International Energy Prices and Latin America LPG Markets

Presented to

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Purvin & Gertz, Inc.

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Today's Presentation

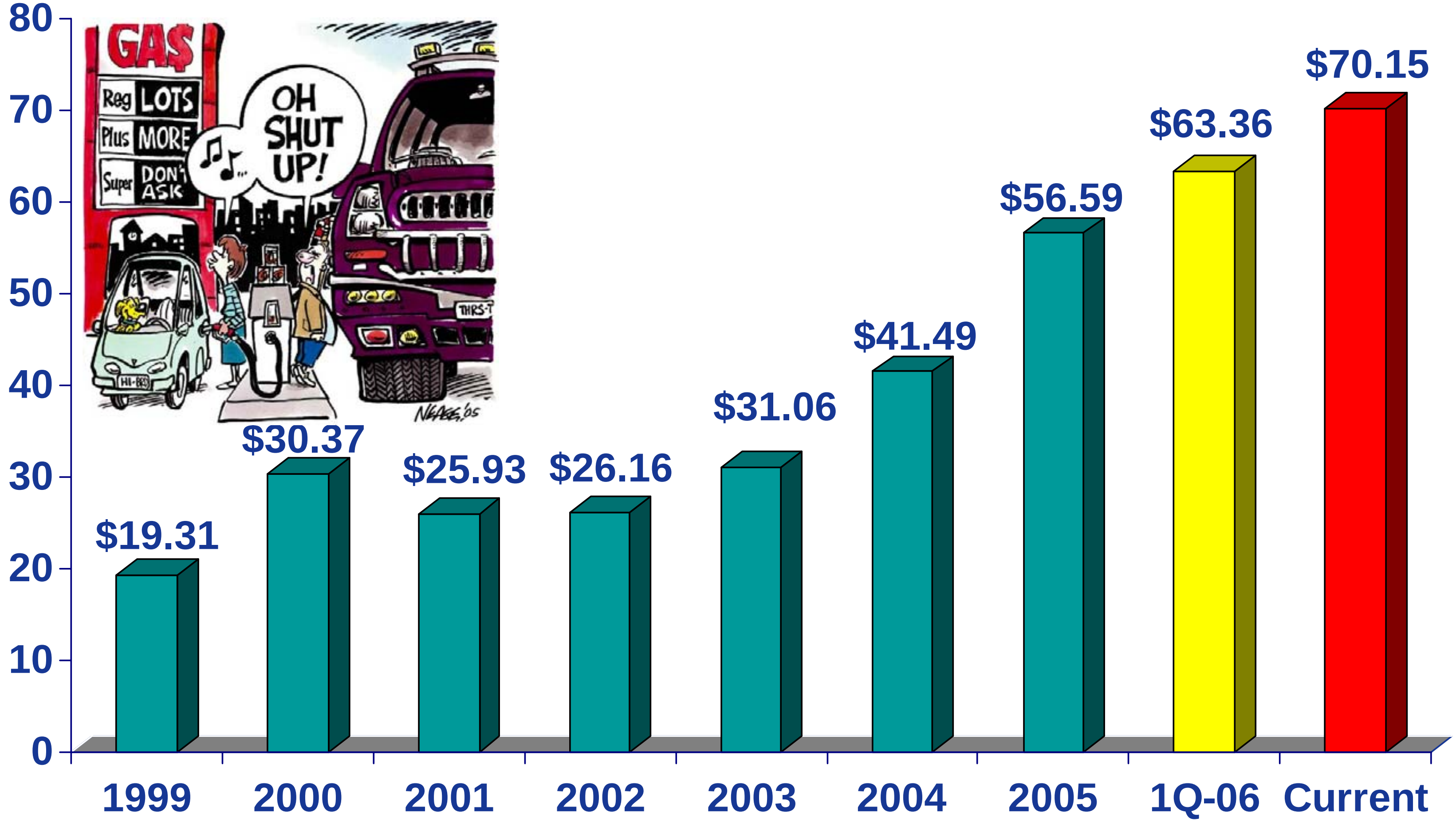
- **International oil and gas supply/demand fundamentals responsible for high crude oil, natural gas and LPG market prices**
- **Summary overview of Purvin & Gertz' new market publication, the *Latin America LPG Market Outlook***

Current State of World Oil, Gas and NGL Markets

- Higher-than-expected growth in petroleum demand
- Crude production and refining rates at record highs
- Production hikes in Middle East has not lowered prices
- Hurricanes Katrina and Rita had a devastating impact on petroleum and NGL markets.
- Declining oil and gas reserves in the U.S. and North Sea
- Mont Belvieu LPG prices are unusually high relative to other foreign markets
- Supply-driven LPG market – with new supplies from many new sources.

Skyrocketing oil and gas prices make headlines daily

Spot WTI Crude Oil Pricing, US$ per Barrel



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Why are crude oil prices so high?

- Strong Global Petroleum Demand Growth Since 2003
- High Crude Oil Production Capacity Utilization Worldwide
- Slowdown in Expansion of Non-OPEC Supplies
- Impact of Atlantic Hurricanes on U.S. Gulf of Mexico Crude Oil (and Gas) Production in 2005
- Several Geopolitical Events
  - Iran Nuclear Conflict
  - Iraqi Insurgency
  - Nigerian Unrest
  - Venezuela and Bolivia Issues
  - Concerns About Middle East Supply

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A "big picture" issue serves as the backdrop for these important global energy market drivers

- **During the past 5 years worldwide oil consumption has exceeded new oil discoveries by a wide margin:**
  - Consumed 27 billion barrels per year
  - Discovered 3 billion barrels per year

Who has it? Who wants it?

	REPORTED RESERVES		DEMAND			
			2004		2020	
	BBOE	%	MBD	%	MBD	%
62% Saudi Arabia	259	23%	2	2%	2	2%
Other Mid East	437	39%	4	5%	6	6%
Canada (5 to 179)	92	8%	2	3%	3	3%
Latin America	86	8%	5	6%	6	6%
Africa	89	8%	3	3%	4	4%
Russia	60	5%	4	4%	5	4%
United States	22	2%	21	25%	25	24%
China	21	2%	6	8%	12	11% 72%
Europe	17	2%	16	19%	16	16%
Far East	18	2%	16	20%	21	20%
Mexico	16	1%	2	2%	2	2%
Eurasia	10	1%	1	1%	1	1%
Australia	4	0%	1	1%	1	1%
Total	1,132	100%	82	100%	105	100%

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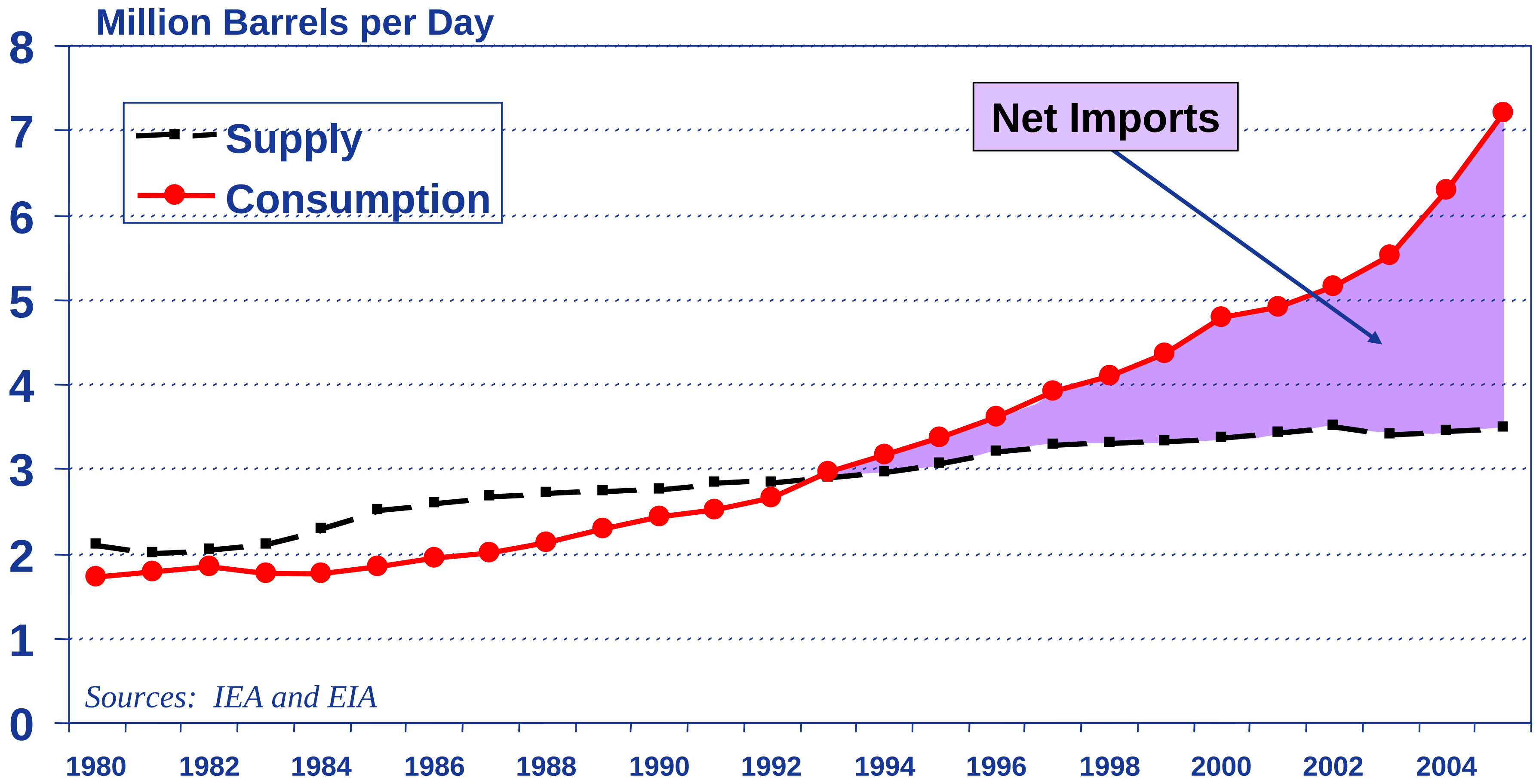
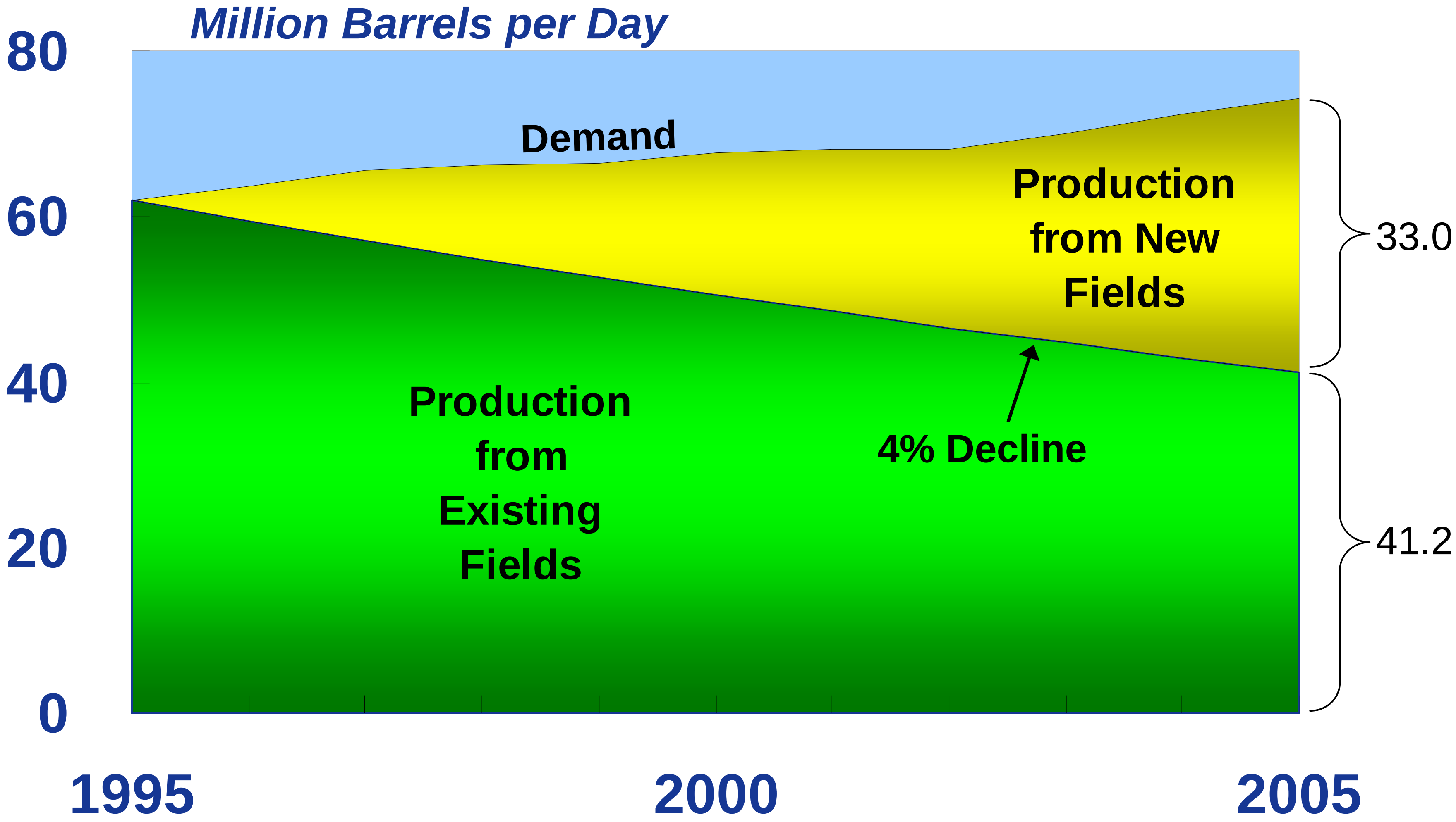
China Petroleum Supply and Demand



Since 1995, 33 million B/D of new crude oil production was needed to satisfy demand . . .



