

ENERGY AND THE FUTURE OF OIL



Investment Implications and Opportunities
February 2011



I. WHY ENERGY?

II. ENERGY AND ASSET ALLOCATION

III. OIL SUPPLY AND DEMAND IN A TRANSITIONING WORLD

IV. INVESTMENT IMPLICATIONS AND OPPORTUNITIES

ENERGY AND THE FUTURE OF OIL

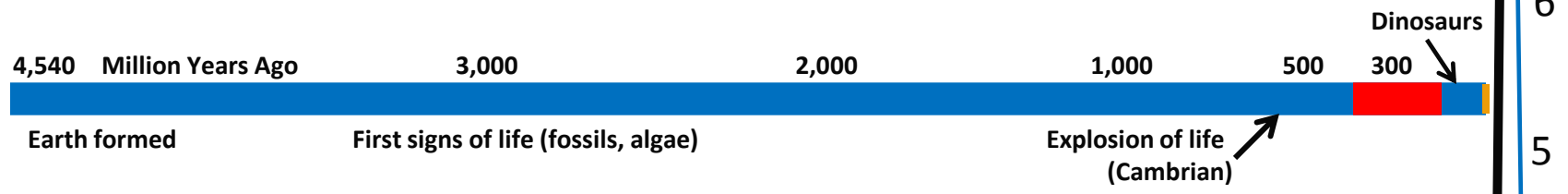


“When there were some new finds, I told them, ‘no, leave it in the ground, with grace from god, our children need it.’”

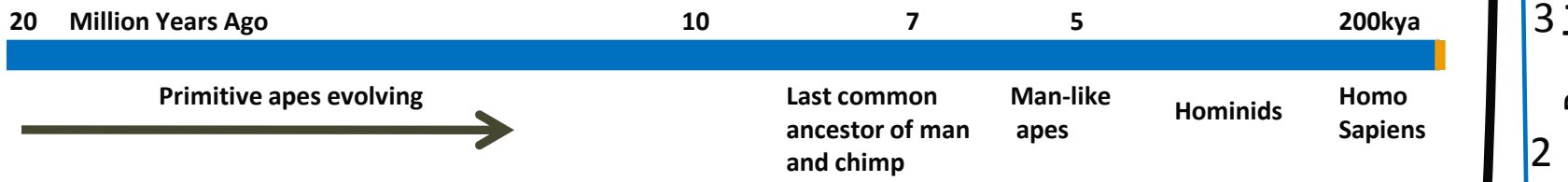
King Abdullah of Saudi Arabia

ARGUABLY, OIL IS THE MOST IMPORTANT SUBSTANCE ON EARTH

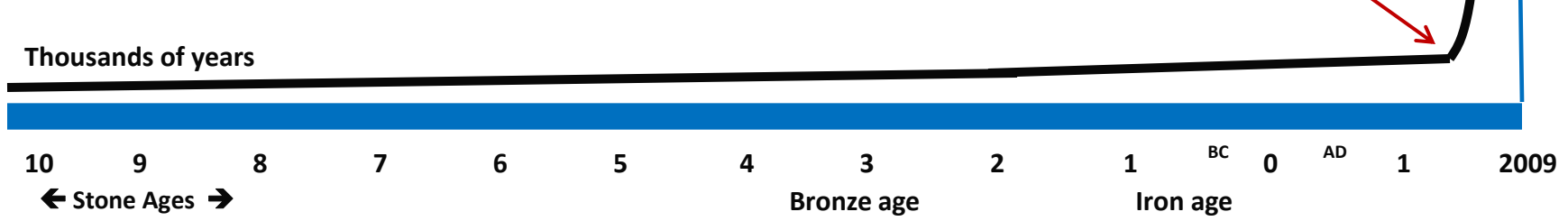
FORMATION OF MODERN ENERGY SUPPLY (FOSSIL FUELS)



FORMATION OF MODERN ENERGY DEMAND (HUMAN BRAIN)

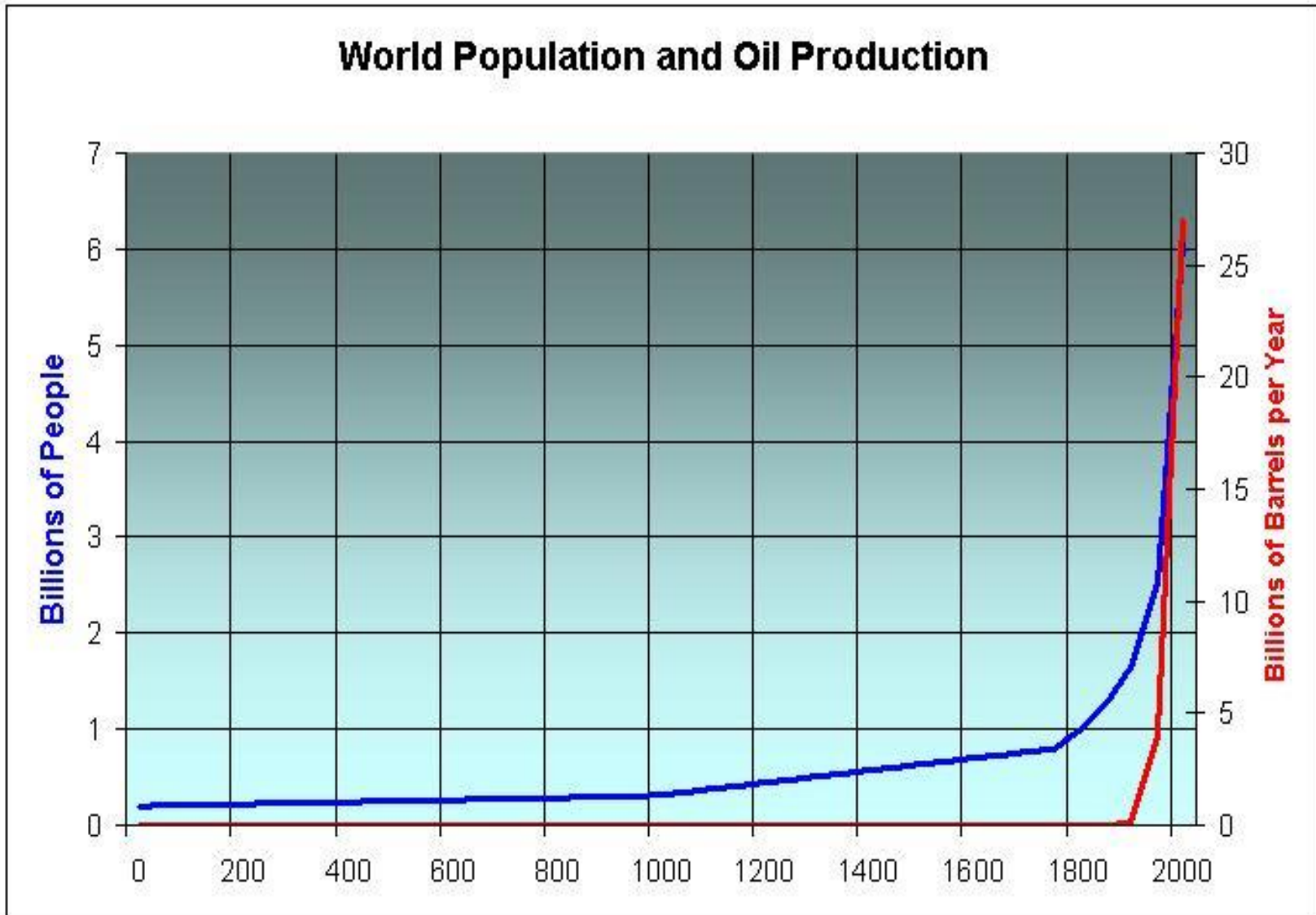


INTERSECTION OF ENERGY SUPPLY AND DEMAND



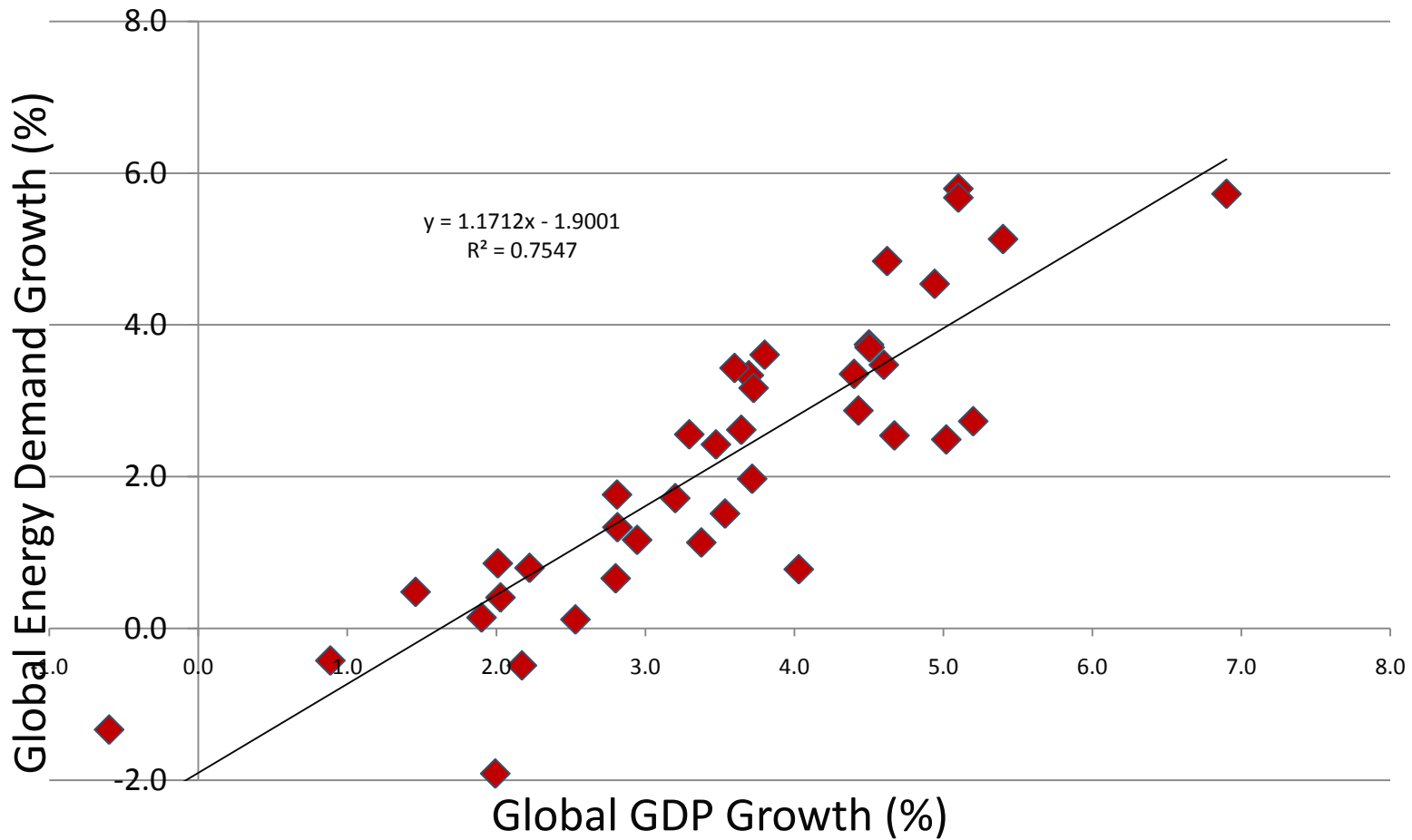
Graphic adapted from Dr. William Stanton

