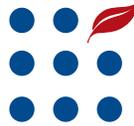




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Wheat Year in Review (International): Low 2007/08 Stocks and Higher Prices Drive Outlook

Edward W. Allen

Abstract

Wheat prices during fall 2007 were high, and planting conditions for winter wheat across the Northern Hemisphere were favorable. As a result, planted area for winter wheat increased significantly. Assuming yields follow trends based on normal weather, average global wheat yields will increase in 2008/09. Production prospects in the European Union, Ukraine, Australia, and the United States are expected to boost world wheat production to a record high in 2008/09. Increased production is expected to offset the lowest beginning stocks since 1977/78, supporting prospects for some increase in global wheat supplies in 2008/09. World wheat use is expected to increase in 2008/09. Global food use is likely to grow slowly, mostly due to population growth. High feed grain prices and increased wheat production are expected to boost global wheat feed and residual use. Growing conditions in 2008 will be crucial to determining available supplies and the size of the expected increase in global stocks during 2008/09. In addition to providing an outlook for wheat, this report also examines the tight wheat situation in 2007/08.

Keywords: wheat, production, consumption, imports, exports

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Approved by USDA's
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Record 2008/09 World Wheat Production Expected To Increase Global Stocks

Wheat prices during fall 2007 were high in many countries, and planting conditions for winter wheat across the Northern Hemisphere were generally favorable. As a result, winter wheat planted area increased significantly. Assuming yields follow trends based on normal weather, average global wheat yields will increase in 2008/09. Increased area, trend yields, and production prospects in the European Union (EU-27), Ukraine, Australia, the United States, and other countries are expected to more than offset lower production in countries where growing conditions have been less favorable, boosting global wheat production to a record level for 2008/09. The increase in global production is expected to offset extremely tight stocks at the beginning of the period, supporting prospects for some increase in global wheat supplies in 2008/09.

World wheat use is expected to increase in 2008/09. Global food use is likely to grow slowly, mostly due to population growth. High feed grain prices and increased wheat production in the United States, the EU-27, and the former Soviet Union (FSU) are expected to boost wheat feed and residual use. With global beginning stocks of wheat projected at their lowest level since 1977/78, growing conditions in 2008 will be crucial to determining available supplies and the size of the expected increase in global stocks during 2008/09.

Record World Wheat Production Expected in 2008/09¹

World wheat production for 2008/09 is projected to increase, based mostly on winter wheat already planted. Assuming yields follow trends, increased wheat production prospects in the EU-27, Russia, Ukraine, Australia, and the United States are expected to more than offset possible decreases in India, Pakistan, or China (countries with large wheat production in 2007/08). However, growing conditions over the next several months will largely determine the size of the increase in global production.

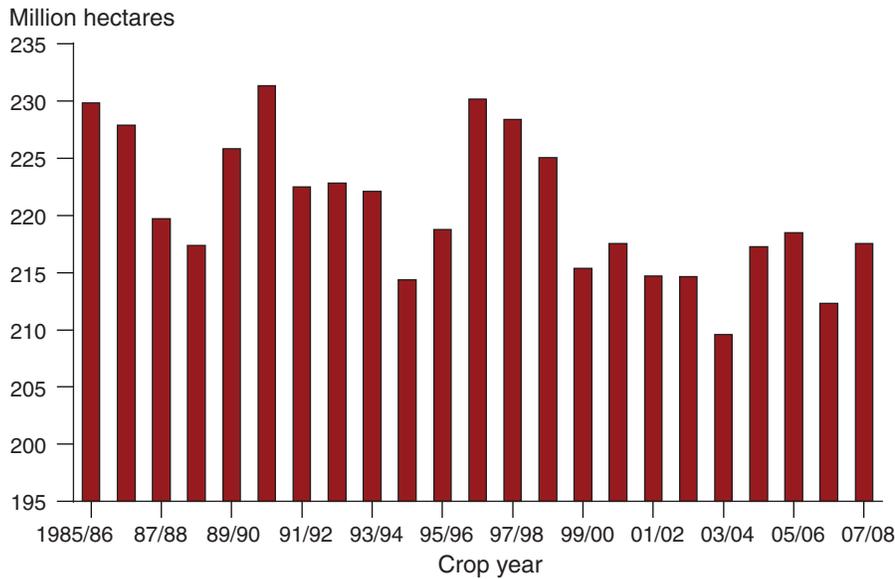
USDA will issue its first global and country-specific projections for wheat supply and use for 2008/09 on May 9, 2008. Winter wheat was planted in the Northern Hemisphere in fall 2007. Although prices since have risen to record levels, prices at the time of seeding were historically high, making returns to wheat attractive. Record vegetable oil prices supported rapeseed plantings in some countries, limiting the increase in wheat plantings. Also, producer prices in several of the largest wheat-producing countries (e.g., China, Iran, Pakistan, and India) are not closely linked to world prices, limiting the response of growers in these countries.

