Brainpool Recap

PINEBRIDGE INVESTMENTS

Emerging Markets Commodity Inflation: Potential Winners and Losers

JUNE 2011

By: Allison Emmert, Vice President, Economic Strategy Group

At the beginning of the quarter, we pulled together our team of Emerging Market equity analysts to review the potential ramifications of inflation across the globe to identify regional "winners" or "losers" in terms of inflation.

The recent swing in commodity prices reminded us that not all commodities are created equal and we believe food-related commodity prices are generally more downward-sticky (have a more consistent floor) than metals and energy-related commodities. In terms of food, we believe the run-up was not simply driven by short-term supply shocks, nor by speculative trading in the agricultural commodity space. However, we believe longer-term structural drivers will continue to push commodity prices higher after the transitory effects of the repeal of the QEII overtake the market as we head into the summer.

We do not believe this recent bout of volatility is an early signal of a top in the market for food-related commodities (with the exception of sugar, which is also used in energy speculation). Longer-term, given the theme of emerging market growth, it seems evident that commodities, particularly in agriculture and energy, will continue to move higher. Given the growth-drivers coming out of emerging markets (EM) – the ongoing infrastructure build-outs combined with an increased focus on domestic economies and a growing middle class – we sought to determine which regions will be most likely to outperform in the event of commodity price inflation. Among other indicators, we looked at CPI, wage inflation, real interest rates and most importantly the portion of a country's CPI that is comprised of food or energy. We found that:

- The biggest regional winner is likely Latin America, with a strong positive outlook for Brazil, given its high level of sustainability, its global rank as a net exporter and its high real interest rates.
- Eastern Europe stands to lose in a scenario of rising energy prices, largely because the region spends nearly fifty percent of its overall CPI on food and energy (versus the EM average of 36.5%). However, EMEA (European, Middle East and Africa) was the strongest performing EM economy during the first quarter, reminding us that output gaps, current accounts, foreign exchange markets and central banks' response to rising inflation all play a part in economic performance.
- The inflation story in Asia appears to be most challenging. We expect developing Asia to fare relatively poorly based on food inflation, but Indonesia, Malaysia and Thailand may be able to offset some of this negative performance through strong energy exports. Malaysia, Thailand, Indonesia, India and China also offset rapid inflation through varying price controls and subsidies, though most of these nations are trying to unwind their subsidy programs.

Commodity Price Increases

Our team debated whether price increases are based on: (a) cost-push drivers, created by such things as the supply shocks; (b) speculation; or (c) demand-pull dynamics. We suspect cyclical inflationary pressures, particularly in food may show reduced increases, but will continue to rise into the summer.

Cost-Push Drivers

The consensus view was that disastrous weather-related incidences seen in 2010 were among the worst we had ever seen and thus, few thought they could possibly be matched in 2011. However, so far in 2011, we have witnessed the earthquake and tsunami in Japan, as well as droughts in Europe and China. Also, farmers throughout the Southeast and Midwest United States have had to delay plantings or reduce their harvest expectations in corn, wheat (and probably soybeans) after a number of weather-related disasters, including violent tornado activity, droughts and floods. This does not bode well for the belief that last year's weather-related price increases would not continue into 2011. Granted, farmers have had more time to plant, so some stocks are up. Others, such as corn and wheat have recovered nicely and their spot prices moved up over 10% between 13 May and 19 May.

Food inflation had a lead on energy price increases, which started last summer, but conflicts in the Middle East added to upward pressure on oil, extending price gains from November through April of this year. During the first quarter of 2011, the world experienced a "double whammy," seeing large increases in both food and energy since last summer. These "supply shock" headlines seemed to reach a peak in March and have since leveled off.

Speculation

We debated the speculation in the market and suspect that speculation in food commodities is relatively small, compared to other commodities. Analysts debate whether the recent pullback was due to: (a) the market's perception of slower growth in China; or (b) the unwinding of carry trade opportunities where speculators have taken advantage of a cheap dollar, and used it as a funding currency in order to go long commodities.

