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Title: Benefits from the Reform and Rehabilitation of Iraq's agricultural sector – The Case of the Wheat Market

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Problem Statement

Iraq is resource rich, but its productive base has been diminished and underutilized in recent years. Interventions such as the Oil-for-Food Program (OFF), the Public Distribution System (PDS), policies to control output markets and subsidize inputs, combined with the impact of sanctions and conflicts have made Iraq a net food importer.

USAID is funding the Agricultural Reconstruction and Development Program for Iraq (ARDI) to help rehabilitate Iraqi agriculture. Among ARDI's objectives are to accelerate the transition from a command and control production and marketing system to a market-driven economy where farmers and agribusinesses are able to take risks and realize profits. These actions will begin the process of revitalizing agriculture; production will increase as will incomes and employment. The public sector role can be reduced to an advisory and regulatory role and the provision of a safety net for farmers and consumers during the transition period.

Policies governing agriculture markets still call for state control of some production inputs and state purchase of strategically important outputs. Due to political and bureaucratic chaos following the fall of the former regime, the government has not been able to enforce all past interventions in input and output markets. Thus, by default and not by design, the sector still contains a mix of state-controlled and open markets.

Wheat remains the most important state-controlled crop with input subsidies applied to seed, fertilizers, and pesticides, fixed output prices and limited marketing options for farmers. Poultry, maize, sunflower seed, and the cotton sub sectors previously were similarly influenced, but state interventions have decreased significantly as a result of budget shortfalls and inadequate administrative will and oversight. Other sub sectors such as livestock, fruits, vegetables, dates, and rice were and remain essentially market driven though these have been affected by the subsidized food provided through the PDS.

As agriculture is opened to market forces, it will expose some sub-sectors to international competition. For commodities where Iraq lacks a comparative advantage, domestic production will cease or decline sharply. This will likely occur with sunflower seed and part of the maize and poultry industries. For products for which Iraq does have a comparative advantage, producers would change their production systems to become more competitive. This seems certain to be the case for wheat in rain fed areas and many horticulture crops (especially date palms), and rice in irrigated areas.

Objectives in the Wheat Sub Sector

Wheat is designated by the government as one of several strategic crops, and wheat flour makes up the most costly component of the PDS food basket, a nationwide universal monthly distribution of free commodities. Improvements in the efficiency of the wheat sub-sector will impact throughout the economy.

Inputs. Government interventions start with provision of subsidized inputs. The Ministry of Agriculture (MOA) is gradually reducing subsidies for fertilizers, seeds, and pesticides, and no longer provides a 70% subsidy on new farm equipment. Sizeable inventories of OFF procured farm equipment are reported in MOA warehouses. The disposition of this inventory will have some effect on the commercial markets for farm equipment.

Wheat Prices. The MOA and Ministry of Trade (MOT) jointly determine wheat procurement prices based on a system of Grades from 1 to 4. The technical specifications delineating the Grades are specific weight (essentially a measure of protein and starch content), and the presence of impurities – wheat smut[1], dirt, stones, etc. Grade 1 is considered milling quality wheat, while Grade 4 is used only for animal feed. Grades 2 and 3 can be used for milling to varying degrees depending on the ability of grain elevators to clean and separate the impurities and the amount of Grade 1 wheat available to blend with the lower quality Grades 2 and 3 and maintain flour quality.

Domestic wheat floor prices for the past 3 years have been far below international wheat prices, though the MOA was instrumental in increasing the procurement price starting in 2003-04. The Grade 1 price is currently set at $200 per metric ton (MT) while Grade 2 is pegged at $180. Prices for Grades 3 and 4 have not been announced. The landed costs of imported wheat from the US and

[1] Smut of various kinds is an increasing problem in Iraqi wheat, the availability, pricing and application of seed dressing is key to improving quality.

Australia are considerable higher, the premium varying between about $40 to $80 per MT[2].

Wheat Marketing Structure. Farmers have limited marketing choices as all of the grain elevators are owned by the government. Exports of both wheat and flour without a license are prohibited though cross-border smuggling is common. The MOT is reportedly obliged to buy all the wheat that farmers transport to one of 55 MOT owned grain elevators. The declared intention of the MOT given current domestic production constraints, is to mix 25% domestic wheat with 75% imported wheat, though very strict quality specifications often means downgrading and thus lower prices[3]. Farmers can sell wheat to private flour millers that mill for non-PDS flour buyers, but this is an insignificant market. They may also sell to poultry producers which offer a larger market, depending on the relative prices and availability of competing feed maize, which is freely traded.

Flour Milling Structure. All of the 160 flour mills that provide flour for the PDS are privately owned[4]. Combined they posses about 17,000 MT of daily flour milling capacity. However, the milling of PDS flour is tightly controlled. The MOT contracts with each private mill interested in milling for the PDS, transports the wheat to the mills, pays $10 per ton of wheat milled, and then transports the bagged flour to the numerous PDS food distribution centers throughout Iraq. These flour millers take no ownership and bear no marketing risk for procuring wheat or selling flour.

