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STRUCTURAL CHANGES RESHAPING GLOBAL AGRIBUSINESS MARKETS

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Aggressive global demand for agricultural commodities has spurred ferocious increases in food prices, a development that is currently a major focus of discussion worldwide.

Agricultural markets have been strengthening steadily since 2001 in response to rising incomes around the world and the boost to commodity production costs from higher energy prices. However, the acceleration in price rises over 2007 and the first half of 2008 was extraordinary with soaring agricultural prices during 2007 contributed to a 20 percent increase in global food prices for the year, according to World Bank data.

The unrelenting ascent in food prices has a substantial structural element and hence, will be far more enduring than past upswings. The trend springs from rapid economic, population and income growth in fast-growing developing nations such as China and India – factors which are expected to persist over the long-term.

Robust economic growth, increased urbanisation and higher incomes in the past half-decade in the developing world lifted consumption of a broad variety of foods including cereals, dairy products and most notably, meat. Lower or middle income countries are playing catch-up with higher income countries in their expenditure on food and consumption patterns, boosting their spending on food to purchase more calories in the form of higher-value foods such as meat and dairy – a shift from their traditional fare of mostly cereal products – thus adding variety and quality to their diets. As a result, food price inflation in emerging markets almost doubled last year to 11 percent[1].

In addition the recent shortfall in supply of many agricultural commodities was aggravated by temporary factors like drought in some parts of the world and animal disease in other parts. Climate change and associated weather irregularities also impeded agricultural production.

The past year's explosion in food prices, however, was due in large part to the heightening of an important factor – biofuel production. As momentum in the biofuel industry quickened, especially in industrial countries, more cereals, sugar, oilseeds and vegetable oils were required for ethanol and biodiesel production. This was an additional drain on grain supplies – contributing substantially to upward pressure on grain prices and indirectly to the cost of other foods such as meat, through higher prices for livestock feed.

Sustained, higher commodity prices have had and will continue to have dramatic knock-on effects on businesses, industries and the livelihoods of many over the long-term. Rural sectors around the world, including the food exporters among poorer countries, stand to reap the greatest benefits from higher farm incomes and export earnings. Agribusiness companies and their investors also stand to gain considerably.

The number of potential beneficiaries in the business world is vast – the agriculture industry spans sectors from land and plantation, seeds and fertilisers, equipment manufacturers for planting and harvesting, crop protection, water and irrigation, aquaculture, biofuels, transportation and logistics, agro technology, fertilisers, the marketing and sales of agricultural and food products and climate services.

This paper examines the influences the above have on soft commodity prices, and details the secular nature of these price pressures and the investment opportunities that have arisen as a result.

The starting point: robust global growth

The power behind rising prosperity worldwide has been persistently high rates of global growth. Global gross domestic product (GDP) has been increasing at a rate of more than 4 percent for the past five consecutive years[3] – the world's best growth performance since the 1960s.

Uncertainties loom for advanced economies.

However, stubbornly high oil prices and the fallout from the United States (US) subprime mortgage debacle which flared in 2007 conspired to slow global economic growth and continued to infuse the economic outlook with uncertainty. According to the IMF, global growth is expected to slow from 5 percent in 2007, to an estimated 4.1 percent in 2008.[4]

Turbulent financial market conditions and a significantly tighter credit environment, notably in the US, caused a material deterioration in consumer and business confidence in developed economies and is potentially jeopardising a key driver of growth, consumer spending.

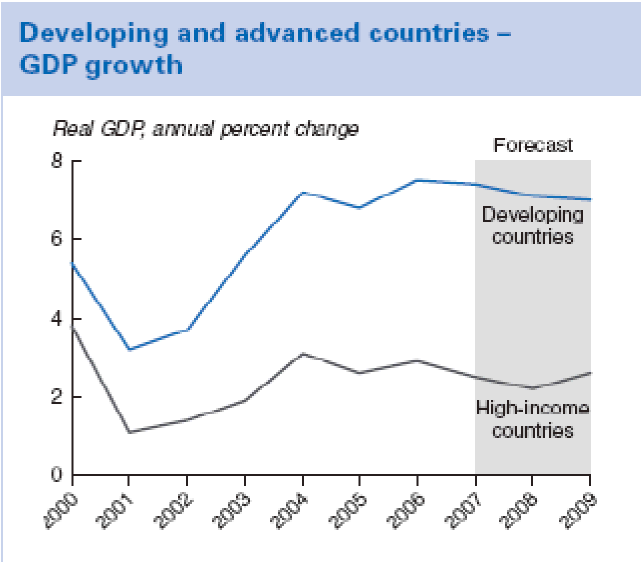
Still-vibrant prospects for developing economies

