



# Strategic Flexible Planning & Real Options for ATS development in India

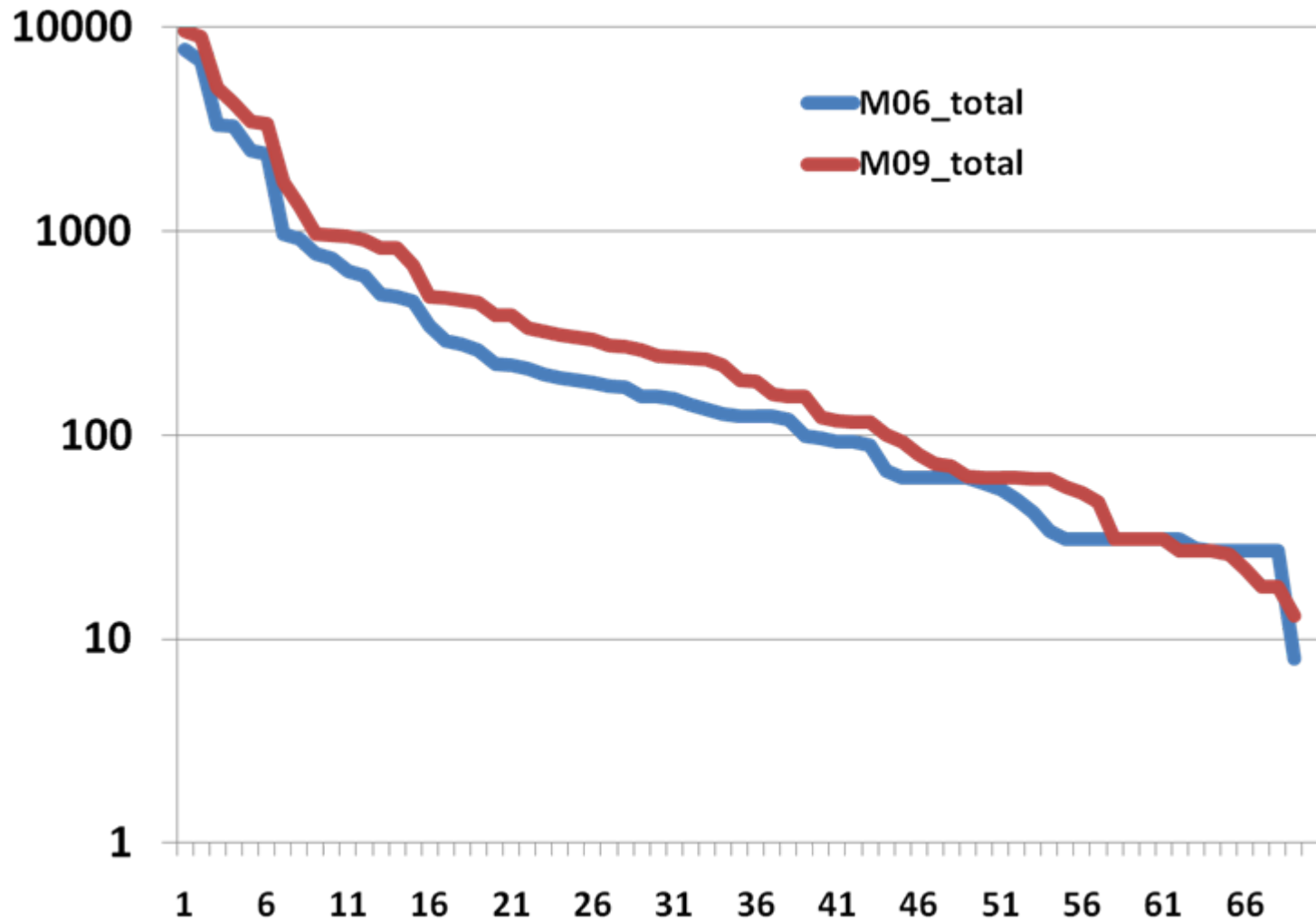
Hans Huber,  
Associate Professor  
SJMSOM, IIT-Bombay



‘ATM: airlines-airports strategies to meet safety, economic & environmental challenges’

