U.S. Peanut Program and Issues

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Summary

The federal peanut program provides income support for peanut producers and landowners through market-triggered government payments. The payments supplement producer returns from the market when the national peanut price or crop revenue drops below guaranteed levels. Indirect beneficiaries of the program include input suppliers, processors, and communities where economic activity associated with the peanut industry is generated. Consumers in the United States and abroad benefit from lower prices of peanuts and peanut products if the program creates incentives for farmers to produce more peanuts than they otherwise would. Foreign producers could be economically harmed by policy-induced lower market prices.

Taxpayers fund the peanut program, as established in the 2014 farm bill (P.L. 113-79) for crop years 2014-2018. The annual cost depends primarily on the "price loss" difference between the annual farm price of peanuts and the "reference price" of $535 per ton. There is no Price Loss Coverage (PLC) payment if the annual farm price is above the reference price. A small amount of peanut acreage is covered by an alternative program (selected by some producers), called Agricultural Risk Coverage (ARC), which makes a farm payment when crop revenue is less than 86% of five-year historical crop revenue. A separate "marketing loan" program provides interim financing for producers and further protects them when prices decline because the government will take ownership of the loan collateral (peanuts) if prices drop below the loan rate ($355 per ton). The peanut program is structured the same as what is available for other "covered commodities" like corn, wheat, soybeans, and rice, but with a reference price that is higher relative to market conditions than for other crops.

In the absence of a major supply or demand shock that could cause peanut prices to spike, many analysts expect farm payments to be made in most forthcoming crop years because peanut prices have historically been lower than the reference price established in the 2014 farm bill. Between 2002 and 2014, the annual farm price was below the reference price of $535 per ton in each year except for 2011 and 2012. For some, the policy concern is that the fixed nature of the reference prices has potential to lock in farm payments for an extended period of time, possibly encouraging production on generic base acres (former cotton acreage) that could put additional downward pressure on farm prices, thus incurring even greater government payments. On generic base acres, payments are made in proportion to actual plantings during each crop year (2014 through 2018). Depending on relative crop prices during the next several years, potential payments for peanuts on generic base acres could make peanuts an attractive planting option when comparing cost and returns for competing crops.

Policymakers could become concerned with government costs. According to some estimates, government outlays could exceed $800 million per year for crop years 2016, 2017, and 2018 if the farm price for peanuts remains relatively low. Others may have policy concerns because the "coupling" of payments with plantings can encourage plantings that may be contrary to market signals. In both cases, the level of the reference price is directly related to the level of potential payments and peanut farm revenue. If Congress chooses to review U.S. peanut policy, one option would be to "buy out" the generic base acres with a one-time government payment to owners of base in exchange for discontinued eligibility for farm programs on those base acres. Other options would be to re-assess how payments are made on generic base acres or to reconsider the relative levels of reference prices by crop. These and other options would need congressional action.

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U.S. farm policy has supported peanut producers and the broader peanut industry for decades. From the 1930s until 2002, peanut price supports and a quota system to limit production elevated the farm price of peanuts and supported farm income. Since 2002, peanut policy has followed the same structure as other farm commodity policies, including farm payments when the price or crop revenue drops below guaranteed levels. The Agricultural Act of 2014 (P.L. 113-79, the 2014 farm bill) made changes to farm policy that could affect peanut plantings during the life of the farm bill (crop years 2014-2018). This report reviews peanut policy and implications for the peanut market, federal government outlays, and policymakers.

Peanut Industry Basics

Production Areas

U.S. peanut production is located primarily in the southeastern United States. The crop is planted in an arc stretching from southern Mississippi to southern Virginia (**Figure 1**). Georgia accounts for just under half of U.S. production, and Alabama has 12%. Most neighboring states account for single-digit shares. Peanuts are also produced in Texas, Oklahoma, and New Mexico. The geographic location of production reflects the peanut plant's need for 120-160 frost-free days and soil that is sandy and loamy (relatively equal amounts of sand, silt, and clay) for optimal crop performance. The peanut industry is also geographically concentrated within each state, with peanuts accounting for a large share of farm and related agribusiness income earned in a number of peanut-producing counties. About three-fourths of U.S. peanut acreage is dryland (1.1 million acres in 2012), and the remainder is irrigated (0.5 million acres).

Figure 1. U.S. Peanut-Producing Areas

Yellow number indicates state share of U.S. production (2006-2010)
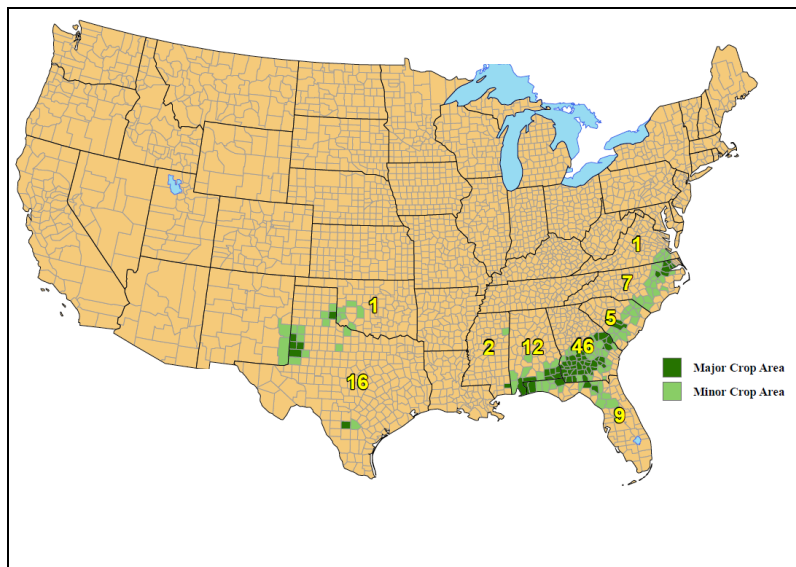
Source: U.S. Department of Agriculture, Office of the Chief Economist, World Agricultural Outlook Board, http://www.usda.gov/oce/weather/pubs/Other/MWCACP/namerica.htm.

Notes: Alaska and Hawaii do not produce peanuts.

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Peanut Varieties and Uses

The major types of peanuts grown in the United States are Runner, Virginia, Spanish, and Valencia (**Table 1**). The Runner is the most common variety and is used in the manufacture of peanut butter. Peanut butter is the leading use of peanuts produced in the United States (45%), according to the American Peanut Council (APC). Snack nuts and in-shells account for approximately 30% of use. Candy and confections and peanut oil for cooking account for the remainder. According to APC, peanuts are the leading snack nut consumed in the United States, with a two-thirds share of the snack nut market.

Table 1. Peanut Types and Uses

Peanut type	Share of U.S. peanut crop	Primary use and characteristics	Where grown
Runner	80%	Manufacture of peanut butter; kernel size is uniform, which allows for even roasting	Georgia, Texas, Alabama, Florida, South Carolina, and Oklahoma
Virginia	15%	Snack peanuts and in-shell; kernel is large and known as "ballpark" peanut	SE Virginia, NE North Carolina, South Carolina, and western Texas
Spanish	4%	Snack peanuts, peanut butter and confections; kernel is small and round, with red skins	Texas and Oklahoma
Valencia	1%	Used for all-natural peanut butter and sold in-shell for roasting and boiling; sweet flavor; each shell contains 3 to 5 kernels	New Mexico

Source: National Peanut Board and American Peanut Council.

