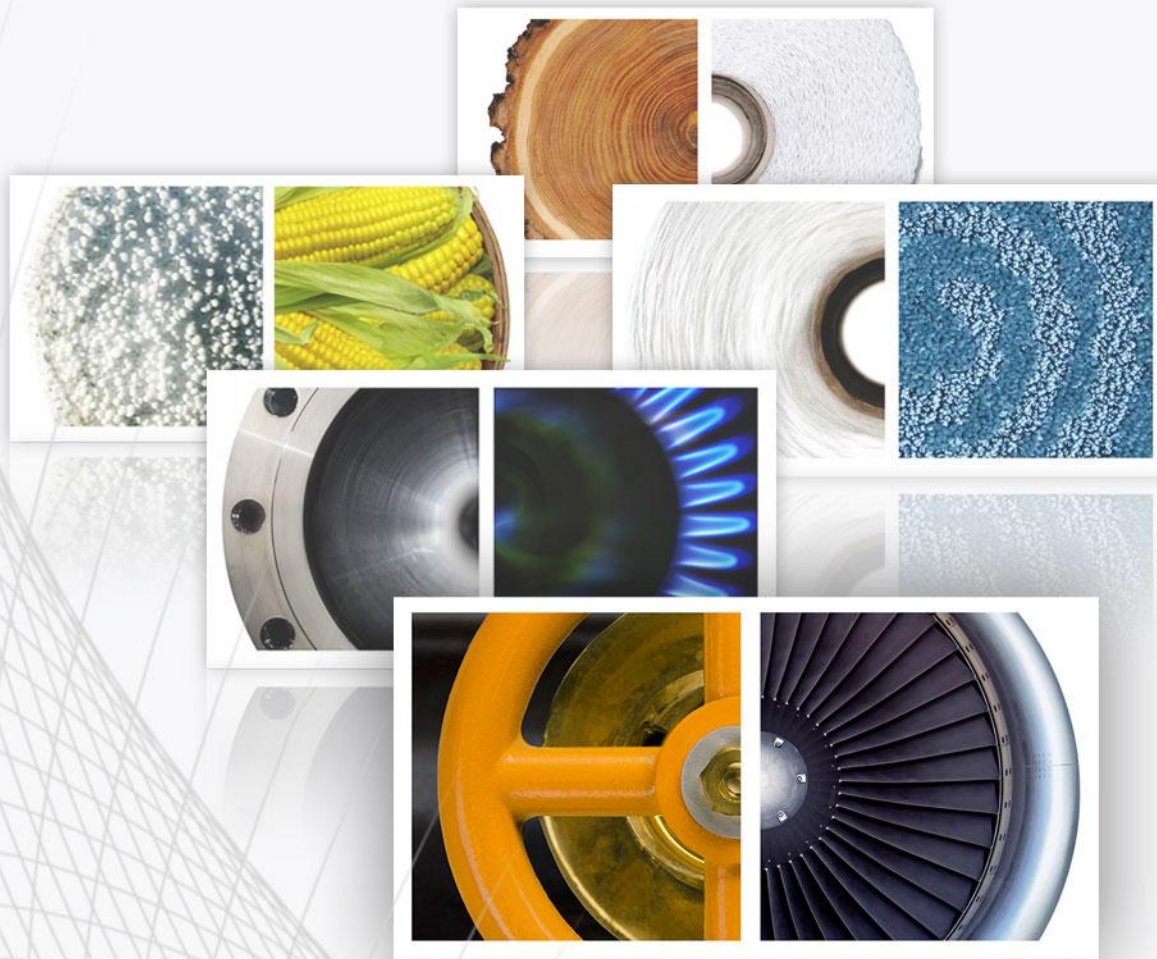


TRANSFORMING
DAILY LIFE™



Wichita Economic Outlook Conference

October 6, 2011



The views expressed in this presentation are my own and do not necessarily reflect the positions and policies of Koch Industries, Inc.

Today's Agenda

- Review comments from October, 2008
- Current economic update and point of view
- Looking ahead
 - Volatility and importance of liquidity
 - Strong opportunities for North America
 - Exports
 - Agriculture
 - Energy

2008: Significant Headwinds

- Regulatory constraints increasing
- High corporate tax driving cash off-shore
- Rising commodity inputs (foreign demand)
 - Grains
 - Crude
- Housing challenged
- Credit constraints
 - Excessive government borrowing
 - Lacked will to tackle entitlement spending
 - Potential for USA downgrade before 2013

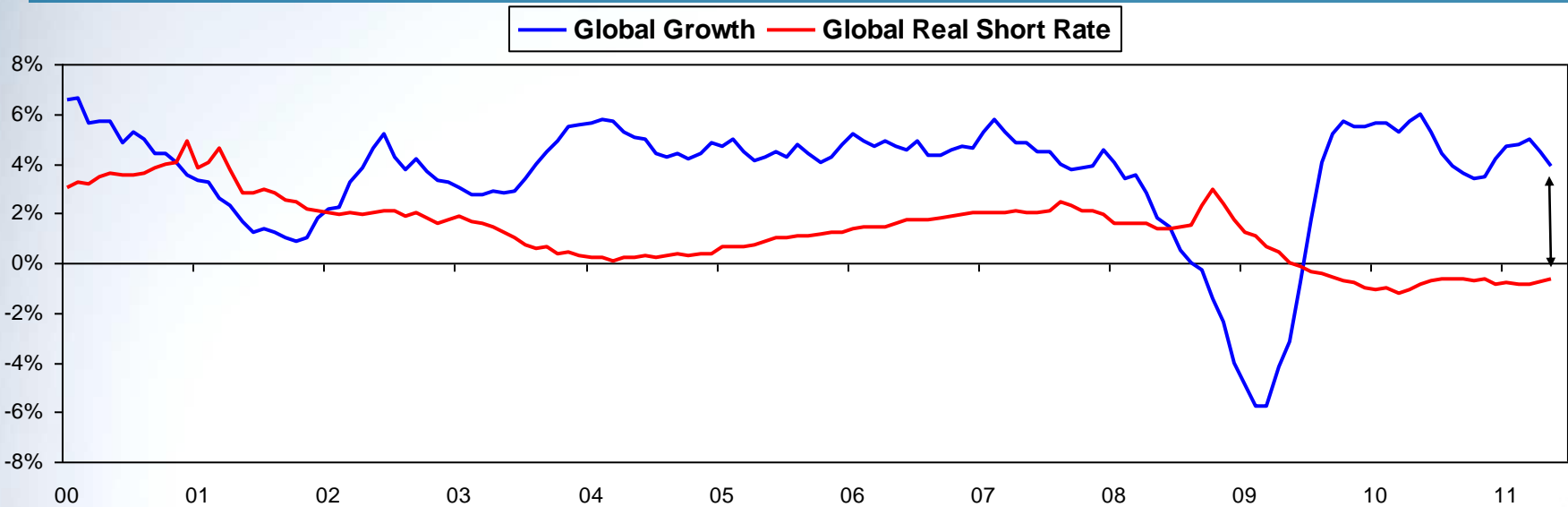
2008: Promising Developments in Energy

- Natural gas production trends positive in USA
 - Shale : Gas
 - Shale : Oil
 - Shale : Liquids

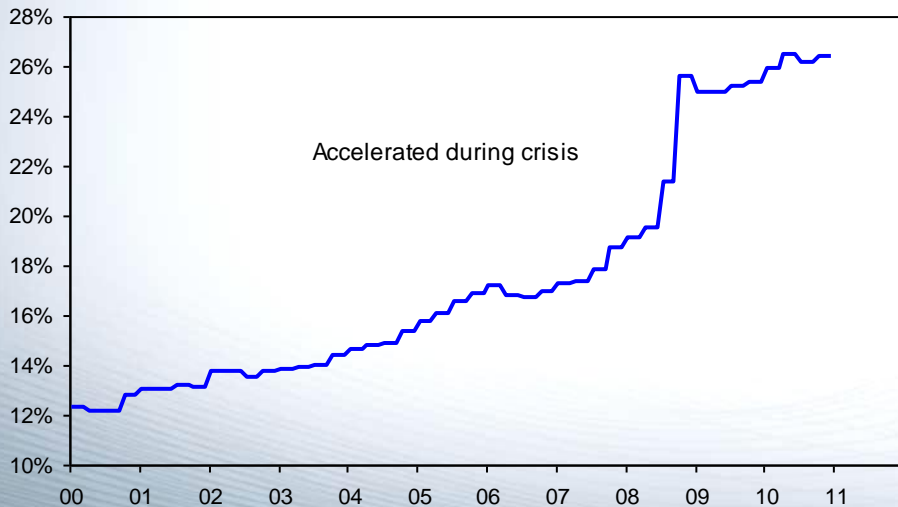
Current Economic Observations

- Stimulative global policy supported reflation.
- Global tightening has started in the context of an overly-indebted developed world. Demand is weakening. Volatility will be high.
- There are acute divergences between economies with linked monetary policies but very different levels of debt and output, in particular:
 - USA and China
 - Germany and the Euro periphery

