

No. 2008-09-A



OFFICE OF ECONOMICS WORKING PAPER
U.S. INTERNATIONAL TRADE COMMISSION

The Impact of Export Restraints on Rising Grain Prices

Kendall Dollive*

U.S. International Trade Commission

September 2008

*The author is with the Office of Economics of the U.S. International Trade Commission. Office of Economics working papers are the result of the ongoing professional research of USITC Staff and are solely meant to represent the opinions and professional research of individual authors. These papers are not meant to represent in any way the views of the U.S. International Trade Commission or any of its individual Commissioners. Working papers are circulated to promote the active exchange of ideas between USITC Staff and recognized experts outside the USITC, and to promote professional development of Office staff by encouraging outside professional critique of staff research.

Address correspondence to:
Office of Economics
U.S. International Trade Commission
Washington, DC 20436 USA

The Impact of Export Restraints on Rising Grain Prices

Kendall Dollive
U.S. International Trade Commission

September 2008

COMMENTS WELCOME

Abstract

Commodity prices in maize and wheat have risen by more than 50 percent since 2006. While much of this increase reflects increasing demand and some constraints on supply, another factor contributing to the rising prices is the export restraints implemented by major grain exporting countries, such as China, Ukraine, and Argentina. While these measures are intended to keep domestic prices low, they tighten global supply and put upward pressure on prices for importers. This report presents quantitative evidence of the impact of export restrictions on the global agricultural market by evaluating these recent cases of export restraints using available monthly and annual trade data. When an exporting country enacts restrictive measures, their importing partners must often purchase grain from other exporters, causing more intense competition for the remaining available supplies. The impact of export restraints in these cases suggests that governments should use them cautiously.

This paper was written while in residence at the U.S. International Trade Commission Office of Economics during the summer of 2008. The author welcomes comments via email at ked42@georgetown.edu. The views expressed in this paper represent solely those of the author and do not represent the views of the U.S. International Trade Commission or any of its Commissioners. Helpful comments from Michael J. Ferrantino and John Fry are acknowledged. Mistakes are that of the author.

Introduction

Over the past two years grain prices have increased rapidly. Between January 2007 and April 2008, wheat prices rose by more than 70 percent and maize prices by more than 50 percent.¹ Many low-income nations have contended with protests and riots as their citizens have seen more of their limited income directed towards food costs. In an attempt to understand and address the rise in prices, much attention has been brought to bear on the factors contributing to the problem.

Developing and developed nations alike have demanded more grain for food and fuel, but supply growth has not kept pace.² As per capita income rises in China, India, and other developing nations, their citizens consume more of their staple foods. In addition, they upgrade their diet to more complex proteins, including meat and dairy, inducing an indirect increase in demand for primary crops as inputs.³ Moreover, the United States and the European Union (EU) have accelerated their bio-fuel programs, further increasing demand for grains and encouraging farmers to shift production towards bio-fuel feedstock.⁴ Some nations have engaged in grain hoarding to ensure domestic supply, limiting global availability and contributing to the price increases. On the supply side, during the 1980's spending for R & D on high yielding varieties was reduced, resulting in diminished growth rates in crop yields, which have not kept pace with population growth rates.⁵ Also, the rapid growth in the price of oil and other inputs has increased farmers' production costs. Inclement weather and droughts have the potential to further reduce grain output in a crop season. Some have also suggested that financial sector speculation accelerated the pace of price volatility.⁶

¹ "The New Face of Hunger." *The Economist*. Apr 17, 2008.

² Due to changes in the exchange rates, especially with regards to the U.S. dollar, there has been a shift in relative demand between the United States and other countries for crops from different sources. For more information, see Ronald Trostle.

³ Ronald Trostle. "Global Agricultural Supply and Demand: Factors Contributing to the Recent Increase in Food Commodity Prices." United States Department of Agriculture (May 2008): 7.

⁴ Ronald Trostle. "Global Agricultural Supply and Demand: Factors Contributing to the Recent Increase in Food Commodity Prices." United States Department of Agriculture (May 2008):17.

⁵ "The New Face of Hunger." *The Economist*. Apr 17 2008.

⁶ Ronald Trostle. "Global Agricultural Supply and Demand: Factors Contributing to the Recent Increase in Food Commodity Prices." United States Department of Agriculture (May 2008): 21.

However, this report seeks to explore another price increasing factor: export restraints. Many major grain exporters have implemented export restraints in an attempt to keep domestic prices low. These measures eventually reduce the supply of grain available on the international market, creating price dislocations. With sufficient care, these impacts on global markets can be teased out of recent, high frequency trade data (i.e. monthly). Evaluating monthly trade statistics of export restricting countries often reveals a reduction in trade. Consistent trade partners receive less grain than usual, and so compensate by importing from other trade partners, creating an effect that trickles throughout the market. To demonstrate the impact of trade restrictions, this report first discusses the economic logic behind export restraints. Lending evidence to the economic theory, the report follows with an evaluation of the trade statistics in China's maize market and in Ukraine and Argentina's wheat market.

Export Restraints

Some grain exporting nations have available several techniques to discourage the export of grain to keep domestic prices low. Before nations begin to discourage exports, they first eliminate export incentive programs. For example, in December 2007, China eliminated the 13 percent grain export rebate on value-added taxes.⁷ Many nations including China, Russia, Argentina, and Kazakhstan also implemented export taxes. For instance, on January 29, 2008, Russia levied a 40 percent export tax on wheat traveling to all nations other than those in their customs union.⁸ Other regimes prefer to utilize export restraints that provide them with more direct control. In these cases, countries set quantitative restrictions (a quota) on the amount of grain allowed to be exported or establish an export prohibition. They maintain control over how much grain is exported through a licensing or registration system. Many nations including Argentina, China, Kazakhstan, India, Vietnam, Indonesia, Ukraine, Egypt, Cambodia, and Serbia, to name a few, have used this method. Oftentimes, countries will announce an export ban on a certain product. While these measures may sound export prohibitive, they are rarely absolute. Usually bans prohibit the signing of new export contracts or are simply export quotas.

⁷ "Situation Report-December 2007: U.S. 2007/2008 Grains and Oilseeds Outlook." *Cereals and Oilseeds Review*. Canada National Statistical Agency. 30.12 (2007).

⁸ "Situation Report-February 2008: U.S. 2008/2009 Grains and Oilseeds Outlook." *Cereals and Oilseeds Review*. Canada National Statistical Agency. 31.1 (2008).

Export restraints represent a form of national grain hoarding. Countries implement export restraints to ensure themselves adequate supply and to keep domestic prices low. The countries who have used export restraints recently have primarily been net exporters.⁹ By limiting exports, the government partially isolates itself from the global market. It increases domestic grain supply and lowers domestic prices. When the country is a net exporter, the export restraints also limit global supply and push up international prices. These effects can be achieved by export taxes as well as quotas and prohibitions.

These policies have a particular effect on common trade partners. When a country restricts its exports, common partners must purchase grain from other exporters. They are likely to pay higher prices, increasing global prices and affecting others. For example, when South Korea receives less maize than usual from China, it must import more maize from other sources. Therefore, South Korea may increase its imports of maize from the United States, increasing its demand for U.S. maize and pushing up prices. Common export partners of the United States may turn elsewhere for cheaper maize, increasing demand for another country's exports with similar effects. Over time the effects of an export restraint seeps through the global market, impacting more than just the trade restricting country's partners.

Case Studies

China, Argentina, and Ukraine provide examples of the impact that export restraints have on partner countries. Their export restraints are visible in their trade statistics and the impact flows down to importing countries, thereby influencing the global market. Nonetheless, the implications are not without their caveats.

It is important to note that many factors can impact trade. For example, rice trade between China and the Philippines may be primarily affected by Chinese agricultural output and the health of the Philippine economy not necessarily China's export taxes. However, in the following cases, the changes in the trade statistics at the time of export restraint implementation are significant enough to suggest an impact. A further challenge involves the exact nature of an export ban.

