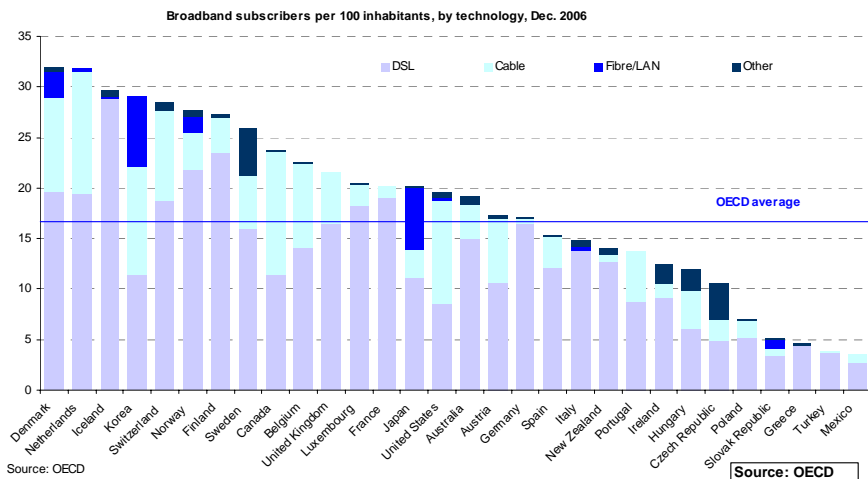


What Matters: Broadband Penetration or Capital Investment?

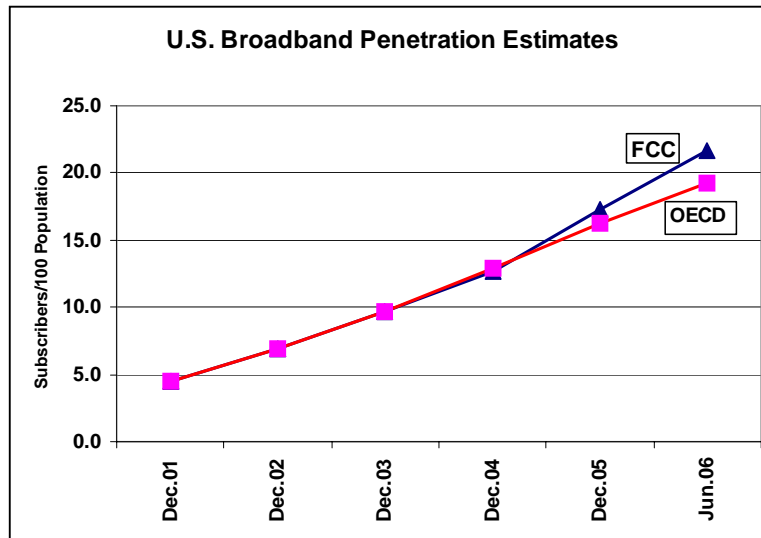
Robert W. Crandall
The Brookings Institution

CITI
October 19, 2007

The Gospel According to OECD



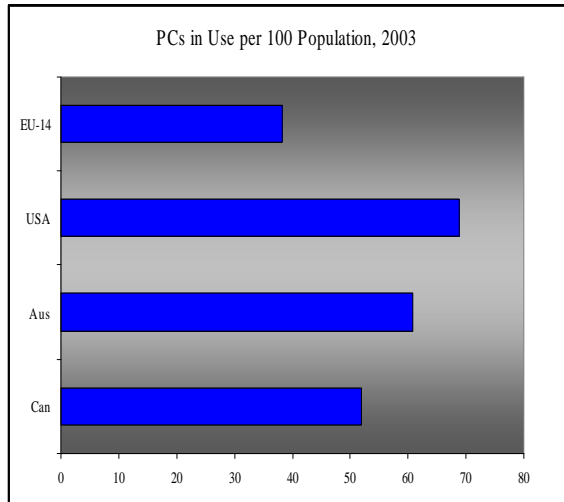
But Recent OECD Data Seem to Understate U.S. Penetration As They Ignore Wireless



How Do We Evaluate U.S. Performance?