ARGUABLY, OIL IS THE MOST IMPORTANT SUBSTANCE ON EARTH



ENERGY IS THE FUNDAMENTAL DRIVER OF ECONOMIC GROWTH

ENERGY DEMAND GROWTH VS. GLOBAL GDP GROWTH (1970-2009)



Consider the Following:

- Just one barrel of oil contains about 5.8 million British Thermal Units (BTUs) of energy (or 1700 kilowatt-hours). That is roughly equivalent to the energy output of an adult human working 40 hours per week for 12.5 years.
- If we paid the U.S minimum wage per hour for that amount of work, one barrel of oil would cost \$181,250.
- Even in the developing nations where workers are paid a mere \$1-2 per day, the labor value of a barrel of oil would still range from \$3,125 to \$6,250/ barrel.

THE VALUE OF OIL - COMPARATIVE PRICES PER GALLON



\$2.97
(including
45¢ in taxes)



\$13.25



\$5.00



\$7.23



\$17.77

Source: AAA Fuel Price Report; Starbucks and HEB Grocery in Austin, Texas

OIL DEMAND – A STAGGERING PERSPECTIVE

- Global Oil Demand = 87.5 million barrels/day
- U.S. Oil Demand = 19.5 million barrels/day
- U.S. Domestic Oil Production = 9.6 million barrels/day
- U.S. Oil Imports = 9.9 million barrels/day

- “BP Makes Giant Find in Gulf of Mexico” – Reuters Headline, 9/2/2009 – referring to the Tiber discovery holding as much as 1 Billion barrels of recoverable oil

- 1 Billion barrels = 12 days of Global Demand or 51 days of U.S. demand

Traditional asset allocation methodology, which focuses on historical asset class returns, fails to capture the energy dynamic.

1. First, it ignores the role of energy as the catalyst of the global economic growth that generated the historical returns –
 - Can we really assume that the next 80 years will look like the last 80?
 - Even the next 10 years?
2. Second, it ignores the investment implications of a decline in the availability of cheap oil.
3. Finally, it assumes all economic sectors are created equal.

Newer asset allocation approaches understand that equities should not be considered a “stock market” but rather a “market of stocks” – where identifying strategic investment opportunities will be critical.

ENERGY HAS BEEN A SIGNIFICANT OUTPERFORMER

S&P 500 Sector Performance - Last 10 Years

1 Msg:Bob Roe

Hit page for all index returns, # Index<GO> to select

Ranked Returns: Index Groups PAGE 1/ 2

Index: SPXL1 S&P 500 ECO SECT Base Currency USD

All Group Performances

Rank	Index Group	Return
1	S&P 500 ENERGY INDEX	110.38
2	S&P 500 MATERIALS INDEX	82.06
3	S&P 500 CONS STAPLES IDX	27.47
4	S&P 500 CONS DISCRET IDX	24.57
5	S&P 500 INDUSTRIALS IDX	5.37
6	S&P 500 INFO TECH INDEX	-15.12
7	S&P 500 HEALTH CARE IDX	-17.64
8	S&P 500 UTILITIES INDEX	-26.24
9	S&P 500 TELECOM SERV IDX	-33.90
10	S&P 500 FINANCIALS INDEX	-45.91

Rank	Index Group	Return
1	S&P 500 ENERGY INDEX	110.38
2	S&P 500 MATERIALS INDEX	82.06
3	S&P 500 CONS STAPLES IDX	27.47
4	S&P 500 CONS DISCRET IDX	24.57
5	S&P 500 INDUSTRIALS IDX	5.37
6	S&P 500 INFO TECH INDEX	-15.12
7	S&P 500 HEALTH CARE IDX	-17.64
8	S&P 500 UTILITIES INDEX	-26.24
9	S&P 500 TELECOM SERV IDX	-33.90
10	S&P 500 FINANCIALS INDEX	-45.91

10 Groups

Start Date End Date

12/31/00 - 12/31/10

1320.28 - 1257.64

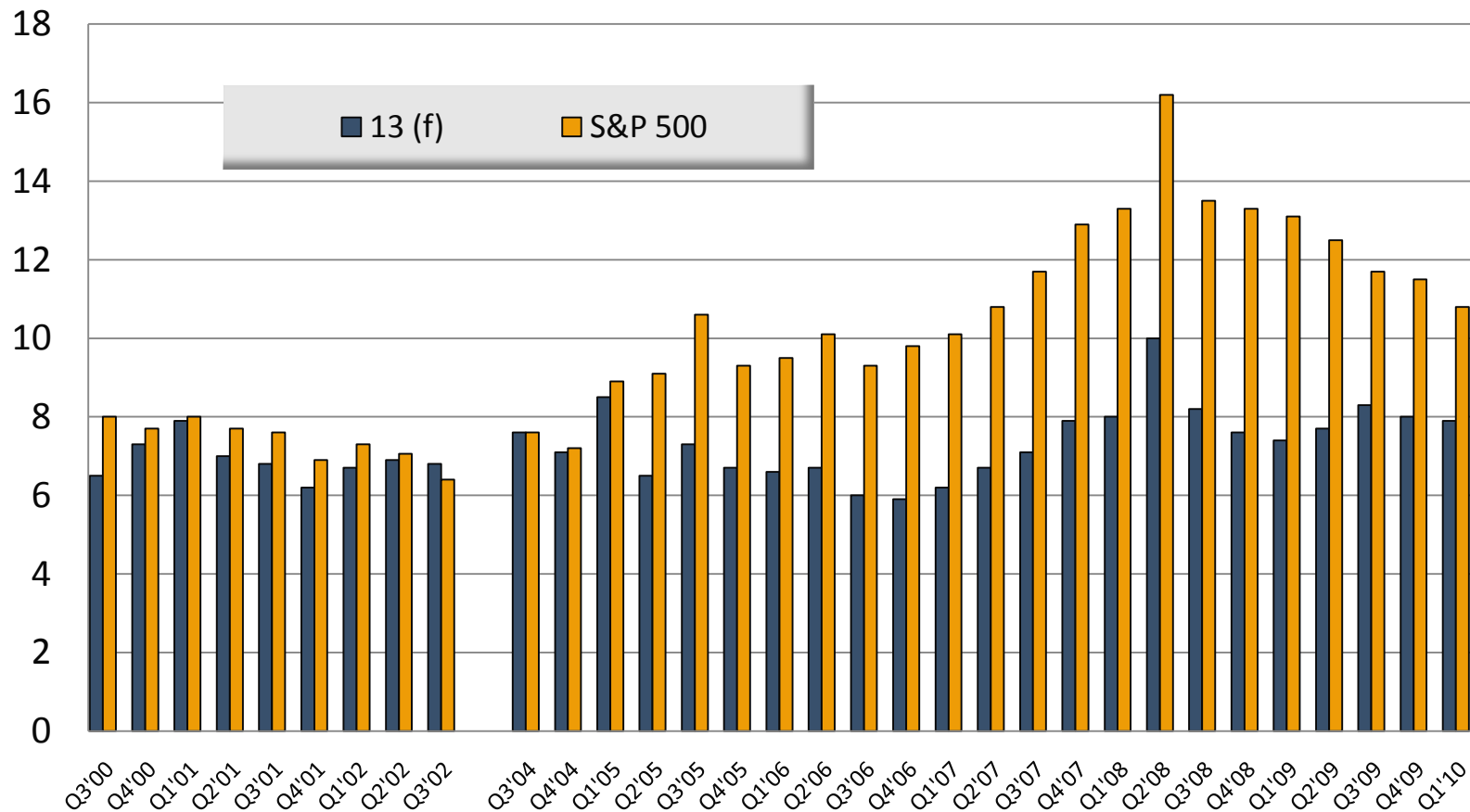
Return: -4.74%

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2010 Bloomberg Finance L.P.
 SN 197807 H194-1119-1 03-Jan-2011 13:37:11