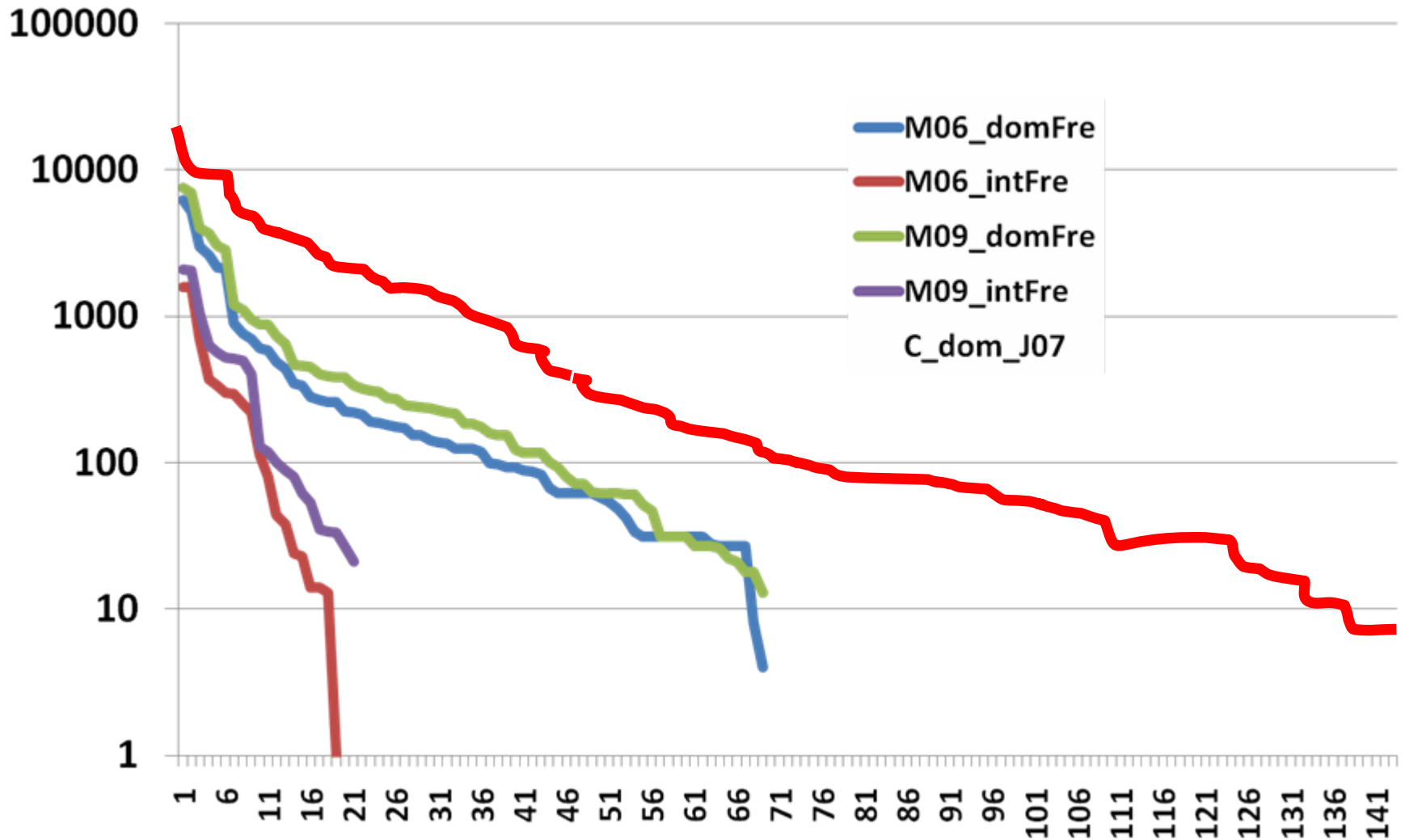
ATC Guild Seminar, New Delhi (Oct.20-21, 2009)

