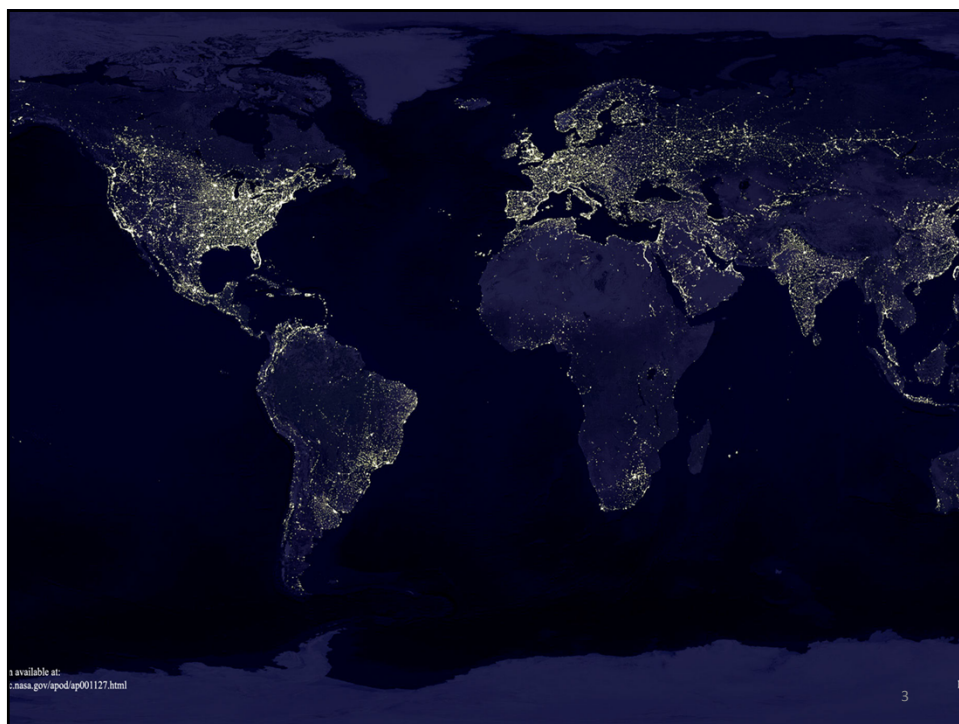


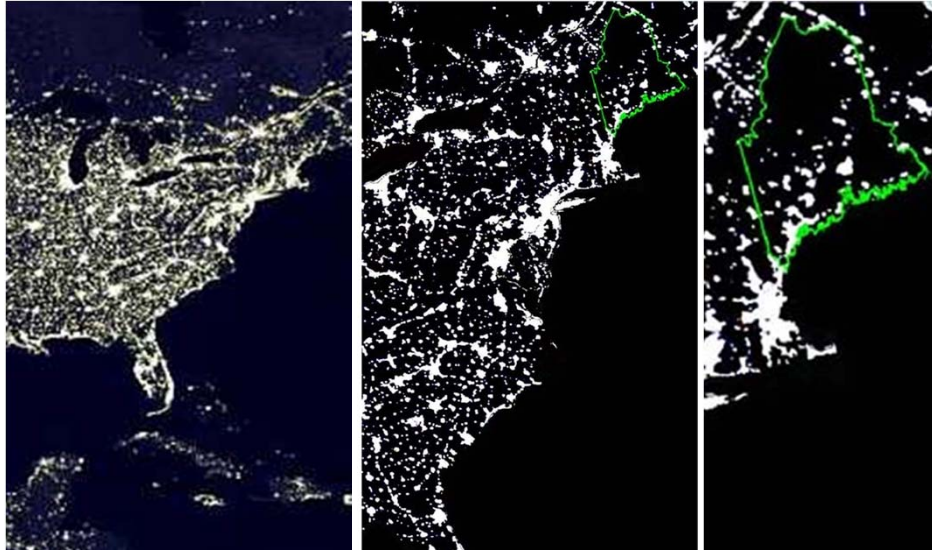
Global Megatrends 2035

1. Global Population and Income Surge and the Earth's Build-Out
2. The New Normal: Environmental and Natural Resource Limits
3. Global Competition and Governance: The Great Challenge of the 21st Century





