

United States Department of Agriculture

U.S. Farm Income and Financial Outlook for 2016

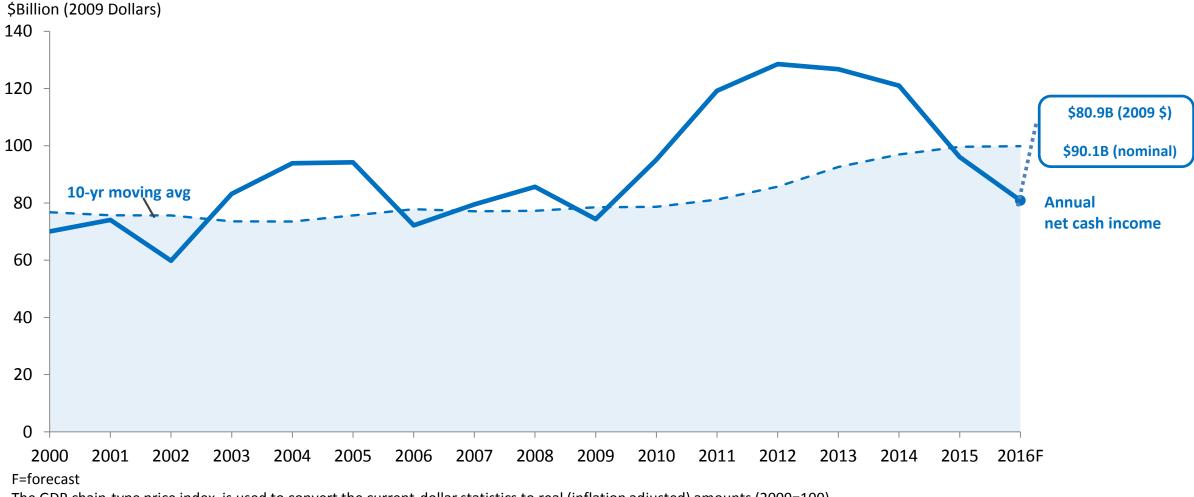
Farmer Mac Refresh December 14, 2016

Presented by Kevin Patrick

Summary

- Net cash farm income forecast down **14.6** percent relative to 2015.
- Animals/products cash receipts are expected to fall by **12.3** percent (\$23.4 billion) in 2016.
- Crop cash receipts are expected unchanged in 2016.
- Yield and production are expected to grow to record or near record levels for many commodities, including corn and soybeans in 2016, driven by higher planted acres and favorable weather conditions.
- **Government payments** are projected to **rise 19.1 percent** to \$12.9 billion in 2016: Price Loss Coverage (up 160 percent) and Agricultural Risk Coverage (up 36 percent).
- Federal insurance indemnities forecast down **36** percent to \$5.3 billion.
- Total production expenses are forecast to fall 2.6 percent, and for the second year in a row, led by declines in livestock/poultry expenses and in manufactured inputs such as fertilizers and fuel.
- Declining farm sector assets (down 2.1 percent) and rising debt (up 5.2 percent) are forecast to erode equity by 3.1 percent.



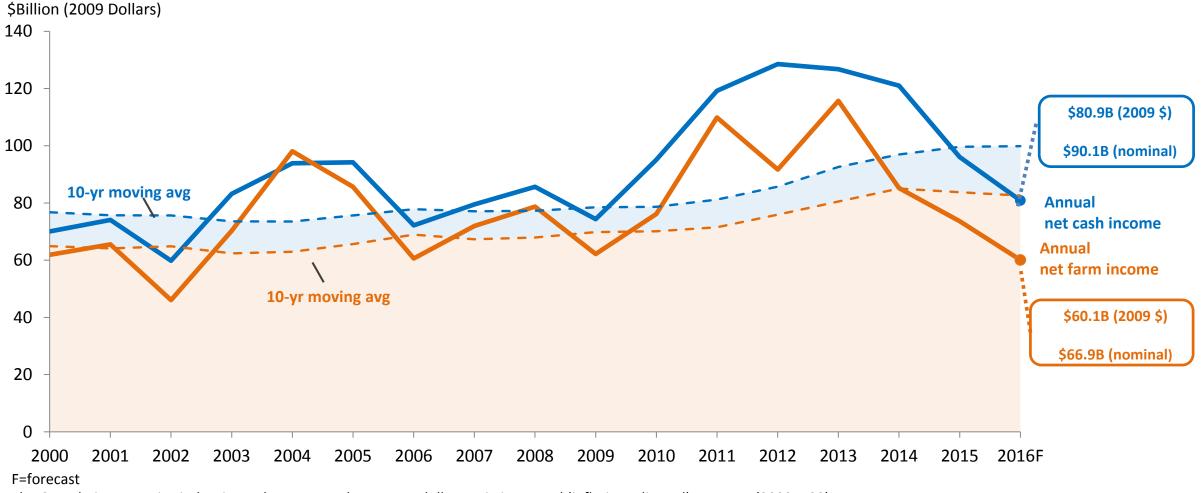


Net cash farm income forecast to fall below their 10-year moving average

The GDP chain-type price index is used to convert the current-dollar statistics to real (inflation adjusted) amounts (2009=100) Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.



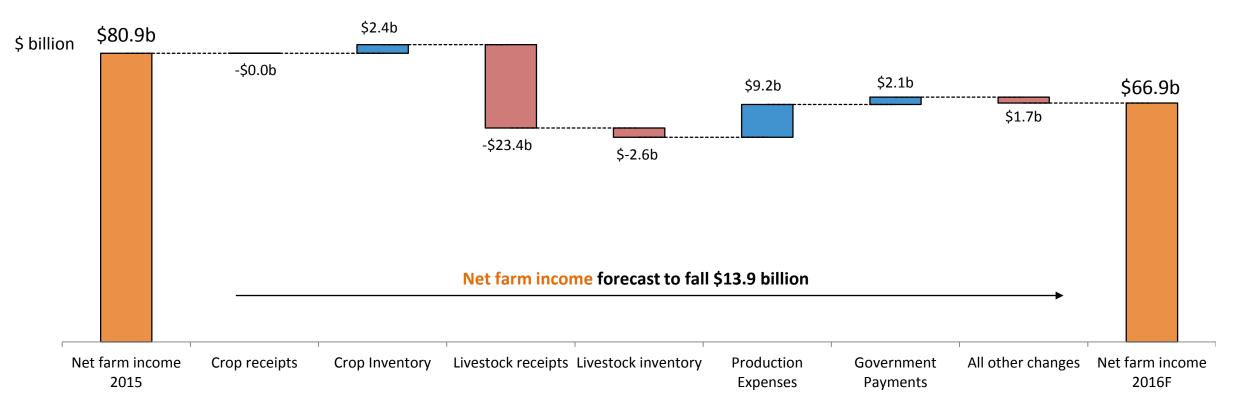
Net cash farm income and net farm income forecast to fall below their 10-year moving averages



The GDP chain-type price index is used to convert the current-dollar statistics to real (inflation adjusted) amounts (2009=100) Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.