Industry Structure

Peanuts were grown on 6,561 farms in the United States in 2012, according to the 2012 *Census of Agriculture*, with an average farm size of 247 harvested peanut acres per farm (**Table 2**). Similar to output for other commodities, peanut production is skewed toward larger farms that typically have lower per-unit costs of production. Peanut farms with at least 250 acres account for one-third of all peanut farms and three-quarters of national production. Most peanut farmers also plant other crops such as cotton, corn, or soybeans in multi-year rotations with peanuts in order to maintain soil health and crop yields.[1] The farm value of peanut production was $1.1 billion in 2014.

After harvest, farmers move peanuts to buying points or stations located throughout the production regions. Buying stations are operated by shellers, independent dealers, or warehouse owners. These "first handlers" purchase the peanuts and provide services such as drying, cleaning, and making arrangements for marketing assistance loans provided by the U.S. Department of Agriculture (USDA). Shellers sell edible peanuts to processors for manufacturing and bid on USDA-owned stocks of peanuts (forfeitures under the marketing loan program) for processing or export. Sales between shellers and processors are arranged by brokers or done directly.

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[1] The average total acreage of all crops on farms growing peanuts was 2,500 acres in 2013, according to USDA's Agricultural Resource Management Survey. See http://www.nass.usda.gov/Surveys/Guide_to_NASS_Surveys/Ag_Resource_Management/ARMS_2014_Peanuts_Highlights.pdf.

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Table 2. Number of Peanut Farms and Harvested Acreage, 2012

State	Number of Farms	Harvested Acres	Average Peanut Acres per Farm
Georgia	2,833	731,946	258
Alabama	772	217,940	282
Florida	698	196,320	281
North Carolina	636	105,739	166
Texas	552	148,795	270
South Carolina	493	106,746	217
Virginia	170	20,208	119
Oklahoma	166	21,926	132
Mississippi	128	48,306	377
Other	113	23,705	210
United States	6,561	1,621,631	247

Source: 2012 Census of Agriculture, http://www.agcensus.usda.gov/Publications/2012/Full_Report/ Volume_1,_Chapter_2_US_State_Level/.

Notes: Other states reporting acreage in 2012 were Arkansas (36 farms), Tennessee (22), New Mexico (21), California (15), Louisiana (11), Kentucky (5), Missouri (2), and Maryland (1).

Unlike the major crop markets, the peanut market is considered "thin," with only two peanut shellers reportedly buying over 80% of all peanuts from growers. No futures market exists for peanuts, and private contracts between producers and shellers reportedly account for most transactions. Given the industry structure and pricing practices (contracting), little public price and other market information is available to USDA for operating the peanut program (see "USDA Program Administration").

Market Trends and 2015 Outlook

Two opposing but related trends have shaped peanut production during the last quarter century. Planted acreage has declined while productivity (yield measured in pounds per acre) has increased (see **Figure 2**). Acreage had been declining even prior to a major policy change in 2002 from a quota system, which tended to lock acreage in place, to a traditional commodity policy (see "Farm Policy for Peanuts"). The policy change resulted in a shift of peanut production to higher-yielding land with lower production costs. This acreage shift, including a greater proportion of plantings in Georgia, along with improvements in varieties and management practices, propelled the long-term uptrend in peanut yields. Higher yields in recent years have lifted peanut production (see lower panel in **Figure 2**).

A critical long-run factor influencing peanut output is demand. Domestic food use has grown slowly but steadily over time. Exports, which are about 20% of total use, jumped sharply in 2012. U.S. acreage increased, and China entered the market as a buyer since their regular supplier (India) had encountered yield problems due to drought. Since then, exports have declined somewhat but have remained relatively robust. Canada, the Netherlands, and Mexico are the top export markets and account for about half of U.S. exports. Argentine peanuts compete with U.S. peanuts in the European market.

Figure 2. U.S. Peanuts: Planted Area, Yield, and Production
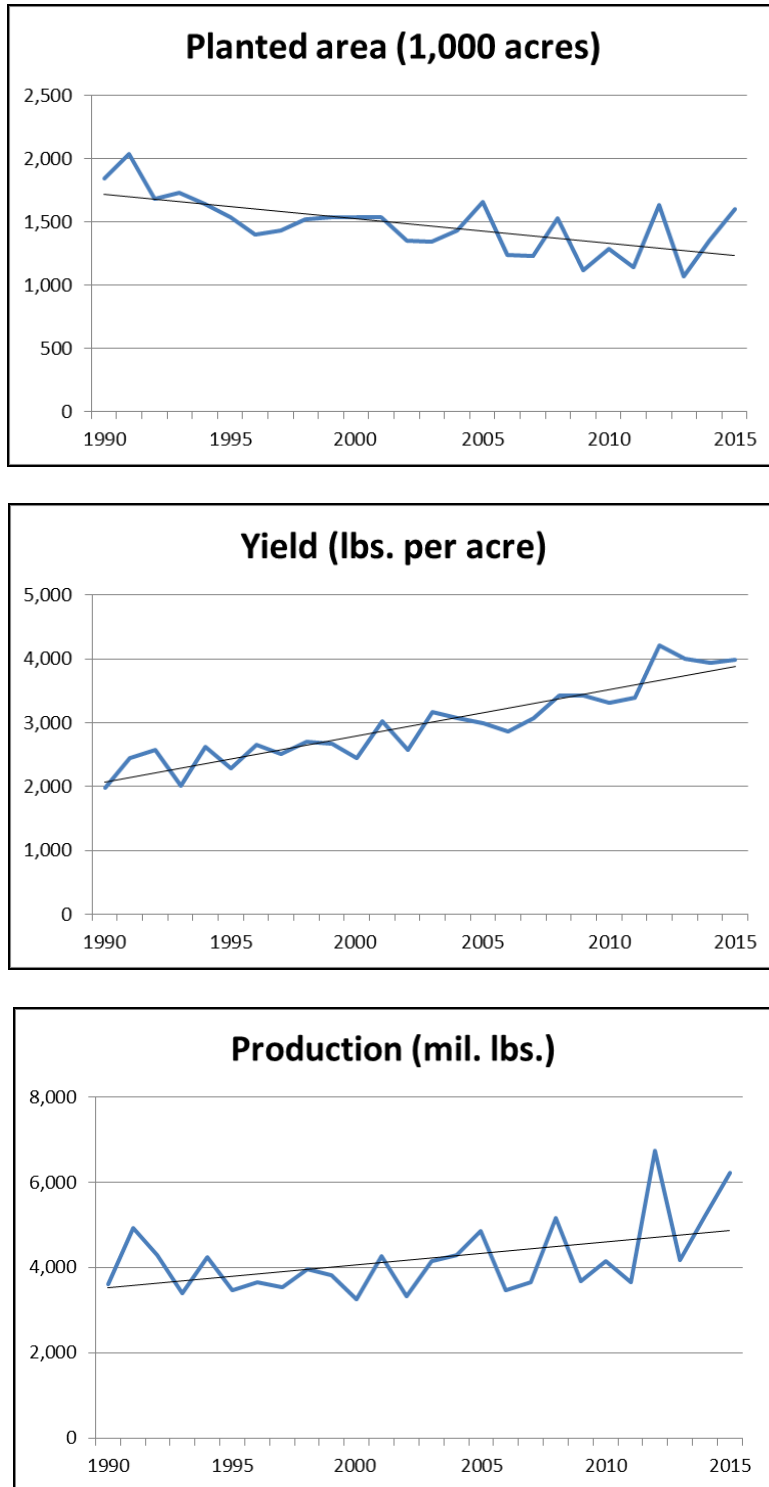
Source: USDA's National Agricultural Statistical Service and Economic Research Service.