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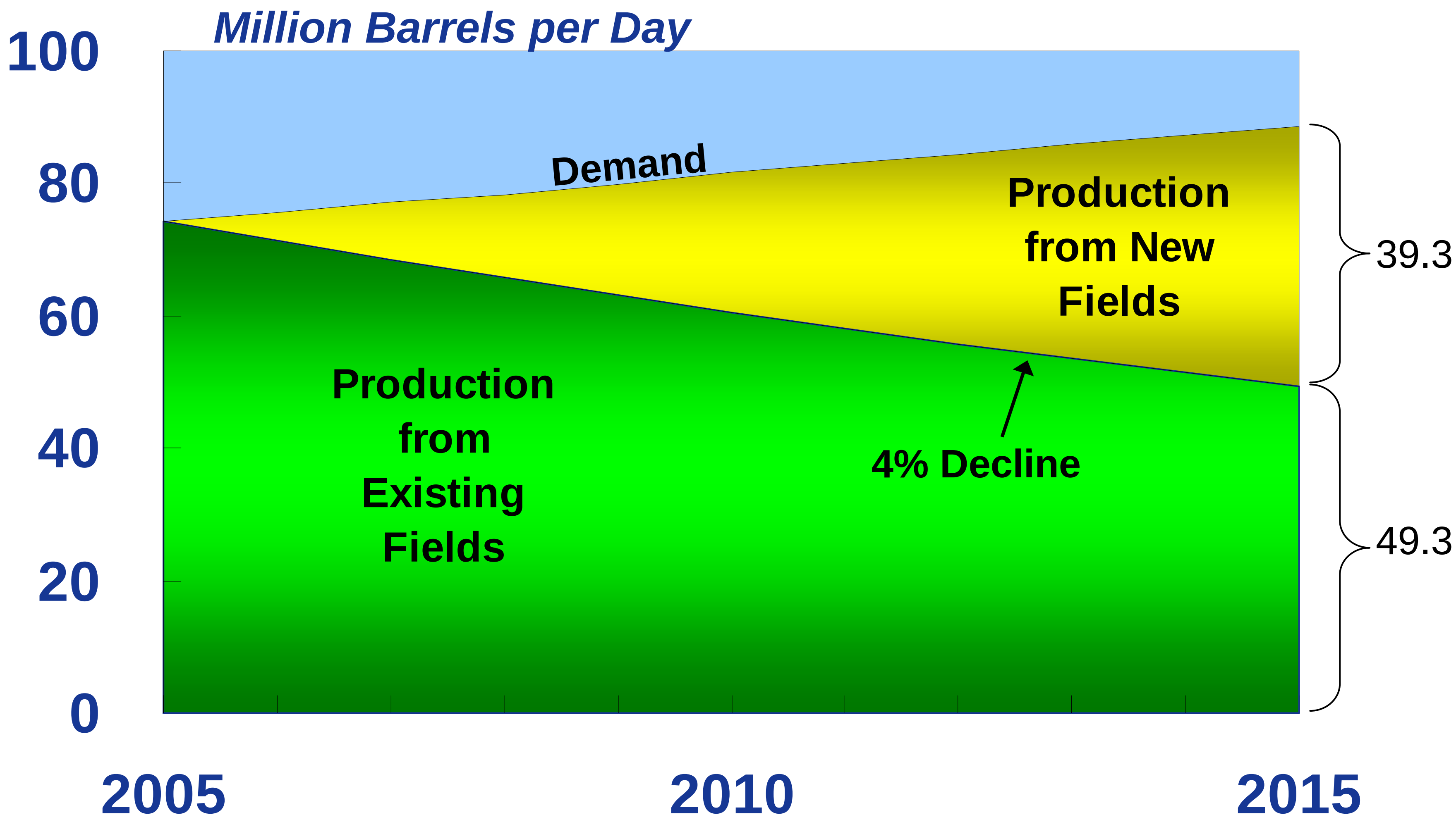
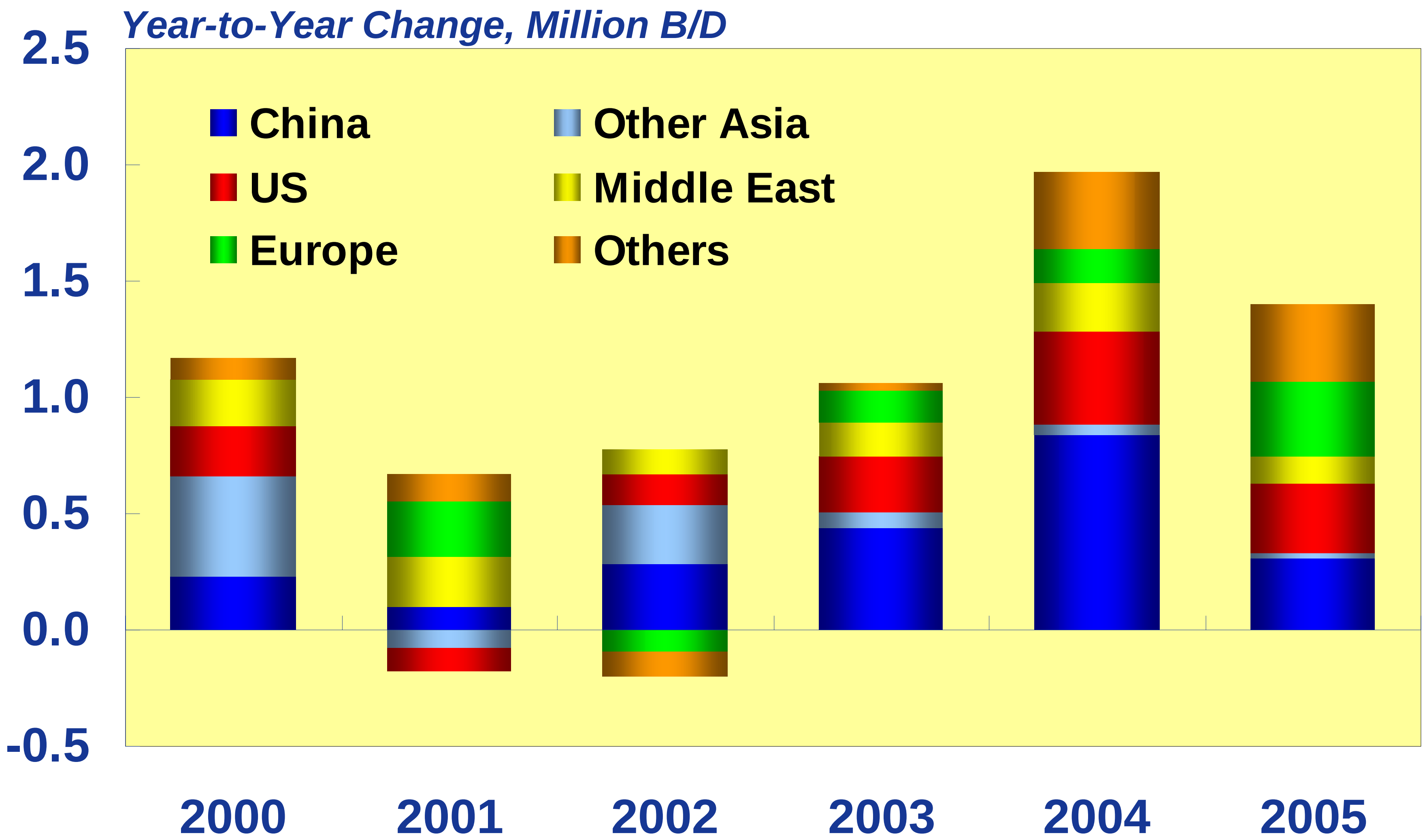
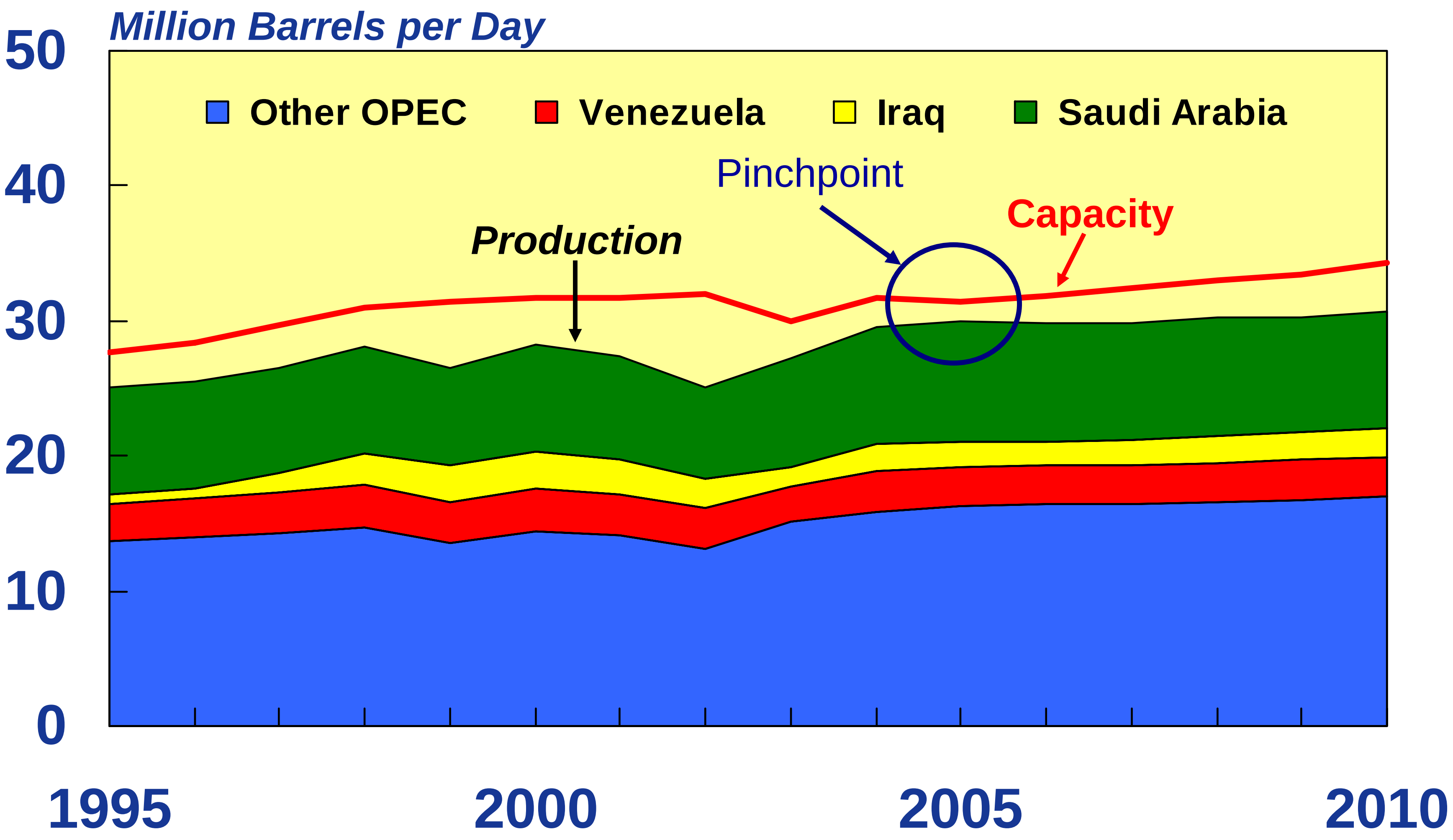
At least 39 million B/D of new production will be needed by 2015 to satisfy future growth . . .



