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Baseline Update for U.S. Farm Income and Government Costs

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The projections reported here are based on the market outlook reported in the *Baseline Update for U.S. Agricultural Markets*, FAPRI-MU Report #04-22.

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Summary

In 2022, farmers are paying a lot more for the inputs they buy and earning a lot more from the products they sell. These two effects largely offset each other, resulting in little change in net farm income. Looking ahead, a projected decline in farm commodity prices outpaces expected declines in farm input prices, and projected net farm income declines in 2023 and 2024.

This report utilizes commodity supply, demand and price projections from the FAPRI-MU August 2022 baseline update (FAPRI-MU Report #04-22, available at www.fapri.missouri.edu). Historical data are from USDA and include the revision to farm income accounts released by the Economic Research Service (ERS) on September 1, 2022. ERS revised downward its previous estimates of 2021 farm income expenses by \$20 billion, resulting in a corresponding increase in estimates of 2021 net farm income.

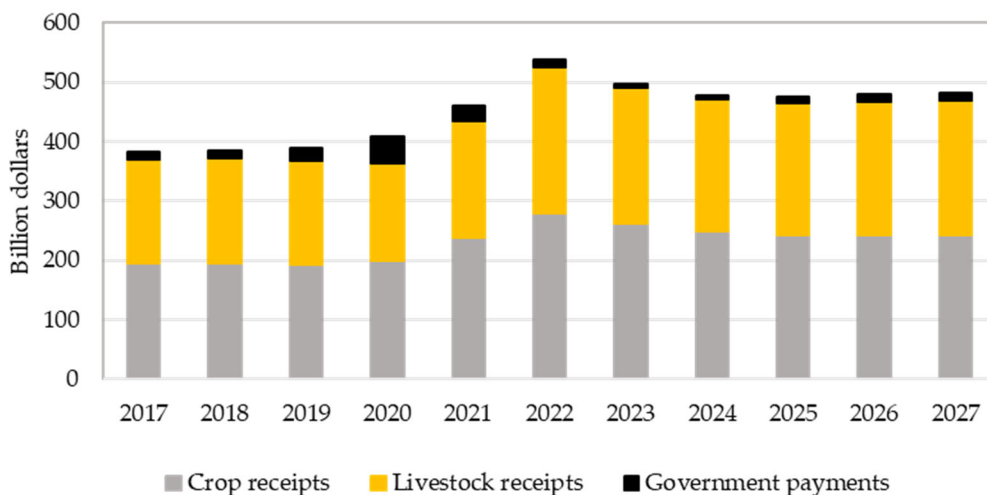
These baseline estimates reflect policies in place in late August 2022. Direct government payments to farmers peaked in 2020 at over \$45 billion, but decline to an estimated \$13 billion in 2022 and could drop even further in 2023 as ad hoc programs are assumed to expire. The projections incorporate some provisions of the Inflation Reduction Act, including the \$20 billion in increased budget authority for USDA conservation programs between fiscal years 2023 and 2026.

Given the assumptions of the analysis, here are a few highlights of the results:

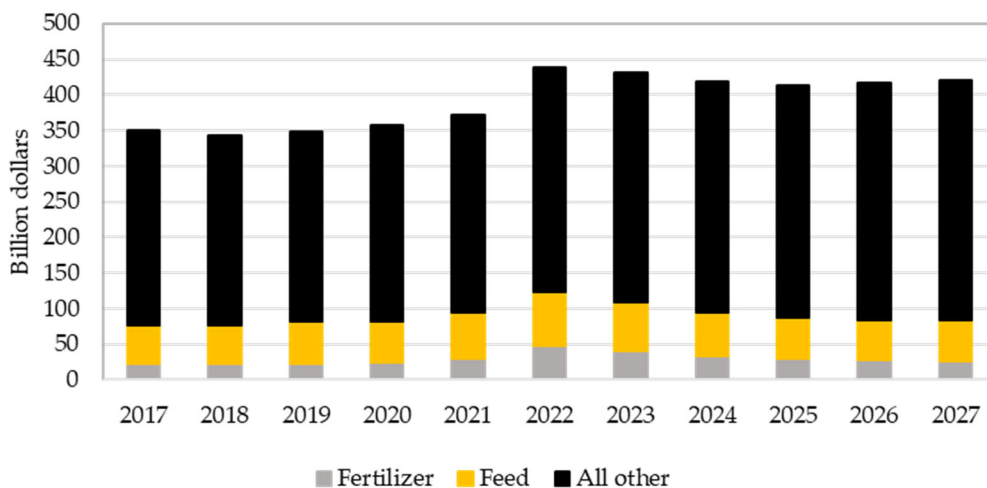
- Projected net farm income in 2022 is \$148 billion, up \$8 billion from 2021 and a record in nominal terms. Correcting for inflation, real net farm income is expected to be down slightly in 2022, and below the previous peak in 2013.
- Crop and livestock receipts both increase sharply in 2022, primarily because of higher prices for a wide range of agricultural commodities. In nominal dollars, projected crop receipts are up \$42 billion in 2022 and livestock sector receipts increase by \$49 billion.
- Offsetting most of the increase in farm receipts in 2022 is a projected \$67 billion increase in farm production expenses. Higher prices for fertilizer, fuel and feed account for much of the increase.
- Government payments decline in 2022, and a reduction in the value of farmer-held inventories also works against the increase in sales receipts.
- The projected increase in net farm income is much smaller in 2022 than the expected increase in net cash income. The latter is a cash flow measure, which considers current receipts and expenses, but excludes depreciation and changes in the value of inventories.
- The projections of 2022 net farm income are similar to those by ERS in its September report. However, FAPRI and ERS estimates of several line items differ. For example, FAPRI projects greater corn receipts and fertilizer expenses; ERS reports greater poultry receipts and interest expenses.
- In 2023 and 2024, projected reductions in farm commodity prices reduce expected farm cash receipts. Fuel and fertilizer expenses also decline, but many other expense categories increase, resulting in lower net income.
- The projected decline in nominal net farm income between 2022 and 2024 is \$25 billion. The drop in net cash income is even greater, with inventory changes accounting for much of the difference between the two measures.
- Nominal net farm income is fairly steady from 2024 to 2027, but after correcting for inflation, real net farm income continues to decline. In inflation-adjusted terms, projected real net farm income in 2027 is about the same as it was in 2020.
- Rising asset values and slower growth in debt reduced the sector's debt-to-asset ratio in 2021, and a further reduction is expected in 2022. Lower farm income and higher interest rates result in smaller projected increases in farmland values, and the debt-to-asset ratio increases again between 2022 and 2025.

In contrast to the 2022 FAPRI baseline prepared earlier this year, these estimates do not consider market uncertainty. Small proportional changes in market receipts or production expenses can dramatically change the outlook for net income.

