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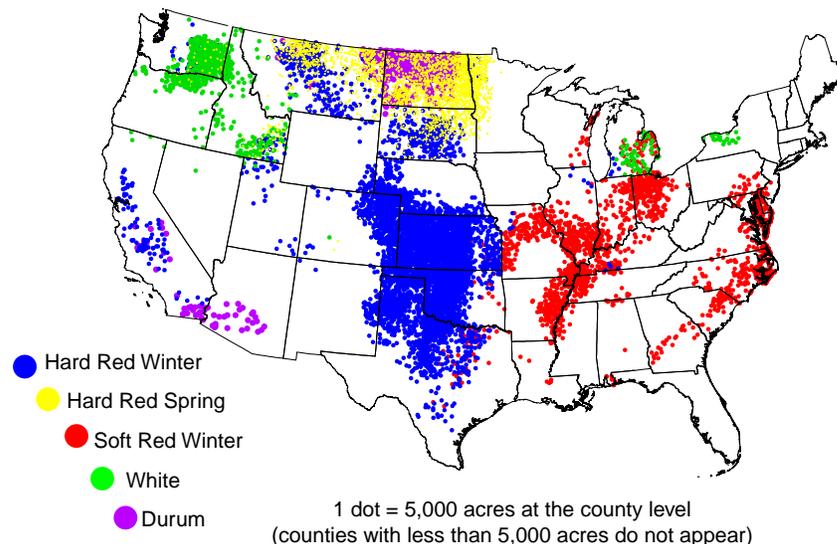
# Wheat: Background and Issues for Farm Legislation

**Gary Vocke**

Congress is considering new farm legislation to replace the expiring Federal Agriculture Improvement and Reform Act of 1996. As background for these deliberations, this report provides information on supply, demand, and prices in the U.S. wheat sector and examines alternative policy choices.

The U.S. wheat sector is facing many challenges as it enters the 21st century. Despite a strong domestic market for wheat products, U.S. wheat harvested area has declined by more than a third from its peak in 1981. Low returns relative to other crops, in combination with the planting flexibility provided under current government programs, has led to the substitution of competing crops for wheat in many areas of the Plains. The low returns to wheat are due, in part, to lackluster export performance. Although almost half of the U.S. wheat crop is exported, U.S. wheat exports have shown little increase since 1996/97. Global trade has increased slightly, but the U.S. share has declined.

## U.S. wheat (area planted 1998)



Source: Economic Research Service, USDA.

# OVERVIEW OF THE U.S. WHEAT SECTOR

## The United States Is a Large Wheat Producer

The United States is a major wheat-producing country, its output exceeded only by that of China and the European Union (EU) and, sometimes, India. In 2000, wheat ranked third among U.S. field crops in both planted acreage and value of production, behind corn and soybeans.

U.S. wheat harvested area has varied within a wide range over the past half century, peaking in the early 1980s because of high price supports. Since the peak, wheat area dropped off sharply in the late 1980s, recovered in the early 1990s, and has been falling since. In the 1990s, yield gains offset the impact of the reduced acreage on wheat output.

Wheat area has dropped off as farmers have either taken their land out of production through the Conservation Reserve Program (CRP) or switched to alternative crops offering higher returns. Underlying the increased planting of row crops, such as soybeans, corn, and sorghum, in the traditional wheat-growing areas of the Plains is a trend to use the land more intensively, including reducing the area fallowed.

Farmers are planting more corn, sorghum, and especially soybeans, in dryland Plains areas in multi-crop rotations that reduce the fallowed land area. For example, in Kansas, a typical wheat-fallow rotation is most commonly replaced by a rotation of wheat-grain

sorghum-fallow, so that wheat is planted 1 year out of 3 instead of 1 out of 2. While increased row-crop production began well before the increased flexibility provided in the 1996 Farm Act, the planting of corn and soybeans accelerated after 1996.

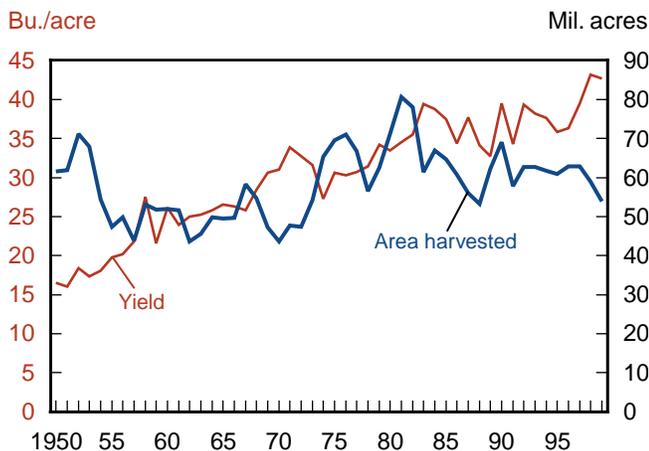
Loss of wheat acreage to row crops in the Plains also reflects strong genetic improvements in corn and soybeans. New varieties of corn and soybeans can be planted farther west and north in areas with drier conditions or shorter growing seasons. The pace of genetic improvement has been slower for wheat than for some other field crops, making wheat less competitive for cropland.

Research incentives for the genetic improvement of wheat have been weaker due to the lower potential returns to commercial seed companies. For instance, farmers generally buy hybrid seed corn every year, creating a large annual market for seed companies. In contrast, many wheat farmers, particularly in the Plains States, use seed saved from the previous year's crop instead of buying from dealers every year. This practice sharply reduces the size of the market for seed wheat relative to hybrid corn.