Yields of winter wheat in the Northern Hemisphere in 2008/09 will depend on weather conditions during the coming months. Moreover, spring wheat in the Northern Hemisphere and wheat in the Southern Hemisphere have not yet been planted, making projections about planted area and yields in these regions highly speculative.

¹Estimates as of the March 2008 WASDE.

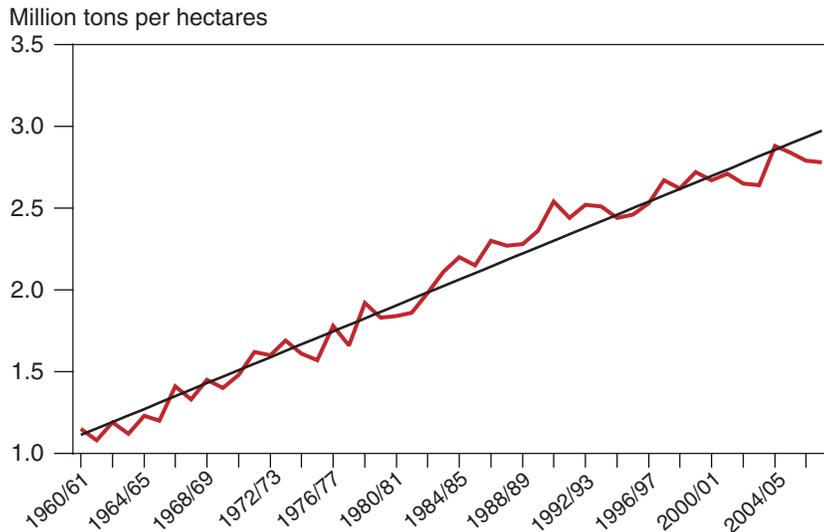
Despite a recovery in harvested area, global wheat production in 2007/08 increased only 11.8 million tons from the previous year's depressed level, reaching 605.0 million tons (fig. 1). The global average yield has stagnated for the last 3 years at 2.8 tons per hectare, mostly due to adverse weather (fig. 2). A weather-induced decline in area was also significant in 2007/08, with abandonment (planted area not harvested) unusually high across Australia and parts of the EU-27. As of early March 2008, wheat growing conditions worldwide were generally favorable but were not that different from conditions at the same time a year earlier.

Figure 1
World wheat harvested area varies with weather



¹2007/08 projected.
 Source: USDA, ERS using data from USDA, FAS PS&D.

Figure 2
Average world wheat yields below trend in recent years



Source: USDA, ERS.

In the EU-27, the world's largest wheat producer (119.6 million tons in 2007), winter wheat area planted for 2008/09 is up significantly over the previous year, with reported increases ranging from 4 percent in France to over 20 percent in Italy. In previous years, EU farmers were required to set aside and not plant 10 percent of their crop area. The 10-percent setaside was eliminated, facilitating a significant increase in plantings. The increase in harvested area is expected to be larger than the increase in planted area if, as expected with normal weather conditions, the ratio of planted/harvested area increases, especially in countries like Romania where drought resulted in significant abandonment of planted area in 2007. Given the large increase in planted area, a return to trend for harvested-to-planted ratio and average yields would be enough to boost EU-27 wheat production to a record level. The 2007/08 winter has been generally mild across much of Western Europe, and wheat growth reportedly has been abundant, but with the critical spring growing season still ahead, it remains too early to forecast yields at levels higher than trends. Still, EU-27 yields fell short of trend for the last 2 years, and a return to trend implies sharply increased production prospects.

China is the world's second-largest producer of wheat (106.0 million tons in 2007). Government incentive payments and reasonably attractive prices supported winter wheat plantings in fall 2007. Provincial reports indicate a small increase in planted area. Winter growing conditions were adverse south of the major wheat-growing areas, but the wheat crop has reportedly come through the winter in normal condition. Wheat yields in China hit record highs in 2006 and 2007, and the trend implies further growth. Much of China's wheat crop benefits from irrigation. The country can expect another large wheat crop in 2008, but any change from 2007 will depend on spring and early summer weather.