MOST INVESTORS ARE UNDERWEIGHT ENERGY

13 (f) INSTITUTIONAL OWNERSHIP AND S&P 500 ENERGY WEIGHTINGS

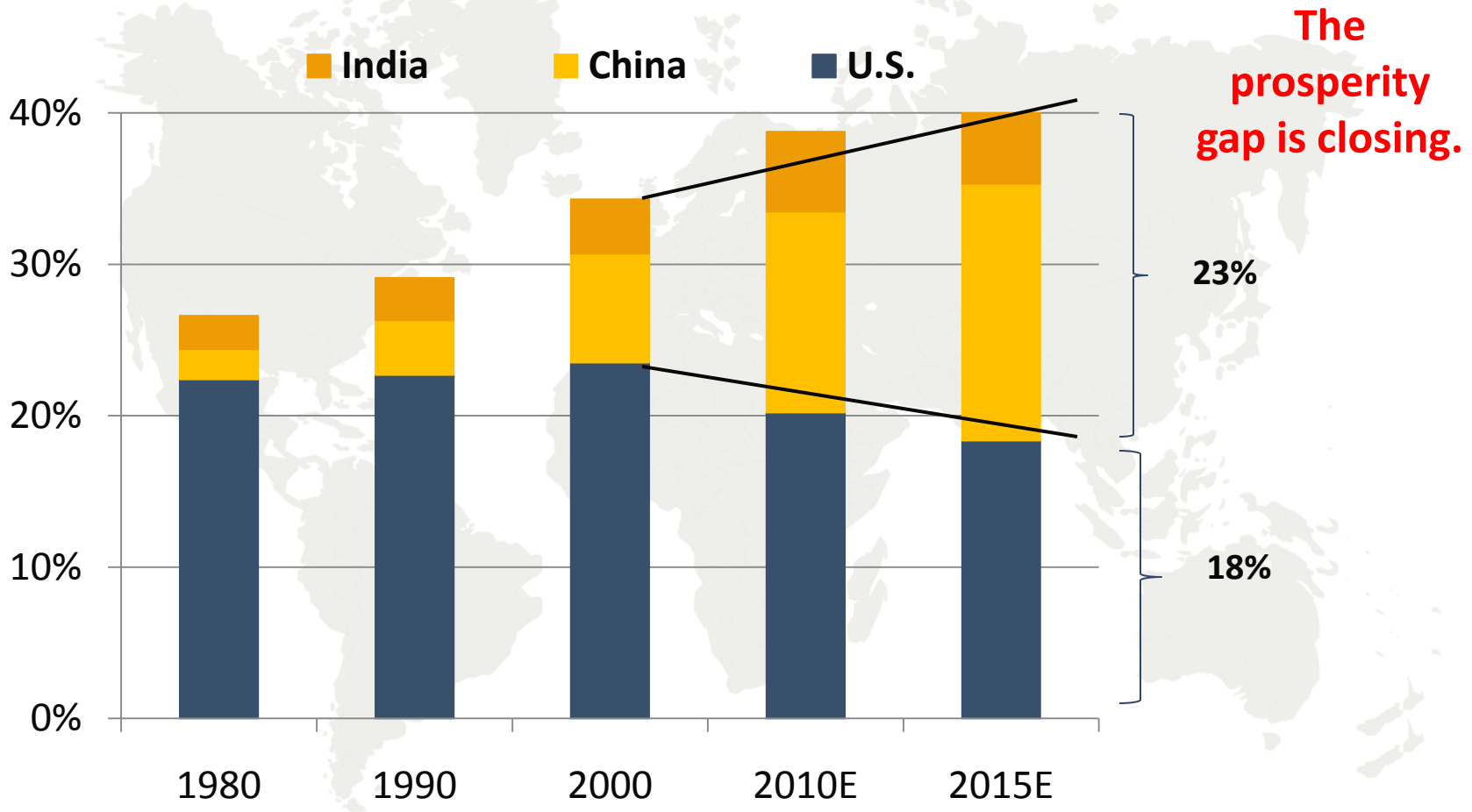
Percent Energy Weighting



Source: Bloomberg, Thompson Financial and Simmons & Company International.

THE RISE OF NON-OECD ECONOMIES: A GLOBAL ECONOMIC TRANSITION

PERCENT OF GLOBAL GDP: U.S., CHINA AND INDIA

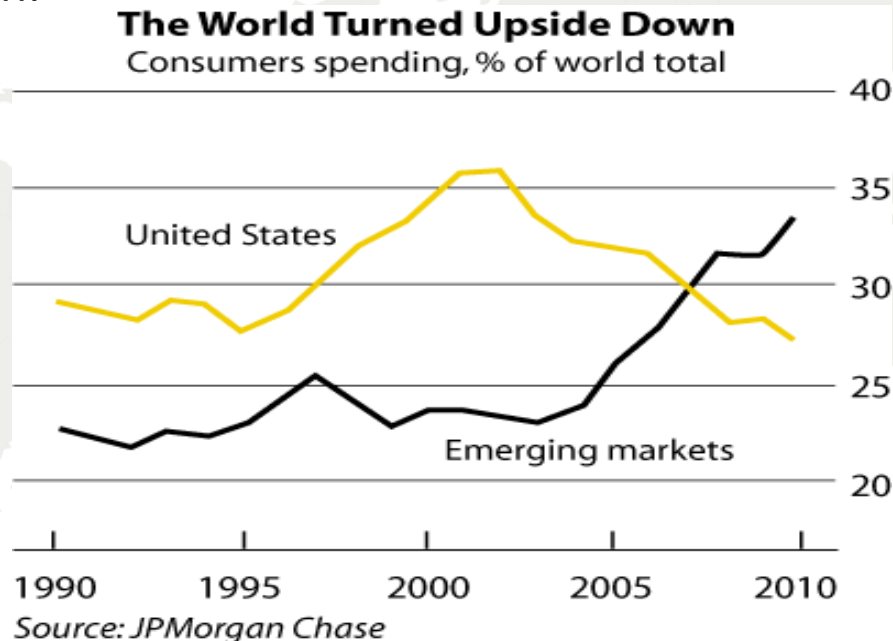


Source: IMF.

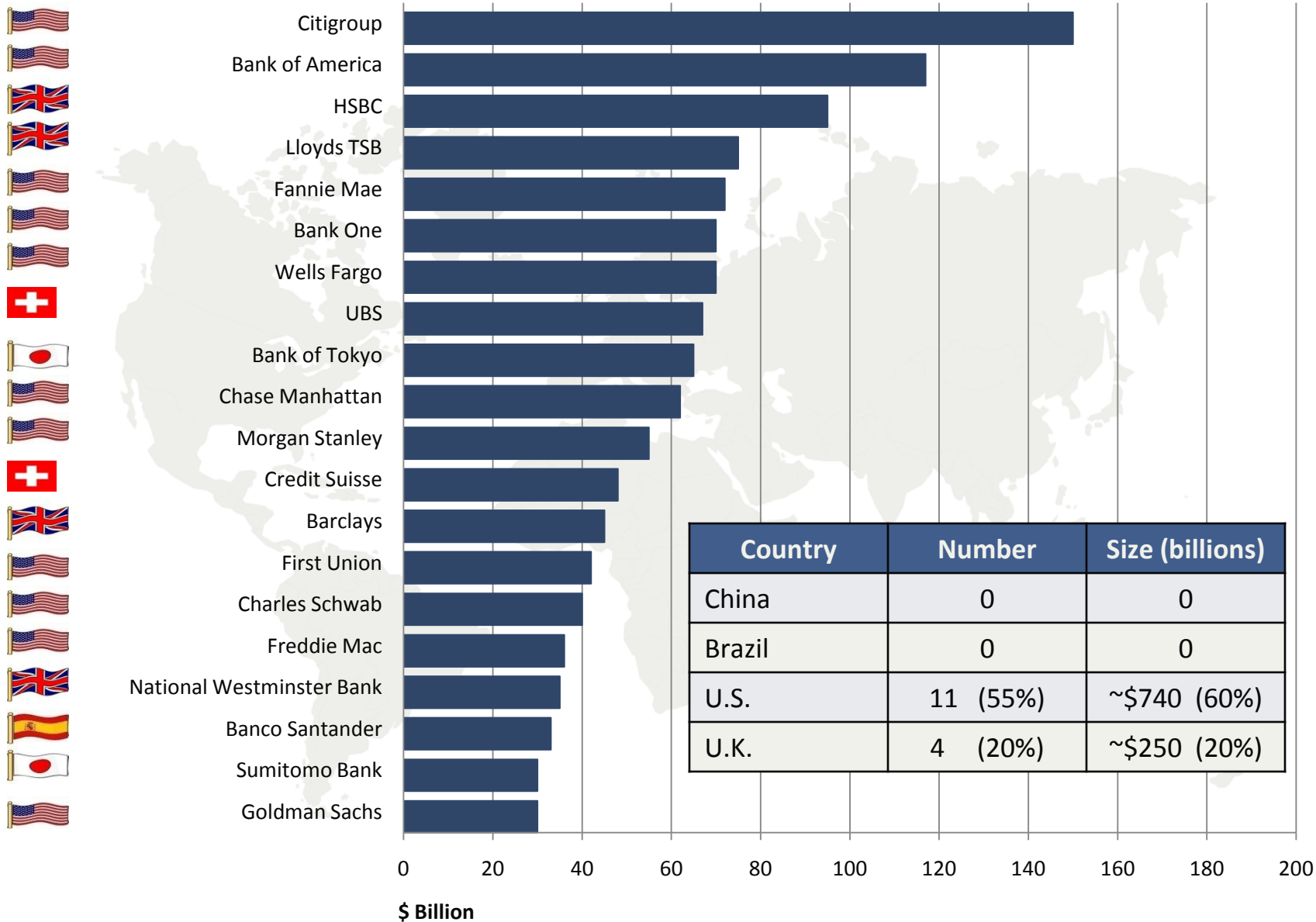
CHINA / EMERGING MARKETS: FACINATING FACTS

○ Emerging Market Data Points:

- During Q2 2010, China overtook Japan as the second largest economy in the world. China is on course to overtake the U.S. as the world's largest economy circa 2020, i.e., in around 10 years.
- By 2015, the number of Asian middle class consumers will equal the number in Europe and America.
- At the end of 2007, consumption in emerging markets surpassed U.S. consumption.