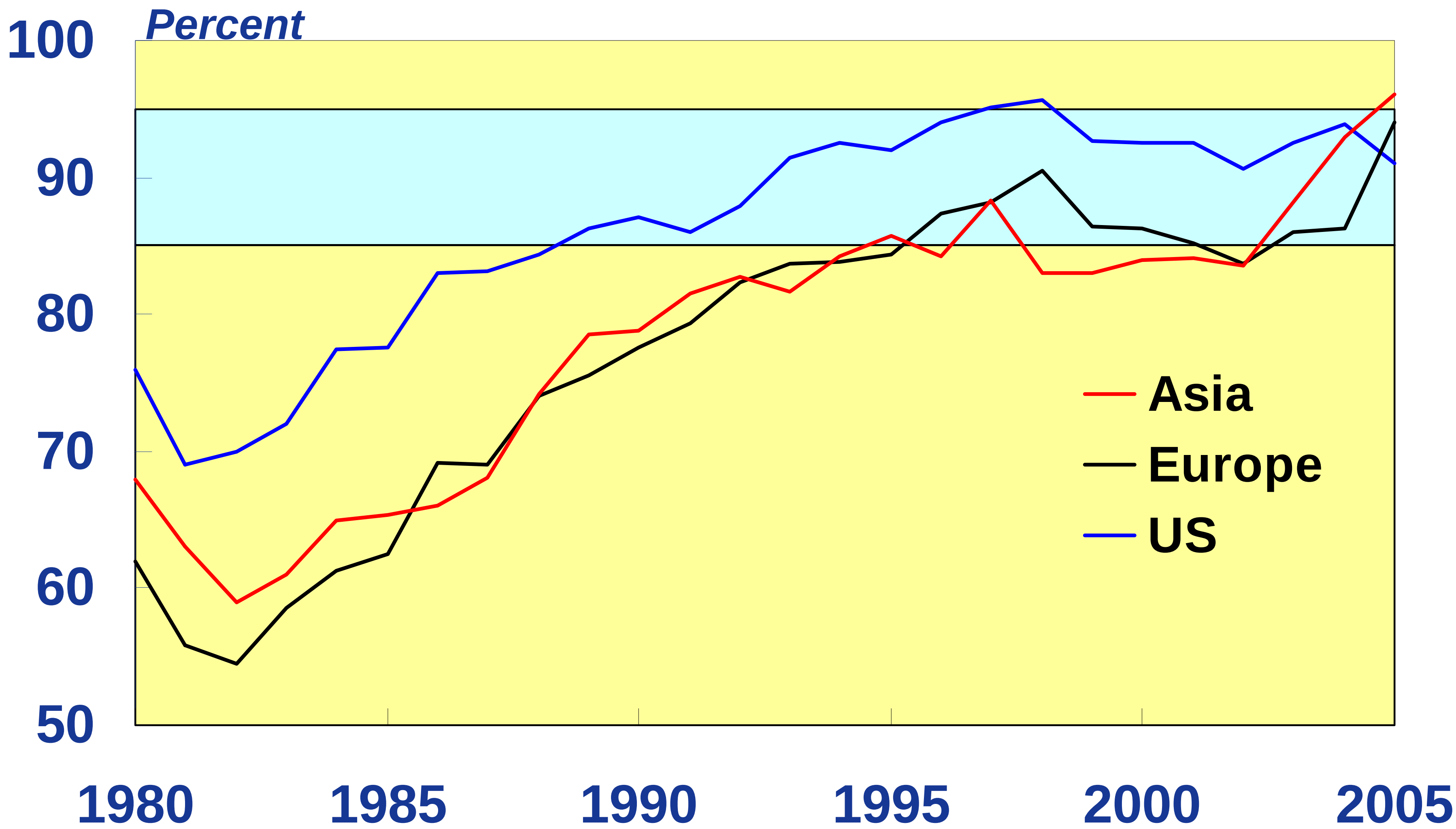
Strong demand growth in 2004/2005 surprised the market -- forcing crude prices up



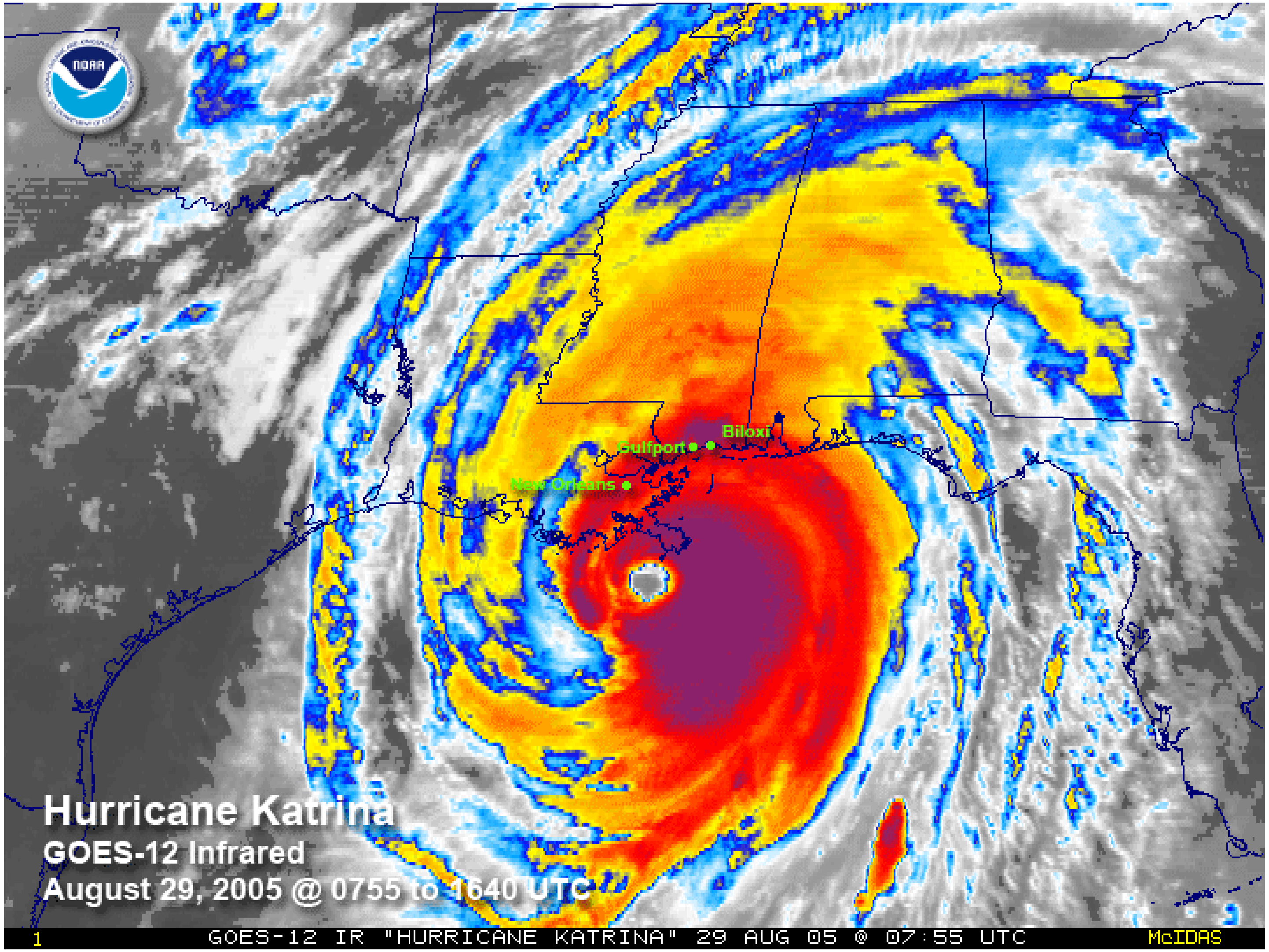
Demand surge in 2003/2004 has reduced OPEC spare capacity to inadequate levels . . .



Refinery Operating Rates versus Capacity



Katrina made a direct hit on LA and MS Gulf Coast refineries and offshore assets



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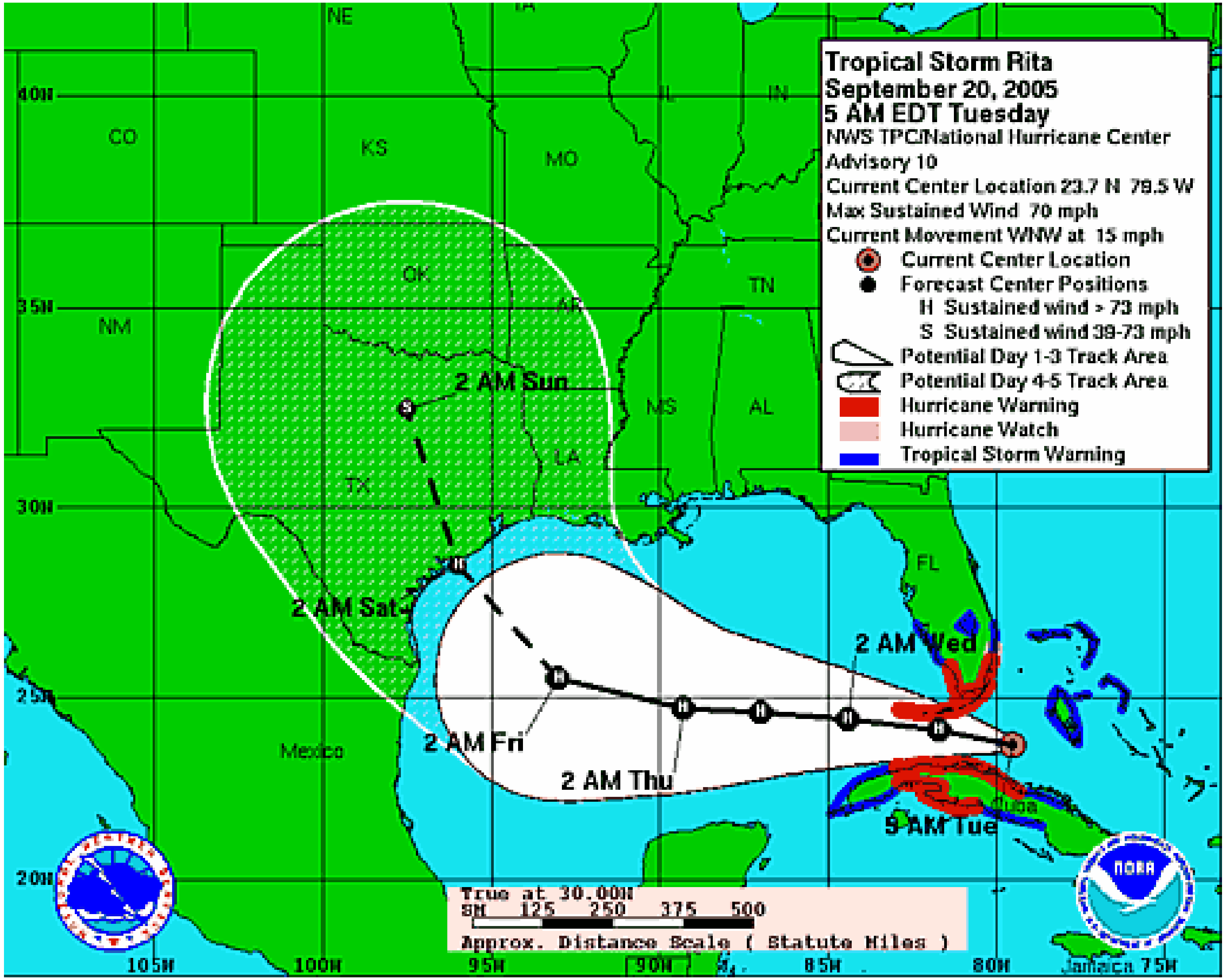
Rita's forecast shutdown TX Gulf Coast refineries from Corpus to Houston