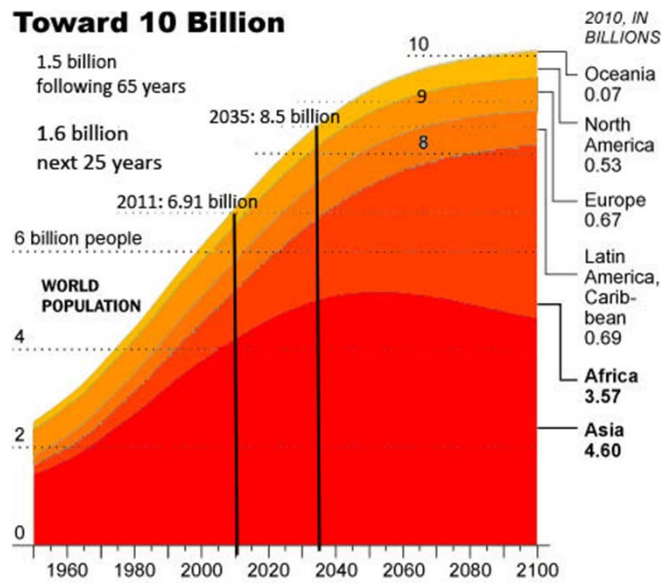
Maine Least Dense State East of Mississippi



<http://www.nrcm.org/gallery.asp?gallery=11&image=251>

Additional 1.5 billion 2035

Toward 10 Billion



America Grows

200 million in 1968

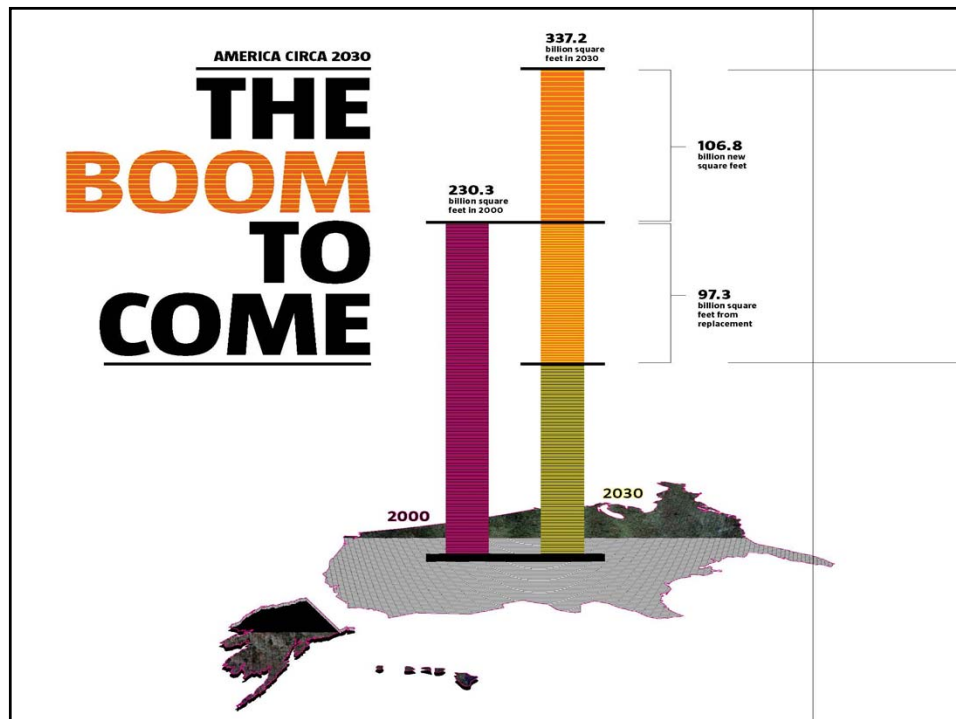
300 million in 2006

400 million in 2032

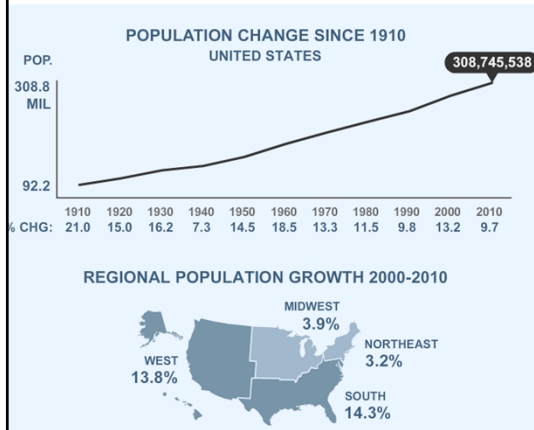
500 million in 2050

America adds 100 million people faster
than any other nation except India and
Pakistan – But *faster* than China.