⁹ Exceptions include African nations such as Liberia, who banned rice exports to stop re-exportation to its neighbors.

Although news media may report an export ban, a country may have only banned the signing of new contracts or established a licensing system.

In delving into the trade statistics, several challenges arise. For example, many of the export restraints policies came into effect in 2008, which is too recent for published trade data. Some report monthly data; however, they are restricted to the EU, United States, Thailand, Taiwan, China, Mexico, India, South Korea, Brazil, Japan, Canada, and Hong Kong. Two central issues arise in using monthly data. First, the trade flow for developing nations may not be observable on a monthly basis. Therefore, for other countries, it is necessary to infer trade information from the monthly partner data. However, because so few countries report monthly data, the reported imports may not be representative of a partner's exports. The other large issue is that data reported by importers and exporters are rarely the same.¹⁰ Moreover, in monthly data there is a high level of volatility and noise complications.

China and Partners

China enacted several export restrictions in an attempt to reduce domestic prices on maize, wheat, and soybeans. In the second half of 2007, China stopped issuing new export quotas for wheat and maize, which effectively prevented the signing of new export contracts without special approval.¹¹ Also, on December 20, 2007, China removed the 13 percent rebate on value-added taxes for major grain exports.¹² In January 2008, China imposed export taxes on grains and grain powders. Maize, rice, and soybeans faced a 10 percent tax.¹³ China also issued export quotas for grain flour, which had increased production once China issued export restraints on wheat and maize.¹⁴

¹⁰ O. Morgenstern. "On the Accuracy of Economic Observations: Foreign Trade Statistics." ed. J. N. Bhagwati. *Illegal Transactions in International Trade*. Ch. 7.

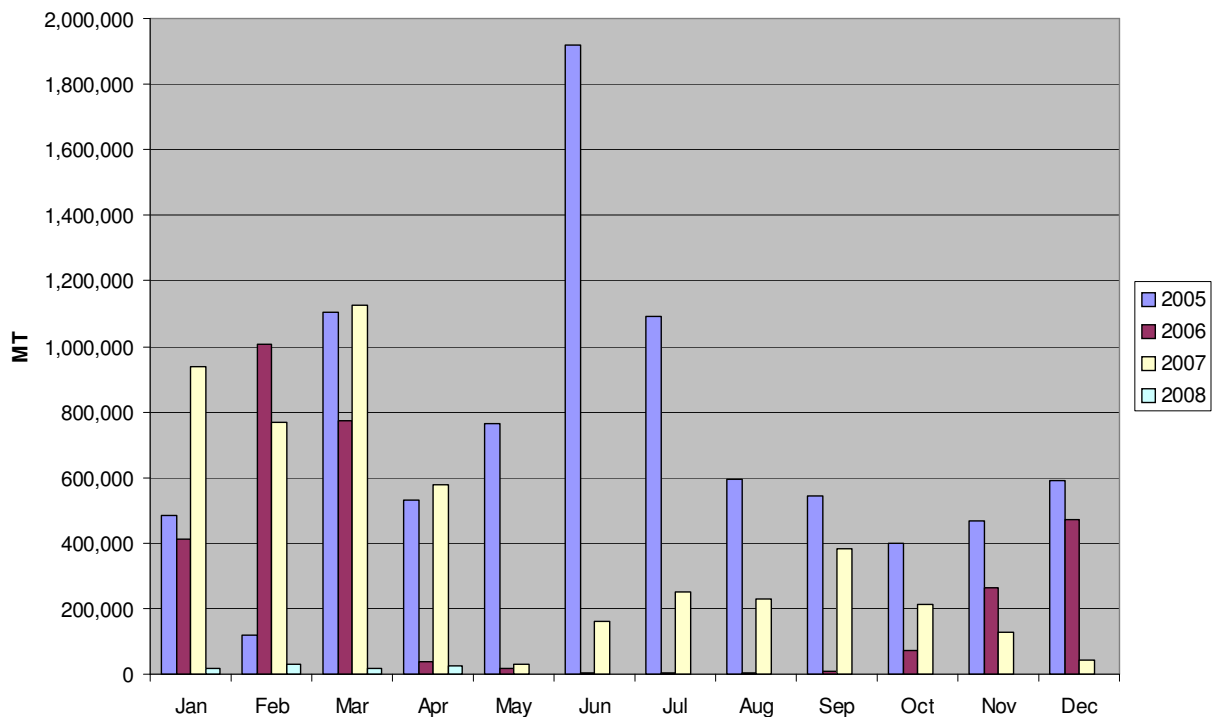
¹¹ "China Tax, Quotas to Hurt Wheat Flour Exports." *Daily Times*. Jan 3, 2008.

¹² "Situation Report-December 2007: U.S. 2007/2008 Grains and Oilseeds Outlook." *Cereals and Oilseeds Review*. Canada National Statistical Agency. 30.12 (2007).

¹³ Vivian Wai-yin Kwok. "China Further Curbs Grain Exports with Quota." *Forbes.com*. Jan 2, 2008.

¹⁴ Niu Shuping. "China Sees Record 2008 Wheat, Maize Harvest." *Reuters*. Jul 4, 2008.

Figure 1
Monthly Chinese Maize Exports: Jan 2005 to May 2008¹⁵



As demonstrated in Figure 1, Chinese maize exports began to decrease significantly in late 2007, and through May of 2008, maize exports were a small percentage of the prior year's exports, with no maize exports in May 2008. This significant change in export behavior cannot be explained by changing domestic maize output. In fact, according to China National Grain and Oils Information Center (CNGOIC), China's maize output should reach 154 million metric tons (MT) in the period of October 2007 to September 2008, a 6.9 percent increase from the previous year.¹⁶ Although many believe this estimate to be slightly optimistic, maize output is still expected to be higher than the 144 million MT output of 2006/2007.¹⁷ CNGOIC estimated that the recovery of the Chinese feed industry would compose most of the increase in domestic maize demand for the 2007/2008 growing season.¹⁸ However, domestic maize consumption growth still cannot completely explain the decline in maize exports for 2008, especially given the

¹⁵ All following tables and charts are compiled from trade statistics from Global Trade Atlas produced by Global Trade Information Services, Inc, downloaded in July of 2008.

