SPECIAL REPORT

TD Economics

November 2, 2012

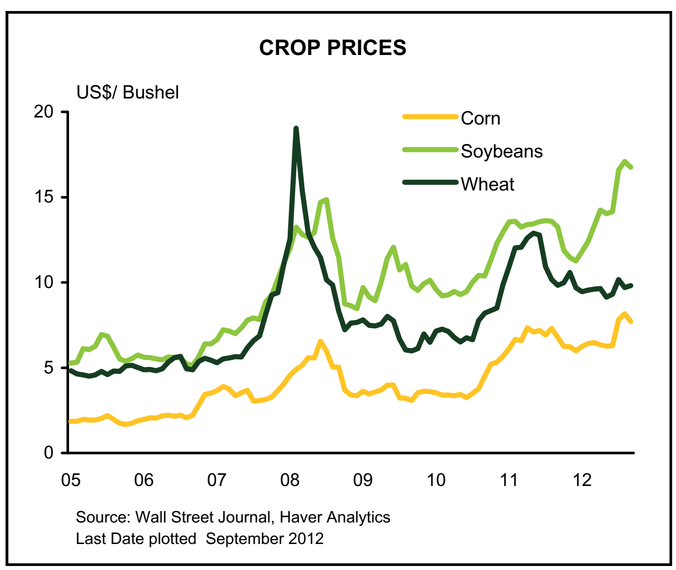
MOTHER NATURE CONTINUES TO GENERATE VOLATILITY IN THE AGRICULTURE SECTOR

Highlights

- Unfavourable growing conditions in the U.S., as well as other key growing regions, has reduced crop yields and output this year, sending prices up sharply. Meanwhile, high feed costs drove hog producers to liquidate herds, sent hog prices in the opposite direction.
- Despite lower yields, output in Canada is expected to be decent, allowing crop growers to reap the benefits of higher prices.
- Given tight inventories, crop prices are likely to remain elevated in the near term, while smaller herd sizes will support higher livestock prices.
- While longer-term prospects for the sector are fairly bright, with demand for agricultural products likely to remain quite healthy, livestock producers will continue to battle elevated feed costs.
- All farmers will be faced with a number of challenges going forward, chief among them being unpredictability - notably weather. Research and innovation could help to reduce the impact of such events, helping to reduce price volatility.

In last year's annual outlook report, we argued that one of the biggest challenges facing Canada's agriculture sector was the large degree of unpredictability. That statement certainly rang true this year, with unexpected disease and unfavourable weather conditions plaguing the industry. Indeed, 2012 has been another wild year for agriculture, with the sector enduring large swings in crop and livestock prices. Crop prices saw gains between 15% and 40% between June and July, while hog prices subsequently sank 26%.

While weather – good or bad – is always a factor that influences agricultural output, poor growing conditions seem to attract more attention given the implications for food shortages and sharp price increases. Similar to last year, much of the volatility in prices this year stemmed from the impact of unfavourable growing conditions. Several key areas around the world – including the Black Sea region, Australia and parts of Canada – endured hot, dry weather, reducing crop production. But it was the severe drought in the U.S. – the worst since the 1950s, affecting 80% of the country – that hit markets hardest this year, sending crop prices skyrocketing. Output in the U.S. has a considerable impact on global supplies (and prices) as it is the world's largest producer of corn and soybeans, accounting for 35-40% of global production. The U.S. is also the third largest producer of wheat, although its share of total output is much smaller, at just under



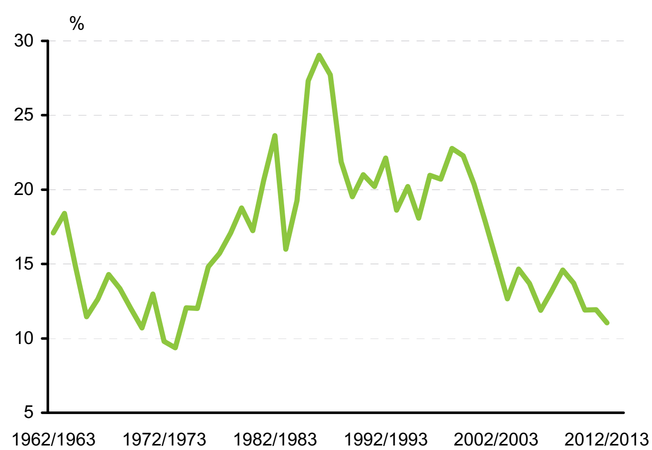
Dina Ignjatovic, Economist, 416-982-2555