Emerging market and developing economies, despite a slight weakening of export growth, continued to grow strongly in late 2007, powered by China and India. Overall, the growth rate for emerging markets was 8 percent while China and India posted growth rates of 11.9 percent and 9.3 percent respectively.[5] According to the IMF, growth was underpinned by strong momentum of domestic demand, more disciplined macroeconomic policy frameworks and for the commodity exporters, high food and energy prices[6].

While growth forecasts were unavoidably affected by the strains originating from the US, they were subjected to milder downward revisions than those of developed nations. In January 2008, the World Bank projected developing countries, in aggregate, would continue growing briskly at a rate of 7 percent or above in 2008 and 2009[7]. Major contributors to the vigorous economic expansion in recent years have been the developing nations – most visibly, China and India.

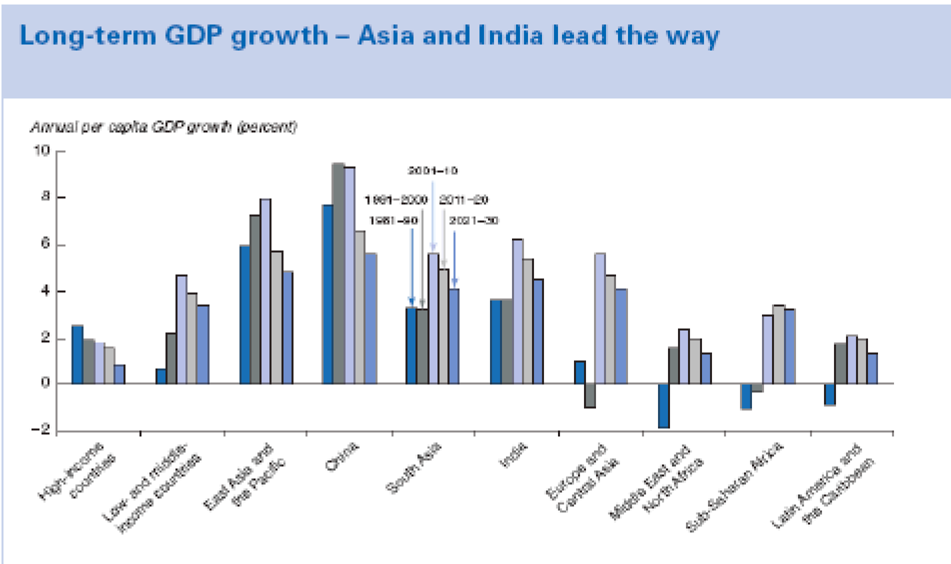
The World Bank's Global Economic Prospects 2008 data shows that growth in developing countries was a solid 7.4 percent in 2007, after an equally strong 7.5 percent in 2006, carried by continued strength in East and South Asia. If China and India are excluded, activity in low- and middle-income countries slipped by 0.2 percentage points to 5.7 percent in 2007[8].

Chart 1



Source: World Bank

Chart 2



Source: World Bank data and simulations with the Linkage model

Income growth – a major force

Almost all developing countries have, generally, benefited from the escalation in global economic activity in recent years with many enjoying an income boost from higher world market prices for their commodity exports. According to the OECD, regions where income growth is the highest, such as Africa, Asia and Latin America, are also those where population growth is the strongest, at rates close to or exceeding 4 percent on average over the next decade[9]. While a general slow down in global economic growth may have an impact on rising income levels within developing nations, a number of structural improvements suggest that income growth will remain solid over the longer-term.

