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A Tale of Two Oilseeds: Soybean Saga, Part 3

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Flowering plants producing pods of peas or beans are legumes; key sources of plant-based protein, legumes can also help improve soil fertility because the plants biologically fix atmospheric nitrogen. Oilseed crops are legumes the seeds of which have relatively high oil content and are a source of vegetable oils for cooking. Soybeans and peanuts are two of the main oilseed crops in the United States, with peanuts being notable for producing seed pods underground and also known as groundnuts (Singh, Chung, and Nelson, 2007; Wolf, 2007; Herridge and Rose, 2000; Potter, 1998; Hoshikawa, 1991; LaRue and Patterson, 1981). As discussed in Part 1 of this series, soybeans were first domesticated by farmers in China possibly over 3,000 years ago and were first planted here in 1765 (*farmdoc daily*, November 30, 2023). Peanuts trace to South America, likely Northern Peru, possibly more than 8,000 years ago with evidence of cultivation over 3,000 years ago; first cultivation in the U.S. remains uncertain, although some evidence exists of earliest farming of peanuts in the seventeenth century (Hammons, Herman, and Stalker, 2016). Coincidentally, these two oilseeds were first added to the realm of program crops—those crops with base acres and for which farm program payments could be made—by Congress in 2002.

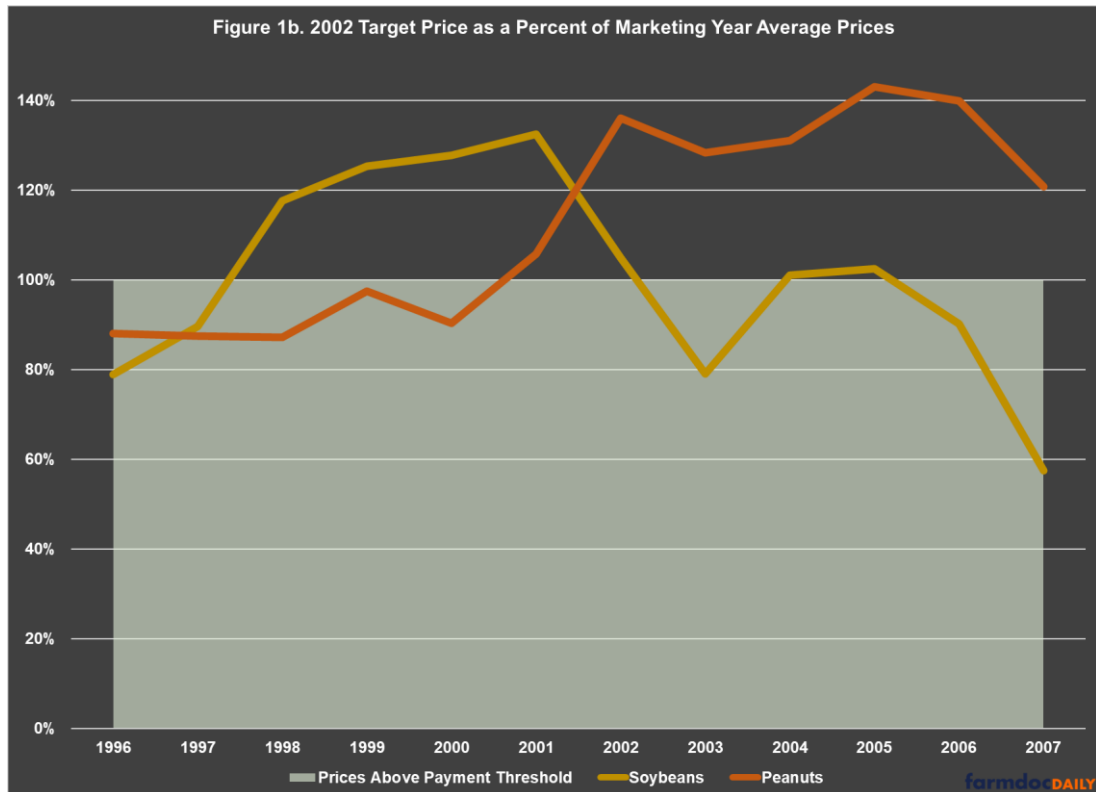
