

2013 GLOBAL OIL MARKET OUTLOOK

PTT Group Oil Market Intelligence team

15 October 2012

AGENDA



Global Oil Demand



Global Oil Supply



Oil Price Outlook



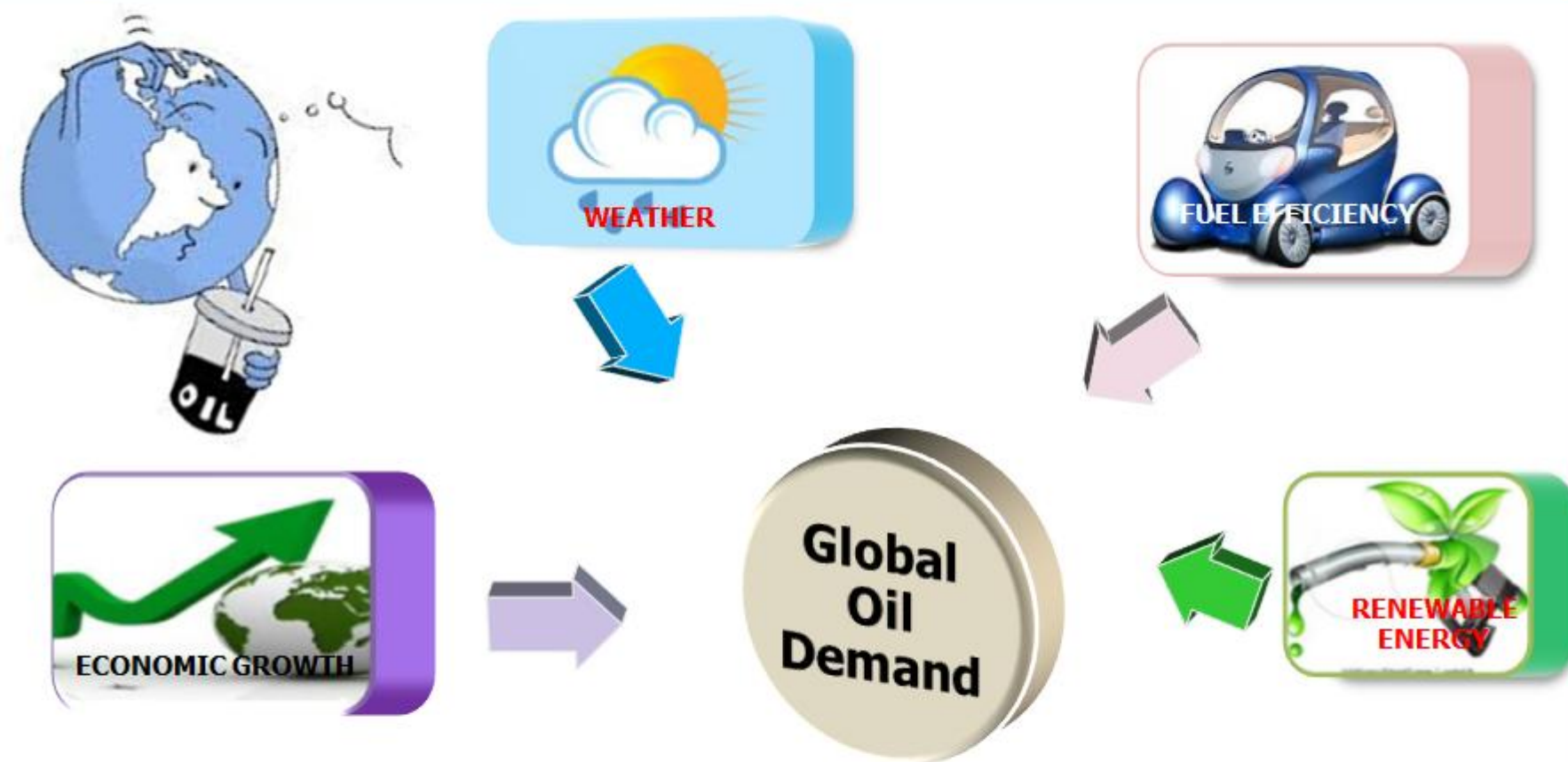
Thailand Petroleum Demand Outlook



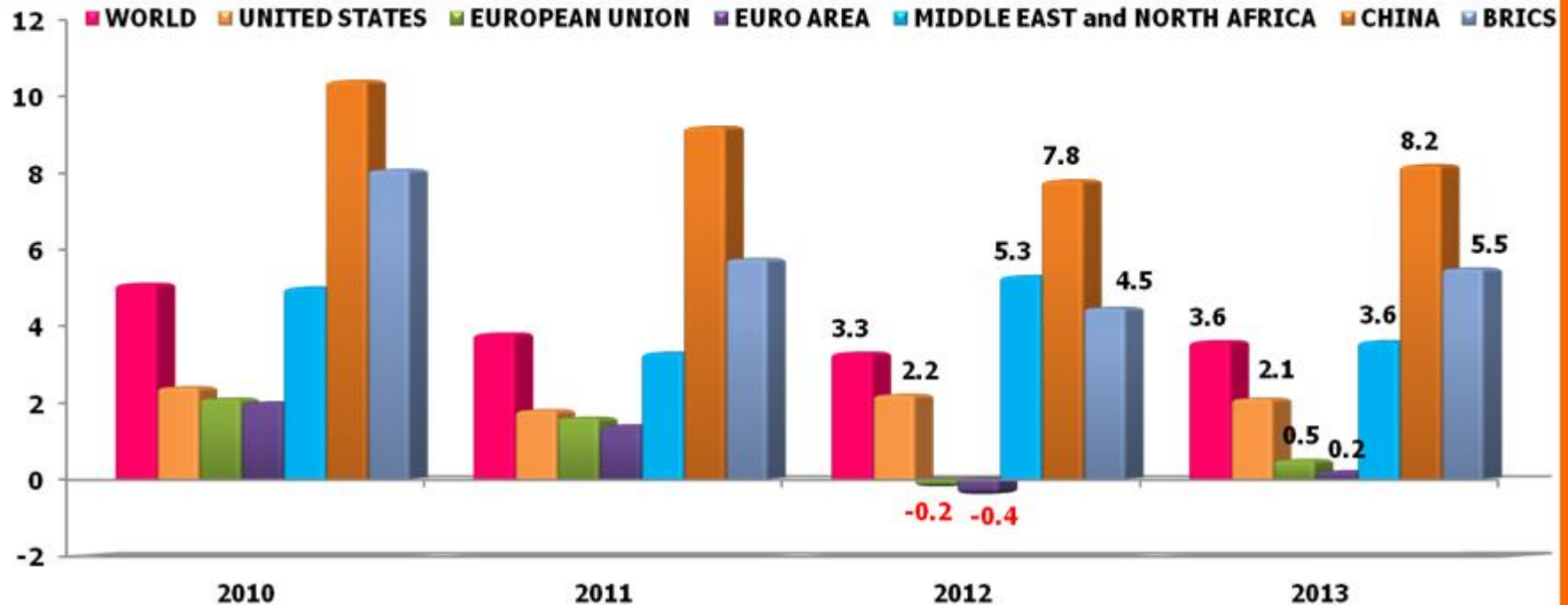
Oil Demand Outlook



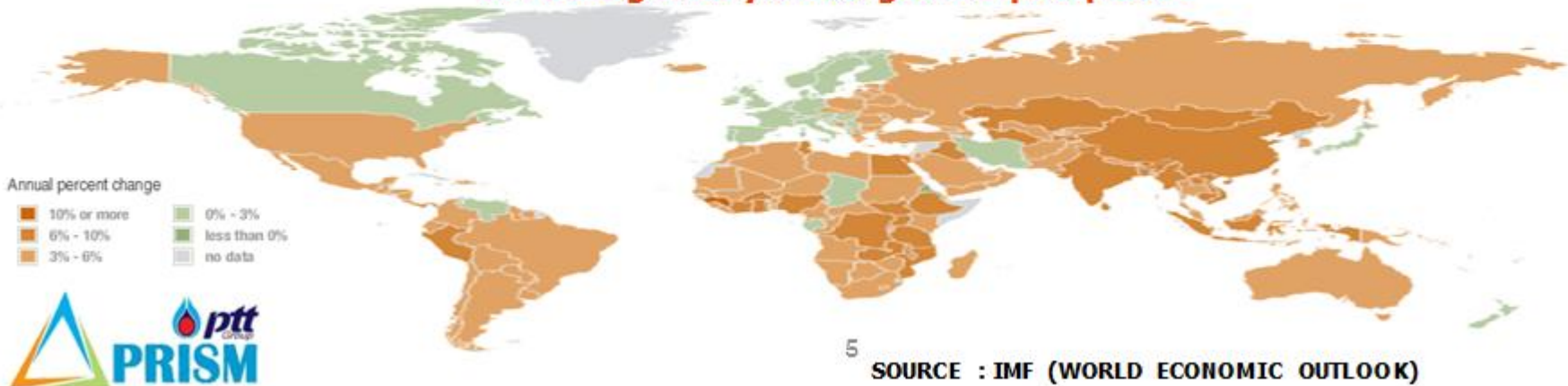
FACTORS THAT WILL INFLUENCE IN OIL DEMAND



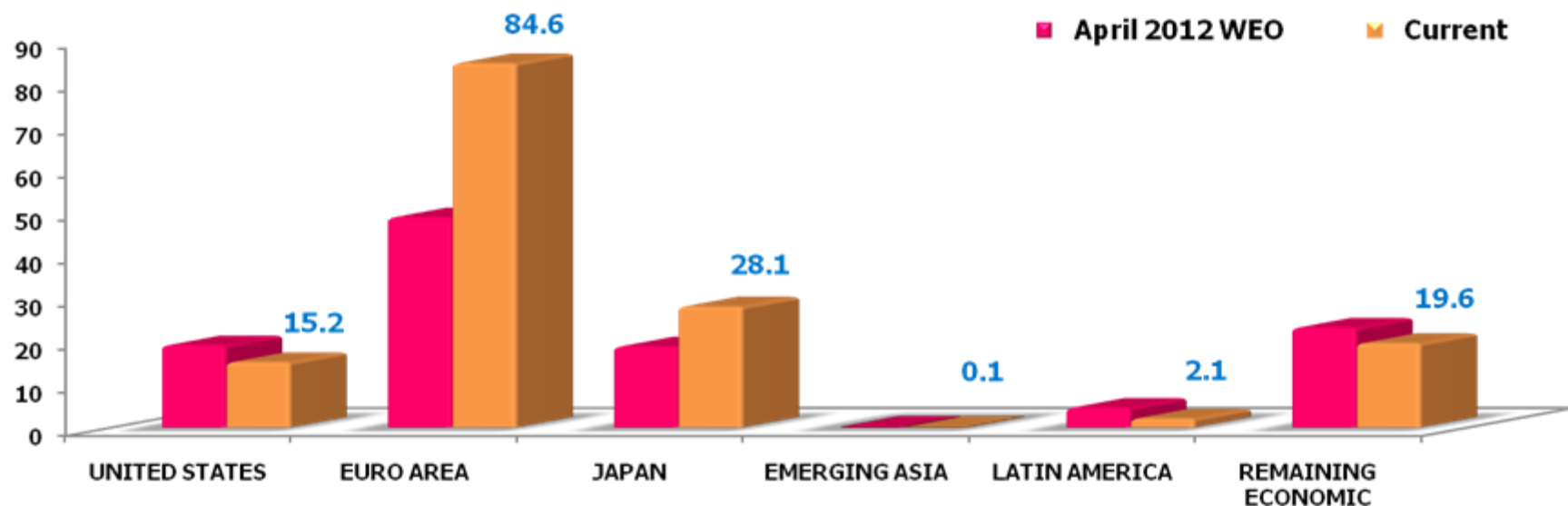
WORLD GDP GROWTH 3.6%



The sovereign debt crisis in the Euro Area and the U.S. budget, both of which could negatively affect growth prospects.