10%. So with much of the country afflicted by drought, the impact on global production – as well as the overall economy – has been quite significant. Indeed, yields are down across the board, leaving global supplies of several crops quite tight. Carry-over stocks for the 2012-13 growing year are projected to be at their lowest level in four years for wheat, nine years for soybeans and 18 years for corn. In fact, the stocks-to-use ratio for corn has fallen to a 39-year low. As such, it will likely take more than one growing season to replenish supplies, suggesting that prices will remain elevated for some time still.

Canadian crop producers capitalize on higher prices

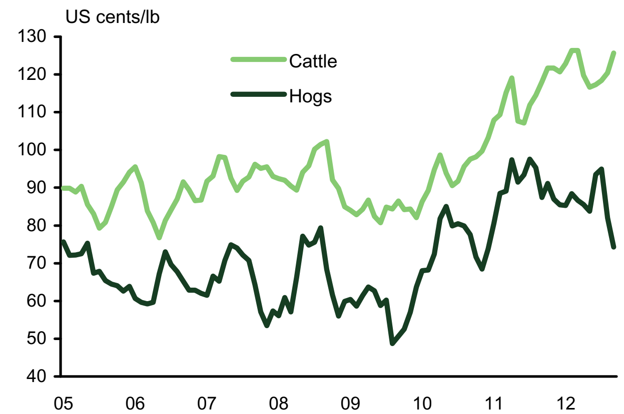
In Canada, despite some unusual and unfavourable weather conditions that sent yields down by an average of 7% across the country, production of most crops is expected to be decent this year. As a result, several farmers are reaping the benefits of higher prices. Quebec is the only province to enjoy higher yields, and farmers are expecting record soybean production, despite a drop in acreage. A mid-season drought in Ontario has lowered yields, but record harvested area is expected to result in higher overall corn production in the province, contributing to an 8% increase nationally. In the Prairie provinces, unusual wind patterns brought leafhopper insects up from the United States, increasing the instances of crop disease. This, coupled with mid-summer heat and rare high winds, reduced yields for all crops. Still, higher harvested area for barley and wheat are expected result in a rise in production in the grainbelt this year. Canola crops were hit hardest in the Prairies, with production expected to fall below year-ago levels in spite of record acreage. Nonetheless, overall output numbers

GLOBAL CORN STOCKS-TO-USE RATIO



Source: USDA

LIVESTOCK PRICES



Source: Wall Street Journal, Haver Analytics
Last date plotted: October 2012

for canola will still be respectable and will almost certainty come in well above the 10-year average. As a result, many crop farmers in Canada will benefit from the strong prices, and end the year on sound financial footing.

Canada's wheat farmers appear to be in particularly good spirits this year, as the end of the Canadian Wheat Board monopoly has allowed them to sell as much as they want on the open market, when they want, and to receive full payment at the time of delivery. As such, the combination of a good crop and high prices is likely to result in farm-level cash receipts that are 2-3 times higher this year compared to last.

Higher feed costs a challenge for livestock producers

Unfortunately, the same cannot be said for livestock producers, who are struggling with the sharp jump in feed costs. North American hog producers began to sell off their animals because they were becoming too expensive to feed, sending prices down by 26% in August – resulting in even worse conditions for the remaining producers. While there are some federal support programs in place, many hog farmers are struggling with liquidity issues. Two of the four largest hog producers in Canada – Big Sky Farms in Saskatchewan and Puratone in Manitoba – actually filed for bankruptcy protection in September, citing high feed costs as the key reason. There is some concern that Canada may lose several hog farmers, leading to a shortage in pork products.