In each marketing year, supply, demand, and policy factors influence and determine the farm price for peanuts. For the five crop years 2010-2014, grower prices averaged 26 cents per pound, up from 21 cents per pound in 2000-2009 (see **Figure 3**).

Figure 3. Peanut Production, Beginning Stocks, and Farm Price

	2000-2009	2010-2014
Ave. production	4.0 bil lbs.	4.8 bil. lbs.
Ave. price	21 cents/lb.	26 cent/lb.
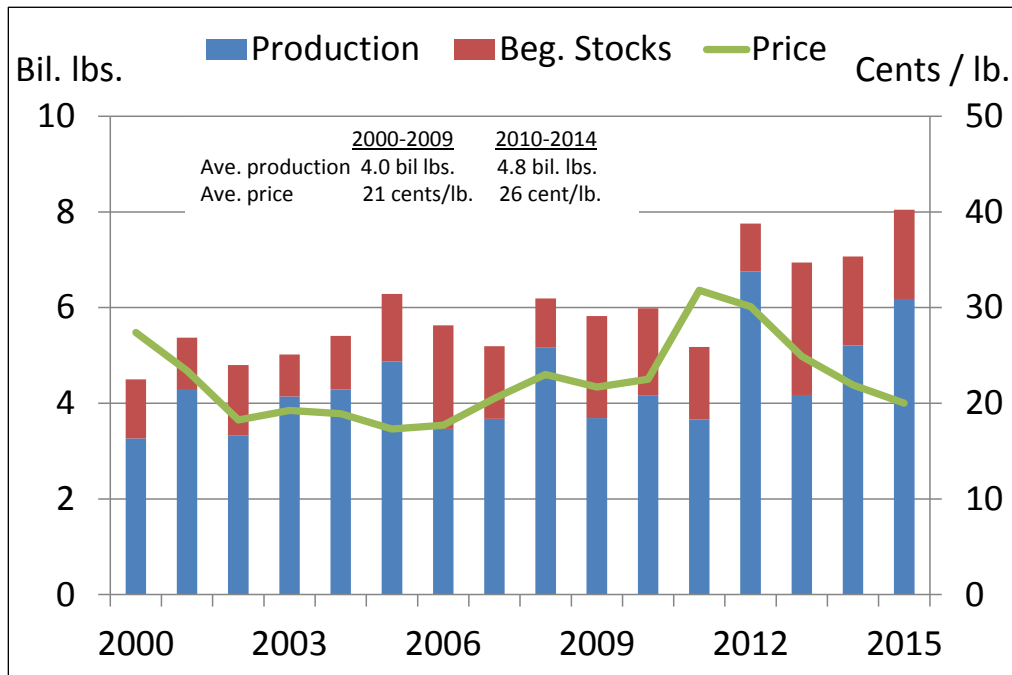
Source: Data from Mark Ash, *Oil Crops Outlook*, USDA, Economic Research Service, OCS-15h, August 14, 2015, http://www.ers.usda.gov/media/1881268/ocs15h.pdf.

Notes: Marketing year beginning August 1; 2015 forecast; imports (not shown) averaged 82 million pounds per year during 2002-2014, or about 1% of total supplies.

Most of the price gain occurred in 2011/12 when below trend yields and plantings in the United States led to high prices. Prices stayed high in 2012/13 due to strong export demand (China). The market has weakened since then (see green line in chart), under the weight of large domestic supplies (production plus beginning stocks). In 2015/16 (August-July season), the average farm price of peanuts is expected to average 20 cents per pound, according to USDA. The average farm price is a key determinant of farm program payments because the size of the payments increases in proportion to the decline in price below the statutory reference price and loan rate. The peanut payments help stabilize farm income for U.S. peanut producers.

In general, low crop prices discourage farmers from planting more acres in the subsequent year. However, acreage of a low-priced crop can actually expand depending on potential returns (including government payments) among competing crops typically planted on the same land. Peanut acreage in 2015 is a good example. Prior to the planting season, with the expectation of relatively low peanut prices, peanut analysts expected government payments of $100 per ton (5 cents per pound) under the Price Loss Coverage program. Farms with "generic base" (see "PLC Payments for Peanuts Planted on "Generic" Base") were expected to have an effective safety net of $470 to $500 per ton in 2015 (between 23.5 and 25 cents per pound), as provided by the 2014 farm bill.[2] Given the favorable prospective returns for peanuts, including government support and relatively low prices for substitute crops (e.g., cotton), farmers increased peanut plantings sharply in 2015. On June 30, 2015, USDA estimated 2015 peanut planting at 1.6 million acres, up 18%

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[2] Paul Hollis, "Bottom Line Trumps Caution Flags as Peanuts Appear Poised for Increase," *Southeast Farm Press*, January 30, 2015, http://southeastfarmpress.com/blog/bottom-line-trumps-caution-flags-peanuts-appear-poised-increase.

from 2014. With higher expanded plantings, a large peanut crop is forecast for 2015. Average yields are expected to rise slightly from 2014, resulting in a crop of 6.2 billion pounds, up 19% from 2014. According to USDA forecasts, use is expected to expand slightly for all categories (food, crushing for oil, exports, and other), but not enough to prevent an increase in ending stocks at the conclusion of the marketing year. Larger supplies are expected to push down peanut prices to an average of 20 cents per pound in 2015/16, the lowest since 2006/07. The relatively low expected price is well below the price needed to trigger farm program payments for peanuts.[3]

Farm Policy for Peanuts

The federal peanut program provides income support for peanut producers and landowners through market-triggered government payments that supplement producer returns from the market. Indirect beneficiaries of the program include input suppliers, processors, and communities where economic activity associated with the peanut industry is generated. Consumers in the United States and abroad benefit from lower prices of peanuts and peanut products if the program creates incentives for farmers to produce more peanuts than they otherwise would; however, foreign producers can be economically harmed by policy-induced lower market prices.

Today's peanut program is essentially the same as what is available for other "covered commodities" like corn, wheat, soybeans, and rice, except for a reference price that is notably high relative to market conditions, especially when compared to the other program crops.[4] Peanuts shifted to a "traditional" farm commodity program in 2002 when Congress eliminated the historical peanut quota and price support program as part of the 2002 farm bill.[5] To support producers, the 2002 farm bill extended commodity price support and income programs to peanuts, covering the 2002 to 2007 crops, and subsequent crops through 2013 under the 2008 farm bill and extensions.[6]

Peanuts is a "covered commodity" eligible for farm program support established by the Agricultural Act of 2014 (H.R. 2642; P.L. 113-79, the 2014 farm bill).[7] Producer support is provided for the 2014-2018 crop years. Taxpayers fund the peanut program, and the annual cost depends primarily on the "price loss" difference between the annual farm price of peanuts and the

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[3] Note that the 2015/16 price forecast is subject to change depending upon market developments. For the latest USDA forecast for peanuts, see *Oil Crops Outlook*, USDA, Economic Research Service, http://www.ers.usda.gov/publications/ocs-oil-crops-outlook.aspx.

[4] See CRS Report R43448, *Farm Commodity Provisions in the 2014 Farm Bill (P.L. 113-79).*

[5] For historical peanut policy, see W. C. McArthur et al., *U.S. Peanut Industry*, USDA, Economic Research Service, Agricultural Economic Report Number 493, November 1982, http://naldc.nal.usda.gov/naldc/download.xhtml?id=CAT83783188&content=PDF.