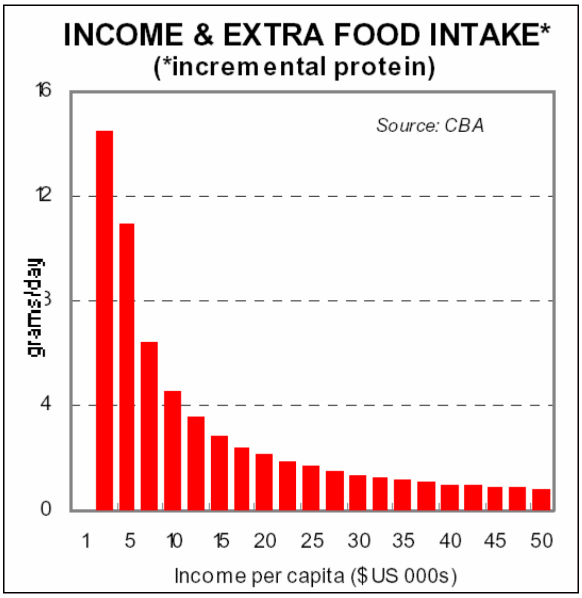
The increasing wealth and purchasing power of the developing world's swelling middle classes have enabled a shift in their nutritional preferences, away from carbohydrate-rich staple foods towards higher intakes of protein in the form of meat, eggs and dairy products.

Starchy vegetable components, such as cereals or roots and tubers, which provide mostly carbohydrates, typically account for a large portion of daily food consumption in lower-income countries. More costly animal products are considered a luxury. The contribution of cereals to overall calories is 57 percent in low-income countries, compared to 36 percent in high-income countries[10]

As incomes rise, animal products such as meat and milk make a greater contribution to daily food consumption. Meat contributes just 4 percent to total calories in low-income countries, 7 and 11 percent in lower and upper middle-income countries, and 13 percent in high-income countries. Milk contributes 5 percent to total calories consumed in low-income countries versus 11 percent in high-income countries[11].

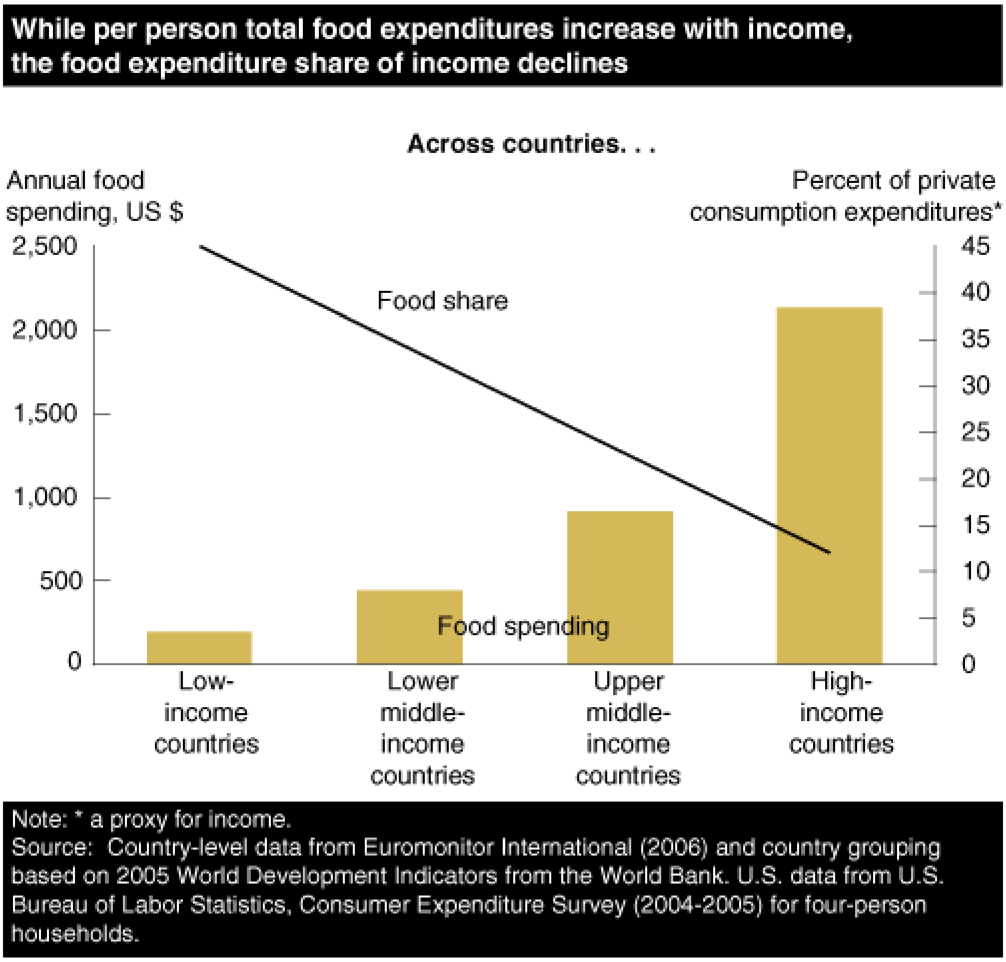
For a given increase in income, lower income consumers make larger increases in food spending than do higher income consumers. For example, a 10 percent rise in income is estimated to increase meat expenditures by 1 percent for the average US consumer, but 7 percent for a consumer in a middle-income country such as Thailand[12]. Chart 3, demonstrates the incremental increase in food expenditure in line with rising income.