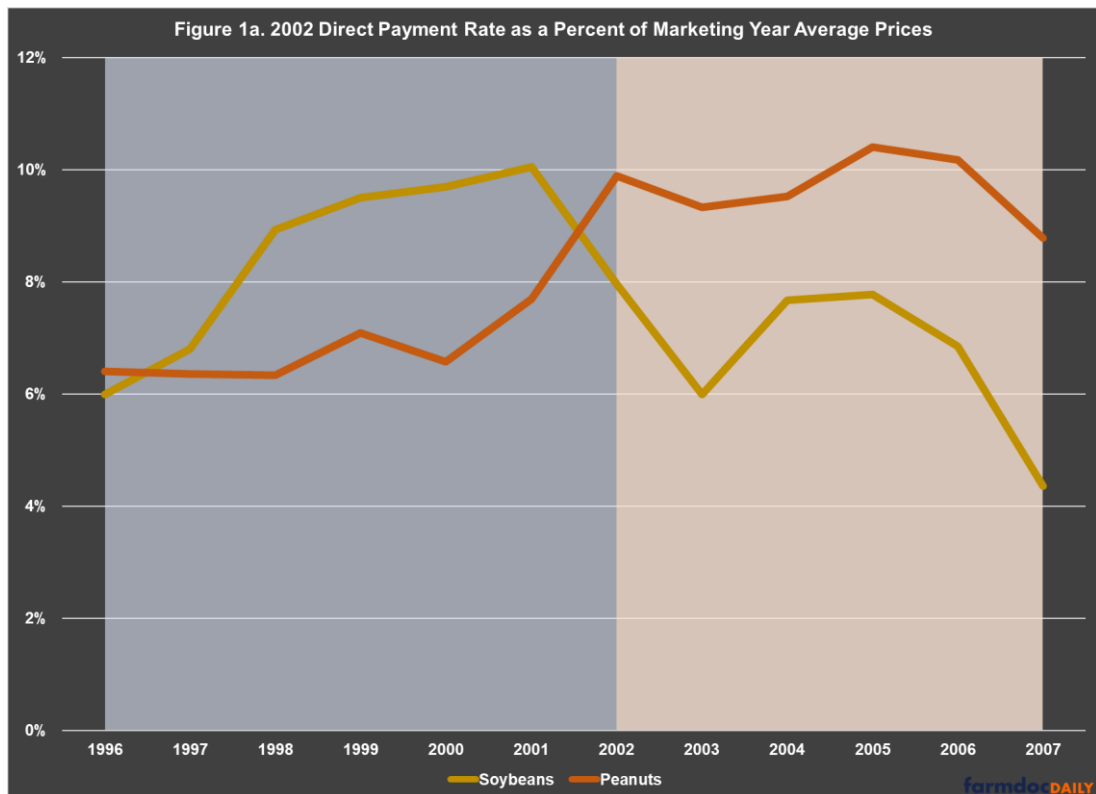
Background

Key to this discussion is the Farm Security and Rural Investment Act of 2002 (P.L. 107-171). Congress added soybeans to the list of covered commodities eligible for farm program payments (direct and counter-cyclical payments), while also creating an identical suite of programs for peanuts but in a separate subtitle. Importantly, Congress authorized an opportunity for farmers to update farm base acres to include acres of soybeans, peanuts, and other oilseeds. In addition to base acres for these two crops, Congress also enacted a direct payment rate and a target price for the counter-cyclical payments: for soybeans, the direct payment rate was \$0.44 per bushel and the target price was \$5.80 per bushel; for peanuts, the direct payment rate was \$36 per ton (\$0.018 per pound) and the target price was \$495 per ton (\$0.2475 per pound). For peanuts, Congress also terminated the marketing quota program and compensated peanut quota holders for the loss of the value of the peanut quota asset.

Figures 1a and 1b illustrate these policy design features, first presenting the direct payment rate for both crops as a percent of the marketing year average (MYA) prices from 1996 to 2007; second, comparing

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the target price as a percent of the MYA prices for those years. Note that the years 1996 through 2007 were those encompassing the 2002 Farm Bill and between the 1996 and 2008 Farm Bills.