Source: Arthur C. Nelson, Metropolitan Research, University of Utah.

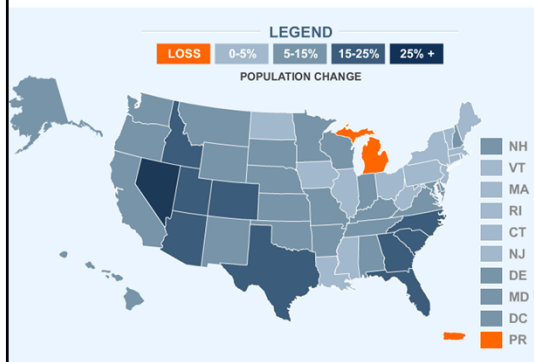


Build-Out of United States: Consequences for Maine



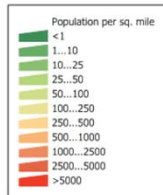
- United States population 2011 309 million
- 1% population growth = 95 *million* people over next 25 years
- Maine's population growth 2000-2010 v US, .4% v 1%

Build-Out of United States: Consequences for Maine

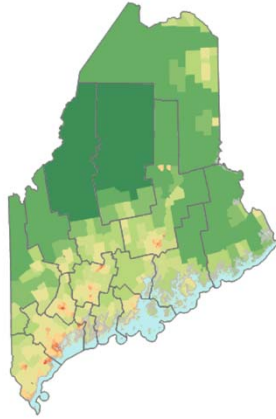


- Maine's pop 1.3 million
- 10% growth over 25 years = 139,000 people
- Equivalent of adding two cities the size of Portland

Envisioning Maine Spatially



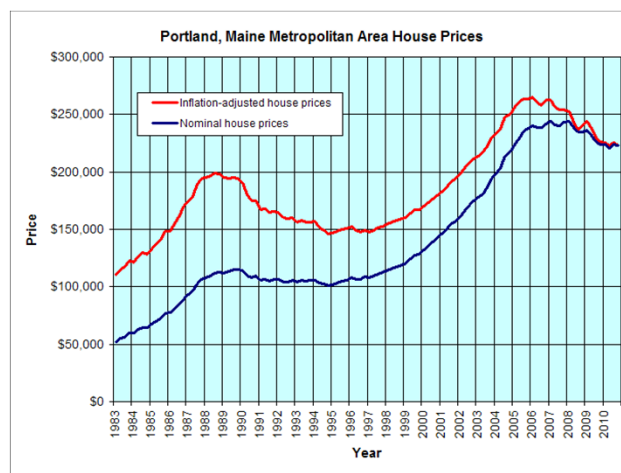
Source: U.S. Census Bureau
Census 2000 Summary File 1
population by census tracts.

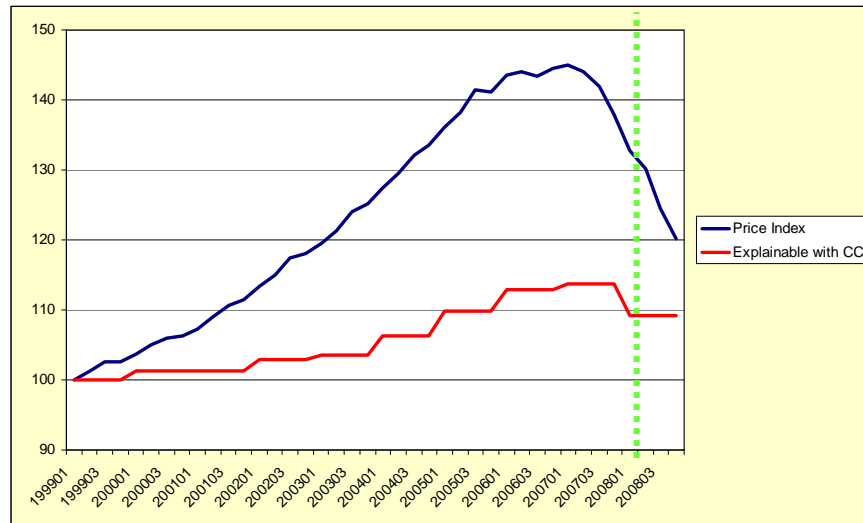


- 70% of population in cities
- Much of population *growth* will be concentrated in cities
- Portland metro population 516,000, city 66,000
- Density of Portland: 3,000 people/sq. mi., metro (3 counties) 248
- Population growth likely to double urban population
- Albany, 5500 density; 7,000 Hartford; 12,000 Boston

