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# The Economics of World Wheat Markets: Implications for North America

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# Wheat in China: Supply, Demand, Marketing, and Trade in the Twenty-First Century

*Scott D. Rozelle and Jikun Huang*

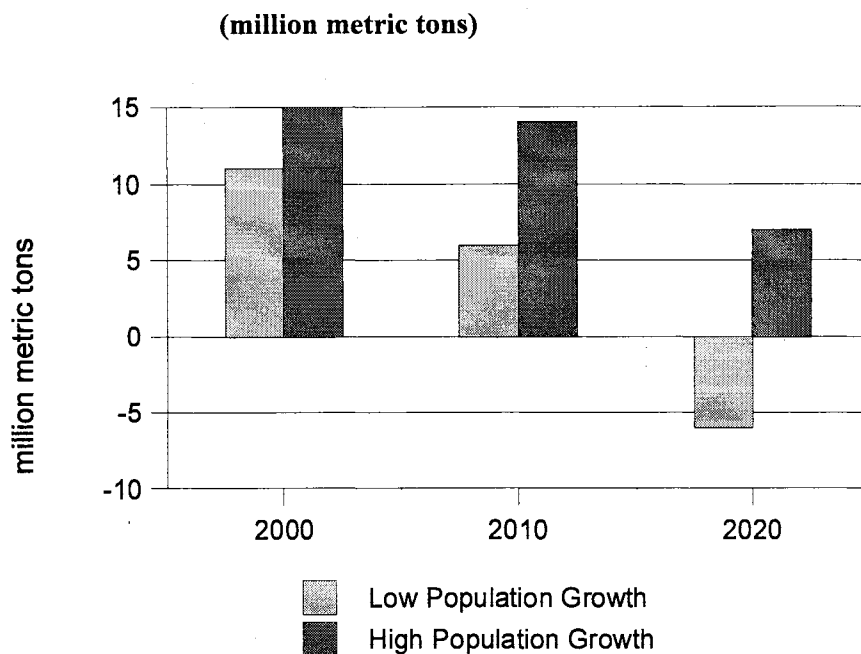
Western scholars and policymakers know almost nothing about China's wheat economy—either its role in international markets or the supply, demand, and marketing trends that drive its global transactions. Researchers understand even less about China's past, current, and future trends in domestic wheat supply, demand, and trade: its wheat economy defies categorization. Currently, wheat producers in China face serious obstacles to maintaining rates of yield increases. Potential for future productivity increases are difficult to gauge since more of China's wheat area is irrigated than any other major producing nation and its own research system, which traditionally produced some of the world's most advanced wheat technology, is in disarray. On the demand side, as markets develop, the patterns of demand are changing, but pressures move in many directions. China is the only country in East and Southeast Asia that has a large wheat-producing, wheat-consuming rural population; future income growth and population shifts may create demand pressures different than those observed elsewhere in Asia.

This paper's goal is to explore the special features of China's wheat economy to provide a better understanding of its domestic wheat sector, and to establish a comprehensive, transparent, and empirically sound basis for assessing the future trends of China's wheat supply, demand, and trade needs.

The first steps in creating a framework to assess China's future grain balances are to examine China's current grain balance sheet and to evaluate a series of factors, beyond income and prices, that may have an important impact on Chinese grain demand and supply. This discussion also necessarily entails a close look at China's domestic and marketing policies and the impact of recent measures to liberalize its grain sector. A wheat supply and demand projections model is developed, based almost entirely on econometrically estimated parameters (Fig. 7). In this model, a series of important structural factors and policy variables are accounted for explicitly, including urbanization and market development on the demand side, and technology, agricultural investment, environmental trends, and institutional innovations on the supply side. After reviewing the baseline assumptions and forecasts, the results of the baseline projections are presented. Then, alternative scenarios are examined under different rates of growth in income, population, and investment in research and irrigation, and policy implications are derived from the alternative scenarios.

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before peaking and  
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through 2020.**

**Figure 7. Projected Wheat Imports: Low and High Population Growth Scenarios**



#### About the Authors

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The projections show that under the most plausible expected growth rates in the important factors, China's wheat imports will rise somewhat in the late 1990s before peaking and gradually declining through 2020. Wheat import trends are in stark contrast to those of feed grains, which by 2000 are expected to expand sharply and continue to rise throughout the first two decades of the next century, eventually exceeding 20 million metric tons. Increasing maize imports arise mainly from the accelerating demand for meat and feed grains. Increasing wheat imports in the short run are caused by steadily expanding demand and a slowing of supply due to reduced investment in agricultural research in the late 1980s. After 2000, wheat imports are expected to stabilize, as demand growth slows due to increasing urbanization, declining population growth rates, and relatively low and falling expenditure elasticities for wheat. As supply growth is sustained with the ongoing recovery of investment in agricultural research and irrigation, supply is projected to grow and slowly begin to meet most of the national demand by 2020.