



Economic Research Service | Situation and Outlook Report

WHS-21k | November 12, 2021

Next release is December 13, 2021

Wheat Outlook: November 2021

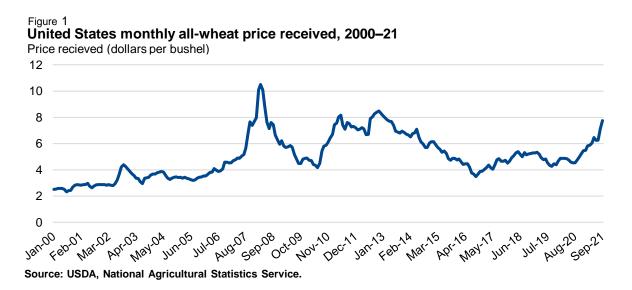
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In this report:

- Domestic Outlook
- International Outlook
- Domestic Feature: The Effect of Rising Wheat Prices on U.S. Retail Food Prices

U.S. Wheat Price Projected at 9-Year High

The 2021/22 Season-Average Farm Price (SAFP) is raised 20 cents per bushel to \$6.90 based on the continued strong farmgate prices as reported in the October 29 National Agricultural Statistics Service (NASS) *Agricultural Prices* report as well as rising futures and cash prices. The September 2021 all-wheat farmgate price was estimated at \$7.55, which is up from \$7.13 in August 2021 and 63 percent above the \$4.73 in September 2020. Through the last month, futures prices have surged higher, reaching contract highs on November 1 before trending down this week. Most notably, the Minneapolis spring wheat contract gained 16 percent from October 1 and reached \$10.75 per bushel, the highest since July 2008. This futures rally contributes to the expectation that the farmgate wheat price in the coming months will continue to remain robust.



Domestic Outlook

Domestic Changes at a Glance:

- According to the latest NASS Crop Progress report, winter wheat plantings for 2022/23
 are estimated to be 91 percent complete in the primary 18 producing States, as of
 November 7. This is equal to the planting pace for the recent 5-year average and slightly
 behind the 92 percent planted at the same point last year. Emergence is at 74 percent,
 which slightly lags last year (78 percent) and the 5-year average (77 percent).
- Seed use for 2021/22 is revised upward by 4 million bushels to 66 million based on expectations for a larger 2022/23 planted area in USDA's *Agricultural Projections to 2031* report, released on November 5. Seed use for most classes is projected larger than the previous year. Hard Red Winter (HRW) seed use is forecast at 28.0 million bushels, while Hard Red Spring (HRS) seed use is projected at 17.0 million bushels. Soft Red Winter (SRW) is forecast at 13.0 million bushels, while White wheat is projected at 5.5 million and Durum at 2.5 million.
- The 2021/22 all-wheat export forecast is reduced 15 million bushels to 860 million on a weakening pace of export sales and shipments. Official U.S. Bureau of the Census exports for June through September total 337 million, down about 9 percent from last year, but represents more than a third of the full marketing year (June-May) projection. However, export sales (both new sales and shipments) slowed noticeably during the month of October, as reported by USDA's Foreign Agricultural Service (FAS) in the Export Sales report.
- Projected White wheat exports are lowered 5 million bushels to 150 million, while HRS shipments are forecast down 10 million bushels to 215 million. Both classes are facing tight supplies and high prices following severe drought, resulting in an apparent rationing of export demand to date. Projected HRW exports are unchanged at 360 million bushels, while SRW shipments are still expected to reach 120 million. The projection for Durum exports remains at 15 million bushels, down by nearly half from the previous year with supplies extraordinarily tight.
- The 2021/22 all-wheat import forecast is reduced 10 million bushels to 115 million on the pace of trade. HRS and Durum are each reduced by 5 million bushels to 55 million and 45 million bushels, respectively. Both the HRS and Durum crops were significantly affected by drought in the Northern Plains this year, resulting in tight supplies and higher