US Census Bureau 2000

Maine's Home Prices: 10 years >50%

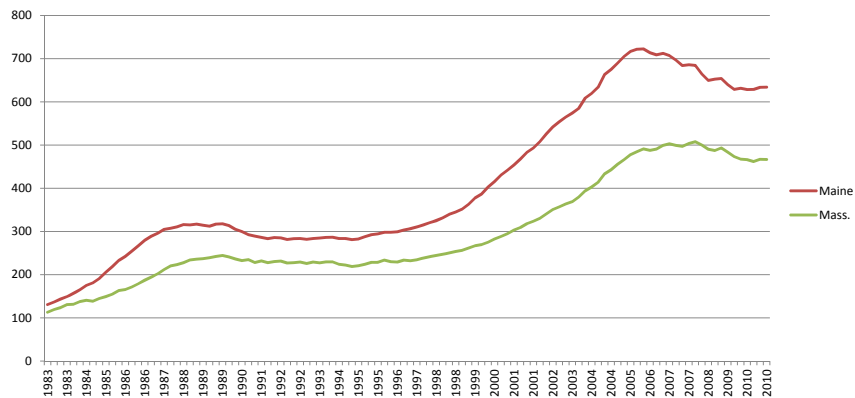




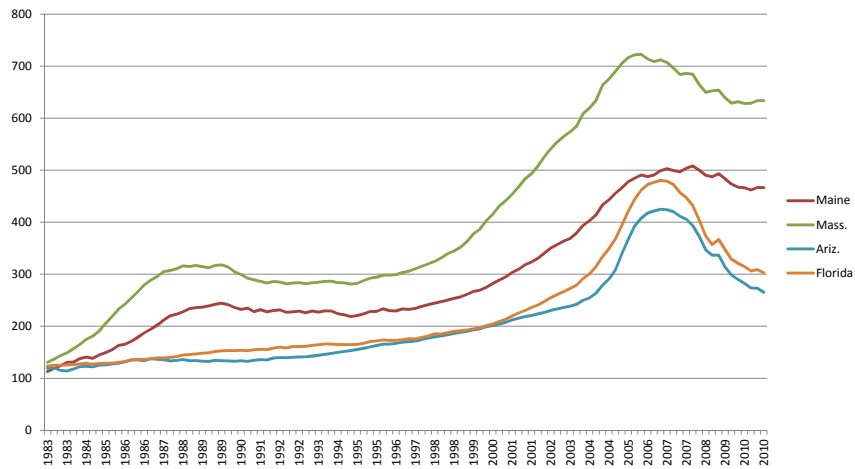
13

House Price Indexes By State

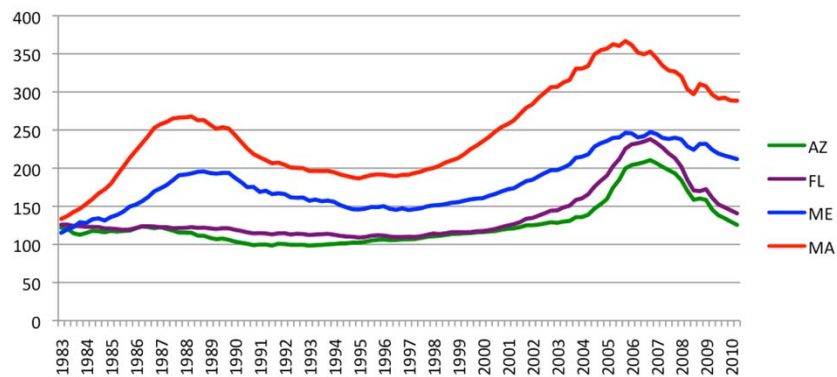
HPI for Comparable States



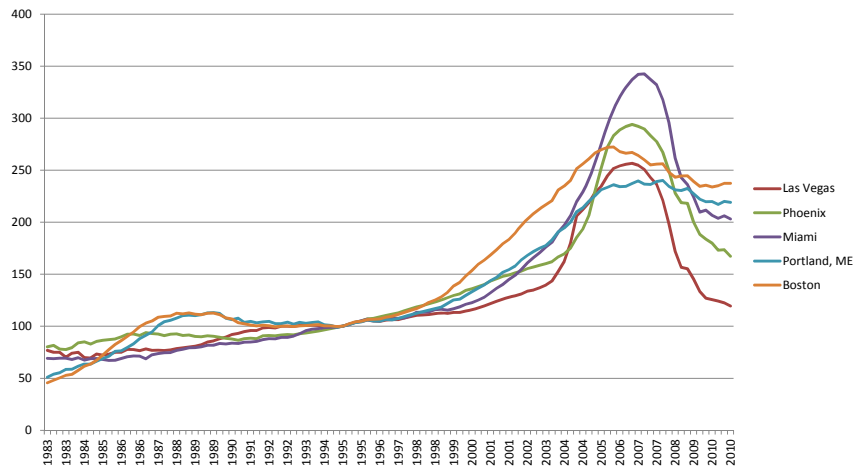
House Price Index By State