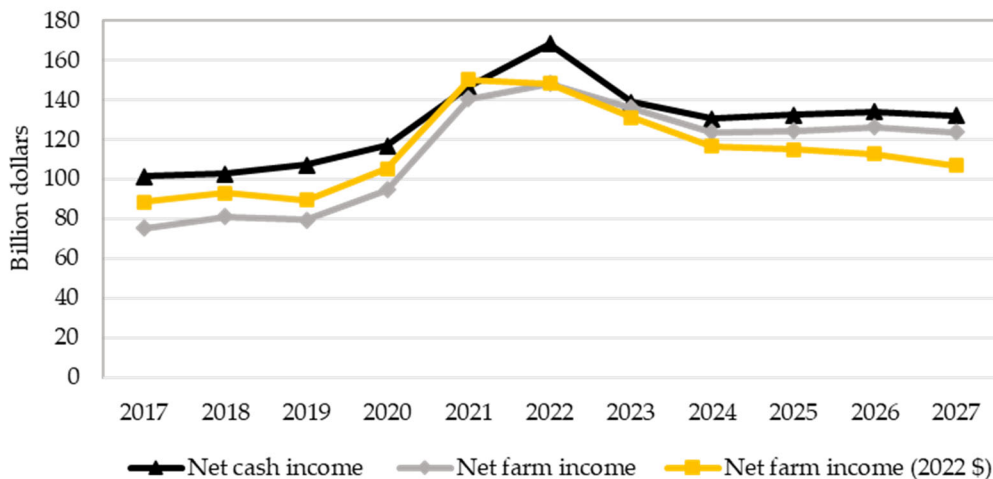
Farm receipts and government payments



Farm production expenses



Net farm and net cash income



U.S. government outlays

Fiscal year	2020	2021	2022	2023	2024	2025	2026	2027
Commodity Credit Corporation (Million dollars)								
Farm bill commodity programs	3,307	6,648	2,400	640	1,062	1,353	3,012	4,124
Corn	447	1,386	3	12	67	388	1,677	2,262
Wheat	473	1,664	856	48	56	46	126	323
Soybeans	190	647	-13	9	22	98	362	713
Upland cotton and seed cotton	567	944	497	60	199	40	37	42
Rice	636	414	220	47	3	20	50	72
Other major crops & dairy	994	1,593	837	464	715	760	759	713
Other CCC-funded programs	13,577	3,900	4,016	4,134	4,315	4,404	4,509	4,596
Market facilitation program	9,213	239	0	0	0	0	0	0
Conservation reserve	1,855	2,090	1,821	1,947	2,111	2,175	2,250	2,316
Disaster and all other	2,509	1,571	2,194	2,187	2,204	2,229	2,259	2,280
Total CCC programs	16,884	10,548	6,416	4,774	5,378	5,757	7,521	8,721
Non-CCC programs								
Crop insurance	9,894	6,742	9,139	13,400	12,408	11,320	10,987	10,943
Pandemic-related (CFAP, PAP*)	10,000	15,403	6,393	0	0	0	0	0
Paycheck protection program	5,842	8,470	0	0	0	0	0	0
NRCS conservation	3,210	3,190	3,187	3,493	4,524	6,618	8,553	7,179
Non-CCC disaster and all other	1,848	1,386	7,404	0	0	0	0	0
Total non-CCC programs	30,794	35,191	26,123	16,893	16,932	17,938	19,540	18,121
Total, CCC & non-CCC	47,678	45,739	32,539	21,667	22,310	23,695	27,061	26,842

Note: Fiscal years begin on Oct. 1 (FY 2023: Oct. 1, 2022 to Sep. 30, 2023).

* Coronavirus Food Assistance Program (CFAP) and Pandemic Assistance for Producers (PAP) initiative.

U.S. government payments (farm income accounts)

Calendar year	2020	2021	2022	2023	2024	2025	2026	2027
(Million dollars)								
Price loss coverage	4,953	2,099	204	186	209	285	351	586
Agriculture risk coverage	1,269	117	58	238	488	2,161	3,295	3,946
Market facilitation program	3,782	18	0	0	0	0	0	0
Pandemic-related (CFAP, PAP)	23,528	7,488	780	0	0	0	0	0
Paycheck protection program	5,842	8,470	0	0	0	0	0	0
Conservation programs	3,815	3,533	4,194	4,366	5,145	6,597	7,927	7,101
Emergency and disaster	2,033	2,929	7,832	684	682	677	677	682
Dairy and all other	325	1,157	2	346	562	627	565	472
Total direct payments	45,546	25,812	13,070	5,820	7,087	10,346	12,816	12,787

U.S. farm cash receipts

Calendar year	2020	2021	2022	2023	2024	2025	2026	2027
	(Billion dollars)							
Feed grains	57.71	82.58	101.29	93.02	81.59	77.84	77.31	76.43
Food grains	11.80	15.09	18.88	17.15	16.00	15.56	15.36	15.32
Oilseeds	43.84	51.58	67.33	61.65	56.04	54.05	53.08	53.23
Cotton	6.81	7.61	8.48	7.72	7.59	7.78	8.04	8.15
Sugar	2.56	2.22	2.88	2.76	2.76	2.79	2.77	2.75
Other crops	76.33	78.69	80.82	80.19	83.84	84.19	85.53	85.69
Cattle	63.09	72.87	84.13	86.13	89.10	91.00	91.82	91.81
Hogs	19.17	28.02	29.70	27.90	25.89	24.84	24.51	25.16
Dairy products	40.36	41.76	56.56	50.98	47.47	46.72	46.96	47.59
Poultry, eggs	35.12	46.10	66.93	56.60	52.96	52.82	53.49	54.26
Other livestock	6.66	7.04	7.48	7.43	7.41	7.47	7.57	7.69
Total cash receipts	363.46	433.57	524.49	491.54	470.64	465.06	466.44	468.07

