

The New Role of Agricultural Cooperatives in Pooling and Distributing Tax Deductions

Phil Kenkel¹, Greg McKee², Mike Boland³ and Keri Jacobs⁴

U.S. agricultural cooperatives create unique benefits for their producer members (USDA- RBCS, 1990). Cooperatives create economies of scale and scope in procuring inputs and marketing and processing commodities (Sexton 1990). Those scale economies also help to provide access to markets. Cooperatives provide an unseen and often unappreciated benefit in offsetting market power and maintaining the competitive environment. Agricultural cooperatives are unique in that they are an extension of the farm or ranch. Producer members can benefit at the farm level through prices and availability of services or at the cooperative level through patronage refunds. When many agricultural cooperatives first formed, they were able to pass along volume discounts for buying inputs at greater bargaining power or pass along volume premiums through greater negotiating ability. Over time, Congress passed various laws and the Internal Revenue Service codified cooperative taxation principles (Frederick 2013). Beginning in 2004, a new member benefit emerged from Congress, which was revised in the tax reform legislation of 2018 and again in 2019. Agricultural marketing cooperatives have been able to receive a federal income tax deduction and can retain that deduction at the cooperative level or pass some or all of the deduction on to their producer members.

In 2004, a wide range of firms, including agricultural cooperatives, were able to take advantage of Domestic Production Activities Deduction (DPAD), also known as Section 199. The Tax Cuts and Jobs Act of 2017 (TCJA) eliminated DPAD along with many other deductions and credits to help offset the reduction in the corporate tax rate. The TCJA created a new tax deduction (Section 199A) which was similar to DPAD and applied only to agricultural cooperatives. This highlights the role of agricultural cooperatives in pooling and distributing tax deductions and raises the possibility that these activities could become a permanent aspect of the value package for agricultural marketing cooperatives.⁵ For that reason, it is useful to discuss the specifics of these tax deductions and how they affect agricultural cooperatives and their farmer members.

¹ Regents Professor and Bill Fitzwater Cooperative Chair, Department of Agricultural Economics, Oklahoma State University. Contact author: phil.kenkel@okstate.edu

² Professor, Department of Agricultural Economics, University of Nebraska

³ Professor and Director, The Food Industry Center, Department of Applied Economics, University of Minnesota

⁴ Associate Professor and Iowa Institute for Cooperative Education Endowed Economics Professor, Iowa State University

⁵ In July 2019, portions of the tax reform legislation including this provision are set to expire in 2025 unless Congress makes these a permanent part of the tax code.

Background

The American Jobs Creation Act (AJCA) of 2004 was created to compensate U.S manufacturing companies for the loss of export tax relief and encourage domestic economic growth. The AJCA created a new deduction (DPAD) for businesses that produce goods inside the U.S. The deduction phased in over time but eventually became equal to the minimum of 9% of qualified production activities income (QPAI) or 50% of the W-2 wages that were allocable to the domestic production. Qualifying activities included cultivating soil, raising livestock, and fishing as well as the handling and processing of agricultural commodities. Agricultural producers and cooperatives were therefore considered manufacturers making them eligible for the DPAD (Harris and McEowen 2009).

A cooperative engaged in marketing agricultural and horticultural products may also be considered as having produced the commodities that it markets for the patrons. The DPAD for products sold by a cooperative can be calculated at the cooperative level. Additionally, the firm could elect to retain the deduction or pass all or part of it on to its members based on their patronage. The advantage to calculating the deduction at the cooperative level is that the W-2 wage limitation is based on the cooperative's wages. Because many producers have little or no W-2 wages, the wage calculation is often the major limiting factor for taking the DPAD at the farm level. When the deduction is calculated at the cooperative and passed on to the member, the producer's share is not limited by either their adjusted gross income or their W-2 wages (Harris and McEowen, 2009).

The cooperative board of directors make the decisions on whether to take the DPAD at the cooperative level and what portion, if any, to pass to the patrons. Such decisions are partially based on recommendations from auditors or other service providers. However, from a fiduciary standpoint, the decision lies with the board of directors. Some boards elect to ignore the tax deduction perhaps because of advice of their auditors or because they do not understand the deduction. In that case, the patrons were free to pursue the deduction at the farm level. Many marketing cooperatives take the deduction and the portion retained by the cooperative varies across firms.⁶

A major component of the Tax Cuts and Jobs Act of 2017 is a reduction in the corporate income tax rate from a maximum rate of 35% to a flat 21%. The revenue lost from the tax rate reduction was partially offset by the elimination of tax deductions and tax credits. The DPAD grew to be of the largest corporate tax deductions with an estimated cost of \$15 billion in 2016 and was an attractive choice for elimination (Institute on Taxation and Economic Policy 2017). The National Council of Farmers Cooperatives (NCFC) led an industry effort to preserve DPAD or a similar deduction for cooperative firms. The NCFC argued that because cooperatives passed through taxation to their farmer members, those firms and their members would not benefit from the corporate tax rate deduction. Many viewed NCFC's strategy as ambitious since almost every category of manufacturing firm wanted a special exception.