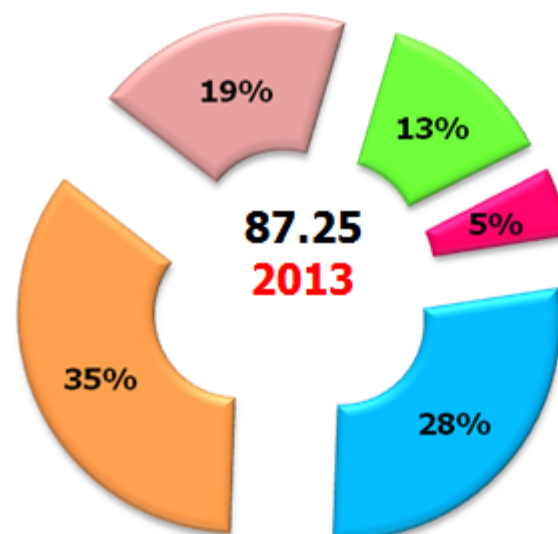
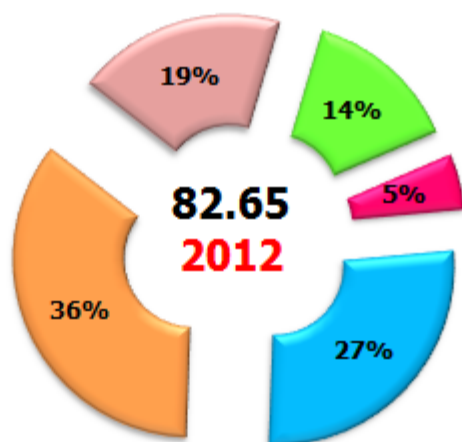


PROBABILITY OF RECESSION IN 2013



UNIT : Trillion US Dollar

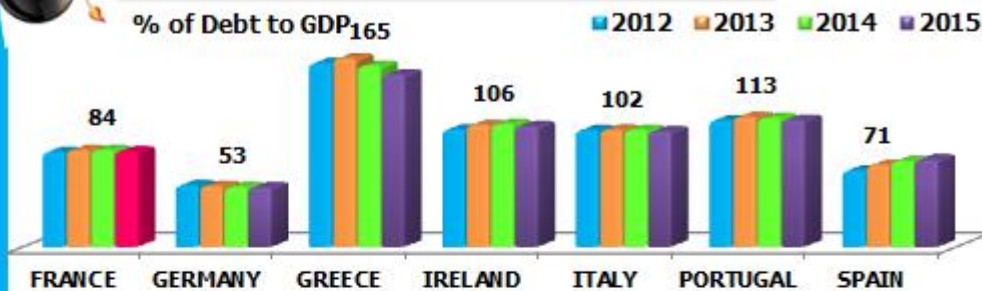
ROW UNITED STATES EURO AREA MIDDLE EAST and NORTH AFRICA BRIC



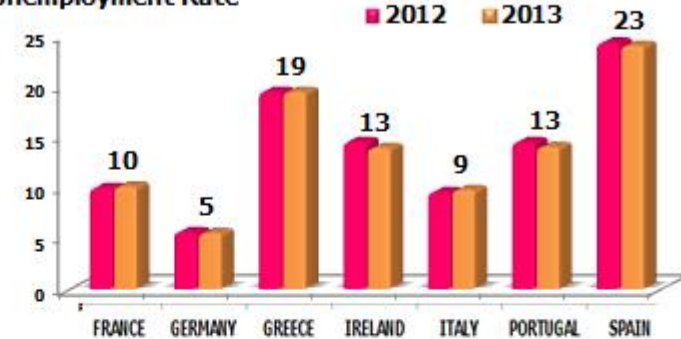
SOURCE : IMF (WORLD ECONOMIC OUTLOOK)

KEY RISKS TO WATCH

EURO GROWTH RESUME SLOWLY IN Q1 2013



Unemployment Rate



QE
STORY
3



Possible change in deficit = \$606 billion

Bush-era tax cut expiration
\$221 billion

\$105b

Other revenue/
spending changes

\$95b

Payroll tax relief
expiration

\$65b

Budget sequester

\$65b

Tax extender
expiration

Health care reform taxes

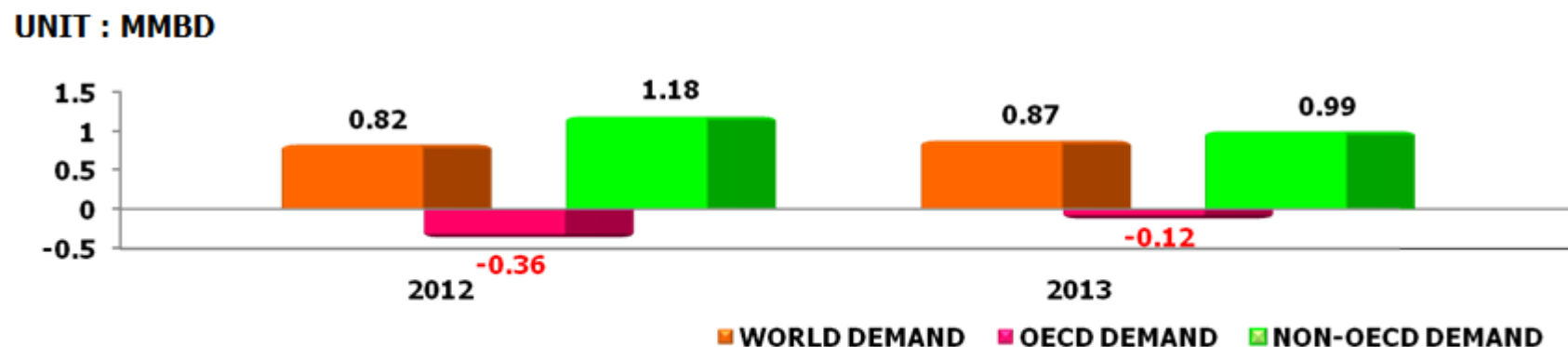
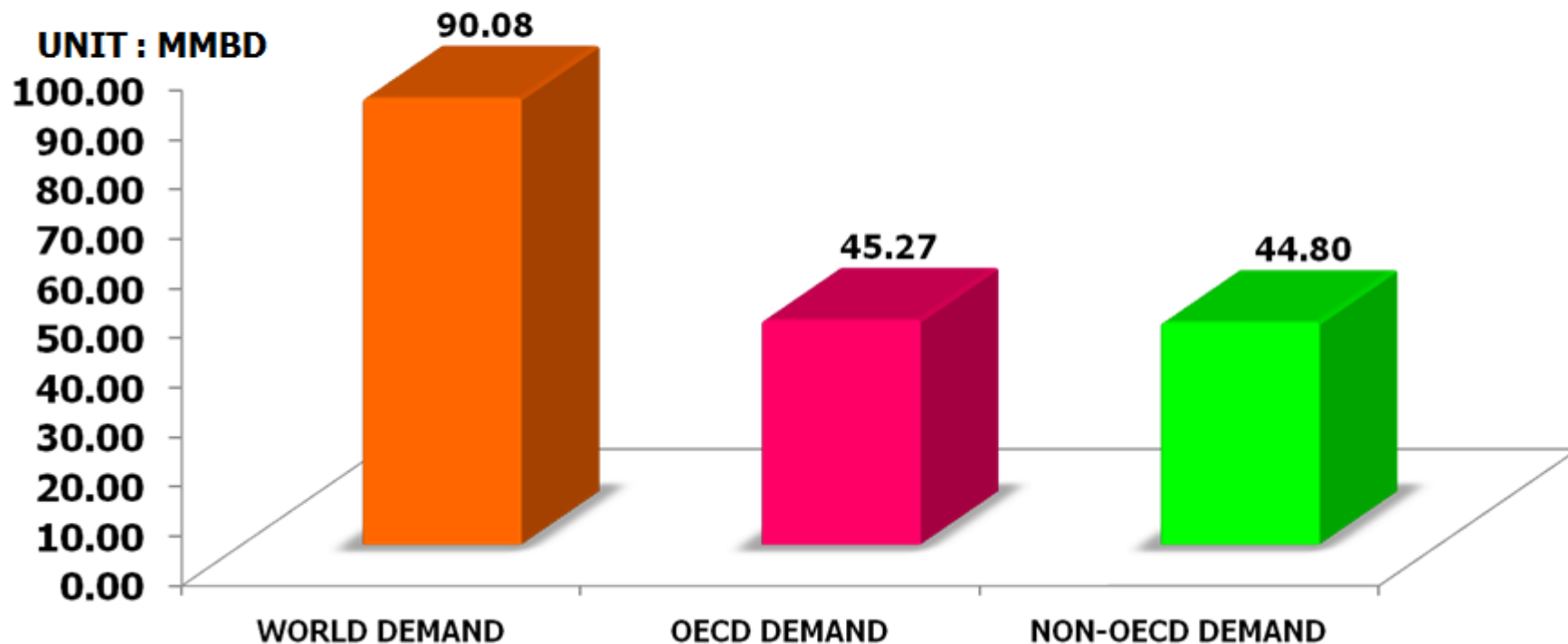
Emergency
unemployment
benefits