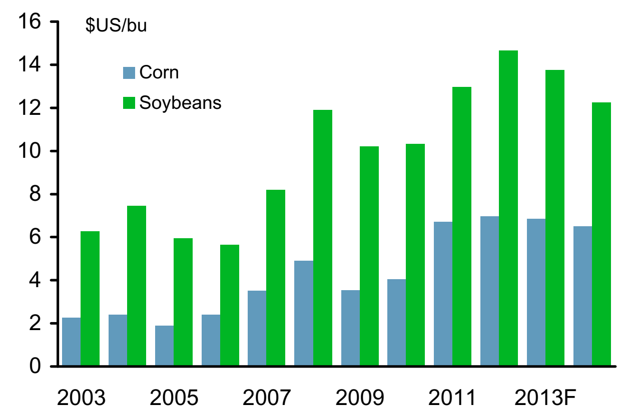
The cattle industry is also reducing herds in response to lower forage supplies and high feed costs, although prices have remained quite healthy. In Canada, however, the sector was recently dealing with a massive beef recall and the temporary shut down of the XL Beef plant in Alberta. With only two beef plants in Canada, farmers had to reduce prices in order to sell to the other plant or sell their cattle south of the border. The recall briefly weighed on beef demand and prices.

Prices to remain elevated

Going forward, tighter crop supplies and smaller livestock inventories will have considerable implications on the outlook for agricultural commodity prices. The accompanying charts contain our medium-term price projections for key agricultural commodities. For crops, attention has now turned to expectations for harvests in the southern hemisphere – where growing conditions also influence North American prices. Already, dryness in Australia, along with two unusual instances of frost, has generated expectations for lower agricultural output. In particular, after a record harvest last year, wheat production in that country is likely to fall by about 30% to a 5-year low. This, in addition to the recent announcement that Ukraine will ban wheat exports as of November 15th, has helped keep wheat prices propped up in recent weeks. Meanwhile, in South America, floods in Argentina have hit some wheat crops and delayed planting of soybeans. However, while it is still early in the season, the overall outlook for South American crop production is encouraging. Indeed, high prices have led to record soybean acreage in Brazil, and an increase in acreage in Argentina – likely at the expense of wheat. Brazil may even overtake the U.S. as the world's largest producer of soybeans. Of course, weather will be a critical factor. But barring any negative surprises there, South American corn and soybean crops are likely to lead to an improvement in the global supply situation during the second half of the 2012-13 crop year, placing some downward pressure on world prices. That said, even with a bumper harvest in South America, it will probably take a couple good growing seasons to bring global supplies to comfortable levels, keeping a floor under prices in the near term. On the other hand, wheat is expected to be the top performer among the crops, as global year-ending stocks are likely to hit a 5-year low.

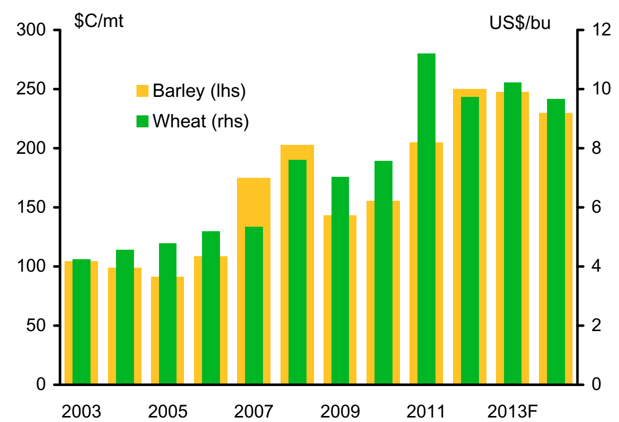
In the livestock sector, the herd liquidation taking place this year will result in lower inventories down the road, likely driving prices higher towards the end of this year and into 2013. Once feed costs begin to moderate and livestock producers begin to expand inventory again, prices will feel some downward pressure. However, rebuilding an animal herd takes time, suggesting that the downside for cattle and hog prices is limited.

