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Farm Margins Squeezed From Every Angle

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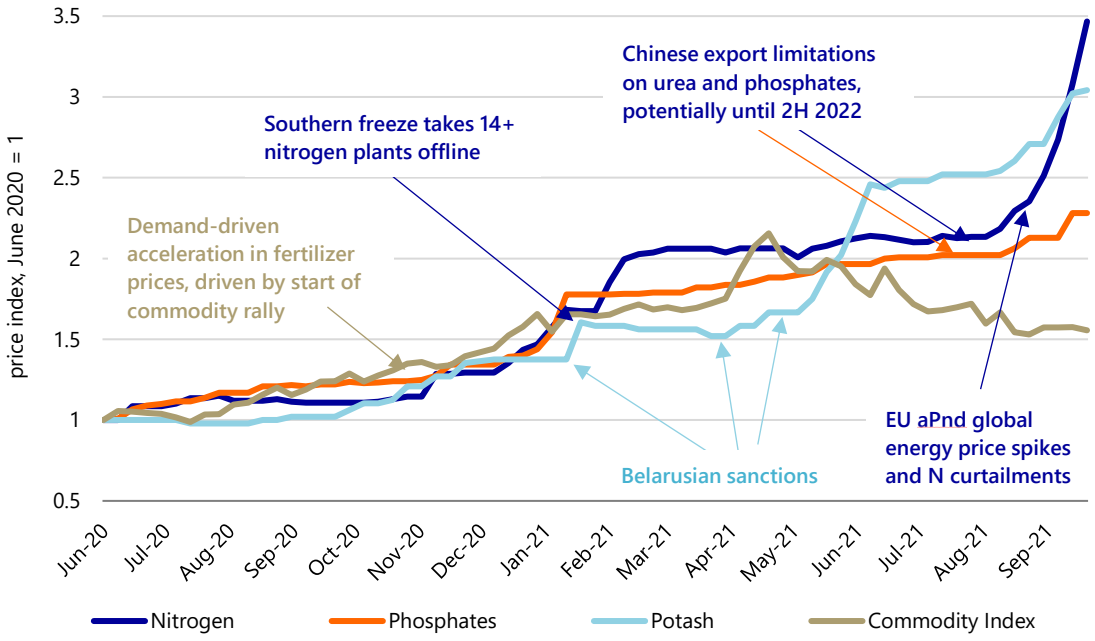
Introduction

Margins in 2022 are likely to be significantly tighter than 2021, with upside cost pressure compounded by risks to farm input availability.

Costs Rose as Returns Fell

'Perfect storm' is an apt descriptor of today's fertilizer markets. Picking the two most recent catalysts – the global run-up in energy prices and China's curtailment of urea and phosphates exports – is selecting just two factors in a rally that began mid-2020. With a number of catalysts driving fertilizer prices, the trajectories of fertilizer prices and commodity prices began to diverge in May 2021 (*see Figure 1*).

Figure 1: Supply-driven factors impacting US fertilizer pricing

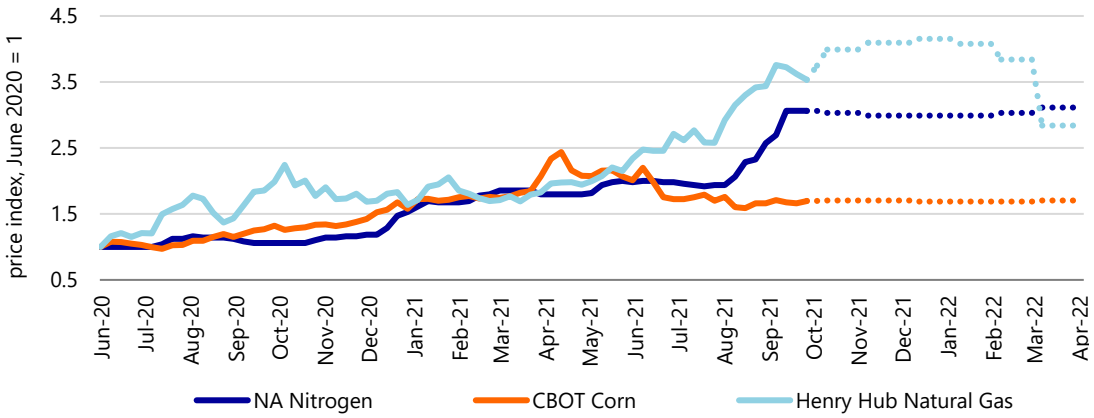


Source: CBOT, CRU, Bloomberg, Rabobank 2021

Fertilizer production's high energy intensity (especially nitrogen) leaves the industry susceptible to the global energy markets. Most recently, high natural gas costs in Europe have exposed as much as 17mmt of ammonia production (~60% of European annual capacity) to curtailment risk, just as the northern hemisphere markets look to restock for the 2022 season. Simultaneously, the Chinese government has imposed limitations on the export of urea and phosphate products, potentially until 2H 2022. Restrictions have been imposed on Chinese state-owned enterprises (SOE), with additional 'window guidance' offered to the broader industry, and are expected to materially reduce the export volumes from China from mid-October forward. China traditionally accounts for >10% of global urea exports and is the largest global producer of finished phosphates.