[6] For more on the policy shift, seeCRS Report RL30924, *Peanut Program: Evolution from Supply Management to Market Orientation*, Peanut Program: Evolution from Supply Management to Market Orientation, and Erik Dohlman et al., Peanut Policy Change and Adjustment Under the 2002 Farm Act, USDA, Economic Research Service, July 2004, http://www.ers.usda.gov/publications/ocs-oil-crops-outlook/ocs04g01.aspx. A discussion of the peanut sector after the 2002 reform is available in The Post-Buyout Experience: Peanut and Tobacco Sectors Adapt to Policy Reform, USDA, Economic Research Service, Economic Information Bulletin Number 60, November 2009, http://www.ers.usda.gov/media/184740/eib60_1_.pdf. See also Peanut Backgrounder, USDA/ERS, OCS-05i-01, October 2005, http://www.ers.usda.gov/media/864326/ocs05i01_002.pdf.

[7] For more information on farm commodity programs for all covered commodities, see CRS Report R43448, *Farm Commodity Provisions in the 2014 Farm Bill (P.L. 113-79)*, and CRS Report R43758, *Farm Safety Net Programs: Background and Issues.*

"reference price" of $535 per ton as established in the 2014 farm bill (there is no payment if the annual farm price is above the reference price).

The 2014 farm bill revised the price- and revenue-based programs for peanuts and other covered commodities for crop years 2014-2018. In spring 2015, producers could make a one-time selection of either Price Loss Coverage program (PLC) *or* Agricultural Risk Coverage (ARC), for each covered crop for the life of the farm bill. PLC makes a payment when the farm price falls below the statutory reference price (set above the loan rate). ARC makes a payment when crop revenue is less than 86% of five-year historical crop revenue.

For peanuts, almost all producers selected PLC because they expected higher payments and greater risk protection than under ARC. (For crops like corn and soybeans, a majority of producers selected ARC.) PLC and ARC payments are made after October 1 following the end of the marketing year. For example, the payment associated with the 2014 peanut crop will be made after October 1, 2015.[8] (Marketing loan benefits are available immediately upon harvest for crop years 2014-2018.) Only PLC is described in this report because it covers 99.7% of eligible peanut acreage. For an explanation of ARC, see CRS Report R43758, *Farm Safety Net Programs: Background and Issues*.

Marketing Assistance Loan Program

A separate "marketing loan" program provides interim financing for producers and further protects them when prices decline because the government will take ownership of the loan collateral (peanuts) if prices drop below the loan rate ($355 per ton). Marketing loan activity could increase if peanut production expands. See program explanation in **Appendix A**.

Price Loss Coverage (PLC) Payments on Peanut Base

In addition to marketing assistance loan benefits, peanut producers are eligible for a second (and higher) layer of price protection under the Price Loss Coverage (PLC) program. Farm payments are made each year when the annual peanut price is below the statutory reference price of $535 per ton (26.75 cents per pound), as established under the 2014 farm bill. For crop year 2015, the current peanut price forecast issued by USDA of $400 per ton would translate into a PLC payment rate of $135 per ton ($535 minus $400 per ton).

For individual farms, payments are calculated using the national payment rate (reference price minus season-average farm price) and individual farm information. The PLC payment formula is the payment rate *times* historical farm payment yield *times* 85% of historical peanut "base" acres.

- The historical payment yield is equal to 90% of the 2008-2012 average yield per planted acre for the farm. As an alternative, producers during program signup in early 2015 were allowed to keep the program yield used for calculating the farm's counter-cyclical payments under the 2008 farm bill (generally based on 1998-2001 yields or earlier).

- Peanut base represents historical peanut planting on each farm, and total 2.0 million acres nationwide. As with program yields, the 2014 farm bill provided farmers with a one-time opportunity to update individual crop base acres by reallocating acreage within their previous base to match their actual crop mix (plantings) during 2009-2012.

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[8] The 2014 peanut crop marketing season is August 2014 to July 2015.

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In economic terms, when market return plus government payments are above variable costs, producers have an incentive to plant the crop if it compares favorably to other crops. However, an important feature for PLC payments on peanut base acres is that the payments depend on historical plantings, and not current-year plantings of peanuts (or of any crop for that matter), and therefore do not affect the total farm payments or planting incentives. This concept of "paying on base" was included in the 2014 farm bill as a way to minimize potential market distorting effects of the program, i.e., farmers planting peanuts to gain more payments. This is not the case for payments on generic base (see next section).

In the absence of a major supply or demand shock that could cause prices to spike, many analysts expect PLC payments to be made in forthcoming crop years because peanut prices have historically been lower than the reference price set in the 2014 farm bill. Between 2002 and 2014, the annual farm price was below the reference price of $535 per ton in each year except for 2011 and 2012.[9] See **Appendix B** for the PLC payment calculation for an individual producer.

For some, the policy concern is that the fixed nature of the reference prices has potential to lock in farm payments for an extended period of time if the average farm price remains below the reference price, resulting in perennial government payments. (Also, if a peanut farm has more generic base than what is normally planted, production on generic base acres could put additional downward pressure on farm prices—see next section). For example, USDA expects peanut prices to average $.20 per pound for crop year 2015 and decline to the loan rate of $0.1775 per pound for crop years 2016-2018. Consequently, with a reference price of $0.2675 per pound, PLC payments for peanuts would be triggered each year, and outlays could exceed $800 million per year for crop years 2016, 2017, and 2018 if the farm price for peanuts remains at or below the loan rate. For comparison, the annual market value of production would be $1.1 billion to $1.4 billion, depending on crop size.

PLC Payments for Peanuts Planted on "Generic" Base

Besides PLC payments on base acres for covered crops, including peanuts, PLC payments are also made on "generic base acres." Generic base acres, formerly upland cotton base, total 17.5 million acres and are eligible for farm payment if planted to peanuts, corn, soybeans, wheat, or any other "covered crop" specified in the farm bill.[10]

Unlike PLC payments on peanut base acres, which are made regardless of which crop is planted, the PLC payment on generic base in any given year is proportional to a farm's plantings of peanuts and other covered crops on the entire farm. More specifically, for each crop year, generic base acres are attributed to a particular covered commodity base (for potential payment) in proportion to that crop's share of total plantings of all covered commodities on the farm in that year.[11] **Table 3** summarizes peanut base acres and total generic base for potential attribution to

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[9] Under the 2002 and 2008 farm bills, the trigger for Counter-Cyclical Price (CCP) payments was $459 per ton, which equaled the target price of $495 per ton minus the direct payment rate of $36 per ton.

[10] Generic base acres were included in the 2014 farm bill to address a trade dispute involving Brazil and the U.S. cotton industry. As part of the cotton policy reform, the 2014 farm bill excluded upland cotton from PLC/ARC programs, thus leaving cotton base without any program. To bring cotton base under the new program, it was renamed "generic base" and opened up to any program crop. See CRS Report RL32571, *Brazil's WTO Case Against the U.S. Cotton Program*.

[11] If the total number of acres planted to all covered commodities on the entire farm does not exceed the generic base acres on the farm, only the amount of acreage actually planted to a covered commodity is attributed to that covered commodity for payment purposes.

peanuts (or any other planted covered commodity such as corn or soybeans) during the life of the 2014 farm bill. Planted peanut acreage for 2012-2015 is also shown.