The former Soviet Union produced 93.5 million tons of wheat in 2007, the third largest total worldwide, and output is expected to increase significantly in 2008. Dry weather conditions in fall 2006 at planting and a strong exchange rate limited winter wheat plantings for the 2007/08 crop, but by fall 2007, wheat prices had increased and planting conditions for winter wheat across Ukraine and Russia were generally favorable. Winter wheat plantings are reported up more than 10 percent over the previous year in both countries. Winter temperatures were relatively mild this winter, and the crop is reported to be in good condition. Assuming yields follow trends for 2008 would imply a significant increase for Ukraine because the 2007 crop was hit by drought, especially in the eastern part of the country. Russia's winter wheat yield also decreased in 2007, but spring wheat yields rebounded, offsetting the dropoff in winter wheat. If trends hold for Russia in 2008, winter wheat yields will increase over levels of the previous year and spring yields will decrease. With winter wheat area up significantly in Russia, total wheat production is expected to increase strongly even with spring yields down modestly. Spring wheat production in Kazakhstan had strong yields for the last 2 years, so a return to trend in 2008 may offset an expected increase in area, leaving wheat production large by historical standards. Thus, based on large winter plantings and increased production prospects for Ukraine and Russia, FSU-12 wheat production is expected to increase significantly in 2008.

Harvesting of the 2008/09 wheat crop starts in South Asia. The wheat harvest begins in March in India (the world's fourth-largest producer, with 75.8

million tons in 2007), and follows soon after in Pakistan (23 million tons in 2007). Prices for wheat were attractive in India and Pakistan in the latter part of 2007, but problems harvesting previous crops in the rotation delayed wheat planting, particularly in Pakistan. Moreover, weather conditions have been dry in the nonirrigated production areas of India. While official government projections for India and Pakistan indicate that wheat crop levels will be near those of the previous year, projections from other sources are lower.

In North Africa, prospects for winter wheat production in 2008 are much better than those of a year ago, especially in Morocco. Some parts of Morocco, Algeria, and Tunisia have experienced dry weather conditions and unusually cold temperatures, but the winter wheat crop is reported to be in mostly good condition. These conditions are a vast improvement for Morocco, which suffered from severe drought a year ago. Increased production there is expected in 2008.

Planting and winter growing conditions across the Middle East varied, with some areas dry and others with higher-than-normal rains. Assuming yields follow trends, wheat production is expected to increase in 2008/09 due to improved yield prospects in Turkey, the region's largest producer. Much of the expected increased will hinge on timely spring rains.

Spring wheat producers in the Northern Hemisphere and wheat growers in the Southern Hemisphere have not yet planted wheat for harvest in 2008. This includes major exporters, such as Canada, Australia, and Argentina.

In Canada, a significant increase in production is expected in 2008. Area for the relatively small winter wheat crop planted mostly in Ontario rebounded from the previous year's drop. Strong prices for canola are expected to limit the expansion of spring wheat area despite record high prices. A return to trend yields would imply a significant increase for Canada over yields in 2007.

Australia is expected to rebound from devastating drought for the last 2 years and have a much larger wheat crop in 2008/09 than in previous years. The shift in the Pacific from last year's El Nino climate conditions to this year's strong La Nina brought increased rainfall in recent months to major growing areas in Eastern Australia.

In Argentina, planted area for 2008 remains uncertain because government intervention during the current year has limited export registrations in an effort to control internal food prices. The limited registrations and high export taxes have kept wheat prices in Argentina well below those received by producers in most of the rest of the world.

Very Tight World Beginning Stocks Are Expected in 2008/09

Global wheat stocks for the end of 2007/08 (beginning stocks for 2008/09) are forecast at 110.4 million tons, the lowest level in 30 years, and are down 14.7 million tons from a year earlier. The largest decline in stocks is expected in the United States, down 5.8 million tons to 6.6 million tons, followed by North Africa, down 3.5 million tons to 7.7 million tons. Canada and the EU-27 are each projected to reduce stocks 2.8 million tons during 2007/08.

Wheat stocks fell in many other countries prior to 2007/08 and have limited room for additional declines. China, India, and Pakistan, with higher than average wheat production in 2007, are expected to increase wheat stocks during 2007/08. China, with large production in 2007 and declining per capita consumption of wheat, is not a contributing factor to record-high world wheat prices. India has bolstered stocks during 2007/08 with continued significant imports despite high prices and large reported production.