## Wheat Prices Are Low

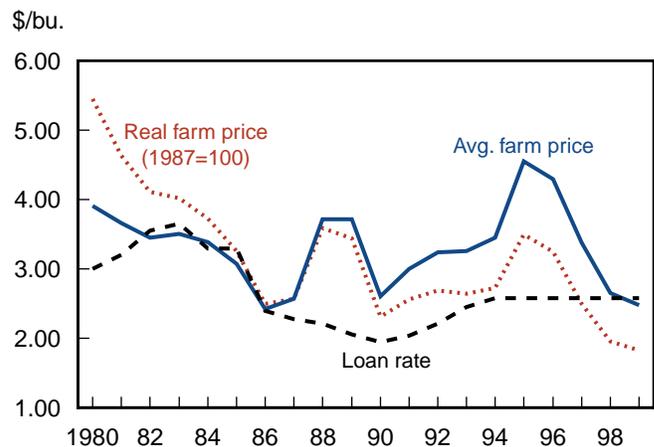
The price of wheat has dropped sharply since the 1996 peak. When the price received by farmers is adjusted for inflation, there has not been a year since 1890 with a lower price than in 2000/2001. Tight world and U.S. wheat supplies were the driving force in setting high

### U.S. wheat area has dropped from its 1980s high



Source: Economic Research Service, USDA.

### Prices received by farmers and the loan rate for wheat



Source: Economic Research Service, USDA.

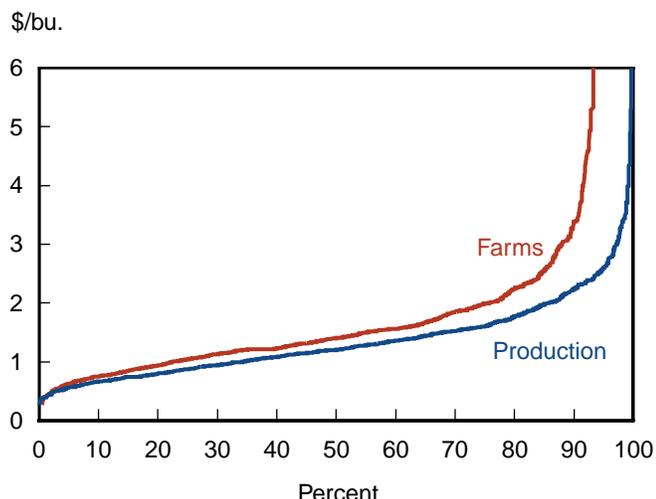
wheat prices in the mid-1990s. Since that time, larger exportable supplies and little demand growth in major markets have put substantial downward pressure on prices. Although the world situation has recently tightened, U.S. ending stocks for wheat continue at relatively high levels.

### Production Costs Vary Widely

Most farmers who grow annual field crops, such as wheat, decide each year what mix of crops to plant. These annual production decisions are usually based on whether the grower expects that the price received for the crop will cover operating costs, including seed, fertilizer, chemicals, fuel, custom operations, repairs, and interest on operating inputs. Longer-term decisions about whether or not to continue raising the crop will include whether or not expected prices over several years will cover both operating and ownership costs. Ownership costs are mainly the costs of maintaining the capital stock used in production, including costs for asset depreciation, interest, taxes, and insurance.

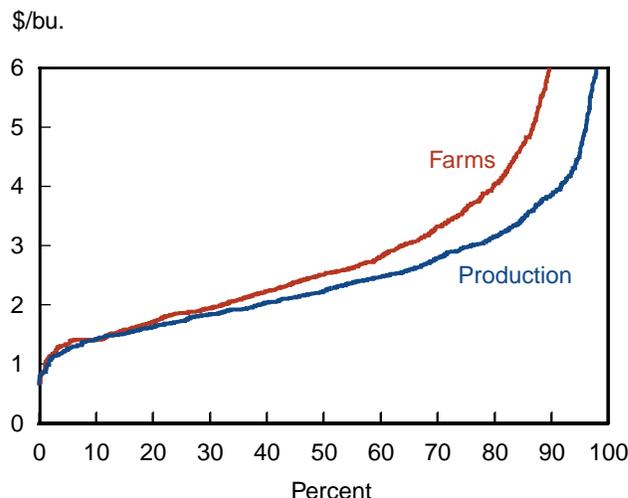
Production costs for wheat vary considerably across the Nation. Wheat operating costs and operating plus ownership costs for 1998 are presented in the graphs, each of which arrays wheat production costs per bushel from the lowest to the highest. The operating cost curve shown below is flatter than the curve for operating and ownership costs (at upper right). This means that a key difference between low- and high-cost producers is ownership costs per unit of output.

### Cumulative distribution of farms and operating costs for wheat production, 1998



Source: Economic Research Service, USDA.

### Cumulative distribution of farms and operating and ownership costs for wheat production, 1998



Source: Economic Research Service, USDA.

The cumulative distribution of operating costs for 1998 wheat production reveals that farmers produced 50 percent of the 1998 wheat crop at \$1.20 per bushel or less, 75 percent at \$1.60 per bushel or less, and 90 percent at \$2.25 per bushel or less. For operating and ownership costs, the cumulative distribution indicates that 50 percent of the 1998 wheat was produced at \$2.25 per bushel or less, 75 percent at \$3.00 per bushel or less, and 90 percent at \$3.90 per bushel or less.

The fact that 90 percent of wheat was produced at an operating cost of \$2.25 per bushel or less in 1998 helps to explain why U.S. wheat growers continue to plant wheat despite the low prices of recent years. During the past four crop years, the farm-level price for all wheat averaged \$2.79 per bushel, ranging from a low of \$2.48 in 1999/2000 to a high of \$3.38 in 1997/98. However, for many farmers, these prices do not cover both operating and ownership costs. Farmers cannot continue to grow wheat over several years if they cannot cover ownership costs and thus replace capital stock as it deteriorates. Also, these costs do not include opportunity costs for owned resources, such as land and unpaid labor, which may also affect the long-run decision about producing wheat.