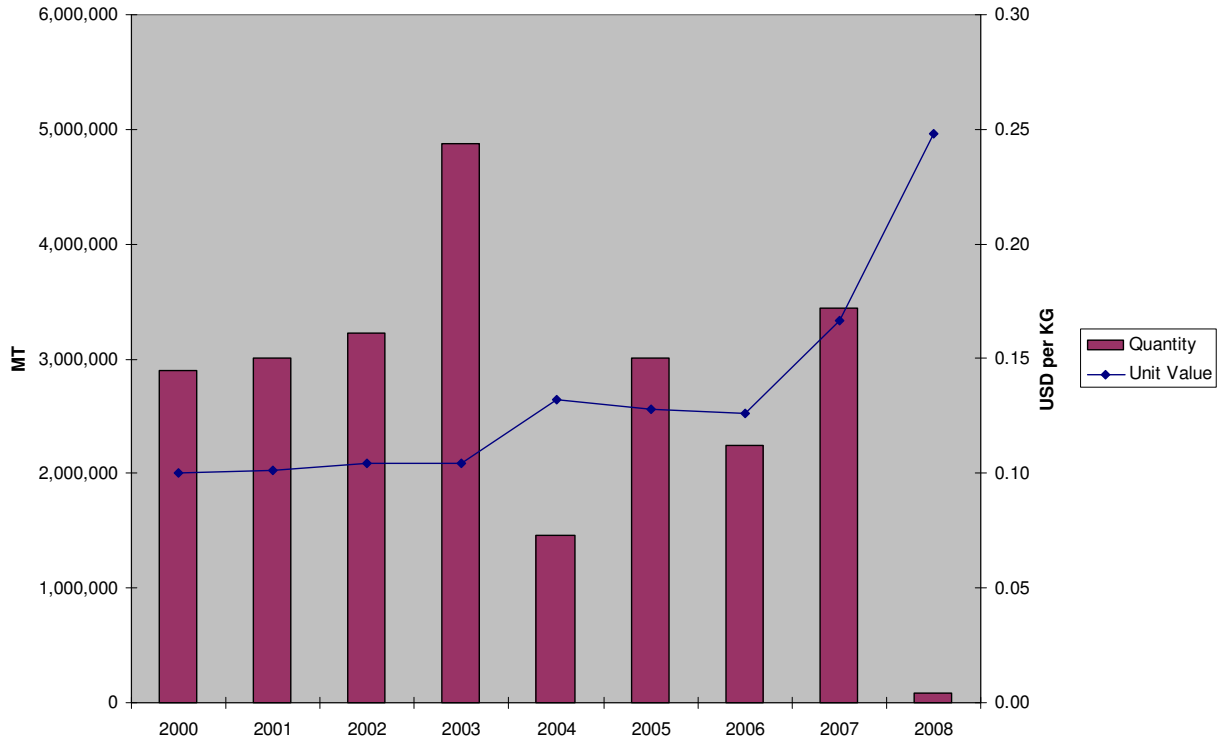
¹⁶ Niu Shuping. "China Sees Record 2008 Wheat, Maize Harvest." *Reuters*. Jul 4, 2008.

¹⁷ "China's Maize Output Is Expected to Reach 148 Million Tons in the Period of October, 2007 to September 2008." *Business Wire*. Dublin, Ireland. Apr 8, 2008.

¹⁸ "China's Maize Output Is Expected to Reach 148 Million Tons in the Period of October, 2007 to September 2008." *Business Wire*. Dublin, Ireland. Apr 8, 2008.

increase in maize output. Another more likely answer is that China stopped issuing new export contracts in late 2007, resulting in the unusual decline in exports in November 2007 extending into 2008.

Figure 2
Chinese Maize Exports: Jan to May



As Figure 2 reveals, China's 2008 maize exports for January through May were the lowest in the last nine years. In comparing the first five months of 2008 and 2007, China's exports declined by 97.4 percent. In fact, 2008's exports were still 93.9 percent less than 2004, the previous low for maize exports since 2000.

Table 1

China's Maize Jan-May Exports in 1000's of MT*			
Partner Country	2006	2007	2008
Canada			0.56
Hong Kong	2.86		
Indonesia		310.23	
Iran	57.01	62.91	
Japan	252.71	431.85	2.30
North Korea	14.03	7.04	46.27
South Korea	1,556.60	2,218.82	
Malaysia	216.13	394.90	
Philippines	58.27		
Russia	0.08	0.07	
Seychelles	3.12		
Switzerland			6.32
Taiwan			26.24
Togo	2.43		
United Kingdom		2.99	6.92
United States			0.87
Vietnam	84.57	12.73	
Grand Total	2,247.81	3,441.54	89.47

When China restricted its 2008 exports, it greatly reduced its exports to some of its consistent trading partners. As demonstrated in Table 1, China's largest export market in the early months of 2006 and 2007 was South Korea, making up 64.5 and 69.2 percent of China's maize exports respectively. However, in 2008, China stopped exporting to South Korea completely. Japan received a fraction of its 2007 imports, whereas Malaysia, Iran, and Vietnam did not import any maize from China. Instead, China concentrated its limited maize exports on North Korea and Taiwan, 51.7 percent and 29.3 percent respectively, probably for reasons other than economic. In Taiwan's case, the Chinese government agreed to export the maize in April 2008 after relations improved.¹⁹

* Blank cells indicate no trade statistic reported. Cells containing 0.00 indicate that a trade statistic was reported, but too small to appear.

¹⁹ Niu Shuping. "China Sees Record 2008 Wheat, Maize Harvest." *Reuters*. Jul 4, 2008.

Table 2

South Korea's Maize Jan-May Imports in 1000's of MT*			
Partner Country	2006	2007	2008
Argentina	0.07	27.80	0.08
Brazil	22.78	243.37	31.82
China	1,506.63	2,132.96	80.59
India			248.77
Indonesia			6.03
Japan		0.00	0.00
Malaysia		0.00	
Myanmar			0.73
United States	1,836.56	1,403.49	3,832.57
Grand Total	3,366.03	3,807.62	4,200.60
Unit Price in USD/KG	0.14	0.19	0.30

South Korea's reported import statistics further demonstrate the impact of China's export restraints on its main trading partners. In 2007, China was South Korea's largest maize importer. However, in 2008, South Korea's imports from China dropped by 96.2 percent. South Korea diversified its trading partners, adding India and Indonesia. It also greatly expanded its U.S. imports by 173.1 percent. South Korea comprised 6.9 percent of U.S. maize exports in the first five months of 2007 in comparison to 15.5 percent in 2008. By reducing its exports to South Korea, China facilitated an increase in South Korean demand for U.S. maize, pushing up the price.

Table A-1 in the Appendix tells a similar tale of Japan's import statistics, though less dramatically. In the first five months of 2007, maize imports from China only composed 5.4 percent of Japan's maize imports with 94.3 percent from the United States. Nonetheless, importing less from countries with export restraints like China and Argentina took a toll. Japan turned to other nations to import more, expanding its trade with Indonesia, Peru, and the United States. It also imported from other countries like India, Canada, and Vietnam for the first time in eight years.

Unfortunately, monthly trade statistics are not available for many of China's consistent trading partners. However, the available partner data does reveal that China's usual trading partners had

* Blank cells indicate no trade statistic reported. Cells containing 0.00 indicate that a trade statistic was reported, but too small to appear.

to find maize elsewhere, potentially pushing up the price as they competed for more maize from other sources. Therefore, when the Chinese government decided to enact trade restrictions to ensure domestic supply, its impact extended beyond its borders, affecting trading partners and even the entire global market.

Ukraine and Partners

Ukraine engaged in wheat export restraints throughout 2007 in an attempt to combat the impact of their drought and to keep local bread prices low. The drought dropped wheat output from 34.3 million tons in 2006 to an estimated 33.3 million tons in 2007.²⁰ In response, the Ukrainian government established a grain export ban on March 1, 2007.²¹ In late September, Ukraine announced it would license wheat export from November 2007 through March 2008, allowing a quota of 200,000 MT.²² Although the measure loosened the wheat ban, the government still retained tight control through the quota. In April 2008, Ukraine announced that it would expand its export quotas to allow 1.2 million MT to be exported in the next 2 months.²³

²⁰ Pavel Polityuk. "Ukraine Drought Threatens Grain Crop, Quotas Loom." *Reuters*. May 30, 2007.