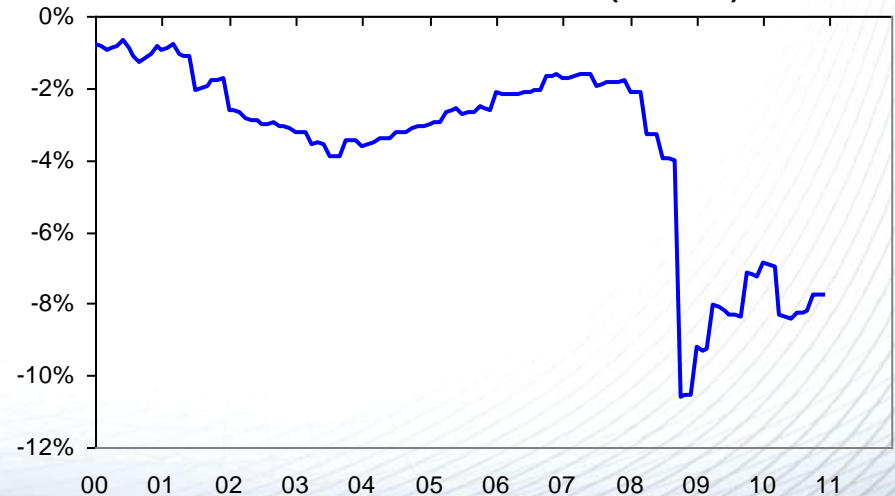
Extremely Stimulative Policies



Global Central Bank Balance Sheet (% PGDP)

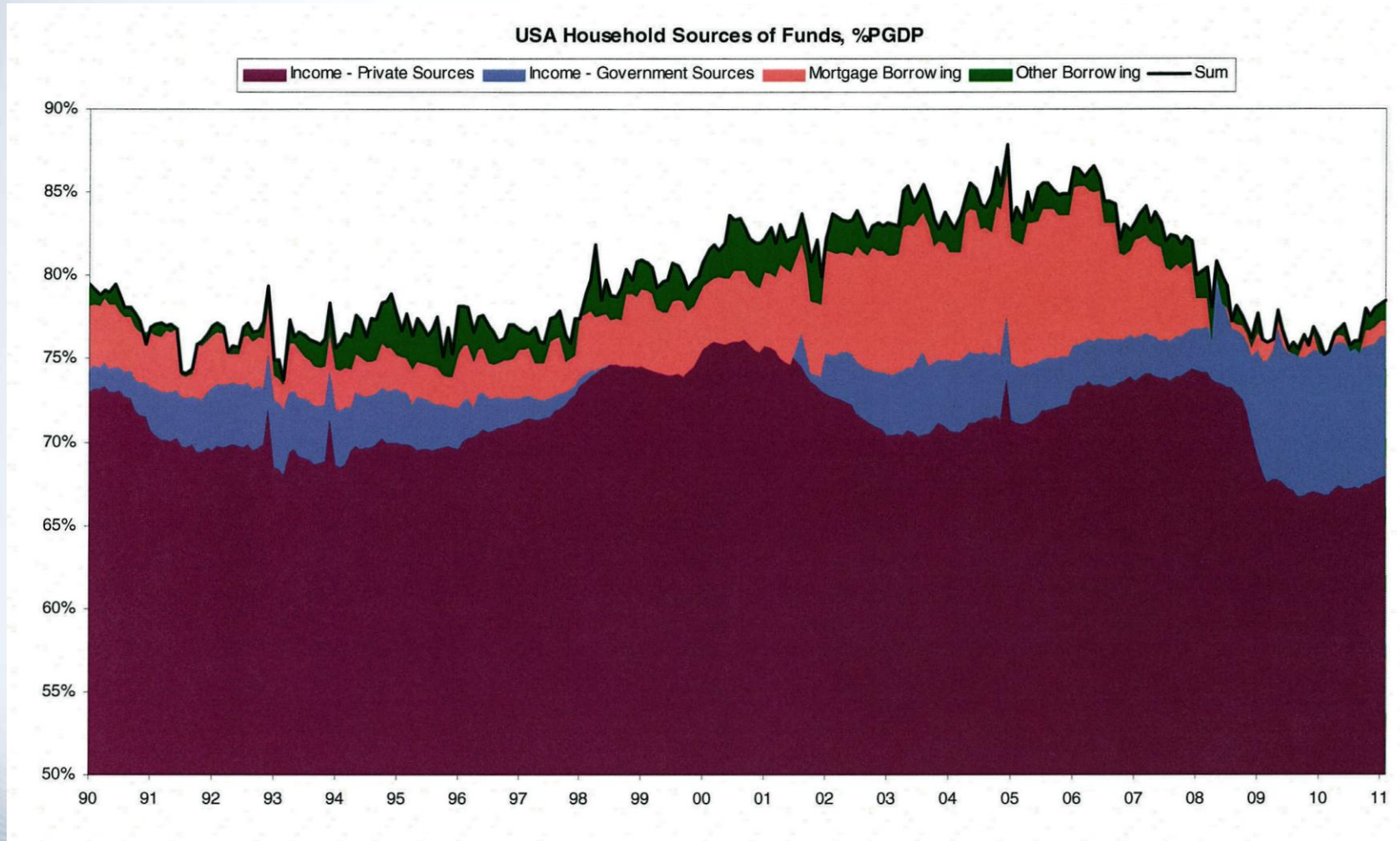


Global Government Deficit (%PGDP)



Source: Bridgewater

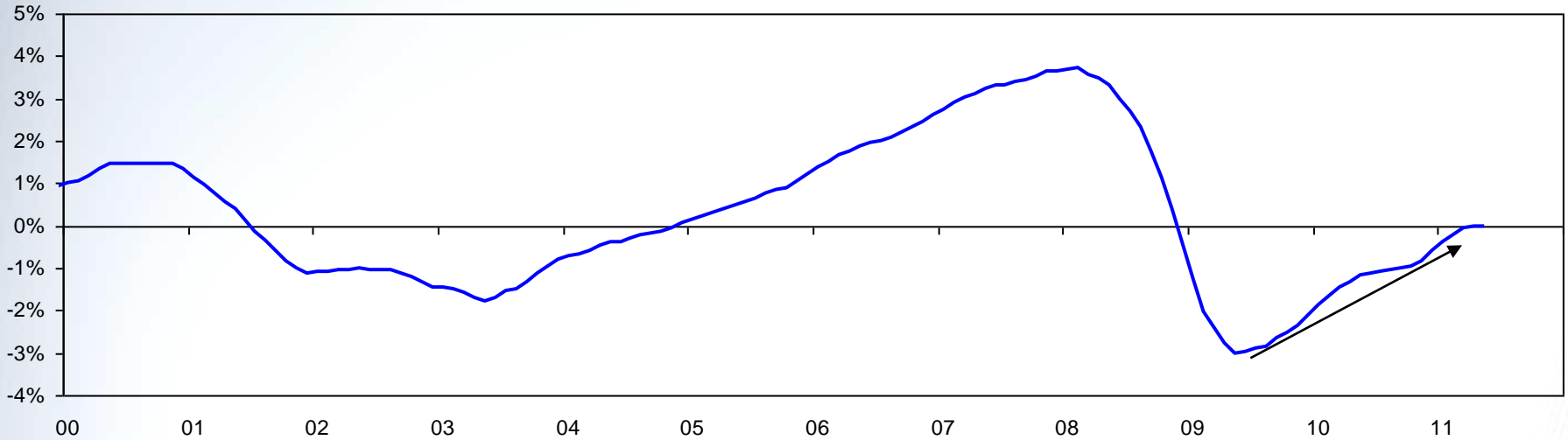
More Government Support to Income Made Up for Weaker Private Sector



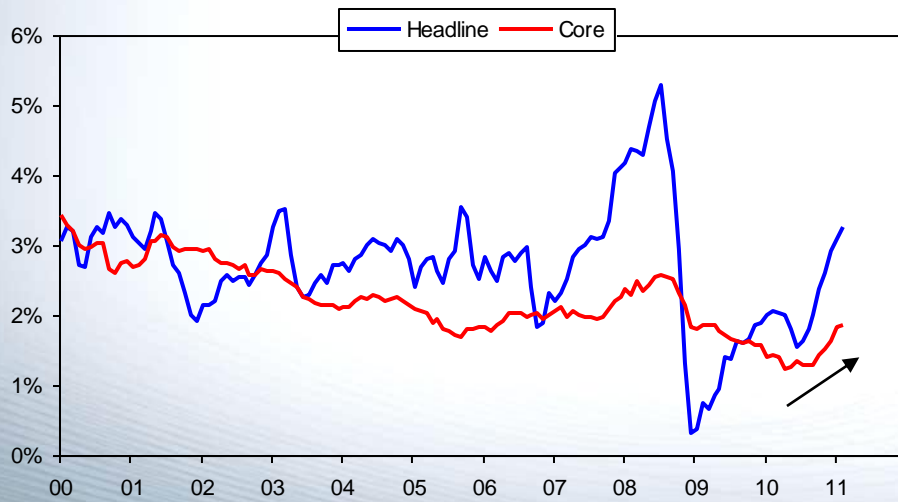
Source: Federal Reserve

Growth Began to Consume Capacity, Pressuring Inflation . . .