# Total Traffic Movements (India, March)



Source: OAG data

# Comparison Traffic Distribution



# Airport charges in India among lowest: study

Press Trust of India / New Delhi August 07, 2009, 21:09 IST

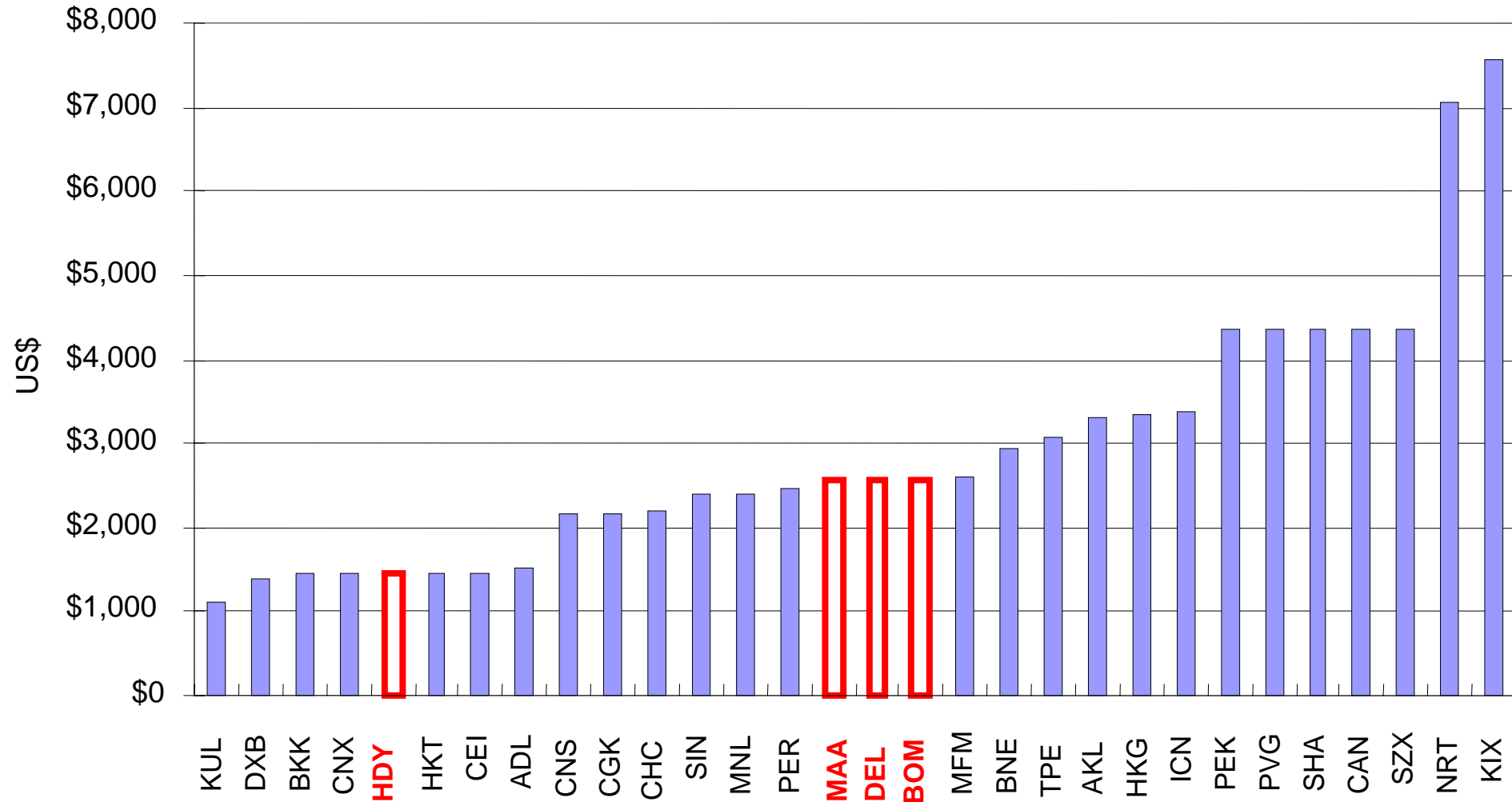
- “Airport charges in India are among the lowest in the world and the charges constitute less than 4% of an airline's total operating cost” (APAO)
- Survey conducted by Association of Private Airport Operators: Mumbai airport was ranked at 50th place in a sample of 50 representative airports
- Toronto airport had the highest airport charges were 16% APAO's K L Kanthan said
- Even airports in Bangkok, Singapore and Beijing had higher airport charges than Mumbai, APAO added.