Chart 3



Higher incomes over the coming years and decades are likely to amplify already-heated global demand for food. While actual levels of spending on food are higher in wealthier countries, as shown in chart 4, middle-income countries appear to be catching up to countries with higher expenditure levels and moving closer to the food consumption patterns of higher-income countries. For instance, growth in food expenditures between 1998 and 2005 was 14 percent in Japan and more than 100 percent in Indonesia[13]. They are, however, clearly far from closing the gap on both consumption and expenditure fronts. In short, there is ample room for growth in overall demand for food in middle-income countries with higher-cost animal products comprising an increasing share.

Chart 4: Food spending



The multiplier effect

Still, rising consumption of protein in the form of animal products exerts considerable pressure on grains markets through increased demand for feed for animals. Currently, more than one-third of the world's total grain output is fed to livestock. This is set to increase as more farmers shift into the profitable business of livestock production[14].

As meat consumption increases exponentially, supplies of food crops will diminish as land which could have been used for the production of crops is instead used for rearing livestock. The ratio of land utilised for potential rice: wheat: livestock production stands at 1:3:7[15].

Estimates on the amount of feedgrain required to produce meat vary: they mostly centre on 3 to 4 kilograms of grain to produce one kilogram of pork[16], and 8 to 10 kilograms of grain to produce one kilogram of beef[17]. Thus, each incremental increase in the developing world's consumption of meat is multiplied several times over in the grains markets.

The impact of the population and urbanisation explosion

The global fight for land

Competition for land – for both agricultural and non-agricultural purposes – is currently fierce and set to intensify as a result of swift increases in the world's total population and urban population.

A fast-expanding global population is fuelling increasing demand for land, for both housing and farming. By 2030, the world's population is projected to hit 8.13 billion according to the United Nations (UN).[18] Growth is expected to be driven by developing countries, particularly those in Asia[19].

About 3.2 billion people were living in cities in 2005, and the UN projects that 5 billion people will live in cities by 2030[20]. It expects that about 55 percent of Asia's population will live in cities by 2030, from around 40 percent at present[21].

Cities are, historically, built around agricultural land and bodies of water in order to facilitate trade. As more people migrate to cities, the most fertile soils tend to be utilised first for commercial construction and housing[22]. Further loss of such land to non-agricultural usage will jeopardise the availability of land for farming.

Changing lifestyles and retail trends

Urbanisation has been as important as income growth in changing the dietary tastes and food expenditures of the developing world.

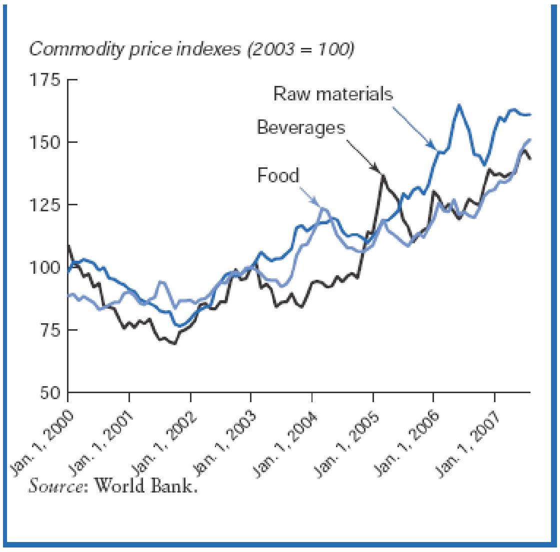
Among developing countries with large rural populations and rapid rates of urbanisation, urbanisation and associated lifestyle changes have and are expected to continue to significantly alter consumers' diets with a greater consumption of meats, fruit, vegetables and processed food products, and less of cereals[23].

Biofuels' pivotal role

A highly visible push to encourage the use of biofuels in developed countries generated additional velocity in grain and vegetable oil price rallies in 2007. With the US, Europe and other nations racing to expand the use and production of biofuels, we expect upward pressure on the prices of food crops from this factor to persist.