U.S. farm production expenses

Calendar year	2020	2021	2022	2023	2024	2025	2026	2027
	(Billion dollars)							
Feed	56.84	65.25	75.88	69.31	60.75	57.49	56.91	56.52
Purchased livestock	29.01	30.70	34.68	35.52	37.66	38.59	38.74	38.69
Seed	23.02	22.32	24.97	27.08	28.09	28.27	28.43	28.50
Fertilizer	24.44	29.54	46.97	40.29	33.30	29.15	27.05	26.73
Pesticides	16.52	17.82	21.34	21.59	21.32	21.31	21.52	21.73
Fuels and electricity	17.95	20.31	26.98	23.45	21.83	21.54	22.23	23.11
Interest	19.37	18.95	22.21	25.08	25.99	26.32	26.84	27.36
Contract and hired labor	36.60	36.67	39.24	40.20	42.28	43.55	45.01	46.12
Capital consumption	29.41	23.67	25.95	27.26	27.91	28.21	28.48	28.83
Rent to landlords	17.89	18.67	19.75	20.61	20.91	20.82	20.97	21.31
All other	86.69	87.27	99.72	100.04	98.10	98.22	99.81	101.48
Total production expenses	357.73	371.18	437.71	430.43	418.14	413.46	415.99	420.37

U.S. farm income

Calendar year	2020	2021	2022	2023	2024	2025	2026	2027
	(Billion dollars)							
Farm receipts	397.7	465.9	564.3	533.2	510.1	503.5	505.0	507.0
Crops	199.1	237.8	279.7	262.5	247.8	242.2	242.1	241.6
Livestock	164.4	195.8	244.8	229.0	222.8	222.8	224.3	226.5
Farm-related	34.3	32.3	39.8	41.6	39.4	38.4	38.5	38.9
Direct government payments	45.5	25.8	13.1	5.8	7.1	10.3	12.8	12.8
Gross cash income	443.3	491.7	577.4	539.0	517.2	513.8	517.8	519.8
Nonmoney income	18.5	20.8	22.9	23.8	23.8	23.6	23.5	23.4
Value of inventory change	-9.6	-0.9	-14.3	3.5	0.6	0.4	0.9	0.8
Gross farm income	452.2	511.5	586.0	566.3	541.6	537.8	542.2	544.0
Cash expenses	326.5	345.3	409.3	400.2	386.8	381.6	383.8	387.9
Total expenses	357.7	371.2	437.7	430.4	418.1	413.5	416.0	420.4
Net cash income	116.8	146.4	168.1	138.8	130.4	132.2	133.9	131.9
Net farm income	94.5	140.4	148.3	135.8	123.4	124.3	126.2	123.7
Deflated (2022 \$)	105.2	150.0	148.3	131.2	116.6	115.0	112.7	106.7

U.S. farm balance sheet

Calendar year	2020	2021	2022	2023	2024	2025	2026	2027
	(Billion dollars)							
Farm assets								
Real estate	2,641	2,896	3,182	3,211	3,243	3,254	3,289	3,343
All other	534	602	668	640	601	571	562	561
Total assets	3,175	3,498	3,850	3,851	3,844	3,825	3,851	3,904
Farm debt								
Real estate	289	324	345	361	370	377	381	386
All other	153	150	168	167	164	162	163	164
Total debt	441	474	513	528	534	539	544	550
Debt/asset ratio	13.9%	13.6%	13.3%	13.7%	13.9%	14.1%	14.1%	14.1%