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Go long food; agflation is here

By Charlie Aitken



One of the clearest messages from my recent trip to South America was the upside in soft commodities.

While the industrialization and urbanization of the BRIC economies have driven a structural increase in the demand for hard commodities, the coincident rise in living standards is also driving a change in dietary habits (protein) and food consumption. We believe the same theme driving the current "stronger for longer" base metal cycle is also underpinning a long-term bull market for soft commodities.

Our view is that the same forces driving the industrialization of the developing economies inextricably link both the hard and soft commodity markets.

The soft commodity markets are currently displaying exactly the same characteristics, and demand/supply fundamentals, as the base metals at the beginning of the current bull market in 2001. Historically soft commodities have been driven by the cyclical supply shocks, but we believe the current increase in soft commodity prices is primarily the result of a long-term increase in demand.

The BRIC economies are driving a structural increase in food demand at a time when soft commodity inventory levels are at record low levels due to underinvestment in future production. As a result, capacity restraints including land and water scarcity, and historic low inventory levels, are restricting the supply response. Sound familiar?

In addition, the **deterioration in the supply fundamentals** is being exacerbated by a decline in global food production subsidies, a decrease in arable land, water scarcity issues, and climate change. However, more important is the significant diversion of agricultural production into the rapidly increasing biofuels industry in Europe, Sth and Nth America.

Our bullish view on the outlook for base metals has been supported by the strong, long-term demand/supply fundamentals for hard commodities. However the next stage of the industrialization of the developing economies is an increase in living standards and disposable incomes resulting in the emergence of a middle class consumer. We think this natural progression will drive a global soft commodity bull market with the potential to be significantly larger than the current base metal cycle. Everyone needs food.

In addition, in the future we believe soft commodities will become an asset class for commodity funds and central banks similar to the hard commodity markets of base metals and gold. We expect this development, combined with a significant increase in physical food demand from the developing countries, will accelerate the demand for soft commodities supporting a massive long-term bullish cycle.

Green revolution

In the decade between 1960-70 the world experienced a "green revolution" and a massive increase in agricultural productivity. The total volume of food available per person over that period increased by approx 30% globally. In the US, EU and Japan, farmers enjoyed unsustainable Govt agricultural subsidies resulting in huge overcapacity of food production. The European dairy industry was a prime example.

Positive fundamentals

However over the last few decades three factors have changed the demand/supply fundamentals for soft commodities. Firstly, Government food subsidies paid to Nth American and European farmers have been decoupled from production. As a result, the overproduction and the massive food stockpiles of the previous decades have been totally depleted.

Secondly, the rise in per capita incomes and the increase in living standards in the developing economies such as China and India have supported an improvement in dietary habits. This change in the composition of BRIC food consumption is driving a structural increase in long-term food demand. Thirdly, is the increasing diversion of agricultural output into biofuels in Europe, N America and Latin American countries.

In an attempt to mitigate the effects of climate change, essential production of grains in particular, is being diverted into alternative fuel sources with the aim of a reduction in greenhouse emissions.

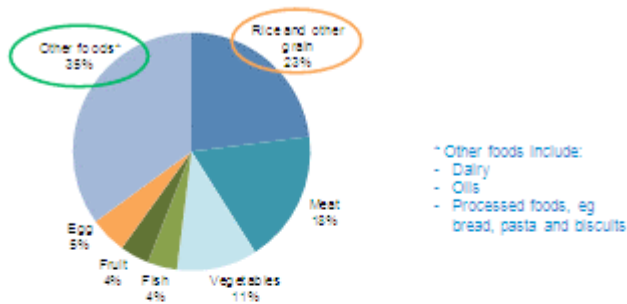
It is clear that a confluence of factors is driving a **structural change in the demand** fundamentals for soft commodities.

BRIC economies.

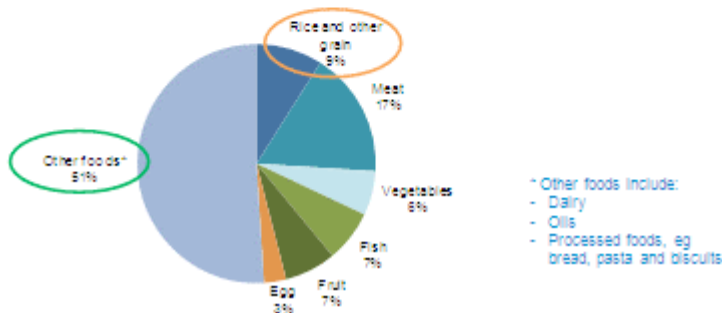
The BRIC economies, and the developing countries, require the basic building blocks of modern society, which are essentially raw materials. These raw materials take the form of hard and soft commodities. The initial industrialisation process is supportive of a huge increase in the demand for hard commodities such as iron-ore, coal and base metals. The current bull market for hard commodities is clear proof.