- prices. However, imports of both classes during June-September were limited because production in Canada, the main supplier, was also affected by drought.
- Total food use in 2021/22 is adjusted lower by 2 million bushels to 962 million based on a slower-than-expected rate of wheat use as reported in the latest NASS Flour Milling Products report. By-class food use adjustments in 2021/22 are made for HRW (+10 million bushels to 410), HRS (-10 to 238), and Durum (-2 to 80). The slow pace of Durum milling, combined with the lagging pace of trade, indicates that Durum use appears to be returning to a more normal level after spiking in the past year due to strong consumer demand for pasta products during the COVID-19 pandemic. Given the extraordinary drought in the Northern Plains and the tight supplies of HRS, it is expected that HRS will occupy a slightly smaller proportion of the total food use mill grind; HRW is expected to occupy a larger than normal proportion of the total mill grind. The unusually large spread between HRS and HRW prices this year is an added incentive to blend additional HRW in flour production. Furthermore, another result of dry conditions is that HRS supplies this year have an unusually high protein level, estimated at 15.4 percent according to the U.S. Wheat Associates Crop Quality Report. This elevated protein level, well above the 5-year average of 14.4 percent, further underscores the ability to blend additional HRW into flour production. SRW food use remains at 150 million bushels and White wheat remains at 84 million bushels. Table 1 provides additional detail.
- The 2021/22 Season-Average Farm Price (SAFP) is raised \$0.20 per bushel to \$6.90 based on the strong farmgate prices through September as reported in the October 29 NASS Agricultural Prices report and expectations of continued strength in cash and futures prices. The September 2021 all-wheat farmgate price was estimated at \$7.55, which is up from \$7.13 in August 2021 and well above the \$4.73 in September 2020.
- The major changes to the U.S. all-wheat balance sheet are summarized in table 2.

| Table 1 - Food use mill grind, by class, 2016/17-2021/22 | | | | | | | | | |
|--|-----------------|---------|---------|----------|-----------------------|---------|----------|---------|----------|
| | Final | Current | Current | Proposed | 5-year average | Final | Proposed | Current | Proposed |
| Class | 2019/20 | 2020/21 | 2021/22 | 2021/22 | 2016/17 - 20/21 | 2019/20 | 2020/21 | 2021/22 | 2021/22 |
| | Million bushels | | | | Percent of mill grind | | | | |
| HRW | 378.2 | 376.8 | 400.0 | 410.0 | 40.0 | 39.3 | 39.2 | 41.5 | 42.6 |
| HRS | 265.0 | 263.0 | 248.0 | 238.0 | 26.9 | 27.6 | 27.4 | 25.7 | 24.7 |
| SRW | 148.0 | 148.0 | 150.0 | 150.0 | 15.7 | 15.4 | 15.4 | 15.6 | 15.6 |
| White | 85.0 | 85.0 | 84.0 | 84.0 | 8.9 | 8.8 | 8.8 | 8.7 | 8.7 |
| Durum | 85.4 | 87.9 | 82.0 | 80.0 | 8.6 | 8.9 | 9.2 | 8.5 | 8.3 |
| Total | 961.6 | 960.7 | 964.0 | 962.0 | | | | | |

Note: HRW = Hard Red Winter; HRS = Hard Red Spring; SRW = Soft Red Winter.

Source: USDA, National Agricultural Statistics Service and USDA, Economic Research Service calculations.