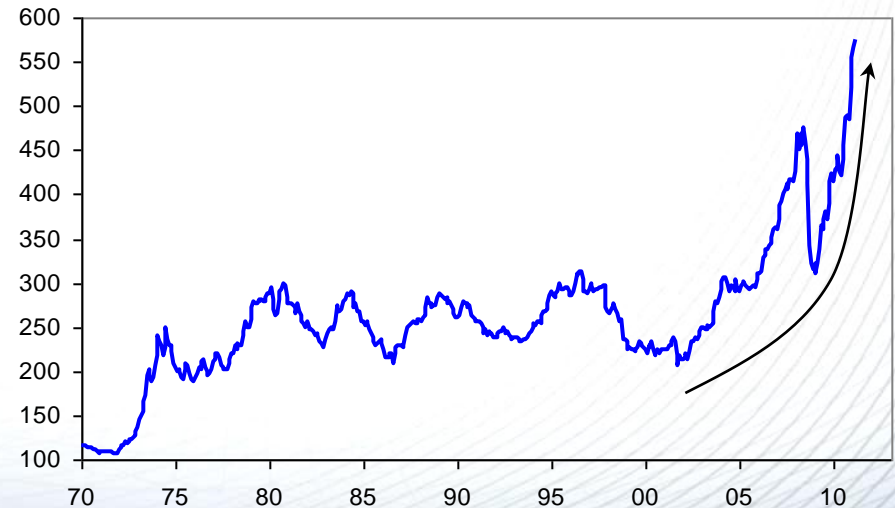
Global Output vs. Potential



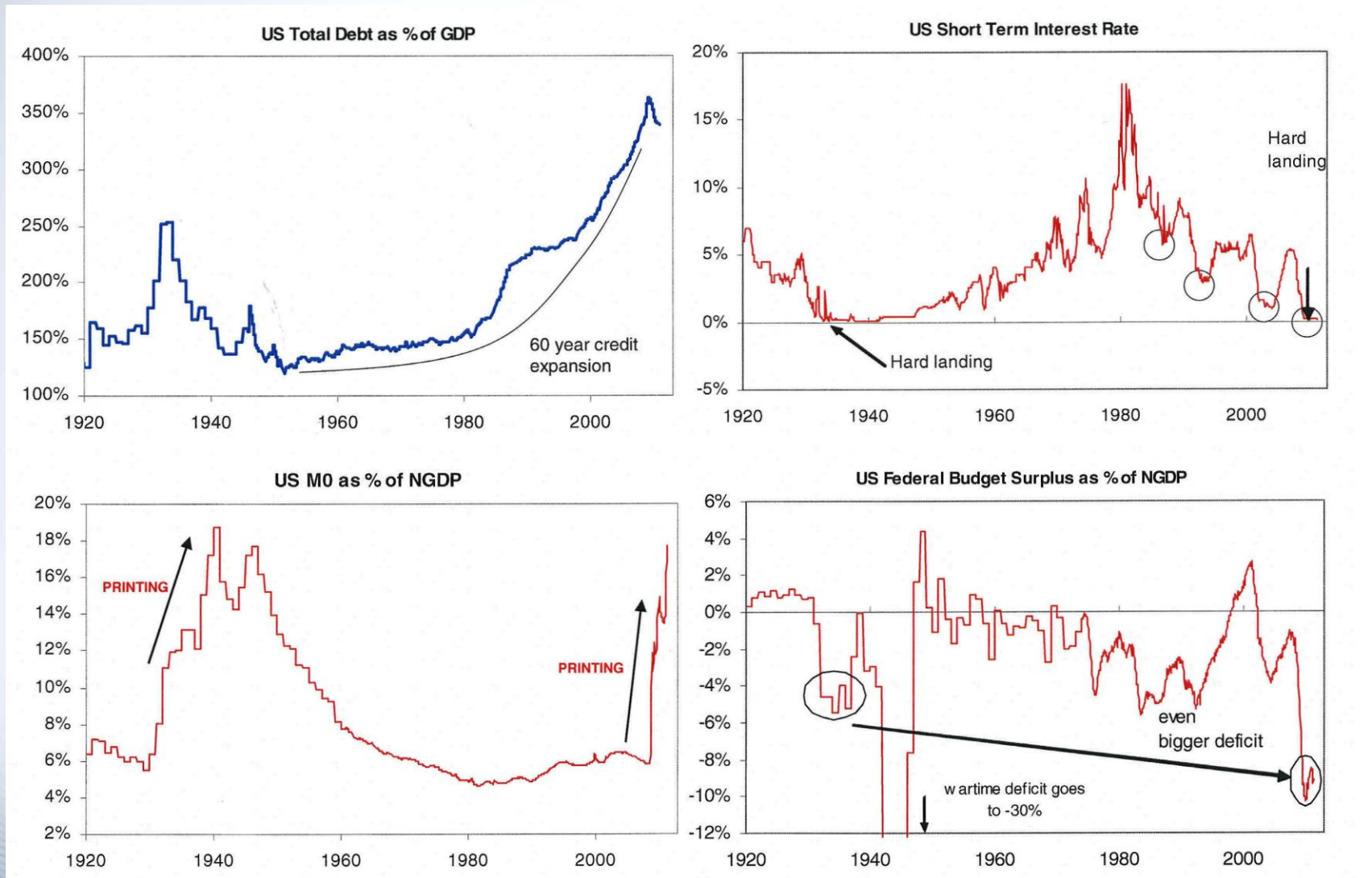
World Inflation



CRB Commodity Index



But the Long-Term De-leveraging Forces Will Continue to be at Work

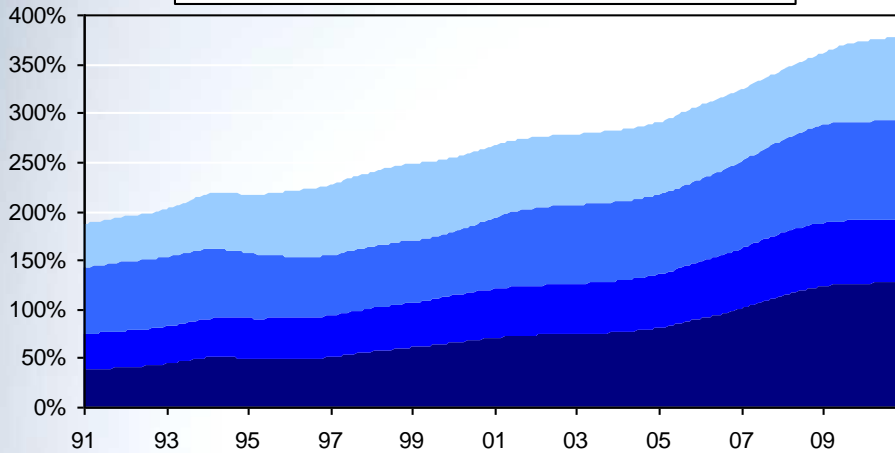


Source: Global Financial Data Inc. and Bridgewater Analysis

The Developed World Has Reached Its Debt Limits

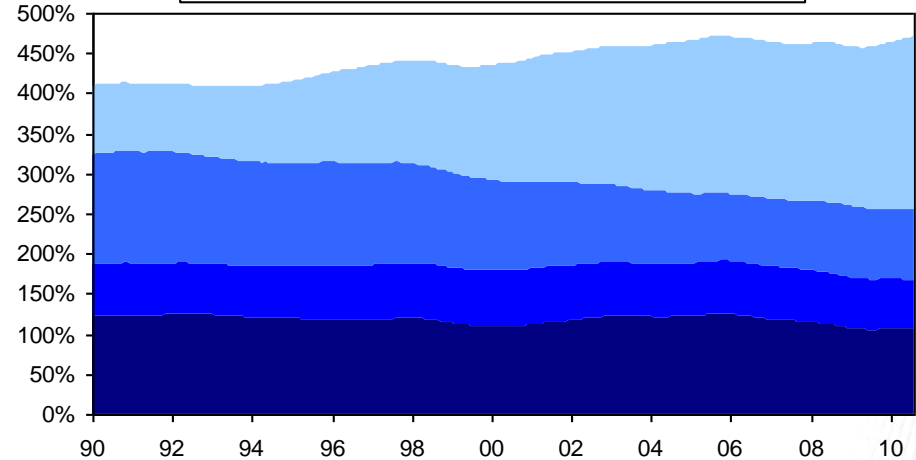
Euroland Debt (% PGDP)