One reason many producers have continued to produce wheat despite low farm-level prices has been the impact of government payments. Loan deficiency payments and marketing loan gains added about \$0.19 per bushel to gross returns for the 1998 wheat crop. Also, many wheat producers received production flexibility

contract payments and emergency assistance that helped cover some of wheat's production costs.

### Output Increasingly Concentrated In Large Farms

The total number of farms that grow wheat has been steadily declining since the 1950s (as has the number of U.S. farms in general). As of the 1997 census, there were about 244,000 farms that grew wheat, down 17 percent from the 1992 census. The number of wheat farms has declined as improved production technology and other factors have provided the incentives for fewer growers to farm more land. This trend is expected to continue.

In 1997, 14 percent of wheat farms had 500 or more acres of wheat and accounted for 58 percent of the total crop. In comparison, in 1992, farms with 500 or more acres of wheat accounted for 53 percent of the total crop, and 11 percent of the total number of wheat farms.

### The United States Produces Five Classes of Wheat

The United States produces five major classes of wheat: hard red winter (HRW), hard red spring (HRS), soft red winter (SRW), white, and durum. Each class has a somewhat different end use and dependency on export markets. Production by class tends to be region-specific. The U.S. map on the first page shows the location of production for each class.

- HRW wheat is about 40 percent of total wheat production and is grown primarily in the Great Plains

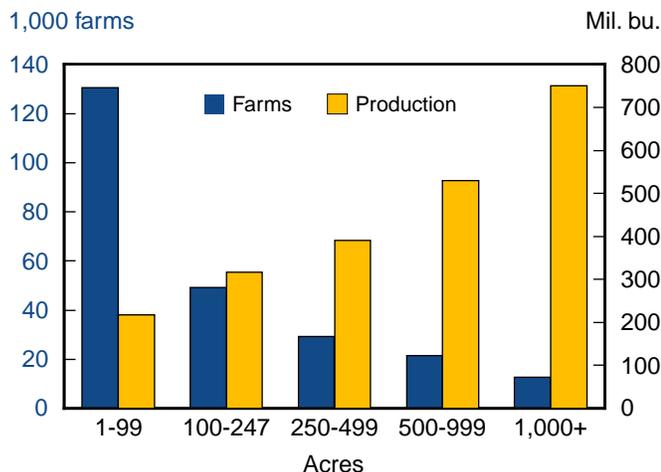
(Texas north through Montana). HRW is principally used to make bread flour, but is used in a variety of other products. Slightly over a third is exported.

- HRS wheat is about 25 percent of total wheat production and is grown primarily in the Northern Plains (North Dakota, Montana, Minnesota, and South Dakota). HRS is valued for high protein levels, which make it suitable for specialty breads and blending with lower protein wheat. Half of the crop is exported.
- SRW wheat, 15 to 20 percent of total wheat production, is grown primarily in States along the Mississippi River and in the east. SRW is used in the United States for cakes, cookies, and crackers. About a third of the crop is exported.
- White wheat, 10 to 15 percent of total wheat production, is grown in Washington, Oregon, Idaho, Michigan, and New York. White wheat is used for noodle products, crackers, cereals, and white-crust breads. Two-thirds of the crop is exported.
- Durum wheat, 3 to 5 percent of total wheat production, is grown primarily in North Dakota and Montana. Durum is used for making pasta. About a third of the crop is exported.

### Food Consumption Boosts U.S. Domestic Wheat Use

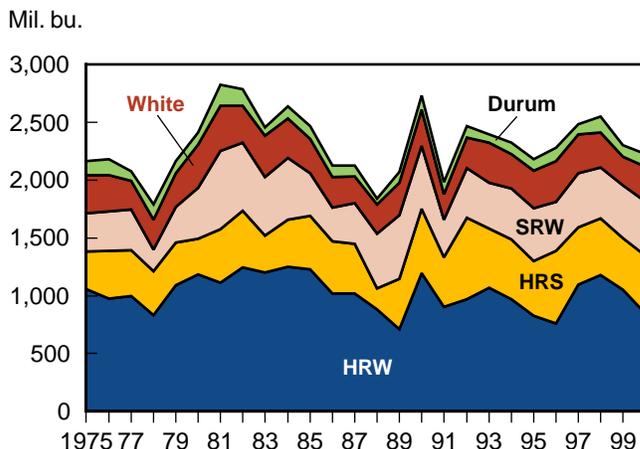
U.S. consumer demand for products made from wheat is relatively unaffected by changes in wheat prices or disposable income. However, demand is closely tied to population, tastes, and preferences. The strength of the domestic market for wheat has grown, since the his-

Farms growing wheat and wheat production, 1997



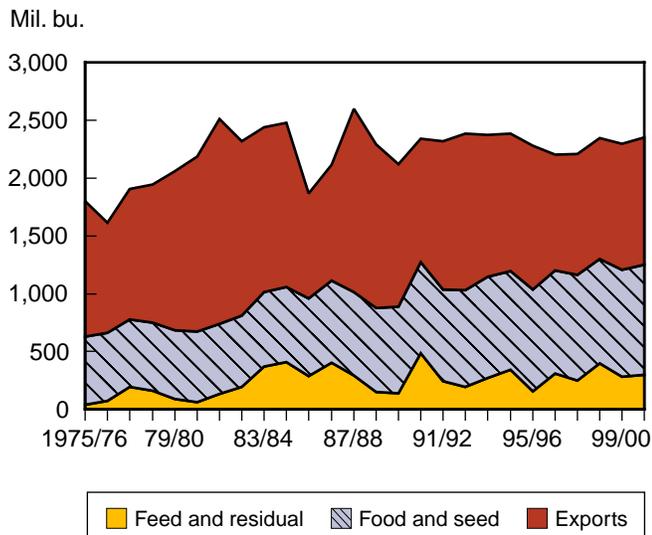
Source: Economic Research Service, USDA.