In the US, December and January can see some seasonal abatement in fertilizer prices at the wholesale level, but this does not always translate to retail. Given the uncertainty and the competitive environment for nitrogen that the global market will face in Q1 2022 – not to mention energy futures and North America's need for nitrogen and heavy reliance upon seasonal, annual imports (~50%) from January to April – pricing risk remains to the upside.

Figure 2: Energy costs to keep nitrogen prices elevated through Q1 2022 at least



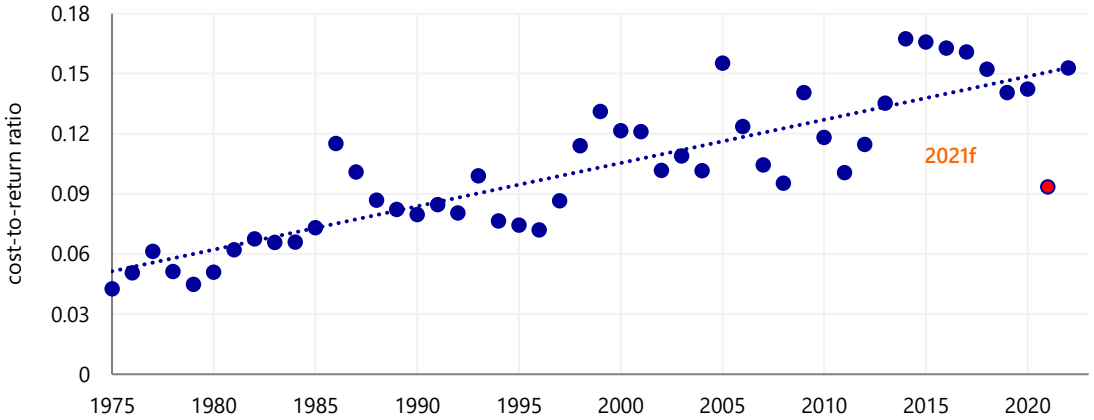
Source: CRU, Bloomberg, CBOT, NYMEX, Rabobank 2021

Given the supply-constrained nature of fertilizer markets, as well as the recent volatility, 'betting' on pricing is akin to betting on the benevolence of weather and the order of global politics. However, our fear for growers is that fertilizer prices, particularly nitrogen, could still see further price upside between now and spring 2022. Delayed harvest and lost fall fieldwork shifted to spring could further compound nitrogen affordability for growers, as too may corn-on-corn cropping. (Listen to our podcast on global nitrogen for more details).

Seed and Agrochemicals Rounding off a Negative Landscape

Seed pricing is likely to take a sharp tick upward in the 2022 season, as seed companies look to benefit from high corn and soybean prices in 2022, more than they were able to in 2021. In 2021, seed costs per acre were substantially below the trend line (*see Figure 2*). This was largely a function of timing, as seed pricing for the following season is established in North America in late summer, which was prior to the escalation in commodity pricing in Q4 2020. If we see a reversion to trend-line norms, this could manifest in an aggressive upward price movement for 2022 seed, potentially as much as 8% to 14%. This is not without precedent. For example, in 2009, seed cost per acre jumped as much as 30% from 2008. However, this scale of increase is not in our baseline assumptions.