Combined 2008/09 beginning stocks of the major exporters (the United States, Canada, the EU-27, Australia, and Argentina) are expected to be down from a year earlier by nearly one-third, or 11.8 million tons, to 25.9 million tons. Thus, these beginning stocks for 2008/09 will provide little buffer for unexpected world production shortfalls, amplifying their price effect. In the FSU-12, wheat beginning stocks for 2008/09 are forecast at 9.4 million tons, down slightly year to year but down 4.3 million tons from 2006/07. These major exporting countries also will have to rely heavily on production for exportable supplies in 2008/09. The U.S. wheat harvest begins before that of most major competitors, so tight competitor stocks are likely to support strong U.S. exports in the first months of 2008/09.

The size of the increase in expected global production in 2008/09 is expected to be larger than the 14.7-million-ton decline in beginning stocks, so global supplies are expected to increase. The size of the increase in world wheat supplies, however, will depend on area harvested and yields. The expected increase in world wheat production, assuming yields follow trends, should be significantly larger than the decline in beginning stocks. Global supplies are likely to increase, but the amount of the increase will be determined by weather conditions between now and harvest.

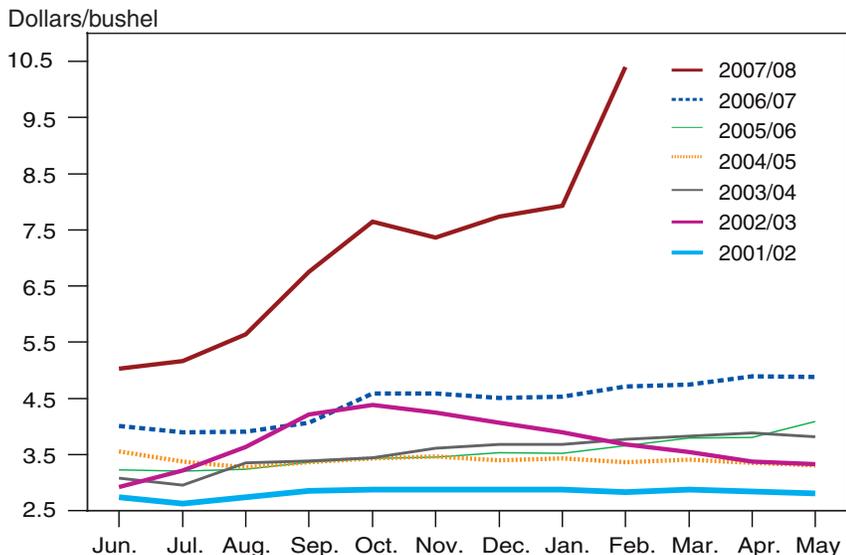
Increased Global Wheat Consumption Is Expected in 2008/09, Ending Stocks Uncertain

In 2007/08, world wheat disappearance, or consumption, is projected to increase 3.9 million tons despite a 6.1-million-ton reduction in feed and residual use of wheat due to record high prices (fig. 3). Nonfeed use of wheat in 2007/08 is forecast up 9.9 million tons despite record high prices, possibly indicating growth in consumer income, particularly in developing countries. The increase reveals the price-inelastic nature of human food use, that is, a given price change induces a relatively small change in demand.

In 2008/09, increasing wheat production is expected to raise wheat feed and residual use in the United States, the EU-27, and the FSU-12. Increased production is likely to boost residual disappearance and losses, while feed grain prices will influence the size of increased feed use of wheat. Moreover, population growth is expected to drive continued increases in nonfeed use of wheat. World population growth of just over 1 percent implies an increase of about 6 million tons per year in global nonfeed use of wheat. With a rebound in feed use, the total growth in global wheat use in 2008/09 is likely to be above 10 million tons, large enough to absorb a significant part of increased world supplies (fig. 4). Rising use will limit the size of potential increases in 2008/09 world wheat ending stocks.

