International Perspectives on Farm Income Drivers

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The numbers are pretty telling. Farm income in the U.S. has climbed to a record high in 2013, following 5 strong consecutive years. A similar outcome has been observed in major agricultural producing countries like Canada, the EU, Australia, etc.

A confluence of factors explains farm income growth – but it fundamentally starts with the strength in the demand for agricultural commodities. A very popular narrative around agriculture at the moment, borrowed from a Food and Agriculture Organization (FAO) report, goes something like "world food consumption will need to grow by 60 to 70 percent by 2050".

At the same time, the same FAO study states that "…world production would need to increase at rates much lower than in the past…" to increase production by the order of 70 percent. At the world level, consumption needs to equal production. Hence, the question is whether the growth in food consumption will be induced strictly by a shift in demand, or will it also be accompanied by a shift in supply? Answering this question has a really big impact on determining future patterns in farm income and the overall future prosperity of the agricultural sector. I argue below that farm income will stabilize at a much lower level than what has been observed over the last 5 years.

More affluent populations in the developing world are shifting diets, resulting in a higher demand for meat proteins, feedgrains and oilseeds. This impact is compounded by world population growth, even if the rate of this growth has started to slow down. Projections from the International Monetary Fund (IMF) are that emerging markets will continue to enjoy strong economic growth, pushing up the demand for agricultural commodities and food (Figure 1).

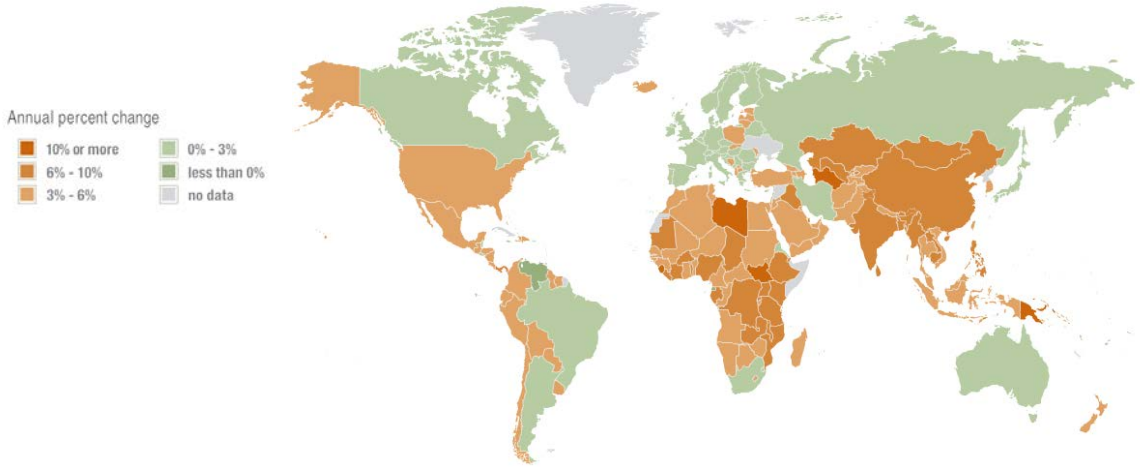

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Figure 1. IMF GDP growth in 2015 – April 2014 projections

China offers a very good illustration of this growth. Over a period of 20 years, China went from self-sufficient, to importing about 60% of their oilseed domestic needs. China imports of soybeans are expected to increase 60% by 2023 which means China would account for 75% of all soybean trade. In corn, China is largely self-sufficient, but the U.S. Department of Agriculture (USDA) suggests that China could be the world's largest importer by 2023, surpassing Japan, Mexico and South Korea. USDA projections indicate that Chinese corn imports will increase to 22 million metric tonnes, up from 7 million today. This would account for half of the increase in world corn trade over the next 10 years.

The rising need for corn imports comes on the basis of increasing meat consumption. Pork consumption is expected to increase by 6.6 kilograms per capita, larger than beef and poultry combined (Figure 2). Beef demand is expected to easily outpace domestic production, resulting in imports increasing 55% over 10 years, but from a low base. Increased pork and beef consumption expands potential export opportunities for both livestock and grains and oilseed producers around the world.