Financial Sector HH NonFin Business Public Sector



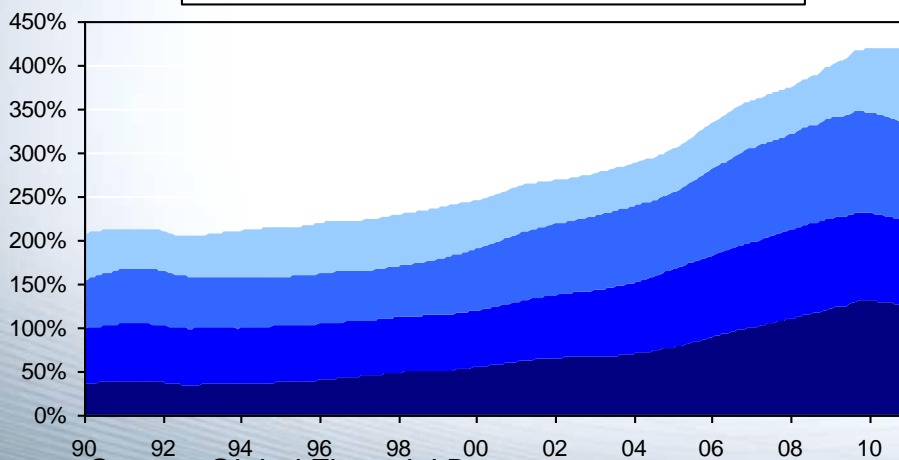
Japan Debt (% PGDP)

Financial Sector HH NonFin Business Public Sector



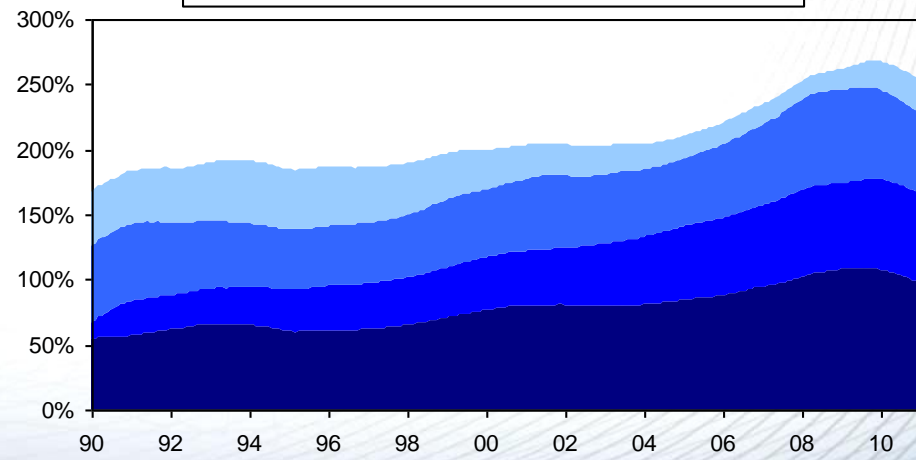
UK Debt (% PGDP)

Financial Sector HH NonFin Business Public Sector



Australia Debt (% PGDP)

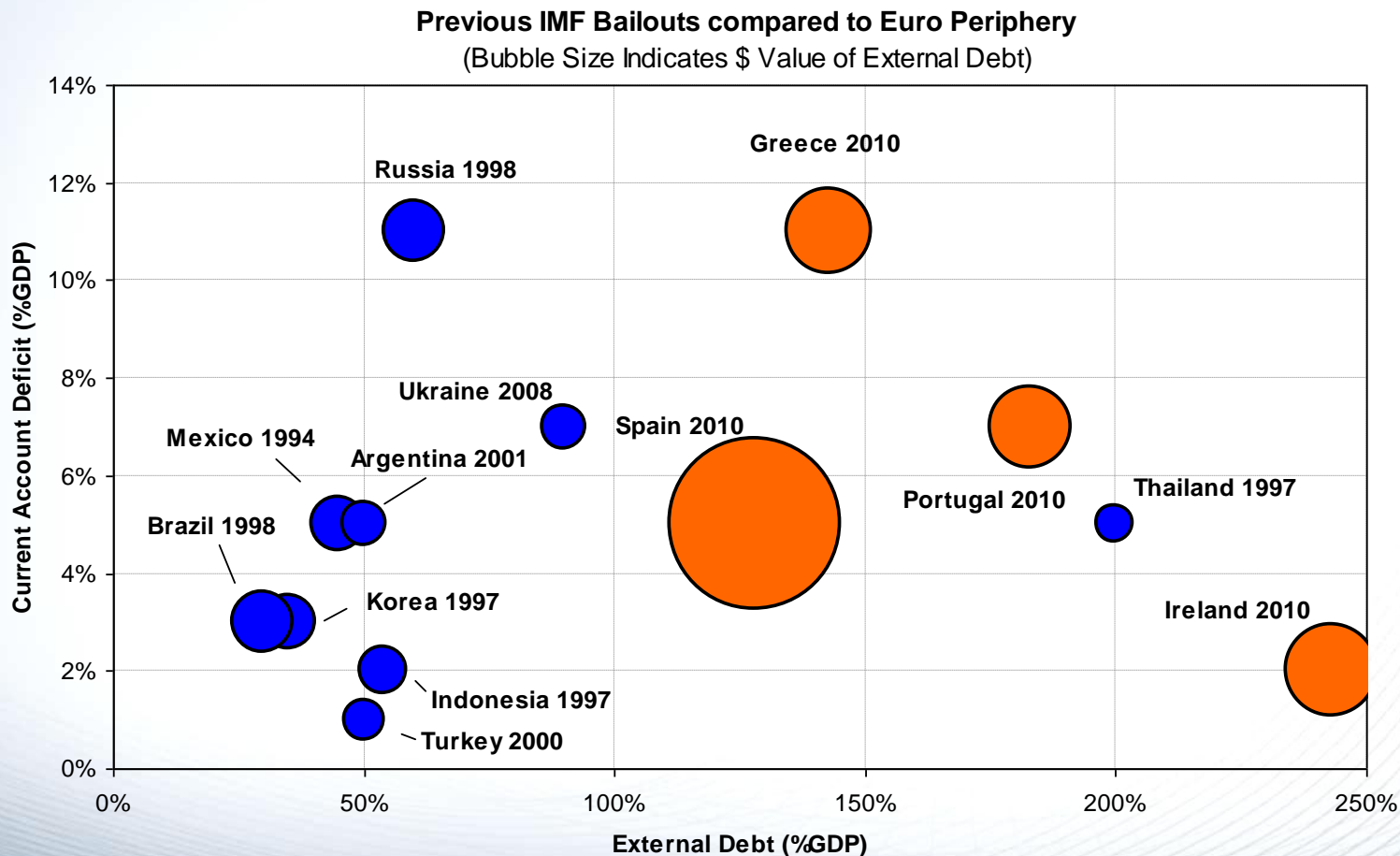
Financial Sector HH NonFin Business Public Sector



Source: Global Financial Data

European Periphery Debt Problem is Big

- ◆ IMF typically started lending at levels of external debt and current account deficits well below where Greece is today
- ◆ All of these cases involved at least a 25% currency devaluation



Direct IMF lending cases do not include IMF lending to Hungary and Pakistan in 2008.
External debt figures adjusted based on Bridgewater estimates of impact of pass-through lending and liabilities of foreign bank subsidiaries.

Source: Bridgewater

The Solution

- Spending restraint
- Growth
 - Focus on **Sources** of GDP, not **Uses** of GDP
- Patience
 - Multiple years to resolve

Gross Domestic Product

Sources

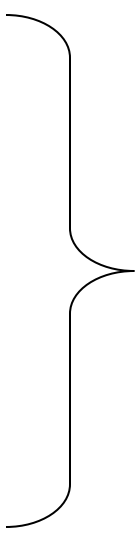
- Income (e.g. salaries)
- Profits
- Borrowing, net of saving

Uses (GDP Defined)

- Consumption
- Investment
- Government
- Net export - import

- Profit is a source, not a negative.
- Borrowing must eventually be repaid.
- Government is a use, not a source.
- Transfer payments are not income.

