



Thinking Logistics

Trends and Developments in Inter-Urban Passenger Transport: International Air Transport in the Future

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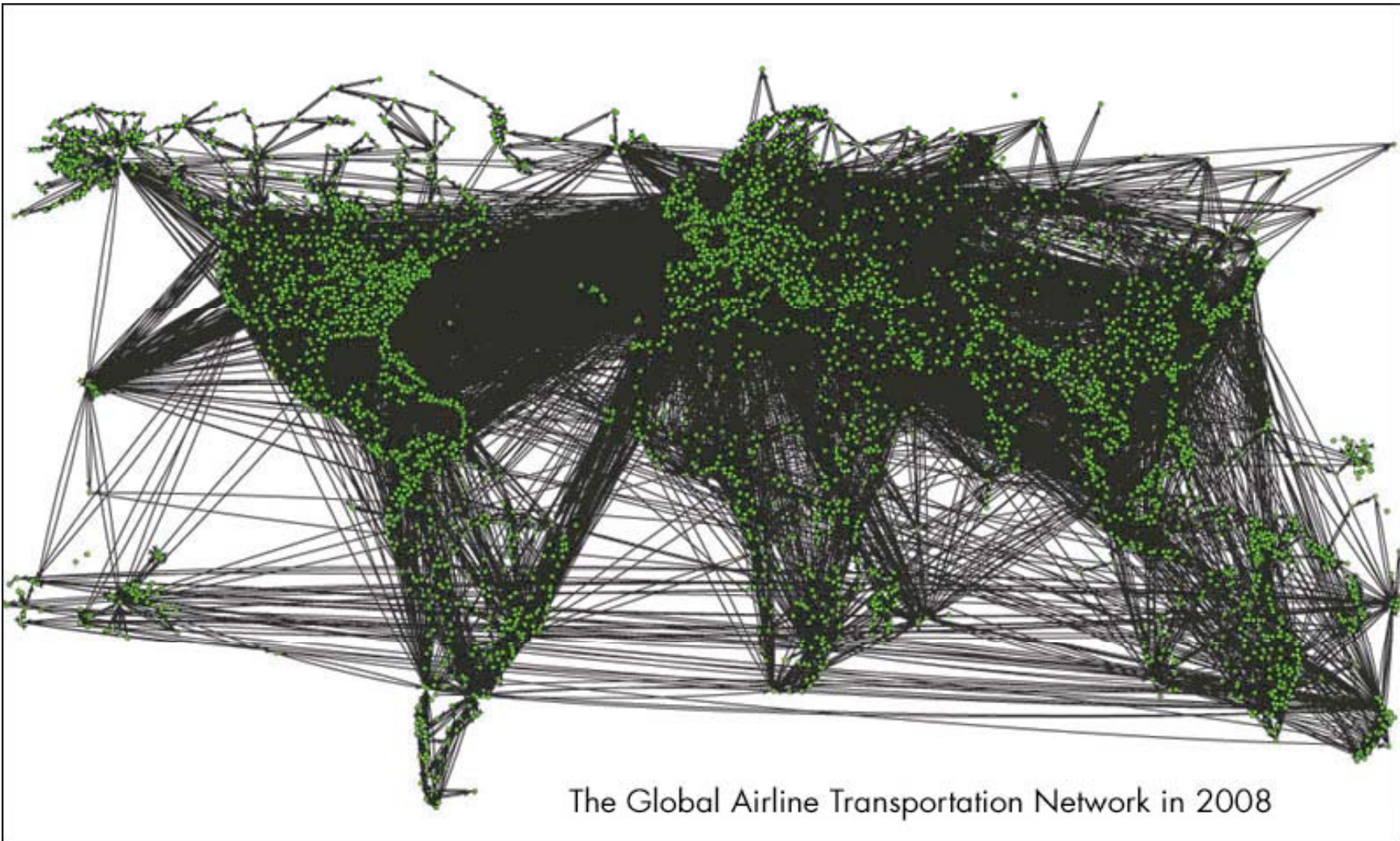
Objective and Questions

Objective

Understanding“what will international air passenger travel will look like in five, ten or fifteen years and why does it look this way?”

Arriving at the Answer:

- 1. what will be principal determinant of the growth in international air travel
- 2. what impact will they have on the growth rate?



