

# FARMLAND INDEX

## A LOOK BACK IN TIME

FARMLAND TOTAL RETURNS							
	Total NPI	Total Farmland Index	Pacific West	Pacific Northwest	Corn Belt	Delta	Southeast
4th Qtr 2017	1.80	2.93	5.06	2.90	0.33	1.55	1.55
3rd Qtr 2017	1.70	1.02	1.52	0.26	0.88	0.63	0.72
One Year	6.96	6.19	8.04	12.52	2.13	4.11	6.52
Three Year	9.38	7.86	12.40	7.06	(0.80)	3.36	8.16
Five Year	10.19	11.31	18.19	9.58	2.55	6.17	8.86
Seven Year	10.81	12.87	17.72	9.78	8.48	9.70	9.63
Ten Year	6.08	12.08	15.34	9.71	9.67	10.08	6.33
Inception	9.23	11.46	13.85	7.14	10.49	9.93	8.81

FARMLAND INCOME AND APPRECIATION RETURNS					
	Income	Appreciation	Total Return	Property Count	Market Value
4th Qtr 2017	2.13	0.80	2.93	727	8,501,197,740
3rd Qtr 2017	1.34	(0.31)	1.02	699	8,086,759,941
One Year	4.61	1.54	6.19		
Three Year	5.15	2.62	7.86		
Five Year	6.41	4.71	11.31		
Seven Year	6.72	5.90	12.87		
Ten Year	6.69	5.17	12.08		
Inception	6.89	4.41	11.46		

FARMLAND PROPERTY DISTRIBUTION BY PROPERTY TYPE AND REGION		
Property Type	Number of Properties	Market Value \$ Millions
Annual Cropland	486	4,801
Permanent Cropland	241	3,700
<b>Total</b>	<b>727</b>	<b>8,501</b>
Pacific West	227	3,955
Pacific Northwest	57	558
Corn Belt	176	796
Delta States	81	1,327
Southeast	45	560
Mountain	67	676
Southern Plains	20	238
Lake States	36	263
Other	18	129
<b>Total</b>	<b>727</b>	<b>8,501</b>

CROP TYPE DISTRIBUTION					
Crop Type	Number of Properties	Market Value \$ Millions	1 year returns ending 12/31/2017		
			Income Return	Appreciation Return	Total Return
Annual-Commodity	318	2475	3.17%	-6.06%	-3.03%
Annual-Fresh Produce	31	544	3.98%	-5.36%	-1.54%
Annual-All Other	137	1782	4.08%	2.67%	6.83%
<b>Annual-Total</b>	<b>486</b>	<b>4801</b>	<b>3.62%</b>	<b>1.1%</b>	<b>4.75%</b>
Permanent-Apples	23	177	-3.4%	3.38%	-0.04%
Permanent-Almonds	66	981	6.37%	-7.98%	-1.97%
Permanent-Citrus	11	168	8.4%	-16.62%	-9.27%
Permanent-Pistachios	19	537	8.53%	-8.65%	-0.66%
Permanent-Wine Grapes	82	1456	5.96%	5.83%	11.92%
Permanent-All Others	40	382	3.98%	-4.64%	-0.92%
<b>Permanent-Total</b>	<b>241</b>	<b>3700</b>	<b>5.95%</b>	<b>2.11%</b>	<b>8.14%</b>
<b>TOTAL</b>	<b>727</b>	<b>8501</b>	<b>4.61%</b>	<b>1.54%</b>	<b>6.19%</b>

\* Includes Corn, Soybean, Cotton, Wheat, Rice

\*\* Includes ground primarily used to produce fresh vegetables or fresh fruit

\*\*\* Includes All varieties of Oranges (Fresh and Juice), Lemons, and Avocados

The NCREIF Farmland Index was formally approved over 20 years ago and initial data now dates back for over 25 years. Let's first take a look back at the significant index changes over the last two decades.

- **One Decade Ago** - From 1997 to 2007, the \$ value of total farmland assets increased in value by 33% (from \$856 million to \$1.142 billion) while the # of properties decreased by 14% (from 431 to 369)!

- **The Latest Decade** - From 2007 to 2017, the \$ value of total farmland assets increased in value by 744% (from \$1.142 billion to \$8.501 billion) while the # of properties increased by 97% (from 369 to 727)!

From a percentage growth perspective, the watershed year was 2008 when total farmland market value grew 57% year over year (\$1.142 billion as of 4Q07 to \$1.798 billion as of 4Q08) likely fueled by multiple year double digit total farmland total returns (2004 – 2007) and the influx of new institutional investors.

Over the past ten years, the significant growth occurred within both annual and permanent cropland, within the “Big 3” regions, for annual cropland, and crop types, for permanent cropland, as follows:

- **Annual Cropland** – For each of the past ten years, the Delta States, Corn Belt and Pacific West have been the “Big 3” regions currently comprising 59% of this type of cropland as compared to 67% ten years ago. Whereas the Cornbelt was the primary region ten years ago, its share of total market value has almost dropped in half, from 30.9% to 16.6%. Today the Delta States is the primary region (27%).

- **Permanent Cropland** – Ten years ago, the “Big 3” crop types were almonds, pistachios and apples comprising 53% of all permanent cropland. Today, wine grapes has replaced apples and has become the largest crop type (39% of all permanent cropland) which notably has occurred during a span of six consecutive years (2012 – 2017) of double digit total returns. Today the “Big 3” comprise 80% of all permanent cropland!

Another interesting comparison of cropland returns, over the past ten years, reveals the following information:

- **Annual Cropland** – For each of the past ten years, annual income and appreciation returns have been positive as would be expected of farmland raising basic commodities. Furthermore, given the traditional leasing arrangements associated with such cropland, income returns have only “moved” within a narrow range of 3.62% - 4.39%.

- **Permanent Cropland** – Given that permanent cropland is traditionally directly operated (87% as of 4Q17), annual income returns are expected to be more volatile. For the past ten years, income returns on directly operated permanent cropland have been in a range of 6.08% - 20.92%. Likewise, appreciation returns for all permanent cropland have been more volatile over the same time period (from -3.08% to 10.14%).

Given the relative “calm” returns over the past two calendar years (6.19% and 7.09% total returns in 2017 and 2016, respectively), we thought A Look Back in Time was appropriate!

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