CORN AND SOYBEAN PRICE FORECAST



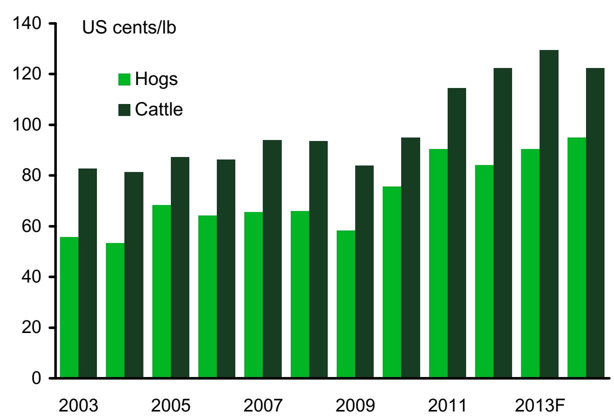
Source: WSJ; Forecasts by TD Economics as at October 2012

WHEAT AND BARLEY PRICE FORECAST



Source: ICE, CWB; Forecasts by TD Economics as at October 2012

CATTLE AND HOG PRICE FORECAST



Source: WSJ; Forecasts by TD Economics as at October 2012

While these supply side factors will certainly play a key role in price movements, the demand side must also be taken into account. And on that front, demand has held up relatively well. There has been some substitution taking place (for example, barley for corn used as feed), but overall, global demand for several products remains healthy. For example, China is on track to import more wheat than it has in several years, while rapeseed imports to Japan are likely to reach a record high this year – and to date, 96% of those imports have come from Canada. That said, lower output in North America will constrain exports this year despite strong demand overseas. Indeed, in Canada, earlier expectations for record canola exports this year will probably be disappointed.

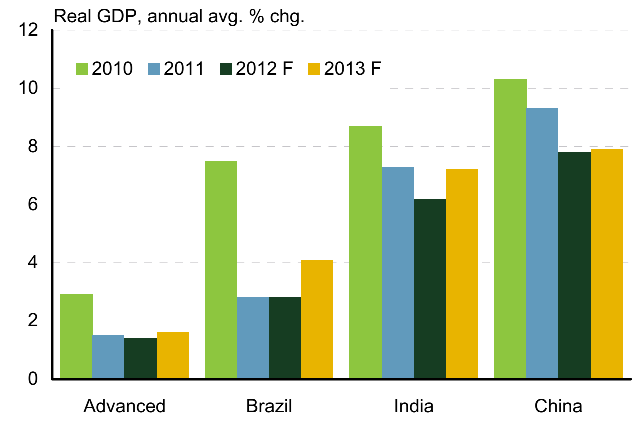
Longer-term drivers still positive…

Not much has changed with respect to the longer-term underlying drivers for the agriculture sector. With over 7 billion mouths to feed around the world, demand is likely to remain strong. That's one of the benefits of producing food – people always need to eat, so demand is always present.

While global economic growth has downshifted this year, we expect it to stabilize and pick up some steam next year and in 2014. Emerging markets will continue to be the main drivers of world growth, although most of these economies will be growing at a slower pace than what was seen prior to the recession. Still, positive growth rates will drive incomes higher, which bodes well for food producers since incomes in developing nations are highly correlated with food consumption – particularly animal products.

As such, the ability to tap these markets would present Canadian agriculture producers with great opportunities. The federal government is taking steps in an effort to broaden Canada's access to markets outside North America. Canada has now formally joined the Trans-Pacific Partnership (TPP) negotiations, which would give Canadian producers access to several countries in the Asia-Pacific region. A final agreement is expected to be reached in the second half of 2013. China and Japan are not currently involved in the TPP, but the Harper government is working on deepening trade ties with these countries. As well, free trade negotiations with the European Union are still in the works, and are expected to be wrapped up early next year. While the federal government has been very supportive of the supply-managed industry, it is a topic that countries involved in these trade negotiations are pushing Canada on. As such, Canadian officials may agree to alter the current policy in order to seal these deals. The impact on the supply-managed sector (which includes dairy, eggs and poultry) is uncertain at this point, as it would depend on what the government agrees to and how any changes would be implemented. Either way, it could prove challenging for the producers involved. That said, success in any of these negotiations would be beneficial for the broader agriculture sector, as it would likely lead to increased consumption of Canadian-grown food in several other countries.