\$11b Medicare doctor
payment cut



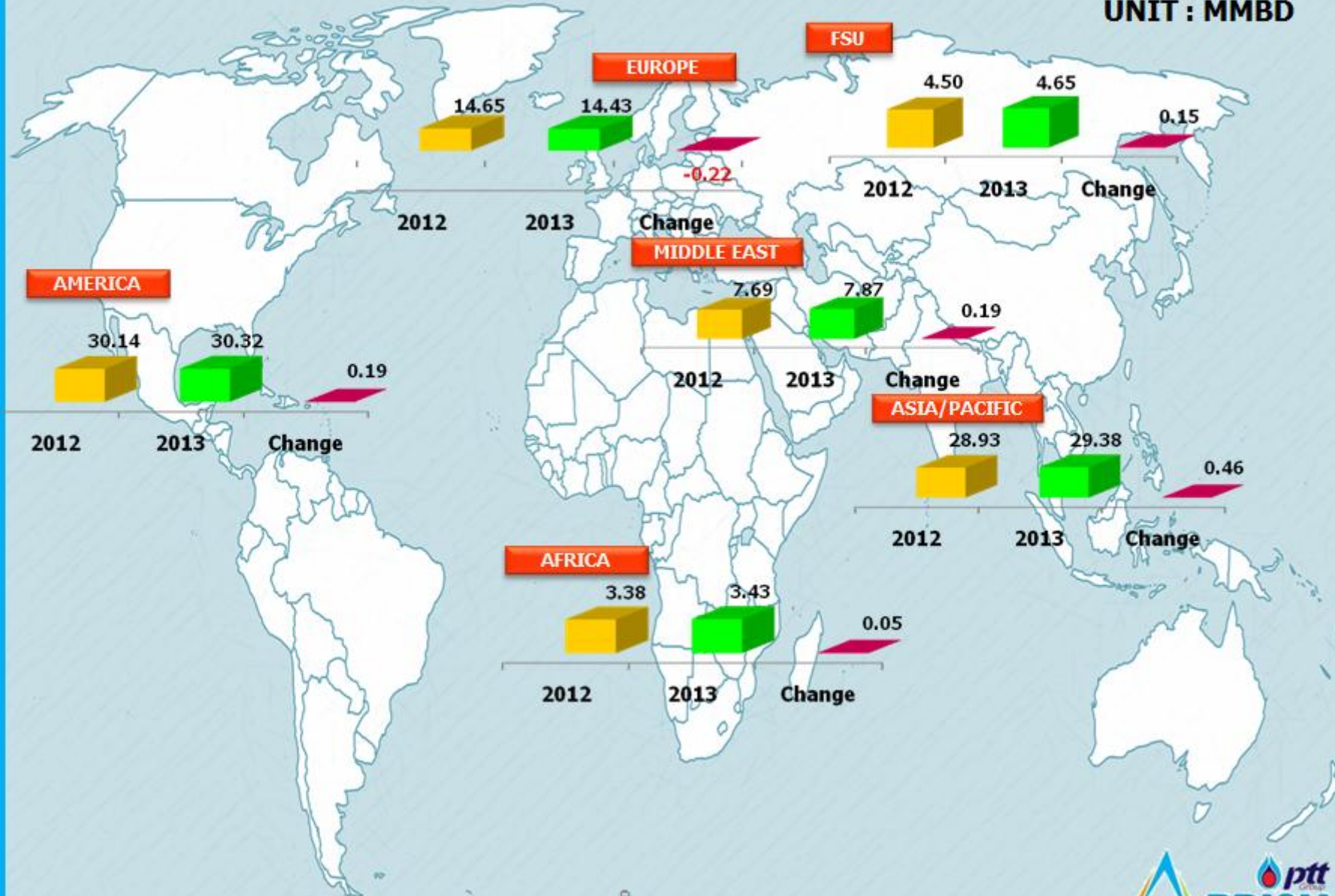
SOURCE: IMF, STOCK WALL STREET,
CONGRESSION BUDGET OFFICE REPORT

OIL DEMAND GROWTH 2013



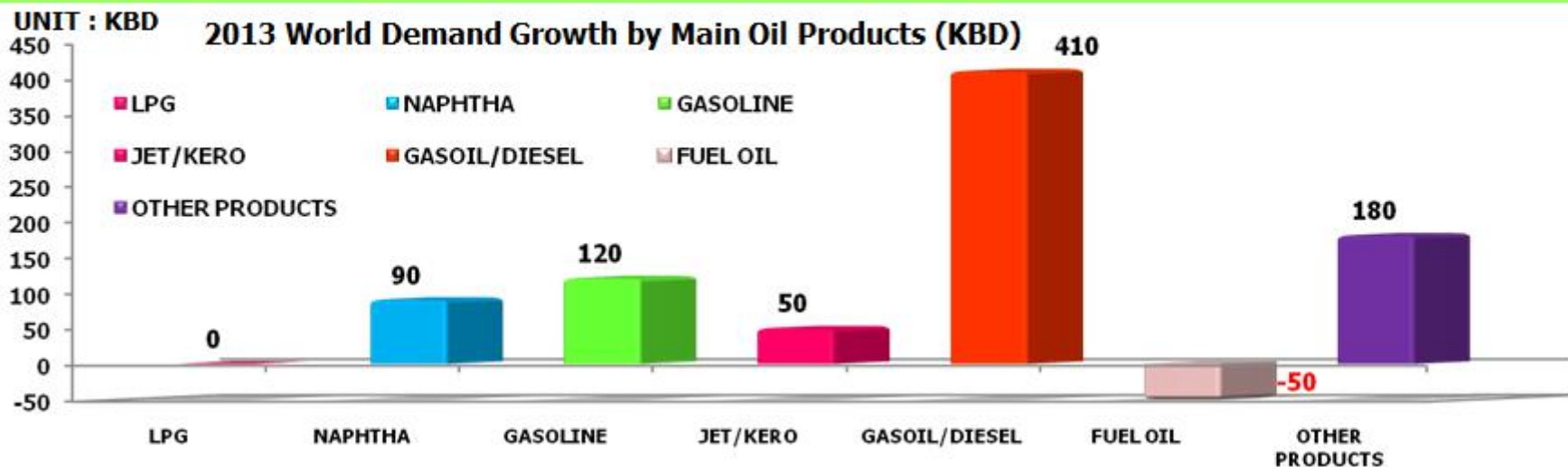
FORECAST GLOBAL DEMAND

UNIT : MMBD

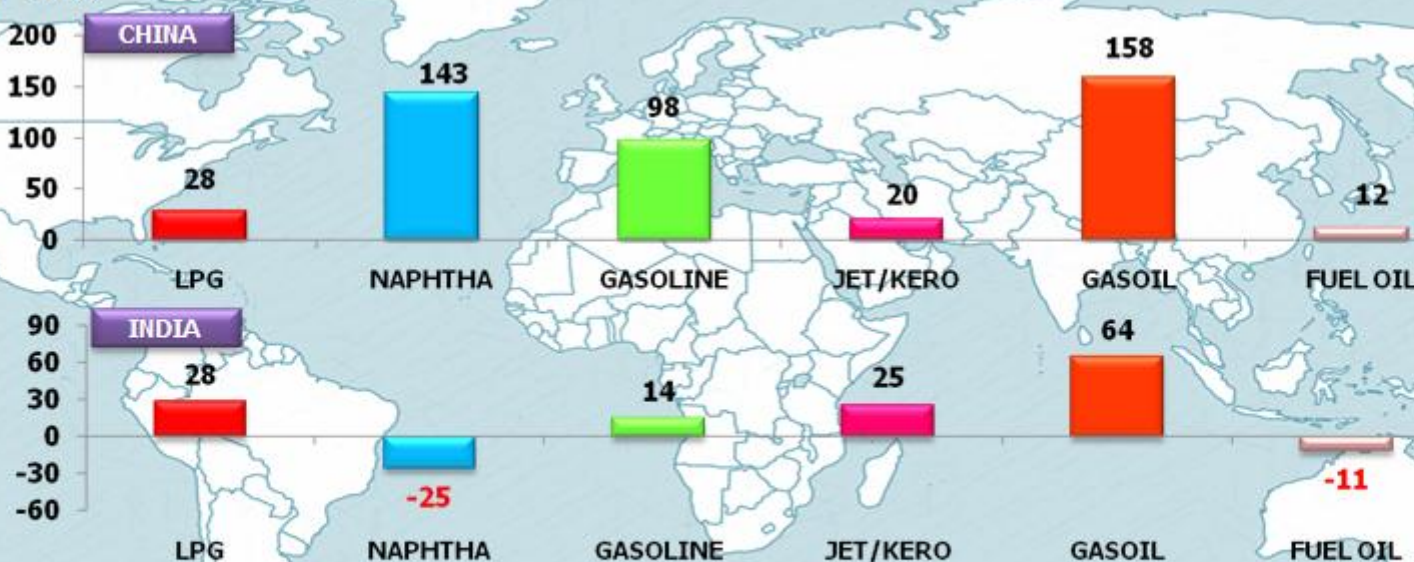


SOURCE : PRISM

WORLD OIL DEMAND DRIVEN BY EMERGING MARKET



UNIT : KBD



WEATHER



HOT

Projected to be warmer than normal

UNIT : KBD

U.S.