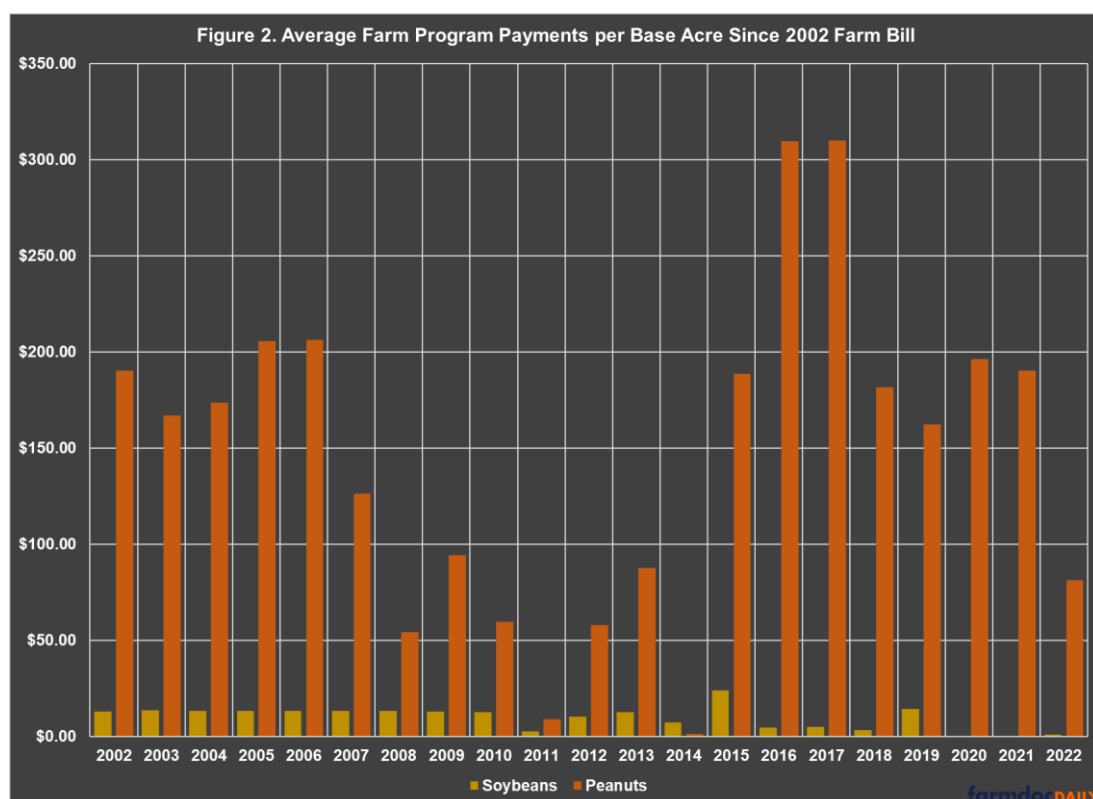


The scale of these crops differs substantially; on average since 1996, U.S. farmers have planted 77.5 million acres of soybeans with a maximum of more than 90 million acres in 2017. By comparison, U.S.