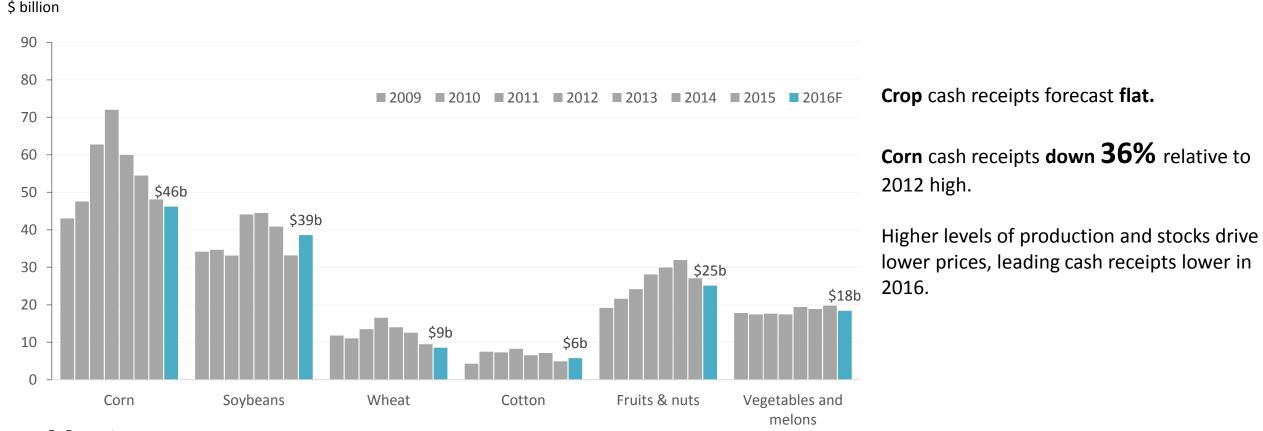
Net farm income driven lower by animal receipts, partially offset by higher government payments and lower expenses, relative to 2015



F= Forecast. Source: USDA, Economic Research Service, Farm Income & Wealth Statistics. Data as of November 30, 2016



Crop receipts forecast down for nearly all major crops in 2016



\$ billion

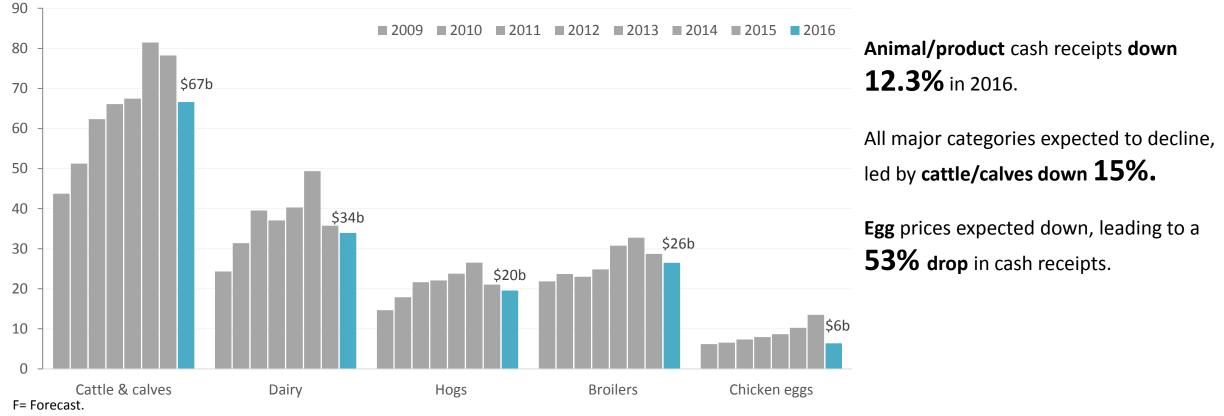
F= Forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics Data as of November 30, 2016

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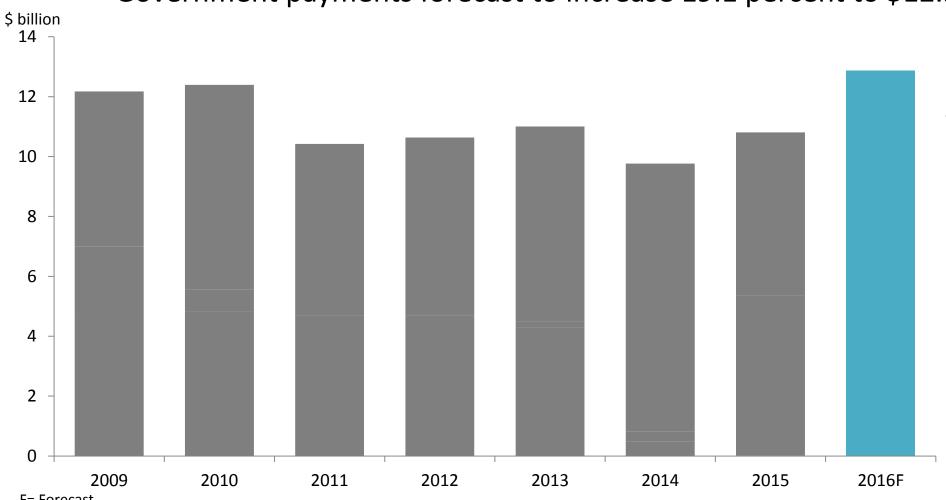
Cattle/calves and chicken eggs forecast lead declines in cash receipts in 2016





Source: USDA, Economic Research Service, Farm Income and Wealth Statistics Data as of November 30, 2016





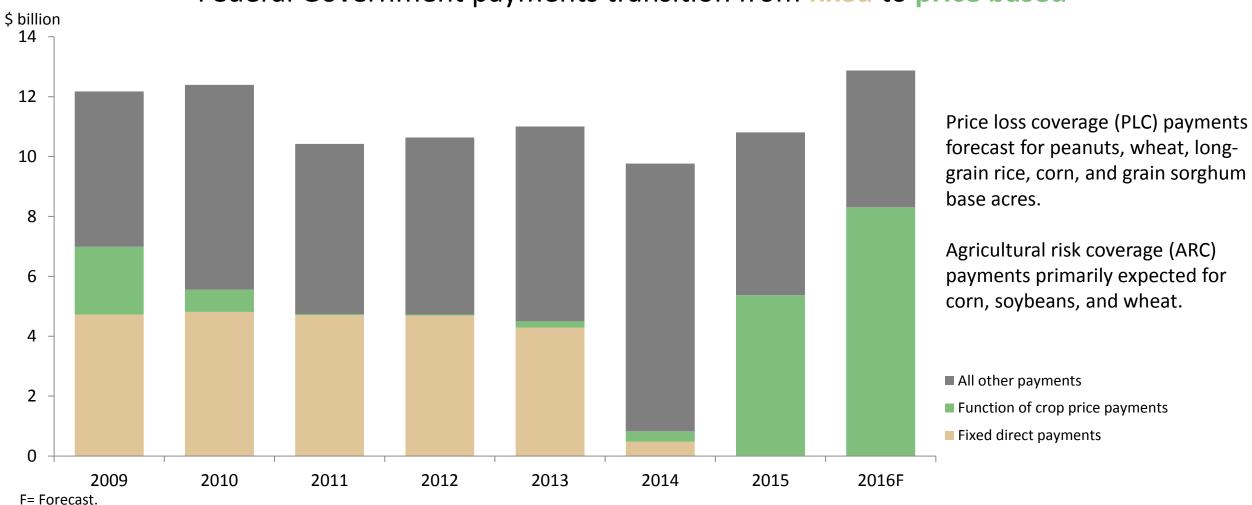
Government payments forecast to increase 19.1 percent to \$12.9 billion in 2016

This would be the highest **Federal Government payments** to farmers in 10 years.

F= Forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics using FSA, NRCS, and CCC data. Data as of November 30, 2016.





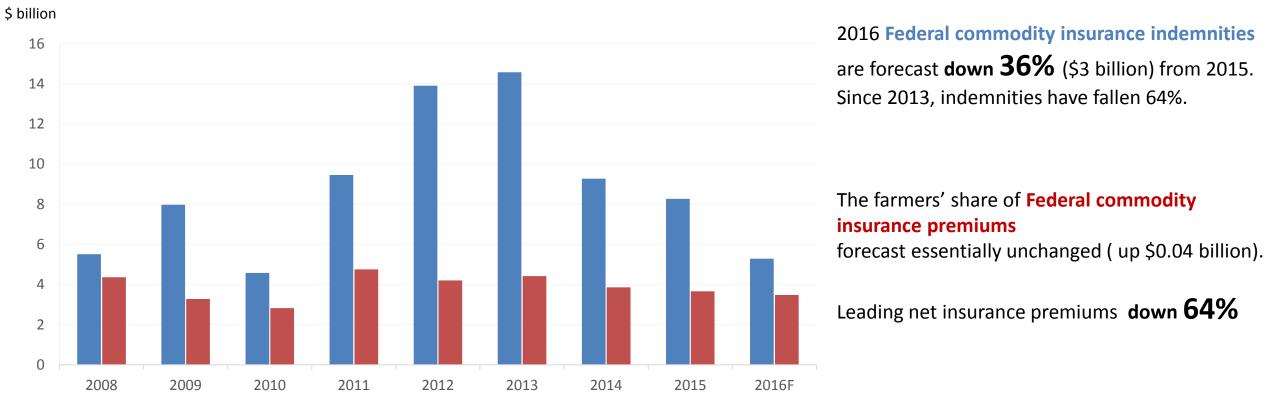
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics using FSA, NRCS, and CCC data. Data as of November 30, 2016.



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Federal Government payments transition from fixed to price based

Federal commodity insurance indemnities down sharply since 2013

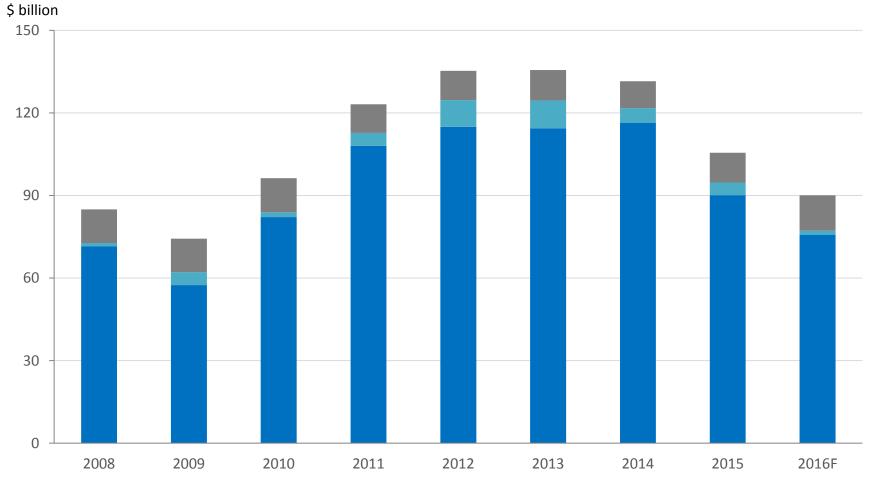


F= Forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics Data as of November 30, 2016



Federal Government payments and net Federal insurance indemnities contribute relatively small percentage of net cash farm income



Net cash farm income (NCFI) measures resources available to pay down debt and support

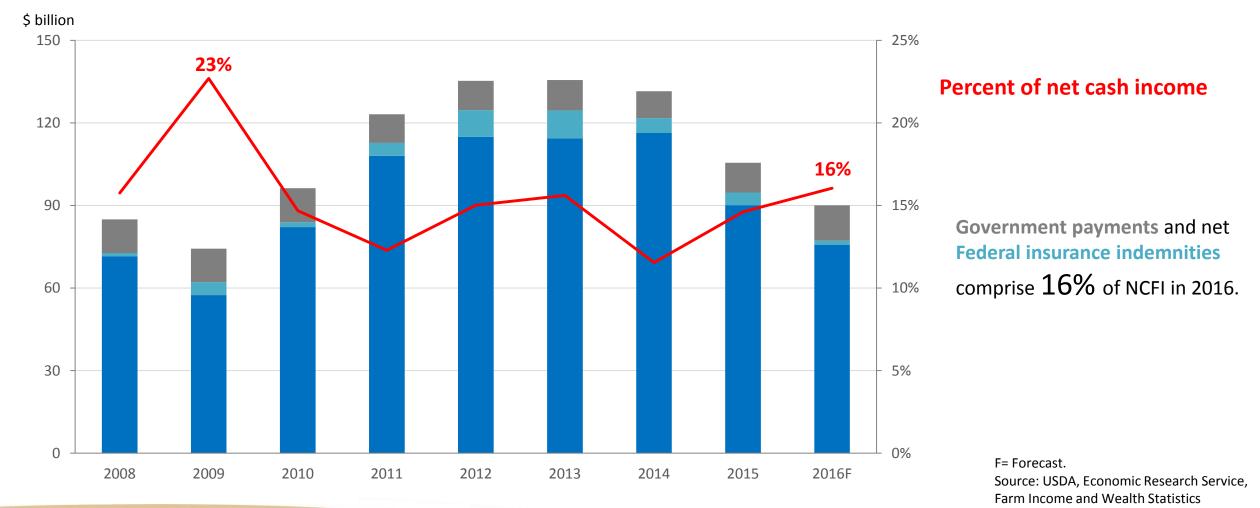
pay down debt and support household spending.