Real Home Prices



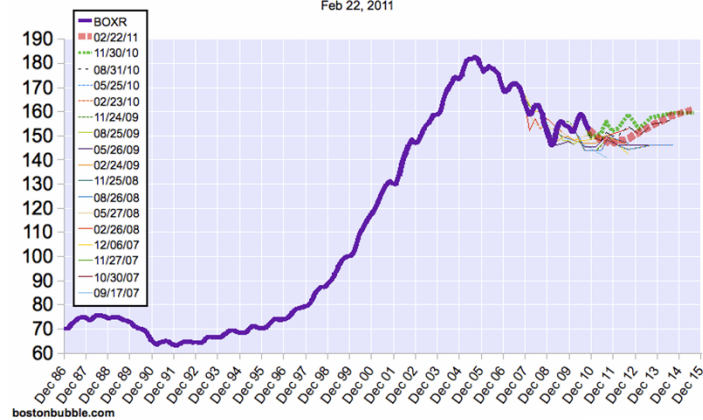
House Price Indexes By City

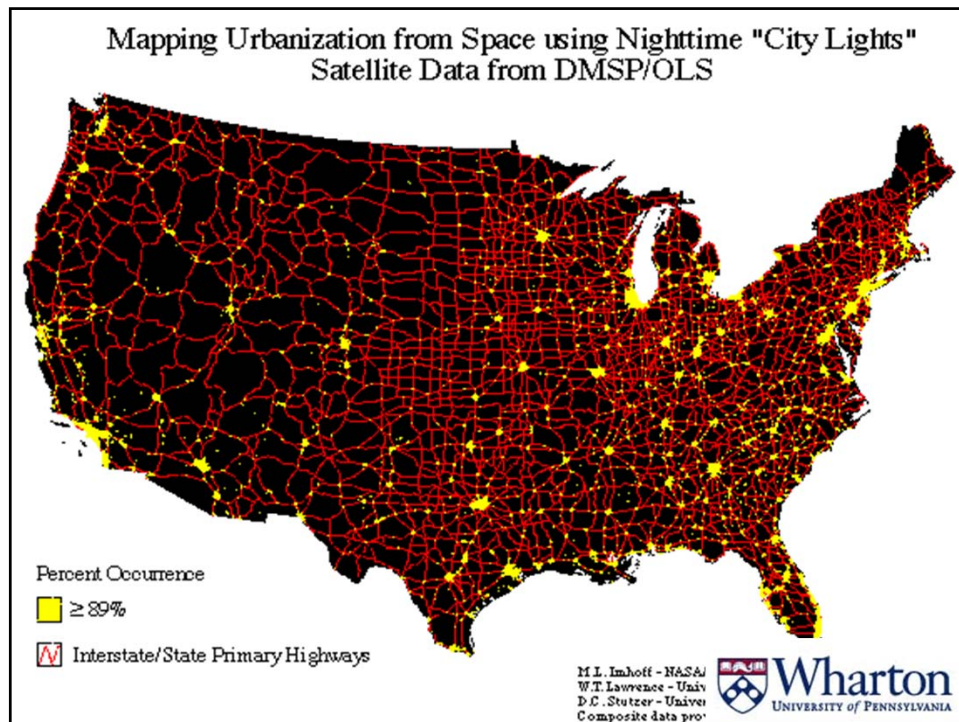


Increased Population Density May Result in Even Higher Appreciation

S&P/Case-Shiller Boston with futures

Feb 22, 2011

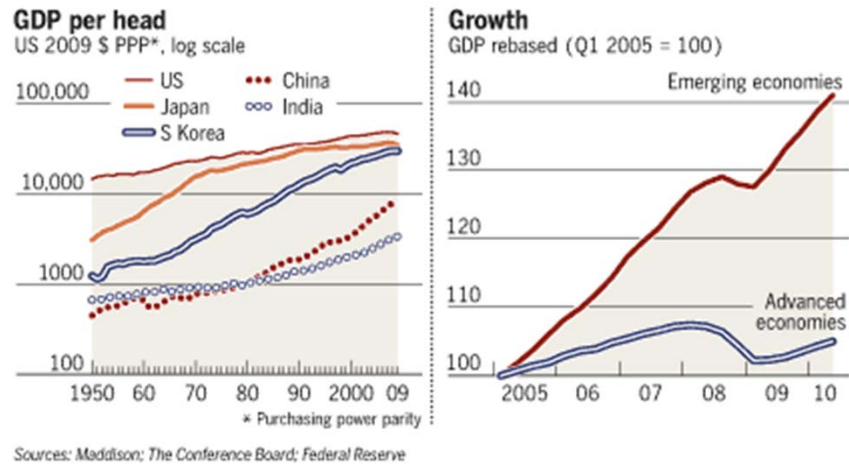




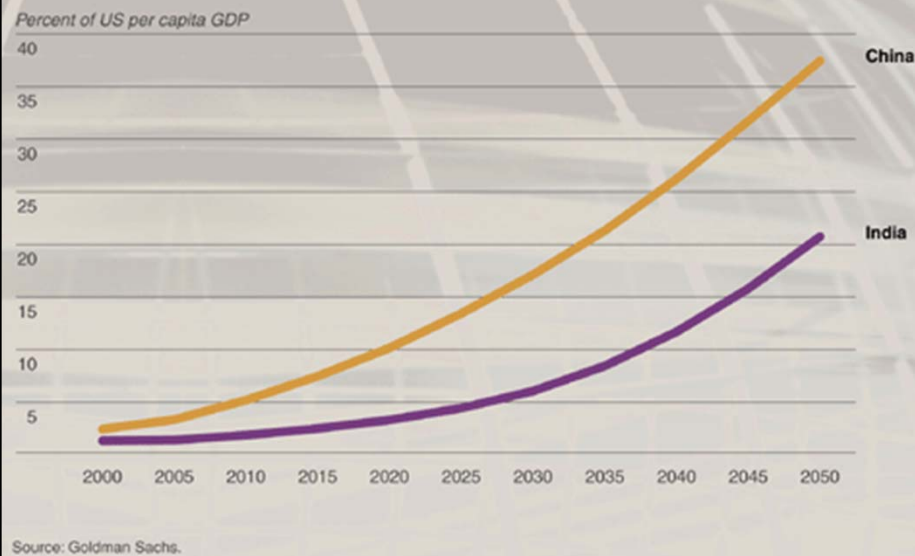
2. The New Normal: Environmental and Natural Resource Limits

- 30% of the environment will be built or re-built in the next 30 years
- Maine is resource-sensitive
 - Cold weather = high heating costs
- Energy solutions to mitigate rising commodity prices and carbon dioxide emissions
- Maine's resources are energy dependent