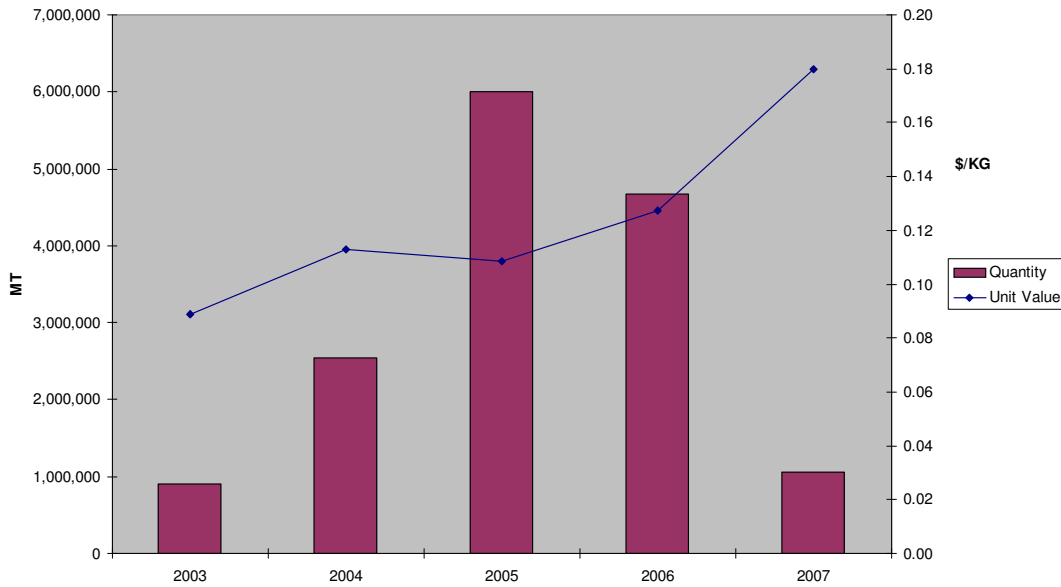
²¹ "Ukraine Grain Import Ban Lifts Partially, Still Tight." *Deutsche Presse-Agentur. Business News*. Sep 26, 2007.

²² "Ukraine Cancels Grain Export Quotas and Extends Quotas on Exports of Sunflower Oil." *Interfax-Ukraine*. Apr 23, 2008.

²³ "Kiev Move Sees Wheat Price Fall." *Financial Times*. Apr 25, 2008.

Figure 3

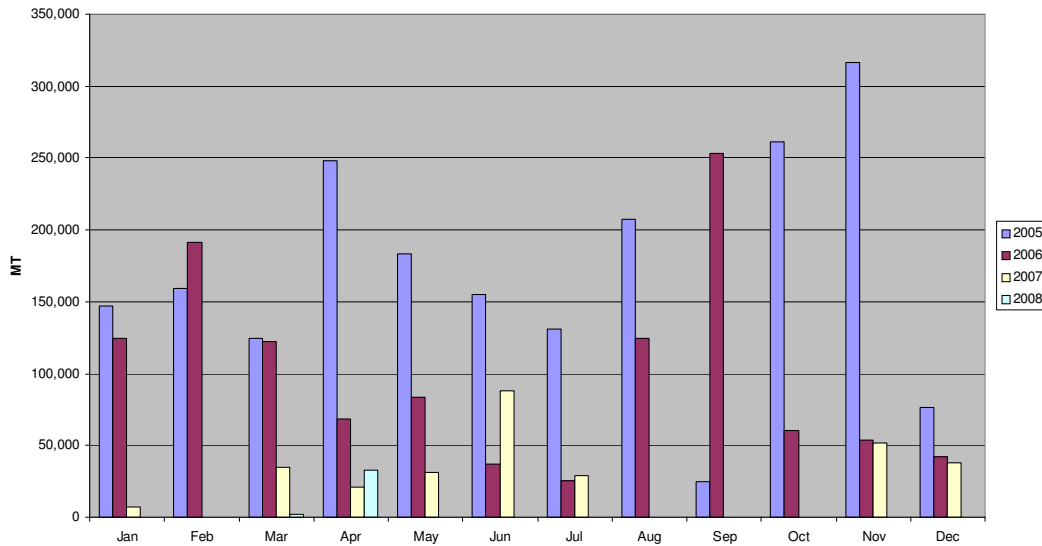
Annual Ukraine Wheat Exports



Ukraine only reports trade statistics annually. However, because the restriction took effect in 2007, the impact can still be seen in Ukraine’s annual reported data. Although 2007 exports are 17.6 percent larger than 2003 exports, Figure 3 still demonstrates a significant decline of 77.4 percent between 2006 and 2007.

To use monthly statistics, one must rely on partner countries importing from Ukraine, which, given the few countries who report monthly data, primarily means the EU, India, South Korea, and Taiwan. According to Ukraine’s trade statistics, these nations only made up 23.7 percent of Ukraine’s exports in 2006 and 19.3 percent in 2007. Therefore, the monthly import data may not reflect Ukraine’s actions towards the other 80 percent of its exports. On the other hand, Ukraine’s annual data clearly reveals a large reduction in exports, indicating the influence of export restraints. Analyzing the monthly data provides insight into when and how not only the EU but also other trading partners may have been affected by export restraints.

Figure 4
Monthly Imports of Ukrainian Wheat: Jan 2005 to Apr 2008*



Based on monthly data for select partners in Figure 4, Ukraine’s exports were unusually low in 2007. From August 2007 to October 2007, Ukraine did not export any wheat to the nations reporting monthly statistics. Because Ukraine established a wheat export ban in March 2007, one might expect that much less wheat would have been exported in the period between March 2007 and November 2008. However, the “ban” may only have halted the signing of new export contracts, which means that contracts already signed for 2007 could still be fulfilled. Moreover, there is a lag in time between when a good is exported from Ukraine and when it arrives at its destination, and so is reported in import data. Nonetheless, Ukraine exported a significantly reduced amount of wheat during the export ban between March 2007 and November 2007 in comparison to the previous two years. Taiwan, India, South Korea, and the EU report receiving grain once the restrictions were loosened in November 2007. The EU reported receiving more wheat once the restrictions were further loosened in April 2008. These countries had not reported trade statistics past April 2008 at the time of this report.

* Reflects monthly imports of Ukrainian wheat for the EU, United States, Thailand, Taiwan, China, Mexico, India, South Korea, Brazil, Japan, Canada, and Hong Kong.

Table 3

Ukraine's Annual Top 25 Wheat Exports in 1000's of MT*			
Partner Country	2005	2006	2007
Albania	28.03	67.87	3.00
Algeria	353.00	84.40	
Bangladesh	80.73	415.00	35.08
Belarus	28.79	51.66	0.24
Egypt	142.00	484.00	180.00
Hungary	286.00	63.58	0.37
India		326.00	
Indonesia	315.00	58.75	
Israel	546.00	471.00	269.00
Italy	336.00	354.00	19.15
Jordan	104.00	52.50	
Kenya	117.00	180.00	134.00
Korea South	348.00	81.19	
Libya	164.00	41.70	
Mauritania	75.08	51.04	17.55
Morocco	325.00	63.78	3.50
Peru	36.49	94.27	
Philippines	142.00	96.79	
South Africa	49.07	45.30	
Spain	1,420.00	266.00	158.00
Syria	28.45	90.85	12.60
Tunisia	482.00	274.00	111.00
United Arab Emirates	53.68	29.30	
United Kingdom	24.91	324.00	3.57
Yemen	96.92	324.00	37.58
World	6,004.35	4,669.01	1,056.65

As demonstrated in Table 3, every country either faced great reductions in their imports from Ukraine or received no imports at all. For example, Italy, who had imported more than 300 thousand MT in 2005 and 2006, only imported 19 thousand in 2007. Israel imported 200 thousand MT less in 2007 than in the previous year. Of Ukraine's total trade partners in 2007 (available in Table A-2 of the Appendix), Ukraine did not export to 20 countries that had received Ukrainian wheat in the previous two years.

Trading partners looked elsewhere for grain imports, many turning to the other major exporters including the United States, Canada, France, Australia, and Argentina. Many of Ukraine's trading partners also turned to Russia and Kazakhstan, in particular. For example, Italy imported

* Blank cells indicate no trade statistic reported. Cells containing 0.00 indicate that a trade statistic was reported, but too small to appear.

more from Russia, Kazakhstan, Canada, and Croatia, but its imports still fell by 15.7 percent from 2006 to 2007. Egypt, Israel, Tunisia, and Yemen all increased their imports from Russia and Kazakhstan. These countries are some of the Ukraine’s biggest export markets. Likewise, Egypt, Italy, and Tunisia are some of Kazakhstan and Russia’s biggest export markets. Between 2006 and 2007, Egypt’s imports from Ukraine fell by 304 thousand MT. However, Egypt increased their imports from Kazakhstan and Russia by 303 thousand MT and 1,670 thousand MT, respectively. Some of Ukraine’s trading partners had never imported from Kazakhstan before 2007 like Algeria, Albania, Saudi Arabia, Tunisia, Switzerland, and the United Kingdom.