| Table 2 - U.S. wheat supply and use at a glance 2021/22 (in million bushels) | | | | | | | |
|--|---------------------|--------------------|---------------------|--|---|--|--|
| Balance sheet item | 2020/21 November | 2021/22 October | 2021/22 November | 2021/22 Change month to month | Comments | | |
| Supply, total | | | | | June-May Marketing Year (MY) | | |
| Beginning stocks | 1,028 | 845 | 845 | 0 | | | |
| Production | 1,828 | 1,646 | 1,646 | 0 | | | |
| Imports | 100 | 125 | 115 | -10 | Lower projected imports of Durum and Hard Red Spring (HRS) on pace of trade | | |
| Supply, total | 2,957 | 2,616 | 2,606 | -10 | | | |
| Demand | | | | | | | |
| Food | 961 | 964 | 962 | -2 | Lower food use with slow pace of trade as indicated by latest USDA, National Agricultural Statistics Service (NASS) Flour Milling Products report | | |
| Seed | 64 | 62 | 66 | +4 | Higher seed use with larger expected area planted for 2022/23 (more details in next section) | | |
| Feed and residual | 95 | 135 | 135 | 0 | | | |
| Domestic, total | 1,120 | 1,161 | 1,163 | +2 | | | |
| Exports | 992 | 875 | 860 | -15 | Exports reduced for HRS and White based on the slow pace of export sales and shipments | | |
| Use, total | 2,111 | 2,036 | 2,023 | -13 | | | |
| Ending stocks | 845 | 580 | 583 | +3 | Stocks remain at the lowest level since 2007/08 | | |
| Season- Average Farm Price (SAFP) | \$5.05 | \$6.70 | \$6.90 | +\$0.20 | Stronger farm gate prices as reported by USDA/NASS as well as higher futures and cash prices | | |

Source: USDA, World Agricultural Outlook Board World Agricultural Supply and Demand Estimates.

Wheat Balance Sheet Projections to 2031 Released

Supply and use projections for marketing years 2022/23 to 2031/32 were released in the November 5 publication of the USDA *Agricultural Projections to 2031* tables. All-wheat planted area for 2022/23 is projected at 49.0 million bushels, up 5 percent from 2021/22 on a strong

price outlook. With area planted forecast up in 2022/23, seed use for 2021/22 is projected up 4 million bushels to 66 million. All-wheat yield in 2022/23 is forecast at 49.1 bushels per acre, an 11-percent increase from the drought-stricken 2021/22 crop. This yield is calculated based on a trend yield going back to 1985/86, with an assumption of normal or average future weather. Production is projected up 22 percent to 2 billion bushels. Imports are assumed at a relatively typical 120 million bushels.

Domestic use is forecast lower with reduced feed and residual more than offsetting a small increase in food use. Feed and residual use is lower with expectations that wheat will remain largely priced out of feed rations amid continued large corn supplies. Food use is expected to expand at a normal pace, up 4 million bushels to 966 million. This increase of 0.4 percent assumes relatively steady per capita consumption. Exports are projected to rebound 65 million bushels higher to 925 million with larger supplies and more competitive pricing. Ending stocks are forecast 53 million bushels larger to 636 million, which would still be the second-lowest level since 2013/14. The SAFP is projected at \$6.50, down \$0.40 from 2021/22, but still well above the previous five-year average (2016/17-2020/21) of \$4.68.

Throughout the rest of the projection period (2023/24 through 2031/32), the trend is for incremental reductions in area planted and continued trend growth in yields. As a result, production volume is mostly steady to slightly increasing. Domestic use is projected relatively stable over the period, while exports are forecast to trend marginally higher to 975 million bushels based on rising global demand. Ending stocks gradually recover, reaching 749 million bushels in 2031/32. Stocks-to-use is forecast at 35 percent in 2031/32, up significantly from the 28 percent estimated for 2021/22. The SAFP is projected lower during the projection period, eventually reaching \$5.25 during 2029/30 through 2031/32.

By-Class Quarterly Balance Sheets Updated

USDA's by-class, quarterly supply and use spreadsheet was updated on November 10, 2021. In addition to small revisions to earlier data, the spreadsheet was updated to include the first quarter (June-August) of marketing year 2021/22. Previously, this data was not released until the completion of a marketing year, but now is intended to be updated throughout the year one quarter at a time. This file is published in the same location on the USDA, Economic Research Service website as the *Wheat Data* spreadsheet.