West Europe

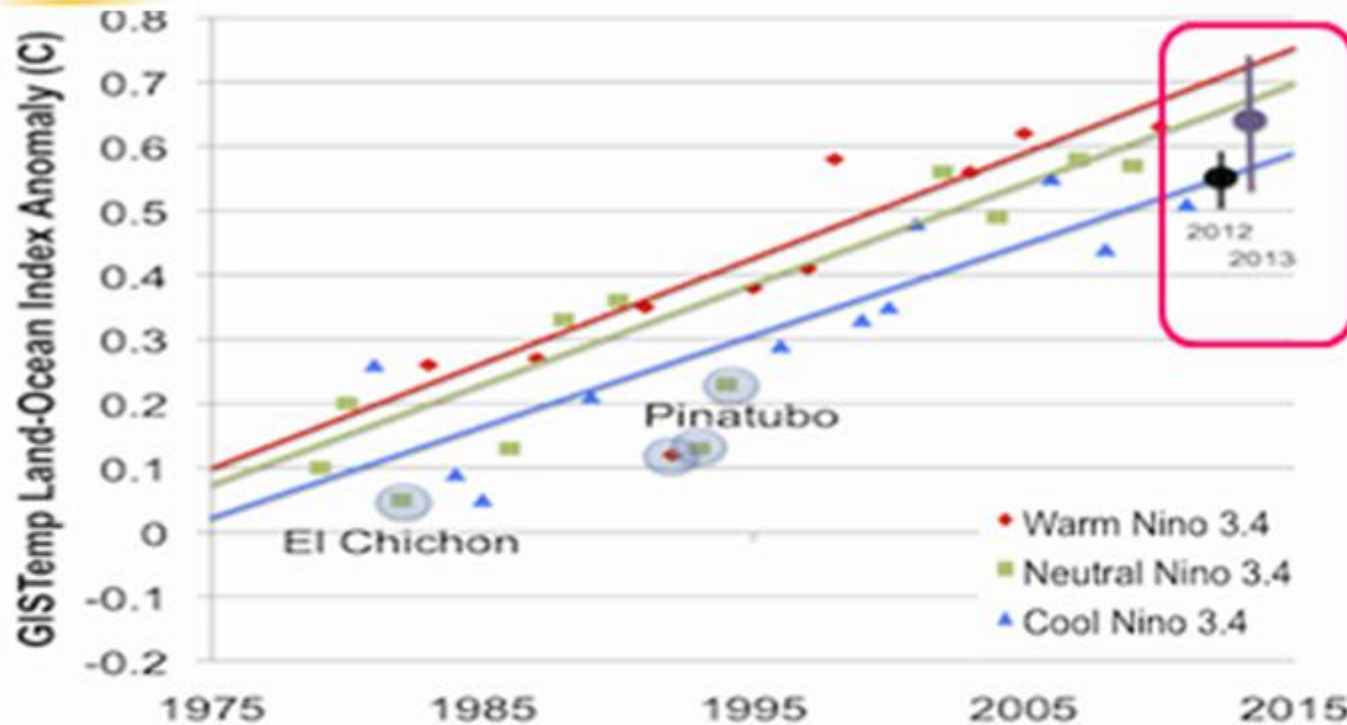
Japan

2013

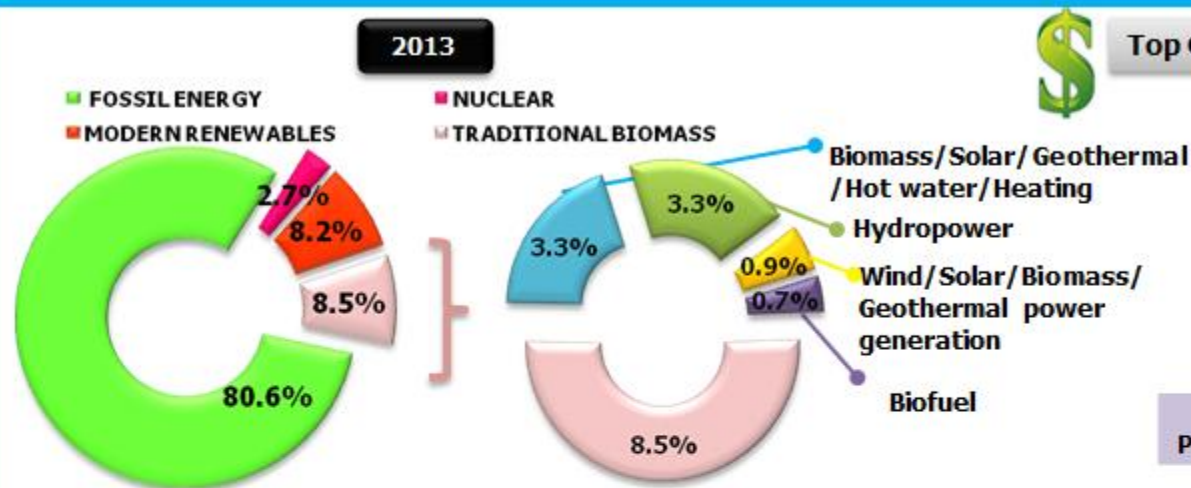
-70

-15

-10



NON-FOSSIL FUELS GROWTH IS LED BY RENEWABLES



Top Countries for Renewable Investment



Ethanol Production



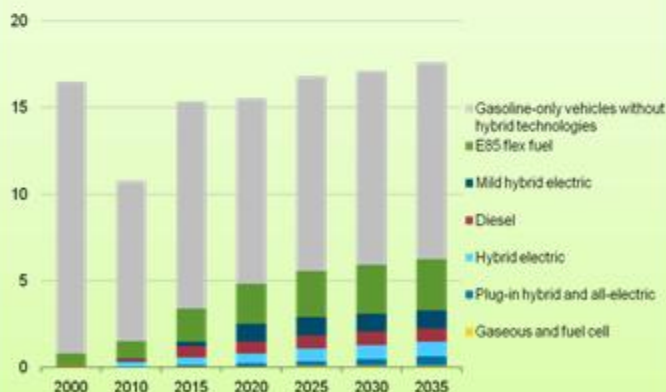
New Capacity Investment



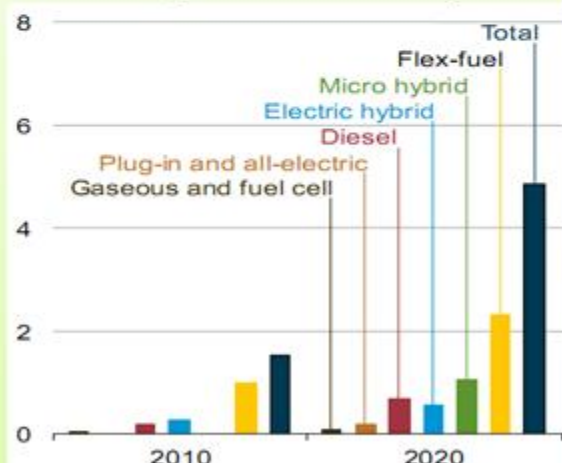
Wind Power Capacity

Gasoline-only vehicles without hybrid technologies decline as a share of new vehicle sales

Million Vehicles

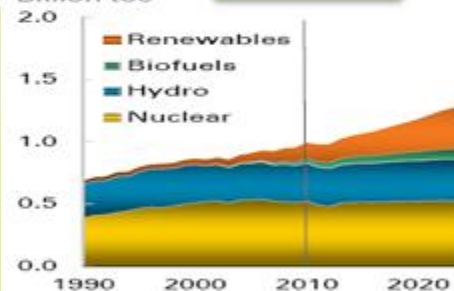


Sales of Alternative Fuel, Fuel Flexible and Hybrid Vehicles rise (Million Vehicles Sold)



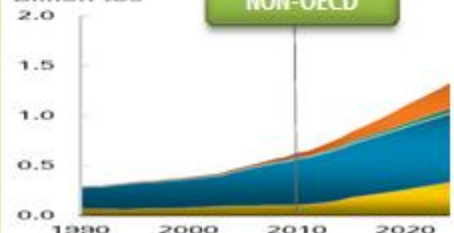
OECD

Billion toe



NON-OECD

Billion toe

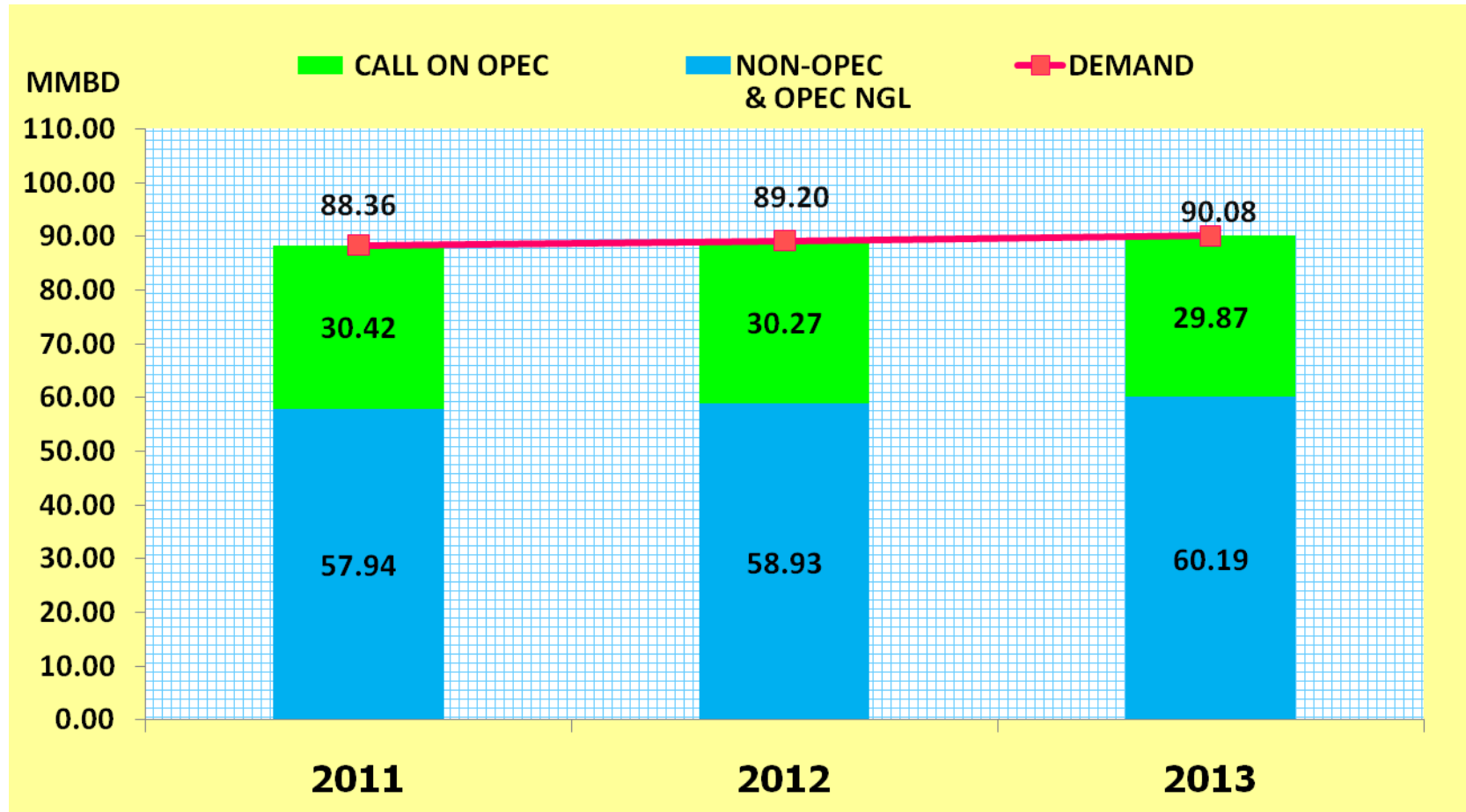




Oil Supply Outlook



HOW IS THE WORLD SUPPLIED?

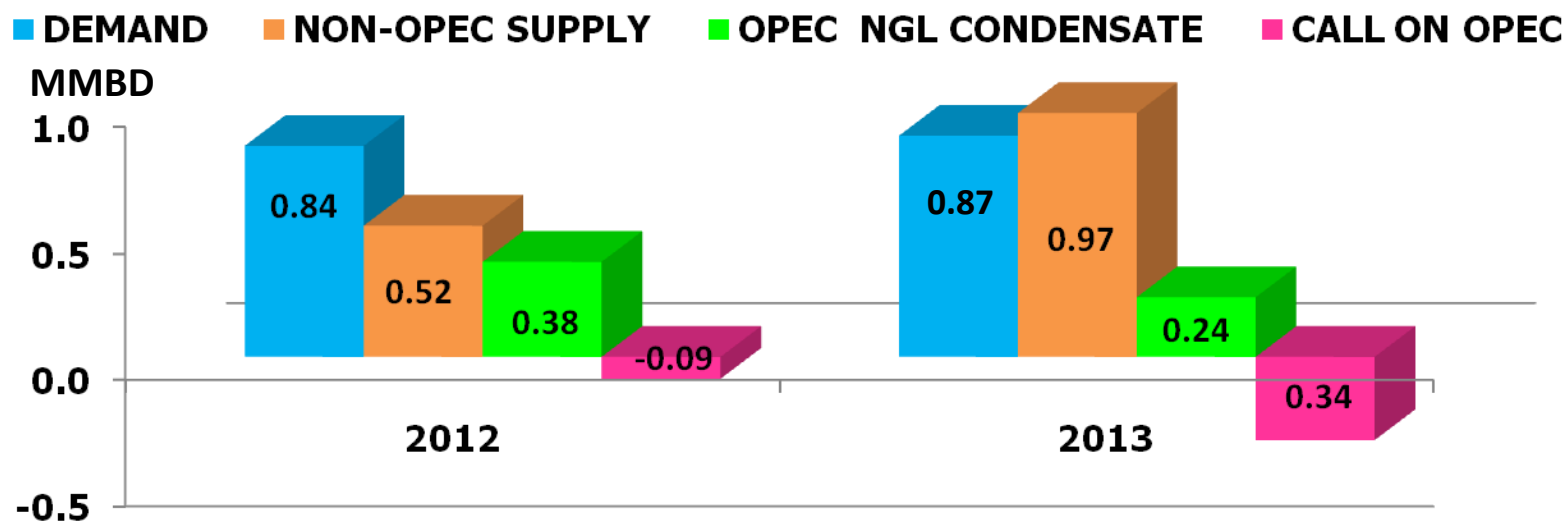


Non-OPEC production makes up two-thirds of the world's oil supply; whereas OPEC contributes the remaining portion

WHAT IS THE TREND FOR SUPPLY?

