

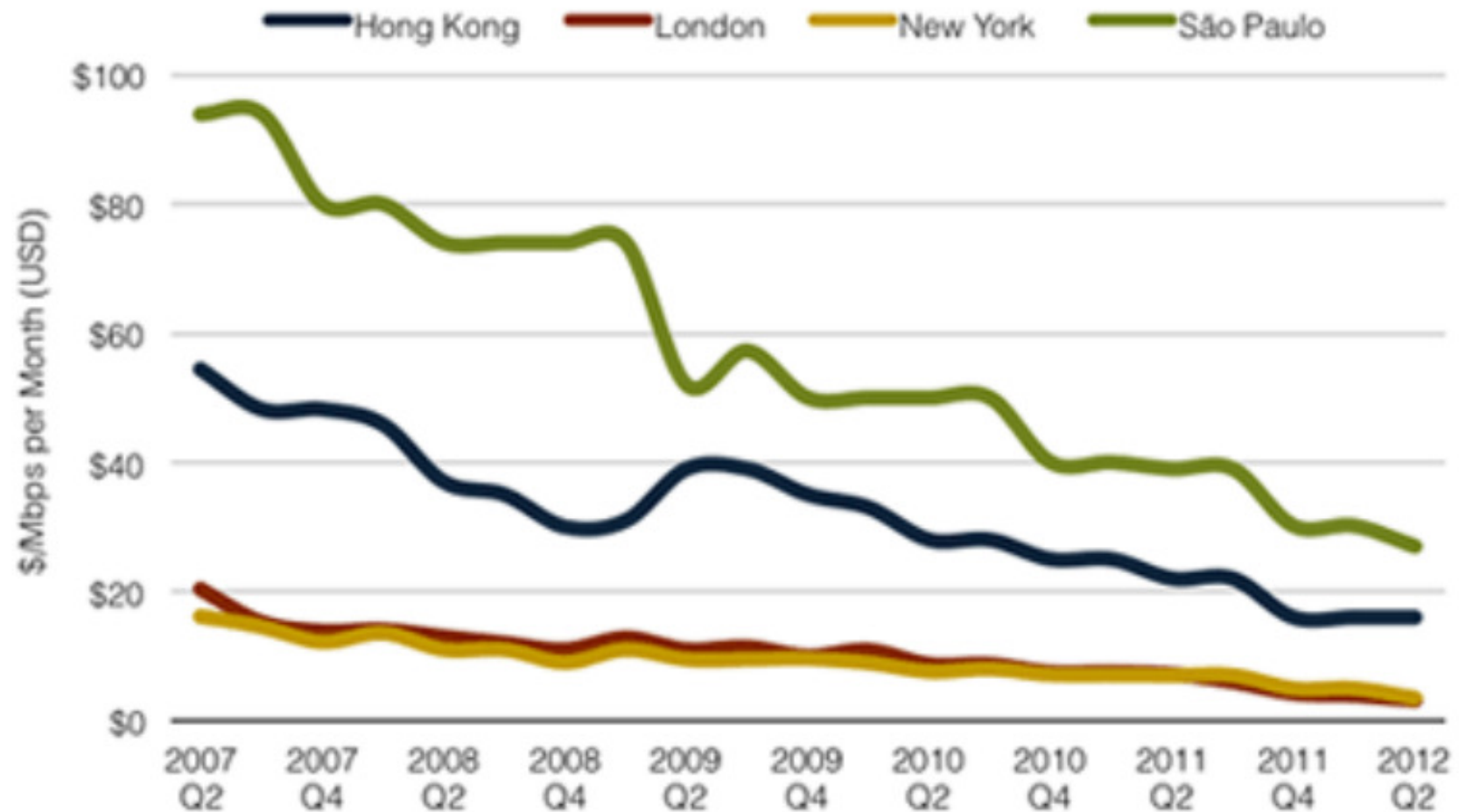
Making broadband affordable in Asia



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Median GigE IP Transit Prices in Major Cities, Q2 2007-Q2 2012