The second phase of the BRIC industrialisation process is a rise in per capita incomes and living standards supporting an increase in consumer spending and the demand for soft commodities. We believe a key driver for the new bull market for soft commodities is rising disposable incomes and improving living standards in the BRIC economies supporting the emergence of a massive, new, middle-class global consumer society.

Urban Chinese annual food consumption, 1981



Urban Chinese annual food consumption, 2004



Demographic studies show that a rise in per capita incomes to the \$US2,000 to \$US5,000 range is consistent with a huge increase in energy/commodity consumption, consumer demand for luxury goods and a change in dietary habits. The average income in China has now just reached \$US2,000 per capita. Beijing aims to drive per capita average income to US\$10,000 over the next decade.

An increase in the standard of living is directly correlated to an improvement in diet

In the next decade a combined total of nearly 1,000,000,000 "Chindian's" are expected to migrate from a rural to an urban environment.

As the newly created city population moves into more modern Western style environment, demographic studies reveal a subsequent increase in demand for higher quality food, clothing, and luxury goods.

However, **food is the first item to benefit from a rise in disposable income and consumer spending**, followed by whitewoods/appliances; the third is a car, and then maybe an apartment or a house. But the end result is a change in dietary habits from 3 meals of rice per day, to a more balanced diet of vegetables, fruit, and animal protein such as red meat.

Importantly, higher value agricultural products such as meat and dairy products require a greater input of soft commodities used as a feed. About 40% of Australian beef cattle are grain-fed or lot-fed. In addition, chicken growers also rely heavily on grain as a stock feed. In order to produce one kilo of chicken it must receive two kilos of grain, while grain-fed beef requires six kilos of grain per kilo of beef.

Consequently a **kilo of animal protein requires anywhere from 2 to 6 times the same volume of grain to produce**. It is ironic but a significant portion of future grain demand from developing countries is expected to come from the livestock industry. The expected increase in China's beef consumption is expected to equal Australia's entire domestic production by 2010.

Biofuel industry.

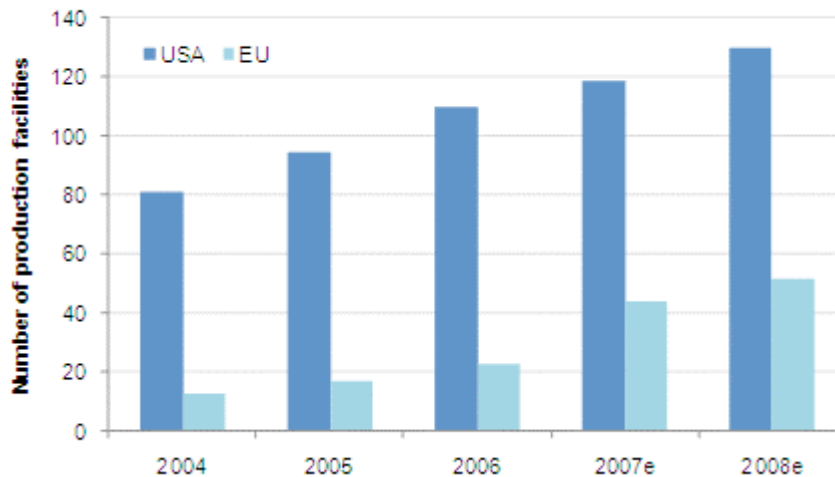
The other major issue influencing global soft commodities demand is the strong growth in the world biofuels industry. In order to reduce greenhouse gas emissions Governments worldwide are introducing mandatory targets for biofuels use in transport fuels. The main two biofuels are bioethanol and biodiesel.

The major commodities used in bioethanol production include corn (US), sugar (Brazil) and wheat (mainly

EU). The US congress has mandated that US gasoline consumption must include 7.5b gallons of renewable fuel by 2012. Corn use for ethanol is expected to continue its rapid expansion through 2010 when ethanol production reaches about 8% of US blended gasoline consumption.

The vast bulk of Brazilian sugar plants can readily switch between sugar refining and ethanol production with ease. Currently sugar-based ethanol powers about 15% of cars however by 2015 it is expected to increase to 50% of all Brazilian cars. In addition, 90% of new cars sales are now ethanol-based fuel flex vehicles.

Bioethanol production capacity in the US and EU



The European market is the largest for biodiesel and a significant increase in production has resulted in sharp price rises for vegetable prices mostly rapeseed, which is used in biodiesel production. Industry estimates forecast up to 80%, up from 60% last year, of EU canola/rapeseed production could be used in transport fuel by 2010.

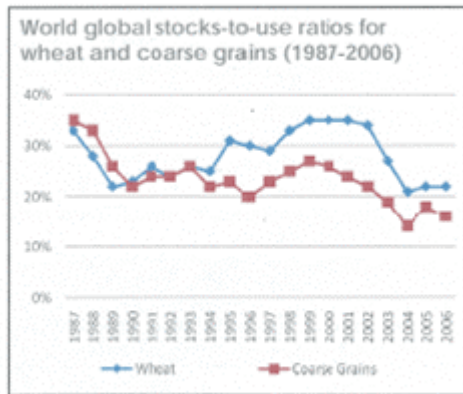
In the meantime **supply constraints** are reducing the ability of producers to meet the structural increase in demand.