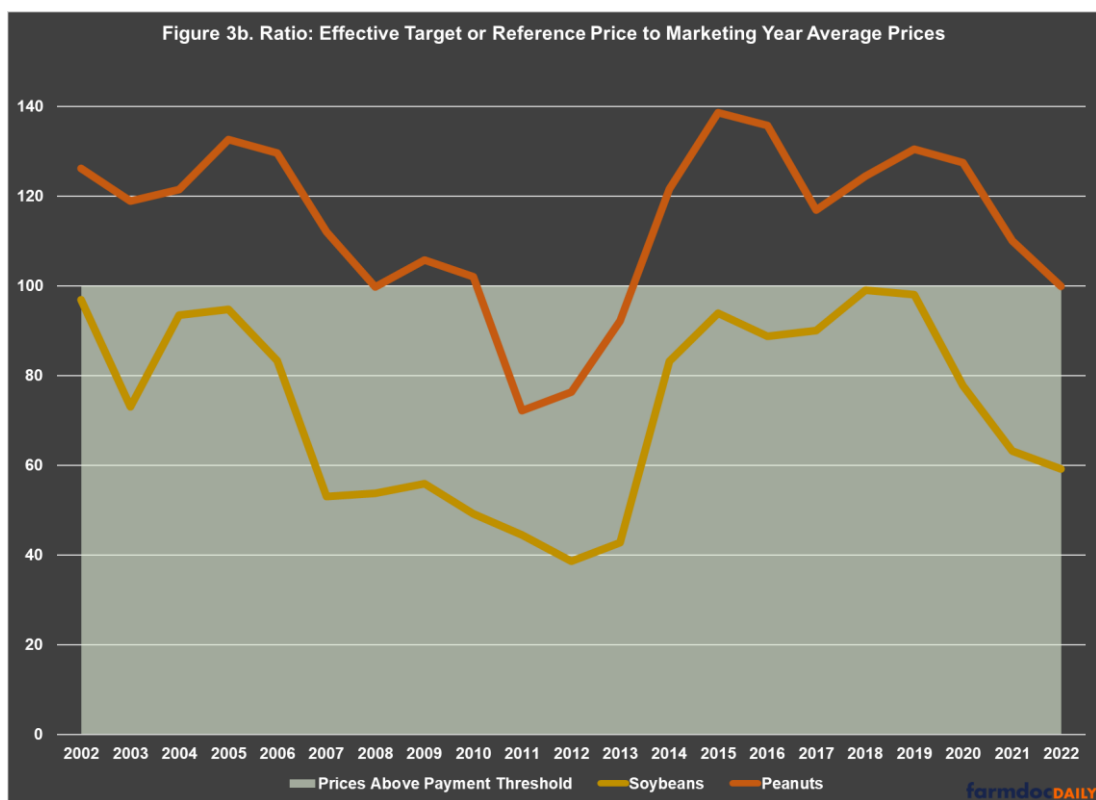
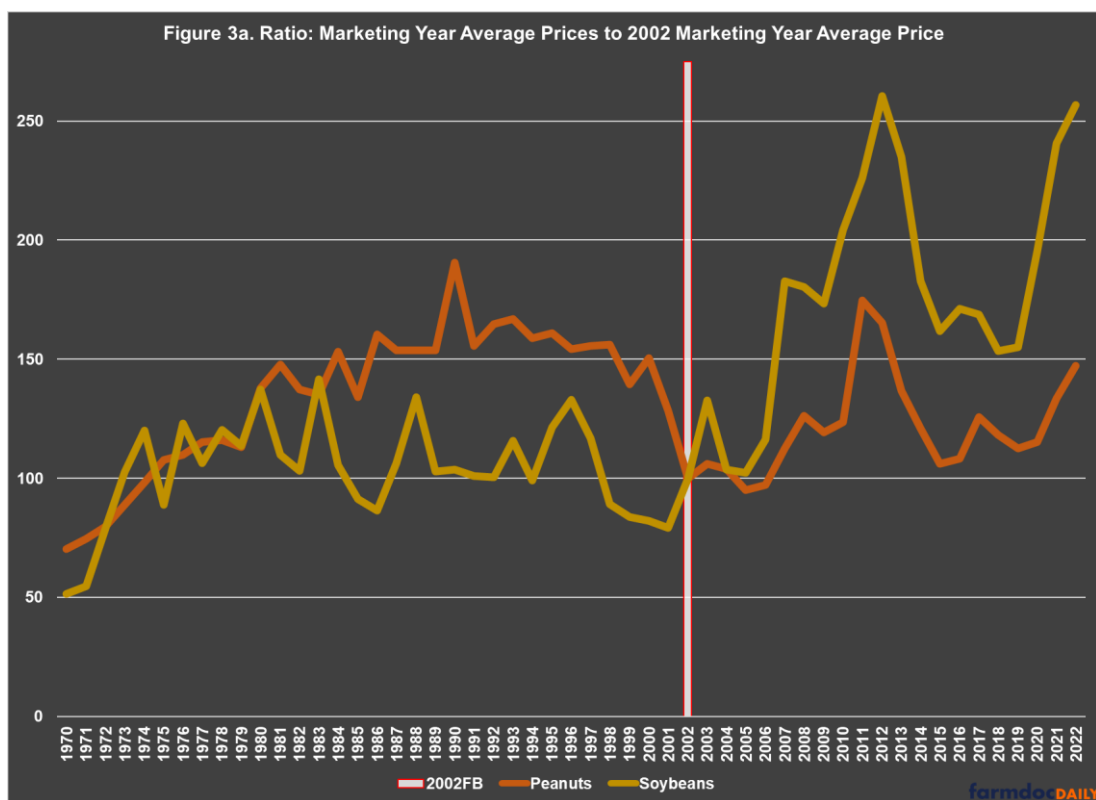
farmers have planted an average of 1.5 million acres of peanuts since 1996, with no year above 2 million acres planted. While soybeans are planted across a large swath of the country's farmland, peanuts are isolated to specific regions in the South and Southern Great Plains. In policy, soybean base acreage has been between 50 million and 54 million base acres—well below (64.5% to 69.6%) its actual planted acreages—while peanut base acres have gone from 2 million to 2.4 million base acres, significantly higher (133.3% to 160%) than actual planted acres.