Unemployment Rate With and Without the Recovery Plan



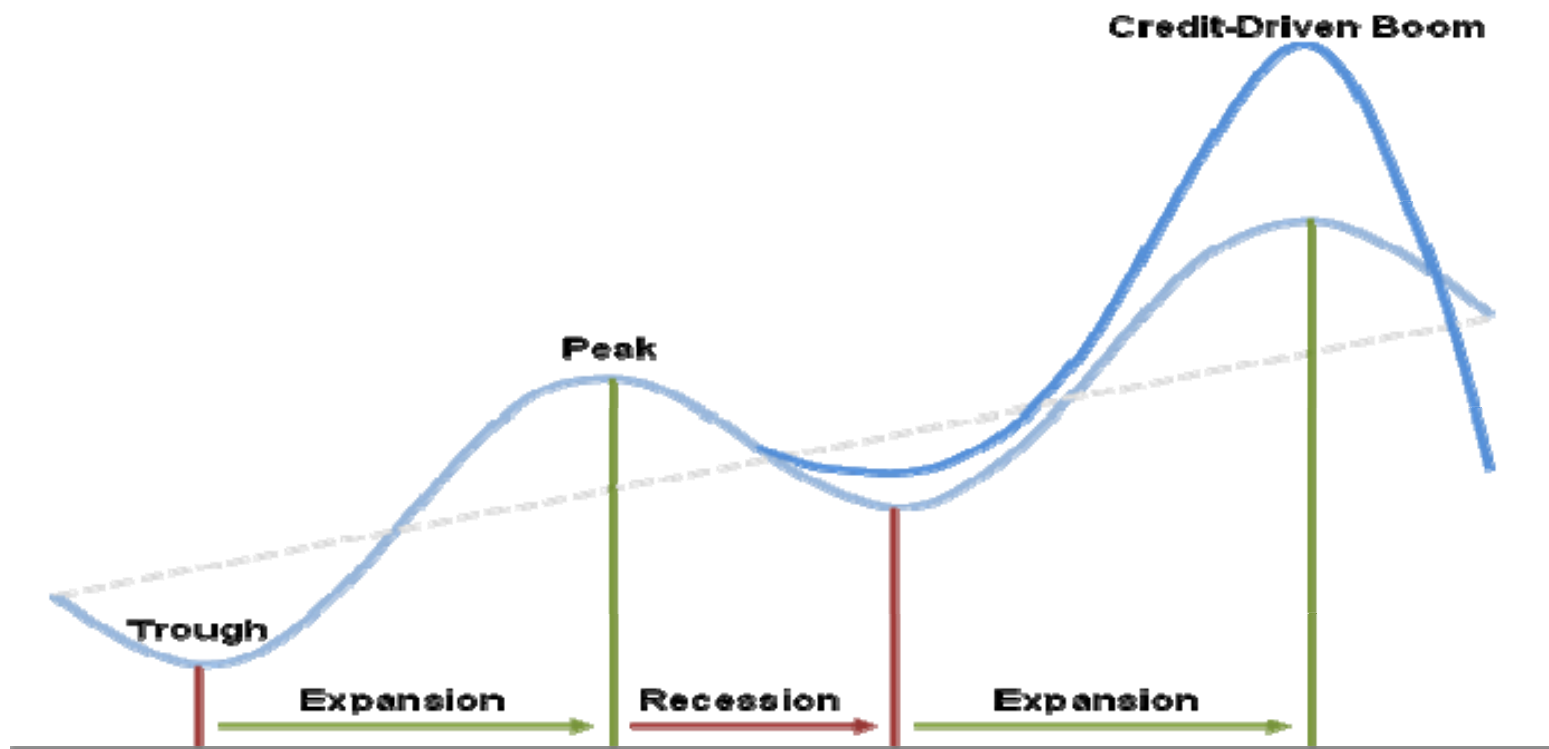
Themes

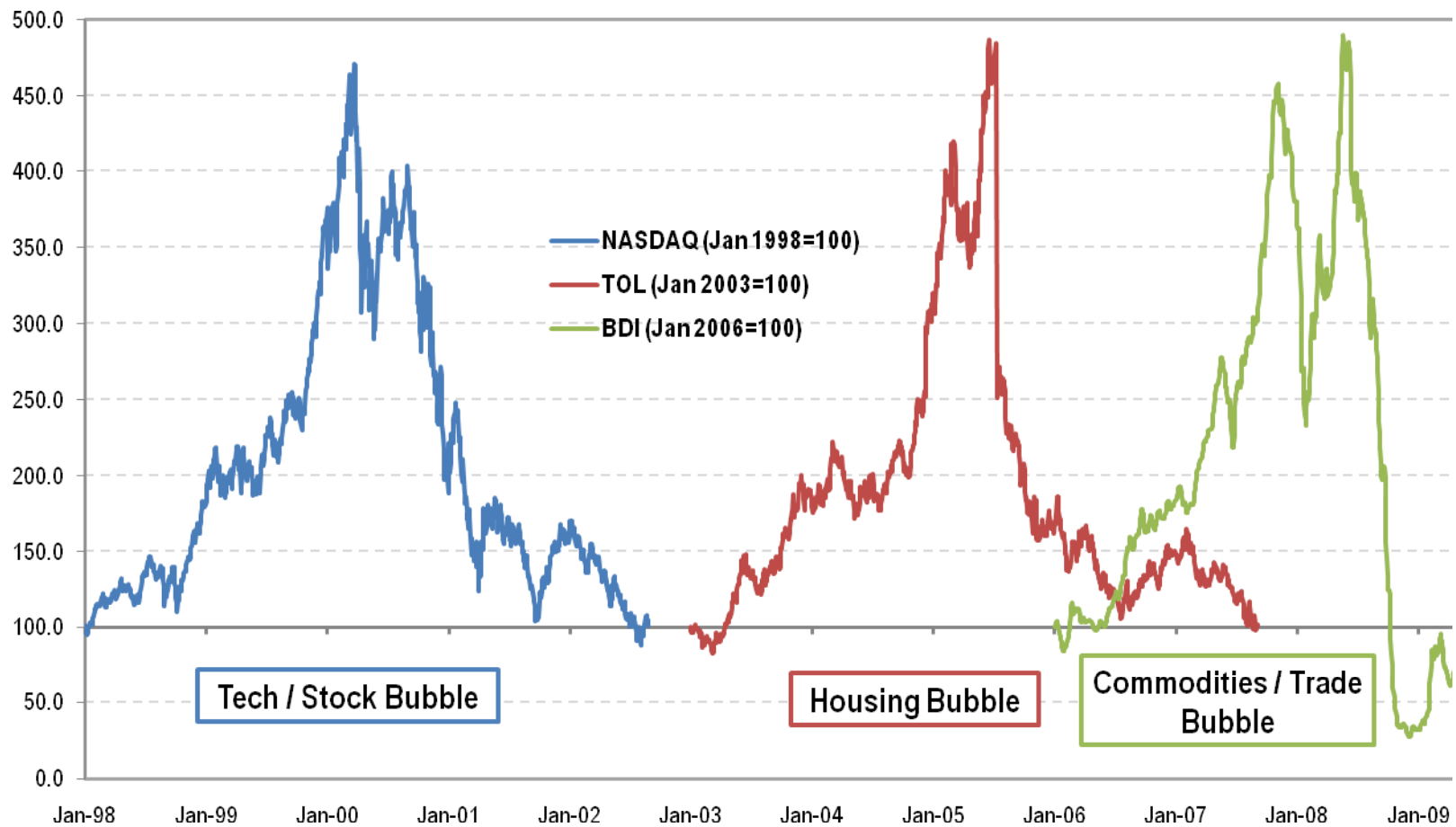
- What factors effect international air travel
- What do we observe – now
- What will the world look like
- Guesstimates

What Factors Affect Air Travel-Three groups

- Traditional sets of variables
 - GDP growth, trade growth, Direct Investment, market structure and behaviour (fares, route development, network), liberalization and alliances
- New Economy – Evolution or Revolution?
 - What if the new macroeconomic reality is different?
 - US savings rate up, China spending rate up
- New factors we have not seen
 - Carbon strategies – tax and cap & trade
 - Technologies – fuel, aircraft, ATC
 - Industry and network restructuring

Trends in GDP Growth and Swings about the Trend





- What is so striking is to compare the numbers in ‘Projected 2009’ with previous economic downturns.

- The 2009 values are orders of magnitude larger for every category

Global Recessions: Selected Indicators of Economic Activity
(Percent change, unless otherwise indicated)

Variable	1975	1982	1991	Projected 2009	Average (1975, 1982, 1991)
Output					
Per capita output (PPP ¹ weighted)	-0.13	-0.89	-0.18	-2.50	-0.40
Per capita output (market weighted)	-0.33	-1.08	-1.45	-3.68	-0.95
Other macroeconomic indicators					
Industrial production	-1.60	-4.33	-0.09	-6.23	-2.01
Total trade	-1.87	-0.69	4.01	-11.75	0.48
Capital flows ²	0.56	-0.76	-2.07	-6.18	-0.76
Oil consumption	-0.90	-2.87	0.01	-1.50	-1.25
Unemployment ³	1.19	1.61	0.72	2.56	1.18
Components of output					
Per capita					
consumption	0.41	-0.18	0.62	-1.11	0.28
Per capita investment	-2.04	-4.72	-0.15	-8.74	-2.30