Figure 3

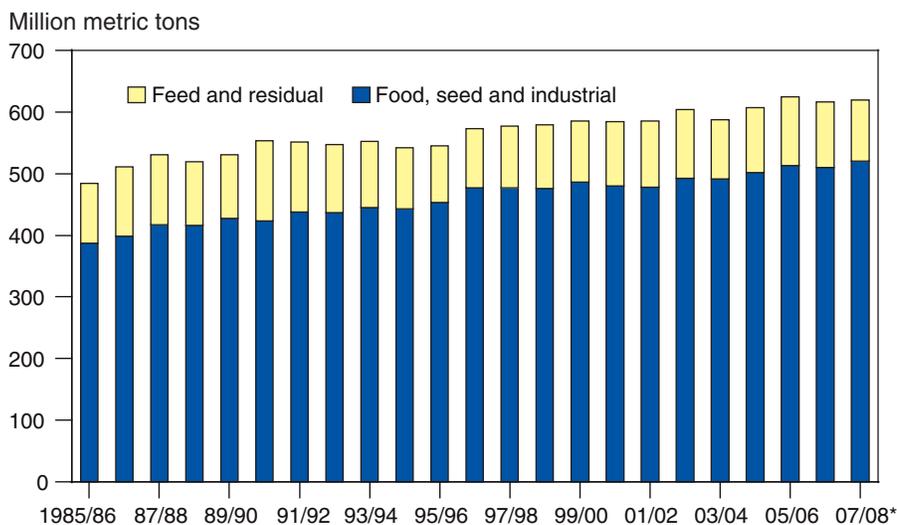
Wheat farm prices shoot to record levels



Source: USDA, NASS, *Quick Stats*.

Figure 4

Food use provides basic growth in world wheat use



*2007/08 projected.

Source: USDA, ERS.

To keep world wheat stocks stable in 2008/09, a 25-million-ton increase in world production is needed to offset a 15-million-ton decline in world beginning stocks and a 10-million-ton increase in use. This implies record world wheat production of about 630 million tons. Given increased winter wheat seedings across the Northern Hemisphere, and assuming a return to trend yields, world wheat production is likely to exceed 630 million tons, allowing for some increase in world wheat stocks during 2008/09. However, above-trend yields would be needed to boost production above 650 million tons and rebuild world wheat stocks in 2008/09 by as much as the 22.6-million-ton drop in 2006/07. With an additional reduction in stocks of 14.7 million tons expected in 2007/08, stocks will likely remain below levels of just 2 years ago.

Record Prices as Adverse Weather Limits World Wheat Production Increase in 2007/08

Global wheat production in 2007/08 is estimated up 11.8 million tons to 605.0 million tons. This weak growth follows the largest year-to-year drop in world wheat production in 12 years and leaves production significantly short of use. World consumption in 2007/08 is forecast up slightly, only half of 1 percent, over the previous year. Global use is expected to be 14.7 million tons greater than production, trimming projected ending stocks to 110.4 million tons, the lowest level in 30 years. World wheat trade is expected to contract 7.0 million tons to 108.1 million because tight exportable supplies and record prices have limited imports. Large export reductions are projected for Canada, the EU-27, and Australia, but U.S. exports are expected to increase by more than 30 percent.

World Wheat Production Rebound Limited in 2007/08

High wheat prices in late 2006 and into 2007 provided a strong incentive to plant wheat, and farmers generally responded around the world. However, adverse weather conditions affected many wheat-producing regions during the 2007/08 growing season. Global average yield fell below trend and the harvested-to-planted area ratio declined in some places as abandonment of planted area increased with adverse weather.

Global wheat production in 2007/08 is forecast up 11.8 million tons from a lower than expected 2006/07 crop, to 605.0 million tons. The United States, India, Russia, and Kazakhstan had the largest increases, while Canada, the EU-27, Morocco, and Turkey had large declines. Production in Australia was affected by a second consecutive year of drought.

The EU-27 was the world's largest wheat-producing region in 2007/08, reaching 119.6 million tons despite a 5.2-million-ton drop in production from the previous year's low level. Across Northern Europe, a dry spring was followed by torrential rains during the harvest period. In Southeast Europe, a devastating drought was accompanied by searing temperatures, reducing area harvested as well as yields.

In China, weather was a "mixed bag," with some areas too dry and some with favorable conditions. Government subsidies supported a slight increase in area, and the increased planting of high-yielding varieties contributed to an increase in average yields of nearly 1 percent in 2007/08 to a record 4.59 tons per hectare. Production during the period is estimated up 1.5 million tons to 106.0 million.

In the former Soviet Union, wheat production increased 7.5 million tons to 93.5 million in 2007/08. Drought in eastern Ukraine and into the southern district of Russia (North Caucasus) reduced winter wheat production severely for the second straight year. However, strong wheat prices encouraged spring wheat area expansion in Kazakhstan. A mild fall extended spring wheat harvest and contributed to excellent spring yields in Russia and Kazakhstan. The large spring crop boosted total FSU wheat production above the previous year's low level.