U.S. wheat use by class



Source: Economic Research Service, USDA.

## U.S. wheat disappearance



Source: Economic Research Service, USDA.

toric turnaround in consumer tastes and preferences that occurred in the 1970s. For a hundred years, per capita wheat consumption had been declining in the United States. In 1879, wheat flour consumption in the United States was 226 pounds per person.<sup>1</sup> By 1925, U.S. wheat flour consumption had dropped to 180 pounds per person. The decline continued through the ensuing decades, finally bottoming out in 1972 at 110 pounds per capita. Present day (2000) per capita wheat flour consumption is 148 pounds, a recovery to the level of wheat consumption that existed just after World War II.

Feed use of wheat varies with price and crop quality. Wheat feed use increases when the price gap between wheat and corn is narrow. Wheat feeding is also higher when wheat quality is impaired in some way. For example, when there is excessive rainfall at harvest-time, some varieties of wheat are susceptible to sprouting while still on the wheat plant in the field. When sprouting occurs, biochemical changes in the wheat kernel diminish milling qualities for making food products. While there is no hard data on the extent of wheat feeding each year, in recent years, nearly a fourth of domestic wheat use has been allocated to feed use and residual in the USDA supply/disappearance balance sheets.

<sup>1</sup> Working, Holbrook. *The Decline in Per Capita Consumption of Flour in the United States*. *Wheat Studies*. Food Research Institute. Stanford University. Vol. II, No. 8. July 1926.

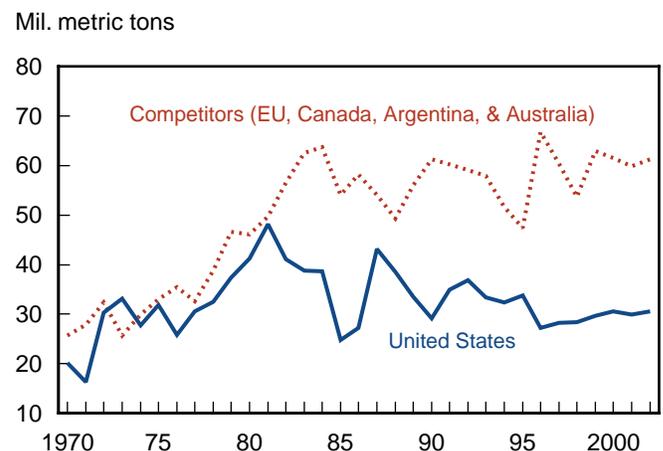
## U.S. Wheat Exports Lose Competitiveness

The United States has lost shares in the global wheat trade over the years, from shares above 40 percent for most years between 1972 and 1981 to less than 25 percent in the last half of the 1990s. Export competition is not expected to abate in the foreseeable future. Agricultural policy reforms in the European Union's (EU) Agenda 2000 are expected to encourage wheat production over other crops in EU countries. Traditional exporters (Argentina, Australia, and Canada) are expected to continue to be very competitive. Other suppliers, such as Eastern Europe and parts of the former Soviet Union, also may provide increased export competition if their infrastructure improves and they upgrade the quality of wheat output while holding down costs.

Part of the explanation for the current U.S. export situation has been the value of the U.S. dollar compared with the value of the currencies of competing wheat exporters. For example, the depreciation of the Australian dollar from 1997, when the so-called Asian Crisis began, to the present, has favored Australia's wheat exports over U.S. wheat.

In the 1990s, world wheat consumption continued to expand in response to rising population and incomes, but the volume of world trade has gained only slightly. The distribution of global wheat trade has broadened as small purchases by a larger number of importing countries in Southeast Asia, North Africa, and the Middle East have together become more important

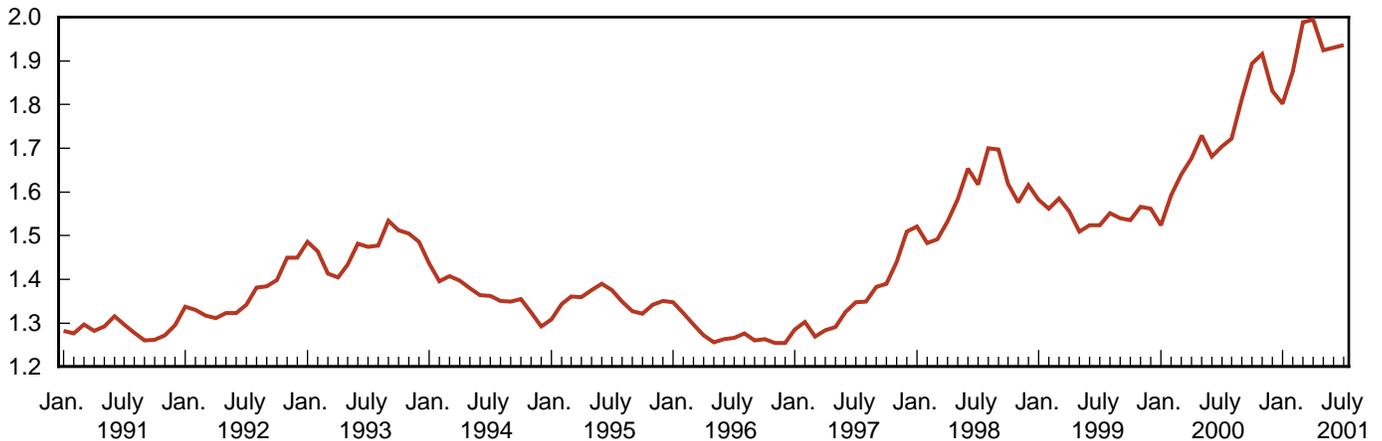
## Wheat exports: Competitors and United States



Source: USDA Agricultural Baseline Projections to 2010, February 2001, Economic Research Service, USDA.