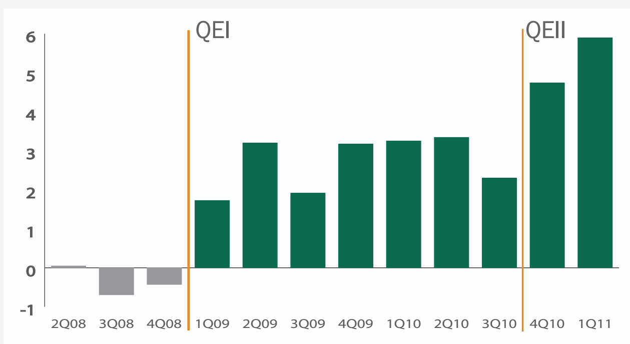
We looked at whether this correction will expand as we move closer to 30 June and as the market continues to price in the unwinding of QEII. Assets under management in commodities grew exponentially from their previous peak in the second quarter of 2008 when they were approximately US $260 billion to over US $410 billion during the first quarter of 2011, a nearly 60% increase.[1] Data from the US Commodities Futures Trading Commission (CFTC) shows strong gains in long-only commodity

1 *Barclays Capital as of 26 May 2011.*

positions in index investments. The US futures market showed US $242.6 billion in net long index positions as of the end of March 2011 (US $366 billion in long only positions), an increase of 44% from US $168.9 billion in net long positions from the previous peak, three years ago. Such rapid flows indicate likely speculation in the market. 35% of the notional value of these positions was in food-related commodities.

According to Barclays Capital, there was a sharp acceleration of investment flows into commodities around the commencement of quantitative easing. In the first quarter of 2009, flows exceeded US $25 billion, nearly double the rate of flows during the first quarter of 2008, during the peak of the commodity boom. This was a drastic turnaround from the outflows we saw during the fourth quarter of 2008. Ever since then, we have seen a notable up-tick in flows to commodities, during a time where investors would otherwise be more defensive in the early days of a recession.

Figure 1 - Flows Into Commodities Accelerated Sharply at the Start of 2009, Directly After the Launch of QE



Source: Morningstar as of 26 May 2011

According to the CFTC, speculators increased their net-long positions in all food-related commodities between March and April. Throughout April, they held anywhere between 35% and 50% of interest in food-related commodity futures or options contracts.[2]

While these numbers imply that there is certainly speculation in the markets, we believe that it is less so in food than in energy-related commodities. The correction focused on metals and energy, two areas that are crucial for infrastructure investing. Prices in these commodities fell between 10% and 30% during the first two weeks of May. There was little contagion into agricultural commodities, which saw just a mild pullback of approximately 5% (CRB Commodity Price index fell by less than 4.6% since the end of April, Source Bloomberg, ticker CRB CMDT Index). Furthermore, food prices only fell by about 2% (according to the FAO Food Index), and are just off their all time highs.[3] So it does appear that prices for food-related commodities are more downward sticky.

Demand-Pull Dynamics

We believe demand-pull dynamics have the biggest impact on food-related commodity price inflation. The low interest rate environment has contributed to spending in EM by the regions' rapidly rising middle class. But economic development across many EM nations is still being managed, so governments are looking for ways to increase demand internally. According to DataStream, many wage increases in EM moved as high as 7% to 11% around year-end 2010 (certainly above those in developed markets). In many cases, this was exceeding GDP growth, pushing demand up-market to higher quality products, but also fanning the flames of inflation (as long as many central banks remain behind the curve).

Immense demand coming out of China can move the markets and we believe its shift from being a net importer to a net exporter will make the world's most populous nation increasingly influential over global food prices. Some governments are contributing to speculative activity by managing supplies in the form of "strategic reserves." While done less with food-related commodities than with metals, this form of stockpiling reduces price volatility due to supply shocks, but really adds to speculation in the market. The Chinese government has ample stockpiles of wheat, swine, rice and soybeans, in order to cushion its people from violent price swings.

Given the fact that over 30% of the nation's CPI is comprised of food-related expenditures, these reserves may serve to contain social unrest, which can quickly stir in an environment of high inflation. Clearly, China is not the only EM nation grappling with these issues, as we witnessed in this year's Jasmine Revolution and the less-publicized violent protests in Asia and Africa.

Across emerging markets, food expenditures as a percentage of CPI is typically in the range of 30% to 35% and even exceeds 50% in some of the more inflation-prone nations such as India, Russian and Egypt. We looked at this variable and compared the supply and demand data of major food staples to evaluate sustainability. Growth dynamics were measured by GDP, CPI and PPI, all of which potentially add to, or are indicative of inflationary pressures.

Finally, we consolidated our findings into a heat map that looks at key domestic demand variables that either have an effect on or are influenced by inflation *(Figure 1)*. Our goal was to identify those countries that are potentially most affected by food-related commodity price swings.