F= Forecast. Source: USDA, Economic Research Service, Farm Income and Wealth Statistics Data as of November 30, 2016

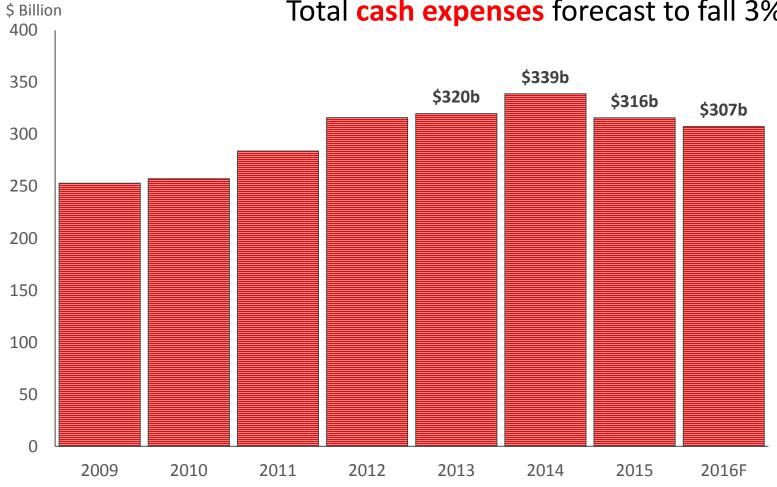


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But during low net cash farm income years, Federal Government payments and net Federal insurance indemnities tend to have greater impact



Economic Research Service www.ers.usda.gov Data as of November 30, 2016



Total cash expenses forecast to fall 3% in 2016

Second year of decline in **cash expenses**;

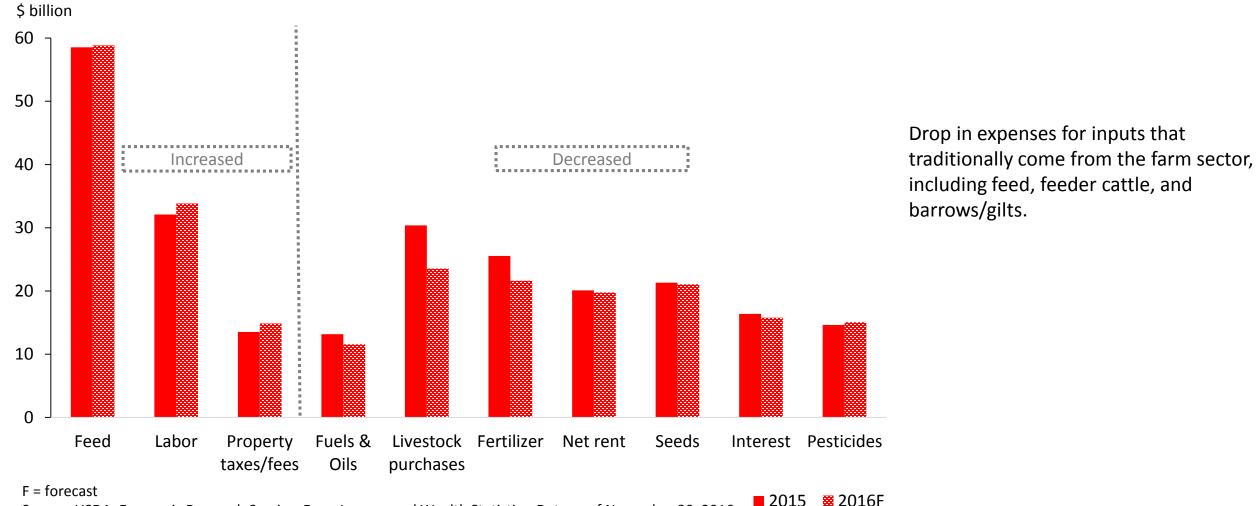
Cash expenses grew by **7.1%** on average from 2010 to 2014 and have shrunk by **4.8%** on average from 2014 to 2016.

F= Forecast.

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics Data as of November 30, 2016



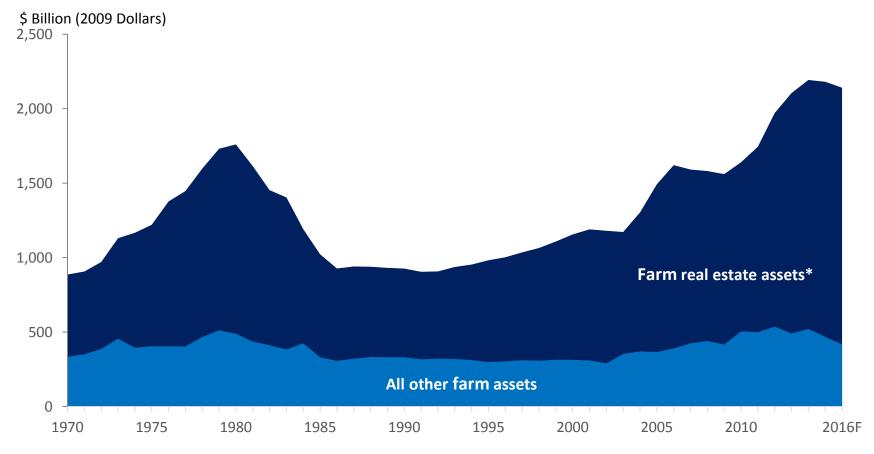
Reduced spending on livestock purchases and fertilizer projected to lead cash expenses lower



Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.



Farm real estate* represents the majority of the sector's assets



Inflation-adjusted value of farm assets forecast **down 2.1%** relative to 2015, including real estate (**down 1.8%**)

F= Forecast. Values are adjusted using the chain-type GDP deflator, 2009=100.

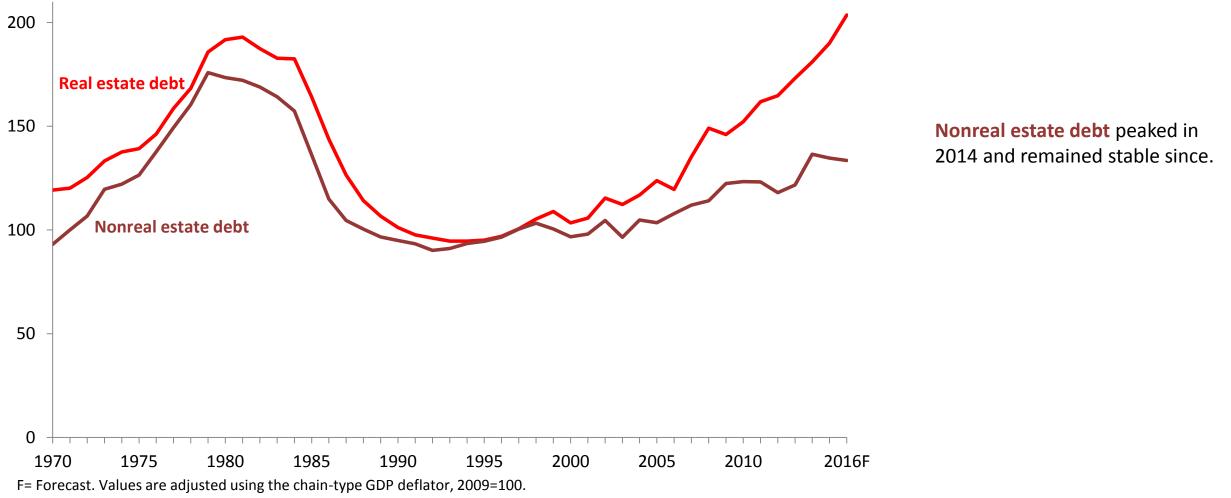
*Real estate includes the value of land and buildings

Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.