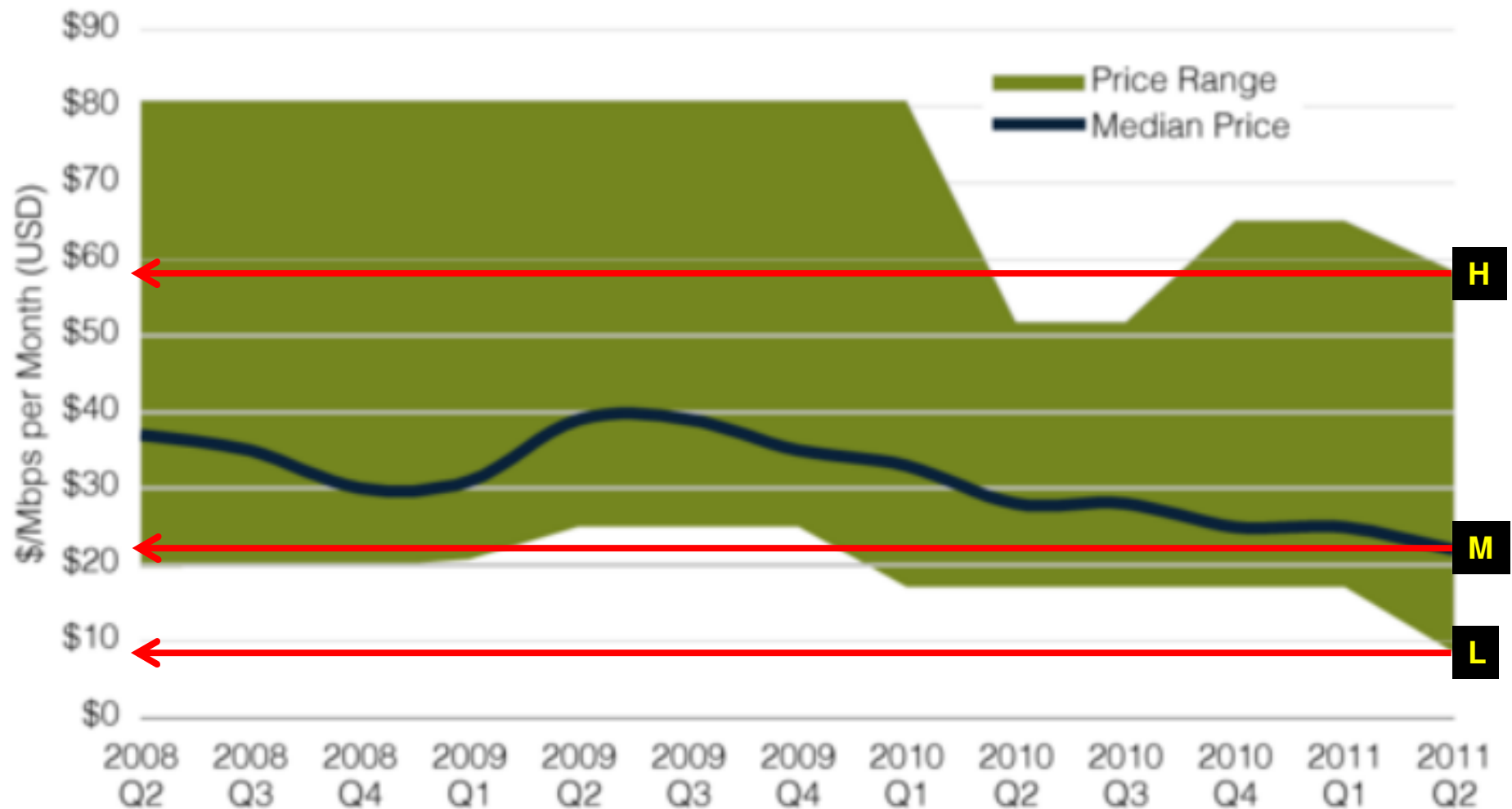


Source: TeleGeography

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“Despite falling 22% compounded annually between Q2 2007 and Q2 2012, the median price of a GigE port in Hong Kong has remained 2.7 to 5.1 times the price of a GigE port in London over the past five years.” (August 2, 2012).

High, Low, and Median Hong Kong GigE IP Transit Prices by Carrier



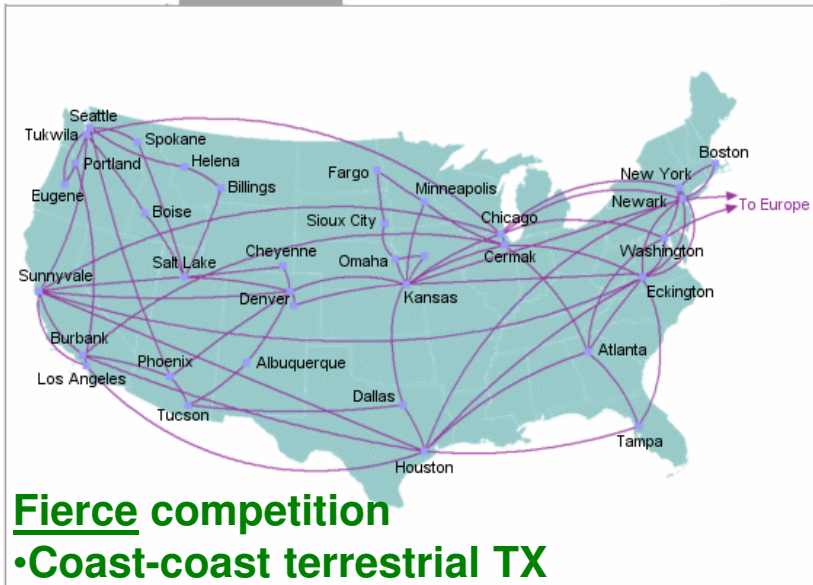
Notes: Shaded area represents price range between low and high price by individual carrier; line shows median. Data shown are monthly price per Mbps, excluding installation and local access fees. Gigabit Ethernet (GigE) = 1,000 Mbps. Source: TeleGeography.