Regional Takeaways

- Eastern Europe appears to be the region that stands to lose the most in an environment of rising inflation, particularly in relation to energy. In 2010, CPI across Eastern Europe increased at a weighted average of 6.1% from the prior year and most economists expect a further acceleration in 2011. Price pressures are not evenly distributed however, as seen in contrast between the relatively modest inflation in the Czech Republic and Poland (1.2% and 2.6% respectively) and higher

2 "Non-commercial traders" represent investors that do not own the underlying asset or its financial equivalent and hold only positions in futures (or options) contracts. These are institutional investors who are considered speculators. Traders with "non-reportable" positions are too small to meet the reporting thresholds set by the CFTC. Retail investors and very small institutions would fall into this category. In April this group accounted for approximately 40-45% of the interest in agricultural commodities (including grains such as corn and wheat), 35% of interest in soft commodities (including soybeans, soybean oil, coffee and cocoa) and over 50% of the interest in livestock. (including hogs and cattle). Source: US Commodity Futures Trading Commission, This Month in Futures Markets, April 2011
3 Bloomberg, ticker FAOFOODI Index

inflation of 4.9% and 6.1% for Hungary and Romania. Surging commodity prices are the main culprit behind faster consumer price inflation, with food and energy, on average, accounting for more than 25% of Eastern European CPI , compared to about 14% in the "West." The International Monetary Fund (IMF) expects Central and Eastern European GDP to grow 3.7% this year and 4.2% in 2012, less than rates in Asia or Latin America, but more than twice the rate forecasted for the euro zone.

- Asia showed a significant rise in inflation over the past couple of years, made possible by accommodative central bank policy. While inflation pressures appear to be rolling over, in general, the region has a higher food weight in the CPI versus other regions in EM. Combine this fact with the region's trading relationship with China and we believe this region could face longer-term inflationary pressures as China shifts from being a net exporter to a net importer. In an effort to fight these pressures, the region has subsidies and price controls. So, while headline inflation appears to be relatively well-behaved, these programs create inflationary pressure down the road.

  However, the pattern is not consistent across the region. We expect more muted pressure in Indonesia and Korea for instance, than in Thailand, Malaysia and the Philippines. India appears to be in the worst shape, with inflation as high as 9.4%, a negative output gap and food and energy as a percentage of their Wholesale Price Index of 24%. To make matters worse, monsoons continue to add a lack of predictability to India's food production cycle. Yet, the Central Bank remains vigilant and we expect continued rate hikes to stem inflationary pressure.

- Central Banks in Latin America appear to have been behind the curve (Brazil has reached its upper inflationary target band of 6.5%), but there may soon be signs of inflation rolling over in the region. Longer-term, this region will be the most likely to benefit from a trade balance standpoint, given the large portion of private companies geared toward food production and exports in Brazil, Colombia and Peru.

  As a region, expenditures on food accounts for about 23% of CPI, which is about 4 percentage points better than the overall EM average. Real interest rates are approximately 5.3%, far exceeding those in Asia where they are negative and EMEA where they stand at 1%. Wage inflation adds to inflationary pressures in Brazil but real interest rates across the region are very much in positive territory.

About Brainpools:

Brainpools bring together our analysts from both private and public asset classes to identify how major trends should play a part in the teams' decision-making processes. These discussions rarely touch upon issues at the company-level — and never do so in relation to our private equity holdings.

As a global organization, PineBridge Investments has a comparative advantage in its extensive on the ground network and access to local information. The Brainpools bring together this local expertise, allowing analysts and portfolio managers in all asset classes around the world to understand important issues that may affect their investment decisions.

The subject matter is forward looking, allowing us to anticipate and prepare for future trends. Brainpools are conducted in a variety of forums, some on a larger scale than others, but all intend to spur debate with concrete output.

- Improved Global Sector Coverage: The goal is to improve our global sector coverage and ensure that regional fundamental research is conducted with a global perspective. From this, we can establish a global knowledge base constructed from regional insights.
- Enhance of In-House Knowledge: This effort is designed to pool our in-house knowledge across the major global sectors. This allows analysts and portfolio managers to supplement sell-side research with independent information and to foster industry contacts.
- Explore PineBridge House Views: By sharing our knowledge and expertise, we gain a broader perspective in looking at an industry with our colleagues. As a global organization, we regularly debate on the future of issues and understand industry implications from the bottom up. In conducting these debates, we strive to establish "house views" on globally important issues and trends.