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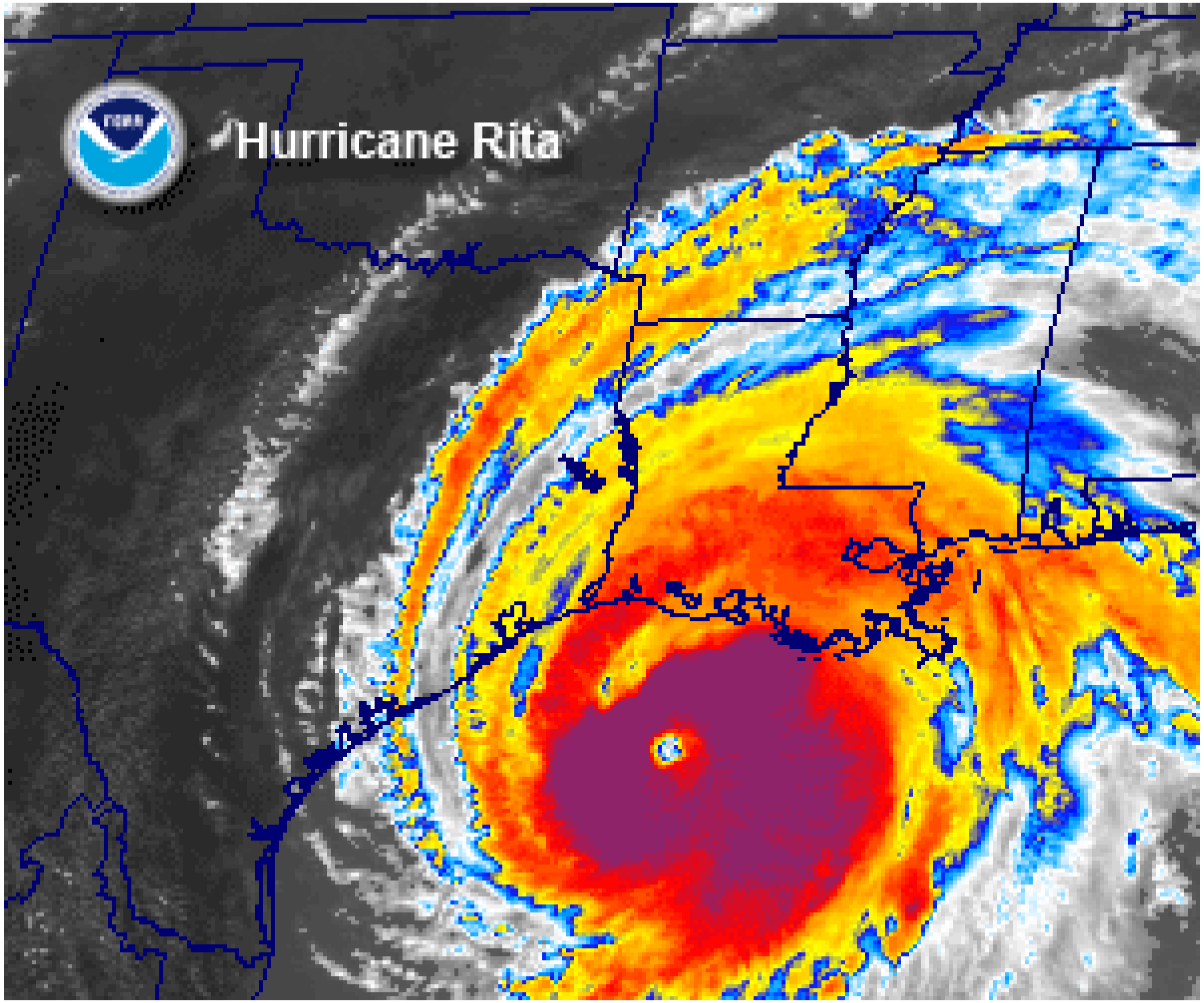
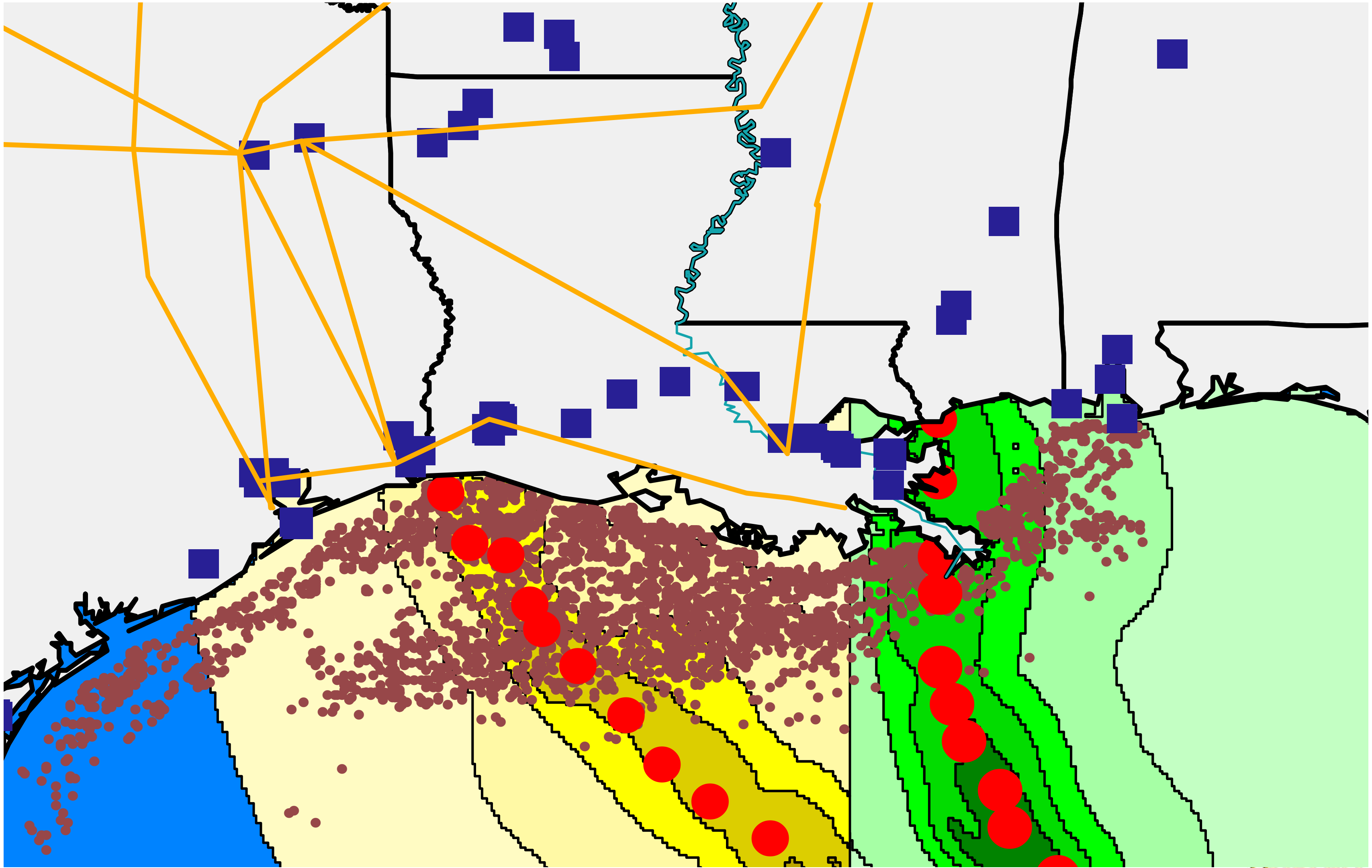
Although she missed her mark, Rita still struck Port Arthur/Beaumont/Lake Charles



Double hit on USGC production and refinery infrastructure with lasting impacts



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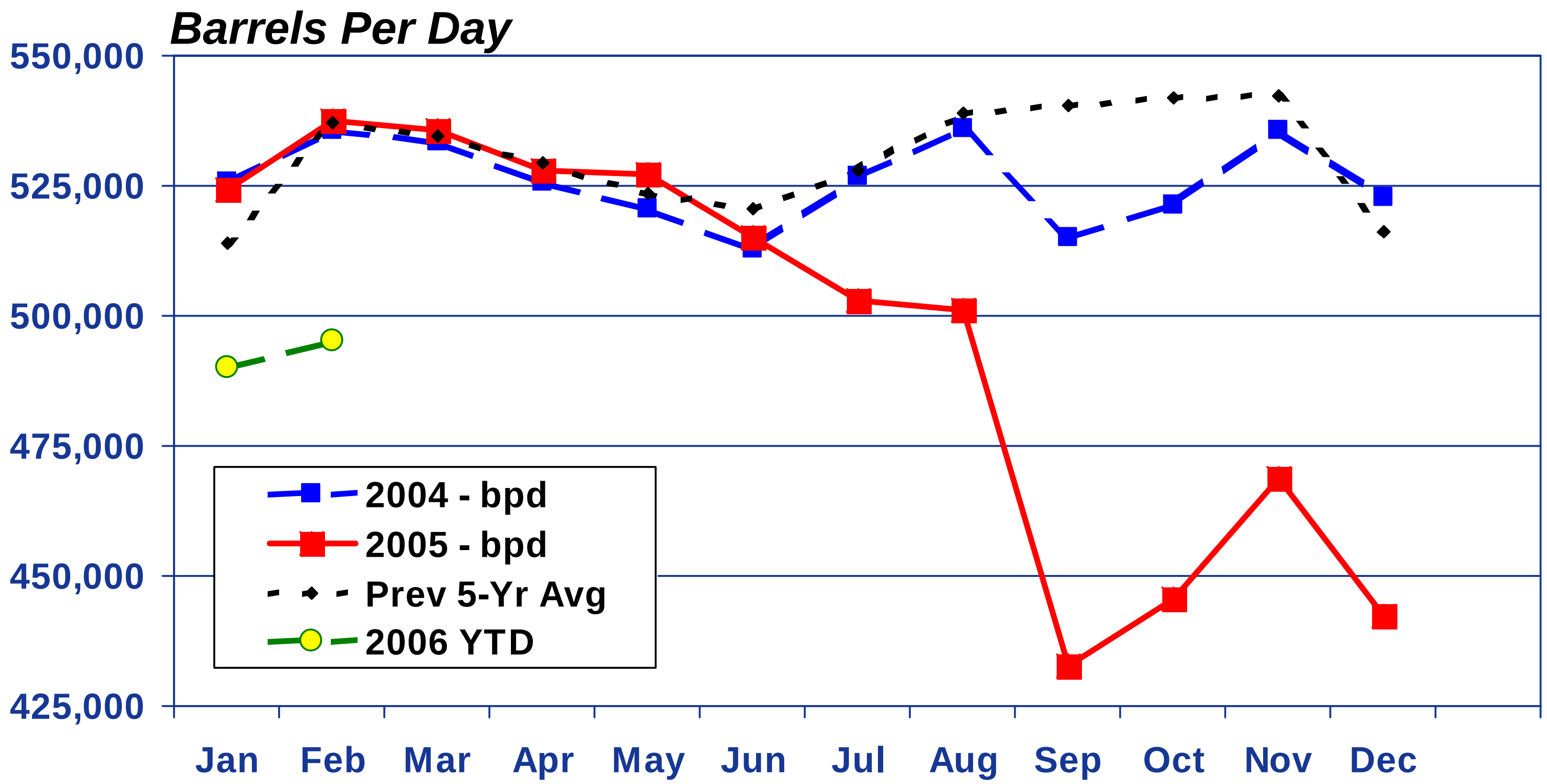
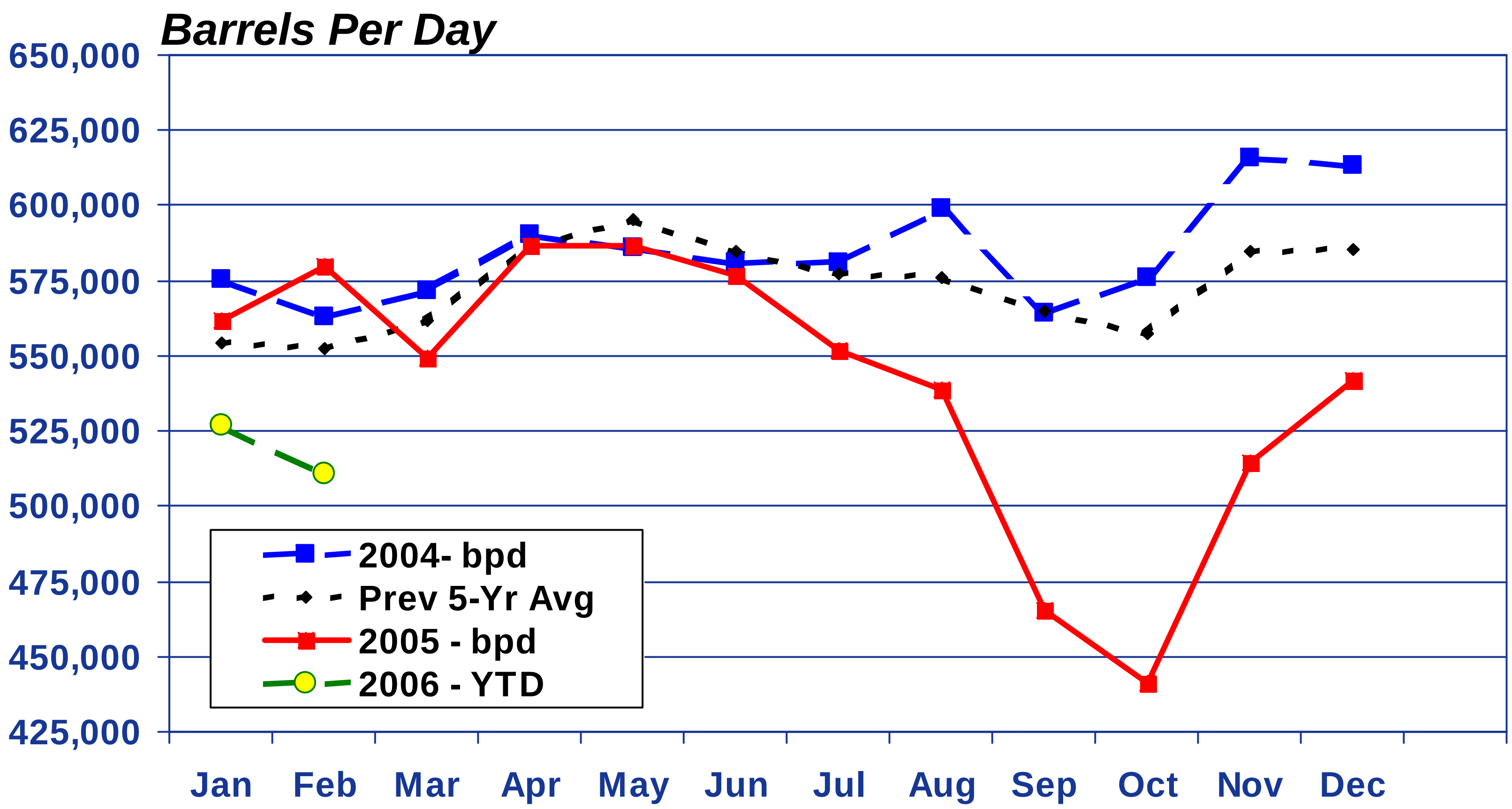
U.S. gas plant propane production

Gas plant production has not fully recovered from impact of hurricane damage



U.S. refinery propane production

Refinery production returning to average levels . . . .