Farm real estate debt expected to expand in 2016

\$ billion (2009 Dollars)

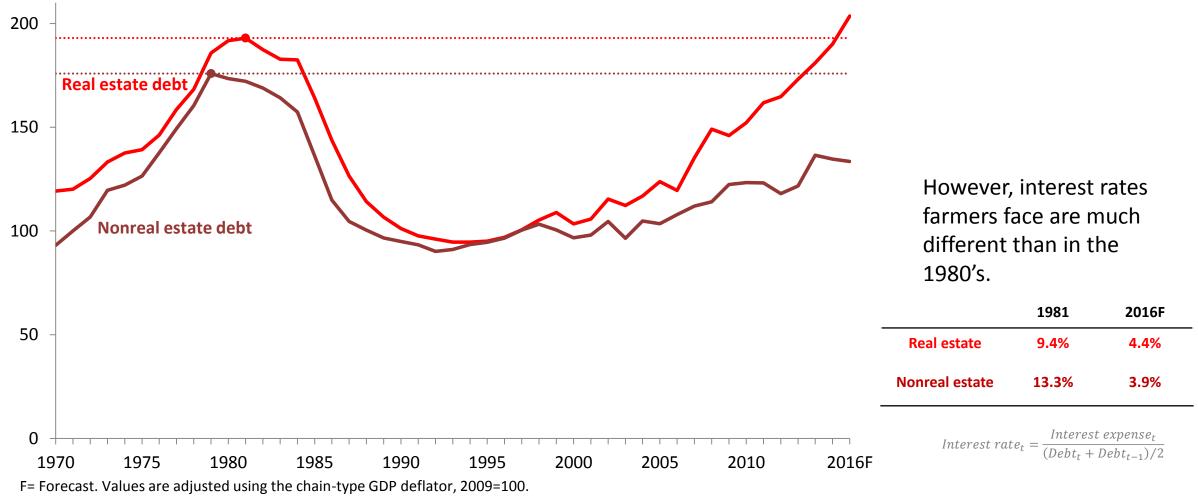


Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.



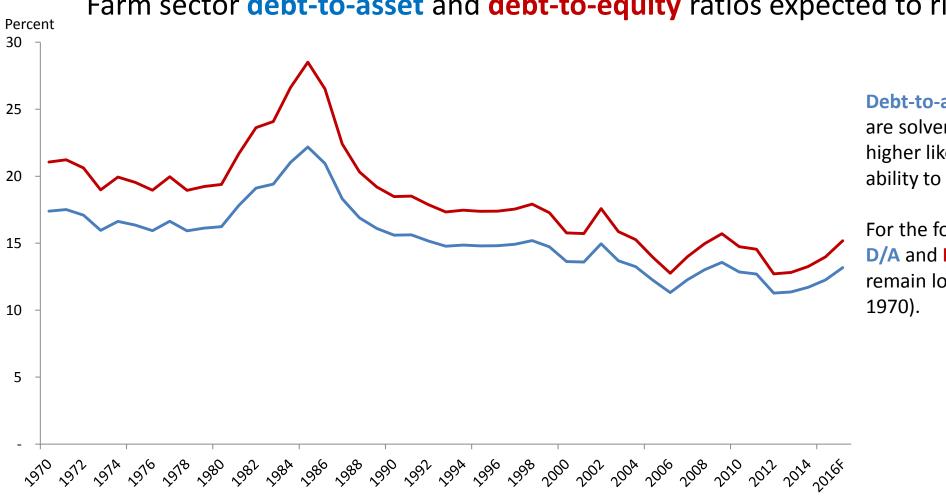
Farm real estate debt forecast above early 80's peak

\$ billion (2009 Dollars)



Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.





Farm sector **debt-to-asset** and **debt-to-equity** ratios expected to rise slightly in 2016

Debt-to-asset (D/A) and debt-to-equity (D/E)

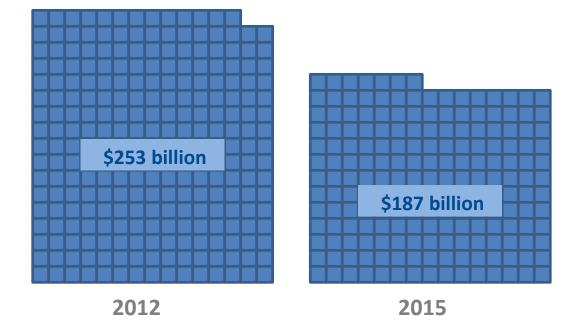
are solvency ratios. Higher ratios indicate higher likelihood of default and decreased ability to overcome adverse financial events.

For the fourth straight year, both farm sector D/A and D/E ratios are forecast to rise, but remain low by historical standards (since

F= Forecast. Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016



Current assets down \$66 billion between 2012 and 2015

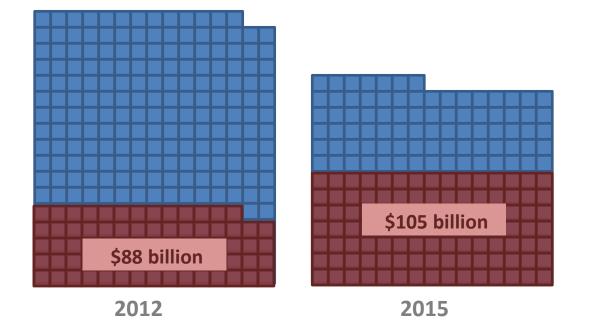


Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.

 \Box = \$1 billion



Current debt grew by \$17 billion between 2012 and 2015



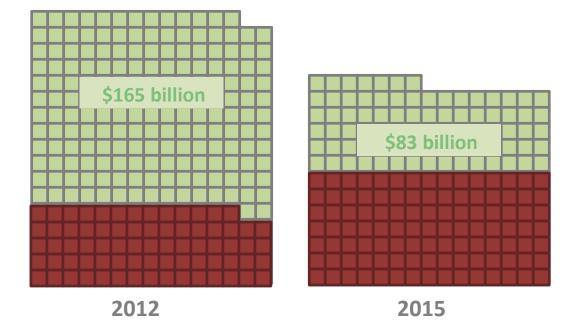
Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.





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Working capital shrinks by 50 percent in three years

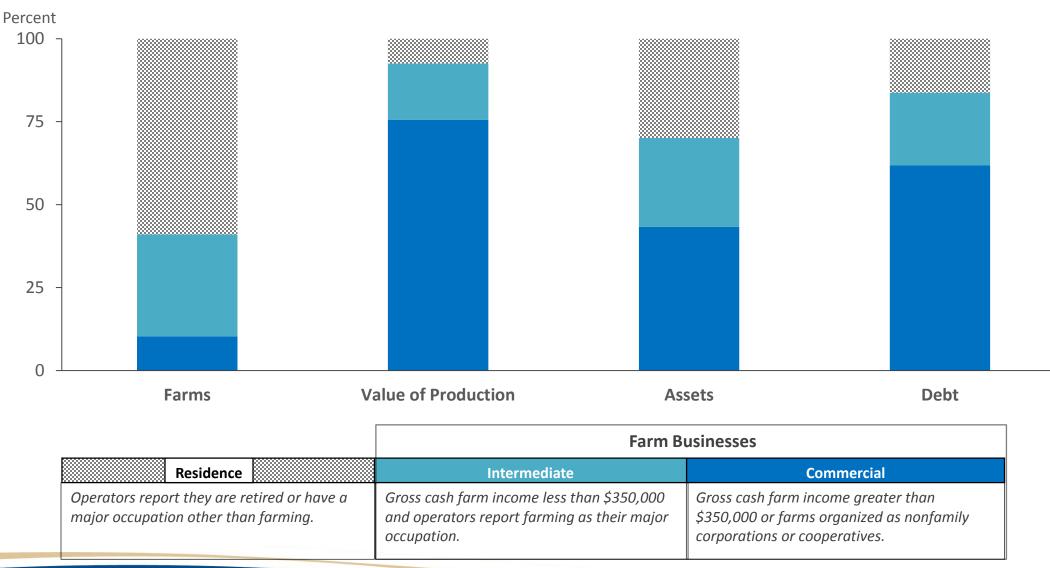


Source: USDA, Economic Research Service, Farm Income and Wealth Statistics. Data as of November 30, 2016.