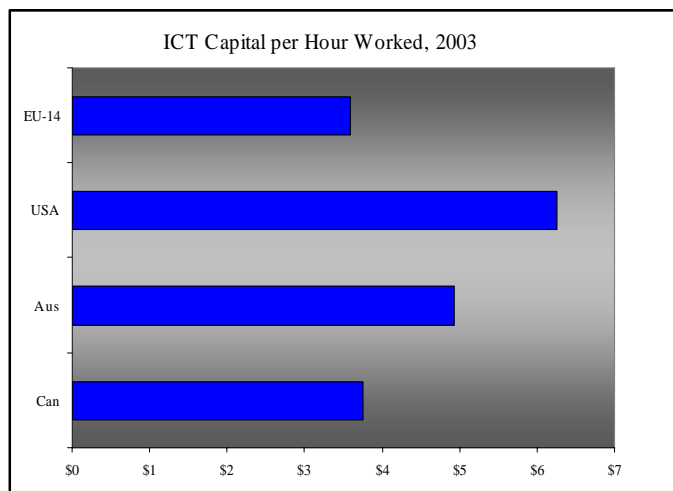
- We need empirical estimates of the determinants of broadband penetration
- Existing cross-sectional studies assume that the structural relationship driving broadband penetration is the same across countries
- When I estimate the effects of cable television penetration, Internet use, population density, income, and the number of years since the launch of broadband, I find that the 2006 BB penetration prediction for the U.S. is:
 - 133 subscribers per 100 households for the entire 28 country sample
 - 100 subscribers per 100 households for the entire sample except for the EU-15
 - 54 subscribers per 100 households if I exclude the EU-27 from the sample
- OECD data place us at (an understated) 51 subs per 100 households
- But today, we are at about 60 subs per 100 households (Nielsen)
- I will let you decide: How are we doing?

More Important: US Leads in High-Tech Investment



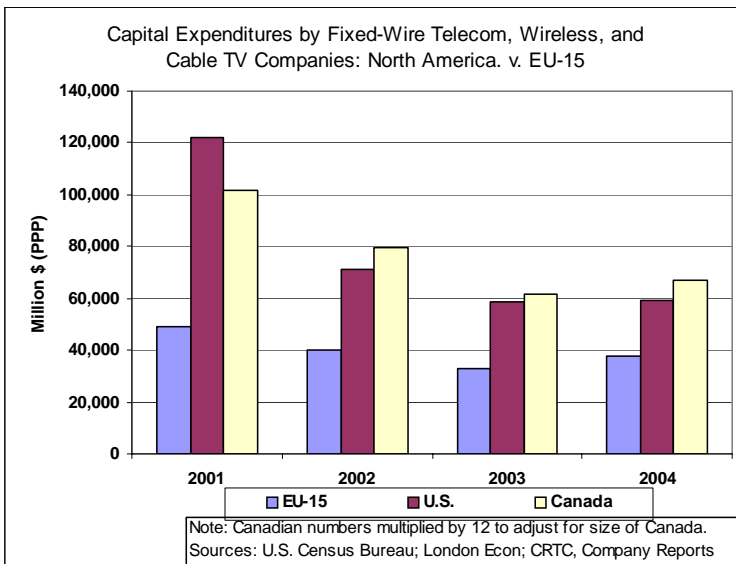
Source: Melvyn Fuss and Leonard Waverman, "Why Is There No New Economy in Old Europe?", 2006

And in ICT Capital Stock

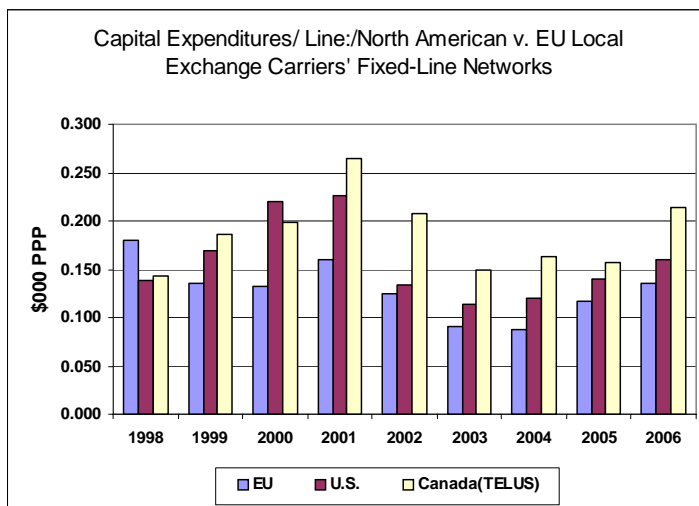


Source: Fuss and Waverman

EU's Limited Data Show That Europe Lags North America in Telecom CapEx



My Data on ILEC CapEx Shows that the Trend Continues in 2005-06



The EU Is Now Proposing “Functional Separation” to Promote Broadband Growth through Intra-Platform DSL Competition

- Given EU investment shortfall, this appears to be a dangerous policy direction.
- The trade-off: How much high-tech investment should regulators be willing to sacrifice to promote short-term increases in broadband penetration?