PRISM	DEMAND	NON-OPEC SUPPLY	OPEC NGL CONDENSATE	CALL ON OPEC
2011	88.36	52.43	5.46	30.50
2012	89.20	52.95	5.84	30.41
2013	90.08	53.92	6.08	30.08

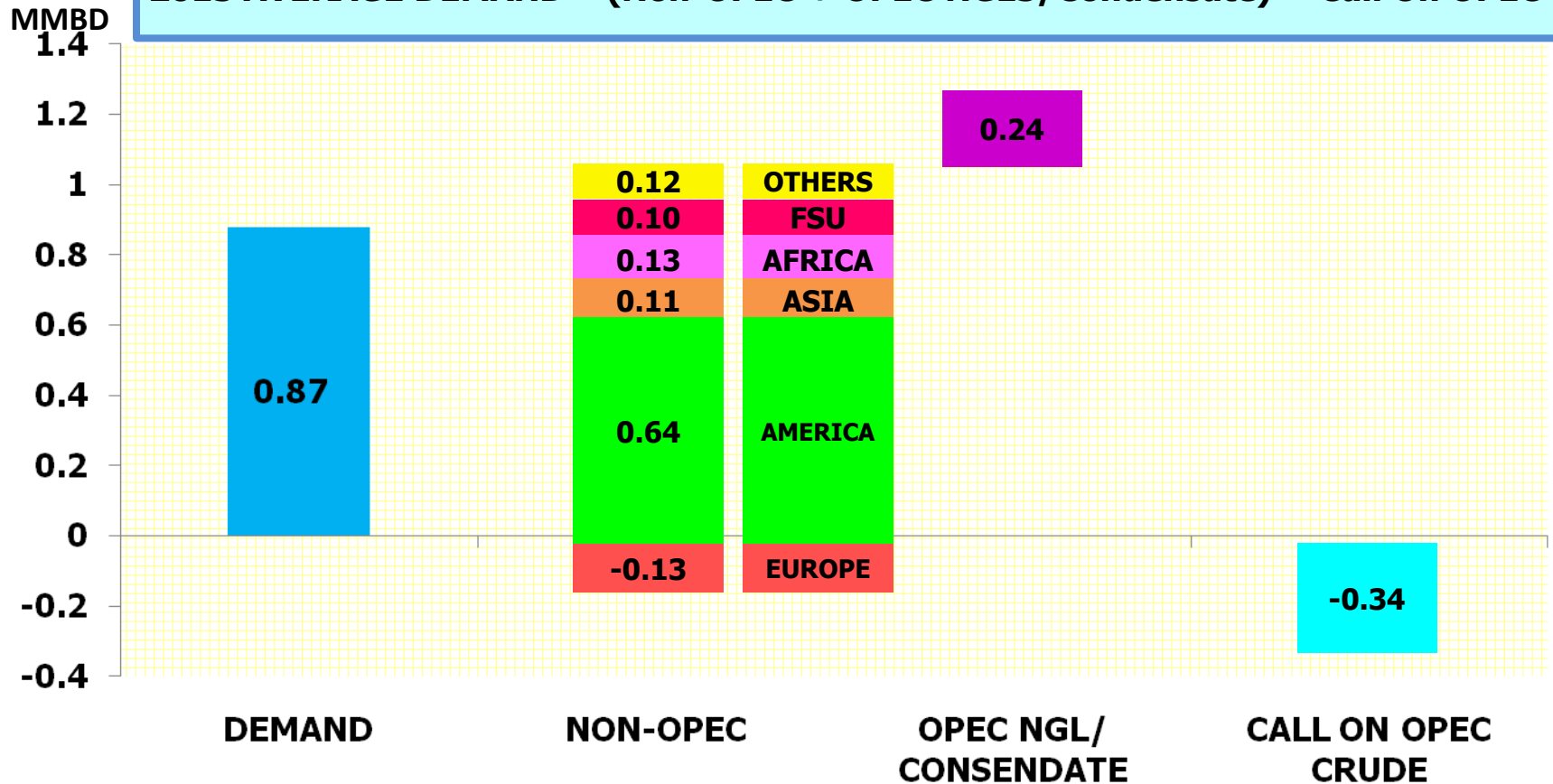
OIL SUPPLY OUTLOOK GROWTH 2012 AND 2013 (MMBD)



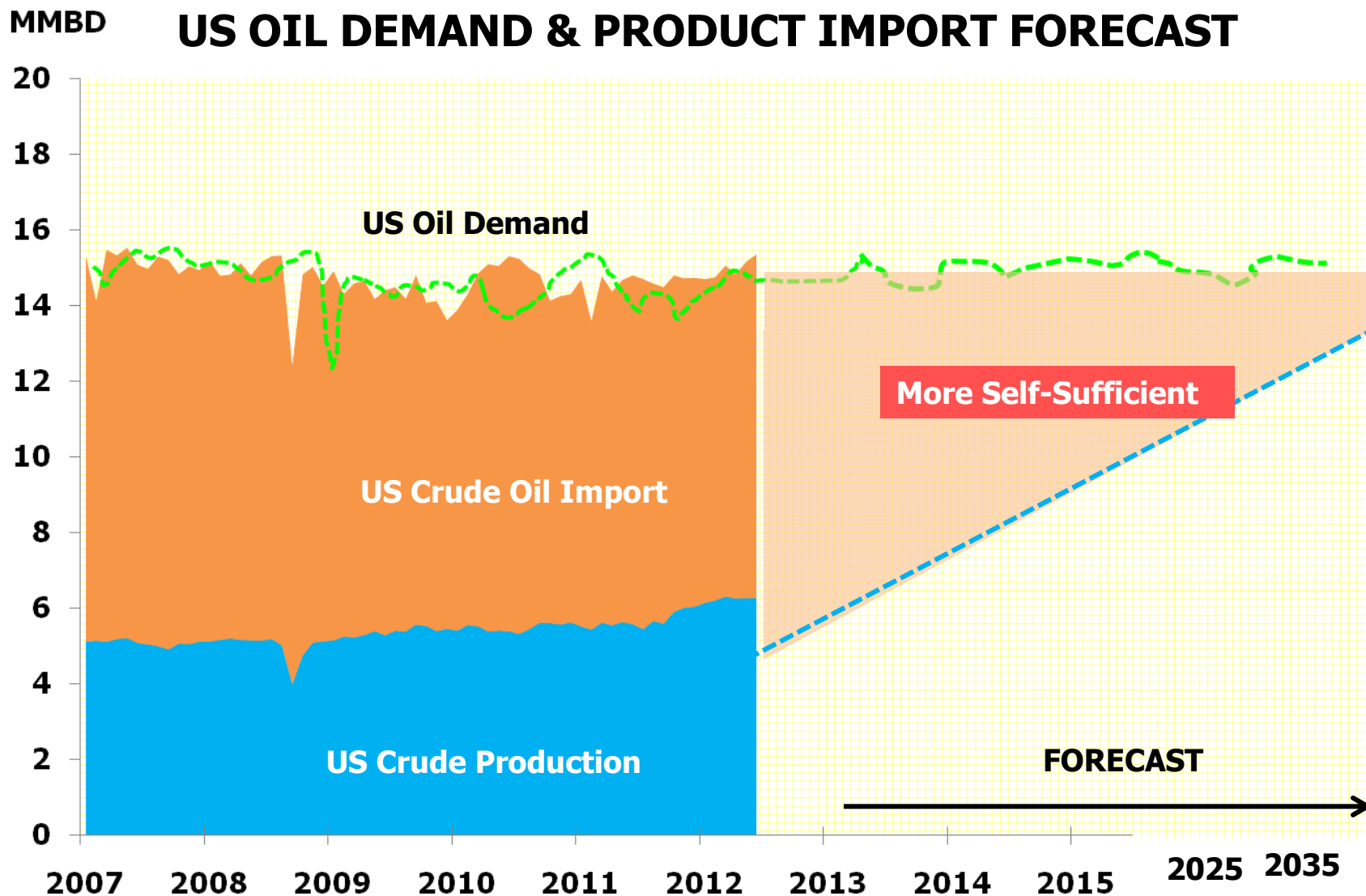
MAJORITY OF NON-OPEC SUPPLY GROWTH COME FROM THE AMERICA

WORLD OIL SUPPLY & DEMAND GROWTH 2012 VS 2013

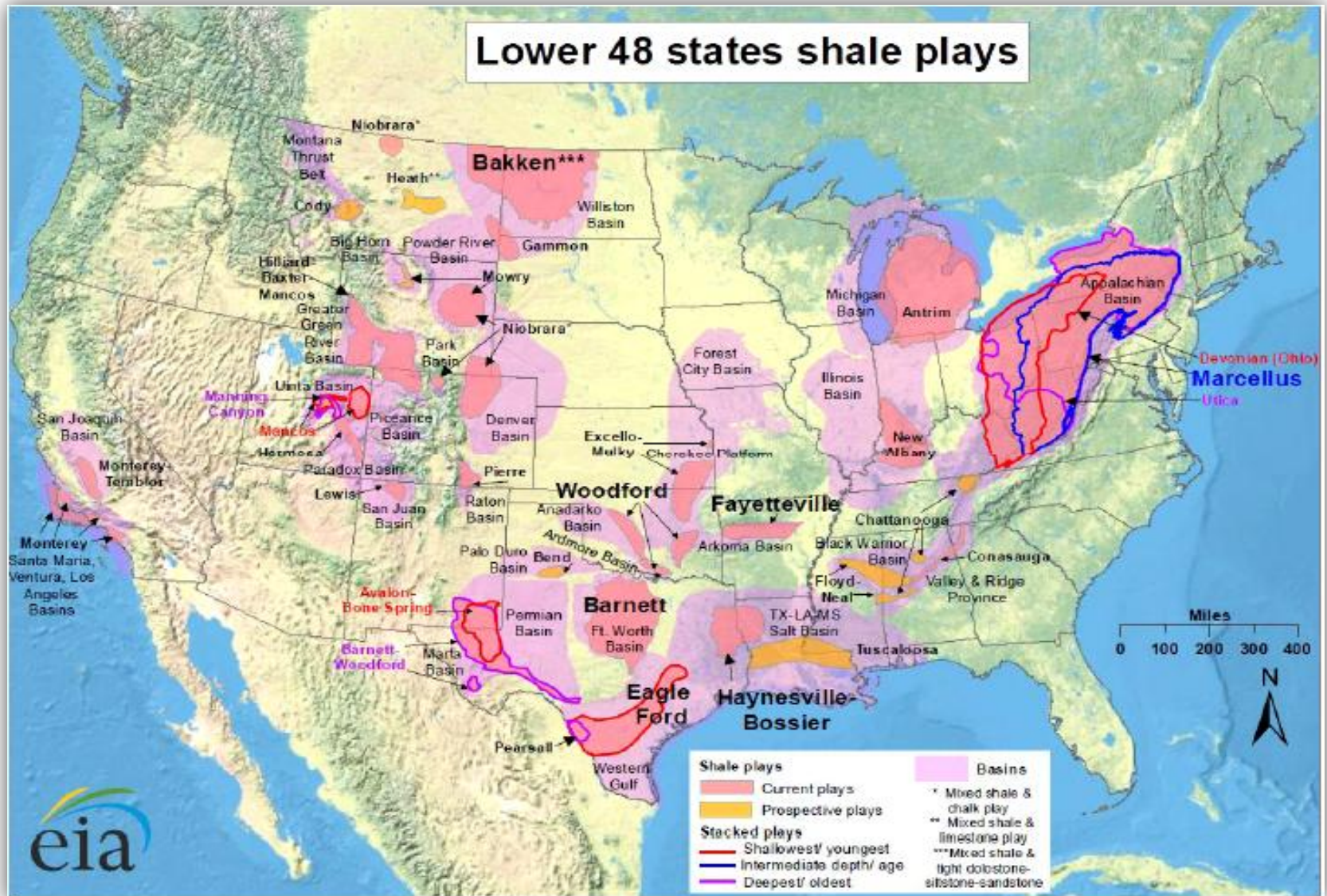
2013 AVERAGE DEMAND – (Non-OPEC + OPEC NGLS/Condensate) = Call On OPEC



CAN THE US BE SELF-SUSTAINED IN THE FUTURE?