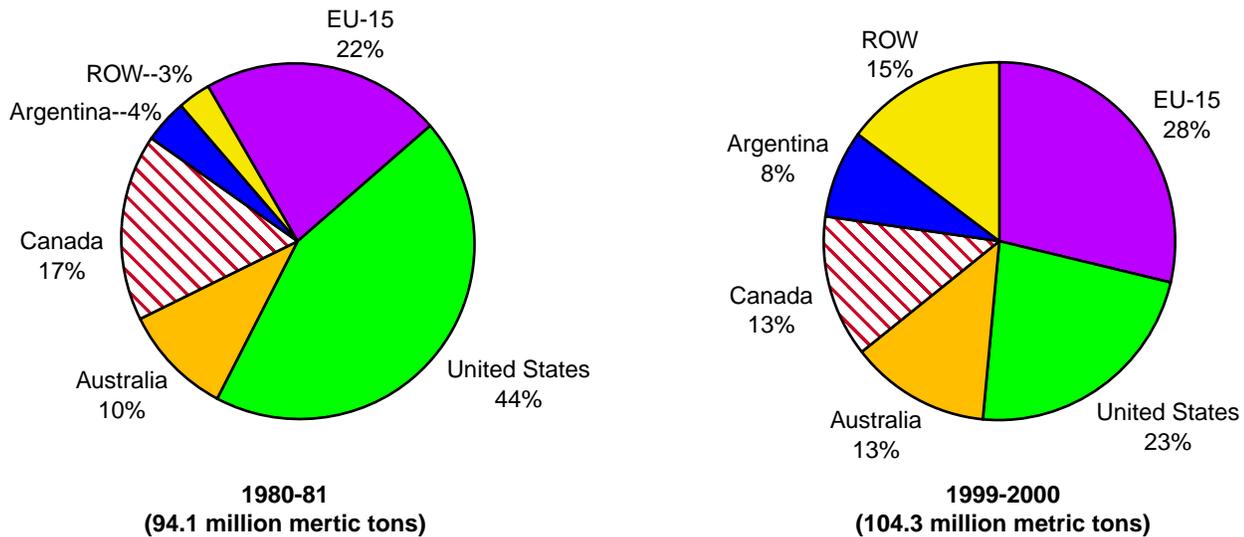
## Depreciating Australian dollar favors Australian wheat exports

Australian dollar / U.S. dollar



Source: PACIFIC Exchange Rate Service 2001 <http://pacific.commerce.ubc.ca/xr/>  
 Prof. Werner Antweiler, University of British Columbia, Vancouver BC, Canada.

## Percentage share of world wheat exports



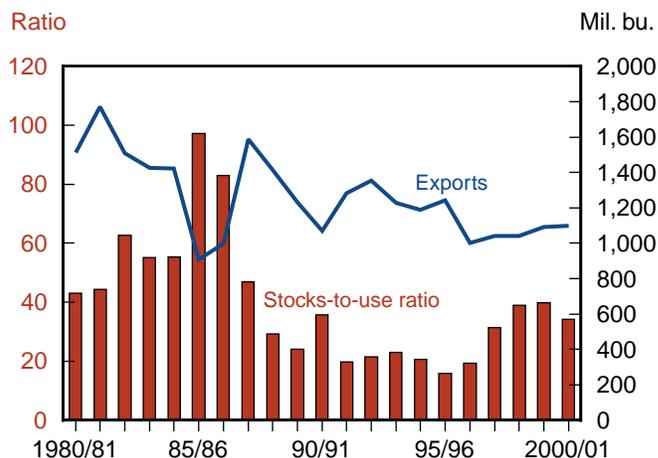
Source: Economic Research Service, USDA.

than the very large purchases in the past by the former Soviet Union and China.

Wheat exports are concentrated in just a few countries. Over the past 2 years, the world's five principal exporters have exported more than 85 percent of the world's total exports (see chart). The United States is the second-ranked exporter behind the European Union if intra-EU trade is included.

Even though projected world wheat stocks in 2001/02 are near the low 1995/96 level, world and U.S. wheat prices remain low relative to 1996. Importing countries are not concerned about shortages because exporting country stocks are relatively high. U.S. stocks rose during the last half of the 1990s as export volume slowed.

### U.S. stocks-to-use ratio edged up with lackluster exports



Source: Economic Research Service, USDA.

## GOVERNMENT PROGRAMS

Wheat production has shown little trend over the past quarter century because rising yields have offset the declining area. Wheat area has dropped from its early 1980s highs, due mostly to declining returns relative to other crops and cropping choice flexibility provided under current government programs. Authorization of the Conservation Reserve Program (CRP) in the 1985 Farm Act, followed by planting flexibility provisions in the 1990 Farm Act, provided wheat farmers with more options for use of their acreage. Under the 1990 Act, farmers participating in commodity programs could plant up to 25 percent of their base wheat acreage to crops other than wheat without losing base acreage. Farmers thus had an incentive to grow crops promising higher returns or to earn rental payments from idling land under the CRP.

Planting flexibility facilitated expansion of soybeans, corn, and other crops in traditional wheat areas. The 1996 Farm Act completed the market orientation of crop planting by eliminating the requirement to maintain base acreage of program crops in order to qualify for government payments.