Discussion

Differences in total base acres of the program crops can drastically distort the perceptions of farm program payments: large payments on small base acreage crops result in smaller total spending (or projected costs) than smaller payments on large base acreage crops. Farm program payments (direct payments, counter-cyclical payments, ARC and PLC payments) for soybeans and peanuts provide a good example. Since 2002, soybean base acres have received a total of \$8.95 billion from those programs, averaging \$426 million per year while peanut base acres have received \$4.8 billion and average \$229 million per year. The actual payment experience for farmers has been quite different given the differences in total base acres. Figure 2 illustrates the average payment per base acre (calculated using 85% of total enrolled base acres) per year for soybeans and peanuts from these programs. Since being added to the programs (and base acres) in the 2002 Farm Bill, soybean base acres have averaged just over \$9.65 while peanut base acres have averaged \$145.



The disparities in average payments per base acre are the result of policy design decisions made by Congress. Consider Figures 3a and 3b. Figure 3a compares the Marketing Year Average (MYA) price for soybeans and peanuts relative to each crop's MYA in 2002 (ratio of each year's MYA to the 2002 MYA). Figure 3b compares each crop's policy price as a ratio between the effective target (2002-2013) or reference (2014-2022) price to the MYA price each year. Note that years in which the ratio is below 100, no payments would be expected because the MYA price is higher relative to the fixed policy price (target or reference).



First, it is notable that the positions of the two crops change after 2002, with soybean MYA prices higher since the 2002 Farm Bill and peanut MYA prices lower. For peanuts, this could be the result of having moved away from the marketing quota system of price support to the payment program policy. Second, while peanut MYA prices have generally been lower since the 2002 Farm Bill (and lower relative to soybean MYA prices), the price threshold in the programs for peanut base acres have been much higher

relative to peanut MYA prices; soybean base acres, moreover, have not once had MYA prices above the payment threshold in the programs.

Concluding Thoughts

The payment experiences of these two ancient oilseeds provide useful perspectives on the Farm Bill. Both were added to farm programs by Congress in the 2002 Farm Bill but Congressional decisions in policy design for farm program payments have made peanut base acres much more valuable than soybean base acres. If the average payment each year for soybean base and peanut base were totaled (2002 to 2022), each soybean base acre has been worth \$203, while each peanut base acre has been worth \$3,052. While there are 29 times more soybean base acres than peanut base acres (on average), peanut base acres are worth 16 times that of soybean base acres. These outcomes serve reminders that statutorily fixed price thresholds for payments risk folly for policy because future crop prices are unknowable at the time of legislative drafting. Such a design risks both the potential for irrelevancy—such as with soybeans, where the price thresholds are too far below market price realities to be useful as a price-based assistance mechanism—and the temptation for picking winners among crops and factional interests—such as with peanuts, where price thresholds much higher than market prices, triggering large payments almost every year. Given the unlikely reality that Congress will reauthorize the Farm Bill this year, an extension could provide time to reconsider this Seventies-era policy design and construct options that better address the challenges farmers face today and into the future.

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