Table 3. Peanut Base, Generic Base, and Peanut Planted Area by State

State	Peanut base	Generic base	Peanut plantings		
			2013	2014	2015
			Acres		
Georgia	753,328	1,456,949	430,000	600,000	800,000
Texas	401,032	7,204,323	120,000	130,000	135,000
Alabama	260,991	657,231	140,000	175,000	215,000
N. Carolina	157,643	866,638	82,000	94,000	82,000
Florida	152,206	105,308	140,000	175,000	180,000
Oklahoma	93,010	589,031	17,000	12,000	10,000
S. Carolina	78,770	347,713	81,000	112,000	115,000
Virginia	75,516	103,423	16,000	19,000	23,000
New Mexico	24,267	98,088	7,000	5,000	5,000
Mississippi	14,144	1,623,887	34,000	32,000	35,000
Subtotal	**2,010,907**	**13,052,591**	**1,067,000**	**1,354,000**	**1,600,000**
Arkansas	6,177	1,148,575	—	—	—
Louisiana	1,288	995,813	—	—	—
Tennessee	1,125	743,850	—	—	—
Arizona	428	406,931	—	—	—
Missouri	211	440,015	—	—	—
Colorado	75	0	—	—	—
Nebraska	34	8	—	—	—
Other states	0	795,128	—	—	—
Total	**2,020,243**	**17,582,911**	**1,067,000**	**1,354,000**	**1,600,000**

Source: Base acres from USDA/Farm Service Agency (FSA); planted acreage from USDA/National Agricultural Statistics Service (NASS). **Notes:—**= not estimated by USDA/NASS.

Some of the planted acreage in 2014 and 2015 will be considered "attributed" for payments on generic base acres. For a discussion on prospective planting incentives for generic base, see section below on "Implied Planting Incentives for Peanuts Under the 2014 Farm Bill." An example of PLC payments on peanut base and generic base appears in **Appendix C**.

Payment Limit and Adjusted Gross Income Limit

For peanuts, the enacted 2014 farm bill sets a $125,000 per person cap on the total of PLC, ARC, marketing loan gains, and loan deficiency payments. A separate $125,000 limit applies to the total

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from all other non-peanut covered commodities (for both, limits are doubled with a spouse). Peanut payments have a separate limit because producers have been successful in convincing Congress that a combined limit would interfere with the value of the safety net when the supply control policy was eliminated in 2002. Under a scenario of a maximum annual peanut PLC payment ($180 per ton = $535 - $355), the number of peanut base acres that would be needed for a farm to reach the payment limit is approximately 545 acres.[12]

As with other farm program crops, payment eligibility depends on a gross income limit and rules on "actively engaged." To qualify for any commodity program benefits, recipients must pass an eligibility requirement based on adjusted gross income (AGI) used for federal taxes. The AGI limit is a single, total (farm and non-farm) AGI limit of $900,000 (using a three-year average). Also, to be eligible for payments, persons must be "actively engaged" in farming. Actively engaged, in general, is defined as making a significant contribution of (i) capital, equipment, or land, and (ii) personal labor or active personal management.[13]

Expanded Federal Crop Insurance Coverage in 2014 Farm Bill

Federal crop insurance provides a separate safety net to protect against yield loss due to weather, if purchased by producers. The insurance guarantees are established just prior to planting, based on historical yields and expected market prices (not statutory prices used in farm programs). The insurance premiums are subsidized by USDA, and subsidy rates vary based on the type of policy and coverage selected. See CRS Report R40532, *Federal Crop Insurance: Background*.

The 2014 farm bill mandated a peanut revenue insurance product for the 2015 crop year so farmers could choose between a traditional yield-based policy and one that protects against declines in revenue (yield times price). Revenue policies have been available for many other farm program crops for almost two decades, but developing one for peanuts has been problematic because its relatively small market is considered "thin" and futures market prices are not available for setting the price guarantee. After considerable study, USDA's Risk Management Agency decided to base prices for the new revenue product on several factors, including the futures prices of cotton, wheat, soybean oil, and soybean meal, as well as the Brazilian price of peanuts, peanut stocks, and the FSA loan rate for peanuts.[14]

Implied Planting Incentives for Peanuts Under the 2014 Farm Bill

As discussed above, farm program payments (PLC or ARC) are made on generic base acres in proportion to actual plantings of covered commodities (on entire farm) during each crop year (2014 through 2018). Depending on relative crop prices in the next several years, the potential PLC payment for peanuts on generic base acres could make peanuts an attractive planting option when comparing cost and returns for competing crops. Such a comparison can be done by first calculating an expected "minimum per-acre revenue" provided by the PLC program for peanuts, and then using this figure to calculate prices at which other crops must reach ("break even") in order for farmers to have a similar price incentive to plant something other than peanuts. If crop

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[12] 545 acres = $125,000/(0.85 x 1.5 tons per acre x $180 per ton).

[13] The 2014 farm bill instructed USDA to write regulations that define "significant contribution of active personal management" to more clearly and objectively implement existing law. The proposed rule was issued in March 2015, and the comment period ended May 26, 2015. Issuance of the final rule is pending.

[14] For more information, see http://www.rma.usda.gov/help/faq/peanutrevenue.html.

prices rise above the reference prices, no PLC payments would be made, and planting decisions would be market driven.

In general, for peanuts during crop years 2014-2018, the expected minimum return is driven largely by the PLC reference price of $535 per ton and an individual farmer's program payment yield. As detailed in the upper part of **Table 4**, after accounting for variable costs, the prospective net return acre for planting peanuts on generic base acres is $223 per acre. Higher or lower costs would alter the net return estimate, and fixed costs are excluded from the calculation because they must be paid regardless of which crop, if any, is planted.

Table 4. Peanut Returns and Break-even Price Calculation for Competing Crops

	Returns to Planting on Generic Base			Return Minus Variable Cost
	Market Revenue	Government Payment	Total (Market + Gov.)	Total Return – Variable Cost
Peanuts	$355/ton x 1.5 tons /acre = $532.50/acre	($535/ton - $355/ton) = $180/ton x 1.5 tons/acre x 0.85 (base factor) = $229.50/acre	$532.50 + $229.50 = $762/acre	$762/acre - $539/acre = **$223/acre**

Break-even price calculation using peanut return minus variable cost of $223/acre				
	Step 1	Step 2	Step 3	**Break-even Price for Competing Crops**
	Start with peanut returns minus variable cost (above)	Add variable cost of crop (Univ. of GA)	Divide by estimated crop yield (Univ. of GA)	Price below this level would favor planting peanuts
Corn	$223/acre	$223/ac.+$313/ac. = $536 /ac.	$536/ac. divided by 85 bushel/ac.	**=$6.31/bushel**
Soybeans	$223/acre	$223/ac.+$212/ac. = $435/ac.	$435/ac. divided by 30 bushel/ac.	**=$14.50/bushel**
Cotton	$223/acre	$223/ac.+$423/ac. = $676/ac.	$676/ac. divided by 750 lbs./ac.	**=$0.90/pound**

Source: CRS calculations using peanut program yield from USDA and variable costs and crop yields (corn, soybean, and cotton) from University of Georgia "2015 Peanut Update," http://www.gapeanuts.com/growerinfo/2015_ugapeanutupdate.pdf.

Notes: Costs of production and yields are for non-irrigated crops. PLC payments (paid on 85% of base acres) are made when the farm price is below the 2014 farm bill reference price ($535 per ton). The payment rate is the reference price minus the farm price (or loan rate, if higher). The calculation above assumes peanut farm price equals the loan rate ($355 per ton) and actual yield is the same as the program yield (1.5 tons/acre). When prices are below the loan rate, additional benefits accrue under the Marketing Loan Program (paid on actual production). If the peanut price is higher or if the actual yield is higher, then break-even prices would be higher than shown here.

To determine potential planting incentives, the prospective peanut return of $223 per acre can be used to calculate break-even market prices for competing crops that would make farmers generally indifferent between planting peanuts or another crop. In coming years, if prices for other crops are below the calculated break-even prices, the potential PLC payment would generally encourage farmers to plant peanuts on generic base because they could expect to receive a higher return than if they planted other crops. Other factors, such as agronomic need for rotations or marketing constraints, could also affect producer decisions in ways that would moderate the effective price incentive.