EMERGING MARKET GROWTH STILL HEALTHY



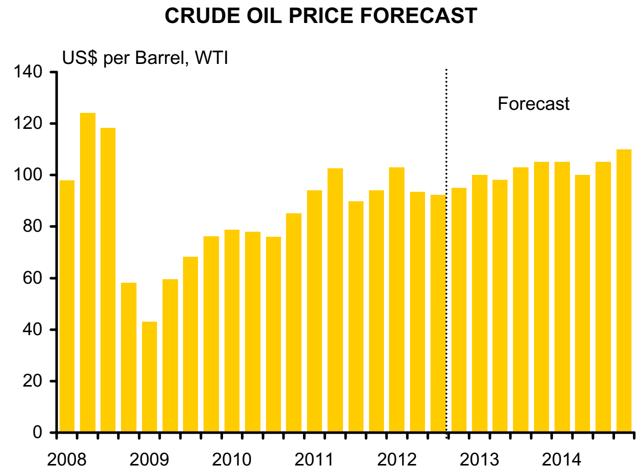
Forecast by TD Economics as at September 2012
Source: IMF, National Statistics Agencies, TD

The biofuels industry is also likely to remain a key source of grain demand over the long run. While ethanol production in the U.S. slipped this year, renewable fuel standards remain in place and ethanol is likely to account for over a third of U.S. corn output in the years to come. Indeed, even though some U.S. states have been pushing for waivers of the ethanol mandate due to lower supplies and higher prices for corn, any such changes in guidelines would likely be only temporary. Elsewhere in the world, the expansion of the biofuels industry is likely to be more rapid than in the U.S., supporting global demand for grains and oilseeds.

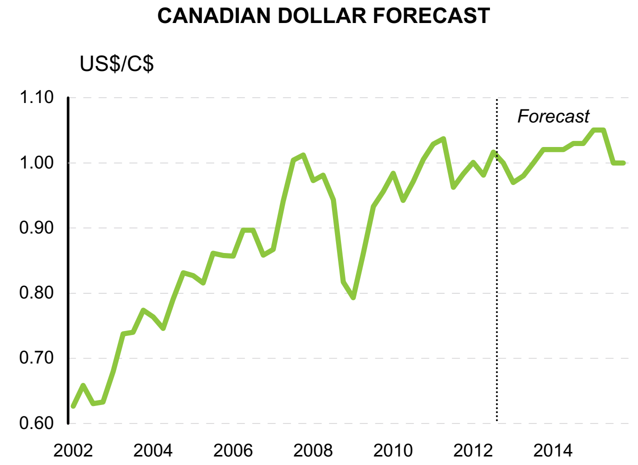
On the supply side, the story is also encouraging. Yield growth has been decelerating over the past decade, and is likely to slow further going forward. There are some practices that farmers can use to maximize their output, including proper crop rotations and the use of fertilizers, but overall supply growth is likely limited.

…but challenges remain

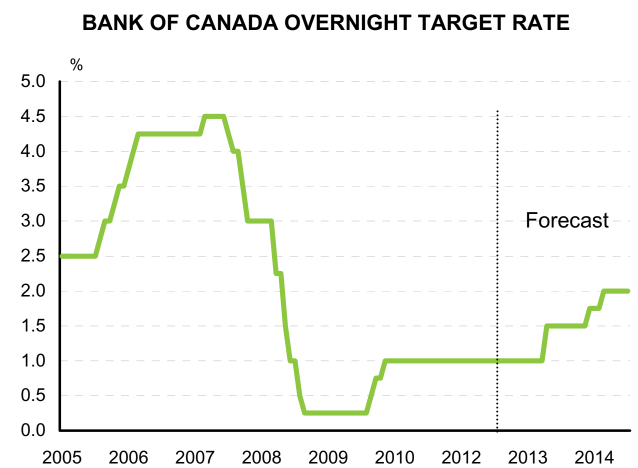
Given that demand growth is expected to remain robust while supply growth is limited, prices are unlikely to return to the levels seen a decade ago. But farmers shouldn't



Source: Haver Analytics, Forecast by TD Securities as at Oct 2012



Source : Bank of Canada; Forecast by TD Economics as at September 2012



Source: Bank of Canada. Forecasted by TD Economics as of September 2012

break out the champagne just yet – costs are also likely to be higher. Indeed, while natural gas prices have been in the doldrums this year, oil prices remain quite elevated – even with record high inventories in the United States. While the current US$85-100 per barrel WTI price range is on the high side based on current market supply-demand fundamentals, oil prices are unlikely to move much lower anytime soon. In fact, we expect prices to move above the US$100 per barrel mark next year, and remain there in 2014, as the recovery in the global economy lifts physical demand and prompts investors to seek riskier assets, including commodities.