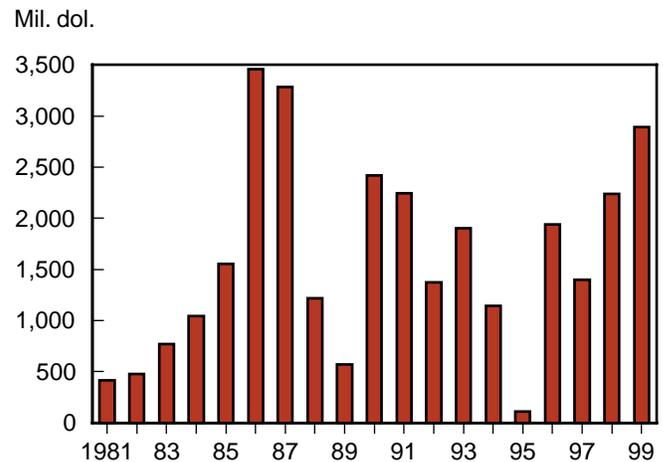
Farmers are strongly influenced by the level of government support when commodity prices are low. The government loan rate for soybeans has been especially favorable relative to wheat, contributing to the switch of wheat acreage to soybeans, especially in the Central and Northern Plains.

### Current Assistance to the U.S. Wheat Sector

The U.S. wheat sector currently receives various forms of government assistance. This report reviews the four principal types of assistance: production flexibility contracts (PFC), the marketing assistance loan program, crop insurance, and export assistance.

PFCs are based on historical base acres and are thus completely decoupled from current production decisions. Likewise, crop market loss payments under the emergency ad hoc assistance bills have been tied to historical wheat base. Other types of government support in a given year depend on current wheat acreage or production. Examples are loan deficiency payments (LDPs), disaster assistance, and subsidized crop insurance. Distinctions among these programs are important

### U.S. income support payments to wheat sector: Deficiency payments, production flexibility payments, and market loss assistance payments



Source: Economic Research Service, USDA.

in the context of U.S. obligations under the Uruguay Round Agreement on Agriculture (URAA).

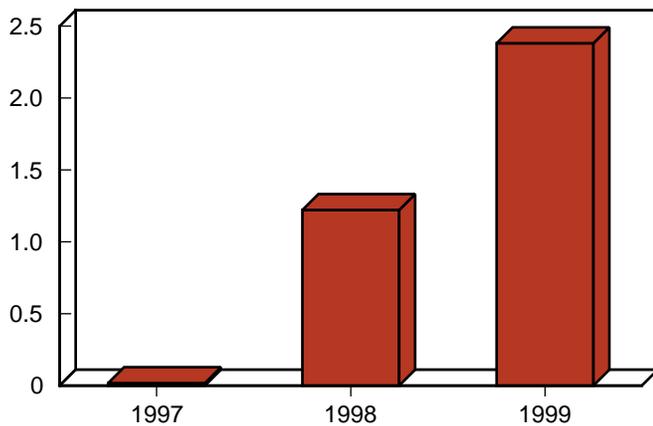
**Production Flexibility Contracts.** The 1996 Farm Act provides decoupled income support payments over 7 years to farmers who entered into PFCs. Since these PFC payments are not related to current market prices or most farm-level production decisions, they do not have a direct effect on a farmer's cropping decisions (i.e., they are "decoupled"). The price-sensitive payments of earlier years that used target prices, called deficiency payments, were eliminated in the 1996 Act.

Producers who enrolled in a 7-year PFC during the one-time signup held in 1996 are eligible to receive payments. A farm was eligible for enrollment if it had a wheat acreage base established for 1996. Once the farm is enrolled, the crop acreage base becomes contract acreage. Wheat PFC payments are based on the eligible contract quantities, computed by multiplying a producer's wheat contract acres times the wheat program yield on the farm times .85.

Additional payments have been made to holders of PFCs in recent years. Legislation was passed authorizing emergency "market loss assistance payments" (MLA's) for 1998 through 2000. MLA payment rates are proportional to PFC payment rates.

### Total wheat marketing loan gains and loan deficiency payments

Bil. dol.



Source: Economic Research Service, USDA.

In the chart on the previous page, U.S. Government payments to wheat producers from 1980 through 1995 were deficiency payments. With the new legislation in 1996, the payments shown are PFC payments only for 1996 and 1997. The payments for 1998 and 1999 include both MLA payments and PFC payments. In 1998, the MLA payments were a third of the total payments and, in 1999, half of the total payments.

**The Marketing Assistance Loan Program.** The 1996 Farm Act's marketing assistance loan program benefits farmers when market prices are low. Marketing loan provisions enable producers to obtain either a nonrecourse marketing assistance loan or a loan deficiency payment on all or a part of their eligible production. To qualify, producers must have produced wheat on a farm that is enrolled in a PFC (for the 2000 crop only, the Agricultural Risk Protection Act of 2000 extended eligibility to producers on a farm not enrolled in a PFC). The national average marketing assistance loan rate for wheat for 1999, 2000, and 2001 is \$2.58 per bushel. Loan rates vary among counties and are based on the county where the wheat is stored.