International Outlook

2021/22 Global Wheat Production Down Month-to-Month

2021/22 global wheat production estimated down 0.6 million metric tons (MT) from October but remains at a record 755.3 million. Wheat production in the **European Union (EU)** and the **United Kingdom (UK)** is projected lower than October primarily based on updated Ministry of Agriculture or States' statistical service data. **Russia** partially offsets this decline with an increase of 2.0 million MT to 74.5 million based on updated harvest data.

The **EU** is projected to produce 138.4 million MT of wheat in 2021/22, down 1.0 million MT from October. **France** production is adjusted down 0.7 million MT to 37.0 million due to abundant rain at harvest causing a decrease in yield (-0.14 MT/hectare (ha) to 7.07). Total production in **Germany** is adjusted down 0.5 million MT to 21.6 million as they experienced similar harvest conditions. Downward revisions were also made for **Latvia** (-0.2 million MT to 2.3 million) and **Estonia** (-70,000 MT to 750,000). **Romania** partially offsets these revisions with an increase of 0.5 million MT to 11.0 million. The Normalized Difference Vegetation Index for Romania continued to show average to above average conditions warranting an increase in the yield forecast. Outside of the EU, the **UK** also sees a decrease of 0.7 million MT to 14.3 million due to a yield adjustment.

Based on the updated Ministry of Agriculture harvest estimates, **Russia** is revised up to 74.5 million MT because of a higher expected yield which more than offsets a reduction to area harvested. This increase in production is split between spring and winter wheat at 1.0 million MT each. Russia wheat yield is still projected down 9 percent year over year at 2.70 MT/ha.

Outside the exporting countries, downward revisions were also made for **Kyrgyzstan**, **Turkey**, and **Uzbekistan**. Kyrgyzstan experiences higher than normal temperatures along with a lack of sufficient water during the 2021/22 growing period. Their production is lowered by 145,000 MT to 385,000, down 39 percent compared with 2020. Excessive rains in Turkey led to lower expected yield and production is reduced 250,000 MT to 16.25 million. The Uzbekistan yield is estimated to be 11 percent lower than 2020 due to poor precipitation that caused low soil moisture in most central and southern croplands. 2020/21 production was revised for **Sudan** (+175,000 MT to 900,000) and **Uzbekistan** (-310,000 MT to 6.2 million) based on updated information.

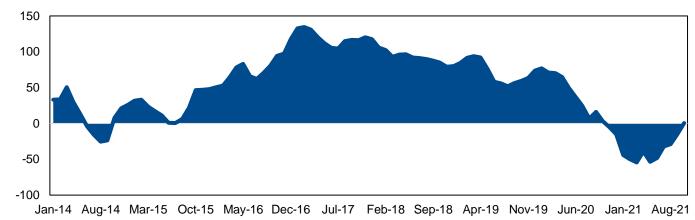
2021/22 Global Wheat Consumption Down Month to Month

Total global wheat consumption is adjusted down slightly by 371,000 MT to 787.4 million. This revision is mostly driven by a 125,000 MT downward revision to feed and residual use as globally, wheat is becoming relatively more expensive for use in feed rations. For example, China's wheat-corn domestic spread in October 2021 is essentially at parity for the first time since last October (figure 2).

Figure 2

China wheat-corn domestic price spread nearly even in October 2021

Wheat-to-corn price spread in U.S. dollars



Notes: This price spread indicates the gap between the wholesale national average for wheat and maize. Prices used in wheat-to-corn price spread are reported as U.S. dollars per metric ton.

Source: Food and Agriculture Organization of the United Nations, Global Information and Early Warning System.

Feed and residual use in the **EU** is adjusted down by 1.0 million MT to 45.0 million based on lower production, robust exports, and greater availability of domestic feed grains. Lower domestic production resulted in a downward revision for feed and residual for the **UK** (-200,000 MT to 7.5 million) and **Uzbekistan** (-200,000 MT to 1.6 million). **Ukraine** feed and residual use is revised down 200,000 MT to 3.1 million as export prices remain competitive. These revisions were partially offset by increases to **Russia**, **Turkey**, and **Iran** (+500,000 MT each). Turkey has experienced some quality concerns with their domestic production resulting more wheat being rotated into feed and residual use. 2020/21 feed and residual use was also adjusted up with an increase for Iran partially offset by a downward revision to Uzbekistan.