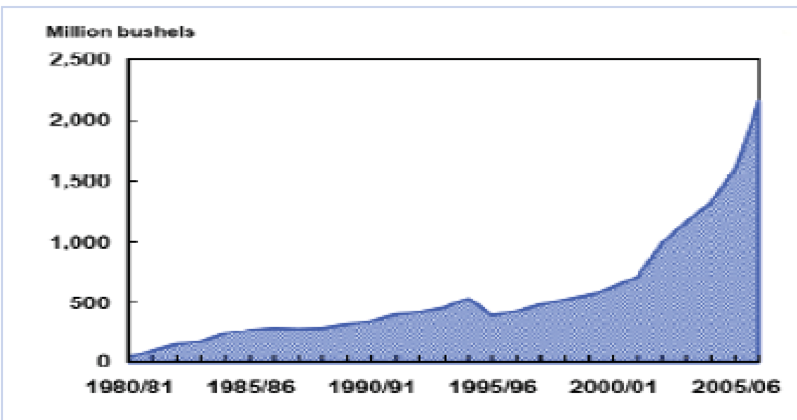
With the Energy Policy Act of 2005, the US Energy Department has established a renewable fuels standard which requires using 7.5 billion gallons of ethanol by 2012[24]. The European Union has proposed that 10 percent of all fuel used in transportation should come from biofuels by 2020[25]. Global companies have pledged support – DaimlerChrysler, for example, has committed to ensure that vehicles will be able to run on fuels with up to 10 percent admixtures of biodiesel or bioethanol this year[26]. The increased use of food crops for biofuel production that led to large rises in vegetable oil and grain prices contributed to an overall 15 percent increase in the World Bank's index of agricultural prices and a 20 percent rise in food prices in 2007 as demonstrated in the chart below.[27]

Chart 5: Rise in commodity prices



Since 2000, cereal use for food and feed increased by 4 and 7 percent, respectively, while the use of cereals for industrial purposes increased by more than 25 percent. The chart below illustrates that in the US alone, the use of maize for ethanol production increased by two and a half times between 2000 and 2006[28].

Chart 6: US maize used for ethanol production



Source: Macquarie Research, October 2006; USDA, May 2006

In its MIT Technology Review February 2007, the International Food Policy Research Institute (IFPRI) has projected the possible price effects of biofuel production for two potential scenarios up to the year 2020. In the first scenario, if the actual biofuel investment plans of many countries are implemented and if high-potential countries without plans expand their production of bioenergy, maize prices would increase by 26 percent and oilseed prices would rise by 18 percent. In the second scenario, if biofuel production is expanded to twice the level of the first scenario, maize prices would increase by 72 percent and oilseeds by 44 percent[29].

Opportunities and implications for the investment world

The opportunities are long-term. The lasting nature of influential factors such as population and income growth in developing countries suggest that the trends playing out in agriculture are still in their infancy and thus, despite incessant price appreciation in many commodities recently, there appears to be solid potential for further gains over the short and long-term.

Importantly, there are a multitude of industries, companies and businesses involved in agriculture or in sectors related to agriculture, spread across the world, which stand to profit – providing investors with choice and diversity, geographically and across business sectors.

Notably, the rally in many agricultural commodity prices during the current cycle is not far from historical averages in both magnitude and duration. In our view, the degree of price appreciation, given dangerously low grain inventories and the unusually durable drivers of the rally, does not appear close to maturity – in this context – let alone excessive.

The pick-up in inflation rates across many regions indicates that a significant proportion of the cost increase in agricultural commodities has been passed through to consumers. This is mostly because of the price inelasticity of demand. In advanced economies, food is a relatively small portion of what people consume – on average, it is about 10 to 15 percent[30] – so even with food prices rising around 5 percent a year in such economies, the fallout on consumers has been limited. In emerging markets, however, food accounts for about 30 to 50 percent of consumer purchases[31].

Investors eager to take advantage of the opportunities in agriculture and agribusiness must examine the steps in the protein production and consumption process – land, planting, fertilising, harvesting, crop protection, irrigation, storing, packaging, transportation, marketing and selling. Companies with stakes in this chain, for example, those involved in equipment manufacturing, seeds, agro technology, desalination, agrochemicals, biotechnology, fertiliser production, agricultural financing, grain processing and aquaculture are among those which have strong potential to benefit from higher agricultural prices.