Producers may settle their outstanding nonrecourse loan by repaying the loan (plus interest) during the 9-month loan period or by forfeiting the wheat to the Commodity Credit Corporation (CCC) upon maturity of the loan. Marketing loan provisions enable producers to either repay a loan at less than the loan rate plus accrued interest and other charges, or receive a loan deficiency payment (LDP) in lieu of obtaining a loan. The loan repayment rate is the lower of the county loan rate plus accrued interest and other charges, or the local

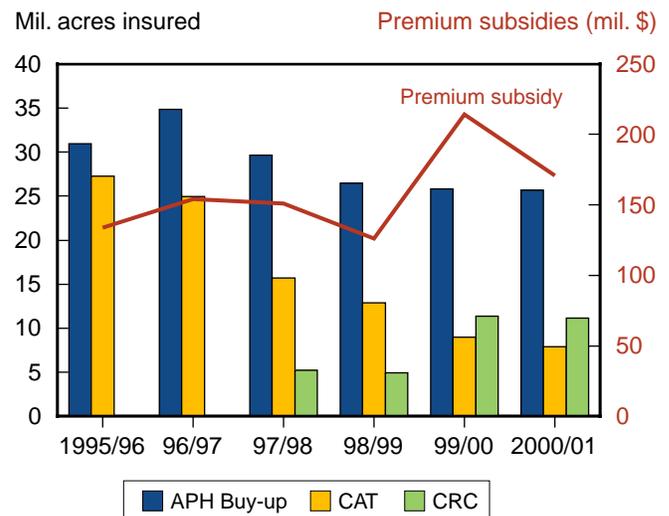
posted county price (PCP). PCPs are established daily for each county. PCPs are based upon the previous day's prices for wheat at two CCC-assigned terminal markets and are adjusted to reflect quality and location.

Producers may realize a marketing loan gain (MLG) if they repay their loans when the PCP is less than the loan rate. Producers who are eligible to obtain a loan, but who agree to forgo the loan, may obtain a loan deficiency payment (LDP). The LDP rate equals the amount by which the county loan rate exceeds the PCP for wheat.

The payment limit on MLGs and LDPs was \$75,000 per person, per crop year, through the 1998 crop. The FY 2000 and FY2001 Appropriations Acts raised this limit to \$150,000 for the 1999 and 2000 crops.

However, in October 1999, Congress amended the 1996 Farm Bill to include provisions for the issuance of commodity certificates. Producers with outstanding nonrecourse loans can purchase commodity certificates and then exchange them for the commodities under loan. Certificates are designed to limit loan program forfeitures of crops to the government. They also enable producers to receive marketing loan benefits unconstrained by payment limitations. If a wheat producer has pledged some or all of the farm's production as collateral for a marketing assistance loan, the producer may purchase a commodity certificate valued up to an amount determined by multiplying the quantity of wheat under loan times the local PCP. The producer

### Insured wheat acreage by insurance plan and crop insurance premium subsidies, 1995-2000



Source: Risk Management Agency, USDA.

then immediately exchanges the purchased commodity certificate for the loan collateral.

**Crop Insurance Subsidies.** The Federal crop insurance program insured more than 45 million wheat acres in 2000/01, roughly 73 percent of planted acres. Insurance participation rates have been in the range of 67 to 74 percent of planted acres over the past 4 years. Three types of insurance coverage accounted for the great majority of insured wheat acreage through the 2000/01 crop year: Actual Production History (APH) “buy-up” coverage, which provides a higher level of yield-based protection; “catastrophic” (CAT) coverage, which provides a lower level of yield-based protection; and Crop Revenue Coverage (CRC), a revenue-based product. CAT coverage is declining in importance, while revenue insurance is becoming more prominent. Based on preliminary sign-up results for the 2001/02 crop, the changes in premium subsidy rates established by the Agricultural Risk Protection Act (ARPA) of 2000 are prompting a shift toward use of revenue insurance and higher coverage levels. Insurance premium subsidies have topped \$150 million in 4 of the past 5 years, and most farmers will have over 50 percent of their premiums subsidized under ARPA.

**Export Assistance and Food Aid.** The U.S. dollar remains strong, which limits the competitiveness of U.S. wheat exports. In the past, the United States has used direct export subsidies to promote wheat exports, but this activity has been suspended. The United States does promote wheat exports through the credit guarantee program. Now, however, officially supported

export credits are a point of contention in international trade discussions and this may affect the use of such support for U.S. wheat exports.

U.S. food assistance programs donate agricultural products directly to individual countries with food aid needs. The United States provides food assistance through Public Law 480 (Food for Peace) and the Food for Progress Program. Title I of P.L. 480 finances sales of commodities under long-term credit arrangements to developing countries with insufficient foreign exchange. Title II provides for donations for emergency food relief and non-emergency humanitarian assistance to international organizations such as the World Food Program and to recipient governments. Title III grants food assistance to support development programs in least developed countries. Section 416(b) of the Agricultural Act of 1949, as amended, provides for donations of CCC-owned surplus commodities to developing countries, and Food for Progress authorizes the donation or sale of food aid commodities to assist developing countries that are implementing market-oriented policy reform. Presently, most of the CCC-owned stocks are in the Bill Emerson Humanitarian Trust (formerly, the Food Security Commodity Reserve) and, thus, are available for humanitarian purposes.

Total U.S. wheat exports receiving some concessional assistance averaged 75 percent in the first half of the 1990s. In the last half of the 1990s, the coverage has averaged 25 percent, chiefly due to the ending of Export Enhancement Program (EEP) activity.

### Policy Choice Continuum

A wide range of ideas have historically emerged regarding how to address the challenges facing wheat farmers and other stakeholders in farm bill debates. Generally, these ideas fall into one of three views on policy choices. One view favors a combination of support programs with no supply controls; the second view favors supply controls; and the third view favors a more market-oriented policy.

**Existing Support Programs.** Existing programs in 2001 combine market-oriented provisions with safety net approaches when prices fall to low levels. Proponents of modifications of existing support programs for the 2001 farm legislation base their recommendations on the agricultural market conditions since the enactment of the 1996 Farm Act. In their view, the promise of increased market access and rising exports for U.S. commodities has not been realized, and risk management programs have been inadequate to address price and production losses over the past several years, resulting in emergency assistance payments. Proposals from these groups have all recommended some type of countercyclical income support program, although details vary on trigger mechanisms and payment formulas. Most proponents of the existing support programs have favored continued use of the current PFC payments.