Global food, seed, and industrial (FSI) use is mostly unchanged month-to-month (-37,000 MT to 626.7 million). **Uzbekistan** and the **UK** both see a 0.2 million MT decrease in FSI use that are partially offset by a 100,000 MT increase to both **Algeria** (11.3 million) and **Iran** (15.7 million).

The global consumption statistic published in the *World Agricultural Supply and Demand Estimates* (*WASDE*), 787.4 million MT, is adjusted based on the local marketing year (MY) unaccounted trade for 2021/22. The unaccounted trade is increased marginally by 0.5 million MT to 2.1 million as a result of MY exports increasing relatively more than MY imports. By subtracting this updated calculation of unaccounted trade from the *WASDE* total consumption figure, the total unadjusted consumption in 2021/22 is projected at 785.3 million MT.

Global Wheat Trade Adjusted up Despite Production Decline

Global wheat trade for 2021/22 is projected to be higher despite a global production decline. Exports for the 2021/22 trade year (TY) are revised up by 3.2 million MT to 205.0 million based on robust tendering despite elevated global wheat prices. Despite reduced production, the **EU** is expected to export 36.5 million MT due to a robust trade pace. **India** continues to export their abundant supplies at higher international wheat prices and is revised up 750,000 MT to 5.3 million, the highest since 2013/14. **Russian** exports also see an upward revision due to a higher expected production and increase in import demand from Iran, Turkey, and Algeria.

Iran and Turkey both see a 1.0 million MT increase to 2021/22 TY imports due to robust trade pace with Russia and lower domestic production. To satisfy domestic demand growth, both countries are expected to increase their imports due to lower production. Algeria is projected to import 7.5 million, up 0.5 million month to month, due to active tenders and current trade pace.

Saudi Arabia is also up 0.5 million MT to 3.5 million as purchases from their state buyer are up 20 percent compared with last year. For further information on Middle East and North Africa import pace see the latest issue of *Grain: World Markets and Trade* by the Foreign Agriculture Service. Table 3 shows a summary of trade adjustments.

| Table 3 - Summary of 2021/22 trade adjustments, November 2021 | | | | | | | |
|---|----------------------|--------|--------------------|-------------------|--------|-------|--|
| | Trade year | orts | Trade year imports | | | | |
| Country or region | November estimate | Change | | November estimate | Change | | |
| | 1,000 metric tons | | 1,000 metric tons | | | | |
| World | 205,008 | 1 | 3,195 | 201,119 | 1 | 2,975 | |
| United States | 24,000 | 4 | (500) | 3,200 | 4 | (300) | |
| | | | | | | | |
| Algeria | 10 | | | 7,500 | Ŷ | 500 | |
| European Union | 36,500 | 企 | 1,000 | 5,300 | | | |
| India | 5,250 | 企 | 750 | 25 | | | |
| Iran | 350 | 企 | 100 | 5,500 | 企 | 1,000 | |
| Nigeria | 600 | 企 | 100 | 6,000 | 企 | 200 | |
| Russia | 36,000 | 企 | 1,000 | 500 | | | |
| Saudi Arabia | 150 | | | 3,500 | 企 | 500 | |
| South Korea | 390 | | | 4,100 | 霏 | 200 | |
| Thailand | 290 | | | 3,100 | 4 | (200) | |
| Turkey | 6,250 | 俞 | 250 | 11,000 | 俞 | 1,000 | |
| Ukraine | 24,000 | 企 | 500 | 100 | | | |
| Note: Changes less than 100,000 metric tons are not included. Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service, Production, Supply, and Distribution database. | | | | | | | |

Global Ending Stocks Continue to Tighten Amid Robust Exports

Global ending stocks took another cut this month of 1.4 million MT to 275.8 million. The major exporters ending stocks led this decrease with a collective decrease of 1.6 million MT as export pace remains strong. **Argentina** (-0.2 million MT to 2.5 million), **Australia** (-0.5 million MT to 3.6 million), **Ukraine** (-0.3 million MT to 1.4 million), and the **EU** (-1.0 million MT to 9.7 million) were revised down. These revisions were partially offset with higher stocks in **Russia** (+0.5 million MT to 10.0 million) as production is raised this month.