Russia and Kazakhstan provide an interesting example, because their exports grew significantly in 2007. Many factors may have contributed to their export growth; however, export restraints in countries like Ukraine may have been a part of this growth. As demonstrated in Figure 5 and 6, Russia’s exports increased by 47.9 percent and Kazakhstan’s exports increased by 53.4 percent.

Figure 5

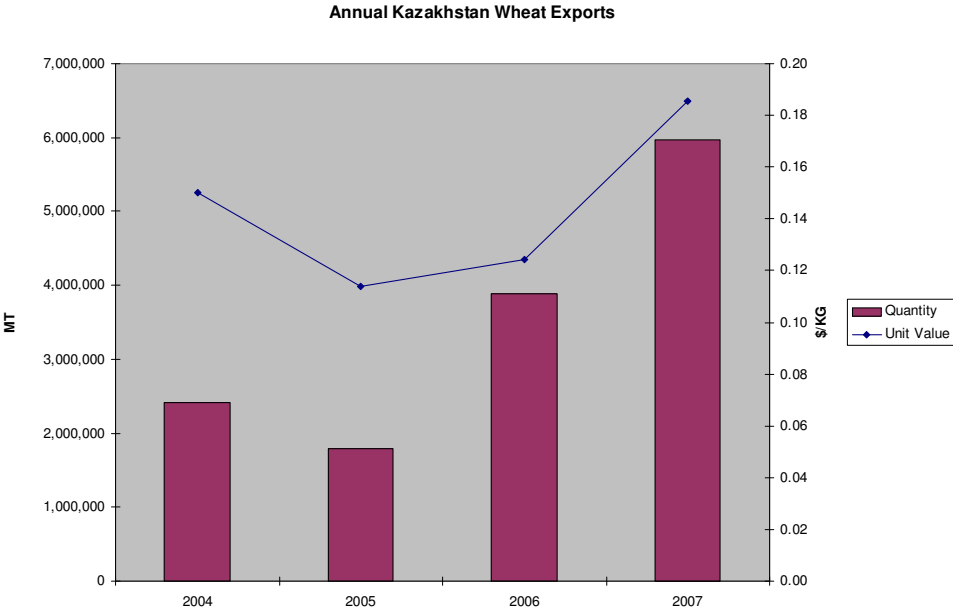
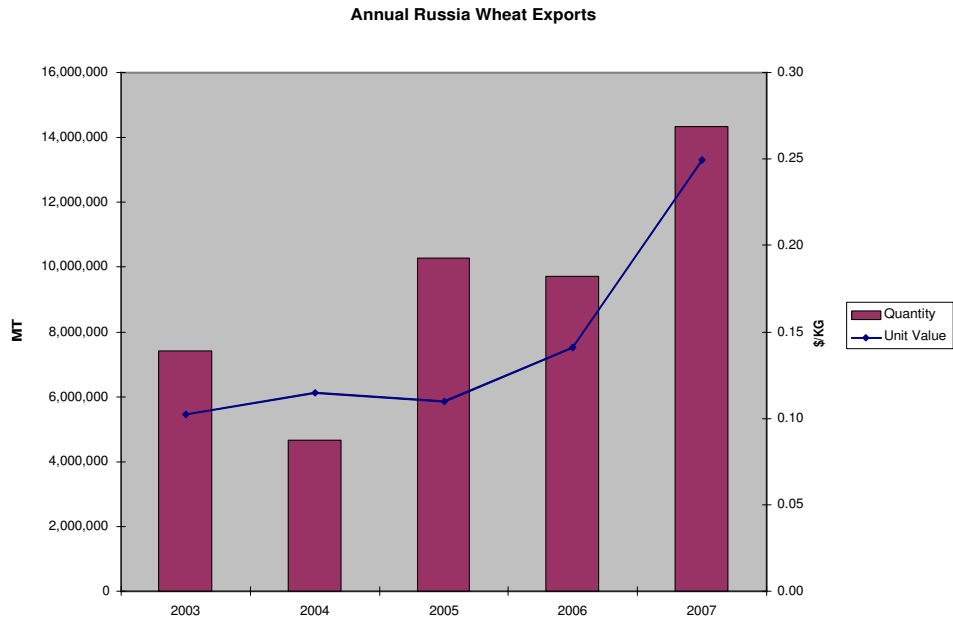


Figure 6



By 2008, Russia and Kazakhstan also implemented export restraints. In 2006-2007 and in 2007-2008, Russia, Kazakhstan, and Ukraine’s combined stocks-to-use ratio was a low of 6.2 and 7.4 percent respectively, in comparison to their ten-year average of 12.1 percent.²⁴ Their record exports in 2007 contributed to low stocks-to-use ratio, which played a role in Russia and Kazakhstan’s decision to enact export restraints. In late January 2008, Russia announced that it would levy a 40 percent export tax on wheat for exports bound outside of its customs union.²⁵ In February, Russia tightened the export restraint, extending the export tax to its customs union to prevent the circumvention of the tariff by export through Kazakhstan or Belarus.²⁶ Kazakhstan followed suit in March, when it also levied export taxes on wheat.²⁷ It went further by banning wheat export from April 15, 2008 until September 1, 2008 to discourage the export of wheat and boost domestic mill production.²⁸ Therefore, Ukraine’s export restrictions not only forced partners to look else where for grain, but also may have contributed to other countries decisions

²⁴ Agriculture and Agri-food Canada. “Wheat Situation and Outlook.” 21.8. (2008).

²⁵ “Situation Report-January 2008: 2008/2009 Grains and Oilseeds Outlook.” *Cereals and Oilseeds Review*. Canada National Statistical Agency. 31.1 (2008).

²⁶ “Situation Report-January 2008: 2008/2009 Grains and Oilseeds Outlook.” *Cereals and Oilseeds Review*. Canada National Statistical Agency. 31.1 (2008).

²⁷ “Situation Report-January 2008: 2008/2009 Grains and Oilseeds Outlook.” *Cereals and Oilseeds Review*. Canada National Statistical Agency. 31.1 (2008).

²⁸ “Kazakhstan’s Government Decides to Ban Wheat Exports.” *Reliefweb*. Apr 30, 2008.

to use export restraints creating a cascading effect, further limiting the supply and affecting the entire global market.

Argentina and Partners

Argentine exporters also faced export restraints and domestic problems, which stymied the export of wheat and other agricultural products. Beginning as early as March 2007, Argentina closed its export registry for wheat, effectively restricting wheat export.²⁹ The registry was reopened in November. The exporters rushed to register, expecting the change to be temporary.³⁰ Based on a law put into effect that month, exporters had to complete their export within 45 days of registration, as opposed to the 365-day window previously in effect.³¹ The convergence of these factors caused a large amount of grain to be exported in January of 2008. Later in November, Argentina raised the export taxes on soybeans (35 percent), maize (25 percent), and wheat (28 percent).³² In December, Argentina closed the registries indefinitely in order to increase domestic grain supply and to assess the crop damage of a recent frost.³³ In January, Argentina promised to partially open its wheat export registry by limiting the export of wheat to 400,000 MT per month.³⁴ However, by mid-February, Argentina had once again closed the registries. After several closure extensions, Argentina announced it would end the ban in May.³⁵ In addition, in June, Argentina allowed 1 million MT of wheat to be exported, half of which went to Brazil.³⁶ To contest the export taxes and other domestic policies, Argentine farmers led various strikes from March until June 2008. The strikes complicated exports and further tightened the local supply of wheat.