see related article:

**International Airlines  
seen leaving India**

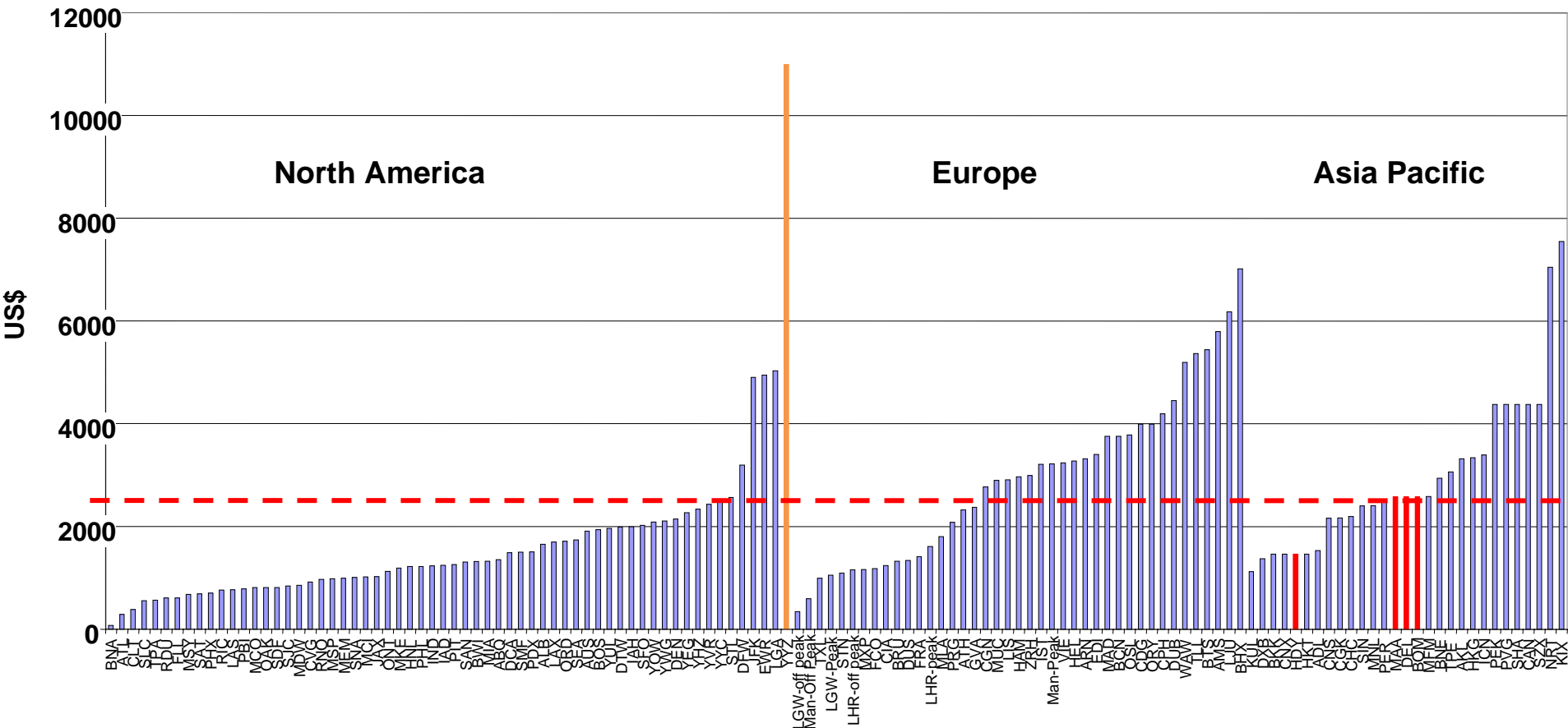
# Landing Charges for B747

Asia-Pacific (2005)