The Latin America LPG Market Outlook

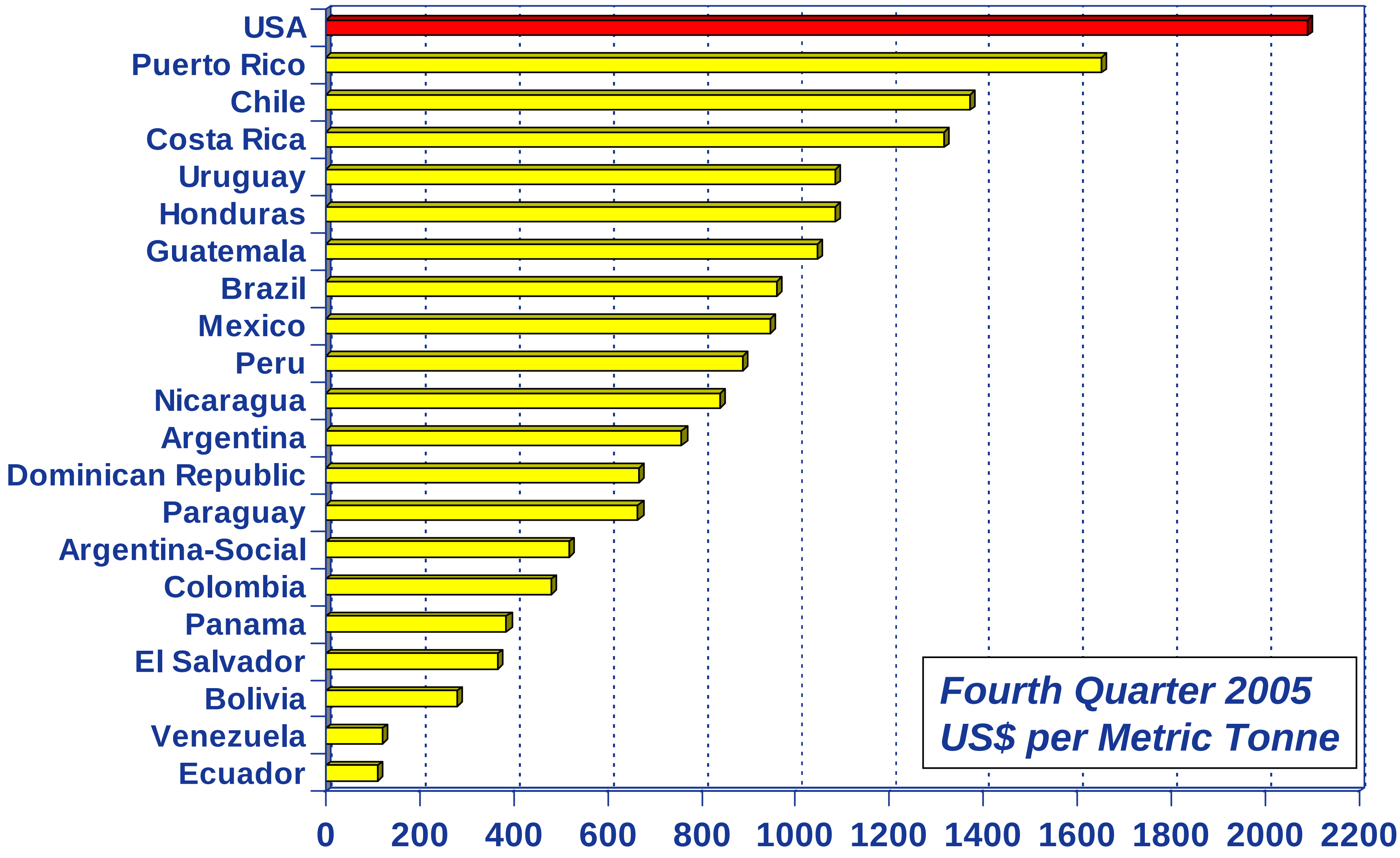
First Study of its Kind

- 421 pages long
- Comprehensive supply and demand analysis and forecasts for the 41 countries in Latin America through 2020
- Value chain price analysis
- Waterborne freight rate forecasts through 2020
- CIF price analysis and forecasts for all LPG importing countries
- Netback price analysis and forecasts for all Latin LPG exporting countries, as well as major waterborne LPG suppliers around the world.

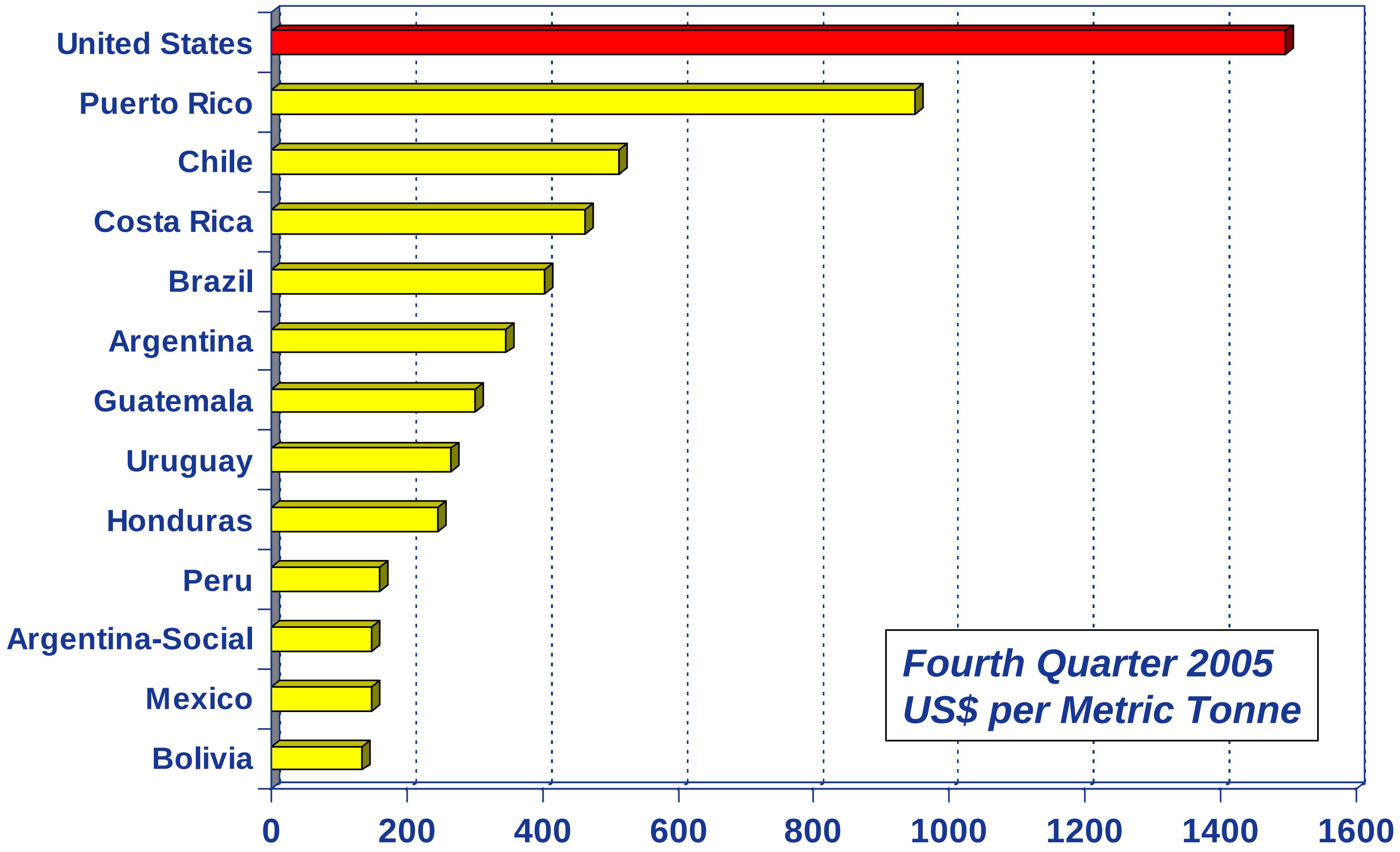
Major Conclusions of the Study

- LPG demand growth in Latin America has slowed considerably since 2000
- LPG supply to the Latin marketplace is growing much faster than demand
- South America is quickly moving to becoming a net LPG exporter with new supplies from several sources
- Imports by Brazil and Mexico have dropped significantly
- Demand growth is being hurt by high prices, inter-fuel competition with natural gas and maturing markets.
- Venezuela's LPG production plans are very ambitious
- Significant differences exists in end-user prices despite Mont Belvieu-related product costs values
- Improving economies should trigger new growth opportunities for Latin LPG markets once prices drop

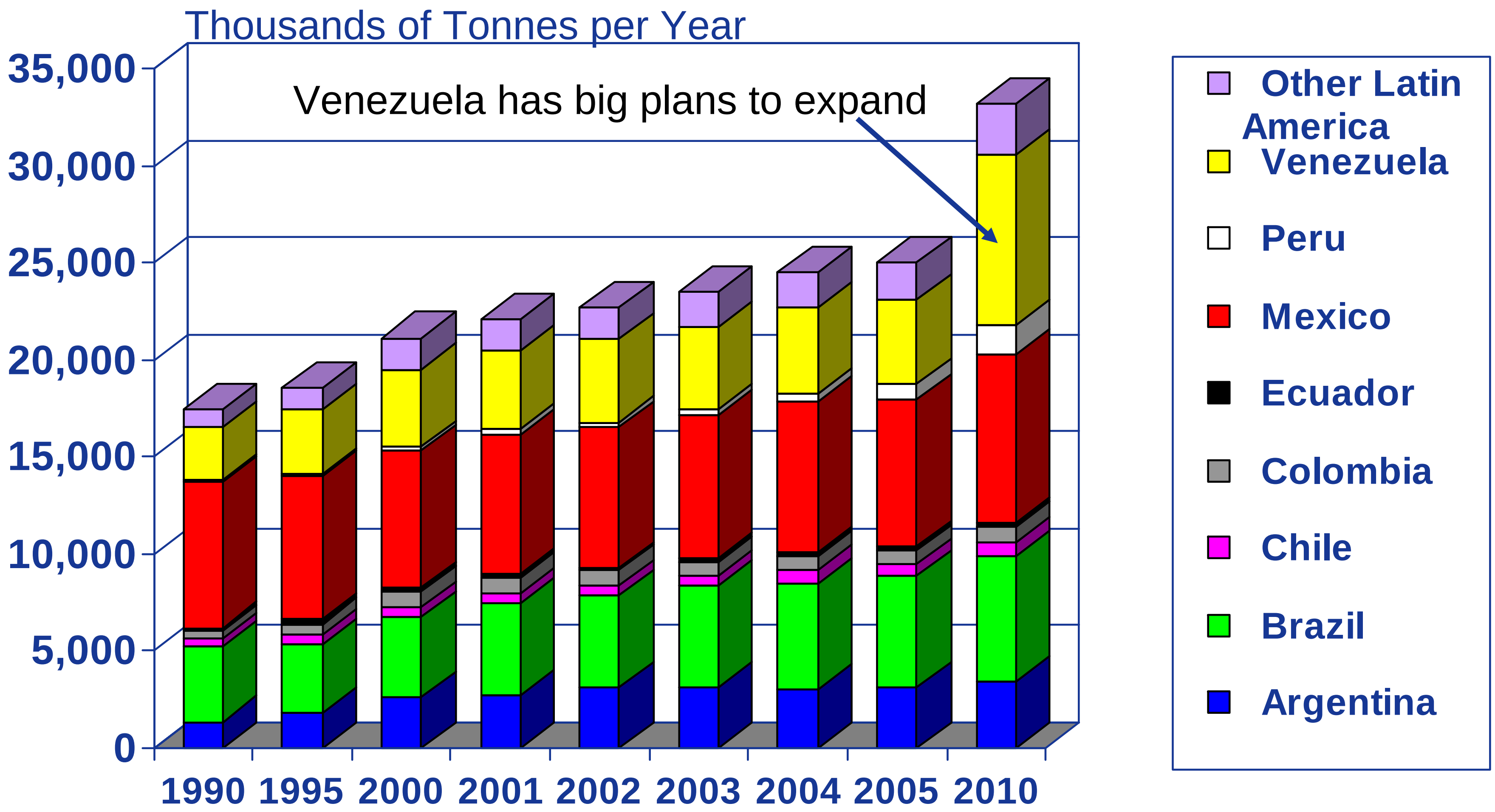
End-User LPG Prices in 10 to 13 kg Bottles



A Sampling of Gross Margins Between End-User Bottled Gas Prices and Ex-refinery Prices or Cost of Imports