²⁹ Jude Webber and Javier Blas. "Argentina to Resume Wheat Exports." *Financial Times*. Nov 1, 2007.

³⁰ Matthew Craze and Bill Faries. "Argentina Frees Up 1 Million Tons of Wheat for Export." *Bloomberg.com*. Jun 11, 2008.

³¹ Daniel Volberg and Gray Newman. "What Farmer Strike?" *Morgan Stanley-Global Economic Forum*. Jul 15, 2008.

³² United States Trade Representative. "Argentina." (2008).

³³ Icaro Rebolledo. "Argentina and Australia Wheat Update." *Prospects*. HGCA. 10.13 (December 2007).

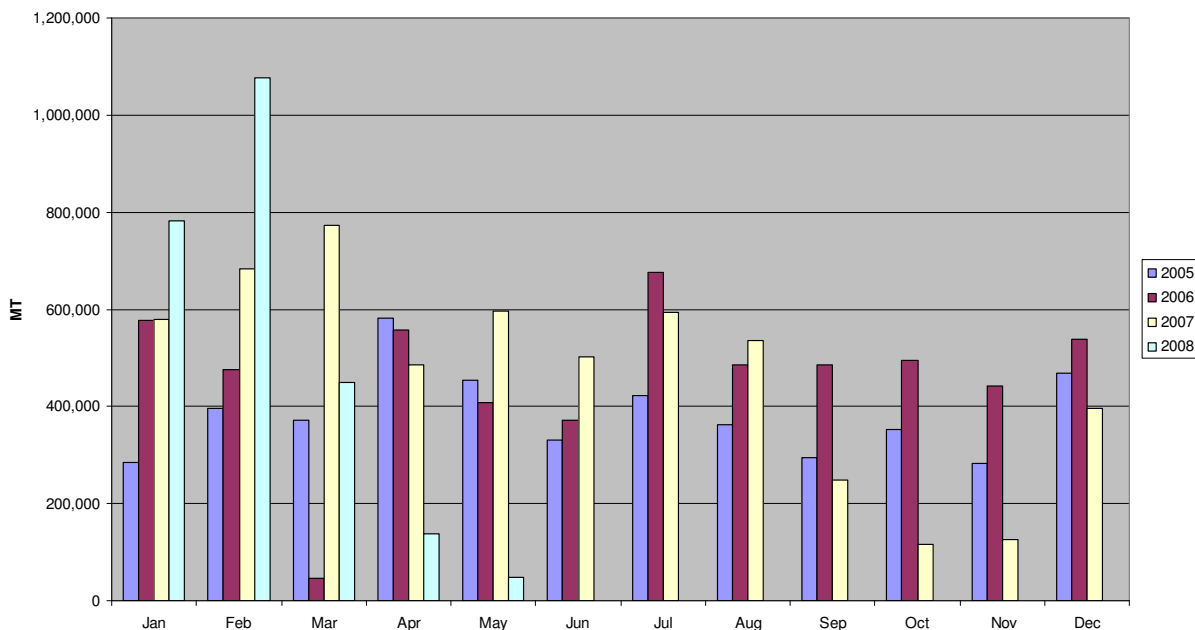
³⁴ "Wheat Prices Leap 25 % as Kazakhstan Joins List of Countries Restricting Exports." *Global Insight.com*. Feb 26, 2008.

³⁵ Idaho Barley Commission. "Idaho Grain Market Report." May 1, 2008.

³⁶ Matthew Craze and Bill Faries. "Argentina Frees Up 1 Million Tons of Wheat for Export." *Bloomberg.com*. Jun 11, 2008.

Because much of Argentina’s export restraints occurred in 2008, it is necessary to use monthly partner trade statistics to form a picture of Argentina’s 2008 exports. The countries included in the monthly data accounted for approximately 60 percent of Argentina’s 2007 wheat exports. Of that 60 percent, Brazil comprised nearly all of it. Also, in Figure 7, Brazil reported trade statistics through May, whereas the EU reported through April. Despite this, May is not significantly undervalued, given that Brazil imports far more from Argentina than the EU. In April 2008, the EU’s imports from Argentina totaled only 2 percent of Brazil’s.

Figure 7
Monthly Imports of Argentine Wheat: Jan 2005 to May 2008*



Wheat exports, according to Argentina’s annual statistics, remained fairly steady in 2007. It is unclear the degree to which the export registry closure from March 2007 until November 2007 played a significant role in export disruptions. Exports seem comparable to seasonally adjusted norms. However, wheat export began to dip in September of 2007. Because this is reported import data, there is some delay between when Argentina would have exported it and its trading partner received it. Another reason why Argentina’s export ban does not seem to appear in the data until September 2007 could be because before November, exporters need only export their

* Reflects monthly imports of Argentine wheat for the EU, United States, Thailand, Taiwan, China, Mexico, India, South Korea, Brazil, Japan, Canada, and Hong Kong.

goods within a year of obtaining their license. Around September, because licenses were not being replenished, the exports dropped.

As expected, there is a large increase from December 2007 through February 2008. In November and January, the export registry opened, and many exporters rushed to obtain licenses. Furthermore, the shorter term on the license forced exporters to execute shortly after obtaining their license. However, the closed registry from February to May seemed to have a big impact on exports to Brazil. The exports dip far below comparable months. The farmer's strike from March to June may also have contributed to disrupting exports, reducing the amount of wheat obtained by Argentina's trade partners.

As Argentina's trade data indicated, Brazil is its biggest export market for wheat. The same is true for Brazil. In 2007, Argentina supplied 85.0 percent of Brazil's wheat imports. In fact, Brazil has faced a wheat shortage due to the reduced imports from Argentina.³⁷

Table 4

Jan-May Brazil Wheat Imports in 1000's of MT*			
Partner Country	2006	2007	2008
Argentina	2,481.77	3,115.42	2,489.07
Canada			17.37
Paraguay	245.01	52.29	245.70
United States		8.85	33.04
Uruguay	3.61	71.85	79.23
Grand Total	2,730.39	3,248.42	2,864.40
Unit Price in USD/KG	0.14	0.19	0.31

In order to compensate, Brazil has imported more from nations in its customs union, Mercosur, including Paraguay and Uruguay. In addition, Brazil has imported more from Canada and the United States. Decreasing imports played an import role in a country that produces only 37 percent of its domestic consumption needs.³⁸ After the reduction in exports in November 2007, Brazil allowed 1 million tons of wheat to enter the country from non-Mercosur countries without

³⁷ Cristina Kroll. "Seeking Wheat in New Latitudes." *World-Grain.com*. Jun 1, 2008.

* Blank cells indicate no trade statistic reported. Cells containing 0.00 indicate that a trade statistic was reported, but too small to appear.

³⁸ Cristina Kroll. "Seeking Wheat in New Latitudes." *World-Grain.com*. Jun 1, 2008.

the usual 10 percent tariff.³⁹ In May 2008, after a delay in wheat imports from Argentina, Brazil created two new quotas of 500,000 tons of wheat to enter the country without the import tariff until June 30.⁴⁰ Therefore, while the restraints may have alleviated Argentina's domestic shortages, the measures affected Argentina's trading partners causing shortages as Brazil looked elsewhere for wheat.

Conclusion

As these case studies suggested, export restraint policies do not exist in a vacuum. When a country enacts policies to discourage exports, although the policy may keep domestic prices low and protect domestic supply, it affects the global market. Partner countries must purchase more grain from other sources, increasing the competition for the remaining grain supply and increasing prices. Nations who consider using export restraints must realize that their measures will affect the entire market. Their local prices may decline despite an increase in international prices. Governments considering export restraint policies should weigh the possible implications of their actions and exercise appropriate caution in implementing their policies.

