

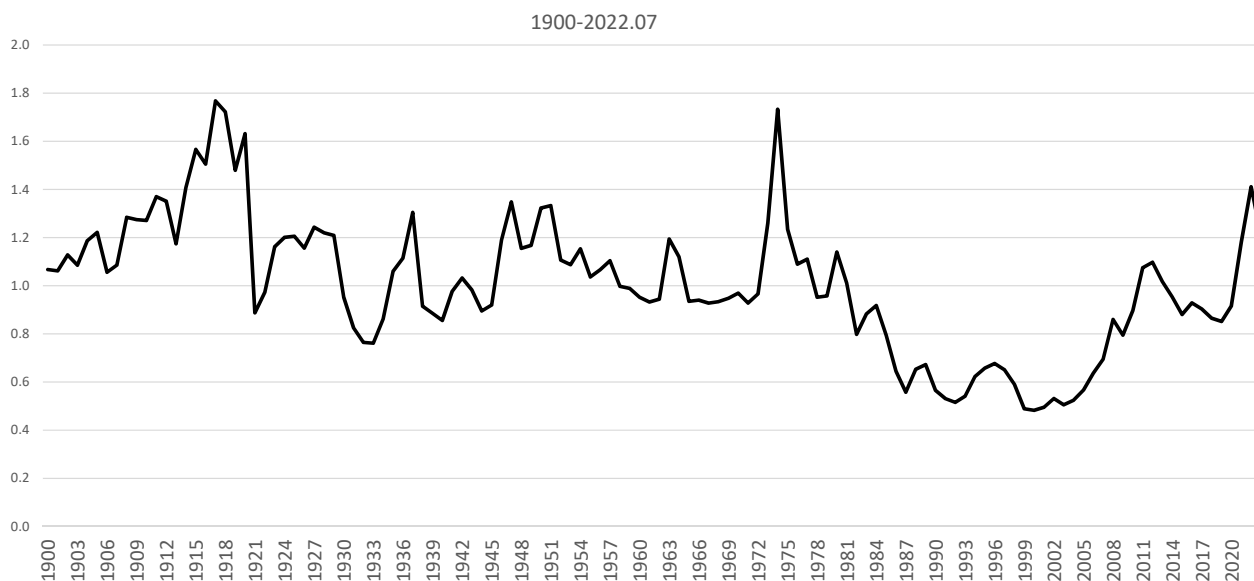


Impacts of Price Insulation on World Wheat Markets

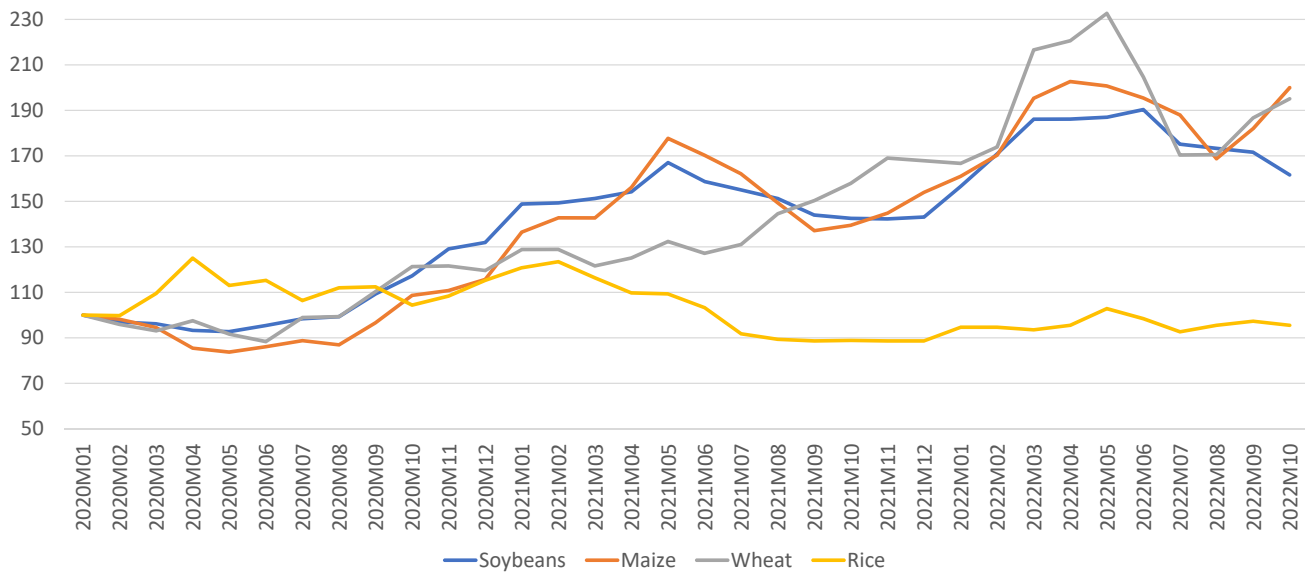
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An enormous food price surge