 \Box = \$1 billion



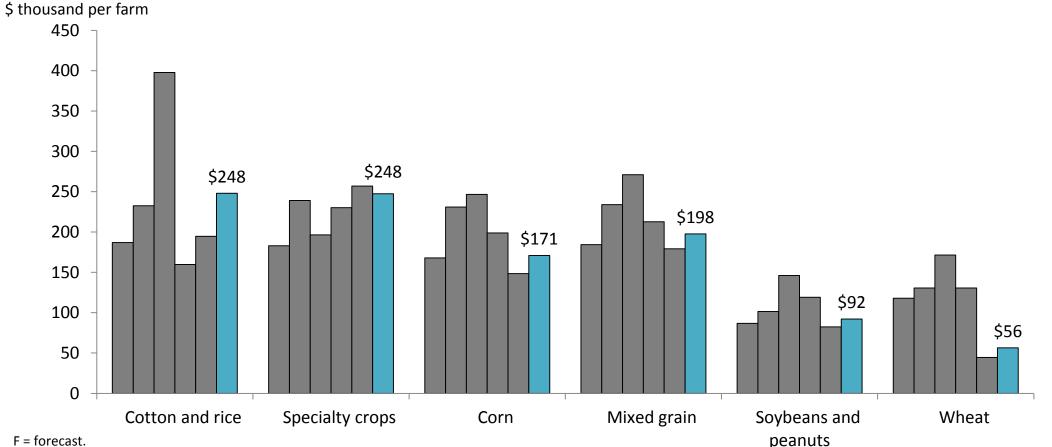
Farm businesses account for 41% of farms, but over 90% of value of production





Economic Research Service *www.ers.usda.gov* Source: 2015 Agricultural Resource Management Survey (ARMS)

Average net cash farm income up for most crop farm businesses except specialty crops in 2016 ^{1/}



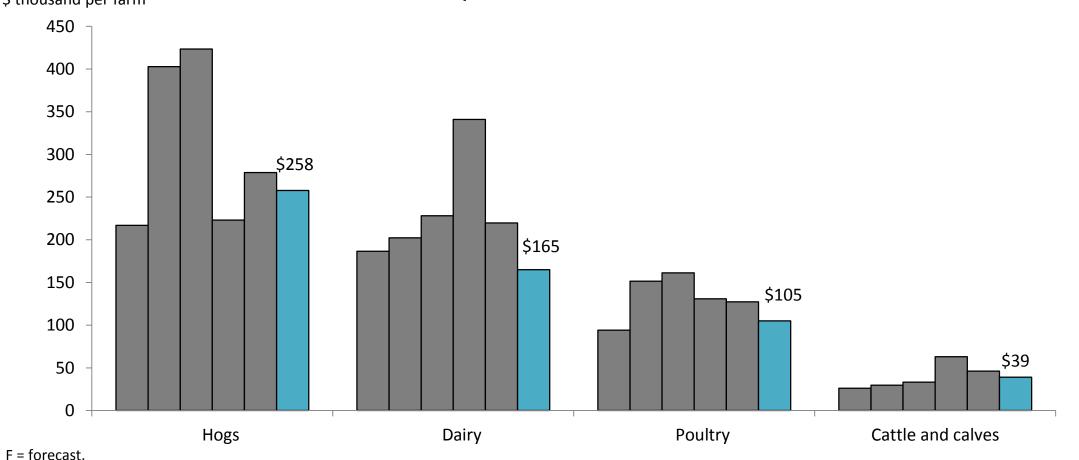
F = forecast.

1/ Farm business forecasts apply a partial budget model on the 2015 Agricultural Resource Management Survey (ARMS) using parameters from the sector forecasts. Data as of November 30, 2016.



2010 2011 2012 2013 2014 2015 2016F

Average net cash income expected to fall for most farm businesses specializing in animals and \$ thousand per farm

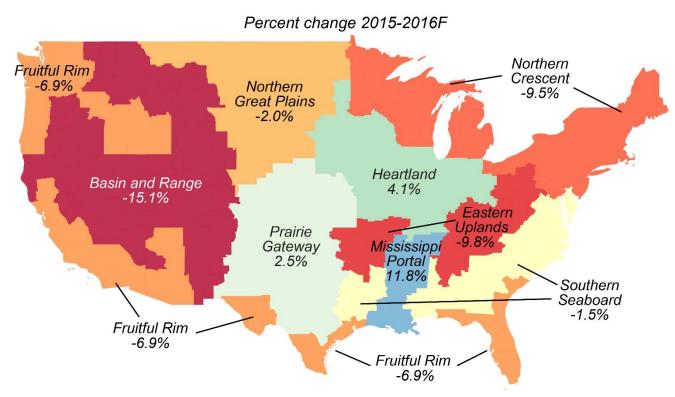


1/ Farm business forecasts apply a partial budget model on the 2015 Agricultural Resource Management Survey (ARMS) using parameters from the sector forecasts. Data as of November 30, 2016.



Economic Research Service *www.ers.usda.gov* 2011 2012 2013 2014 2015 2016F

2016 net cash farm income regional impacts are expected to be mixed for farm businesses



Distribution of regional NCFI impacts follows forecast impact of production patterns.