India's wheat production in 2007/08 increased 6.5 million tons, to 75.8 million tons. The increase in production was mostly due to a 7-percent increase in area, with average yield just above the level reached in the previous year but well below the 2000/01 record. In Pakistan, with a larger portion of the wheat crop irrigated, yields reached record levels, boosting production 1.3 million tons to 23.0 million.

U.S. wheat production during the period increased 6.9 million tons to 56.2 million tons, as prices boosted area planted and rainfall was considerably higher than in previous years. However, an early April freeze in the Southern Plains and part of the Midwest caused significant losses and dampened expectations for further increases in production. The Southern Plains also had harvest losses due to excessive rain.

Canada's wheat production in 2007/08 dropped 5.2 million tons to 20.0 million tons. Area planted declined as prices favored canola and a wet spring delayed seedings. Also, hot, dry weather in July reduced yields.

Wheat production in Australia in 2007/08 was heavily damaged by a drought nearly as bad as that in the previous year. Wheat production increased 2.5 million tons to 13.1 million tons but remained far less than that in 2005/06, which was over 25 million tons.

Argentina's wheat production during the period increased slightly to 15.5 million tons as increased area planted more than offset reduced average yields caused by dryness and late frost in southern Buenos Aires Province.

Wheat production in North Africa dropped 4.7 million tons to 13.8 million tons, largely due to drought in Morocco. Production in the Middle East declined 2.3 million tons to 39.6 million, mostly due to a cold winter and dry conditions that affected production in Turkey.

Low Beginning Stocks Cut World Wheat Supplies in 2007/08

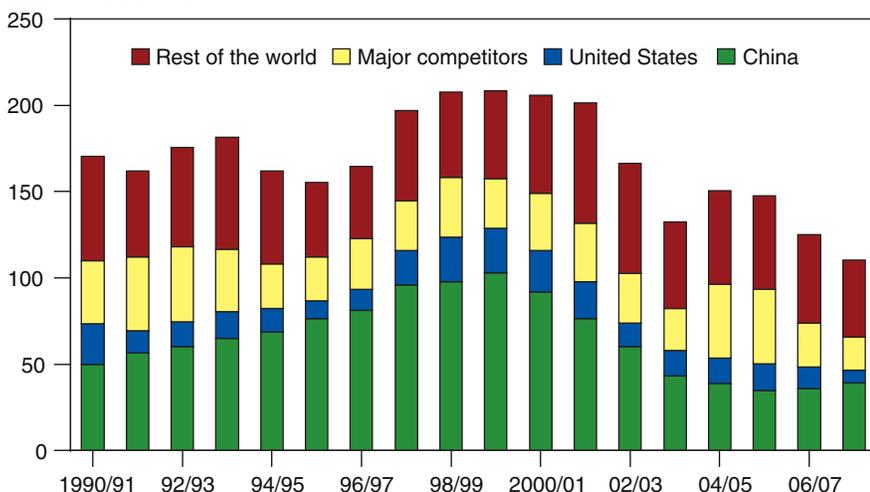
Global stocks at the start of 2007/08 were estimated at 125.1 million tons, down 22.6 million tons from a year earlier and the lowest level since 1982/83. The drop in beginning stocks of major competitors (Canada, Australia, EU-27, and Argentina) was dramatic, down over 40 percent to 25.3 million tons (fig. 5). The EU-27 liquidated intervention stocks following poor production in 2006, dropping 2007/08 beginning stocks 9.4 million tons to 14.0 million tons. Confronted with a drought of historic proportions, Australia's stocks declined 5.4 million tons to 4.2 million tons. Even Canada, with a large crop, took advantage of attractive export prices during 2006/07 and reduced stocks 2.8 million tons to 6.8 million. Following poor yields in 2006, U.S. beginning stocks for 2007/08 were down 3.1 million tons to 12.4 million tons.

India increased its government stocks to support programs to feed the poor by importing 6.7 million tons in 2006/07, which boosted 2007/08 beginning stocks 2.5 million tons to 4.5 million. China, with large production and declining per capita consumption, also increased its wheat stocks 1.1 million tons to start 2007/08.

Figure 5

Wheat stocks of major competitors decline

Million metric tons



Source: USDA, ERS using data from USDA, FAS, PSD Online.