Ending stocks in **India** are revised down 1.0 million MT to 27.8 million but remain at a record. Other downward revisions were made for the **UK** (-0.3 million MT to 1.7 million) and **Uzbekistan** (-0.1 million MT to 1.5 million). Some importing countries are seeing an uptick in stocks with upward revisions for **Algeria** (+0.4 million MT to 5.4 million), **Iran** (+0.8 million MT to 4.8 million), **Nigeria** (+0.1 million MT to 0.5 million), and **Saudi Arabia** (+0.5 million MT to 3.1 million).

Domestic Feature: The Effect of Rising Wheat Prices on U.S. Retail Food Prices

Introduction

Inflation is a major topic in the current market environment with the Consumer Price Index (CPI), published by the Bureau of Labor Statistics, being a common metric for analyzing price trends facing consumers. One noteworthy statistic is that CPI for all goods in the month of September was reported to be up 5.4 percent from September of last year, which is more than double the average annual growth over the last decade. CPI for food specifically is up 4.6 percent in September 2021 from the same month in the previous year, which is the greatest year-over-year growth in the month of September in 10 years.

In addition to macroeconomic factors which have influenced prices, commodity markets in general are showing much stronger prices than a year ago. One major influence behind this is strong demand from China for grains and oilseeds. Furthermore, wheat markets have been impacted by production issues in major producing countries. With portions of the United States and Canada dealing with major drought in 2021, wheat production in both countries was significantly lower from the previous year. Adding further support to prices, Russia's wheat crop was also significantly reduced due to a rare phenomenon known as "ice crusting" where the soil profile melts and then re-freezes, causing extensive damage to winter crops.

Commodity prices for wheat have been very strong in the past year, but a deeper question is whether these price fluctuations have impacted the price of consumer goods produced with wheat. This paper analyzes this potential "pass through" in greater detail, by first calculating changes in the price of wheat grain over the last year, then by looking at changes in wheat flour pricing. Finally, the paper analyzes the developments in the price indices of various consumer goods and compares those fluctuations with the commodity price changes observed.

Overall Food Inflation Trends

On October 25, the USDA/Economic Research Service (ERS) *Food Price Outlook* was released. This data shows that during the full calendar year 2020, overall food prices rose by 3.4 percent. Year-to-date food price inflation during January-September 2021 is up 3 percent from the same period in 2020. Food inflation overall for 2021 is forecast to be 3-4 percent, while food inflation for 2022 is projected at 2-3 percent. For both this year and next, price increases

for food away from the home are expected to continue to slightly outpace price increases for food at home. Overall, food inflation is slightly higher than average in 2020 and 2021 with meat prices being one of the main drivers.

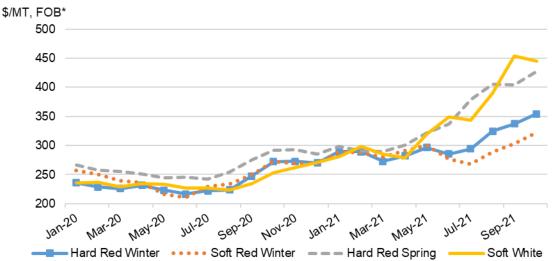
The category "cereals and bakery products" is expected to see smaller increases in price, compared to food overall. In calendar year 2020, this category rose by only 2.2 percent and is projected to rise in 2021 by only 1-2 percent and in 2022 by 1.5-2.5 percent. The projected rate of growth for the "cereals and bakery products" index is relatively close to the historical average of 2.1 percent.