Wheat, maize & soybeans indexes up sharply



Price Insulation

- What matters for people in poor countries is not the world price, but prices they face at home
 - Can have dramatic impacts on welfare of net food buyers
 - Who include many small farmers
- When world prices rise
 - Price insulation in an individual country reduces domestic prices
 - But insulation by countries that are collectively large raises world prices
 - Effect of a country's own insulation may be outweighed by this impact
- Like everyone standing up in a stadium
 - I get a better view if I stand up, unless..... everyone else stands up
- Magnified world price rises especially serious for small, poor countries

Event study

- Look at price changes in wheat from Jan 2020 to July 2022
- Cover Covid era; post-Ukraine invasion surge; fall April-May peak to July
- Mainly use monthly wheat prices from FAO-GIEWS
- 38 countries with largest demand \approx 92% of global consumption
- Look not only at country responses but at impact on global prices

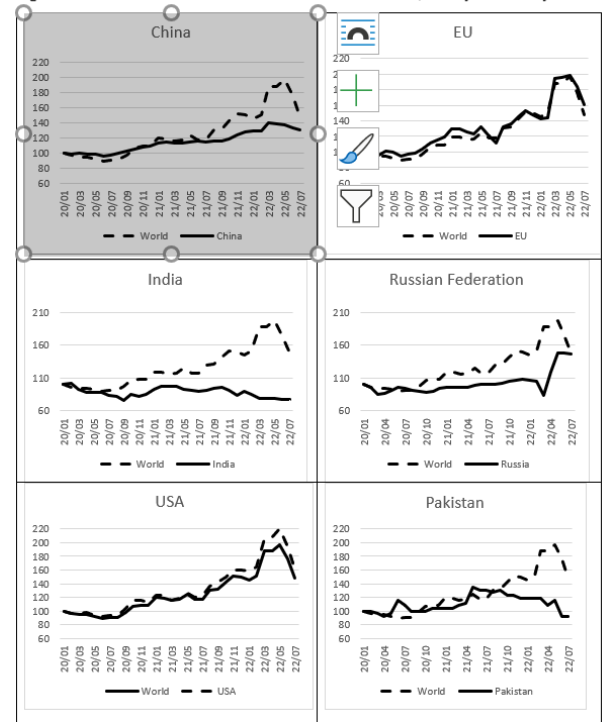
Use price changes to estimate Δ Protection?

- Approach originated by Tim Josling in 1973
 - Used by OECD and other members of the AgIncentives Consortium very regularly
- So many forms of agricultural intervention
 - Only comparing prices of comparable products inside and outside the country can capture their effects
- Aim for comparable products and for domestic prices near the border
 - Use an average of 4 export prices for “world”
 - Canada; Rouen; US HRW; US SRW
 - Wholesale prices for India; national or Linyi county wholesale for China etc
- Less ambitious than OECD in not estimating protection level, only changes

Price insulation 2020-2022

- Let's look at six largest wheat consumers
- Examples of domestic prices in India, China, and Pakistan that did not rise (or even fell) when international prices rose after the start of war in Ukraine
- Price insulation by India, China, Pakistan, & Russia account for more than 60% of global insulation in wheat prices

Figure 4. International and Domestic US\$ Price Indexes for Wheat, January 2020 to July 2022.