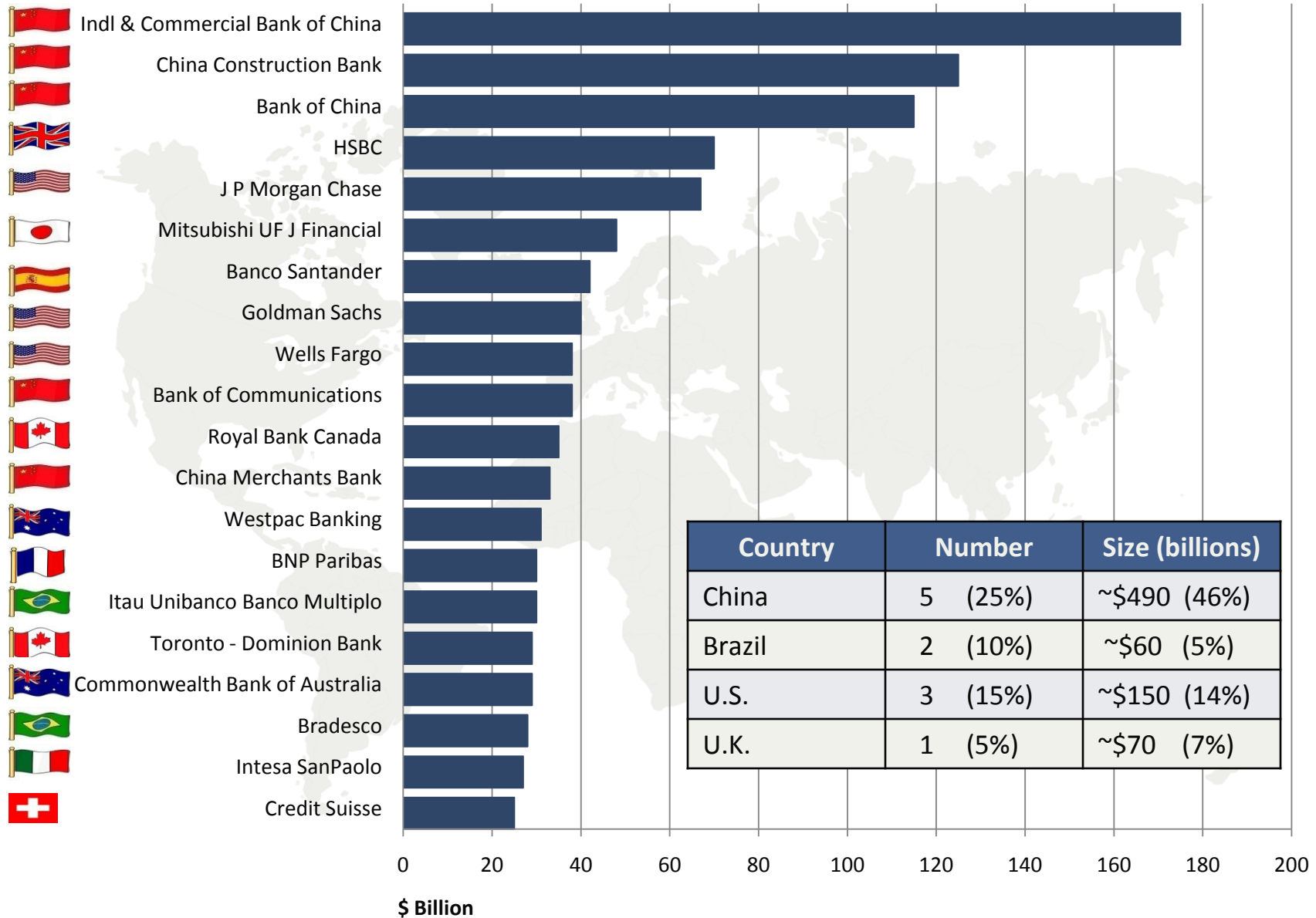


TOP 20 FINANCIAL INSTITUTIONS BY MARKET CAPITALIZATION – 1999



Source: Financial Times.

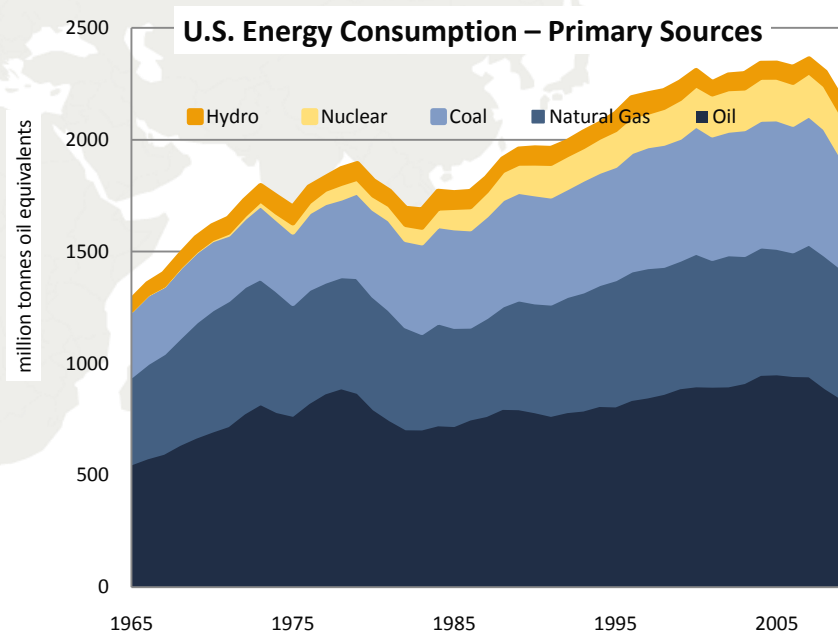
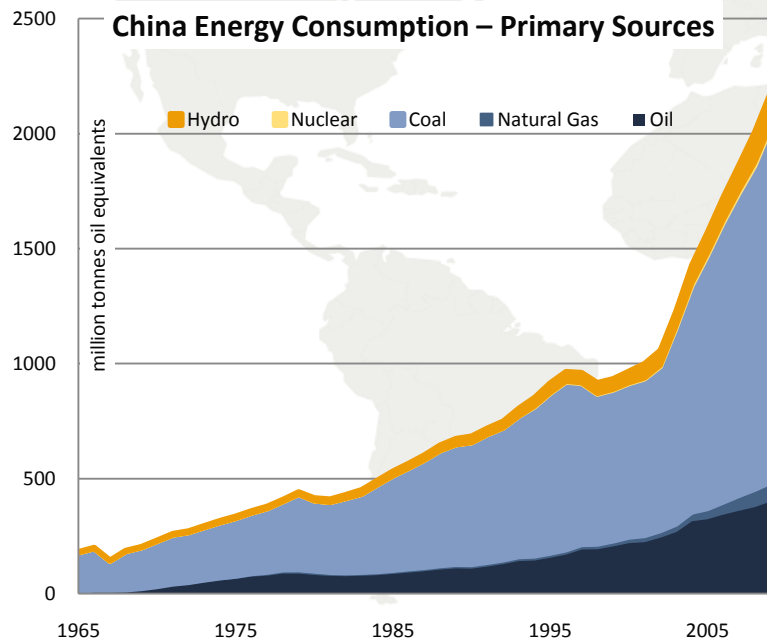
TOP 20 FINANCIAL INSTITUTIONS BY MARKET CAPITALIZATION – 2009



Source: Financial Times.

China's Insatiable Appetite for Energy:

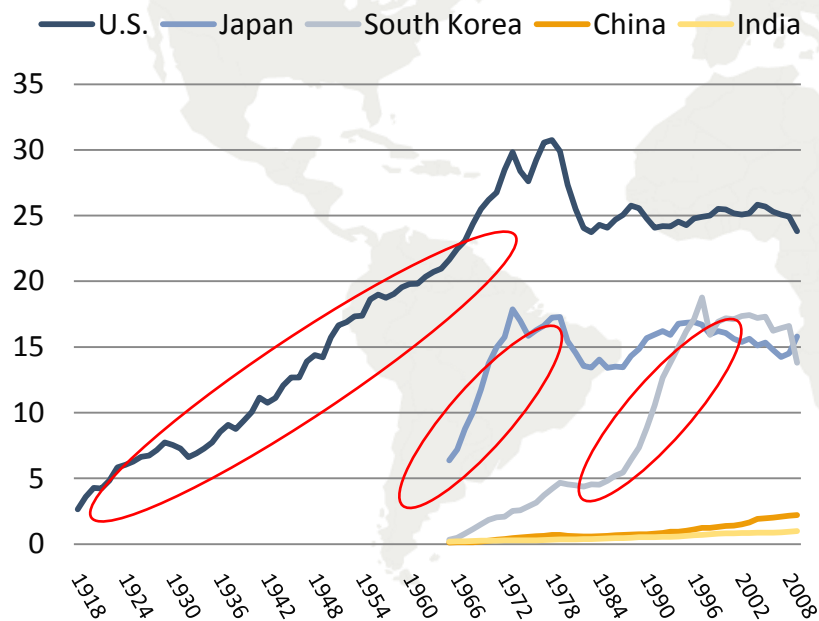
- In 2009, China surpassed the U.S. as the world's largest consumer of energy
- In 2000, the U.S. consumed **twice** as much energy as China.



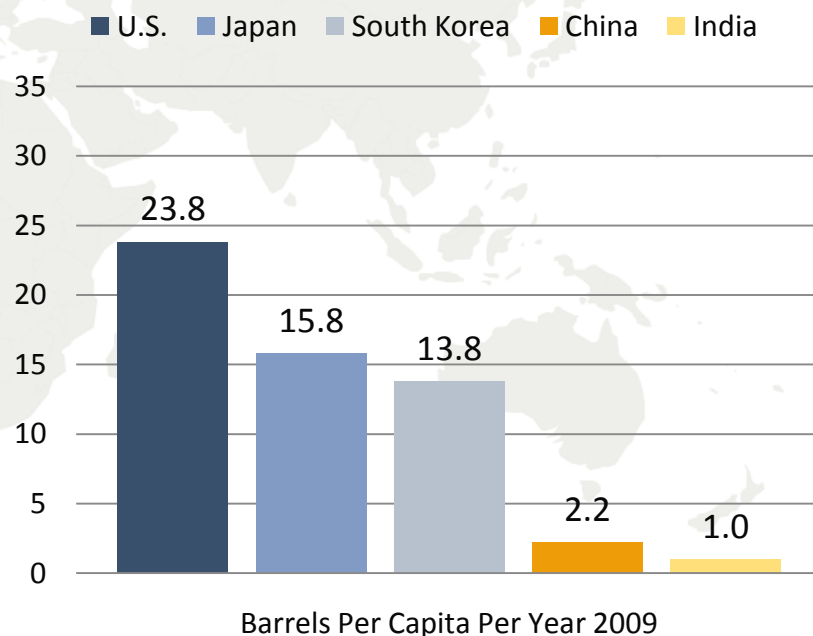
ACCELERATING OIL DEMAND DURING INDUSTRIALIZATION

- Taking the per capita consumption of China and India to the level of just half of South Korea or Japan, i.e., ~8 bbl/capita, requires the equivalent incremental **supply of four more Saudi Arabias**.