Break-even prices for the primary crops that compete with peanuts are calculated in **Table 4**. They are $6.31 per bushel for corn, $14.50 per bushel for soybeans, and $0.90 cents per pound for cotton. Each of these calculated break-even prices is above the expected level for 2016, 2017, and 2018, as projected in 2015 by USDA, the Congressional Budget Office (CBO), and the Food and Agricultural Policy Research Institute (FAPRI).[15] Thus, the economic incentive, as created by the 2014 farm bill, appears to be tilted toward planting peanuts on generic base for the foreseeable future, unless prices for competing crops rise to at least these break-even levels. In fact, projections by major forecasters show an increase in peanut area from average plantings of 1.28 million acres in 2011-2013. By 2018, CBO projects 1.545 million acres, FAPRI projects 1.43 million acres, and USDA projects 1.925 million acres.

Farms with generic base acres are most likely to be influenced by the potential government payments. The largest impacts on planting decisions could be in states where the generic base is large relative to the total base (see **Figure 4**) because the planting mix determines the payment. At one extreme is a farm with 100% generic base, when acreage eligible for specific crop payments corresponds directly to the covered crops that are planted. At the other extreme, for a farm with no generic base acres, the farmer cannot "chase" a potential payment because the payment acres are predetermined and will not change regardless of what the farmer plants, namely the individual crop base acres (e.g., peanut, corn, soybeans, wheat).

Figure 4. Shares of Total Base on Farms with Generic Base
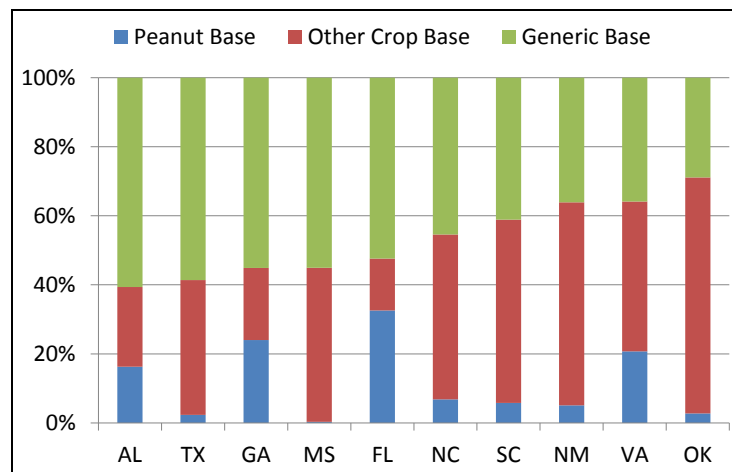
Source: CRS, using data from USDA's Farm Service Agency.

Notes: Other crop base includes primarily corn, soybeans, rice, and sorghum.

As shown in **Figure 4**, the share of generic base is relatively high for several major peanut producing states, including Georgia, Alabama, and Texas. These states could see additional plantings of peanuts in future years if relative returns (including government payments) favor peanuts.

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[15] The projections are available at http://www.ers.usda.gov/media/1776036/oce151.pdf, https://www.cbo.gov/sites/default/files/cbofiles/attachments/44202-2015-03-USDA.pdf, and http://www.fapri.missouri.edu/wp-content/uploads/2015/03/FAPRI-MU-Report-01-15.pdf.

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Selected Policy Issues

Generic Base Acres

A market distortion might emerge when peanut prices are low. The domestic and trade policy concern with generic base is that farmers might pursue potential farm program payments by planting certain covered crops in low-price years. As detailed above, producers with generic base might have an economic incentive to plant more peanuts if the combination of expected payments and market returns is greater for peanuts than for alternative crops. In some cases, if producers expect a sizeable peanut PLC payment rate, farmers could plant their entire farm to peanuts (or peanuts and no other covered crop), and their PLC payments on generic base would be calculated using the payment rate for peanuts. Alternatively, if expected market returns and PLC payment rates do not favor peanuts, farmers could plant their entire farm to crops other than peanuts. An outcome between these extremes is expected to prevail if farmers maintain typical rotations, which are needed to maintain soil health and long-term yield potential for all crops. Nevertheless, high potential PLC payments on generic base could cause producers to "stretch" their rotations and benefit from additional peanut payments on generic base.

USDA Program Administration and Potential Loan Forfeitures

In a future oversupply situation, USDA could face challenges with the marketing loan program for peanuts. If supplies are large enough to depress prices indefinitely, but farm subsidies provide incentives to plant peanuts, a large amount of peanuts could go under loan. Once under loan, and if prices remain below the loan rate, farmers could repay the loan (pocketing the marketing loan gain difference between the loan rate and posted price), and sell the peanuts to interested buyers. However, producers who can't find a buyer or fear that incurring a marketing loan gain (or loan deficiency payment) might cause them to surpass the payment limit of $125,000, could simply forfeit the collateral to USDA (via the Commodity Credit Corporation) and keep the original loan value. The CCC would then be responsible for handling and storage costs and the eventual marketing of the peanuts. For background on the marketing loan program, see **Appendix A**.

In a severely depressed market, USDA might have difficulty finding a buyer without offering a deep discount, which would result in large net outlays for the government. The Department could wait for a price recovery but doing so would result in additional storage charges. Sufficient storage capacity might also be an issue if stocks increase substantially. In its current projection, USDA expects peanut prices to be near the loan rate in the next five years, resulting in annual storage and handling charges of between $8 million and $50 million.

Prospective Government Outlays

With ongoing congressional concern for budget deficits and federal spending, the cost of the peanut programs might garner the attention of policymakers who want to reduce federal spending in the 114th Congress. Using the most recent program and price data as of June 2015, USDA expects peanut costs of $360 million for crop year 2014, including nearly $350 million in PLC payments (payments for the 2014 crop are made in FY2016). In June 2015, the Food and

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Agricultural Policy Research Institute (FAPRI) projected farm program outlays for peanuts at $424 million for the 2014 crop.[16]

Government payments for the 2015 crop will depend on how low the average peanut price is relative to the reference price. Based on the current price outlook for peanuts ($400 per ton or 20 cents per pound), a total peanut base of 2.0 million acres, and an average PLC payment yield of 1.5 tons per acre, total PLC payments on peanut base acres would equal $344 million for the 2015 crop or about $52,000 per farm using the number of peanut farms (6,561) in the 2012 Census of Agriculture.[17] Additional PLC payments on generic base (attributed to peanuts) could drive total PLC payments to more than $550 million, according to USDA projections, and more than $800 million per year in 2016 and beyond. (Also, given the expected larger peanut crops and the ensuing low market prices, additional costs would be associated with the marketing loan program, including storage and handling costs.) FAPRI's projections are somewhat lower, at $474 million for net government outlays associated with the 2015 crop. For 2016-2018 crop years, FAPRI projects peanut costs at or near $500 million per year.

Market Development

In the coming years, any increase in U.S. peanut plantings would enhance the need for the peanut industry to develop export markets to absorb additional peanut production. The American Peanut Council (APC) administers the U.S. peanut industry's export market development program, receiving approximately $2 million per year in government funds under the Market Access Program (MAP).[18] MAP aids in the creation, expansion, and maintenance of foreign markets for U.S. agricultural products.[19] The program has been targeted for cuts by some Members of Congress, who maintain that it is a form of "corporate welfare," or to help offset increased expenditures on other programs. Such efforts have been unsuccessful.