Impacts on world prices

- Distinguish primary shocks that change world prices
 - Inability to plant and/or harvest in conflict
 - Restrictions on exports due to conflict &
- From changes in protection
 - Export bans, export taxes, variable import levies, variable import subsidies

Changes in World Prices, Wtd Domestic Prices & P Gaps (% Del log)

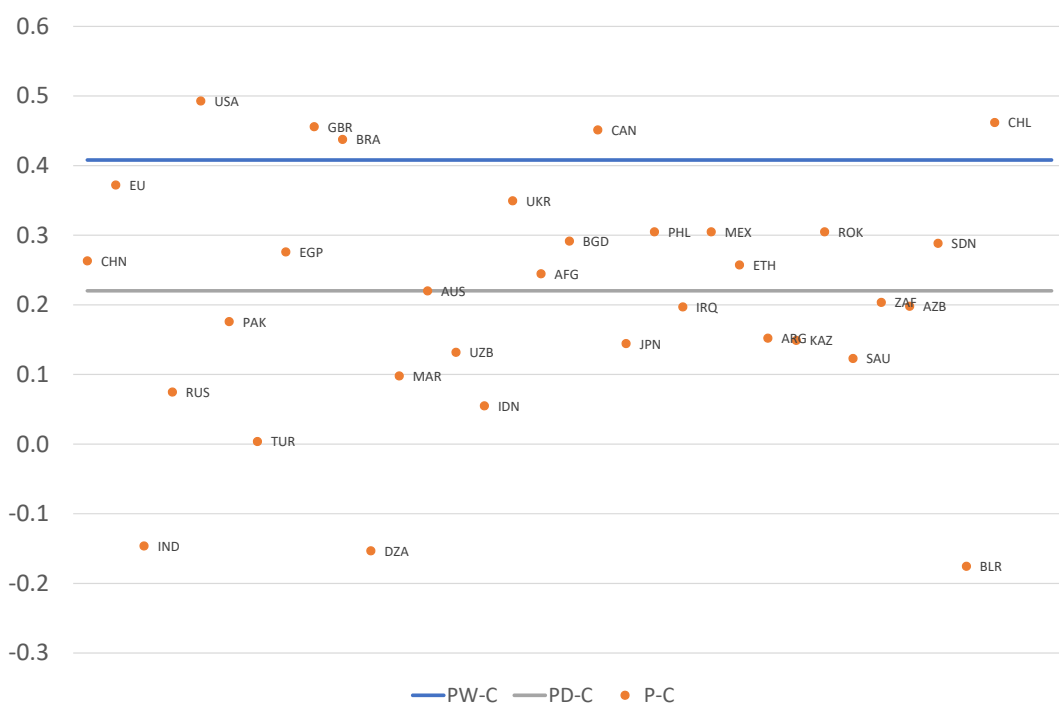
	Covid Era	Ukraine to Peak	2020 to Peak	Peak to July	2020 to July 22
World P Change	40.8	26.5	67.4	-26.7	40.7
Price Gap Change	-18.4	-15.2	-33.7	18.9	-14.8
Domestic P Change	22.4	11.3	33.7	-7.8	25.9

Note: Average domestic price change is the change in world prices needed to adjust to the primary shocks