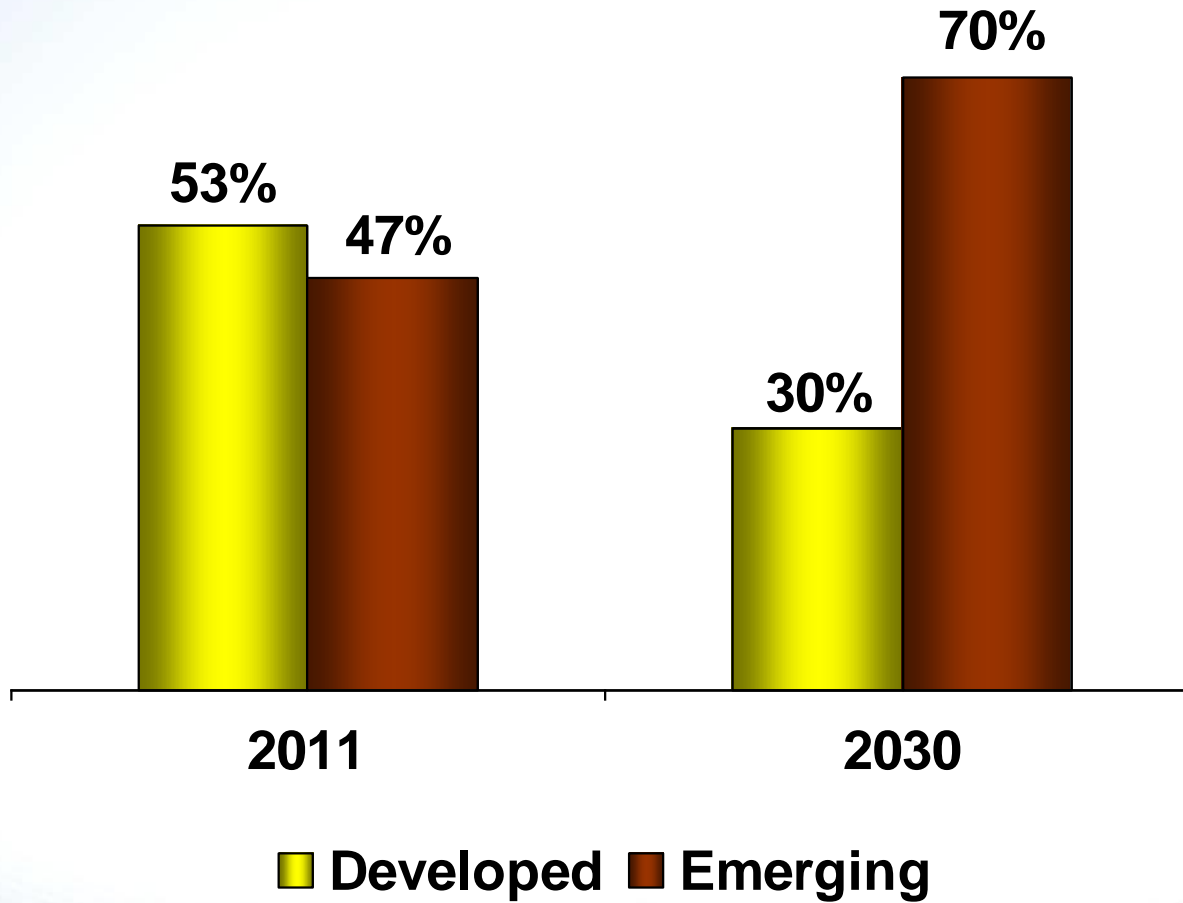
Recap: USA and Most Developed Economies

- Stagnant growth
 - Inflationary
 - =
 - “Stag-flation”
- 
- More risk requiring more mitigation
 - Margin pressure
 - New sources of volatility and opportunities →

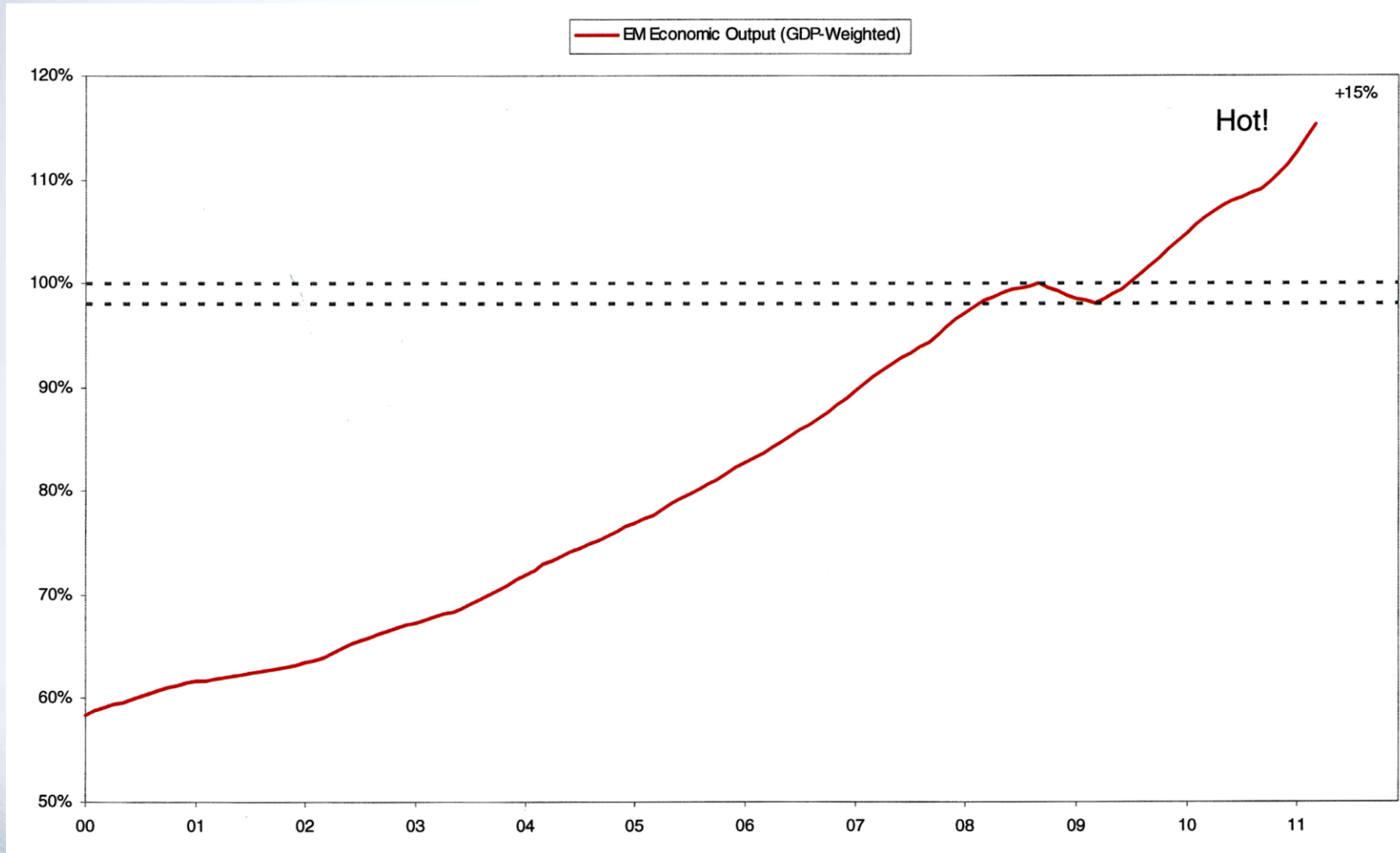
Reasons for Optimism

- Emerging market opportunities: 50% of the S&P 500 earnings come from foreign markets
- Agriculture
- Energy