Emerging Economy Growth: Unprecedented Income Convergence

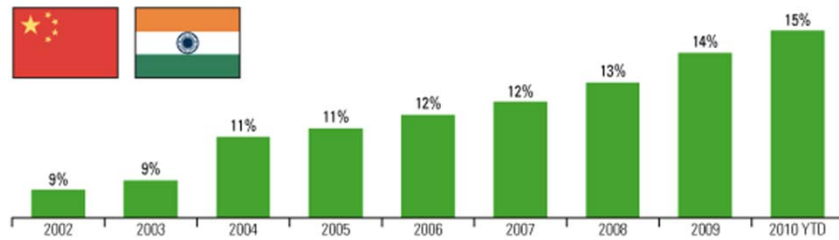


China's and India's Per Capita GDPs Rising Against US



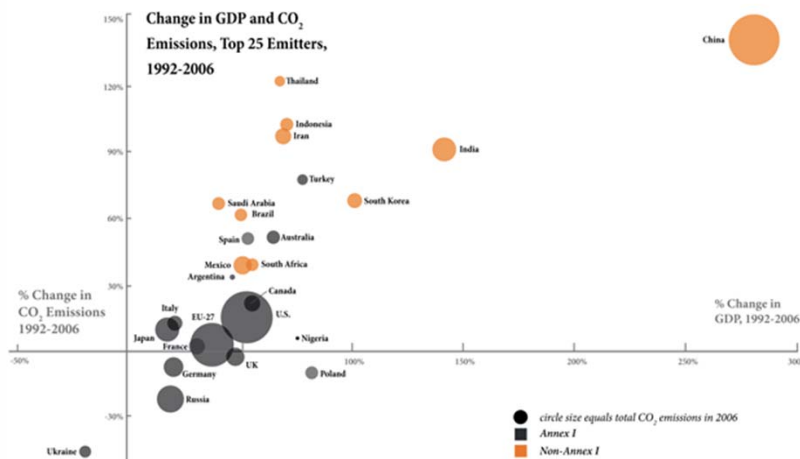
China and India Are Becoming the Dominant Forces in Global Oil Demand

China & India total oil demand / Global oil demand



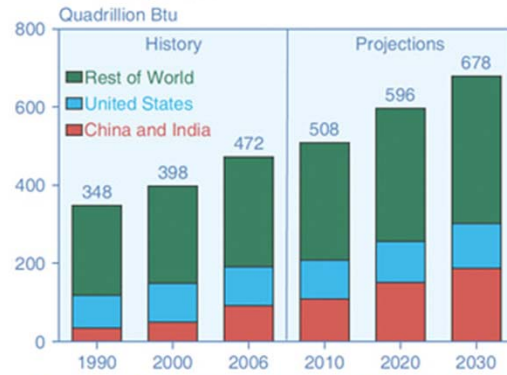
Source: India OGP, China National Bureau of Statistics & China General Administration of Customs, IEA, US DOE/EIA, Deutsche Bank

GDP Growth = CO₂ Growth



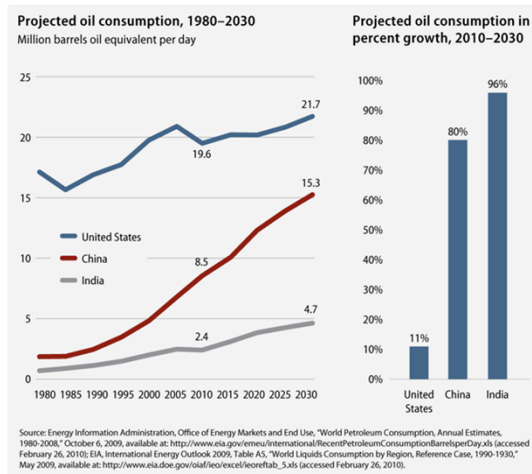
Source: World Resources Institute

Emerging Economies Will Put Pressure on World's Energy Supplies

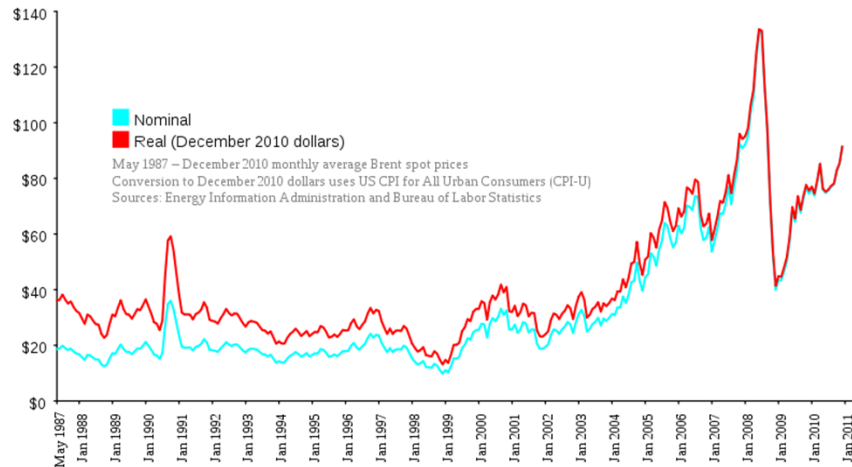


Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2006* (June-December 2008), web site www.eia.doe.gov/iea. **Projections:** EIA, *World Energy Projections Plus* (2009).