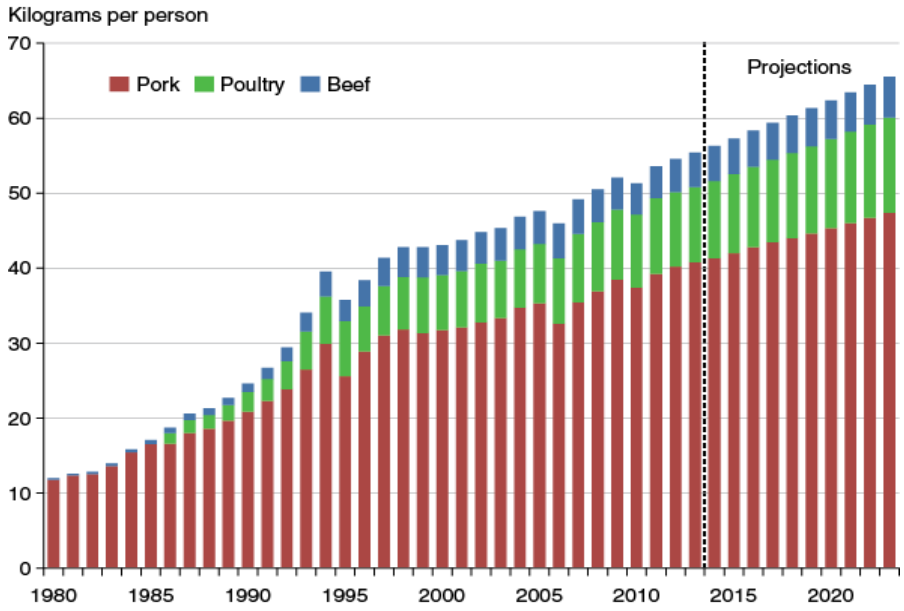

Figure 2. USDA projections of meat consumption in China

There are multiple downside risks to the growth outlook in China: moving the Chinese economy away from an investment-led growth model, a decline of their working-age population etc. Most of these risks do have the potential to slowdown economic growth below the official target of 7.5% GDP growth. But overall, a slowdown in GDP growth may not be very detrimental to the agricultural industry because most of the transformation in the Chinese economy would be oriented towards the consumer. More purchasing power in China equals stronger demand for food.

There are other drivers of demand for agricultural commodities beyond the middle-class expansion in emerging markets. The development of the biofuel industry has certainly increased

the demand for commodities and raised grain and oilseed prices across the board. But the biofuel market on both sides of the Atlantic appears mature. Projections from the FAO / OECD (Organisation for Economic Co-operation and Development) suggest potential growth in the corn-based ethanol market exists, especially if the U.S. demand for higher blends of ethanol expands.

Consumer preferences in developed markets are also shifting because of a bigger emphasis on health and nutrition, concerns about food safety, or simply because of value-based purchasing decisions (local food systems being an example). I believe the jury remains out on whether more sophisticated food preferences have a significant impact on farm income. Yet producers have more options now to market their food than ever before, and this is certainly positive. Consumers rule everywhere! Evolving food preferences in developed markets also raise issues with regards to the future competitive position of producers in these markets.

On the supply side, the potential to match the required increase in food consumption seems to exist. There is a consensus that world agricultural production is going to climb in the future. The question is if demand can continue to outpace the growth in supply.

FAO numbers are revealing. Over the next 40 years, wheat production would only have to grow at an annual rate of 0.9% to meet the anticipated demand. Corn would need to grow at an annual rate of 1.4%. These growth rates are much lower than those observed over the last 40 years which were around 3.5% for wheat and corn.

Much of the production increase should come from anticipated growth in yields, especially when looking at production in developed countries. As much as 99% of the expected growth in wheat production would need to come from yields while 40 percent of the higher corn production could be met by increases in arable land.

So can production climb as needed? Absolutely. The introduction of Big Data in agriculture will allow precision agriculture technology to finally deliver on its promises. Scientific breakthroughs and biotechnology innovations that are responsible for genetically modified foods have the potential to enhance food security as long as stakeholders at the upstream level of the supply chain can deal with consumer resistance in the downstream market.

Productivity gains will assuredly shift out the agricultural supply curve in the future, much like it has done so for many, many years. Agricultural innovations over the last 50 years mainly involved non-proprietary technology – for example during the green revolution. Whether we are now talking different varieties of cereals, or management techniques involving terabytes of data, technology is now more concentrated and proprietary. Will agricultural producers be able to benefit from innovation the same way that they have in the past?

The landscape for agricultural trade is changing. After a strong push to liberalize agricultural trade on a multilateral basis in the 80s and 90s, a shift towards bilateral agreements is clearly visible. The World Trade Organization reports that there 77 bilateral trade agreements implemented between 2005 and 2009, compared to 33 between 1995 to 1999.

These bilateral agreements are definitely seen as more promising tools to liberalize trade in agricultural products. The recent trade agreement between Canada and the EU as well as U.S.

initiatives with South Korea and Australia are good examples of deals that really open up market access in previously protected markets.

