

PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

NFU's Market-Driven Inventory System: Estimated impacts compared to current policy

In early March, the National Farmers Union (NFU) formally announced their 2012 Farm Bill proposal which incorporates the use of a farmer-owned inventory system. They call their proposal Market-Driven Inventory System (MDIS and pronounced Midas). A disclosure is important at this point because we (the Agricultural Policy Analysis Center—APAC) conducted the modeling work and research for this policy under a contract with the NFU. The core ideas, though, should be no surprise to most readers; they are ones that we have articulated since our first column was written nearly 12 years ago.

The key objectives of MDIS are 1) to allow crop farmers to receive the bulk of their revenue from market receipts, 2) to reduce government payments while maintaining farm income, and 3) to reduce extreme price volatility.

MDIS involves setting the corn loan rate at a point between the variable cost of production and the full cost of production with the loan rate for other crops set at their historic ratios to corn. When prices fall below the loan rate, farmers are allowed to take out a loan with the government and place the portion of the crop they put under loan into a farmer-owned inventory. The release price from the inventory was set at 160 percent of the loan rate. Farmers were expected to keep the crop in condition and were paid a storage payment of 40 cents/bushel/year.

The maximum amount of grain that could be put under loan was 3 billion bushels for corn, 800 million bushels for wheat, and 400 million bushels for soybeans. Direct payments and loan deficiency, and counter-cyclical payments were eliminated for all crops except rice and cotton. In addition, MDIS makes available a setaside, if necessary, when the storage maximum is reached. No changes were made to the federal crop insurance program in the study.

The APAC study of MDIS policies was divided into two phases. The first phase compared actual 1998-2010 prices and government outlays for crop agriculture with what those prices and public outlays would have been under MDIS policies. The second phase used the 2012 USDA baseline for 2012-2021 and shocked yields to produce a price pattern similar to that seen in the 1998-2010 period, a timeframe with crop prices that were 1) well below the cost of production for a numbers of years and 2) significantly above the cost of production for an extended period of time.

In the first phase, the APAC's modeling showed that compared to actual government payments that averaged \$11.7 billion per year for the 13-year period, if MDIS policies had been in effect government

payments would have averaged \$4.3 billion per year over that same period, 60 percent lower. Price volatility would have been reduced with farmers receiving higher prices in the low-price period (1998-2005) and lower prices in the high-price period (2006-2010). Over the full 1998-2010 period, realized net farm income would have been nearly identical to the net farm income farmers actually received. In addition the value of exports for the eight major crops (corn, grain sorghum, barley, oats, wheat, soybeans, cotton, and rice) would have been higher under MDIS than the value of exports under historical conditions. The quantities of exports dropped somewhat in response to the higher prices but the reductions in export quantities were proportionally less than the increases in prices, resulting in higher dollar values of exports.

For phase two, since ten-year-ahead baseline projections lack real world variability, we imposed on the 2012 USDA baseline a pattern of shocks that roughly mimic the variability experienced by crop agriculture in the 1998 to 2010 historical period. Obviously, this is only one of literally thousands of possible future paths that agriculture could experience, but it provides a concrete situation that is easy to relate to. The APAC study for the National Farmers Union then used this shocked baseline to compare both the level of protection offered by an extension of current policies when compared to MDIS policies and the level of potential government payments.

Given the shocks that were imposed on the baseline, the APAC study indicates that a combination of high yields and low usage over a three-year period could result in prices that fall below \$3.00/bu. for corn. Likewise a combination of lower yields than in the 2012 USDA baseline and higher crop utilization could result in corn prices that exceed \$7.00. Similar results were seen for all major crops.

Results of phase two of APAC's study followed the same general pattern observed over the 1998-2010 historical period. Government payments with a continuation of the current program and shocked production total \$65 billion over the ten years from 2012 to 2021; with MDIS the estimate is \$26 billion, a 60 percent reduction. Again, net farm income averaged over the 10 years are almost identical under the current program and MDIS.

Because crop prices average higher with MDIS than under the current program, the value of exports over the ten year period is higher with MDIS by \$15 billion or \$1.5 billion per year on average (more in the first part of the period; less in the latter part of the period).

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APAC researchers conclude that MDIS reduces crop price extremes that otherwise cause severe economic dislocations in the crop and livestock sectors and cause exaggerated market signals that lead to inefficient resource allocations in the short-run and non-optimal investments in the longer-run. In addition, MDIS provides trade benefits to crop farmers by helping ensure that exportable grain quantities are available in the farmer-owned inventory system when worldwide supplies are short and thus help preserve the U.S. reputation as a dependable supplier in world markets.

The MDIS proposed by the NFU would discourage or derail "dumping" accusations by competing grain exporters. Also, the value of U.S. grain exports would be larger and agriculture's trade balance would improve because of MDIS actions that raise crop prices when crop supplies are in excess compared to utilization also increase the value of grain exports. These farmer-owned inventory policies would help

stabilize grain prices internationally to the benefit of those producers and consumers for whom grains are a staple food.

Lastly, MDIS could save tens of billions of dollars paid under existing government payment programs and additional tens of billions in "emergency" payments and government subsidies to revenue insurance programs otherwise needed to offset the almost inevitable periodic severe collapses in grain prices. With MDIS, grain farmers receive their income from the market and grain demanders are neither subsidized nor overcharged.

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