World Share of GDP

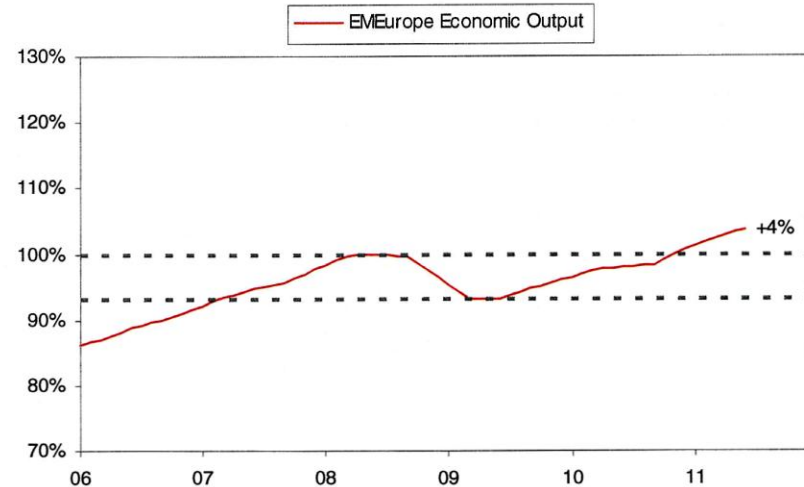
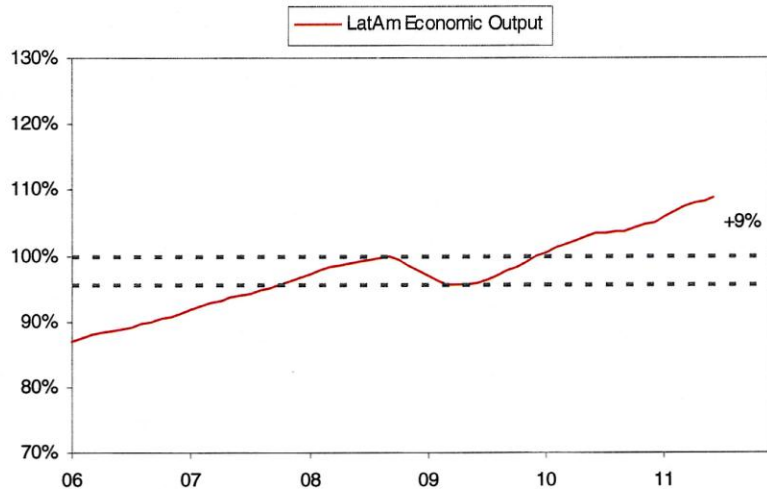
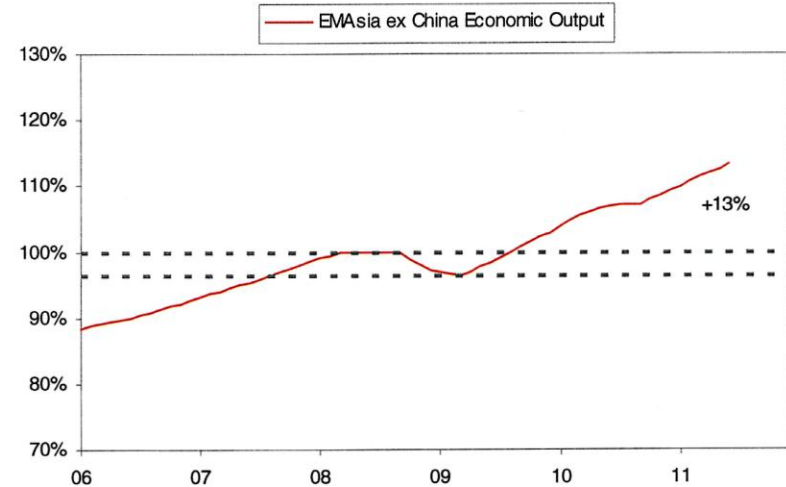
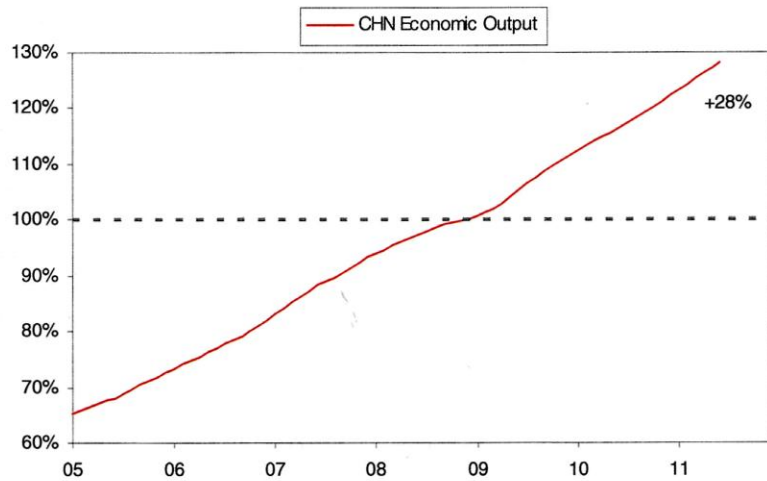


What the Emerging World Looks Like Now



Source: Bridgewater

Specific Emerging Market Regions: All Strong

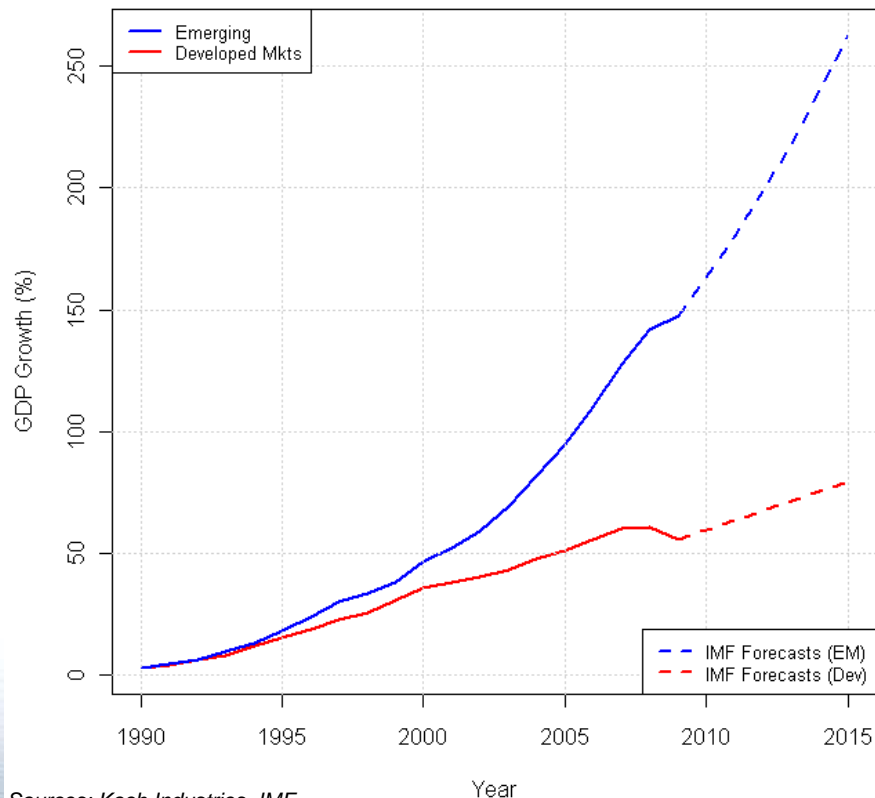


Source: Bridgewater

Growth Outlook

- The Emerging Markets on an annual basis merely had a growth slowdown during the recession of 2008-2009 and are continuing to make new highs, while the Developed World is still in a growth slump, below the peak in 2007.

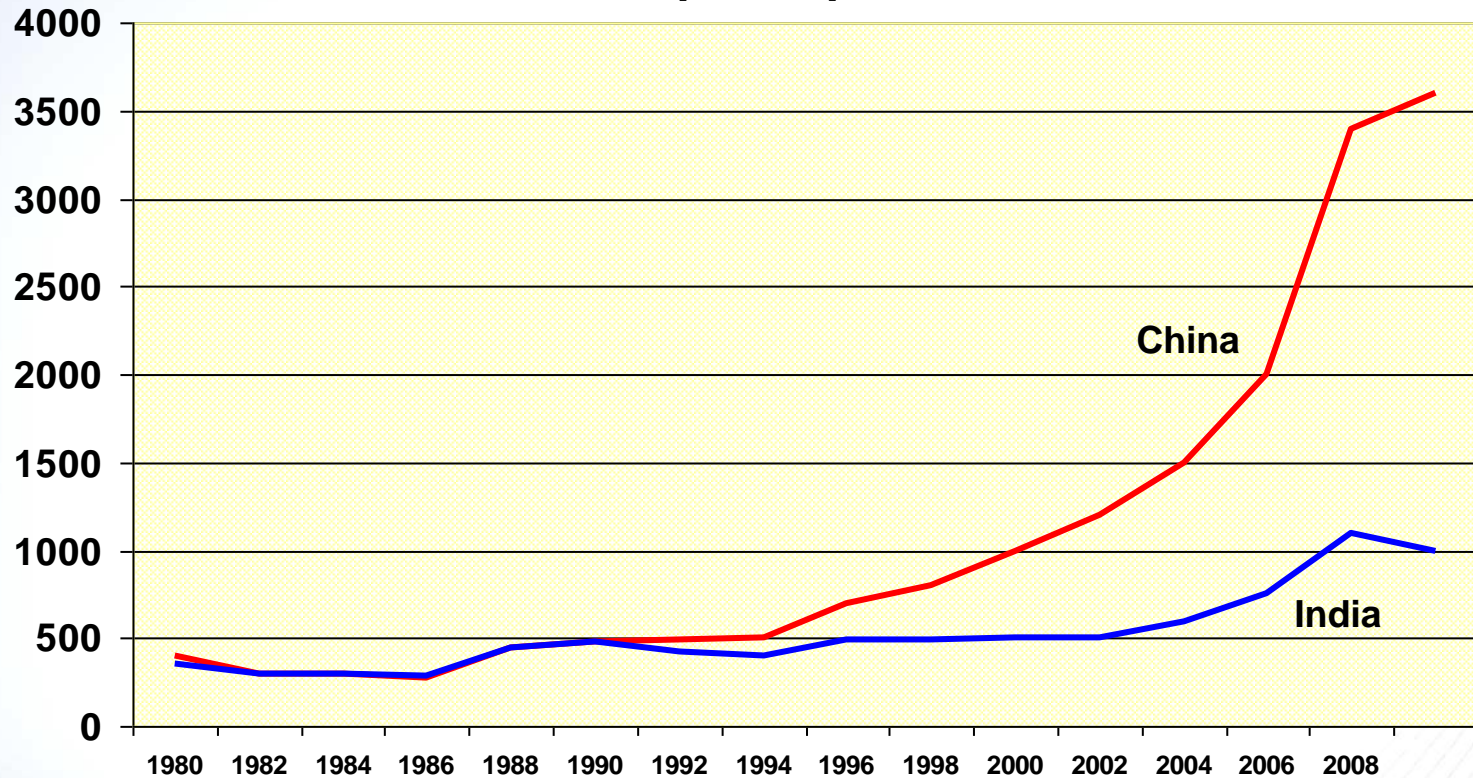
Developed vs. Emerging Market Growth Since 1990



Sources: Koch Industries, IMF

GDP Per Capita In India Has Lagged China . . .