For 2007/08, the drop in world beginning stocks of 22.6 million tons was much larger than the increase in production of 11.8 million tons. The decrease left world wheat supplies in 2007/08 even tighter than in the previous year and boosted wheat prices to record levels as human-consumption demand remained quite price inelastic. Other factors contributing to high prices and strong demand include income growth in some developing countries and efforts by some governments to buffer domestic consumers from rising world prices. These efforts include export restrictions or government-controlled procurement and distribution systems.

World Wheat Consumption Expected To Grow in 2007/08, Exceeding Production

Global wheat consumption is forecast at 619.6 million tons in 2007/08, up 3.9 million from the previous year. World wheat feed and residual use in 2007/08 is forecast at 99.5 million tons, down 6.1 million tons year to year, as wheat prices have been record high and the residual use associated with production losses has been limited by reduced production. Tight wheat supplies and the relatively high price of wheat—compared with prices of feed grains in the EU-27, Ukraine, Russia and the United States—are limiting wheat feeding.

World nonfeed wheat use (mostly human food) is forecast up 9.9 million tons to 520.1 million tons in 2007/08, partly due to increased demand caused by population growth (just over 1 percent per year). Also contributing to increased use is the difference in which trade is accounted for on a local marketing year.² In the 2006/07 marketing year, the sum of world imports exceeded exports by 1.6 million tons, reducing global use by that amount. However, in 2007/08, the sum of local marketing year exports is a typical 2.0 million tons more than the sum of imports, boosting disappearance relative to the previous year.

²Local marketing years in Southern Hemisphere countries start up to 5 months later than the wheat international trade year, which begins July 1. Imports and exports on the trade year balance, with an unaccounted category of 2 to 3 million tons that can be considered to represent exports from countries in the database to countries outside the USDA database, boost global consumption. However, exports based on a local marketing year can differ considerably from those based on an international trade year. For example, a drought in Australia in 2006 makes the sum of local marketing year exports and imports more variable than the sum of trade year exports and imports.)

World Wheat Stocks To Continue To Decline in 2007/08

Global ending stocks in 2007/08 are projected down 14.7 million tons from the previous year to 110.4 million tons, the lowest level in 30 years. If this holds, world wheat stocks will be down in 7 of the last 8 years as consumption has outpaced production (fig. 6). (For more details, see the section on 2008/09 beginning stocks on page 5.)

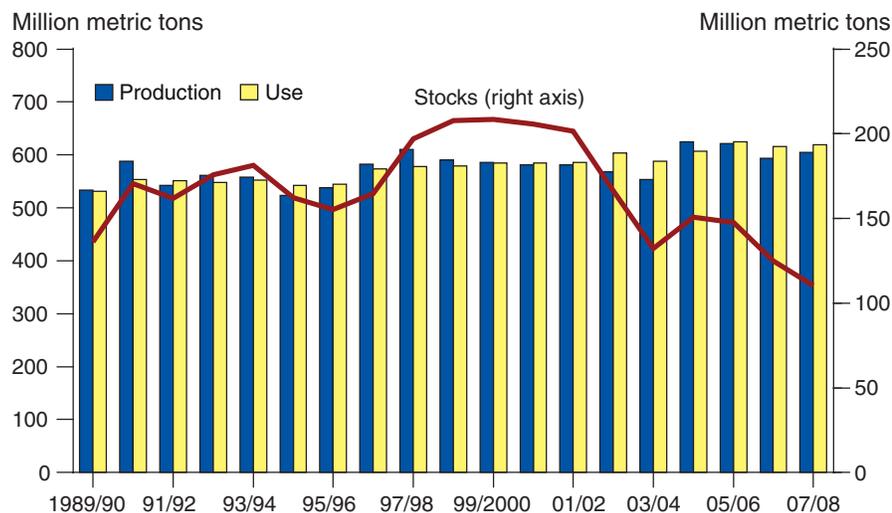
World Wheat Trade Projected Lower in 2007/08

Global wheat trade (July-June international trade year) in 2007/08 is forecast at 108.0 million tons, down 7.0 million tons from the previous year. Wheat trade is declining year to year because tight exportable supplies, record high prices, and export restrictions in several countries are limiting purchases by importing countries.

Brazil and Egypt are projected to be the world's largest wheat importers in 2007/08, each importing 7.0 million tons. Imports for both countries, however, are down from the previous year. The EU-27 is expected to increase wheat imports 1.4 million tons to 6.5 million tons (fig. 7). Due to a third consecutive year of below-trend yields, the EU-27 has cut import levies and is encouraging imports of feed grains to offset shortfalls in feed-quality wheat production.

