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**FINANCE, INVESTMENT & RISK MANAGEMENT  
CONFERENCE**

15-17 JUNE 2008  
HILTON DEANS GATE, MANCHESTER

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**Commodities: A Strategic Asset Allocation?**

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**Commodities: A Distinct Asset Class**


➤ **Valuation:**  
bonds & equities (NPV) ■ commodities (global demand & supply)

➤ **Inflation:**  
inflation is detrimental to equities & bonds, commodity prices are a source of inflation

➤ **(Risk of) Disruption to Supply of Commodities:**  
lead to commodity price increases, but tend to decrease the price of financial assets

➤ **Short-term vs Long-term Expectations:**  
commodities affected by short-term expectations ■ bonds & equities affected by long-term expectations

➤ **Convenience Yield**



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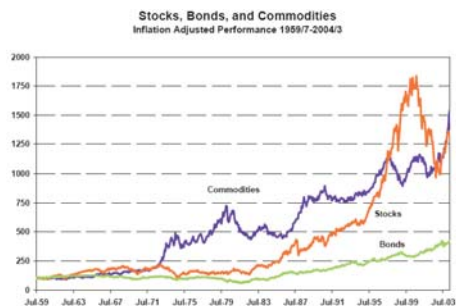
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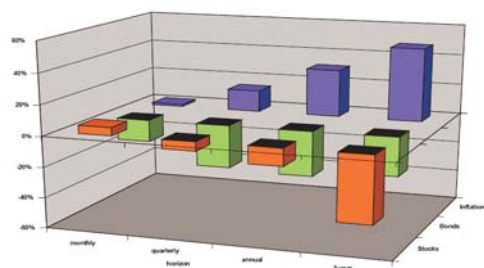
### Performance of Commodities: (1959-2004)



Source: Yale ICF Working Paper: Facts & Fantasies about Commodity Futures

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### Correlation with Commodities: (1959-2004)



Source: Yale ICF Working Paper: Facts & Fantasies about Commodity Futures

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### Methods to gain exposure to Commodities

- Purchase of Physical Commodities in the Cash Market
- Purchase of Stock of Publicly-traded Resource Firms
- Commodity Hedge-Fund
- Passively-Managed Commodity Fund
- Actively-Managed Commodity Fund
- Structured Investment Vehicles (eg Guaranteed Products, CCO)

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## Agriculture Commodities



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## Factors driving Agriculture Prices

### Supply (Acreage & Yield)

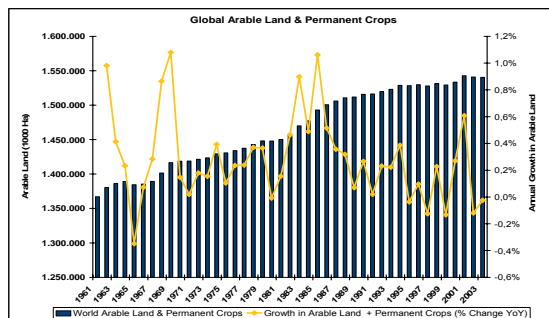
- Growth of Arable Land
  - Urbanisation
  - Land degradation
  - Initiatives to counter deforestation
- Change in Yields
  - Crop Protection / Biotechnology
  - Use of Fertilizer
  - Water Availability
  - Machinery
  - Education
  - Weather Conditions

### Demand

- Food: Growth in world population
- Feed: Wealth Effect
- Fuel: Biofuels

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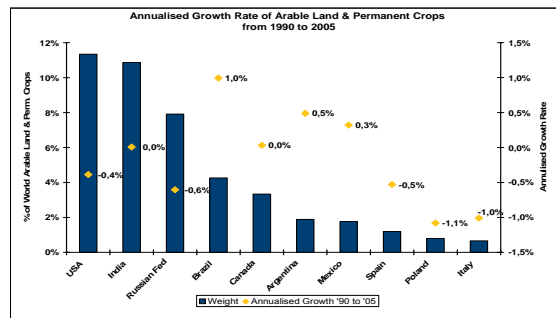
## Supply: Limited Growth in Arable Land



Source: FAO / Union Investment

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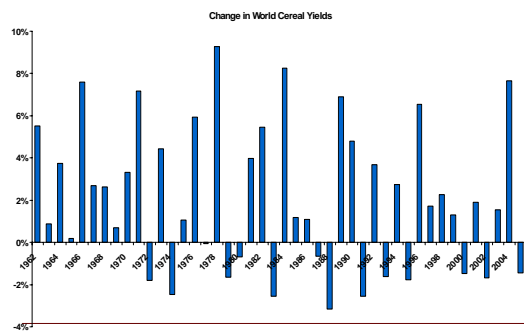
### Supply: Can South America keep up the pace?