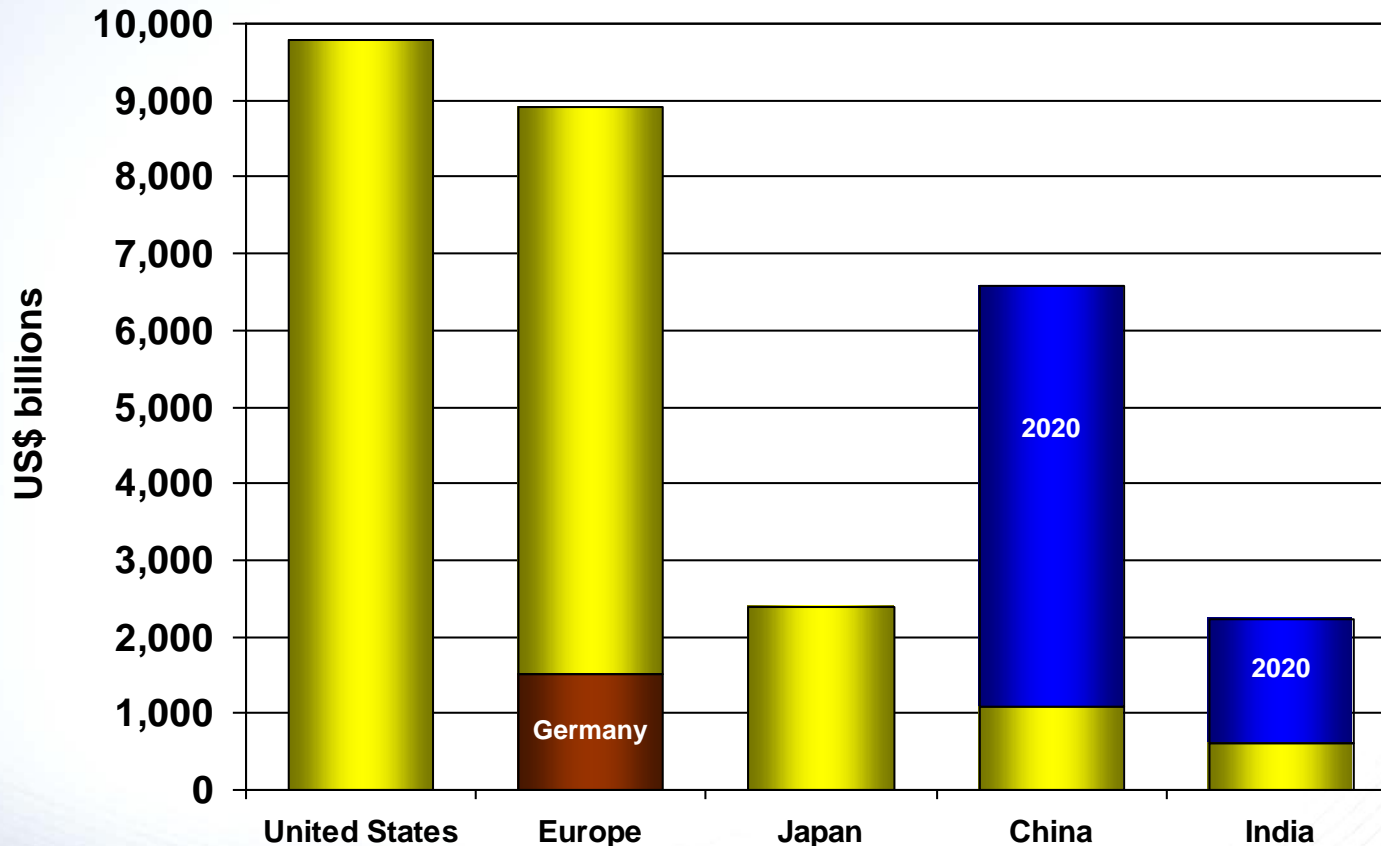
Two Asian Development Paths
GDP per Capita



Source: International Monetary Fund

But Both Will Grow Rapidly as They Evolve, Driving Global Consumption

Personal Consumption
2007

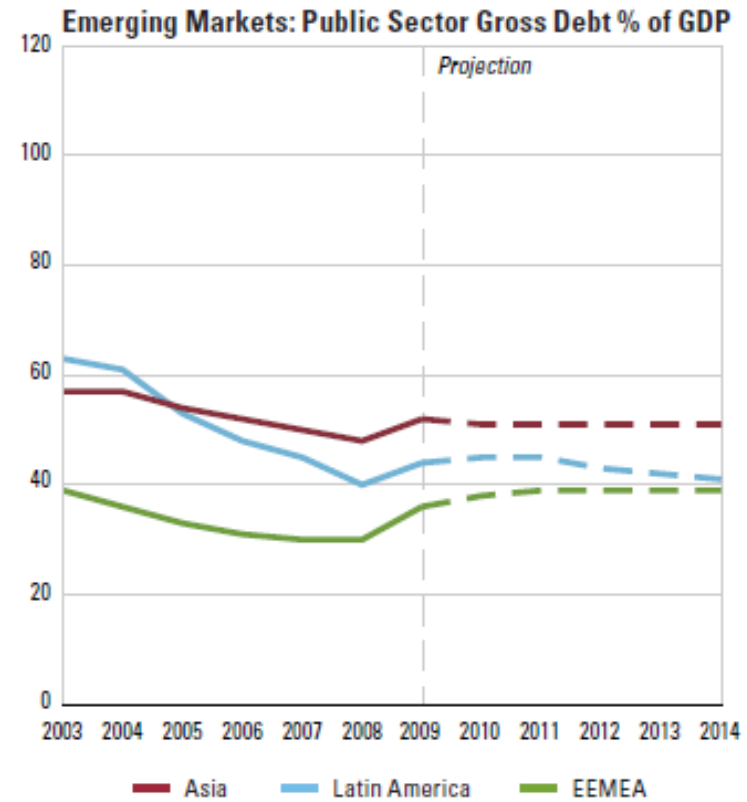
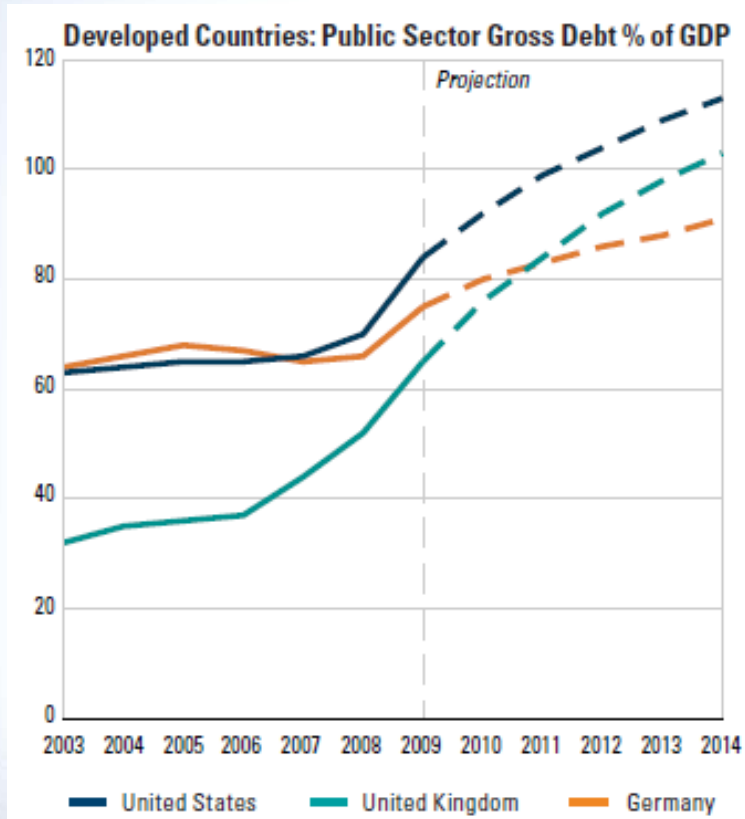


Source: National Sources, Morgan Stanley Research

Note: Forecasted data for China and India is based on recent growth from Worldbank data applied forward.

Balance Sheet Stress

- The Emerging Markets have relatively clean balance sheets and are net creditors to the world.