# By international standards...

## Landing Charges for Boeing 747 (2005)

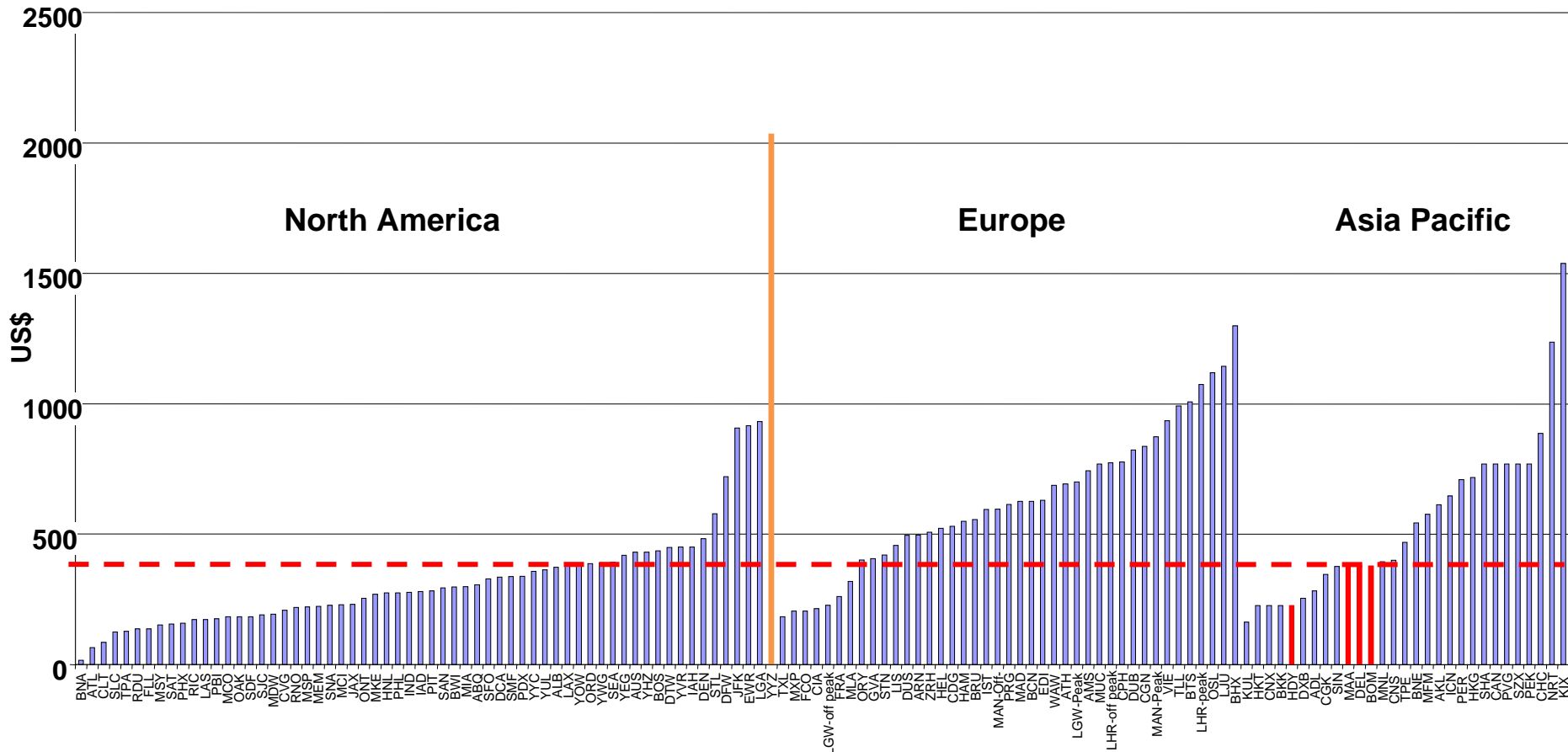


Source: friends from ATRS

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# By international standards...