Historical Oil Consumption Per Capita



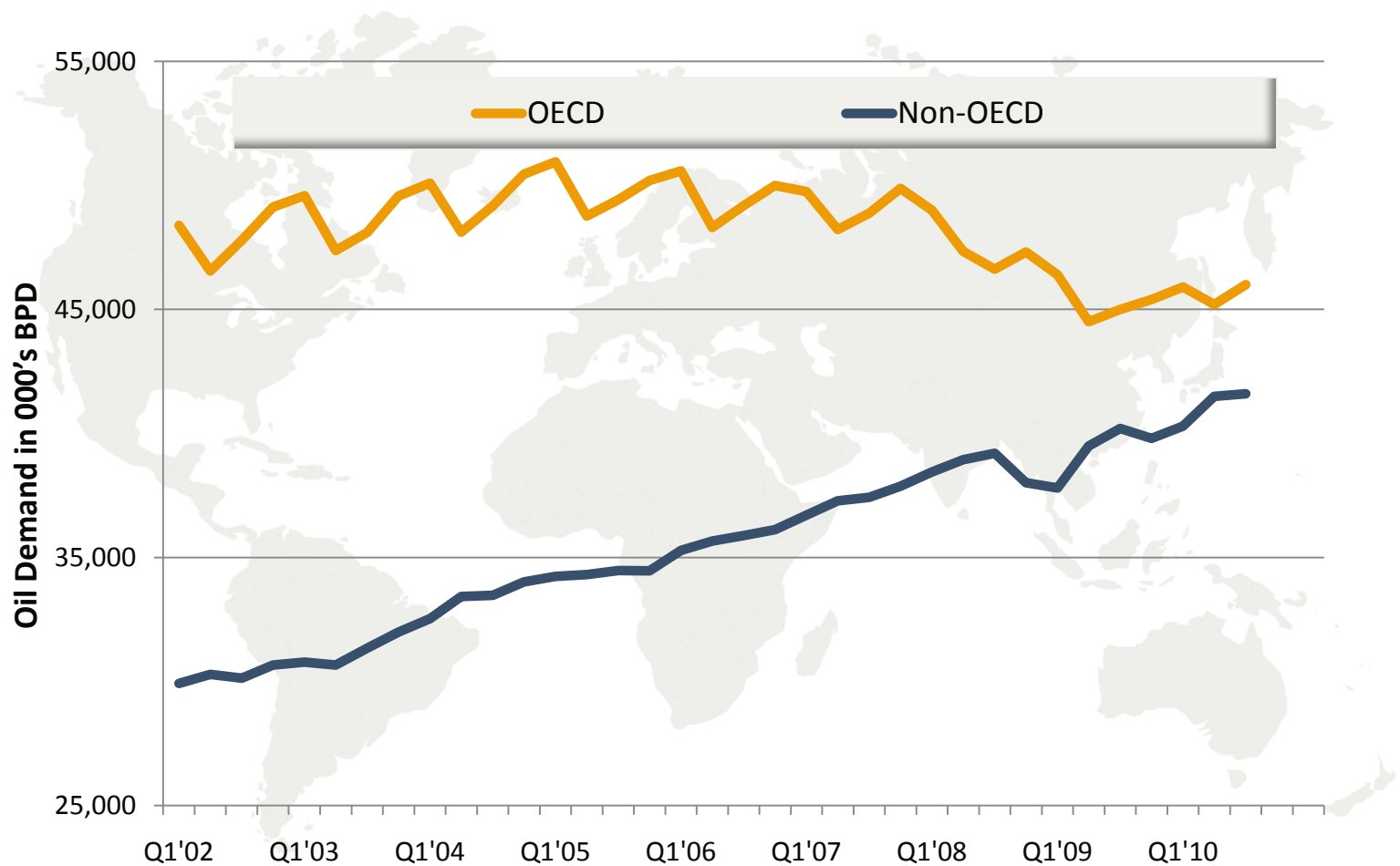
Oil Consumption Per Capita -- 2009



Source: UN Energy Statistics, BP Statistical Review of Energy, U.S. DOE/EIA, U.S. Census.

DEMAND DYNAMICS: GLOBAL DEMAND RECOVERY BECOMING EVIDENT

Oil Demand Trends – Developed Economies Versus Developing Economies



Source: IEA.

SUPPLY CHALLENGES: THE ERA OF CHEAP, EASY OIL IS OVER

1950s



2000s



Alberta Tar Sands Production



Sakhalin I

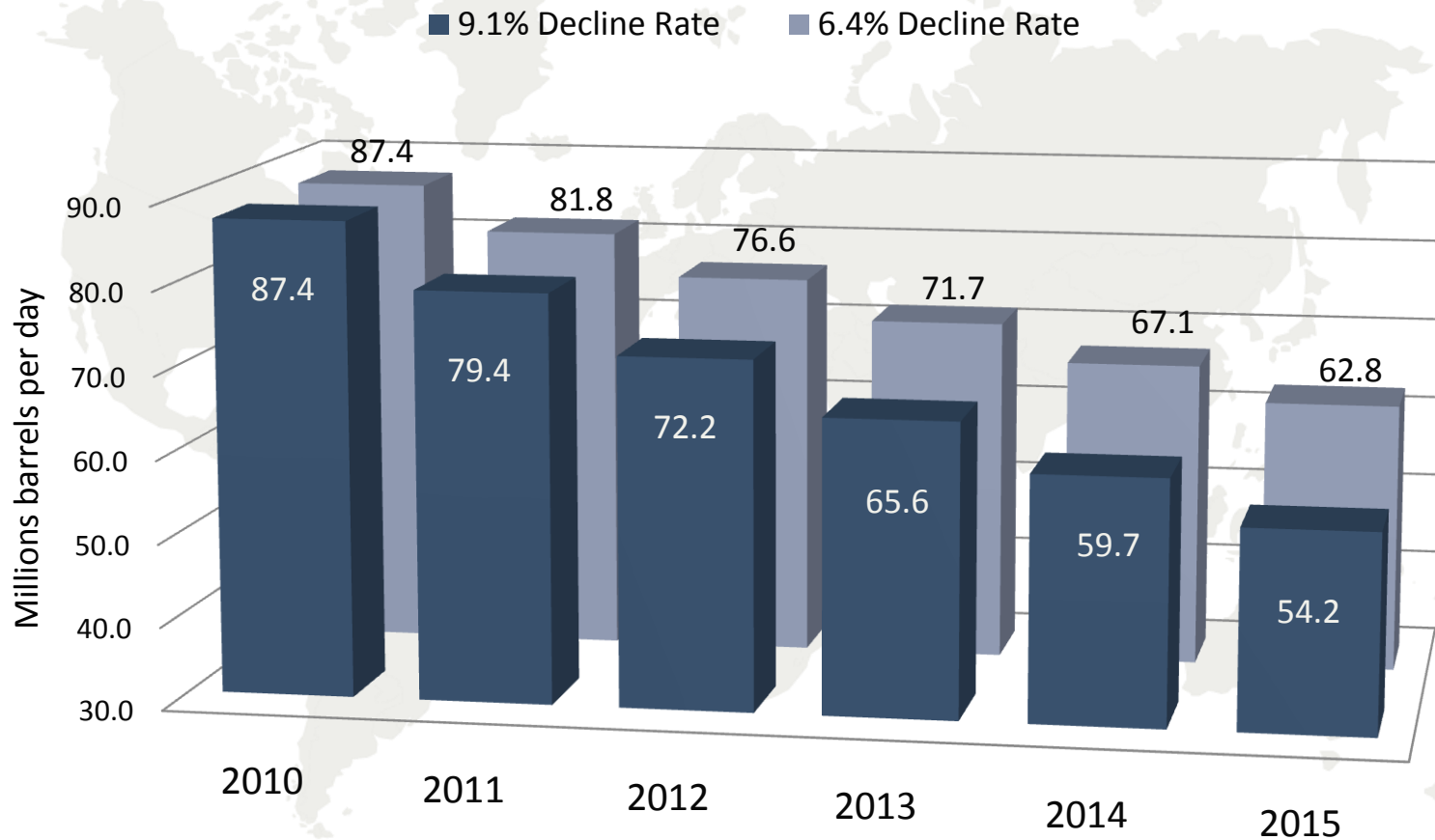


“The fact that we're willing to move four tons of earth for a single barrel really shows that the world is running out of easy oil.”