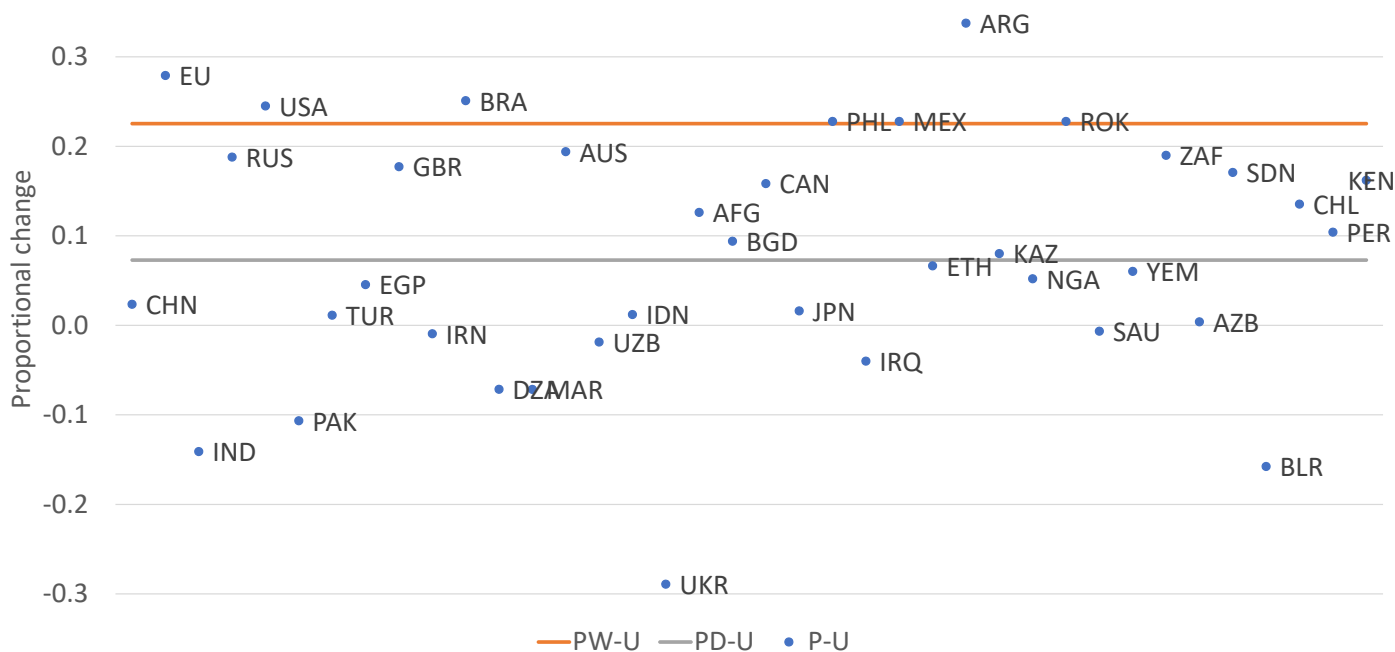
Top Ten Insulating Contributions to Surges in World Wheat Prices (%)

	Covid Era		Post-Ukraine Peak		2020 to Peak
India	43.6	India	34.8	India	39.6
China	15.0	China	25.2	China	19.6
Russia	10.5	Pakistan	8.2	Russia	6.4
Turkey	6.4	Turkey	4.1	Pakistan	6.3
Algeria	5.4	Ukraine	3.8	Turkey	5.4
Pakistan	4.8	Algeria	3.5	Algeria	4.5
Nigeria	3.3	Morocco	3.2	Morocco	3.0
EU	3.2	Iran	3.2	Egypt	2.5
Morocco	2.8	Egypt	3.2	Nigeria	2.2
Indonesia	2.4	Uzbekistan	2.2	Indonesia	2.1
Top-10	97.4		91.4		91.6

Price changes relative to world & average dom prices J-F 2020 to J-F 2022, del log



Ukraine to Peak: J-F 2022 to A-M 2022, del log



Potential economic policy responses

- First step is to recognize the zero-sum nature of the game
- One possible response is at national level
 - Make national trade and stockholding policies can be made more efficient
 - Avoid the costly sudden-death price bands or export bans or fully insulating variable levies
 - Partial insulation may achieve desired outcomes at much lower cost
- Can regional or global trade agreements help reduce risks?
 - EC variable levels were once the worst case
 - Now virtually gone since the Uruguay Round

Conclusions

- Many countries insulate their wheat markets from changes in world prices
 - This is completely understandable given political pressures
- In the Covid and Ukraine periods, price insulating policies seem to have greatly magnified the impacts of shocks
 - Doubling the price surge following the invasion
 - Particularly challenging for small, poor importers
- These policies also magnify downward price shocks
 - Roughly doubled the price decline from May to July