## Landing Charges for Airbus 320 (2005)



Source: friends from ATRS

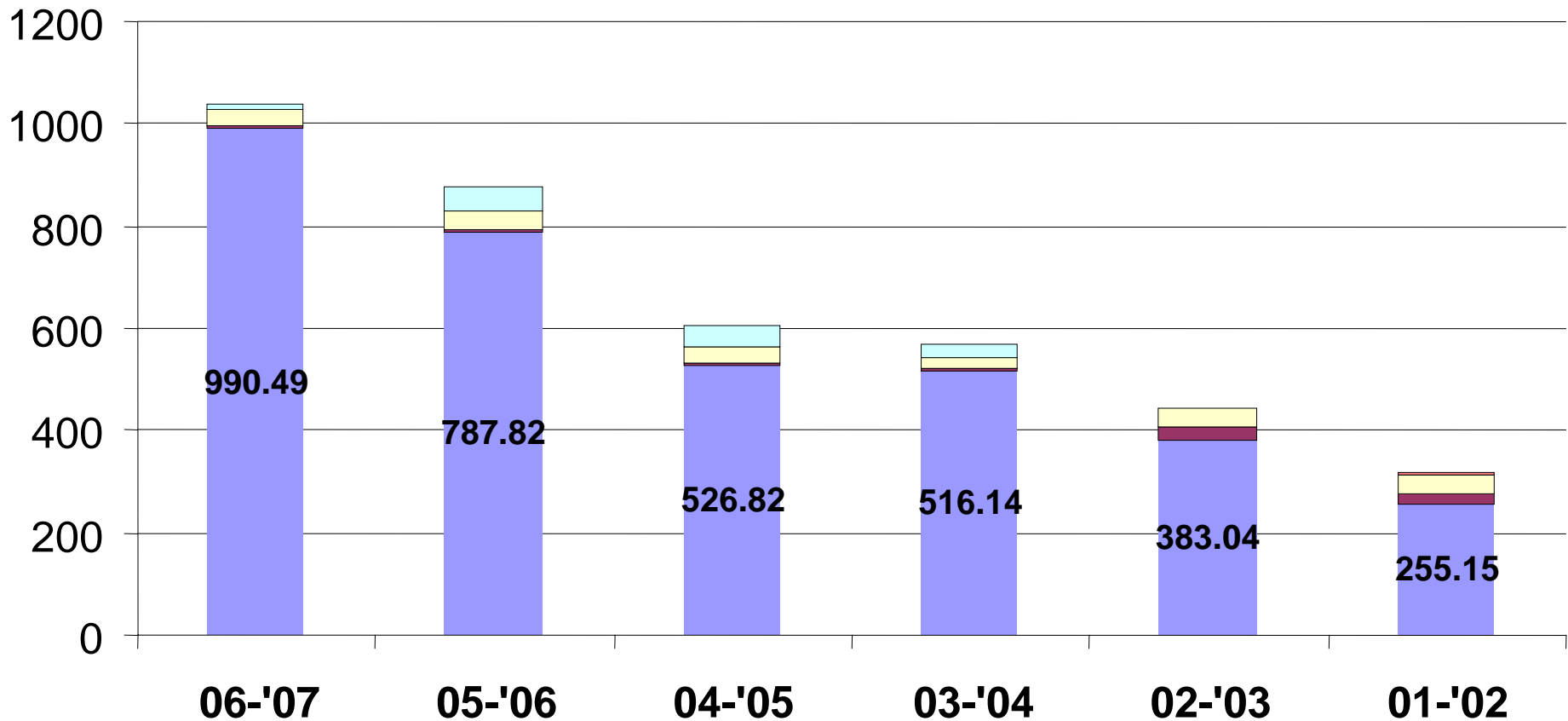
# There's more to come...

- Bial and Ghial, both privately operated, already charge passengers a hefty fee introduced last year. Bangalore airport charges **Rs260** per domestic passenger and **Rs1,070** per international passenger, while Hyderabad airport charges **Rs375** and **Rs1,000**, respectively.
- “We have increased the fee by 10% for Bial and Ghial following the increases in other airports,” said a civil aviation ministry official who didn't want to be named. A second government official, who too didn't want to be named, confirmed the hike.