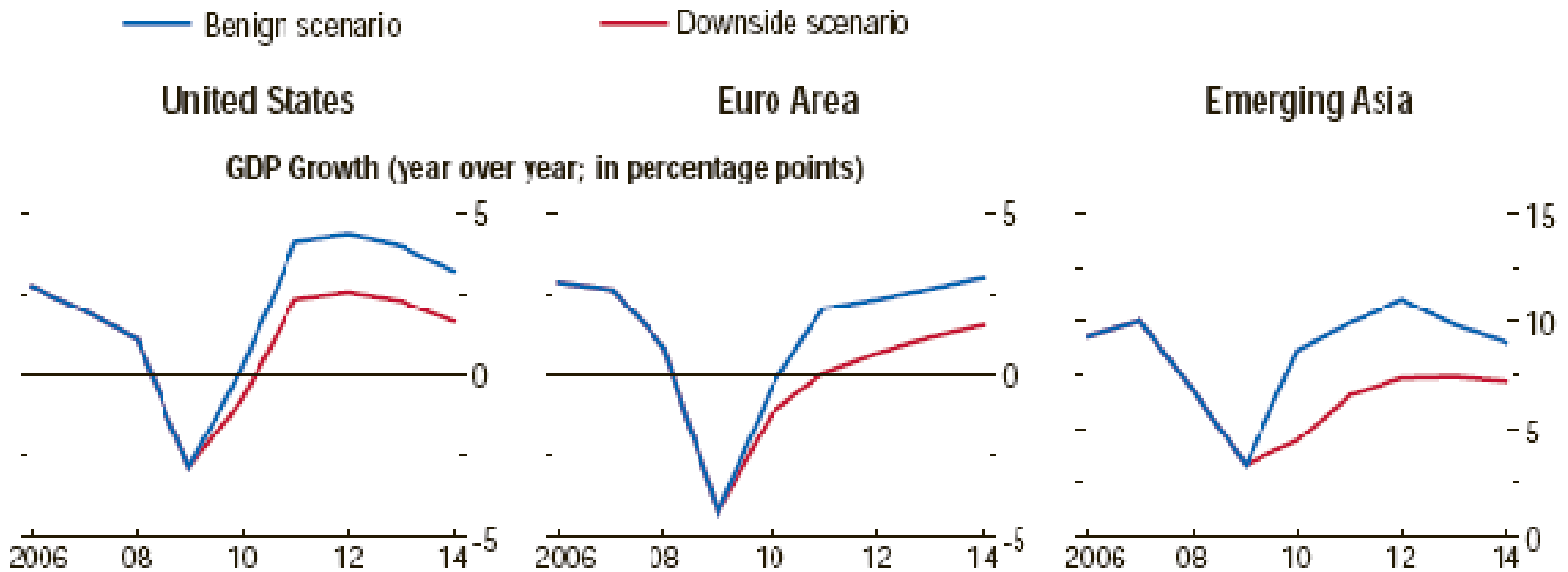
Note: The 1991 recession lasted until 1993, using market weights; all other recessions lasted one year.

¹PPP = purchasing power parity.

²Refers to change in the two-year rolling window average of the ratio of inflows plus outflows to GDP.

³Refers to percentage point change in the rate of unemployment.

How the IMF (2009) sees Economies Changing



What Should we look at?

Other estimates

- GDP elasticity: 1.54*
- Fuel price elas. -0.06
- SARS, and 9/11 variables were significant
 - SARS -0.98
 - 9/11 -0.067

Gillen Model

- GDP elasticity: 0.06
- Trade elasticity: 0.83
- FDI elasticity 0.13
- Connectivity elas. 0.22
- Jet Fuel elasticity -0.27

* recognize not all GDP influence

Guesstimates

- Big question is any economic recovery involving a structural change for a new macroeconomics
- Best guess in medium term
 - FDI down 30% in 2010 – traffic down 3-4 %
 - Trade down – 11 % \approx decrease of 1.0 %
 - Connectivity index growth of 8 % has led to 1.6 & traffic growth (If Route development down \approx - .7 %
 - Cost (fuel and environmental taxes) – 1%
 - Best guess and worst case future growth 85% of past
 - Boeing says 5%, my guess around 1-2 % on average

Summary

- ‘Old’ variables are still important but they differ from domestic market growth
- New factors will have small effect, depending on carbon pricing
- Future growth will be moderated as economies adjust and new markets will be in Africa and Brazil not just SE Asia
- Air service agreements and industry restructuring are key factors

Thank you / Muchas Gracias



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