The TJJA includes a new provision designated "Section 199A" that applies to "taxpayers other than a corporation" and included a "deduction for income attributed to domestic production activities of specified agricultural or horticulture cooperatives". Gaining support for Section 199A was a notable accomplishment for the cooperative industry. A special tax deduction was created for

⁶ Land grant university faculty working with cooperatives conducted a great deal of education and research on this topic and dissemination through eXtension and other resources.

cooperative firms in the context of tax legislation that generally eliminated tax deductions and credits as an offset for reducing the corporate tax rate.⁷

The original language generated significant controversy because of a provision creating a tax credit for agricultural producers. The structure of the credit gave producers a significant incentive to market commodities through a cooperative. Many independent grain elevators and other non-cooperative entities were vocal in their opposition to the bill. The magnitude of the tax advantage from marketing through a cooperative clearly was not the intent of Congress and the drafting error became known as “the grain glitch” (Greenberg 2018). Industry groups including NCFC and NGFA (National Grain and Feed Association) worked together to revise the Section 199A language. Legislation containing the “grain glitch fix” was introduced as part of the omnibus spending bill (Consolidated Appropriations Act 2018) and was passed into law on March 23, 2018 (Davis Brown 2018).

The provisions of the final Section 199A are somewhat complex. The Section 199A creates both a deduction at the cooperative level and a separate potential tax penalty (reduction is an otherwise available tax deduction) for producers who market through cooperatives. Marketing cooperatives can retain the deduction or pass any portion of it on to its members. Therefore, a producer marketing through a cooperative can be advantaged, equivalent or disadvantaged relative to a producer marketing to a non-cooperative firm depending on the amount of Section 199A deduction passed on by the cooperative and their producer level offset. The structure of Section 199A makes the tax deduction decision an important part of the cooperative value package and an important decision for the cooperative board. Under the previous structure of DPAD, a cooperative board could ignore the potential deduction and concentrate on other aspects of the value package. Under the producer level offset provision of Section 199A, it is essential for marketing cooperatives to take the deduction and pass on an appropriate percentage or risk having their producer members disadvantaged by patronizing the cooperative.

Illustration of Section 199A with Representative Cooperatives

The calculations of Section 199A are firm and farm specific depending on the qualifying income and wage levels of both the cooperative and the patron. At the request of NCFC, a group of academic cooperative specialists developed a set of representative grain marketing cooperatives (Kenkel et. al. 2019). Analysis based on the representative cooperatives has been presented in educational programs in several states. The representative grain marketing cooperatives provide a good illustration of the issues surrounding the Section 199A deduction.

Four representative cooperatives were developed. An Iowa corn and soybean marketing cooperative was created using the CoMetrics database⁸. The data came from a case study cooperative in the database that was the closest to the median levels of size and profitability. Two Illinois corn and soybean marketing cooperative were created using a database of a regional cooperative. The cooperative data did not correspond to specific cooperatives but rather from the average financial results of roughly 200-grain marketing and farm supply cooperatives and 100-grain marketing only cooperatives in the database. A representative Nebraska wheat marketing cooperative was based on

⁷ This was a major source of education and research for faculty working with cooperatives in 2018 and 2019.

⁸ CoMetrics is a technology company that collects and standardizes data for independent businesses, cooperatives, nonprofit foundations and social enterprises.

a case study cooperative subjectively selected by cooperative specialists as being representative of the region. Selected data from the representative cooperatives are provided in Table 1.

Table 1. Financial Characteristics of Representative Cooperative

	Iowa Corn, Soybean and Farm Supply	Illinois Corn Soybean and Farm Supply	Illinois Corn and Soybean	Nebraska Wheat and Farm Supply
Grain Sales to Total Sales	64%	64%	100%	65%
Profit Margin	1.7%	1.1%	2.1%	1.9%
Personnel Expense to Gross Margin	51.2%	50%	51.2%	55.5%
Personnel Expense per Bushel	\$.35	\$.41	\$.13	\$.26
Sales/Total Assets	3.86	2.26	2.14	2.04
Return on Assets	4.2%	4.8%	2.4%	4.0%
Cash Patronage per Bushel (50%)	\$0.10	\$0.13	\$0.03	\$0.07

Despite being constructed for different geographic regions and using different methods, the financial characteristics of the representative cooperative were similar. The cooperative examples had similar profit margins, total asset turnover (sales/total assets) and return on assets (ROA). The ratio of personnel expense to gross margin (a key efficiency ratio) was also fairly consistent across the firms. The ratio of personnel expense per bushel showed more variation based on the activity mix of the cooperative. The grain-only example had lower personnel expense per bushel since there were no wages associated with farm supply activities.