³⁹ Cristina Kroll. "Seeking Wheat in New Latitudes." *World-Grain.com*. Jun 1, 2008.

⁴⁰ Cristina Kroll. "Seeking Wheat in New Latitudes." *World-Grain.com*. Jun 1, 2008.

Works Cited

- Agriculture and Agri-food Canada. "Wheat Situation and Outlook." 21.8. (2008).
<http://www.agr.gc.ca/pol/mad-dam/index_e.php?s1=pubs&s2=bi&s3=php&page=bulletin_21_08_2008-07-25>.
- "Argentine Leader Defends Tax Hike." *BBC News*. Jun 10, 2008.
<<http://news.bbc.co.uk/1/hi/world/americas/7445404.stm>>.
- Blas, Javier and Webber, Jude. "Argentina to Resume Wheat Exports." *Financial Times*. Nov 1, 2007. <http://us.ft.com/ftgateway/superpage.ft?news_id=fto110120071819181395>.
- "China Tax, Quotas to Hurt Wheat Flour Exports." *Daily Times*. Jan 3, 2008.
<http://www.dailytimes.com.pk/default.asp?page=2008%5C01%5C03%5Cstory_3-1-2008_pg5_25>.
- "China's Maize Output Is Expected to Reach 148 Million Tons in the Period of October, 2007 to September 2008." *Business Wire*. Dublin, Ireland. Apr 8, 2008.
- Craze, Matthew and Faries, Bill. "Argentina Frees Up 1 Million Tons of Wheat for Export." *Bloomberg.com*. Jun 11, 2008.
<http://www.bloomberg.com/apps/news?pid=20601086&sid=aTxxTTccBIFA&refer=latin_america>.
- Idaho Barley Commission. "Idaho Grain Market Report." Jul 24, 2008.
<<http://www.idahobarley.org/marketrpts/marketrpts2008/mprpt0724.pdf>>.
- Idaho Barley Commission. "Idaho Grain Market Report." May 1, 2008.
<<http://www.idahobarley.org/marketrpts/marketrpts2008/mprpt0501.pdf>>.
- "Kazakhstan's Government Decides to Ban Wheat Exports." *Reliefweb*. Apr 30, 2008.
<<http://www.reliefweb.int/rw/RWB.NSF/db900SID/SKAI-7E7RMK?OpenDocument>>.
- "Kiev Move Sees Wheat Price Fall." *Financial Times*. Apr 25, 2008.
<http://www.euro2day.gr/ftcom_en/126/articles/315939/ArticleFTen.aspx>.
- Kroll, Cristina. "Seeking Wheat in New Latitudes." *World-Grain.com*. Jun 1, 2008.
<http://www.world-grain.com/Feature_stories.asp?ArticleID=94095>.
- Kwok, Vivian Wai-yin. "China Further Curbs Grain Exports with Quota." *Forbes.com*. Jan 2, 2008. <http://www.forbes.com/2008/01/02/china-grain-quotas-markets-econ-cx_vk_0102markets03.html>.
- Morgenstern, O. "On the Accuracy of Economic Observations: Foreign Trade Statistics." ed. J. N. Bhagwati. *Illegal Transactions in International Trade*. Ch. 7
- "The New Face of Hunger." *The Economist*. Apr 17, 2008.
<http://www.economist.com/world/international/displaystory.cfm?story_id=11049284>.
- Newman, Gray and Volberg, Daniel. "What Farmer Strike?" *Morgan Stanley-Global Economic Forum*. Jul 15, 2008.
<<http://www.morganstanley.com/views/gef/archive/2008/20080715-Tue.html>>.
- Niu Shuping. "China Sees Record 2008 Wheat, Maize Harvest." *Reuters*. Jul 4, 2008.

- Polityuk, Pavel. "Ukraine Drought Threatens Grain Crop, Quotas Loom." *Reuters*. May 30, 2007. <<http://www.planetark.com/dailynewsstory.cfm/newsid/42236/story.htm>>.
- Rebolledo, Icaro. "Argentina and Australia Wheat Update." *Prospects*. HGCA. 10.13 (December 2007). <<http://www.hgca.com/imprima/miprospects/vol10issue13/minisite/8.pdf>>.
- "Situation Report-December 2007: U.S. 2007/2008 Grains and Oilseeds Outlook." *Cereals and Oilseeds Review*. Canada National Statistical Agency. 30.12 (2007).
- "Situation Report-February 2008: U.S. 2008/2009 Grains and Oilseeds Outlook." *Cereals and Oilseeds Review*. Canada National Statistical Agency. 31.1 (2008).
- Trostle, Ronald. "Global Agricultural Supply and Demand: Factors Contributing to the Recent Increase in Food Commodity Prices." United States Department of Agriculture (2008). <<http://www.ers.usda.gov/Publications/WRS0801/>>.
- "Ukraine Cancels Grain Export Quotas and Extends Quotas on Exports of Sunflower Oil." *Interfax-Ukraine*. Apr 23, 2008. <<http://www.interfax.com.ua/en/news/main-news/129239/>>.
- "Ukraine Grain Export Ban Lifts Partially, Still Tight." *Deutsche Presse-Agentur. Business News*. Sep 26, 2007. <http://www.monstersandcritics.com/news/business/news/article_1359881.php>.
- United States Trade Representative. "Argentina." (2008). <http://www.ustr.gov/assets/Document_Library/Reports_Publications/2008/2008_NTE_Report/asset_upload_file939_14624.pdf>.
- "Wheat Prices Leap 25 % as Kazakhstan Joins List of Countries Restricting Exports." *Global Insight.com*. Feb 26, 2008. <<http://www.globalinsight.com/SDA/SDADetail11647.htm>>.

Additional Reading

- Abraham, Thomas Kutty. "India Bans Maize Exports to Control Prices and Supplies." *China Post*. Bloomberg. Jul 4, 2008.
- "Argentina Economy: Squeezing Farmers." *EIU Viewswire*. Jan 24, 2008.
- "Background Paper: The Rice Crisis: What Needs To Be Done?" *International Rice Research Institute* (2008).
- Bezlova, Antoaneta. "China: Soaring Grain Prices Fuel Call for Self-Sufficiency." *Global Information Network*. Apr 10, 2008.
- "China Puts Quota on Grain Flour Exports." *China Daily*. Jan 2, 2008.
- "China's Grain Flour Subject to Export Quota License Administration." *China Sourcing News*. Jan 10, 2008.
- Donlan, Thomas G. "Not By Bread Alone." *Barron's*. Editorial. Vol. 88, p 42. May 5 2008.
- "East Africa Food and Trade Bulletin." *Regional Agricultural Trade Intelligence Network*. Feb 2008. no 47.
- "India Bans Export of Non-Basmati Rice, Wheat Flour." *India West*. 32.47. Oct 19 2007.
- Neumann, Jeannette. "Farm Crisis Spooks Argentine Economy." *Washington Post*. Jun 8, 2008.
- Prasertsri, Ponnarong. "Grain and Feed: Rice Intervention Program Returns Amid High Market Prices, 2008." United States Department of Agriculture Foreign Agricultural Service. Jun 5, 2008.
- Timmer, Peter. Interview. "Asian Rice Crisis Puts 10 Million or More at Risk: Q & A with Peter Timmer." *Center for Global Development*. Apr 21, 2008.
- "U.S. Rice Industry: Background Statistics and Information." United States Department of Agriculture Economic Research Service. Apr 30, 2008.
- "Week's Top Story: Food Supplies Threatened by Farm Strike in Argentina." *Noticias Financieras*. Jun 6, 2008.