Wheat Price Trend Over the Past Year

U.S. wheat prices have risen substantially in the past year (figure 3) as shown in International Grains Council (IGC) Freight on Board (FOB) export quotes. In October 2020, the average¹ U.S. Gulf quote for U.S. Hard Red Winter (HRW) wheat was \$272 per metric ton (MT), while the quote for U.S. Hard Red Spring (HRS) for shipment from the Pacific Northwest (PNW) was \$290 per metric ton. These monthly average quotes for October 2021 are up by 30 percent and 46 percent, respectively, to \$355 and \$427. The price increase is particularly stark for HRS as this class was directly impacted by the drought in the Northern Plains. Supplies of high-protein Spring Wheat and Durum are very tight currently and premiums for those classes are particularly high. Soft White (SW) quotes have also risen dramatically in the past year (up 76 percent to \$445/MT) as drought in the PNW region resulted in a much smaller crop.

¹ This discussion centers around monthly averages of daily quotes.

Figure 3
U.S. wheat prices on the rise



*MT: metric ton; FOB: freight on board. Quotes are monthly averages. Source: International Grains Council.

This price rally affecting U.S. markets has extended to the global wheat market as well. Most major export competitors have also seen substantial price rallies over the past year (table 4). Among the major competitors for U.S. wheat, the largest price surge is seen for Canada based on its aforementioned drought.

Table 4: Changes in major exporter prices from October 2020 to October 2021

| Export quotes 1/ | October 2020 | October 2021 | Percent change |
|--|--------------|--------------|----------------|
| U.S. Hard Red Winter (11.5 percent protein) 2/ | 272 | 355 | 30 |
| U.S. Soft Red Winter, U.S. 2/ | 272 | 322 | 18 |
| U.S. Hard Red Spring (14 percent protein) 3/ | 292 | 427 | 46 |
| U.S. Soft White 3/ | 254 | 445 | 76 |
| Russia (12.5 percent protein) | 248 | 317 | 28 |
| Canada CWRS (13.5 percent protein) 4/ | 259 | 396 | 53 |
| EU (France), Grade 1 Rouen | 245 | 324 | 32 |
| Argentina, Up River (12 percent protein) | 256 | 303 | 18 |
| Australia ASW 5/ | 247 | 321 | 30 |

^{1/} All quotes are Freight on Board (FOB) in \$/metric ton.

Sources: USDA, Economic Research Service calculations based on data from the International Grains Council.

^{2/} U.S. Gulf.

^{3/} U.S. Pacific Northwest.

^{4/} CWRS = Canadian Western Red Spring, Vancouver.

^{5/} ASW = Australian Standard White. Port Adelaide, South Australia.

Price Trends for Producers of Wheat-Based Products

Higher wheat prices in the last year have corresponded with elevated costs of production and rising wholesale prices for wheat-based products. Table 5 shows the year-to-year comparisons of Producer Price Indices (PPI) for key wheat-based products during the month of September. The largest increase in the price index among the goods analyzed is for flour milling, which is up 28 percent from last year. This finding is intuitive given that flour millers are direct purchasers of the wheat grain and thus directly influenced by changes in its price. PPI for downstream wheat-based products are also up from last year, but less substantially.

Table 5: Changes in Producer Product Index (PPI) for key grain and related categories

| Category | September 2020 | September 2021 | Percent change |
|--|----------------|----------------|----------------|
| Flour milling | 174.0 | 222.9 | 28.1 |
| Breakfast cereal manufacturing | 225.9 | 231.1 | 2.3 |
| Bread & bakery product mfg | 157.6 | 163.1 | 3.5 |
| Retail bakeries | 178.6 | 188.1 | 5.3 |
| Commercial bakeries | 349.4 | 362.1 | 3.6 |
| Frozen cakes and other pastries manufacturing | 202.7 | 206.3 | 1.8 |
| Cookie, cracker, and pasta manufacturing | 236.6 | 240.1 | 1.5 |
| Dry pasta, dough, and flour mixes manufacturing from purchased flour | 196.0 | 203.7 | 3.9 |
| Tortilla manufacturing | 141.7 | 151.6 | 7.0 |

Source: U.S. Bureau of Labor Statistics, Consumer Price Index database.