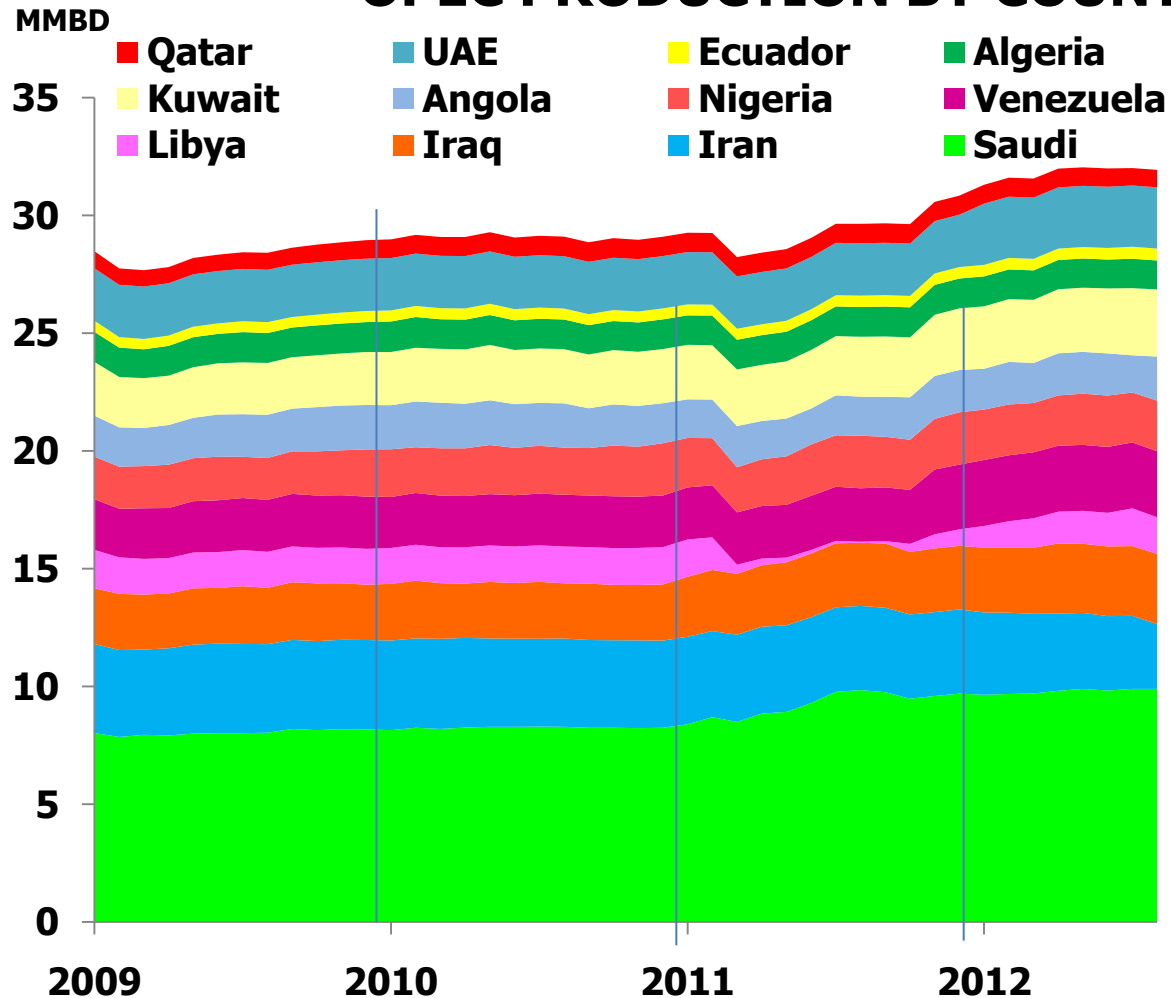


SHALE OIL & GAS ACROSS THE US



SAUDI ARABIA, BIG BOSS OF OPEC

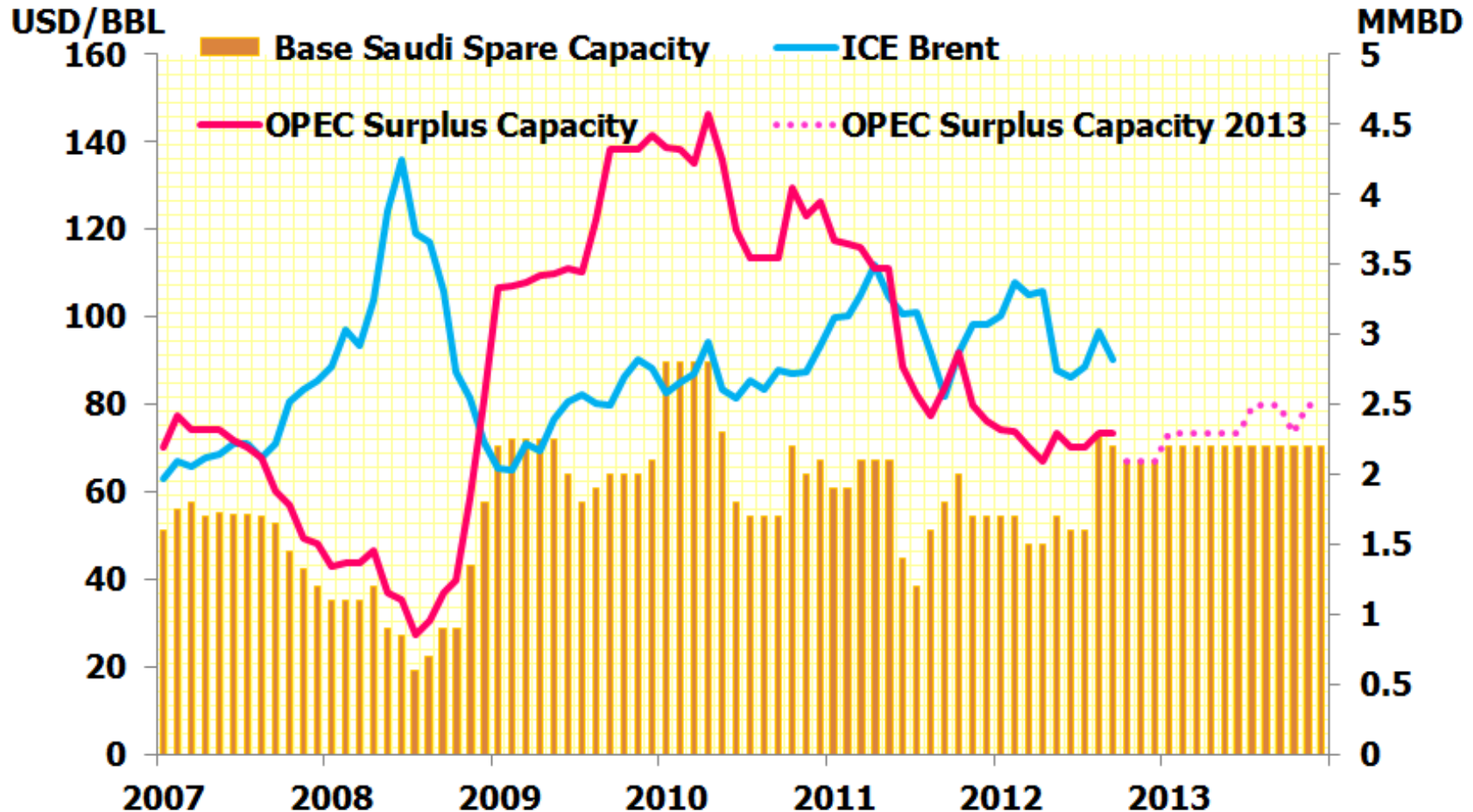
OPEC PRODUCTION BY COUNTRIES



UNIT/ MMBD	2011	2012 YTD
Saudi Arabia	9.23	9.79
Iran	3.62	3.23
Iraq	2.65	2.89
Venezuela	2.33	2.80
UAE	2.33	2.60
Kuwait	2.47	2.73
Nigeria	2.10	2.14
Qatar	0.81	0.78
Angola	1.68	1.75
Libya	0.49	1.32
Algeria	1.26	1.23
Ecuador	0.47	0.49