The remaining top-10 importing countries are all expected to trim wheat imports during 2007/08. Japan is projected to import 5.5 million tons; Indonesia, 5.3 million tons; Algeria, 4.4 million tons; Mexico, 3.6 million tons; and Nigeria and South Korea, 3.0 million tons each. Many smaller importers are also expected to reduce wheat imports modestly in 2007/08. India is expected to import 1.8 million tons in 2007/08, only 27 percent of the previous year's level, as increased production has boosted stock prospects. However, Morocco, with severe drought, is expected to more than double wheat imports in 2007/08, reaching 4.0 million tons.

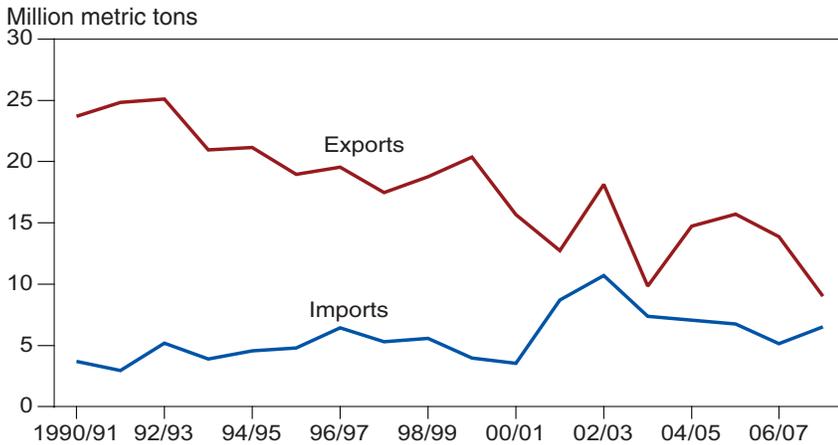
Figure 6
Wheat stocks decline as use exceeds production



Source: USDA, ERS using data from USDA, FAS, PSD Online.

Figure 7

European Union wheat exports down, imports large in 2007/08



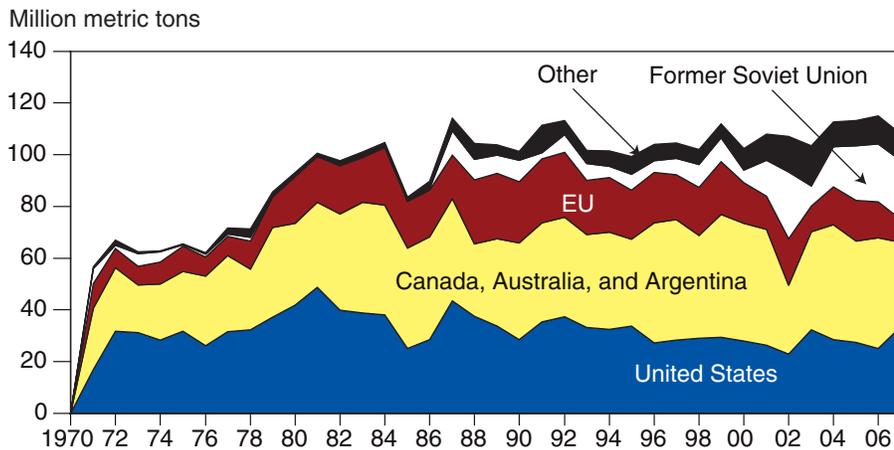
Source: USDA, ERS using data from USDA, FAS, PSD Online.

Several major exporting countries have intervened in markets to limit wheat exports in 2007/08. Argentina has limited export registrations, putting a lid on exports to keep internal prices lower than world prices. Ukraine used export quotas, and Russia imposed a prohibitive export duty. However, Russia’s export duty was imposed in the second half of the trade year following a brisk pace of shipments up to that point. China eliminated export subsidies in December 2007 and imposed an export tax. India imposed an export ban. Rumored government intervention can impact trade and prices even if nothing is done, as was the case when rumors circulated that Kazakhstan would impose export restrictions.

Among major wheat-exporting countries, exports are projected up during 2007/08 for the United States and Russia (fig. 8), where increased production supported exports. Other major exporters are expected to reduce exports in 2007/08 because of tight supplies.

Figure 8

U.S. share of the world wheat market increasing in 2007/08



Source: USDA, ERS using data from USDA, FAS, PSD Online.