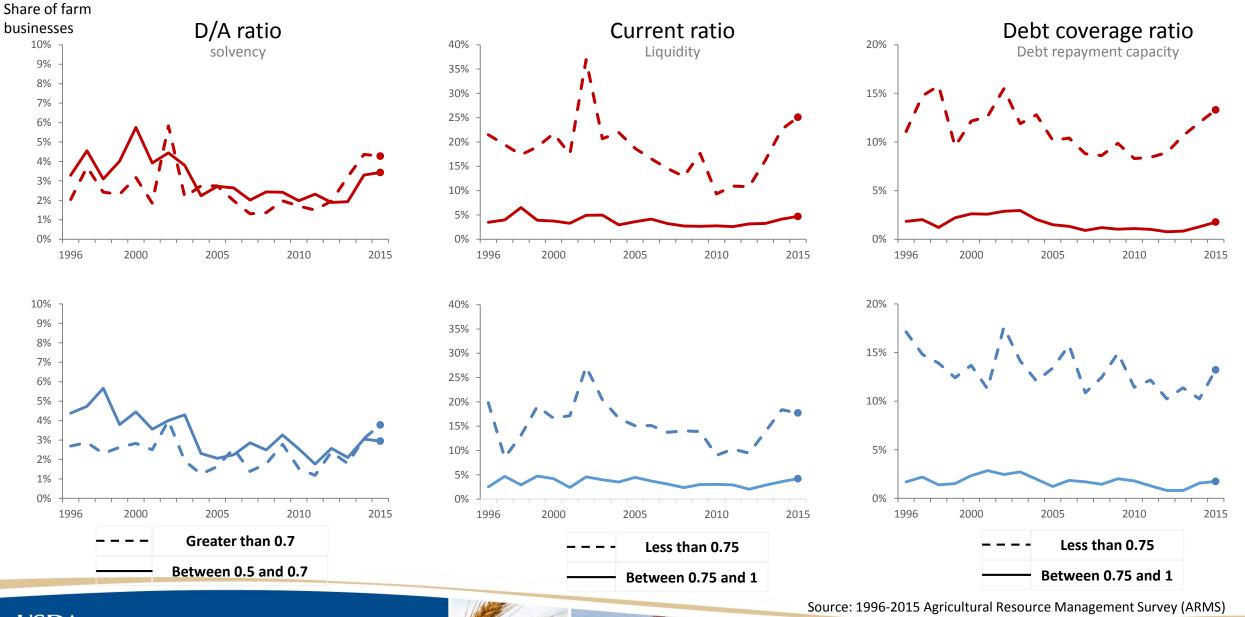
Strength in rice and cotton receipts drive cash income impacts in Mississippi Portal

Dairy's forecast drives **Northern Crescent** and **Fruitful Rim** cash incomes lower.

The partial budget forecast model is based on the 2015 Agricultural Resource Management Survey (ARMS) using parameters from the sector forecasts. The model is static and does not account for changes in crop rotation, weather, and other location-based production impacts that occurred after the base year. Data as of November 30, 2016. Source: USDA, Economic Research Service, Farm Income and Wealth Statistics.

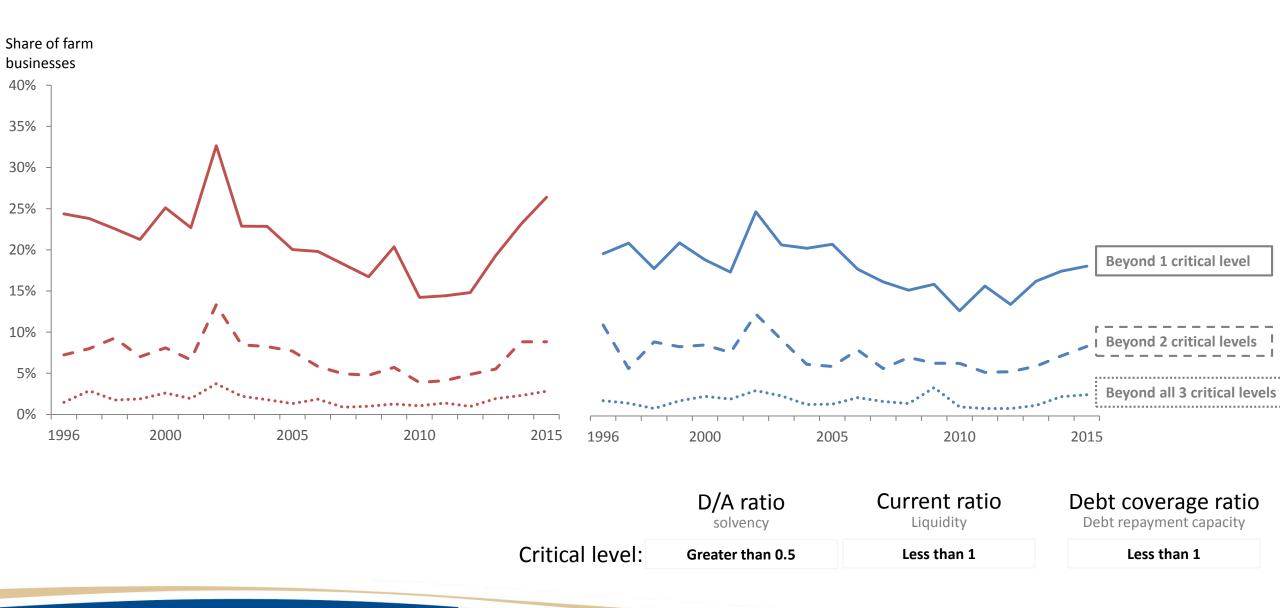


Increasing share of **crop** and **livestock** farm businesses with financial ratios beyond critical levels



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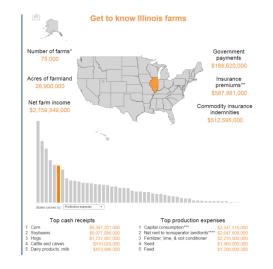
Increasing share of **crop** and **livestock** farm businesses with financial ratios beyond critical levels



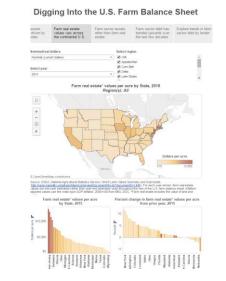


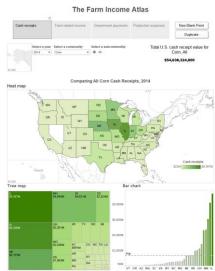
Source: 1996-2015 Agricultural Resource Management Survey (ARMS)