Source : BLOOMBERG LP PROFESSIONAL, REUTERS, PRISM

OPEC SURPLUS CAPACITY



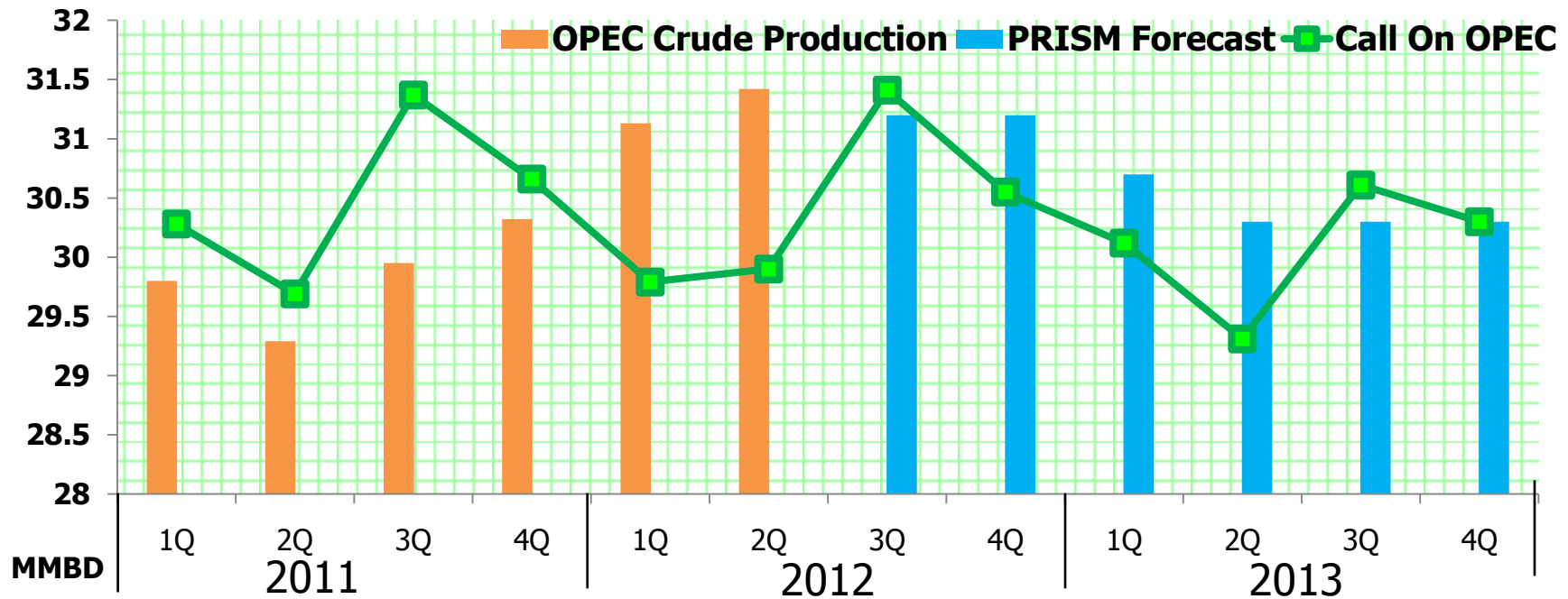
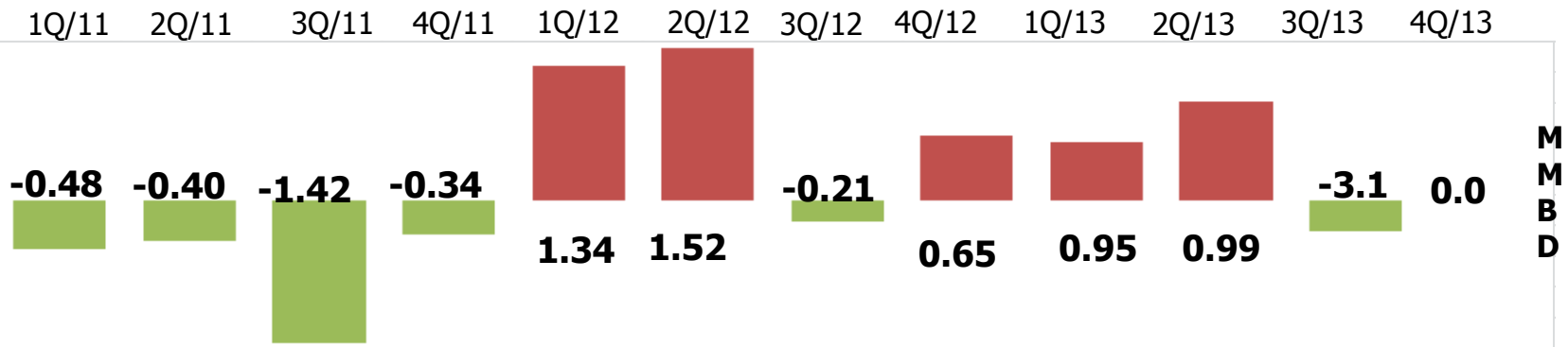
OPEC spare capacity will increase +0.2 MMB/D to 2.375 MMB/D in 2013. This will add more supply buffer to the crude oil market.

* OPEC capacity excludes Iran and Iraq

BALANCE OF THE MARKET IN 2013

Stock Build

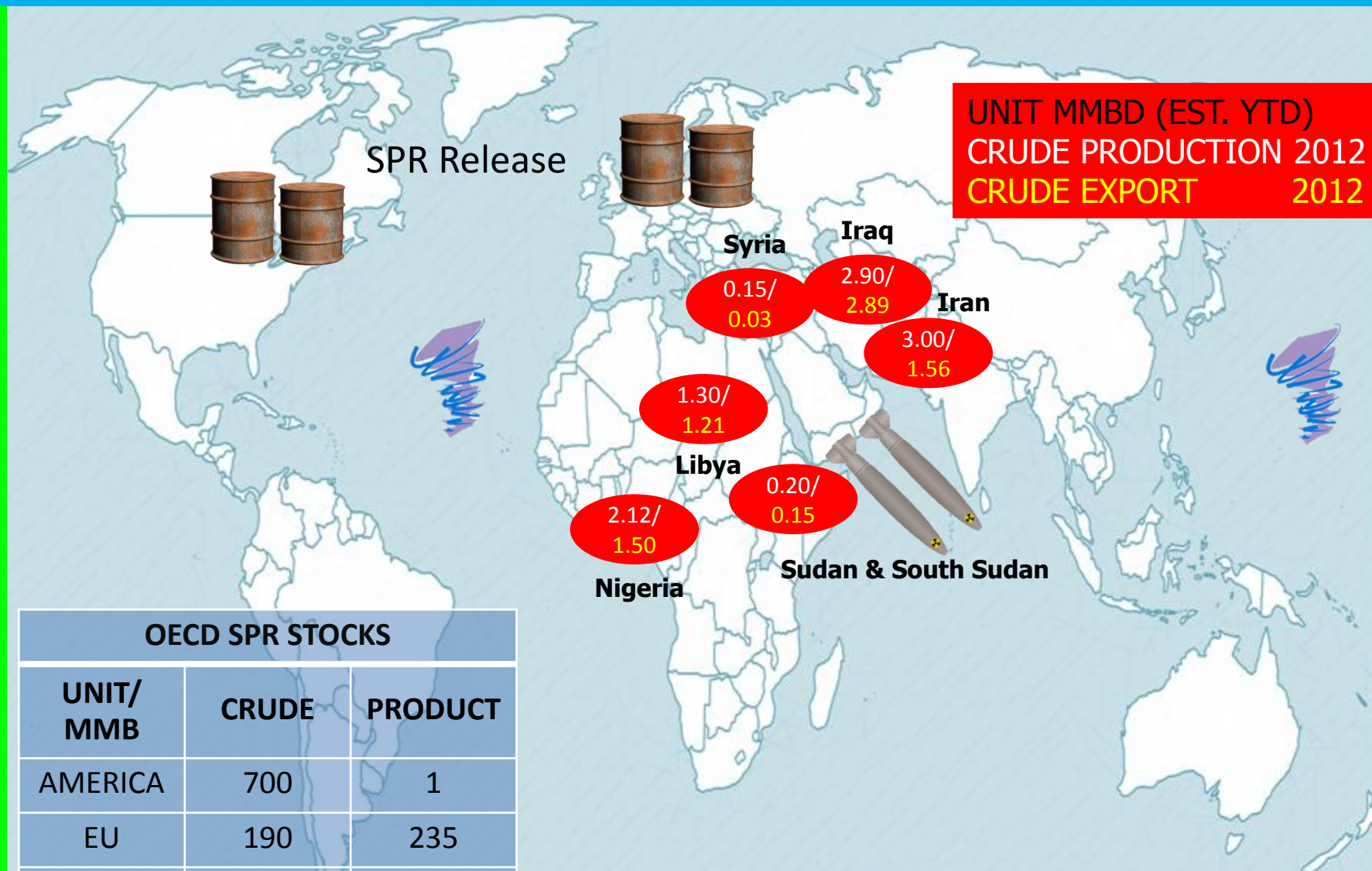
Stock Draw



If there is no additional supply outages, the oil market in 2013 will be better balanced and can result in crude stock gain

SUPPLY SHOCK TO WATCH

UNIT MMBD (EST. YTD)
CRUDE PRODUCTION 2012
CRUDE EXPORT 2012



OECD SPR STOCKS

UNIT/ MMB	CRUDE	PRODUCT
AMERICA	700	1
EU	190	235
ASIA	390	20
TOTAL	1,280	246

Source: IEA, PIRA and Prism



Oil Price Outlook



2013 OIL MARKET OUTLOOK SUMMARY

Macro & Oil Demand



Moderate Economic Growth

But downside risks remain...

Oil Demand + 0.9 MBD to 90.1 MBD

Oil Supply

Sufficient supply with growth from NON-OPEC

Lower call on OPEC by 0.3 MBD to 30.1 MBD

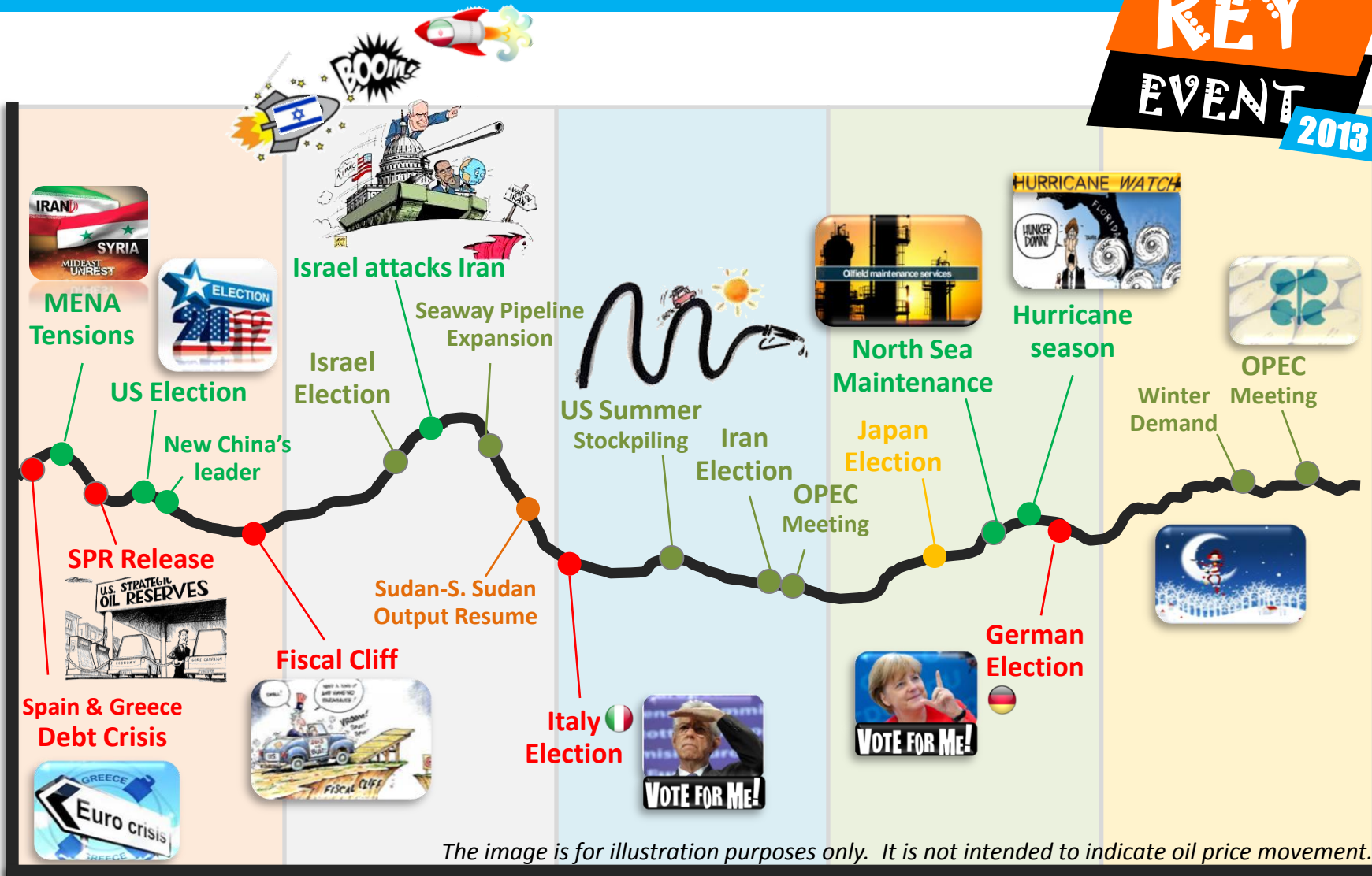


Other Factors



2013 OIL PRICE SCENARIO

**KEY
EVENT
2013**



Q4-2012

Q1-2013

Q2-2013

Q3-2013

Q4-2013

2013 OIL PRICE OUTLOOK

What We See.... *"Volatile oil prices on economic and politic uncertainties"*



Factors to watch....