(HT on June 15, 2009)

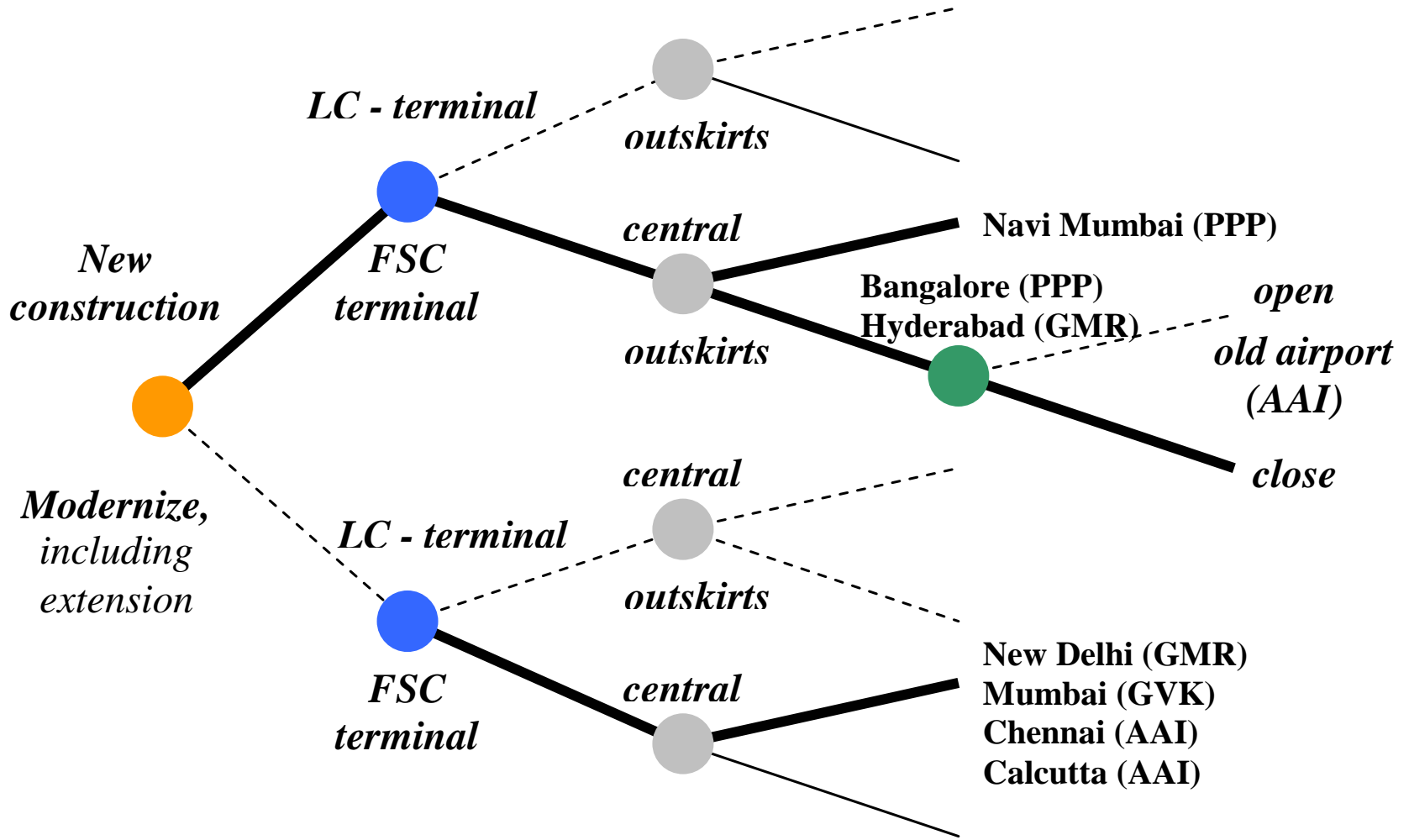
# AAI funding sources (in Rs. Crore)

Internal Resources    N.E.Council Grant    Budget Support (GoI)    MOD/AP Govt.  
HP Govt. Funds    Foreign loans    Others



Source: AAI Annual Report

# Real Options...



# ...and robust paths for growth