Appendix

Table A-1

Japan's Jan-May Imports in 1000's MT			
Partner Country	2006	2007	2008
Argentina	15.79	12.91	10.47
Australia	0.70	0.55	
Belgium	0.26	0.17	0.11
Brazil	0.00	3.00	5.95
Canada			0.04
China	233.35	364.39	2.28
France	0.04	0.04	0.02
Hungary	0.00	0.02	
India			0.62
Indonesia	2.84	1.77	3.07
Myanmar	0.02		
Peru	0.27	0.17	0.37
Philippines	0.04		
Switzerland		1.00	
Taiwan	0.04		
Thailand	0.65	1.16	0.53
United States	6,693.30	6,358.22	6,843.83
Vietnam			0.20
Grand Total	6,947.30	6,743.40	6,867.48

Table A-2

Ukraine's Annual Wheat Exports in 1000's of MT			
Partner Country	2005	2006	2007
Albania	28.03	67.87	3.00
Algeria	353.00	84.40	
Armenia	1.56	2.16	7.00
Austria	11.25	13.90	
Bahrain		0.01	
Bangladesh	80.73	415.00	35.08
Belarus	28.79	51.66	0.24
Belgium		56.91	
Bulgaria	0.02	0.06	
Cameroon	9.61		
Chad	4.20		
Cyprus	28.16	8.00	
Djibouti	6.83	13.91	
Ecuador		25.02	
Egypt	142.00	484.00	180.00
Eritrea	47.66		
France	0.25		
Georgia	2.56	22.40	0.04
Germany	22.72		
Greece	8.63	15.51	11.63
Hungary	286.00	63.58	0.37
India		326.00	
Indonesia	315.00	58.75	
Ireland	8.10	5.20	
Israel	546.00	471.00	269.00
Italy	336.00	354.00	19.15
Jordan	104.00	52.50	
Kazakhstan	0.05	0.39	
Kenya	117.00	180.00	134.00
Korea South	348.00	81.19	
Lebanon		10.07	4.75
Libya	164.00	41.70	
Malaysia	35.08	1.76	
Mauritania	75.08	51.04	17.55
Moldova	0.06	2.31	0.74
Morocco	325.00	63.78	3.50
Mozambique	39.29	21.41	
Myanmar	2.94	1.50	
Netherlands	13.15	2.97	
Nigeria	44.28	8.55	
Peru	36.49	94.27	
Philippines	142.00	96.79	
Poland		0.31	
Russia	0.33	0.86	0.31
Saudi Arabia	0.62		
South Africa	49.07	45.30	
Spain	1,420.00	266.00	158.00
Sri Lanka		1.49	
St. Vincent & the Grenadines		0.21	
Sudan	41.20	14.85	
Switzerland		30.70	
Syria	28.45	90.85	12.60
Tanzania	34.49		
Tunisia	482.00	274.00	111.00
Turkey	0.00		28.05
Uganda		2.00	7.50
Unidentified Country		7.38	
United Arab Emirates	53.68	29.30	
United Kingdom	24.91	324.00	3.57
United States	9.38	5.10	11.87
Uzbekistan	0.24	0.13	0.12
Vietnam	49.56		
Virgin Islands (British)		2.96	
Yemen	96.92	324.00	37.58
Grand Total	6,004.35	4,669.01	1,056.65

Table A-3

Russia's Wheat Exports in 1000's of MT			
Partner Country	2005	2006	2007
Albania	219.00	185.00	240.00
Algeria	618.00	116.00	19.88
Armenia	20.70	145.00	215.00
Austria	34.36	10.06	36.17
Azerbaijan	814.00	651.00	415.00
Bahrain			9.29
Bangladesh	503.00	1,090.00	603.00
Bosnia & Herzegovina	52.71		
Bulgaria			27.64
Congo Dem. Rep.			8.35
Croatia	12.26		2.94
Cyprus	63.34	40.54	27.59
Czech Republic		0.02	
Denmark	2.95		14.46
Egypt	2,870.00	2,200.00	3,870.00
Eritrea	5.20		66.63
Estonia	3.23		
Ethiopia			25.70
France		0.00	
Georgia	550.00	600.00	440.00
Germany	8.96		18.75
Greece	263.00	260.00	401.00
India		1,730.00	1,240.00
Indonesia	150.00	5.72	82.23
Iran	92.57	7.61	
Israel	312.00	213.00	522.00
Italy	390.00	388.00	603.00
Jordan	152.00	52.50	501.00
Kazakhstan	5.52	16.32	1.67
Kenya	203.00	193.00	221.00
Korea North		12.29	
Korea South			0.07
Kuwait			0.54
Kyrgyzstan			2.13
Latvia			5.04
Lebanon	334.00	85.05	293.00
Libya	57.28	38.09	595.00
Lithuania	0.45	0.48	16.29
Malaysia	35.02		
Mauritania	11.20	5.11	23.38
Moldova	0.70		9.36
Mongolia	31.80	29.53	33.71
Montenegro			9.72
Morocco	449.00	26.21	150.00
Mozambique		17.58	35.48
Nigeria		8.52	43.48
Norway	1.77	3.00	4.02
Oman	30.66	43.99	254.00
Pakistan	325.00	323.00	129.00
Romania	6.13	2.97	32.95
Rwanda			2.00
Saudi Arabia	4.06	49.54	
Spain	36.94	73.91	121.00
Sudan	40.31		75.09
Sweden			2.86
Switzerland	21.20		4.09
Syria	170.00	35.61	64.58
Tajikistan	0.14	0.06	3.18
Tanzania	275.00	196.00	176.00
Tunisia	243.00	164.00	645.00
Turkey	42.67	81.13	1,120.00
Turkmenistan			1.00
Uganda		30.07	72.83
Ukraine	23.21	20.22	293.00
Unidentified Country	52.17	20.47	
United Arab Emirates	55.00	150.00	72.80
United Kingdom			2.57
Uzbekistan	0.24	1.28	3.32
Vietnam	12.00	22.00	
Yemen	654.00	338.00	433.00
Yugoslavia	12.11	9.05	
Zimbabwe		16.00	
Grand Total	10,270.83	9,706.92	14,341.77

Table A-4

Kazakhstan's Wheat Exports in 1000's of MT			
Partner Country	2005	2006	2007
Afghanistan	50.17	33.96	34.77
Albania			4.47
Algeria			15.09
Armenia			8.07
Azerbaijan	152.00	390.00	885.00
Bangladesh			75.35
Belarus	36.00	105.00	169.00
Cyprus		6.00	
Egypt		48.54	352.00
Estonia		11.46	4.48
Finland	5.65	11.14	1.50
Georgia	26.65	115.00	196.00
Germany	0.86		159.00
Greece	93.24	66.58	22.89
India		316.00	65.26
Indonesia		12.72	3.01
Iran		25.88	153.00
Israel	2.94		139.00
Italy	98.67	107.00	219.00
Jordan	56.00		
Kenya	58.58	47.25	3.68
Kyrgyzstan	138.00	211.00	348.00
Latvia		25.54	39.30
Lebanon		23.74	19.84
Libya		20.03	38.70
Lithuania		1.00	5.94
Moldova		3.00	
Mongolia	51.05	58.33	26.08
Morocco		10.00	38.76
Mozambique		4.18	
Norway	44.69	39.57	104.00
Oman			5.93
Pakistan			41.00
Poland		1.15	6.25
Russia	516.00	1,240.00	376.00
Saudi Arabia			57.18
Spain	30.79	44.53	39.76
Sweden	4.54		
Switzerland			9.63
Syria			14.06
Tajikistan	245.00	203.00	326.00
Tanzania			27.87
Tunisia			749.00
Turkey	106.00	436.00	670.00
Turkmenistan		2.37	133.00
Ukraine	13.00	13.79	19.90
United Arab Emirates		3.54	1.70
United Kingdom			26.18
Uzbekistan	59.04	116.00	142.00
Yemen		133.00	193.00
Grand Total	1,788.88	3,886.27	5,969.63