For the domestic market, some in Congress have begun encouraging the U.S. Department of Agriculture to purchase more peanut butter for domestic food programs and for international food aid as a way to increase peanut usage.[20]

Future Peanut Policy

The eventual response to current U.S. peanut policy by farmers has implications for future peanut supplies and prices. One possibility is expanded production; another is little or no change.

In the first scenario, if producers plant more peanut acreage in response to potential payments on generic base acres, production could expand, which would likely lead to lower peanut prices and higher government outlays. Another implication is that the international community could take

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[16] Food and Agricultural Policy Research Institute (FAPRI), *U.S. Crop Program Fiscal Costs: Revised Estimates with Updated Participation Information*, June 2015, http://www.fapri.missouri.edu/wp-content/uploads/2015/06/FAPRI_MU_Report_02-15.pdf.

[17] PLC payments on peanut base = 0.85 times 2 million acres of base x $135 per ton x 1.5 tons per acre = $344 million.

[18] U.S. Department of Agriculture, "USDA Helps Open and Expand Export Markets for U.S. Agriculture Through 2014 Farm Bill Programs," press release, April 16, 2014, http://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2014/04/0063.xml&printable=true&contentidonly=true. APC is the trade organization that represents all segments of the peanut industry. It operates a number of marketing, research, and other programs for the peanut industry.

[19] CRS Report R43696, *Agricultural Exports and 2014 Farm Bill Programs: Background and Issues*.

[20] "House Ag Members Quiz Vilsack on Wide Range of Issues," *The Hagstrom Report*, February 11, 2015.

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note if the generic base policy is considered trade distorting under World Trade Organization (WTO) rules. In the case of generic base and peanut production, it is possible that policy changes could lead to separate WTO-related concerns if peanuts (or any other covered crop) expands significantly due to program payment incentives rather than market incentives.

In the second production scenario, namely little or no change in peanut production, peanut plantings could remain relatively level if farmers maintain typical crop rotations and farmers encounter relatively higher prices for competing crops. Other industry limitations could also come into play. The peanut processing and marketing industry is geared for about 1.5 million acres, which has been toward the upper end of annual plantings for the last 20 years. Without additional storage and processing capacity, as well as market development, the industry could be hard-pressed to deal with significantly larger acreage. Additional investments in capacity from the farm-level through processing and manufacturing would likely be based on long-term expectations. The current farm bill covers the crops through the 2018 season, or three more planting seasons beyond 2015.

Given current farm policy, higher peanut production appears likely in the coming years unless weather problems or something unforeseen affects plantings or yields. Some policymakers could become concerned if the higher production scenario unfolds and government payments increase substantially. Others may have trade policy concerns because the "coupling" of payments with plantings can encourage plantings on generic base that may be contrary to market signals. In both cases, the level of the reference price is directly related to the level of potential payments and peanut farm revenue, as well as potential plantings on generic base acres.

If Congress chooses to review U.S. peanut policy, one option would be to "buy out" the generic base acres with a one-time government payment to owners of base in exchange for discontinued eligibility for farm programs on those particular acres. This would sever the link between planting and farm payments. However, it could be expensive for the federal government, and farmers would no longer have risk protection on these particular acres as designed by policymakers. Another option would be to re-assess how payments are made on generic base acres or to reconsider the relative levels of reference prices by crop. Yet another option would be to make PLC/ARC payments on generic base acres that are proportional to a previous year (such as 2014 or 2015) rather than on the planting shares each year, which is currently the case. These and other options would need congressional action.

Appendix A. Marketing Assistance Loan Program

The Marketing Assistance Loan (MAL) program provides a government loan to participating farmers of peanuts and other designated crops. The program provides interim financing for producers and protects them when prices decline because the government will take ownership of the loan collateral (peanuts) if prices drop below the loan rate ($355 per ton). A farmer must produce a crop to benefit from the program because the crop serves as loan collateral if the producer applies for a loan. These benefits are in addition to payments under Price Loss Coverage or Agricultural Risk Coverage (see "Farm Policy for Peanuts").

The MAL process begins after harvest, when farmers may request a marketing loan, which is offered by USDA at a loan rate established in statute ($355 per ton for peanuts, or 17.75 cents per pound). If farmers "take a loan" on their crop, they receive loan proceeds equal roughly to the quantity of peanuts placed under loan times the loan rate. Prior to loan maturity (9 months), a farmer may repay the loan principal and interest if the weekly national posted price for peanuts, which is an estimate of current farm price of peanuts as determined by USDA, is at or above the loan rate. In this case, the loan provides interim financing, allowing the farmer to receive cash as soon as the crop is harvested and avoid selling the crop during harvest when prices tend to be low.

Besides interim financing, marketing assistance loans also serve as a financial backstop in extremely low price environments, with benefits accruing to the producer when the posted price is below the loan rate. In this case, farmers are allowed to repay the loan at the lower posted price, thus receiving a "marketing loan gain" from the government because farmers do not repay the loan in full. The marketing loan gain is equal to the difference between the loan rate and the weekly national posted price. Also, accrued interest is waived, but the producer pays storage and handling charges for the quantity of peanuts under loan. As an alternative to putting the crop "under loan" when prices are low, farmers may request a "loan deficiency payment (LDP)," with a payment rate equal to the difference between the loan rate and the posted price (same as marketing loan gain). Farmers then receive a payment without going through the loan process.

Yet another option for loan repayment is "forfeiture." Rather than repaying the loan with cash, farmers can choose to fulfill their loan obligation by forfeiting the crop pledged as collateral. This option can be attractive for producers if the posted price is below or even slightly above the loan rate because the government, by law, then pays for costs associated with storage, handling, and interest. For large producers, another key feature of the forfeiture option is that the "gain" associated with forfeiting the crop, unlike a gain from repaying the loan with cash (or receiving an LDP), does not count toward the payment limit of $125,000 per person. Producers decide which route to pursue (repay loan with cash or forfeit) depending on the expected value of each option, their need for loaned funds, and their likelihood of exceeding the payment limit.[21] If a farmer chooses to forfeit the crop, USDA takes ownership of the crop. Storage costs continue to accrue to USDA until it sells the crop or use the peanuts for domestic nutrition programs.

For most of the last decade, the farm price of peanuts has been above the loan rate, so annual marketing loan benefits have been either zero or limited. See **Figure A-1** for a comparison of the weekly posted price and loan rate since the loan program became available for peanuts in 2002. During several periods, weak prices resulted in marketing assistance loan benefits, including $49 million for crop year 2002/03 and $31 million for crop year 2005/06.

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[21] For more information on the peanut MAL program, see 7 C.F.R. Part 1421 and the USDA fact sheet at http://www.fsa.usda.gov/Internet/FSA_File/mal_ldp_2014.pdf.

Figure A-1. Peanut Prices and Marketing Loan Rate

Producers receive benefits when the weekly National Posted Price is below the Loan Rate
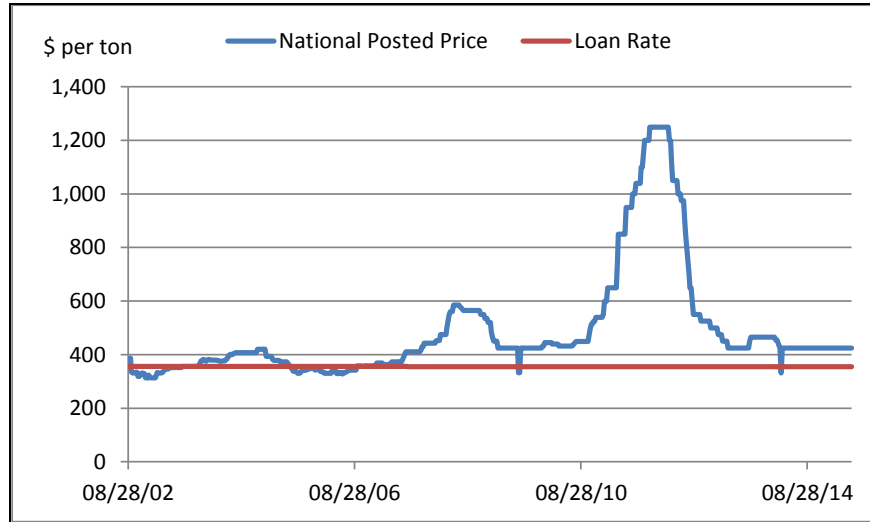
Source: Data from USDA/Farm Service Agency.