- *National Geographic, March 2009*

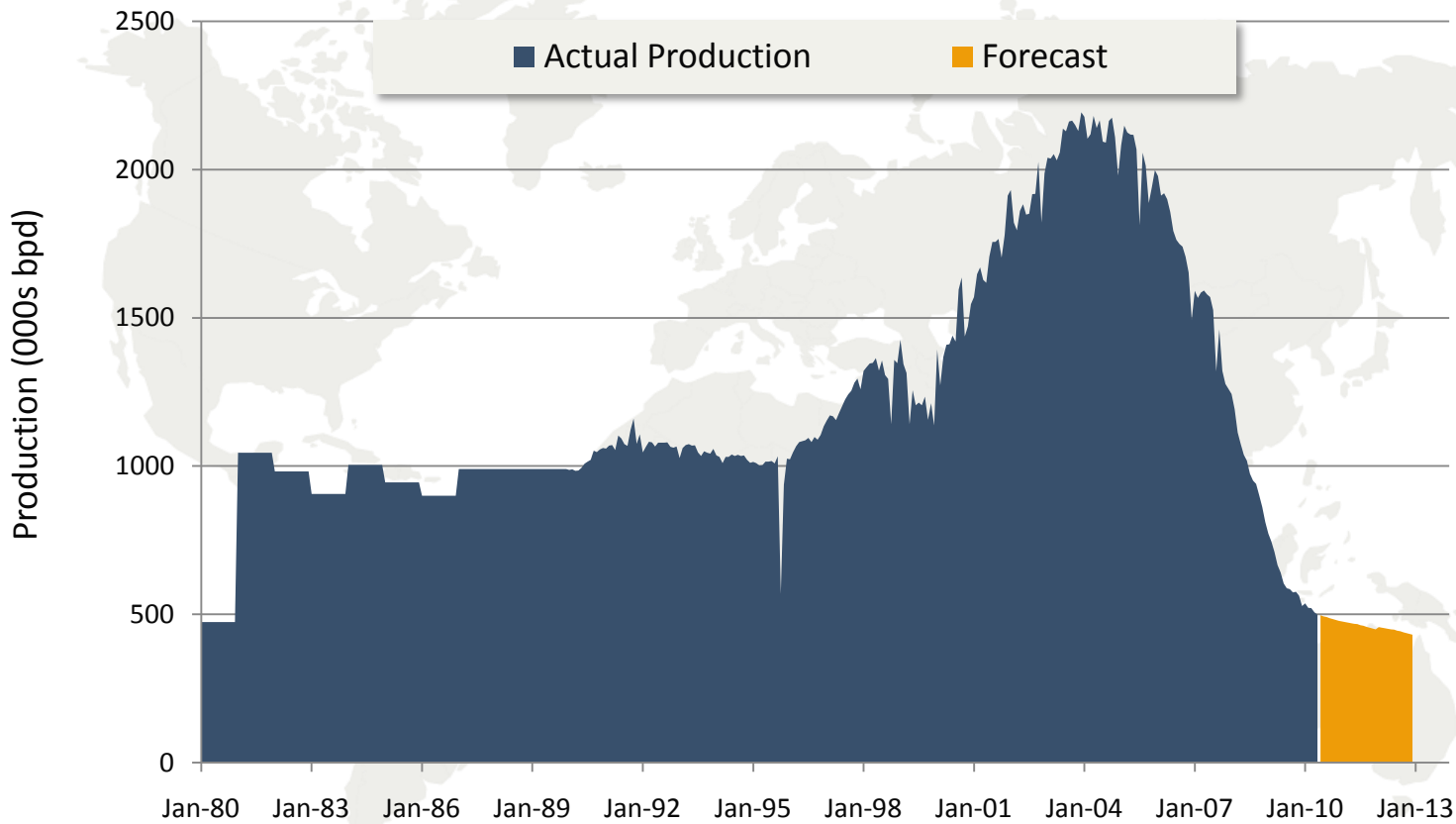
SUPPLY CHALLENGES: DEPLETION, ALSO KNOWN AS THE DECLINE RATE

○ *Decline Rates Create a Bigger Supply Challenge Than Demand Growth*



SUPPLY CHALLENGES: MEXICO'S CANTARELL FIELD

CANTARELL PRODUCTION HISTORY AND FORECAST



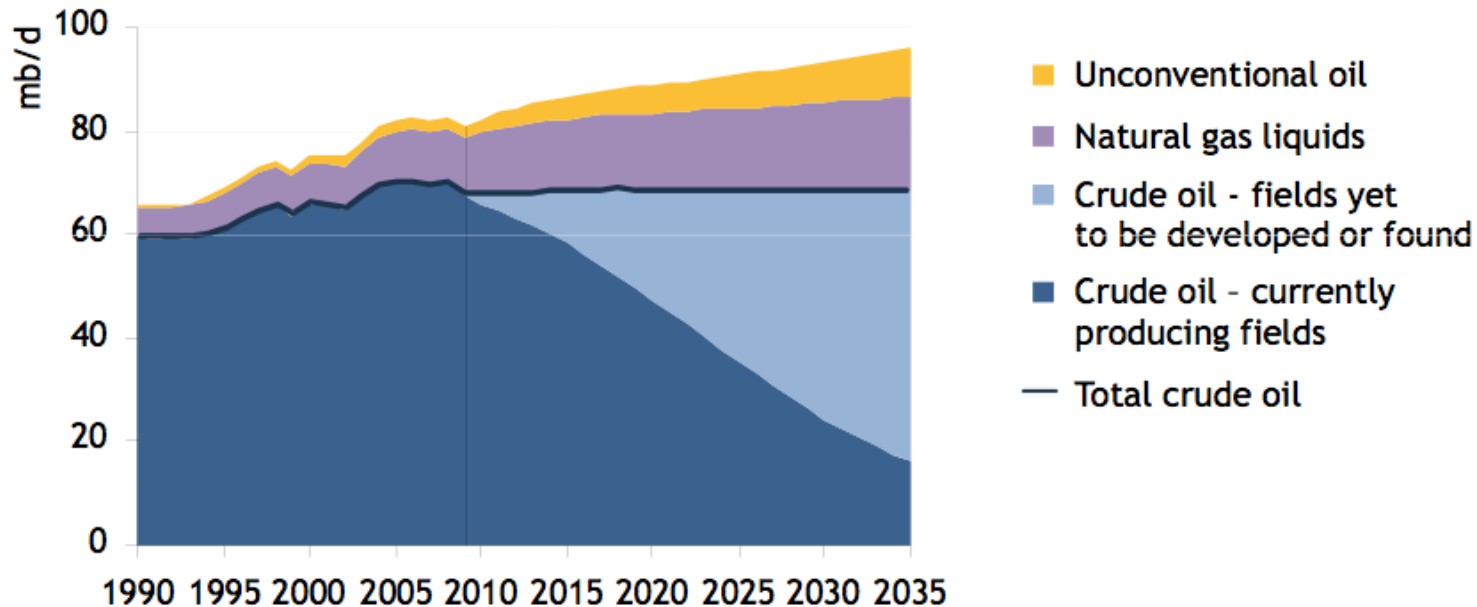
* YTD through May.

Source: PEMEX, EOCM.

SUPPLY CHALLENGES: PEAK OF CONVENTIONAL CRUDE OIL?

IEA WORLD ENERGY OUTLOOK 2010

World oil production by type in the New Policies Scenario

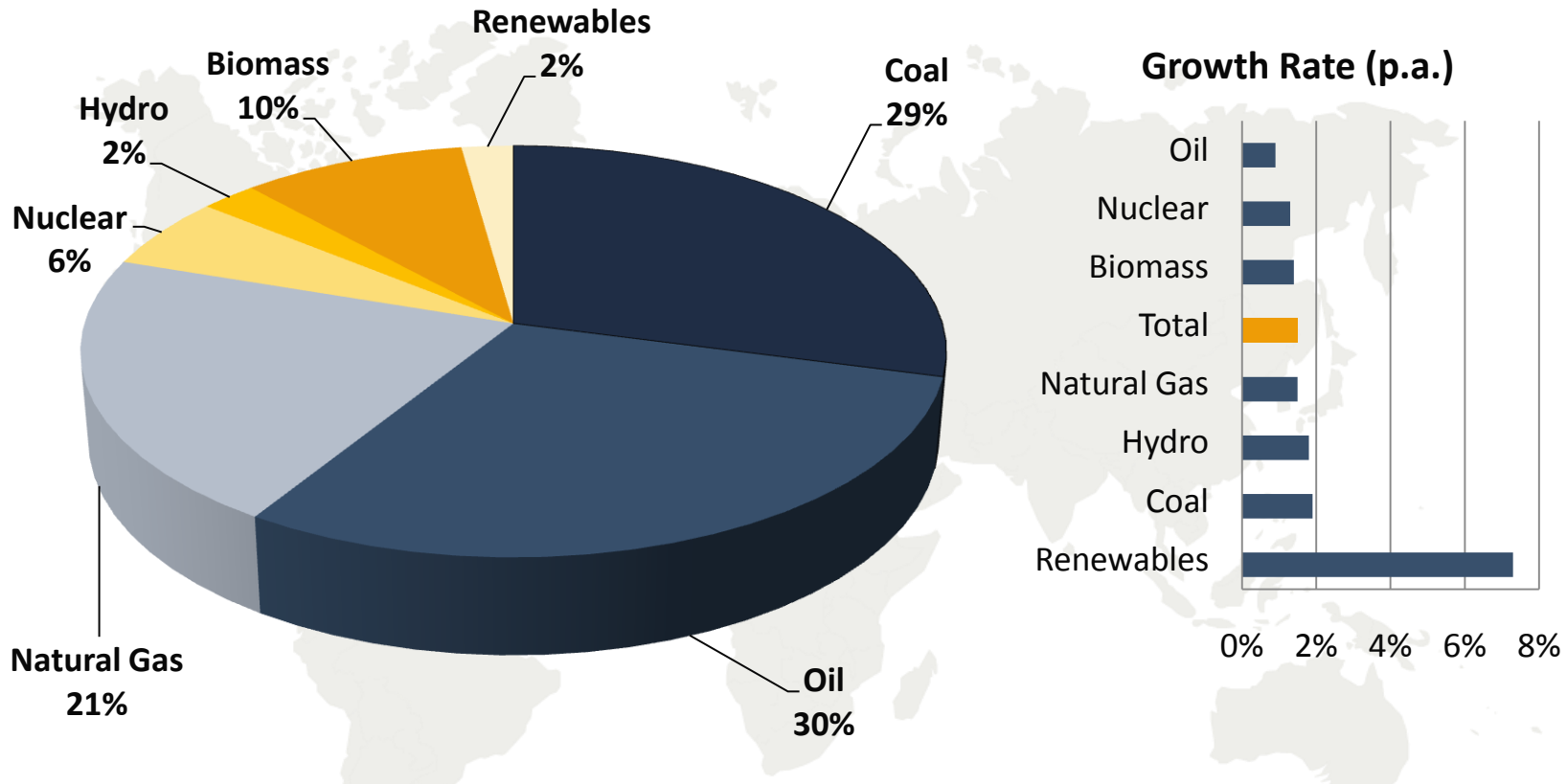


Global oil production reaches 96 mb/d in 2035 on the back of rising output of natural gas liquids & unconventional oil, as crude oil production plateaus