Source: FAO / Union Investment

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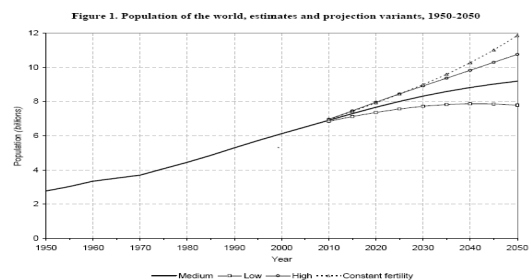
### Supply : Increases in Yield



Source: FAO

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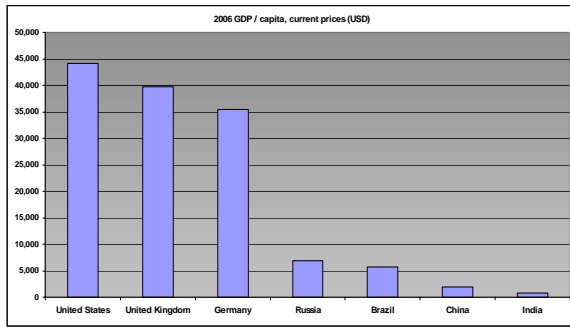
### Demand for Food: Growth in Population (Fertility & Longevity)



United Nations Department of Economic and Social Affairs/Population Division

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### Demand for Feed: Output Gap Still Exists



Source: United Nations / Union Investment

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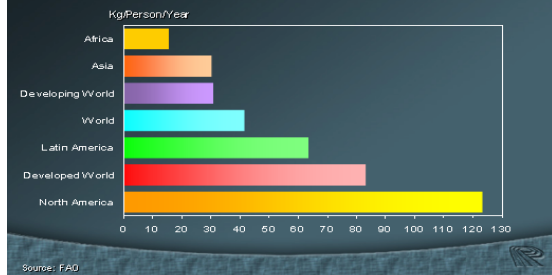
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### Demand for Feed: Buying the Western Diet

#### World Per Capita Meat Consumption by Region



Source: FAO

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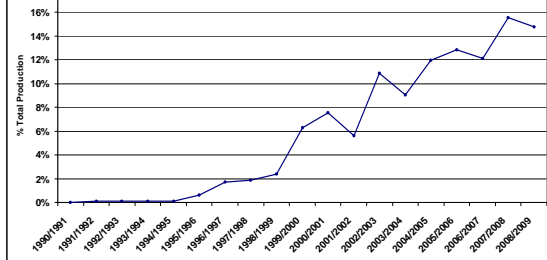
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### Demand: China - The Dragon has re-awoken

#### China Imports of Soybeans as a Percentage of Total Production



Source: USDA / Union Investment

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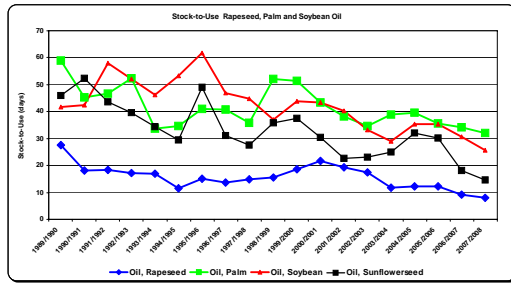
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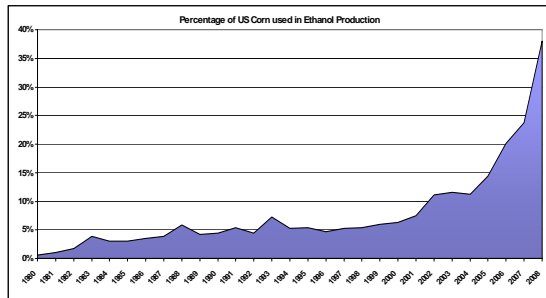
## Where are the Substitutes?



Source: USDA / Union Investment

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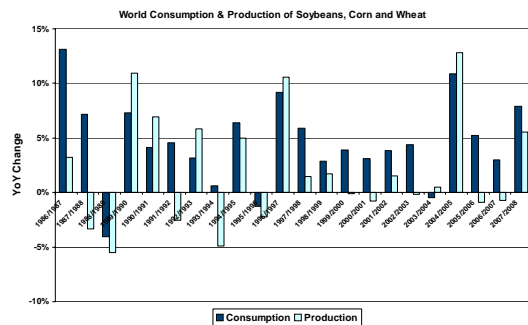
## Demand for Fuel: Drive for Biofuels



Source: USDA / Union Investment

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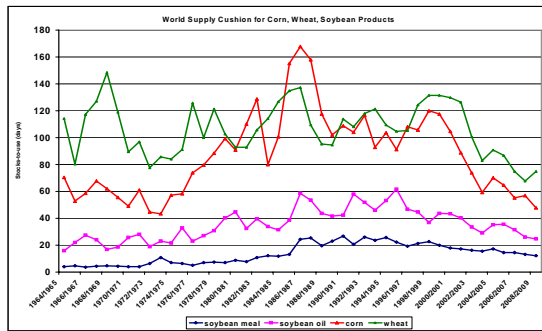
## Consumption exceeded Production in Recent Years