Sources: Koch Industries, Wellington Management Company, Haver Analytics, IMF, IIF

Reasons for Optimism

- Emerging market opportunities
- Agriculture – the world must have 30% output growth from the USA and Canada in the next 15 years to feed the world
- Energy

Global Food Demand Growth

	<u>CAGR</u>
Population growth	<u>~1%</u>
Protein mix	>1%
Potential biofuels	<u><1%</u>
Total demand	<u><u>~3%</u></u>

How Will This Demand Be Met?

	<u>Historic ⁽¹⁾</u>	<u>Future ⁽²⁾</u>
Harvested acreage ⁽³⁾	0.6%	0.3%
Productivity	<u>1.7%</u>	<u>2.7%</u>
Total	<u><u>2.3%</u></u>	<u><u>3.0%</u></u>

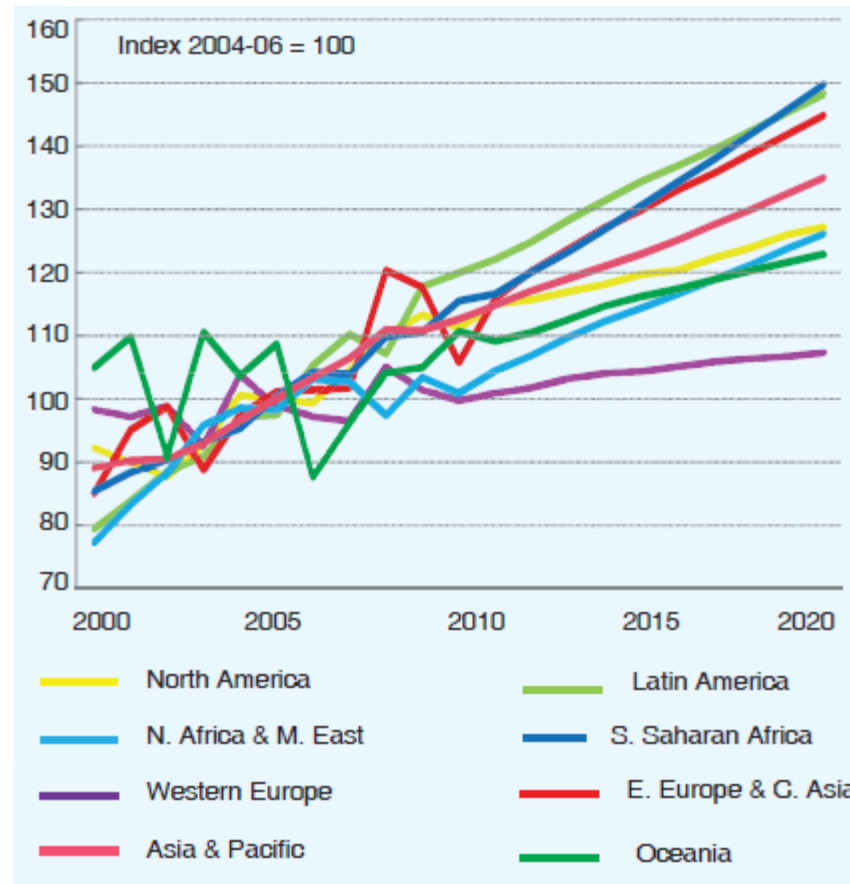
(1) 1970 - 2010

(2) 2011 - 2050

(3) Source: USDA/Koch estimates

Total Agriculture Production Must Increase at a 2-3% Annual Rate to Meet Demand

Net agricultural production



Note: North America production all presumed for export.

Investment Required to Meet This Demand?

	<u>\$ bn's ⁽¹⁾</u>	
Historic global investment	\$ 140	annually
Incremental investment	<u>70</u>	
Total investment	<u>\$ 210</u>	Includes investment necessary in new assets, upgrading depreciating assets, storage and processing

(1) 2009 = 100 / incremental = constant dollars

Why the Higher Investment?

1. Improve per acreage productivity, AND
2. Increase trade-related distribution capabilities (storage, distribution, preservation).

In North America, for example, agricultural production needs to increase by 30% in the next 15 years, and nearly all for export, to maintain projected global balance.

Similar import capabilities will be required on other continents.

Land Usage

- Percent of global land surface used for food production 11%
- Percent of landmass with “highly fertile or inherently fertile” soil
 - USA / Canada 28%
 - Non-USA / Canada 2%
 - Total world 3%

North America Remains a Key Exporter

- Dominant
 - Large producer
 - High per capita supply
- Productivity
- Land availability

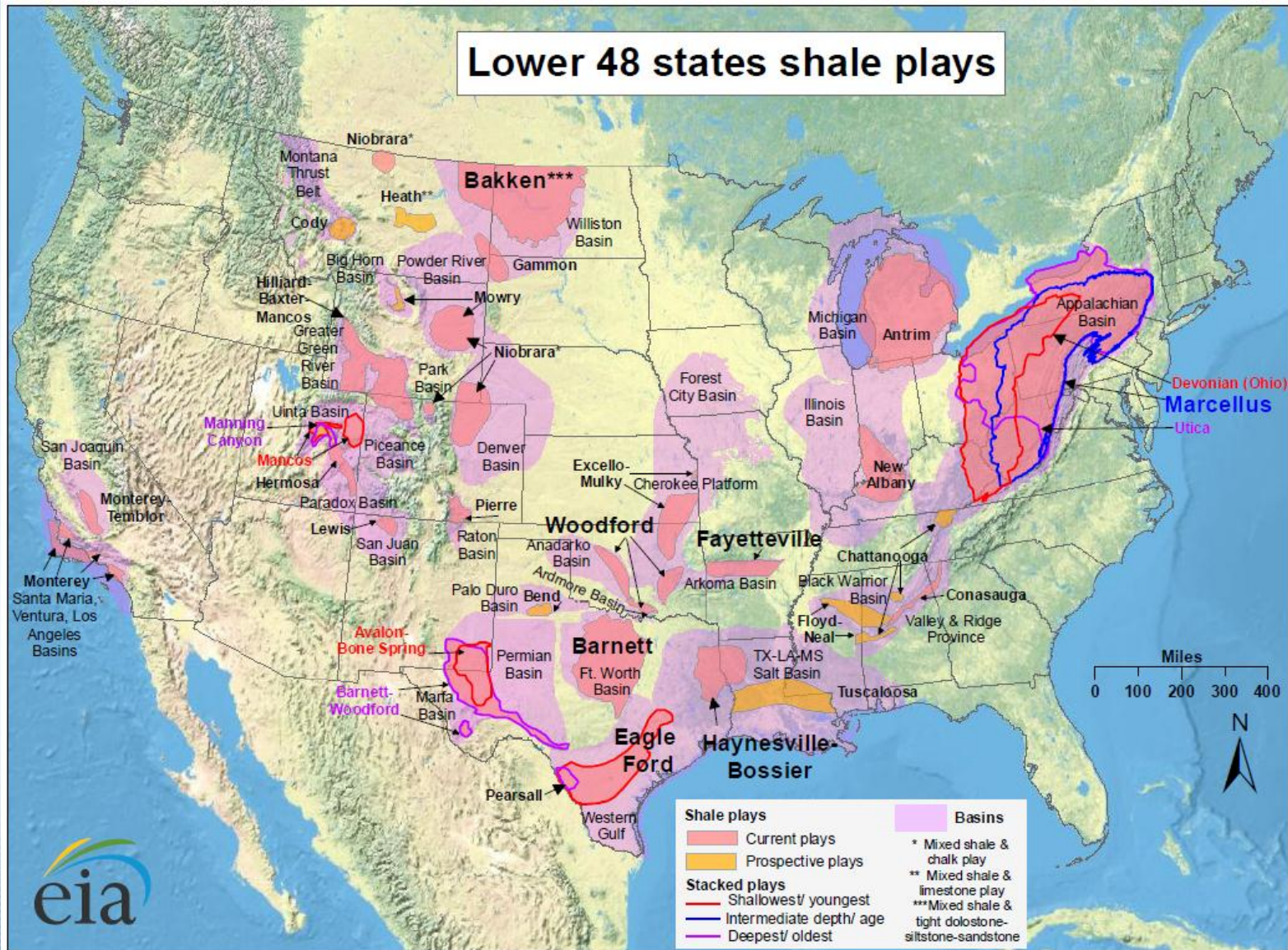
Reasons for Optimism

- Emerging markets
- Agriculture
- Energy – rapid advances in technology and know-how. Fantastic opportunities to create value.

Oil and Gas

- 1.5 trillion barrels of oil in shale in the USA. Five times the stated proven reserves of Saudi Arabia.
- 1.7 trillion barrels of oil deposits in Canada, with proven reserves approximate to Saudi Arabia.
- Proven natural gas reserves have increased to over 125 years in the USA.
- Supply of gas liquids has made many North American chemical producers the current low cost operator in the world.

Shale Plays Create Investment Opportunities



Source: Energy Information Administration based on data from various published studies.
Updated: May 9, 2011