Latin America LPG Supplies By Country



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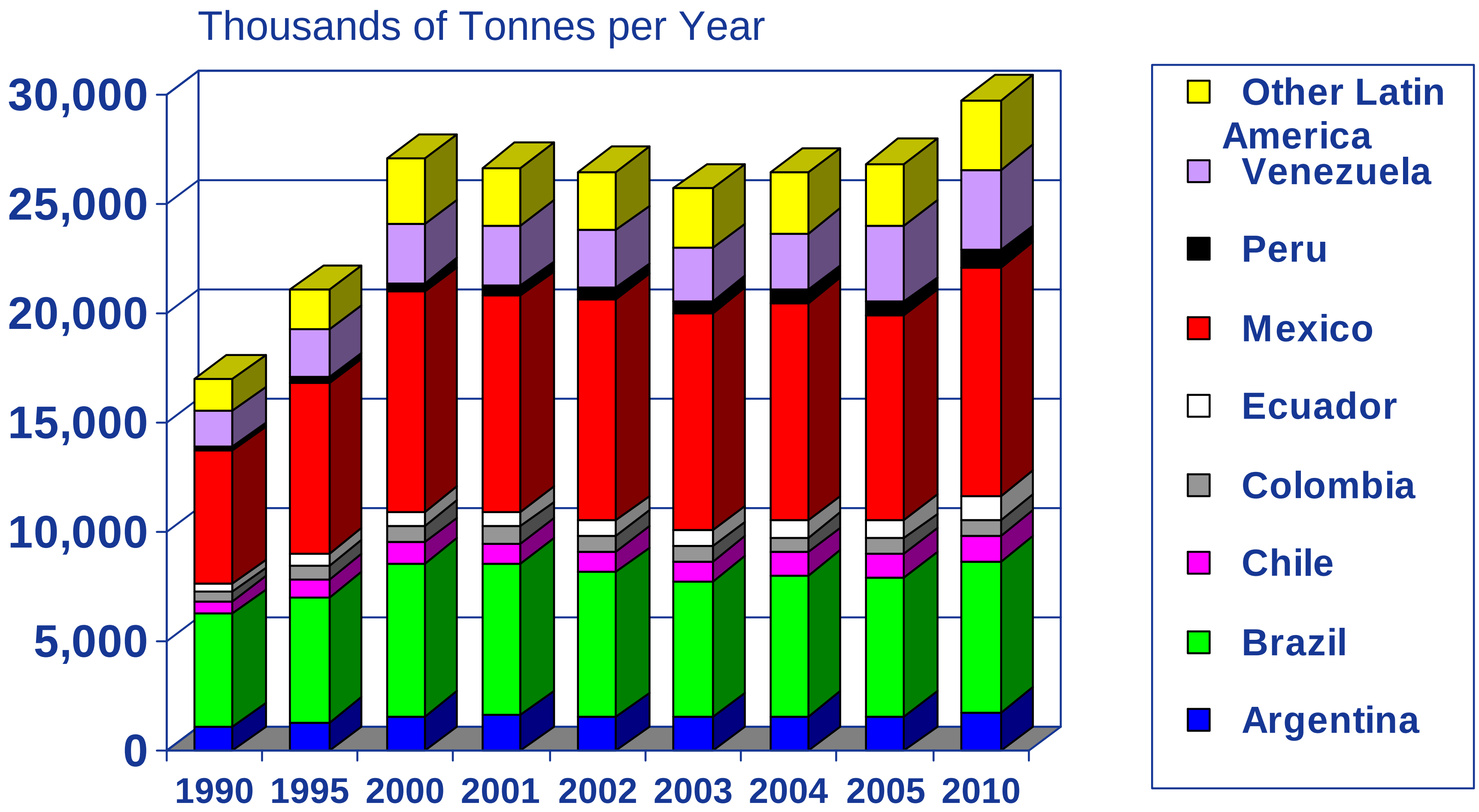
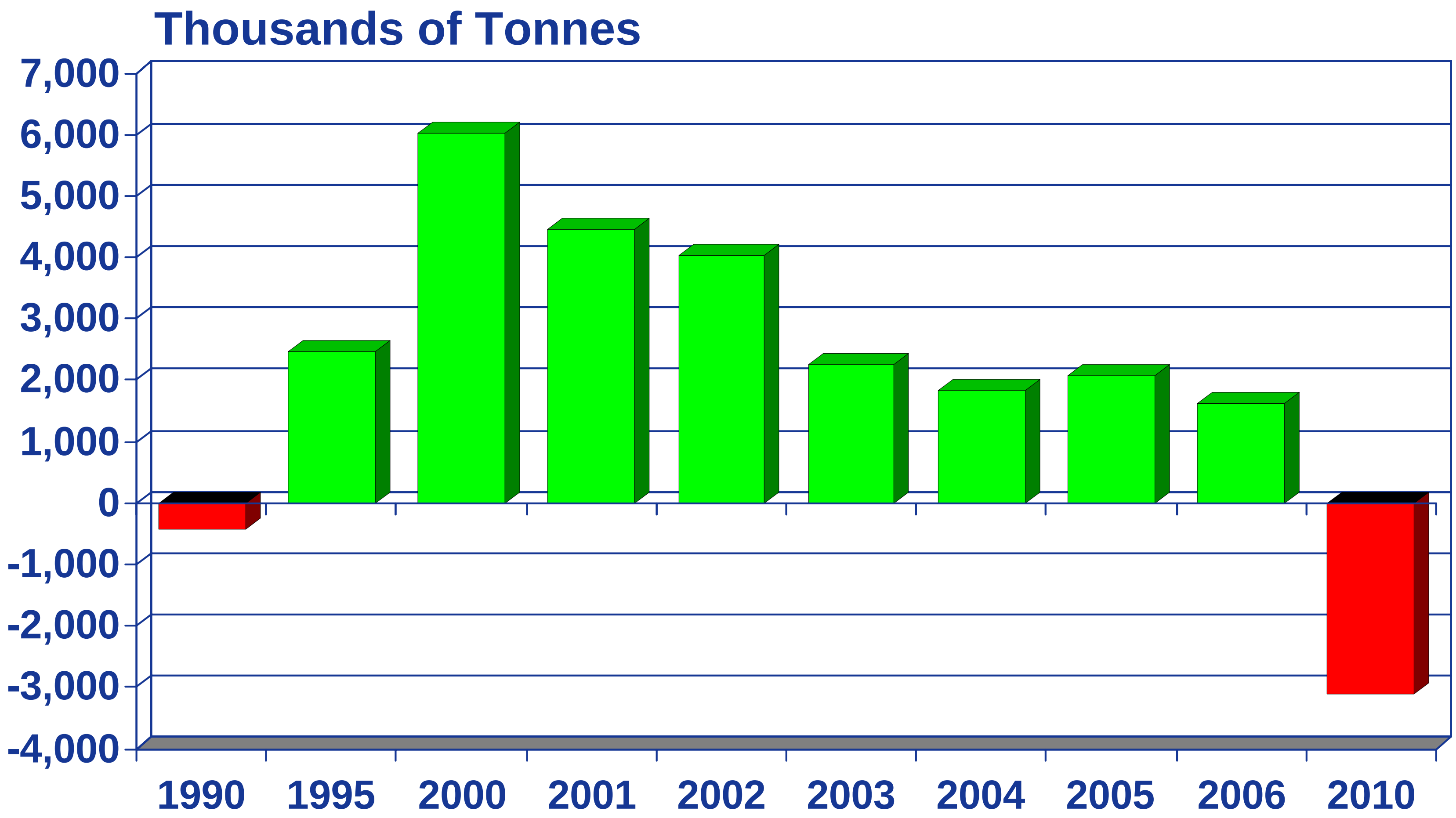
Latin America LPG Demand By Country

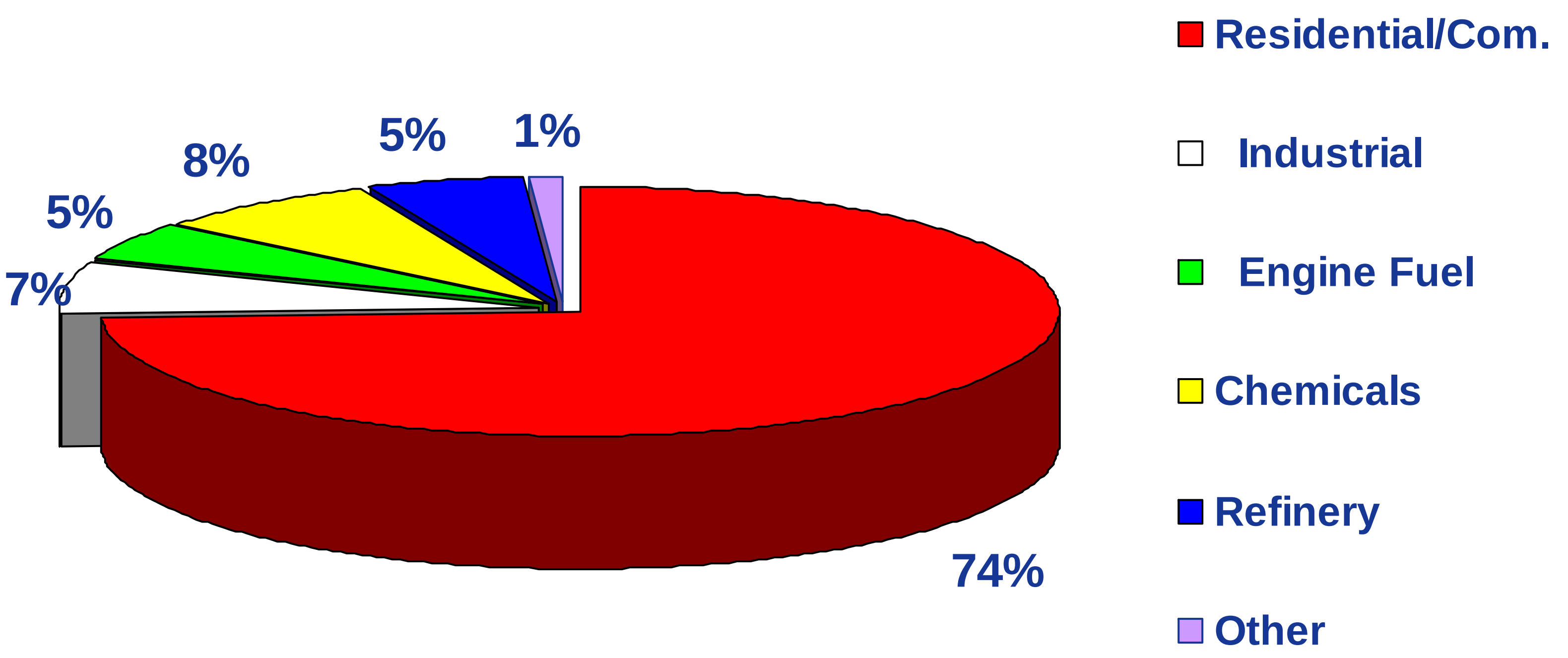


A 26.9 Million Tonne Market

Latin America's Requirements for LPG Imports Have Dropped and are Expected to Drop More