© OECD/IEA 2010

FOSSIL FUELS TO REMAIN DOMINANT PRIMARY ENERGY SOURCE

Primary Energy Mix 2030 (IEA's WEO 2009)

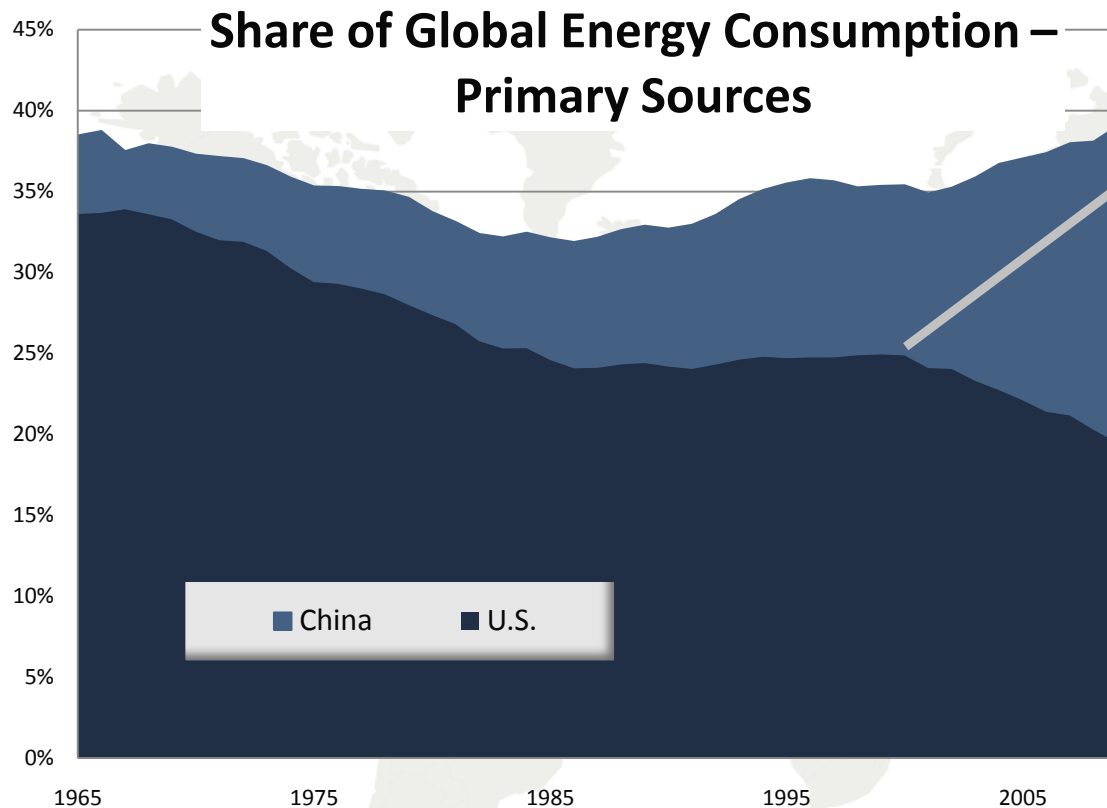


"I'd put my money on the sun and solar energy... I hope we don't have to wait until oil and coal run out before we tackle that."

- Thomas Edison, to Henry Ford and Harvey Firestone, 1931

INVESTMENT IMPLICATIONS OF A GLOBAL TRANSITION

U.S. Versus China (1965 – 2009)



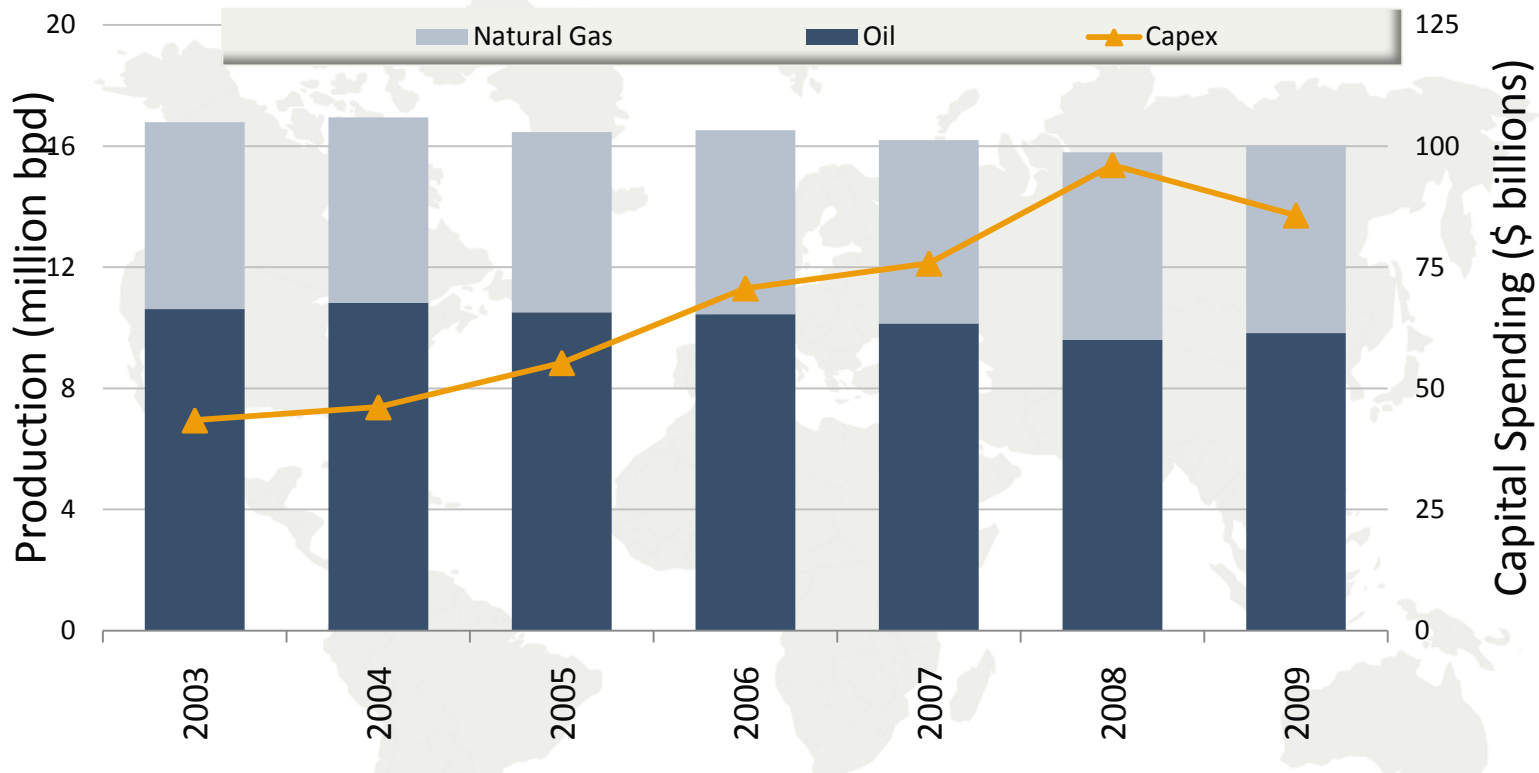
During the ten year period 1999 – 2009, U.S. consumption declines from 25% to under 20% of world total consumption.

During that same ten year period, the S&P 500 declined -9.1% while the Energy Sector of the S&P 500 rose +147%.