Some plurilateral initiatives also offer potential. A TransPacific Partnership agreement could help North American producers access some of the world's fastest growing markets, which represent 640 million people outside of North America. The recent Australia-Japan trade agreement offers a blueprint for future deals. It suggests greater market access to Japan can be achieved for large agricultural trading nations.

Agricultural trade can increase food security throughout the world. And exports are the key determinant of farm income. Farm income climbed as U.S. agri-food exports rose between 2005 and 2013 (Figure 3). A healthy agri-food supply chain offers opportunities to grow all levels of the market. Among all major developed countries, the U.S. agri-food industry is perhaps the one industry that has been most successful growing all stages of the supply chain.

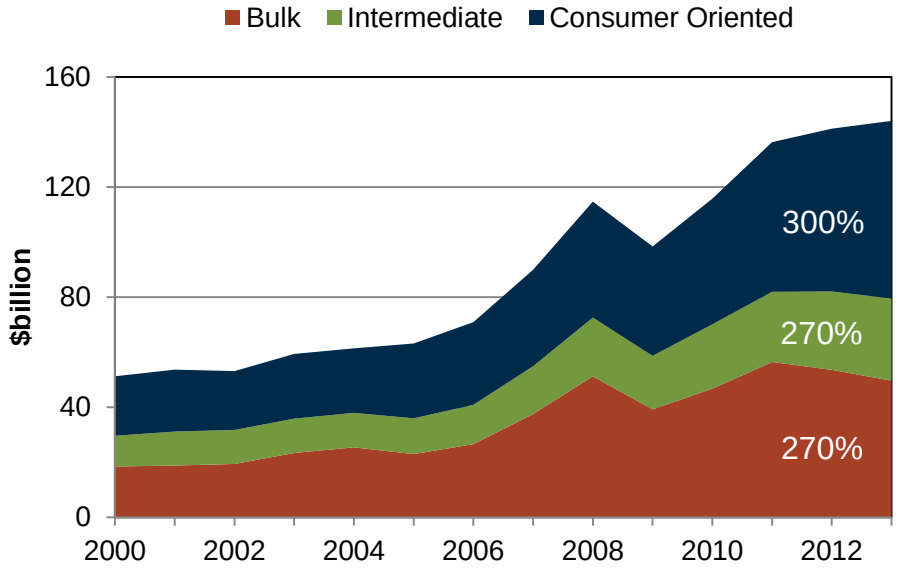

Figure 3. U.S. agri-food exports, 2000-2013

Domestic agricultural policy frameworks have considerably evolved, partly as a result of recent dynamics in agricultural markets. Agricultural subsidies are not distributed equally. OECD analysis reveals that the greatest share of agricultural subsidies is in Asia, followed by Europe and North America. U.S. ag policy has shifted away from direct support and towards protection of downside risk through revenue protection and subsidized crop insurance programs. EU policy went through significant reforms, but has barely evolved in recent years. It still is centered on single farm payments that are believed to have minimal impacts on world markets.

Among all the global players, China is the country that has implemented the most significant reforms. China is estimated to spend an astonishing $165 billion in agricultural subsidies (OECD). Policy changes were implemented to address urban and rural developments, as well as to trigger the necessary mechanization and adoption of new technology. Land rights were reformed in order to gain efficiencies and productivity. These changes are expected to boost agricultural production and efficiency throughout the supply chain in response to consumer pressures to support food quality and safety.

What is the outlook for farm income?

Demand is strong no matter where you look. The picture is less clear for agricultural supply. Livestock numbers have been trending down for some time. Limited supply combined with strong demand and untimely disease in the hog sector has pushed livestock prices to record highs. Is there an appetite for risk to rebuild herds and expand? The evidence is mixed at best as producers seem to be extremely careful before making business commitments.

Projections are that grain and oilseed inventories will be rebuilt to levels approaching the average of the last 20 years. Expectations of stocks being rebuilt and prices trending down have triggered strong demand responses in recent years, keeping prices above their long-term average. But over the long-run, I believe supply with catch-up with demand. It may simply be a question of time. Bottom line is that demand needs to remain strong; and **exports are the most important determinant of farm income.**

The general outlook is overall positive; but it is not without risks. Farm debt levels need to be closely monitored to avoid a credit crisis. Borders need to remain open as North American producers and processors make investments to serve foreign markets.

Rising farm asset values and strong farm income have put agricultural producers in a good position. My expectation is that competitive pressures in the marketplace will bring farm income figures closer to their long-term average. This is the result of a strong and highly innovative agricultural sector.

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