“IP transit prices have reached extremely low levels in developed markets, but remain high in many developing markets and in countries that are remote from major IP transit hubs.”

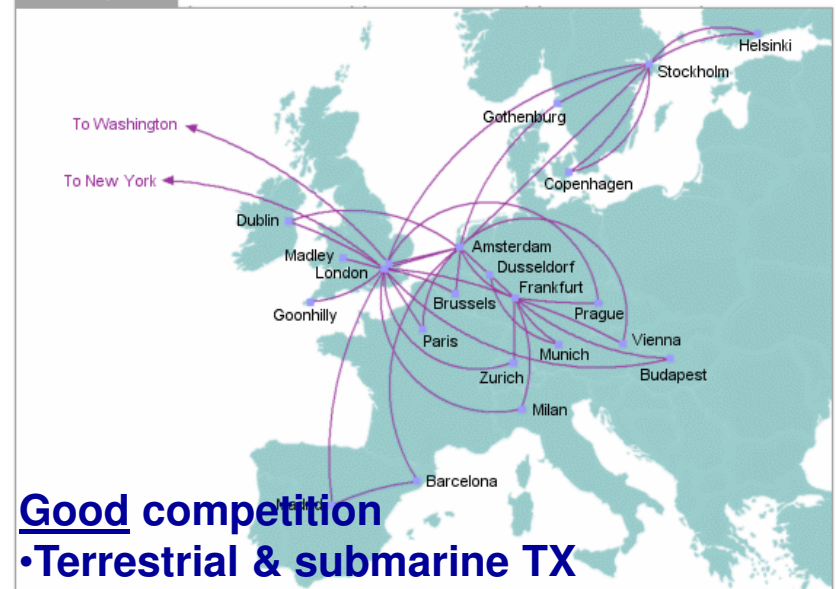
Erik Kreifeldt, Analyst,
TeleGeography (Aug 2, 2012).

Issues affecting Asian BW price

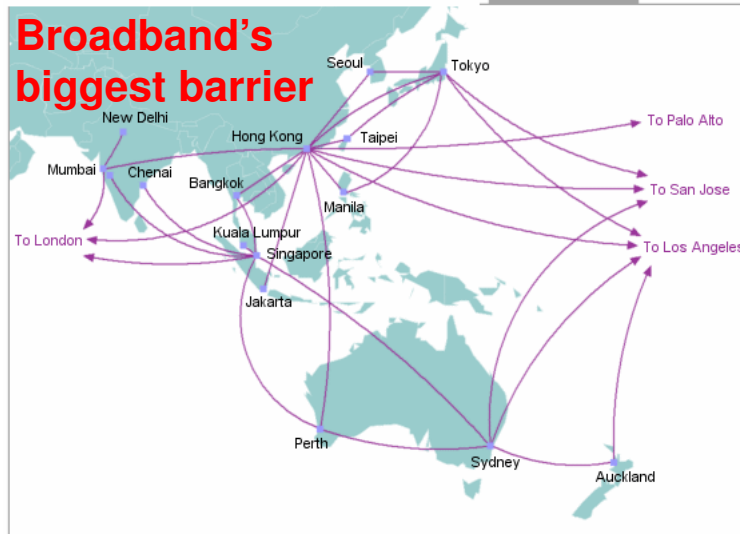
North America



Europe



Asia Pacific



Poor competition

All submarine TX

Submarine cables are vulnerable to:

- Earthquake & Cyclone
(Natural)



- Anchoring & Fishing
(Accidental)

- Sabotage and political rivalry
(Deliberate)

Disasters driving the need of backup

1. December 26, 2006: Taiwan earthquake

- ❑ 21 faults in 9 cables. 11 ships took **49 days** to repair. Banking, airline bookings and email were stopped or delayed in China, Hong Kong, Singapore, Taiwan, Japan and India.

2. Jan 23~Feb 4 2008: Accident or sabotage?

- ❑ **Sequentially 6 cables were snapped in 12 days** across the Mediterranean, Persian Gulf and Andaman sea. What caused this series of cable cuts remains mysterious.

3. Dec 19, 2008: Mediterranean earthquake

- ❑ **Total downtime: 17 days.** Middle East, India and Far East were affected.

4. August 7, 2009: Typhoon & undersea earthquakes

- ❑ 10 submarine cables were cut in >20 locations and caused an estimated **US\$617 million*** in damage. **Up to 90% voice and data traffic** was impacted across Japan, Taiwan, China, India and South East Asia.

5. March 4, 2010: Taiwan earthquake

- ❑ **Victims:** SEA-ME-WE 3, APCN2, CUCN, FLAG and FNAL.

*Verizon estimates.

https://www.yunbaogao.cn/report/index/report?reportId=5_7444

预览已结束，完整报告链接和二维码如下：



Accident or Sabotage? 6 cables were snapped in 12 days



Not the results of ongoing investigations, but we do not rule out that a
ge caused the damage to the undersea cables over two weeks ago."
ni Al Basheer Al Morshid, Director BDT, ITU (AFP: February 18, 2008)