Price Trends for Consumers of Wheat-Based Products

Consumer prices of grain and related products have generally trended upward in 2021, but at a relatively normal rate. Table 6 demonstrates that the CPI of several key grain and related categories are up in September 2021, relative to the same month last year. Most categories are up between 1 and 4 percent, which is noticeably less than the changes seen at the commodity level and at the producer/wholesale level.

Table 6: Changes in Consumer Product Index (CPI) for key grain and related categories

| | | | J |
|--------------------------------|----------------|----------------|----------------|
| Category | September 2020 | September 2021 | Percent change |
| Cereals and cereal products | 232.8 | 236.2 | 1.4 |
| Flour and prepared flour mixes | 240.3 | 250.2 | 4.1 |
| Breakfast cereal | 226.4 | 229.1 | 1.2 |
| Rice, pasta, cornmeal | 243.9 | 245.9 | 0.8 |
| Bakery products | 314.3 | 324.5 | 3.2 |
| Bread | 192.3 | 196.5 | 2.2 |
| Fresh biscuits, rolls, muffins | 187.3 | 194.9 | 4.0 |
| Cakes, cupcakes, and cookies | 294.2 | 305.5 | 3.9 |
| Other bakery products | 278.3 | 287.6 | 3.4 |
| Food | 269.2 | 281.5 | 4.6 |
| Food at home | 251.4 | 262.7 | 4.5 |
| Food away from home | 297.1 | 311.0 | 4.7 |
| | | | |

Source: U.S. Bureau of Labor Statistics, Consumer Price Index database.

Conclusion

Wheat prices have surged in the last year for a variety of reasons. However, the strong prices at the commodity level appear to exhibit relatively diffused effects into the wholesale and retail markets. This is somewhat intuitive since commodity prices represent a relatively small portion of the money spent by consumers at retail stores. Food inflation overall is up in 2020 and 2021, but inflation on wheat-based products is not a major driver of this trend. The food price inflation currently affecting U.S. consumers is more significantly driven by meat and egg products, as shown in the ERS *Food Price Outlook* for September 2021.

The current bull market in grain and oilseed commodities is also interesting to put in context with a previous price surge that occurred from 2006 to 2008. The overall structure between commodity prices, producer prices, and consumer prices was similar during that period (figure 4). Notably, cash wheat prices posted huge gains, while flour milling producer prices rose less and with a delay. The growth rate of the PPI for bread and bakery product manufacturing peaked at 12.5 percent in 2008, while the CPI growth rate peaked at 10.2 percent. In that period, price increases for cereal products were stronger than those observed to date in the current rally, but still relatively muted compared to the trends in the cash wheat and PPI flour markets. Food price inflation overall during the current price surge is less driven by cereals than it was in the previous period of reference.

Figure 4
Annual price changes for wheat and related products



^{1/} PPI = Producer Price Index.

Note: 2021 changes are calculated as the average of Jan-Sep for PPI and cash wheat prices. For the CPI figure, the percent change is 1.5 percent based on the midpoint of the projected range from the USDA, Economic Research Service Food Price Outlook.

Sources: USDA, Economic Research Service; USDA, Agricultural Marketing Service; U.S. Department of Labor, Bureau of Labor Statistics.

^{2/} CPI = Consumer Price Index.

^{3/} No. 1 hard red winter (ordinary protein), Kansas City, MO.

Suggested Citation

Sowell, Andrew R. and Bryn Swearingen. *Wheat Outlook: November 2021*, WHS-21k, U.S. Department of Agriculture, Economic Research Service, November 12, 2021.

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