Wheat Production. The administratively determined demand for wheat is 3.6 million tons per year (based on a population of 26.5 million people receiving 9 kg of PDS flour/person/month, and an average extraction rate of 80% for PDS flour). A mix of 25% domestic wheat means 900,000 tons of domestic demand. Wheat yields and quality have been poor for many years. Rain fed wheat area in the north accounts for the bulk of production on 1.5 to 2 million hectares (ha). Though reliable data are not available, average Iraqi yields in recent years have been under 1 MT per ha. Contrast these yields with current US hard winter

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2 Though Hard Red Winter wheat had been the focus of US exporters, Iraqi millers, bakers, and consumers favor Australian premium hard wheat. The US wheat most competitive to Australian exports to Iraq is hard white winter. In late January 2005, the US negotiated a tender for 165,000 MT of hard white winter though exportable volumes may be inadequate to fill this tender.
3 The relatively low gluten content of common local wheat varieties requires mixing with higher gluten (higher protein) imports. ARDI is assisting MOA's efforts to improve local varieties in order to increase gluten content of domestically produced wheat.
4 MOT owns and operates 6 modern mills with a combined capacity of 2,000 MT of flour. As these mills are capable of producing finer grades of flour than required in the PDS ration, the output of these public mills is sold to commercial cake and pastry bakeries.

wheat averaging 3.1 MT per ha (2003). In 1965 Turkish yields were comparable at 1.1 MT per ha, but since 1995 yields have increased to 1.75 to 2 MT per ha.

Low yields have resulted from:

- Lack of foundation, registered, and certified wheat seed. As a result farmers are forced to rely too heavily on seed saved from harvest. Over successive seasons the quality of farmer saved seed declines as does yield.
- Lack of fertilizer. The primary fertilizers are urea and DAP. All DAP must be imported, while domestic production of urea has resumed with the rehabilitation of two large plants. Budgetary constraints affect imports of DAP and previously, imports of urea.
- Lack of seed treatment fungicide. Wheat smut is a major problem if the seed is not treated. In the late 1990s the fungicide Raxil was either in short supply, or was not properly applied to planting seeds and the estimated incidence of wheat smut rose dramatically.
    - 1998 - 2,000 MT
    - 1999 - 14,000 MT
    - 2000 - 100,000 MT
    - 2001 - 1,000,000 MT

ARDI is working to address the lack of quality treated seed, as well as demonstrating appropriate and economically efficient fertilizer use. The low yields have had a tremendous impact on government (MOT) expenditures for PDS flour. For example, in 2003, PDS flour was milled from about 2.6 million MT imported wheat and 1 million MT local. However, in 2004, harvest deliveries to MOT elevators amounted to only about 500,000 MT. And only about 50,000 MT (10%) of this was Grade 1 wheat. After cleaning and separating Grade 2 and 3 wheat, domestically produced milling quality wheat was about 250,000 MT. Thus the 2004 import requirements were 3.35 million MT compared to 2003 imports of 2.6 million MT. Based on a 50/50 mix of US and Australian wheat, and an approximate import price premium of $60 per MT, the MOT paid an estimated $893 million for imported wheat in 2004.

Expected Results from Liberalizing the System – Wheat, Flour and the PDS

The combined impacts of the administrative controls on wheat production and marketing, and flour milling and distribution through the PDS have resulted in numerous inefficiencies. Iraq can dramatically increase the production of good milling quality wheat by liberalizing the markets that control production and marketing. As domestic wheat prices move closer to international prices, farmers will have greater incentives to rationally use good quality inputs to increase production.

Flour milling capacity is roughly double that required to meet PDS flour needs. Rationalizing this excess capacity could proceed has follows:

- The MOT changes the structure of its milling contracts to purchase PDS flour from millers rather than pay a milling fee. The contract price could be in line with the current cost of PDS flour to the MOT, but would be renegotiated over time as system efficiencies take hold and prices change.
- The MOT allows millers to buy wheat at negotiated prices from MOT elevators or directly from farmers. MOT elevators allow millers to rent or lease elevator space for wheat storage. MOT could continue to import wheat for sale to millers until private wheat traders enter the market and open market prices for imported wheat are established.
- The MOA and MOT establish a wheat floor price to protect farmers from significant market swings.

The more efficient millers will quickly bid up the price of locally produced Grade 1 wheat. As long as the domestic prices remain below international prices, millers will reduce flour costs by sourcing more domestic wheat. Less efficient millers with lower milling margins will be unable to match the higher bid prices for domestic wheat and will eventually be forced from the market.

The controlled wheat market has also led to a great increase in the use of wheat in poultry feed rations. For example, wheat makes up about one-half of typical starter rations and even more for finishing rations. Controlled prices make wheat a more economical feed choice compared to maize. PDS flour is also used in poultry feeds because families sell their flour rations to poultry feeders. The same applies to vegetable oil which is also used in feed rations. Vegetable oil is another component of the PDS food basket, which, like flour, is readily available on the alternative market.

The wheat and flour sub-sectors will not become liberalized until flour becomes a freely traded commodity. The universal nature of the PDS has a two-fold disincentive on the agriculture sector. First, widespread food distribution dampens demand and thus prices for agricultural produce, hampering farmers' ability to earn income and increase production. Second, nearly all food for the PDS is imported, and much that is purchased domestically is at below international prices. An estimated 60 percent of Iraqi families depend entirely on the PDS food ration which costs the government as much as $5 billion per year.

Energizing agricultural markets requires dealing with the politically sensitive issues involved in the PDS. ARDI among others have suggested plans to eliminate the market disincentives associated with the PDS. Alternatives include a pilot program for voluntary monetization of portions of the food basket as a non-disruptive means of re-creating the demand for domestic agricultural food forfeited to the PDS program. Another calls for a gradual reduction of its universality so that those who receive it truly need it.