Latin America 2005 LPG Demand
By End-Use Market



26.9 Million Total Tonnes

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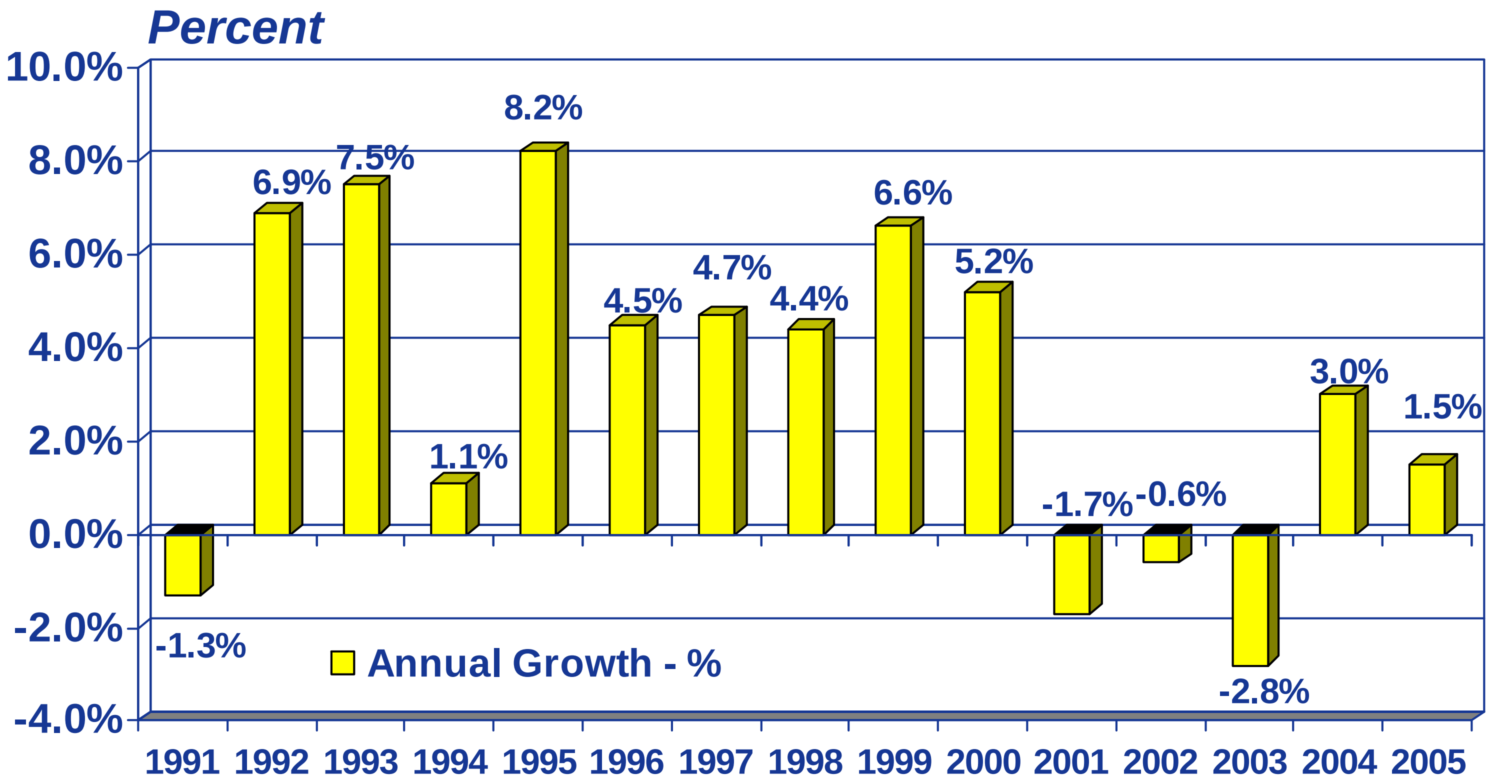
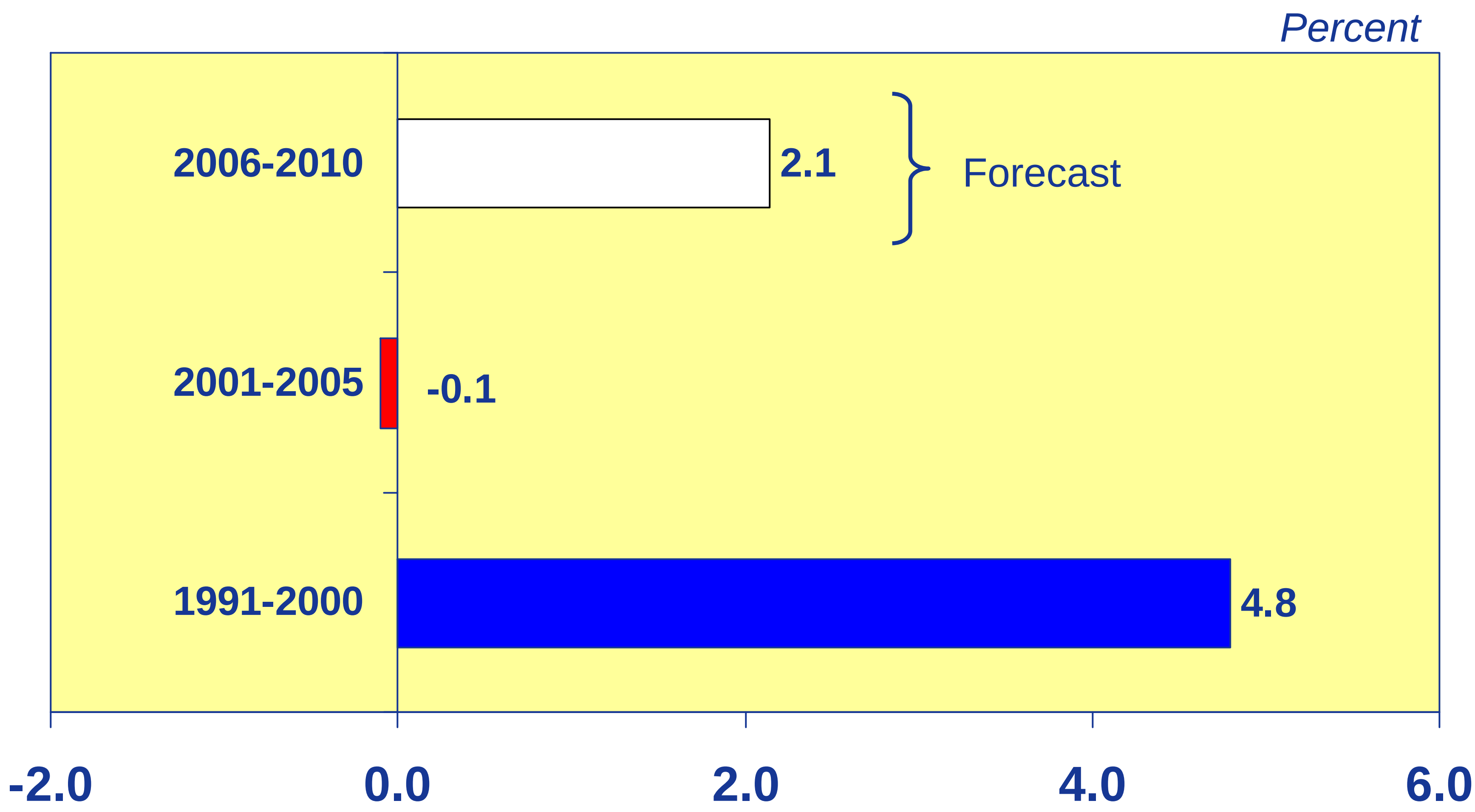
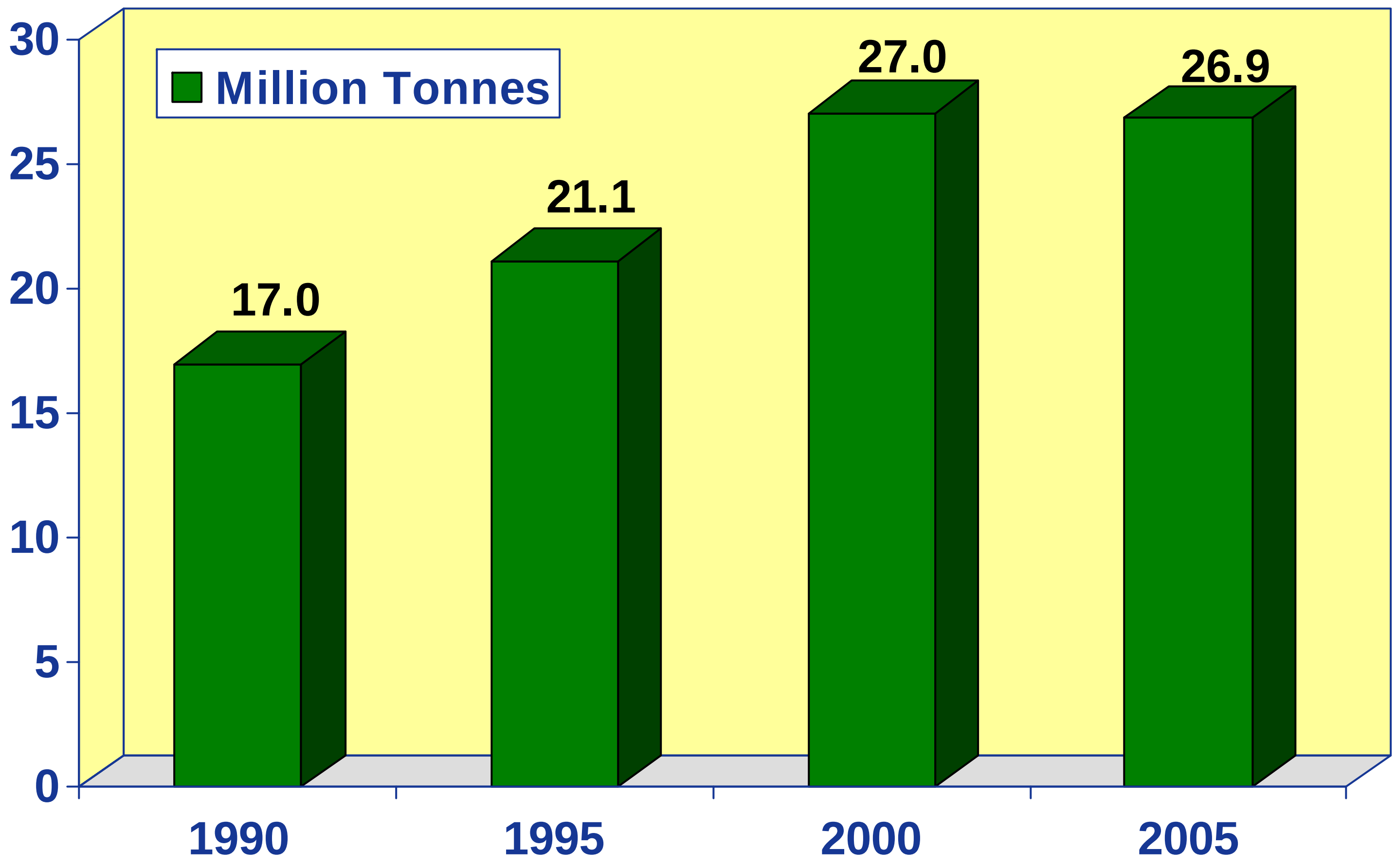
Latin America LPG Demand Growth Rates



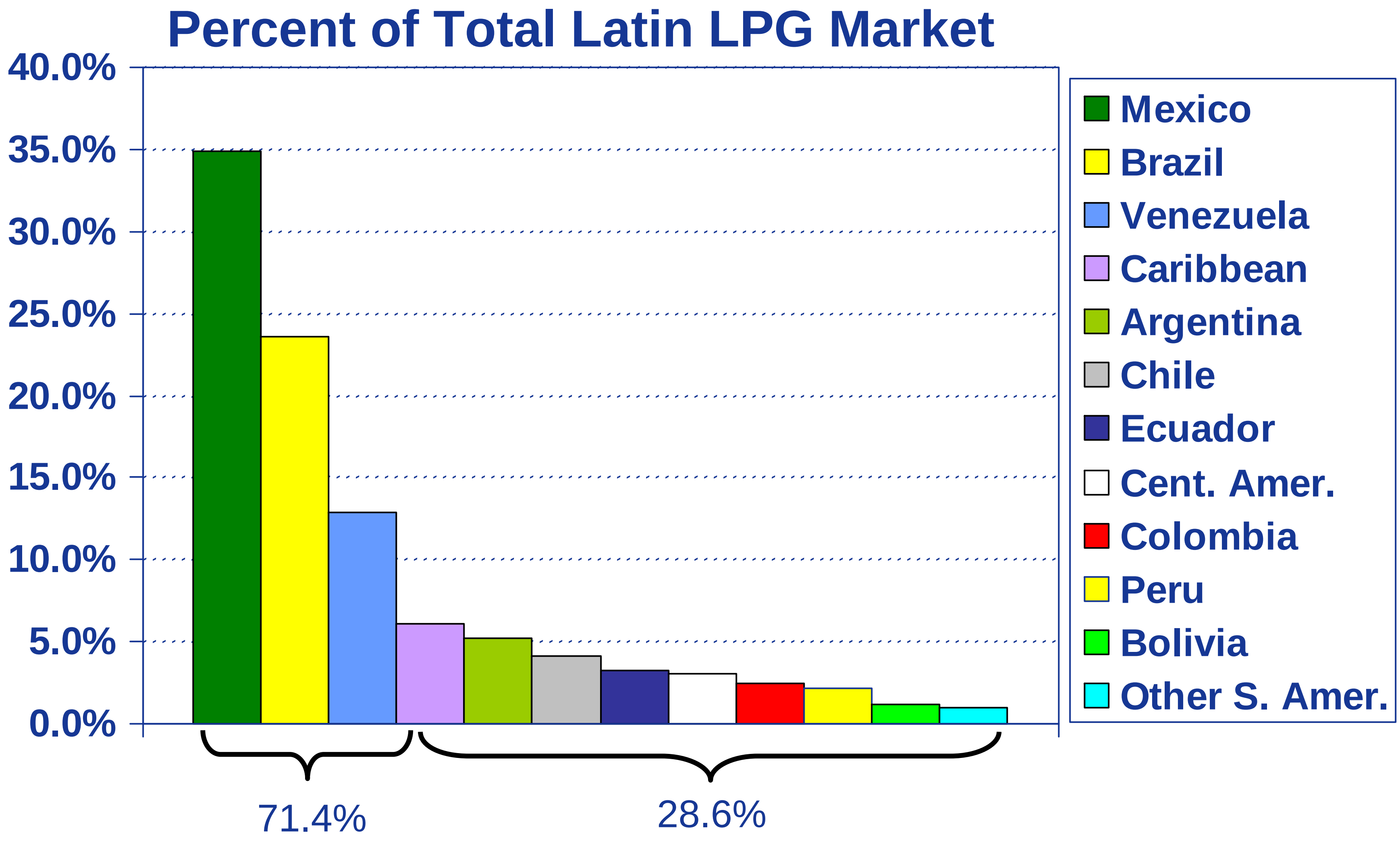
Latin LPG Market Growth – 1990's vs. 2000's