It would also be increasingly prudent to consider opportunities in countries whose industries do not rely on government subsidies. Government subsidies can come and go, potentially buffeting corporate income streams.

It is noteworthy that land and water – two factors absolutely vital to the existence of the production process – are both increasingly restricted resources.

Clearly, solutions are urgently needed worldwide to secure sufficient supplies of water. This highlights opportunities for companies which specialise in such areas as irrigation systems, the increased efficiency of distribution networks, logistics and re-cycling.

Although the trend in agricultural commodity prices is expected to broadly rise over the long-term – supported by roust global growth, income growth, the impact of population and urbanisation, and growth in biofuel production – there will be cycles for each commodity type or sector. Clearly, not all commodities will move in tandem and prices can be volatile. High prices spur farmers into ramping up production in whichever crop is commanding the most attractive prices, ultimately leading to increased supply and a slower rise or downturn in prices. The supply response for some crops – notably sugar – can be fast, sometimes causing significant volatility.

Portfolio diversity is paramount

Investors should seek to gain general exposure to the bullish theme in agriculture and one of the most prudent ways to achieve this is through investment in a well diversified global fund with a long-term focus for several reasons.

Diversity and high-quality, stable income streams are critical for portfolios constructed on agricultural or agribusiness themes. For example, a portfolio or fund based on the agricultural sector of one country or region would be savaged in the event of adverse weather conditions in that part of the world like a long-running drought or an unexpected weather-induced disaster.

A portfolio or fund with global exposure, however, would have offsetting income streams from other parts of the world, offering high levels of geographical and sectoral diversity. Exposure to high-growth international markets is important – thus, agribusiness or food companies with long-established positions in the developing world should be favoured due to their competitive position.

Moreover, companies in the food industry tend to have predictable earnings growth. Food is a sector that has been, historically, highly sought-after by investors during uncertain times in the business cycle – regardless of the phase of the cycle, people always have to eat. Notably, food companies appear to have been able to pass on to consumers the sharply higher costs for corn, wheat, cocoa and other inputs, including packaging and energy. For example, in 2007, prices of packaged foods in the US have risen 5 percent to 6 percent, and since 2006, prices have risen about 10 percent. [32]

For multi-asset managers, having exposure to a well diversified portfolio of agricultural themes provides diversification benefits as our research has found that returns from agricultural investments tend to be lowly correlated with those from traditional asset classes such as equities and bonds.[33]

Conclusion

The investment opportunity in agribusiness encompasses a broad range of companies across a broadly diversified set of sub-industries that until recently have never been seen by investors as one specific industry. Agribusiness covers the broad area of feeding the world, or everything from the farm gate to the consumer's plate, as well as biofuels. Many companies in this sector have done well over the last two years as soft commodity prices have gained. However, we believe that most investors see this as a limited opportunity because they still see soft commodities from a cyclical perspective. As we have outlined in this paper, DWS Investments views this as a secular trend rather than just a cycle. We therefore believe that despite the recent price rises of many of these companies, we believe they are still mis-priced by investors.

The forces behind the acceleration in food and agricultural prices are tenacious and are likely to – especially over the longer-term – transcend the financial constrictions afflicting the major economies. It is almost impossible to place a timetable on the longevity of strong population growth, urbanisation rates, income growth and food demands of the developing world.

Demand is expected to persistently outpace supply in many commodities for the foreseeable future and prices, as a result, set to stay high for the next decade and possibly, beyond.

Structural developments – especially in developing nations – such as consistently resilient economic performances, rapid population growth and urbanisation, rising incomes, and the consequent increase in demand for higher-cost, higher-protein foods - constitute important, lasting changes for agricultural commodities markets. Such changes are spurring unprecedented demand for meat, grain for both animal and human consumption and land and water resources. Moreover, as demand for food rises inexorably, additional strain is exerted upon the world's dwindling supply of grains as the escalation of biofuels production diverts both land and crops away from food production.

Land and water resources are constrained globally. World inventories of grain are at multi-decade lows and several developing nations – China, most notably – have become net importers of grain to address shortfalls in domestic output for the first time in years, if not decades. Demand, in short, is voracious and unlikely to be satisfied by output for a prolonged period. Today's high prices for agricultural commodities will be sustained for many more years.

ENDNOTES

[1] The Economist "Food Prices, Cheap no More", December 2007

[3] IMF, January 2008

[4] IMF World Economic Outlook Update, January 2008

[5] IMF World Economic Outlook Update, January 2008

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