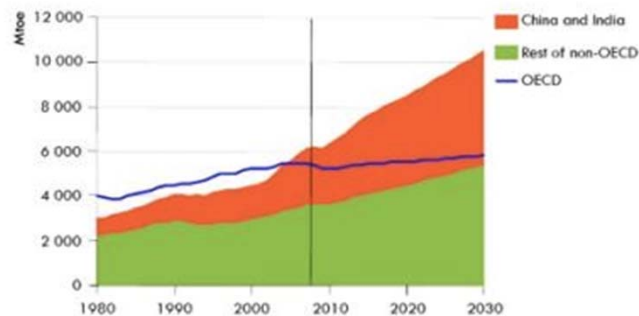
China and India Will Dwarf the U.S. in Oil Consumption Growth



The Bottom Line: Oil Prices Will Continue to Rise



Emerging Market Growth = Extreme Pressure on Natural Resource Demand

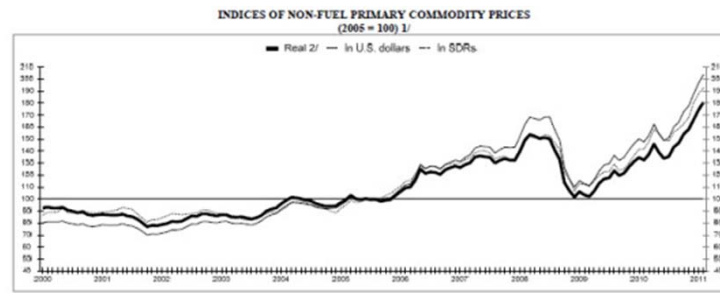


Non-OECD countries account for 93% of the increase in global demand between 2007 & 2030, driven largely by China & India

© OECD/IEA - 2008

Source: International Energy Agency

Commodity Prices Will Continue to Rise



- Purchases in developing countries rose to 45m hectares in 2009, a ten-fold jump from the last decade.
- Sovereign wealth funds from the Mid-East, as well as state-entities from China, the Pacific Rim, and even India are trying to lock up chunks of the world's future food supply.
- Western agribusiness is trying to beat them to it.
- Hedge funds that struck rich 'shorting' US sub-prime have rotated into the next great play of our era: 'long' soil.

http://www.telegraph.co.uk/finance/comment/ambroseevans_pritchard/7997910/The-backlash-begins-against-the-world-landgrab.html



3. Global Competition and Governance: The Great Challenge of the 21st Century

- Globalization and global competition will intensify
- Maine must increase focus on competing globally
 - Government efficiency
 - Education
- Maine must maintain the assets it is known for, especially quality of life and recreational amenities, to sustain demand



Governance Issues and Challenges for Maine

- High energy costs and taxes
- Workforce educated, skilled and low poverty but aging population
- Must invest in scientific research
 - Marine technology
 - Renewable energy
 - Environment preservation
 - Natural beauty = competitive edge



Change in Ownership of Traditional Timberlands

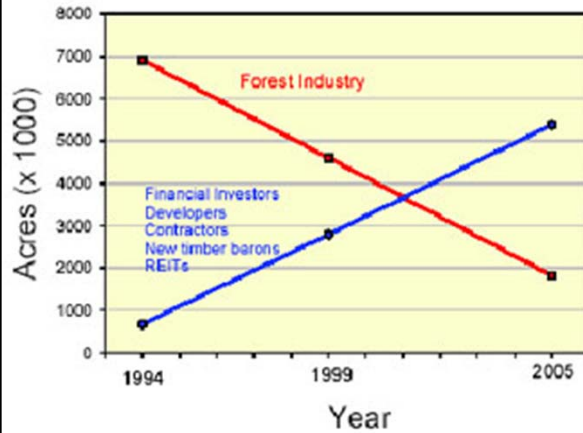


- 95% of Maine's North Woods are privately owned
- In mid 1990's just a few large industrial owners held 60% of the land
- Since June 1998, 2/3's of Maine's North Woods (7.1 million acres) have changed hands
- By 2005, only 1 industrial owner, Irving Paper Co., remained, owning 15%
- REIT's and Timber Investment Management Organizations are now the majority owners

flickr.com/photos/bp1971



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<http://www.nrcm.org/gallery.asp?gallery=11&image=258>



Maine Growth Management Enacted in 1989



- Comprehensive Planning
- Funding for projects support goals
- 250 municipalities have adopted comprehensive plans
- Incentives rather than mandates

flickr.com/photos/picsofmaine/



Questions: 25 Years into the Future

- How can Maine compete in the next 25 years?
- What does Maine need to do to compete with other states to attract funds?
- Where are developers going to be investing their money?
- What changes in the landscape will we see where developers/brokers will be making their money over the next 25?
- What will be the key ingredients of decision-making for future development in Maine?