Notes: Data are for Runner-type peanuts, with an average loan rate during entire period (August 2002 - June 2015) of $355 per ton. When the program was "in the money" (weekly price falls below loan rate), the average benefit was: $22.11 per ton for 47 weeks of the 2002-03 crop year, $11.67 for three weeks in 2004-05, $17.77 per ton during the entire 2005-06 year, $13 per ton for six weeks in 2006-07, $22 per ton for two weeks in 2008-09, and $24 per ton for one week in 2013-2014.

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Appendix B. Price Loss Coverage Calculation

For an individual farmer, the potential PLC payment in 2015 could be approximately $172 per base acre using USDA's August 2015 price forecast. This estimate is determined by multiplying the estimated payment rate of $135 per ton ($535 - $400) by an average yield of 1.5 tons per acre times the 85% base acre factor. Total returns would be approximately $772 per acre, which is the summation of the PLC payment of $172 per base acre and estimated market returns of $600 per acre (equal to USDA's price forecast of $400 per ton times an average yield of 1.5 tons per acre, assuming actual yield happens to equal the payment yield). For 2015, an estimated total return of $772 per acre is above the expected variable cost of production in major peanut-producing regions. The 2015 variable cost of production for peanuts, as estimated by the University of Georgia, is $539 per acre for non-irrigated peanuts and $642 per acre for irrigated peanuts.[22] Thus, the current outlook for peanut "net farm income" is very positive.

Figure B-1 compares the peanut reference price, historical peanut prices, and the previous payment trigger. The levels of statutory prices (loan rates and reference prices) are determined during the political process of passing a farm bill.

Figure B-1. Peanut Program Price Loss Coverage (PLC) Payment Trigger

Payment Rate = Reference Price Minus National Farm Price (or Loan Rate, if higher)
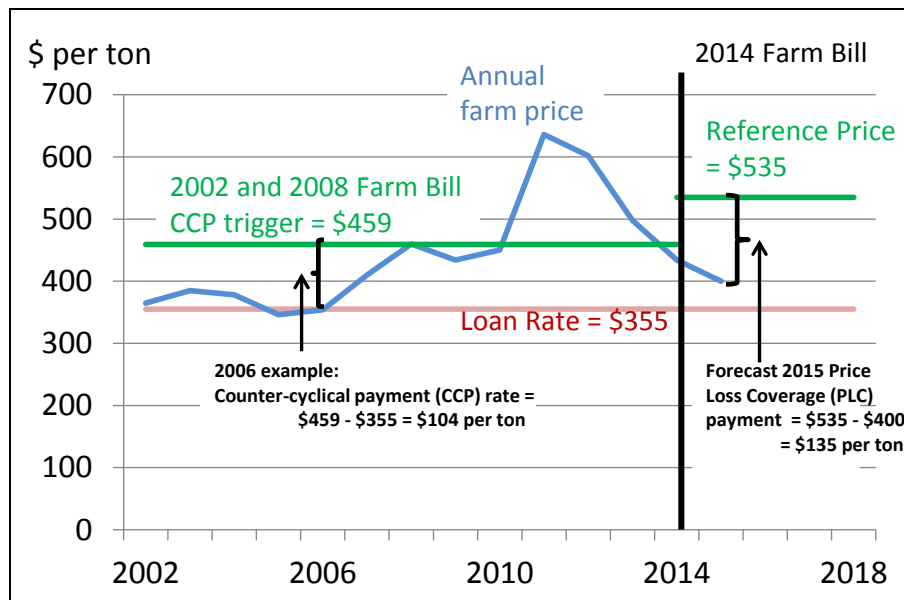
Source: CRS, using 2014 and 2015 price forecasts by USDA.

Notes: Under the 2014 farm bill, the PLC payment rate is the Reference Price minus annual farm price (or loan rate if higher). An estimate for the 2014 PLC rate is $95 per ton ($535 - $440). Under the 2002 and 2008 farm bills, the trigger for Counter-Cyclical Price (CCP) payments was $459 per ton, which equaled the target price of $495 per ton minus the direct payment rate of $36 per ton. The loan rate is part of the formula because marketing loan benefits provide additional price protection when prices fall below the loan rate.

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[22] Nathan B. Smith and Amanda R. Smith, *2015 Peanut Outlook and Cost Analysis*, University of Georgia Extension Peanut Team, 2015, http://www.gapeanuts.com/growerinfo/2015_ugapeanutupdate.pdf.

Appendix C. PLC Payments on Generic Base

Table C-1. PLC Payment Calculation for a Hypothetical Farm with Peanut Base and Generic Base

(Farmer selects Price Loss Coverage [PLC] for peanuts, with Generic Base attributed to peanuts and soybeans)

Step 1.	Step 2.	Step 3.	Step 4.
Data	**Payment Formula**	**Calculation**	**Payment**
Price Loss Coverage (PLC) for peanuts: *payment occurs when actual farm price ($400/ton) is below reference price ($535/ton)*			
Reference Price = $535/ton 2015 Actual Price = $400/ton Peanut Base = 200 acres Soybean Base = 0 acres Farm Program Yield = 1.5 tons/acre of peanuts 2015 Total Plantings = 300 acres (250 acres of peanuts and 50 acres of soybeans) **Note: payments on Peanut Base do not depend on same-year plantings.**	**Payment =** (Reference Price – Actual Price) x Base Acres x 85% acreage factor x Program Yield	**Peanut Payment =** ($535/ton - $400/ton) x 200 acres x 85% x 1.5 ton/acre = $34,425	**Peanut payment =** $34,425
Generic Base = 100 acres (formerly Upland Cotton Base) **Note: payments on Generic Base depend on same-year plantings of covered crops.**	For plantings on Generic Base: Payment = same formula as above but Generic Base acres are attributed to a particular covered commodity in proportion to actual plantings for that crop year. In this case, Generic Base (100 acres) are attributed to: peanuts = 250 / 300 x 100 acres = 83 acres soybeans = 50 / 300 x 100 acres = 17 acres	Payment on Generic Base = ($535/ton - $400/ton) x 83 acres x 85% x 1.5 ton/acre = $14,286 No PLC payment for soybean plantings because soybean price is above the reference price (payment rate is zero)	**Payment on Generic Base =** $14,286
Total farm payment = PLC for peanuts + PLC for Generic Base (planted/attributed to peanuts and soybeans)			$48,711

Source: CRS, based on statutory provisions of P.L. 113-79, hypothetical data (acreage and yields), and USDA crop prices (2015 "actual" prices are forecast as of August 12, 2015).

Notes: Statutory parameters include the reference price and the payment acreage factor (85%). For each crop year, generic base acres are attributed to (i.e., temporarily designated as) base acres to a particular covered commodity base in proportion to that covered crop's share of total plantings of all covered commodities in that year. The loan rate is used in the payment calculation if it is higher than the actual price.

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