While most also favor maintaining the current marketing loan program, there is pressure to adjust wheat loan rates upward to rebalance the relationship with the level currently set for soybeans. Many suggest changes to increase flexibility in the operation of the marketing loan and loan deficiency payment programs, including allowing for pre-harvest lock-in of LDP rates, allowance for payments on grazed-out wheat acreage, ending the requirement of PFC payment eligibility to receive LDPs, and extending sign-ups and final dates for requesting LDPs through the marketing year.

**Supply Control Programs.** A second view, which was quite popular from the 1930s through the early 1990s, recommends adoption of supply control programs to manage surpluses. Although there are relatively few advocates of this approach in 2001, its proponents believe trade forecasts were too optimistic when the 1996 Farm Act was enacted, overstating access to inter-

national markets as outlets for surplus domestic production. Their proposals include a voluntary supply control program that would provide higher marketing loan rates in return for fallowing land, as well as reauthorization of farmer-owned reserves, to assure adequate stocks and to provide a risk management tool for farmers.

**Market-Oriented Policy.** A third view is for more market-oriented farm policy. The proponents of a market-oriented farm policy broadly suggest that income support programs are not needed since large farms produce adequate income, small farms depend on off-farm income rather than on farm programs, and mid-size farms need assistance to transition either to more profitable sizes or out of farming into more profitable enterprises. Some in this camp oppose establishing a new countercyclical income support payment, arguing it would be absorbed into land prices and rents, as is the case with current programs.

More than 75 percent of the value of all farm business assets is in real estate, and its value is primarily based on the income it generates. Its value in agriculture reflects the present value of the expected agricultural income. Since program payments are one part of agricultural income, the capitalized value of future program payments is part of the real estate value. If program payments were to be phased out, the value of farm real estate would decline to a level that is justified by market income.

Despite the wide range of differences on program direction, there is agreement on some issues. These include improved access to foreign markets and the exclusion of food from unilateral sanctions. In addition, proposals have been made for increased research in numerous areas, including biotechnology, food safety, disease prevention, and environmental quality. Also, there is a recognized need for programs to assist farmers in meeting conservation goals and environmental mandates. Recommendations include increased technical assistance, cost-share programs, and incentive payments for use of environmentally friendly practices.

### Cost Competitiveness and Policy Choice

Financially efficient producers tend to have low overhead costs per unit of output, as can be seen in the cumulative cost curves presented earlier. Operating

costs across a wide range of producers are not much different. Producers with low overhead costs tend to favor policies that make the most of their cost advantage (often stemming from economies of scale) by permitting them to produce without restrictions on output, acreage or crop choices. Any direct payments that provide unit returns in excess of their average operating cost encourage production beyond the point that would maximize profit in a free market. These policies allow such farmers to easily expand their operations, facilitating the trend toward larger and fewer wheat producers.

High-cost farmers typically have high overhead costs per unit of output and have difficulty covering these costs when wheat prices are low. These producers tend to prefer supply controls. When supply restrictions raise prices, a larger fraction of their overhead costs are covered by market returns. Policies that do not restrict production and maybe even encourage additional output penalize them because their overhead costs are unchanged but the market price is driven down as low-cost producers expand supply.

### **World Trade Organization (WTO) Obligations and U.S. Wheat Policy**

The form in which government payments and other benefits are provided to the wheat sector is important because of the obligations of the United States under the Uruguay Round Agreement on Agriculture (URAA). The total amount of support from all U.S. programs of certain types is limited to a specified maximum amount under the URAA (\$19.1 billion in 2000). The covered programs are those considered to have the most potential for production and trade distortion, and are called “amber box” payments.

Examples of amber box programs for wheat producers include loan deficiency payments, marketing loan gains, and other benefits related to the commodity loan program for wheat. In these cases, the benefits paid to a producer of wheat depend on his or her current level of wheat production and the current market price of wheat relative to the announced loan rate.

Wheat producers also benefit from the crop and revenue insurance program, which is likewise considered

to be a production-distorting amber box program under the URAA. However, this program is implemented using non-commodity-specific (generic) provisions, so it would count toward the U.S. upper limit on agricultural support only if the total benefits from all non-commodity-specific amber programs exceed 5 percent of the total value of agricultural production in the United States (the *de minimis* provision), something that has not yet happened.

Support to the wheat sector also comes from programs considered to be the least distorting to production and trade, called green box programs. Benefits from these programs do not count toward the limits on total U.S. support levels. Examples include environmental, conservation, and resource retirement program payments in which producers agree to use certain production or conservation practices. The Conservation Reserve Program (CRP) is included here.

PFC payments to wheat producers are also considered to be green box because the payment method conforms to URAA criteria for “decoupled” payments. The amount of the producer’s PFC depends on past program participation and does not depend on the current level of market prices, production, or resources. Hence the payments are decoupled from production, prices, and resource use.

Recent market-loss assistance (MLA) payments are distributed on the same basis as the PFC payments. The United States has notified the WTO that crop MLA payments mandated by recent emergency legislation are non-product-specific amber box payments. As with the green box PFC, each producer’s share of the total amount of MLA available in a given year is determined by past program participation and not by current production or resource use. MLA payments are distributed, in fact, in proportion to PFC payments. However, the PFC totals were predetermined by the 1996 Farm ACT while the MLA payments were legislated annually in response to recent market price experiences. Consequently, the MLA payments may be assumed to be related to market prices after the PFC (or WTO) base period, making the MLA ineligible for the green box.