Meanwhile, fertilizer prices have been trending up over the past couple of years and, while lower than the levels seen during the spikes in 2008-09, prices of all fertilizers are higher than their pre-2007 levels. Especially after a year like this one, where yields were down across the board, farmers are likely to increase fertilizer use in order to maximize production so they can take advantage of higher crop prices. Longer term, that trend is likely to remain intact, given that yield growth is expected to decelerate.

The Canadian dollar is also likely to remain a challenge for farmers who export their products. The loonie has been trading at close to parity for a few years now, and it is not expected to move materially in the foreseeable future. With the Canadian economic and fiscal position in better shape than that in most other advanced nations, the loonie is expected to remain rangebound between 95 US cents and 105 US cents throughout our forecast horizon.

Farmers looking to expand their operations, or those looking to enter the industry, must also contend with rising land prices. Across the country, farm values rose 8.6% over year-ago levels during the first half of 2012, for a 12-month compounded gain of 16%. This marks the fastest pace of growth on record going back to 1988. Ontario led the pack during the first half of this year, with a 16% gain, as demand exceeded supply and many properties had multiple offers. Over the past five years, however, it has been Saskatchewan that has seen the farmland prices appreciate the most, with an average growth rate of 13% per year. On a national basis, land values have been rising steadily since 2001 – driven, in part, by rising commodity prices. However, in recent years, like the housing market, the increase in demand for farmland has also been propelled by ultra-low interest rates. And little change is expected on the interest-rate front over the next few years. Confronting an uncertain external environment, the Bank of Canada is expected to leave the overnight rate at 1.00% through mid-2013, before beginning a very gradual hiking cycle in the second half of the year. At the end of 2014, interest rates are still likely to remain below the more neutral range of 3.00-4.00%. Continued low interest rates are likely to lead to a further escalation in land prices and worries about the potential for a medium-term price correction.

On the plus side, low interest rates for longer would be good news for borrowers and in particular producers looking to invest and expand. Over the past three years, capital expenditure on crop and agriculture production was either flat or declining on a year-over-year basis – even with ultra-low borrowing rates and a higher Canadian dollar that has lowered the cost of U.S.-made equipment. Still, overall productivity in the agriculture sector (including fishing, forestry and hunting) has managed to eke out some gains over the same timeframe and has been trending up over the past 15 years – a much better showing than most other sectors in the Canadian economy. Investing in new technologies and research and development can help to continue to improve productivity as well as to increase the competitiveness of the Canadian agriculture sector. This is one area that farmers might consider taking advantage of sooner rather than later, as interest rates will not remain low forever.

Governments across the country have recognized the importance of ongoing innovation in the agricultural sector and have adjusted their policy framework accordingly. Federal, provincial and territorial governments recently reached a 5-year agreement on agriculture policy and programs, called Growing Forward 2, which will come into effect next April when the initial Growing Forward initiative expires. The new agreement places a greater focus – 50% increase in funding – on innovation, competitiveness and market development, which should lead to increased productivity and profitability for agriculture businesses. While this will certainly be beneficial for the sector, the new agreement also pared back funding for farm income supports through changes to the AgriStability and AgriInvest programs. Notwithstanding, Canadian producers will still have access to a wide range of business risk management programs. On net, public funding in the Growing Forward 2 program will be smaller than it has been during the past five years.

Bottom line

Overall, the outlook for the farming sector is fairly bright, particularly for crop growers. The impact from the severe drought in the U.S. this year, combined with unfavourable growing conditions in other key growing regions, will keep crop prices elevated in the near term. While higher feed costs will remain a challenge for livestock producers, cost pressures will ease somewhat as feed stocks are replenished and prices for the animals rise in response to smaller inventories.

Although many longer-term factors remain supportive for the sector, producers will continue to be faced with a number of challenges – chief among them being unpredictability. In particular, one of the most important variables for the sector is weather, which is controlled only by Mother Nature. Given that this is not going to change anytime soon, farmers – both crop and livestock producers – must look for ways to mitigate the consequences of adverse growing conditions. Research and innovation could go a long way in this regard, as it would improve productivity and perhaps uncover new ways to make crops more disease and weather resistant. This in turn would help reduce price volatility.

Dina Ignjatovic, Economist
416-982-2555