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Year State	artificialKey	VariableDescriptionTotal	VariableDescriptionPart1	VariableDescriptionPart2	Amount	unit desc	PublicationDate	ChainType GDP Deflator
2016 US	CRAUSACVAP	Cash receipts value, all co	All commodities	All	352071121	\$1,000	Date as of November 30, 2016	111.366
2016 US	CRAUSADCOVAP	Cash receipts value, other	All other crops	All other crops	27561596	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSERVIAP	Cash receipts value, broile	Broilers	الم	26476130	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSBYVAP	Cath receipts value, barle	Barley	All	924243	\$1,000	Data as of November 20, 2016	111.266
2016 US	CRAUSCHEAVAP	Cash receipts value, farm	Farm chickens	All	95228	\$1,000	Data as of November 30, 2016	111.266
2016 US	CRAUSCLVAP	Cash receipts value, cattle	Cattle and calves	All	66629206		Date as of November 30, 2016	111.366
2016 US	CRAUSCNUSVAP	Cash receipts value, cotto	Cotton lint	Long staple	287928	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSCNUPVAP	Cash receipts value, cotto	Cotton lint	Upland	4529923	\$1,000	Data as of November 30, 2016	111.966
2016 US	CRAUSCNVAP	Cash receipts value, cotto	Cotton lint	A11	4917250	\$1,000	Data as of November 30, 2016	111.966
2016 US	CRAUSCOVAP	Cash receipts value, crops	Crops	All	106492012	\$1,000	Data as of November 30, 2016	111.966
2016 US	CRAUSCRVAP	Cash receipts value, corn.	Com	A11	46191912	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSCSVAP	cash receipts value, cotto	cottonseed	All	995921	\$1,000	Date as of November 30, 2016	111.366
2016 US	CRAUSCTWAP	Cash receipts value, cotto	Cotton	10	57731.78	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSCWVAP	Cash receipts value, cane	Cane for sugar	A11	1049940	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSCZVAP	Cash receipts value, canol	Canola	All	459122	\$1,000	Data as of November 20, 2016	111.266
2016 US	CRAUSDBVAP	Cash receipts value, dry br	Dry bears	All	030436	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSDYVAP	Cash receipts value, dairy	Dairy products	All	33344278	\$1,000	Date as of November 30, 2016	111.366
2016 US	CRAUSEGVAP	Cash receipts value, chick	Chicken eggs	140	6399895	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSEEVAP	Cash receipts value, feed	Feed crops	A11	55904948	\$1,000	Data as of November 30, 2016	111.966
2016 US	CRAUSELVAP	Cash receipts value, flacse	Flaxmed	A11	66208	\$1,000	Data as of November 20, 2016	111.266
2016 US	CRAUSENVAP	Cash receipts value, fruits	Fruits/Nuts	All	25106394	\$1,000	Data as of November 30, 2016	111.966
2016 US	CRAUSPOVAP	Cash receipts value, food	Food greins	A11	10979176	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSEPVAP	Cash receipts value, fores	Porest products	All	797114	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSHO-WAP	Cash receipts value, hogs,	Hogs	10	19582723	\$1,000	Data as of November 30, 2016	111.066
2016 US	CRAUSHYVAP	Cash receipts value, hay,	Hay	A11	6975075	\$1,000	Data as of November 30, 2016	111.966
2016 US	CRAUSLVMIVAP	Cash receipts value, livest	Animals and products	Miscellaneous animals an	6941294	\$1,000	Data as of November 20, 2016	111.266
2016 US	CRAUSLVVAP	Cash receipts value, livest	Animals and products	AI	166379114	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSMAVAP	Cash receipts value, meat	Meat animals	All	86211921	\$1,000	Date as of November 30, 2016	111.366
2016 US	CRAUSMLVAP	Cash receipts value, miller	Proso millet	ا لم	37701	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSMISSOVAP	Cash receipts value, must	Mustardseed	A11	9293	\$1,000	Data as of November 30, 2016	111.966
2016 US	CRAUSOCMIVAP	Cash receipts value, oil cre	Oil crops	Miscellaryeout	470595	\$1,000	Data as of November 20, 2016	111.266
2016 US	CRAUSOCVAP	Cash receipts value, oil cri	Oil crops	All	40060855	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSOTVAP	Cash receipts value, oats ,		All		\$1,000	Date as of November 30, 2016	111.366
2016 US	CRAUSPGVAP	Cash receipts value, poult	Poultry/Eggs	All	39281615	\$1,000	Data as of November 30, 2016	111.366
2016 US	CRAUSPNVAP	Cash receipts value, pean		A11	1164022		Data as of November 90, 2016	111.966
2016 US	CRAUSPOVAP	Cath receipts value, potat	Potatoes	All	2766753	\$1.000	Data as of November 20, 2016	111.266

Tailored financial reports

Decade 2010		* Nominality	al dollars	Nominal (current	▼ Submit						
14 4 1 ef 51	B BI () Find Sect ()										
Document Hap	Value added to the U.S. economy by the agricultural	sector, 2010-2016F									
VA State US	Nominal (current dollars)										
United States			2018 2011 2012 2013 2014 2015 2016								
Alabama	United States	2010	\$1,000				2015	2016F			
Alasika		81,000	\$1,000	81,000	\$1,000	81,000	81,000	31,000			
Arizona	Wake of crop production	168.122.783	199 335 795	212,907,390	223 640 195	205 971 108	162 795 490	185 225 6			
Arkansas	Citic cash receipti	180.365.874	201.043.624		220.848.243	211 362 963	199,484,535	195,492.01			
California	Cotton	7.464.640	7 303 972		8.515.834	7.111.320	4,913,549	6.773.17			
Colorado	Feed croca	55 142 761	71,733,544		70.835.571	85.873.659	57,984,821	05.804.94			
Connectiout	Food grame	14,314,378	16.527 336		17,230,695	16,050,095	12,416,539	10,979,12			
Delaware	Fruits and ruts	21.612.927	24.106.200		29.904.334	31,930,203	27.064.020	25.106.31			
Plorida	Olicippe	36.544.312	35.324.388		47,274,387	42.620.534	35.557.009	40.660.85			
Georgia	Tobarco	1,330,561	1.139.738		+7,27+,367	1,715,575	1.601.567	2,014,37			
Hannali	Vegetables and melons	17.404.837	17.616.247		10,417,000	18,871,455	19,748,059	18.391.41			
51abab	All other crops	25.546,456	27,232,113		28.122.943	27.190.012	27.206.971	27,561,55			
#knos	Home consumption	20,040,400	75.072		160.092	27,100.012	258.506	291,901,91			
Indiana	Inventory adjustment	-12.328.918	-1.701.001		12 631 660	-5.831.256	-3.947.581	-1.528.34			
Spen	triversory aspessment	114,348,918	10,000,000	100,013,041	14,031,004	10,031,400	10,007,001	11,0400,44			
Kansas	Writer of animals and products productive	140 199 703	101.004.041	169 115 600	180 991 790	214,442,089	104 557 410	168 597 34			
Kentucky	Animais and products cash receipts	140.024.967	164790.514		162 704 665	212 792 575	189,765,870	160.379.1			
Louisiana	Darry products, Milk	31 372 345	39 531 305		40.276.790	49 352 950	25.739.249	33,944,23			
Maine	Meat animals.	09.144.199	83,953,111		01218.009	107.995 183	99,261,130	65,211,92			
Heryland	Miscellaneous livestock	5.618,245	5.902.684		6.841.177	7.056.564	0.745.993	6.041.20			
Nassachusetts	Poutty and edga	34.600.177	35.412.413		44,368,029	48,388,858	48.018.508	39,281.61			
Michigan	Home consumption	259 792	293 231		329,201	345.641	363.051	378.05			
Manmanota	Inventory attuitment	-926.055	-1.396,705		-2.052.146	1.301.471	4,427,509	1.843.12			
Nississippi	and a second sec										
Missiouri	Farm-related income	35.780.589	45.934.655	57.138.428	59.187.707	52,874,371	51,520,452	49.850.57			
Montania	Porent products add	460,131	404,657	406,202	567,638	641,434	695,218	737.1			
Nebraska	Gross imputed rental value of tarm dwellings	15,767,770	16.178.175	17,875,956	17,195,797	16,303,731	17,139,758	18,096,55			
Nevada	Machine Nre and customwork	3,809,719	3,962,357	3.903,740	4.445.768	4.402.924	4,085,936	4,993.87			
New Hampshin	Other farm income	15,742,969	28.339.466	34.862,531	35.978.305	31,520,282	28,998,540	26.023.03			
Name Teninger	Total content die ton states internet in	4 776 032	0.708 517	14 661 406	18 187 104	10.400.416	8 0.00 1.07	4 2.04 1.4			

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