US Fiscal Cliff



Middle East Tension



EU Debt Crisis

2013 OIL PRICE OUTLOOK

What others see. . .

- Slowing global economic growth and receding worries over a loss of Middle East supply are the key factors to bring oil prices down next year
- Only 4% of analysts expect Brent to below \$100 next year
- 51% of analysts believe Brent will average between \$100-110 in 2013

Unit: \$BBL	BRENT			
	Q4-12		2012	2013
CGES	100.9		109.6	90.7
Citi	105.0		110.0	99.0
UBS	100.0		107.9	100.0
Soc Gen	103.3		109.5	102.9
Deutsche Bank	100.0		106.3	104.0
PRISM	111.0		112.0	108.0
ABN Amro	105.0		110.0	110.0
BofA Merrill	108.0		111.0	110.0
JBC Energy	110.8		112.0	110.7
JPMorgan	105.0		110.0	113.0
ANZ	114.0		111.5	118.5
BNP Paribas	117.0		113.0	120.0
Barclays	117.0		113.0	125.0
Goldman Sachs	125.0		120.0	130.0
Median from Reuters	107.0		110.0	107.0

2013
Oil Outlook





Thailand Oil Demand Outlook



OIL DEMAND FORECAST FRAMEWORK

Oil Prices Outlook

MOPS Prices Outlook
(Gasoline/Diesel/Jet/FO/LPG)

Oil Demand Outlook

Economic Factor

GDP, Private Consumption,
Manufacturing Production
Index, Car Sales, Tourism

Government Policies Factor

Bio-fuel, Fuel Specification,
Energy Prices e.g. Diesel, NGV, LPG
Petroleum Pricing Structure,

Source: Thaioil

GROWTH DESPITE GLOBAL SLOWDOWN

Thai GDP is forecasted to grow around 5%.

- Global economic slowdown namely US, EU and China largely depresses Thai export value.



NOMURA



Goldman Sachs



TISCO

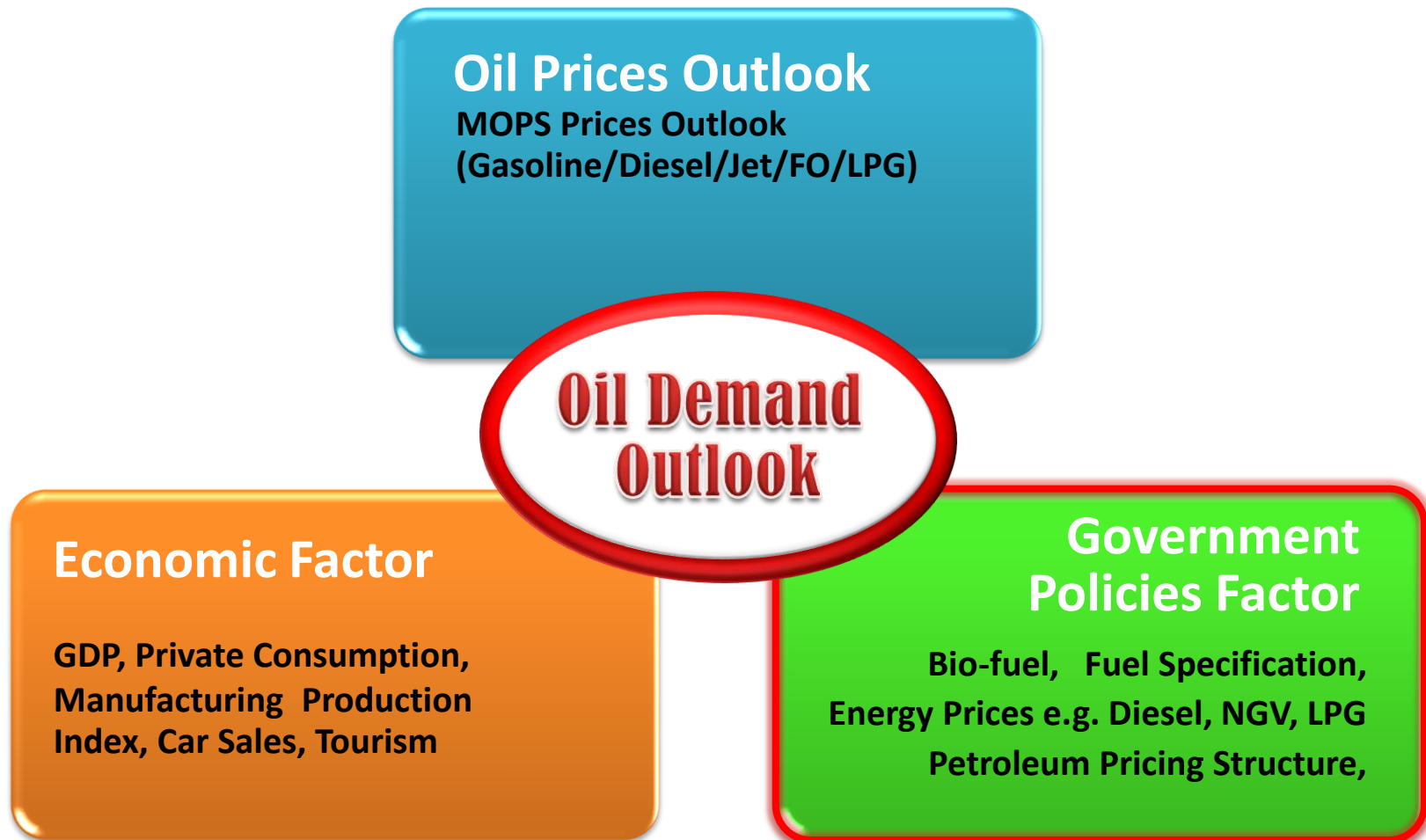


UBS

GDP Growth %yoy		
	2012F	2013F
JP Morgan	3.5	2.3
Standard Chartered	3.5	4.9
Kasikorn Research	5.0	5.0
HSBC	5.5	4.5
Nomura	5.5	4.7
Thai Fiscal Policy Office	5.0-6.0	5.2-6.2
Phatra Securities	5.7	4.5
Goldman Sachs	5.7	4.8
PRISM	5.7	5.0
Bank of Thailand	5.7	5.0
SCB	5.7	5.2
NESDB	5.5-6.5	n.a.
Tisco Securities	6.0	5.0
UBS	6.0	5.5
Median	5.7	4.5

Source: Bank of Thailand (Inflation Report July 2012) / PRISM

OIL DEMAND FORECAST FRAMEWORK



Source: Thaioil

GOV'T POLICY... THE BIGGEST FACTOR



Thailand oil demand is highly affected by government policy.

- Diesel has surged by 7% this year after the price is closely monitored by government of which trend is likely to continue.
- LPG and NGV retail price to be increase but still cheaper than gasoline and diesel
- Ministry of Energy has target of reducing energy consumption per unit of GDP by 25% by 2030

30 Baht diesel



Gas price **Increase**

Bio-fuel



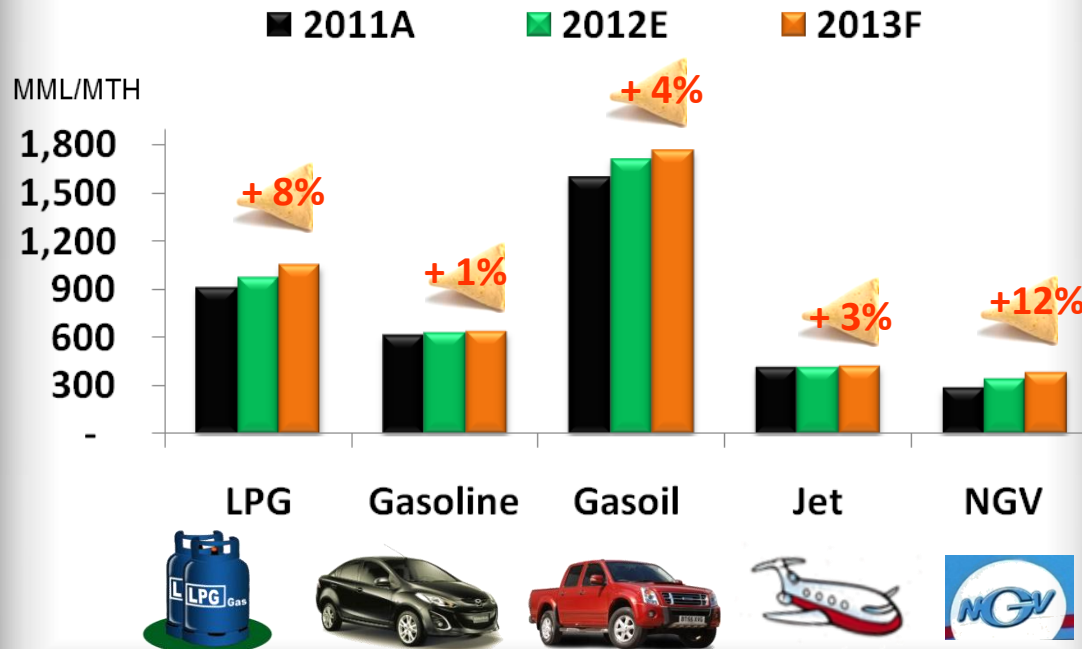
Gasoline 91
Phase Out



Implication on Oil Demand

UNSTOPPABLE DEMAND

Thai Petroleum Demand 2011-13



Mogas +1%

- + First car tax rebate scheme
- + LPG price to increase
- Less support from oil fund

Diesel +4%

- + Price control at 30B/litre
- + Diesel tax delay
- + NGV price to rise

Jet +3%

- + Continue tourism growth
- Lower long haul freight & freight cargo

2013

Total demand grows 4%

Source: Department of Energy Business / Thaioil



THANK YOU

PTT Group Oil Market Intelligence Team

