World**
  - The major shipping lines are demanding performance gains
    - 30+ moves per crane hour : 200 moves/ship hr @ berth
    - Reliable berth windows and turnaround time
  - Pressures to improve operational performance
  - CAPEX Pressures to compete
    - 16 – 17m water depth + long straight quays (1200 – 2000 m) + land (25ha/400m berth) + inland connectivity
    - New pressures on private sector risk allocation via potential changes to state funding – push CAPEX onto operators

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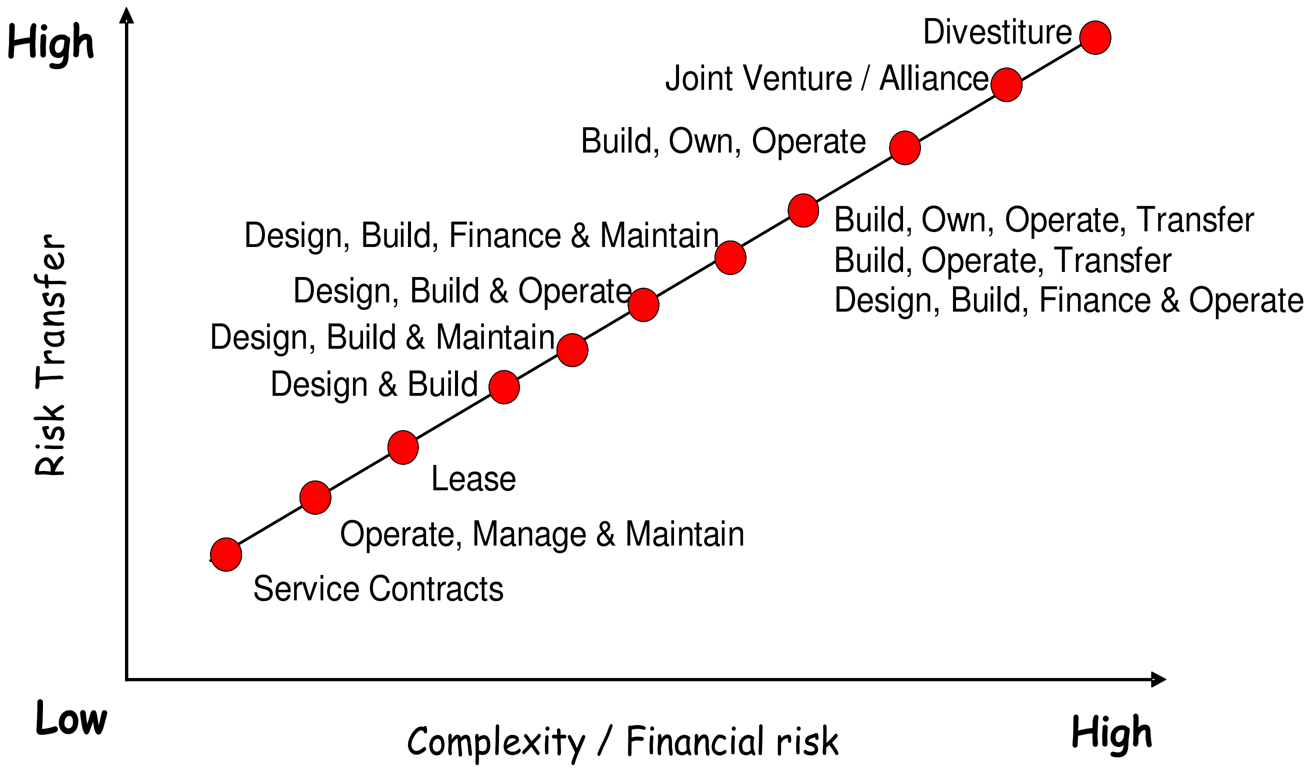
## Productivity North America v Asia … PPPs variable in achieving performance gains

**US West Coast**
**LA Pier 400 – APM**
**484 acre**
**Capacity 1.6m TEUs**
**3,300 TEUS / acre**
**(2005)**

**Hong Kong**
**Kwai Tsing Container Terminals**
**704 acres**
**Capacity 18.3m TEUs**
**26,000 TEUs / acre**
**(2005)**


# 4. Policy, Finance and PPPs

# Forms of Private Sector Involvement




## Characteristics of PPP

- **Contract**
- **Sharing of risk & responsibility**
- **Medium to long term timescale**
- **Incentivised by having private finance at risk**

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# Port PPP and Institutional Options

| Name of Port(s) | Key Features |
| --- | --- |
| Hong Kong | Private Sector Operation, Construction and Financing under long-term concessions |
| Felixstowe | Privately owned and Managed. |
| Rotterdam | Landlord Port. Infrastructure developed by public sector, then leased to private operators, but public sector (RMPM) also involved in port operation |
| Shenzhen | Landlord port. Government has a financial share in the port. JVs in operations |
| LA / LB | Landlord port. Port Infrastructure developed by public sector, then leased to private operators. |
| Busan / Gwangyang | Landlord port. Infrastructure and some superstructure, developed by public sector, then leased to private operators. Korean Container Terminal Authority also operates. Newer CTs developed as BOTs |
| Singapore | Ownership, operation and development of facilities under public sector body (PSA) – proposed changes (IPO) delayed |

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# Policy and Regulatory Influences

- Ports have become subject to a different form of regulatory risk
  - Price caps and other controls limited
  - Planning & environmental clearances and approvals a key risk factor
  - Pressure to allocate *external* costs onto ports (e.g. UK London Gateway (£100mn) & Felixstowe (£150mn)

- Landlord port models prevalent
  - ITOs and shipping lines major players
  - Balance competition requirements & excess capacity risks
- **Concessions a primary instrument of PPP/PSP**
  - Bids based on royalty and performance pledges (MAGs)
  - Degree of pricing freedom
  - More transparency, less negotiated
  - **Changes in risk allocation:** Shift to operators building quays and supplying equipment
  - Concession length reflects investment needs … longer duration (20+ yrs)

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# Port PPPs: Back to Basics

- **Growth Story: A time for realism**
  - Port traffic assumptions likely to be less backward looking; stronger cyclical effects than perhaps first assumed: Greater attention on market fundamentals
- **Barriers to Entry: Competition matters**
  - New port choices, contested hinterlands and supply elasticity (new build & productivity improvements): Paying attention to competition drivers
  - Volume & pricing assumptions more modest and thus PPP rent sharing
- **Risk Allocation: Shift to private sector**
  - Desire to allocation greater risks onto private sector in PPPs … however this requires clear policy goals and stable regulation
  - More demanding capital markets and less access to (cheap) credit – focus on performance to meet financial metrics … new build more critically assessed
  - Greater consideration of cost recovery of port infrastructure investment (e.g. changing EU state aid application)
  - From the deal / financial structure to quality of the asset

# Thank you

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