ONGOING ENERGY SUPPLY AND DEMAND DYNAMICS CREATE A POSITIVE ENVIRONMENT FOR ENERGY BUT NOT FOR THE BROAD MARKET

ENERGY INDUSTRY – DIFFERING ECONOMICS

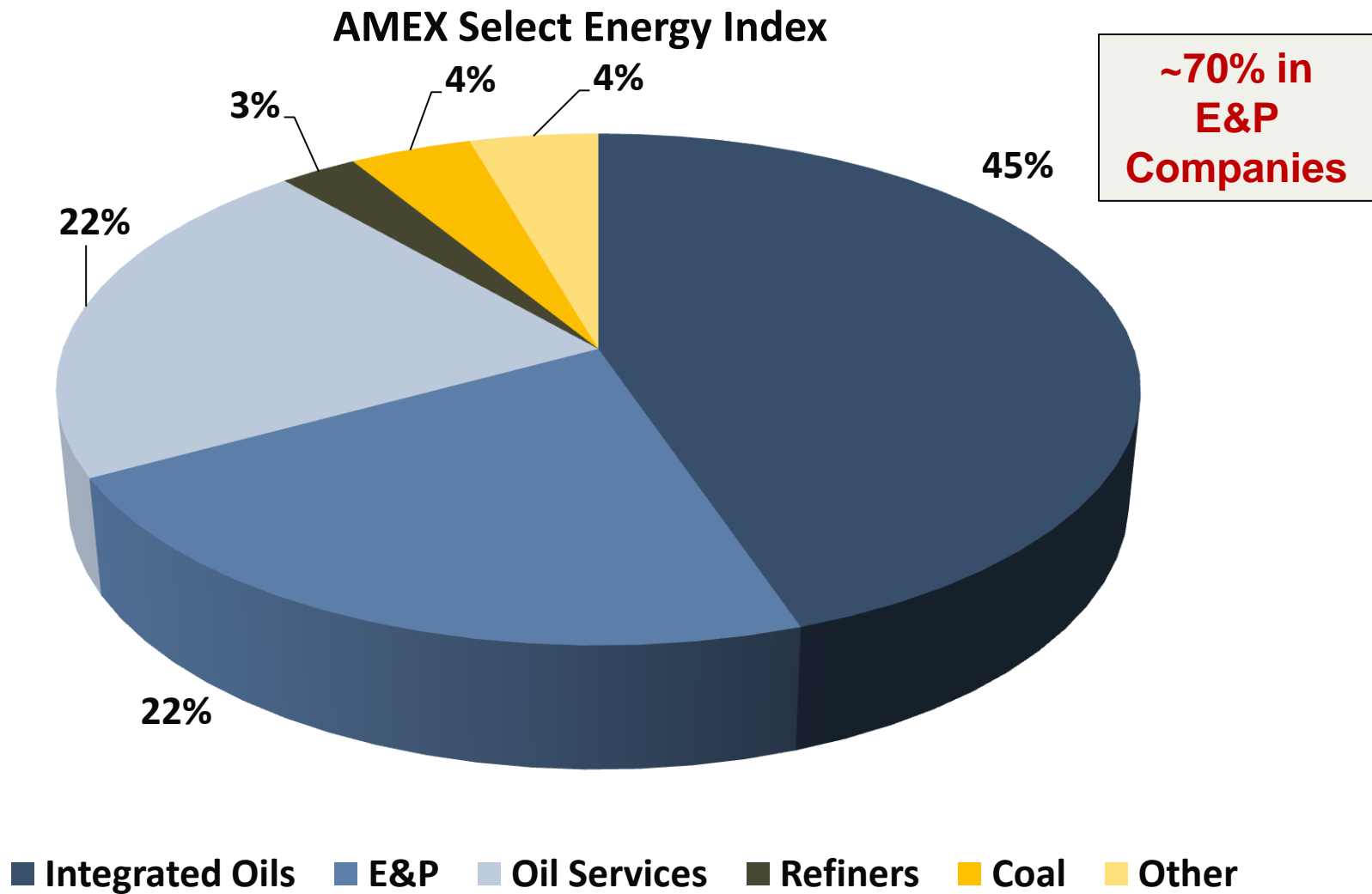
THE CAPITAL SPENDING TREADMILL



The Big 5 IOCs (BP, CVX, RDS, TOT and XOM) have increased their capital spending by over 100% during the past six years, while oil production fell nearly 10%.

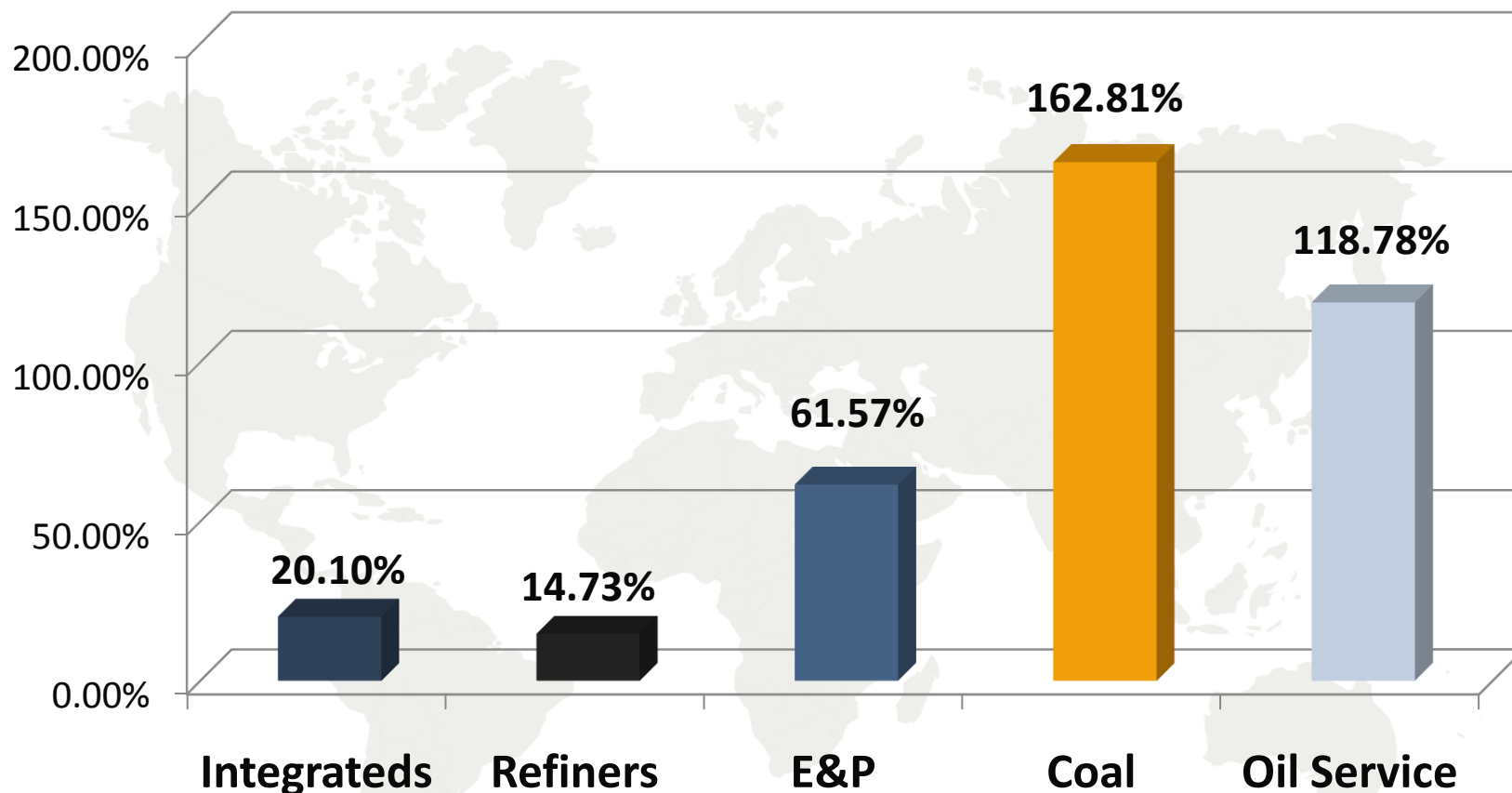
ENERGY INDUSTRY– DIFFERING ECONOMICS

TYPICAL ENERGY INVESTMENT ALLOCATION



ENERGY INDUSTRY– DIFFERING ECONOMICS

ENERGY INDUSTRY SECTOR PERFORMANCE - SINCE 2008

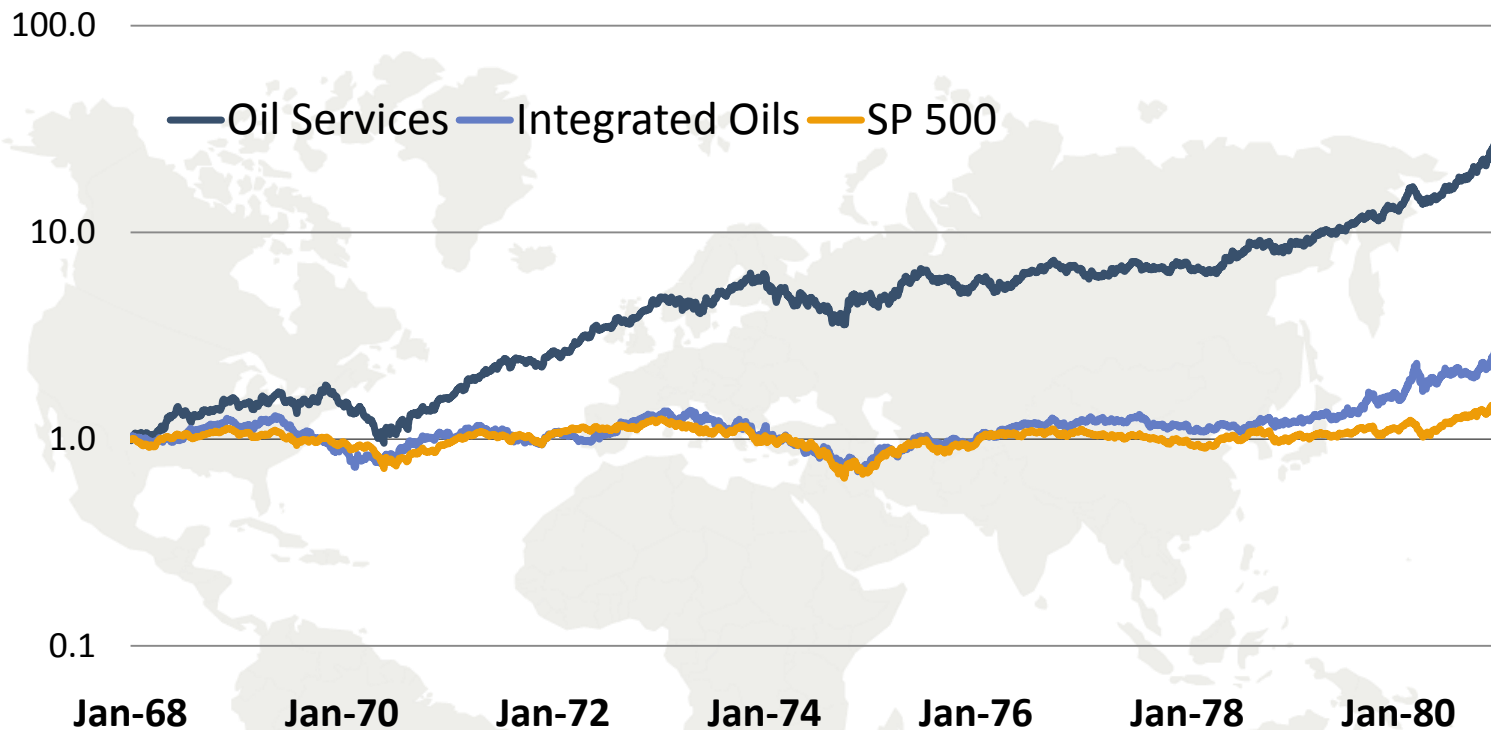


DURING THE LAST 2 YEARS, CRUDE OIL PRICES HAVE MORE THAN DOUBLED RISING FROM \$44/BBL TO \$91/BBL

Source: FactSet Research Systems. Data from AMEX Select Energy Index.

DIFFERING ECONOMICS WITHIN ENERGY – WITNESS THE 1970S

Stock Performance 1968 - 1980



	BHI	HAL	SLB	Avg
1965-1970	19%	24%	25%	23%
1970-1975	34%	30%	35%	33%
1975-1980	30%	23%	37%	30%
15-Years	37x	30x	65x	43x

Source: Value Line.

Thank you.

L. Farrell Crane, Jr.

ENERGY OPPORTUNITIES CAPITAL MANAGEMENT, LLC

www.energyocm.com