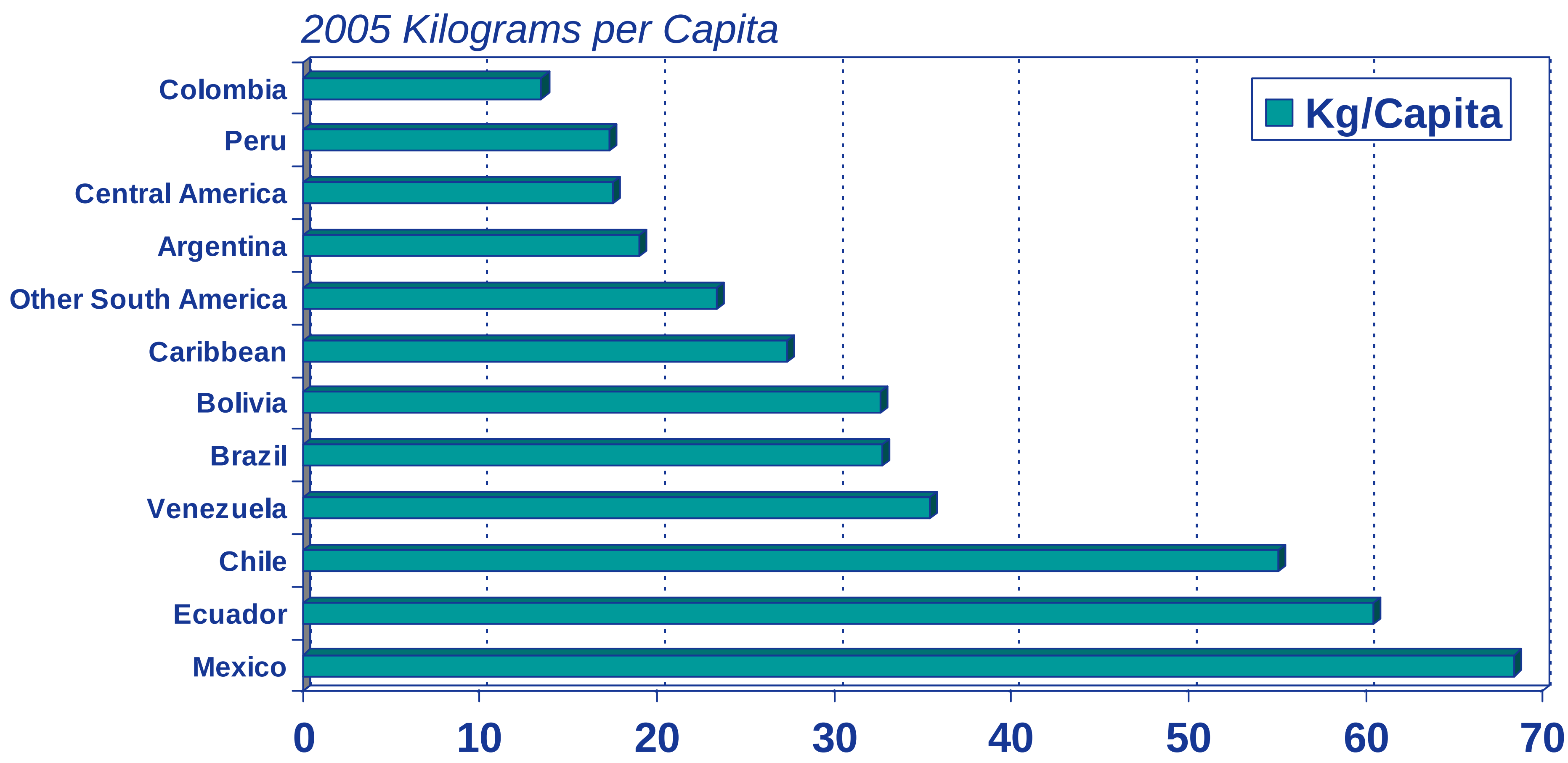
Latin LPG demand has leveled out



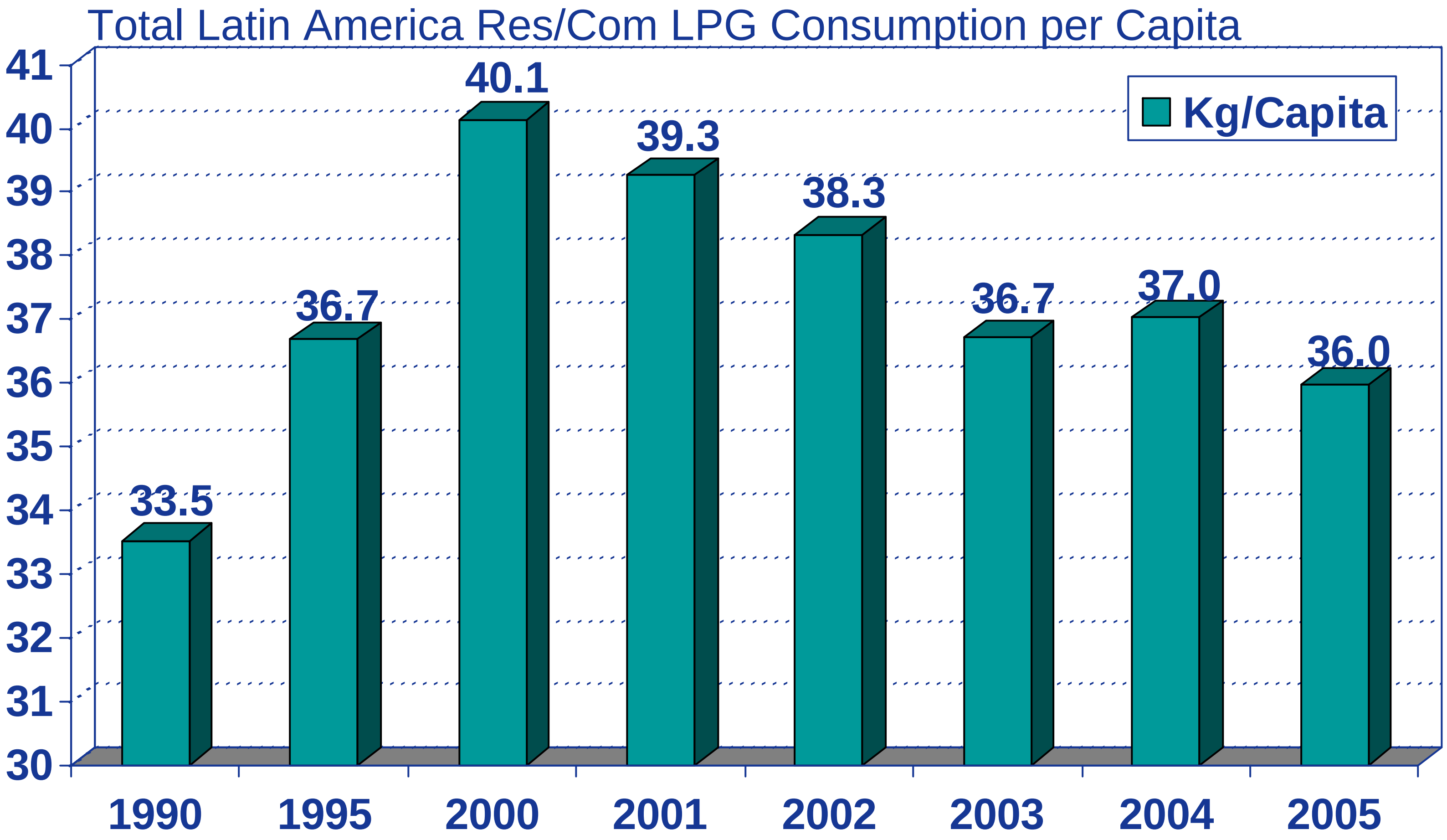
Latin LPG Market Share by Country



Residential/Commercial LPG Consumption



Per Capita Consumption has been hurt by natural gas competition in Res/Com sector



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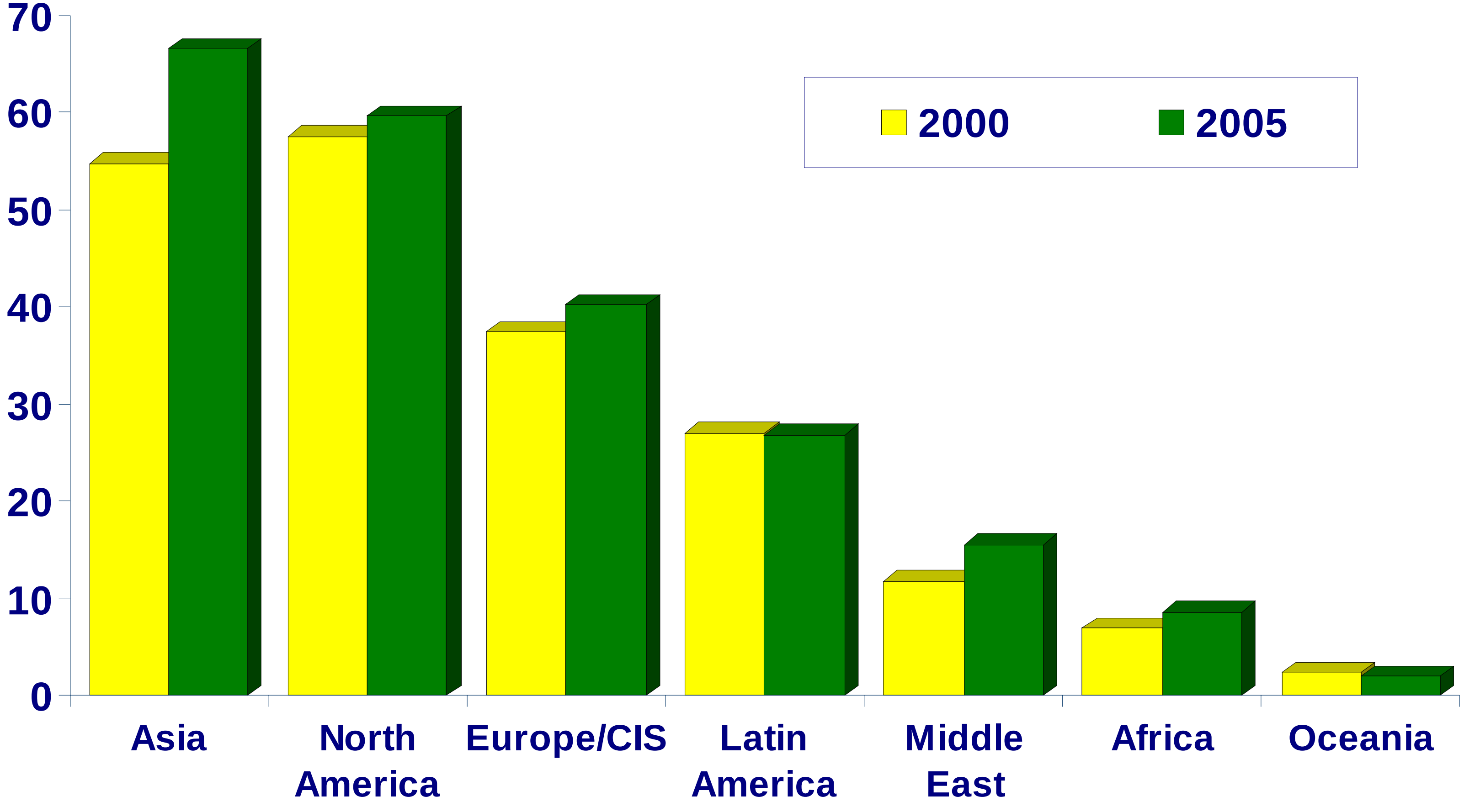
All regional LPG markets except Oceania have grown more than Latin America over the past 5 years

Regional LPG Demand, Million Tonnes



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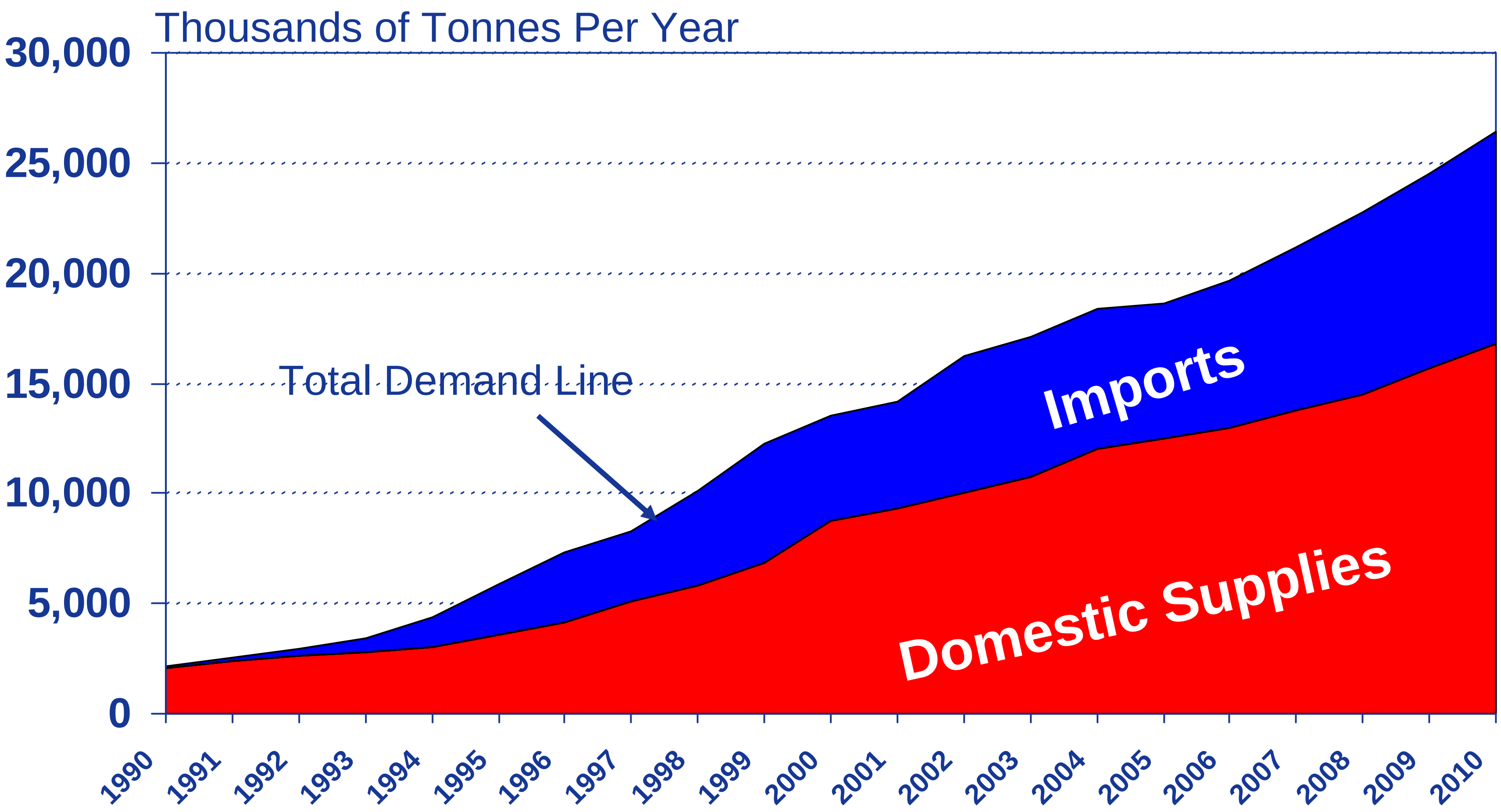
China LPG Supply and Demand



Essentially, all new growth in demand has taken place in Res/Com, Chemical and Engine Fuel sectors

Global LPG Demand	2000 MM Tonnes	2000 %	2005 MM Tonnes	2005 %
Residential/ Commercial	100.7	50.8	113.2	51.5
Chemical	41.8	21.1	51.2	23.3
Industrial	21.5	10.9	20.4	9.3
Engine Fuel	15.0	7.6	17.1	7.8
Refining	12.2	6.2	12.5	5.7
Other Uses	6.8	3.4	5.3	2.4
TOTAL	198.0	100.0	219.6	100.0

↑ 10.9%, or 1 Japan

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