Stocks to consumption ratio

Global stocks of most soft commodities particularly grains, remain at multi-decade lows. In the last 5 years world wheat stocks have declined from just under 19 weeks of consumption to just over 10 weeks at June last year. However, considering lower global wheat production forecasts for the 07/08 season, the stocks-to-consumption ratio is expected to fall to just 9.5 weeks which represents the lowest figure in 47 years.

The inventory levels are worse for corn with the significant increase in biofuel production. In 2003, the stocks-to-consumption ratio for corn was 8.5 weeks. Despite a significant increase in production, corn consumption has risen 17% over the last 4 years. Consequently the stocks-to-consumption ratio is expected to fall to just 7.5 weeks for the 2007/08 year.

Next year the US Dept of Agriculture forecasts that global coarse grain stocks are expected to fall to their lowest level since 1976/77.



Source: ABARE commodity statistics 2006

The multi-decade lows for soft commodity stocks-to-consumption ratios remind me very much of the low inventory levels for base metals a few years ago. Considering a significant rise in global food consumption from the BRIC economies, combined with the increasing competition from the biofuel industry, the supply response from primary producers remains very constrained.

Land and water scarcity

There are two additional emerging pressures on food production. Firstly, the availability of land for agriculture is becoming increasingly constrained. In the US and Europe, more than 30m hectares have been set aside for **conservation**, and in China/Brazil urbanisation is shrinking the arable land availability.

Secondly, climate studies reveal a direct link between greenhouse gas emissions and the acceleration of global warming. As a result, **water scarcity** is becoming a major issue for Governments worldwide. The question remains: is the Australian drought a short-term issue, or symptomatic of climate change? Either way we expect the prices of soft commodities to continue to rise.

Production shortfalls

Similar to the constant stream of disappointing quarterly production figures for resource companies, the Australian official soft commodity forecasts have been further downgraded.

ABARE issued a drought update recently and now expects a national wheat crop of just 12.1m tonnes, 22% less than the mid-Sept forecast. This is well below the 22m tonnes that ABARE initially predicted for wheat after a good start to the season in June. The NSW crop is the most severely affected and at 2.4m tonnes, is expected to be the State's smallest harvest since 1994-5, despite more land under cultivation.

In addition, ABARE cut its barley forecast to 5m tonnes-from 5.9m tonnes in mid-Sep-and the projection for the canola crop has dropped to 0.9m tonnes from 1.1m tonnes. **The projected national winter crop production of 18m tonnes is 42% below the 5-year average.**

Pricing power

World wheat prices are at historic levels. The Australian Wheat Board announced it was paying its highest ever price for wheat at \$A395 a tonne for the benchmark APW for the 2007/08 season. However ABARE expects the domestic price to reach reach \$A440 tonne for 2007/08, up from \$A235 tonne last year. ABARE also expects the global wheat price to rise to \$US275 tonne from \$US212 tonne in 2006/07.

The strong demand/supply fundamentals have resulted in a significant rise in global soft commodity prices over the last 2 years. The record international wheat and corn prices are indicative of a global trend, not just the drought in Australian. We think the surge in soft commodity prices is reflective of **primary producers finally regaining the pricing power they lost after the "green revolution" of 35-40 years ago.**

Primary producers are switching to ethanol or biofuel production unless they can recover rising input costs through higher agricultural prices. Australian farm gate prices have risen by more than 40% over the last 12 months driven by reduced volumes due to the drought and rising global prices.

Agflation

As a result, many soft commodities' prices are up over 100% in the last 2 years. This is translating to a global trend of food inflation. In the domestic Sept CPI quarterly, Australian food prices rose 1.9%. A breakdown of the latest CPI figures reveal that over the last 12 months vegetable prices have risen 21.5%, cheese by 8.5%, bread 7.9% and milk prices up 5%. There's a new economic term in town and its called "**agflation**"

It is clear that for first time in decades primary producers are regaining pricing power, and food manufacturers are passing on higher raw materials costs to consumers contributing to agflation. There is no doubt that the significant rise in domestic food prices is a key issue for the Reserve Bank and is a primary reason for the latest interest rate rise

Soft commodities

We believe the secular soft commodity cycle is only in its infancy, and currently representative of base metal prices in 2003/04. We believe the industrialization of the BRIC economies, currently driving the current hard commodity cycle, is supporting similar positive fundamentals for global food consumption. In addition, soft commodities are facing similar supply constraints, as primary producers struggle to meet the massive increase in food demand. Consequently global food prices are beginning to accelerate significantly.

We think the soft commodity bull market has the potential to be a much larger event than the current base metal cycle. It is entirely possible that the world runs out of food before it runs out of oil. Oil prices are driving new demand for soft commodities from bio-energy producers. Soft commodities will increasingly become correlated to the oil price. This structural change in soft commodity pricing is only in its infancy.