Figure 3: Historic seed price relationship to value created, 1975-2021f



Source: CBOT, USDA, Rabobank 2021

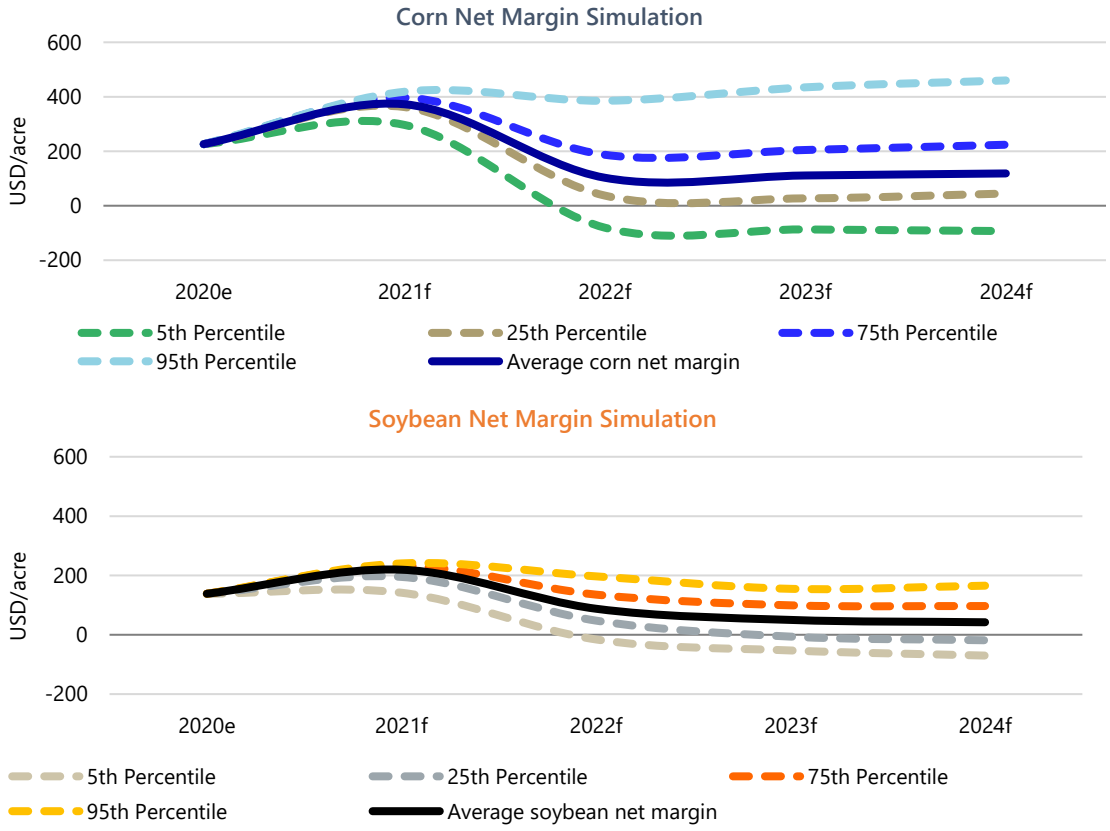
The price increase also extends to agrochemicals. The fallout of Hurricane Ida, freight increases, and Chinese environmental protection initiatives will increase agrochemical costs for growers in 2022. Quoted prices on some of the most critical active ingredients have increased ~40% to 250% YOY, with the bulk of this pricing (along with freight) likely to be passed on to the grower. The increases in fertilizer, seed, and agrochemical costs are simultaneously narrowing producers' margins. (Listen to our glyphosate podcast for more details).

Margins Squeezed Every Which Way

The rising tide of input costs across the entire supply chain will put downward pressure on margins in 2022. Not only are fertilizer, agrochemical, and seed costs projected to increase significantly in 2022, but machinery and land costs are also on the rise. These escalating costs will capture significant portions of farmers' margins beginning in 2022, after two years of strong farmer returns, as noted in our report *Opportunities for US Row Crop Farms to Enhance Economic Sustainability*. Although Rabobank anticipates strong grain and oilseed prices in the years ahead (see our G&O baseline), the extreme rise in input costs portends another cycle of challenging profit margins, similar to the post-2012 drought period.

In projecting corn and soybean production budgets for 2022 and beyond, our analysis shows more volatility in potential corn margins than in soybeans. This is a result of corn requiring more inputs per acre relative to soybeans, so corn has a higher susceptibility to fluctuations in production expenses. However, corn enjoys higher margin potential, primarily due to larger yield potential. Hence, producers favor planting corn. At the same time, the agronomic and cost benefits of a corn/soybean rotation can lessen absolute costs and the volatility of costs, thereby lessening margin volatility.

Figure 4: Potential probability outcomes for corn and soybean net margins for a renter operator*



Note: Gross margin being value of production minus operating costs.
*In this example for corn, 75% probability that corn net margins will be ~USD 200/acre or less over the next three years.

Source: Rabobank 2021

Planning for the 2022/23 season is more urgent than usual due to rising costs, potential input supply constraints, and commodity price volatility. With these in mind, growers should:

- contact input suppliers about available supply and 2022 prices;
- construct a 2022 pro forma crop production budget, using input from suppliers and past high cost history to determine potential 2022 margins;
- execute against that budget where possible by securing input supply, locking in input prices, and hedging 2022 crop production in order to lock in margins and take risk off the table.

While we are expecting positive margins in 2022, they will be greatly reduced from 2020 and 2021. With tighter margins, small changes in costs or underling commodity prices can result in a negative return. Consequently, the volatility of so many variables in the 2022 crop production equation makes forward planning crucial for 2022 to be a positive year.

Imprint

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