

Extended Abstract

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Paper/Poster Title	Wheat market shocks to the export price of pasta are Not all alike
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Abstract	200 words max
<p>The unfolding Russian-Ukraine war has caused a drastic increase in wheat prices, which were already high in the aftermath of the COVID-19 pandemic. Against this background, it is crucial to understand how food firms' pricing behavior responds to the fluctuations in grain markets. In this paper, we seek to shed new light on this issue by analyzing how global wheat market determinants affect food firms' export prices. We consider the universe of Italian exporting firms of pasta and derivatives over the 2004-2021 period. We use a Structural Vector Autoregressive (SVAR) model to identify the economic fundamentals of the international wheat market. The growth in the price of exporting firms is regressed on the different supply and demand grain markets' determinants (supply shocks, consumption demand shocks, economic activity shocks, and inventory shocks) to understand their contribution to firms' price formation. Our preliminary results suggest that firms' export prices are particularly responsive to demand-driven shocks affecting global wheat prices. Global wheat consumption and economic activity are the most important determinants of changes in firms' export prices. Firms' responses to structural shocks in the global wheat market are quite asymmetric, depending on whether they positively or negatively affect the global wheat price.</p>	
Keywords	Wheat Price; Pasta exports; VAR model
JEL Code	F12; F14; C10
Introduction	100 – 250 words
<p>The unfolding Russian-Ukraine war has caused a drastic increase in wheat prices, which were already high in the aftermath of the COVID-19 pandemic. Different factors have contributed to this increase, including rising global demand and, on the supply side, poor grain and oil-seed harvests in critical regions. In addition to these facts, a considerable increase in energy costs caused prices of agricultural inputs to unprecedented levels. Despite the International Grain Council's last report reassuring that global wheat production in the next few years will only slightly decline, there is a broad uncertainty on future grain production, mainly due to climatic conditions and geo-political events. All these elements have persuaded different countries to impose food export restrictions, especially on grain. These facts will have severe consequences in terms of food security due to increased food prices. The number of civil protests and riots has soared in the developing world because of the increase in wheat prices, as the price of food reached an unaffordable level for many people.</p> <p>Against this background, it is crucial to understand how food firms' pricing behavior responds to the fluctuations in grain markets. In this paper, we seek to shed new light on this issue by analyzing how global wheat market determinants affect the export prices of firms producing</p>	

pasta and wheat derivatives. Unraveling such a complex relationship is relevant to further comprehending firms' price settings in reaction to changes in commodity prices.

Methodology

100 – 250 words

Our empirical analysis considers the universe of Italian exporting firms of pasta and derivatives over the 2004-2021 period. One of the central values added of our analysis is that it considers the economic fundamentals of the international market for wheat, which are identified through a Structural Vector Autoregressive (SVAR) model. Specifically, we estimate the response of the global price of wheat to supply shocks, consumption demand shocks, economic activity shocks, and inventory (or speculative demand) shocks. Moreover, we can produce the historical decomposition of the actual price of wheat that is included as explanatory variables in the gravity model. The growth in export price (expressed as unit value) of Italian pasta and derivatives exporting firms is then regressed on the different supply and demand driven determinants to understand their contribution to firms' price formation.

Results

100 – 250 words

Our results suggest that firms' export prices are particularly responsive to demand-driven shocks affecting global wheat prices:

1. Changes in global wheat prices and inventories arising from wheat supply shock significantly affect firm-product level export prices, but not changes due to a supply shock to wheat production.
2. Changes in global wheat production and prices driven by economic activity-related shocks positively affect firm-product level export prices.
3. Changes in global wheat prices due to shocks to consumption demand affect export prices positively. In contrast, changes in global wheat production and inventories induced by shocks in the consumption demand do not significantly affect firms' export prices.
4. Global wheat production changes due to inventory demand shocks affect export prices negatively.

Firms' responses to structural shocks in the global wheat market are quite asymmetric, depending on whether they positively or negatively affect the global wheat price. One striking example is the elasticity of firms' export prices to positive or negative shocks in global wheat prices related to economic activity. Our results reveal that a 1% increase in global wheat price due to a shock in economic activity leads to an increase in firms' export prices of pasta and derivative of about 2%. In contrast, a shock in the economic activity leading to a reduction of the global wheat price of 1% leads export prices to reduce by 0.5%.

Moreover, we observe substantial heterogeneity across pasta and pasta derivatives producers, with higher effects for the former.

Discussion and Conclusion

100 – 250 words

The last two years have seen drastic increases in global wheat prices. The situation has worsened not only by Russia's invasion of Ukraine but other demand and supply-side factors. With this background in mind, this paper sheds light on how global wheat market determinants affect the export pricing strategy of firms exporting pasta and paste derivatives. Our results show that global wheat consumption and economic activity are the most important determinants of firms' export price changes. One of the most important results of this paper relates to the asymmetric effects that positive and negative structural shocks in the wheat market have on firms' export prices. These may reveal the existence of opportunistic behaviors in some firms, especially when positive structural shocks are demand driven.

This paper's results are relevant given the general high volatility of food prices, and especially the spotlight on the evolution of wheat prices due to the strong inflationary pressures of the Covid-19 aftermath and geopolitical events.

Going forward, we expect to analyze how the elasticities differ according to the firm's size, i.e., do bigger and smaller firms adjust their export prices differently when faced with the same global shock? It is also possible that the destination market plays a role in the firm behavior we observe here, i.e., faced with the same shock, firms charge different prices/markups for the same goods in different markets. Thus, we will also assess how the destination country influences the effects.