Source: USDA / Union Investment

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### Higher Consumption has resulted in declining Inventories



Source: USDA / Union Investment

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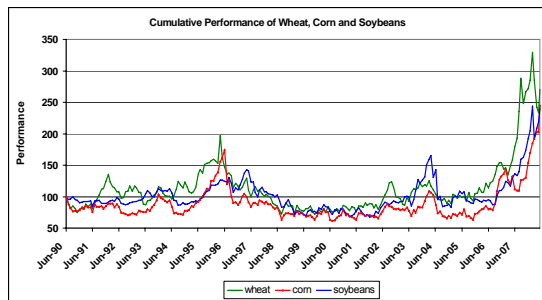
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### Recent decline in Inventory Levels has resulted in increased Grain Prices



Source: Bloomberg / Union Investment

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### Livestock Commodities



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## Livestock: Beef, Pork and Poultry

> **Meat Producers** are incurring **negative profit margins** primarily because of their inability to pass on high grain and soybean meal price to Packers.

> **Producers** are responding by **reducing meat production** which will have a negative impact on prices in the near-term

> **Lower overall production** coupled with strong demand (domestic / export demand) will result in **price increases** in the medium term

> Export demand supported by:

- Population growth
- Income growth
- Weak USD
- Recovery in confidence in US beef following the BSE cases in Dec. 2003

> Improved Production Techniques / Biotechnology

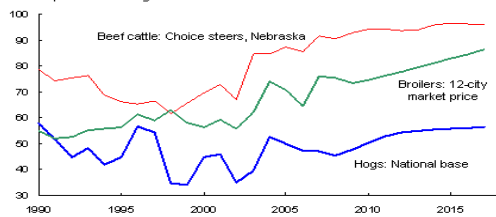
> Environmental Implications

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## Livestock Price Forecasts

### Nominal U.S. livestock prices

Dollars per hundredweight



Source: USDA Agricultural Projections to 2017, February 2008.  
USDA, Economic Research Service.

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## Energy Commodities



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## Energy Overview

> While high Fossil Fuel Prices and Environmental Concerns support expanding the use of Nuclear Power and Renewable energy sources to generate electricity, this will not occur in the short-term.

> Most rapid growth in energy demand in the future is projected to come from non-OECD countries where robust economic growth is expected to continue

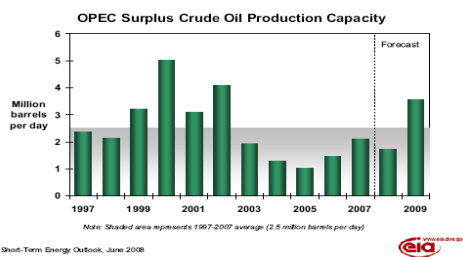
> Non-OPEC Production has been plagued by delays making OPEC (Saudi Arabia) the Marginal Producer

> Exploration and Production Costs have increased dramatically in recent years

> Canadian Alberta Oil Sands: Cost of Production: 75 USD / barrel

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## Low Spare Production Capacity in a Geo-politically unstable Environment

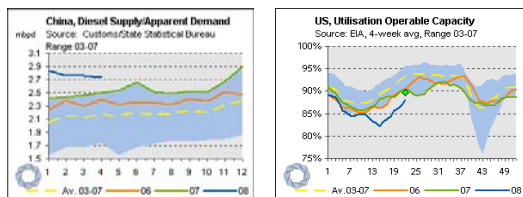


Source: US Department of Energy

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## Middle Distillate Demand driving the Oil Complex higher

- > Current Supply of Middle Distillates not satisfying Demand
- > Non-OECD Subsidies delaying Middle Distillate Demand-Destruction
- > Ethanol Production adding to Gasoline Inventories
- > Low Refinery Profit Margins resulting in relatively low Refinery Utilization



Source: Norwegian Energy

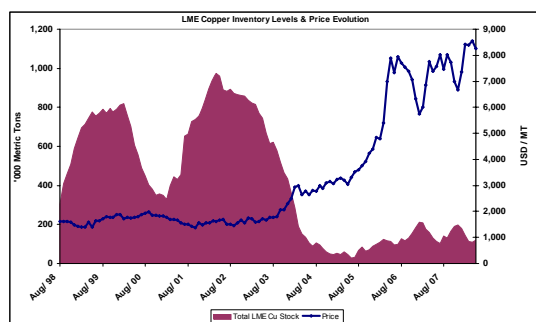
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## Industrial Metals



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## Excess Demand has resulted in relatively low Inventory Levels



Source: Bloomberg / Union Investment

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## Conclusions

- Commodities are a distinct asset class that investors should consider when making asset allocation decision
- Commodities have historically offered diversification benefits to most portfolios
- There are many ways of investing in commodities which offer significantly different risk-return profiles. Great care must be taken when investing in Structured Products.
- Government Intervention and "new" players in Commodity Markets will lead to increased volatility
- From a fundamental perspective, the Outlook for most Commodities Sectors remains positive

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