4 Wholesale Price Index is a more comprehensive measure in India.

Appendix: Heat Map

	% GEM	Of Region	Staple Food Source	Main Export Food	Main Food Import	CPI Inflation (Most recent)	Food as % of CPI (approx)	Energy as % of CPI (approx)	Energy and Food as a % of CPI	Wage Inflation -- or implied cost push inflation	Real Interest Rates
Source	MSCI (as of May 2, 20011)	Based on MSCI data	Our internal analysts and USDA	Our internal analysts and USDA	Our internal analysts and USDA	Bloomberg	Citi, National Src's and Haver	Internal Analysts (or as indicated in corresponding comments).	Based on data provided by UBS	Internal Analysts	Bloomberg
Asia											
China	17.16%	29.57%	Swine, Corn, Rice, Wheat, Soybeans	na	Soybeans	5.30%	30.0%	6.9%	36.9%	13.00%	-1.43%
Korea	7.09%	25.59%	Swin, Rice, Corn, Wheat	na	Corn, Wheat	4.20%	14.0%	7.5%	21.5%	6.20%	0.13%
Taiwan	1.76%	19.43%	Swine, Corn, Soybean Meal	na	Corn, Soybeans	1.34%	26.1%	6.7%	32.8%	3.80%	0.11%
India	1.48%	12.33%	Milk, Wheat, Cattle, Sugar, Rice	Rice	na	9.44%	52.0%	12.0%	64.0%		-1.09%
Malaysia	0.31%	4.91%	Palm Oil, Rice, Coffee, Corn	Palm Oil	Rice, Corn	3.20%	31.4%	10.4%	41.8%	4.00%	0.79%
Indonesia	0.39%	4.19%	Rice, Palm Oil, Coffee, Corn, Wheat	Palm Oil, Coffee	Wheat, Rice	6.16%	36.1%	9.7%	45.8%	8.50%	1.25%
Thailand	0.45%	3.03%	Rice, Corn, Sugar, Soybean Meal	Rice, Sugar	Soybean Meal	4.04%	33.0%	10.2%	43.2%	5.00%	-0.27%
Philippines	0.15%	0.96%	Swine, Rice, Corn, Wheat	na	Wheat	4.30%	46.6%	8.0%	54.6%	5.50%	-0.50%
Total Asia	58.43%	100.00%				4.64%	28.43%	8.04%	36.48%	6.93%	-0.43%
EMEA											
South Africa	7.59%	39.47%	Corn, Wheat, Meat	Vegetables	Vegetables, Rice and Wheat	4.20%	17.0%	2.5%	19.5%	9.0%	4.17%
Russia	7.09%	36.88%	Swine, Milk, Wheat	Wheat	Meat, Sugar	9.60%	40.0%	9.9%	49.9%	12.4%	-3.60%
Poland	1.76%	9.16%	Wheat, Dairy, Meat			4.50%	28.0%	15.8%	43.8%	5.3%	1.54%
Turkey	1.48%	7.69%	Wheat, Barley, Cattle	Wheat, Barley, Oranges/Tangerines	Wheat and Soybeans	4.26%	30.0%	13.2%	43.2%	14.0%	5.14%
Egypt	0.31%	1.62%	Wheat, Corn	NA	Wheat, Oils, Corn	12.10%	31.1%	18.4%	49.5%	10.0%	*2.50%*
Czech Republic	0.39%	2.03%	Wheat, Dairy	Cereals and Cereal Preparations	Vegetables and Fruit	1.60%	17.0%	15.3%	32.3%	3.0%	0.00%
Hungary	0.45%	2.36%	Corn, Wheat			4.70%	23.2%	15.6%	38.8%	3.0%	2.31%
Morocco	0.15%	0.78%	Wheat	Citrus, Fruit, Vegetables, Fish	Wheat	-0.30%	41.5%	13.50%	55.0%	*5.00%*	0.30%
Total EMEA	18.29%	100.00%				6.28%	28.06%	8.19%	36.25%	10.02%	0.95%
Latin America											
Brazil	15.47%	68.01%	Wheat	Sugar, Soy, Corn, Cotton, Coffee, Beef, Chicken	Wheat, Rice	6.51%	23.0%	9.7%	32.7%	9.00%	5.96%
Mexico	4.35%	19.14%	Corn, Wheat	Corn	Corn & Sugar	3.36%	22.0%	8.1%	30.1%	4.66%	3.73%
Chile	1.59%	7.01%		Fruit, Fish, Beverages		2.40%	20.0%	5.7%	25.7%	5.70%	3.82%
Colombia	0.79%	3.45%	Corn	Oil/Coal, coffee	Corn	2.84%	30.0%	9.1%	39.1%	2.00%	5.25%
Peru	0.54%	2.38%		Fruit, Fish, Beverages		3.34%	26.0%	8.7%	34.7%	2.30%	3.42%
Total LatAm	23.29%	100.00%				5.42%	22.91%	9.07%	31.98%	7.54%	5.30%
Total Emerging Markets	100.00%					5.12%	27.08%	8.31%	35.39%	7.63%	1.16%