Section 199A Deduction Modeling

The cooperative level Section 199A deductions are provided in Table 2. The deduction is calculated as the minimum of 20% of qualified business income or 50% of W-2 wages. The W-2 wage restriction was the binding constraint for all of the representative cooperatives, resulting in deductions from \$0.06 per bushel to \$0.21 per bushel. The activity mix was the major factor behind that range. The cooperatives with only grain sales had lower W-2 per bushel resulting in a lower per bushel Section 199A deduction.

Table 2. Cooperative Level Section 199A Deduction on a per Bushel Basis

	Iowa Corn, Soybean and Farm Supply	Illinois Corn Soybean and Farm Supply	Illinois Corn and Soybean	Nebraska Wheat and Farm Supply
Cooperative Section 199A	\$.18	\$.21	\$.06	\$.13

Section 199A also involves a tax deduction offset, or reduction in an otherwise available deduction at the producer level (Table 3). The producer level offset is calculated as the minimum of 20% of the producers' qualified business income or 50% of the producers' W-2 wages. Information from the Iowa Farm Business Association is used to model the cost and returns of a representative corn and soybean producer and the information from the Kansas Farm Management Association (KFMA) are used to model a representative wheat farm (Kansas Farm Management Association 2018; Plastina and Johanns, 2017). Similar to the cooperative level calculation, the binding deduction was 50% of the producers' W-2 wage expense. The resulting tax deduction offset was determined to be \$0.04 per bushel for a typical Midwestern corn and soybean producer and \$0.07 per bushel for a typical Plains wheat producer.

Table 3. Producer Level Section for the 199A Calculations

	Corn	Soybeans	Wheat
Yield per acre	214	60	43
Price per bushel	\$3.28	\$9.32	\$5.66
Gross Income/acre	\$701.92	\$559.20	\$243.15
W-2 wage/acre	\$11.51	\$9.97	\$2.71
Other Expenses/ acre	\$546.77	\$373.58	\$177.44
Qualified Business Income/acre	\$155.15	\$185.62	\$65.71
9% of QBI/acre	\$13.96	\$16.71	\$5.91
50% of W-2 wage/acre	\$5.76	\$4.99	\$1.36
Binding Offset/acre	\$5.75	\$4.99	\$1.36
Section 199A Offset per Bushel	\$0.026	\$0.083	\$0.036
Section 199A Offset per bushel- weighted average 80% corn, 20% soybeans		\$0.038	

Portion of the Pass Necessary for Producer Equivalency

Cooperatives can retain the Section 199A deduction or pass on any portion to members who market commodities through the cooperative. As discussed, the producer's offset is based on farm level calculations and is independent of the amount pass through. Under that structure, a producer delivering to a cooperative is disadvantaged unless the cooperative passes a portion of the cooperative level deduction that is at least equal to their offset. The required pass through depends on the producer's W-2 wages, so each patron will likely face a different situation. The boards of most cooperatives are interested in determining the percentage pass through needed to keep the average cooperative patron equivalent with a producer marketing through a non-cooperative firm. The percentage pass through to keep the representative farm operator equivalent to a non-cooperative marketing cooperative is illustrated in Table 4.

Table 4: Portion of the Pass Necessary for Producer Equivalency in Bushels

	Iowa Corn, Soybean and Farm Supply	Illinois Corn Soybean and Farm Supply	Illinois Corn and Soybean	Nebraska Wheat and Farm Supply
Cooperative Section 199A/bu.	\$0.18	\$0.21	\$0.06	\$0.13
Producer Offset	\$0.038	\$0.038	\$0.038	\$0.036
Required Pass Through	22%	21%	67%	34%
Cash Patronage (50%)	\$0.10	\$0.13	\$0.03	\$0.07

The required pass through percentage ranged from 22% to 67%. This Illinois grain and oilseed only example has a lower Section 199A deduction per bushel due to lower wage expense and thus had to pass on the highest proportion of the cooperative deduction. Notably, the pass through needed by the producer is based on representative crop budgets and reflects the amount needed by the average producer. Producers with lower than average W-2 wage expense would face a lower offset and require a smaller pass through to remain equivalent. Conversely, producers with higher than average W-2 wages would face higher offsets and require a higher pass through to remain equivalent. Cooperative boards of directors would presumably strive to keep their average patron equivalent and pass through a portion equal or greater than the calculated percentages.

The total cooperative level Section 199A deduction is significantly higher than the cash patronage distribution for all of the representative cooperatives. As discussed, most cooperatives would pass on a portion of that deduction to prevent the "average" patron from being disadvantaged from marketing through the cooperative. In the case of three of the four representative cooperatives, the remaining portion of the Section 199A deduction was still larger than their cash patronage

distribution. The Section 199A deduction can clearly be an important part of the cooperative value package, which was likely the intent of the policymakers when they passed the tax reform legislation.

Conclusions

The role of agricultural cooperatives in pooling and distributing tax deductions has emerged over time. The DPAD became available in 2005. Initially, most agricultural marketing cooperatives did not understand the deduction and how it could be captured at the cooperative level. By 2017, when the TCJA was passed, many agricultural marketing cooperatives structured their producer payments to take full advantage of DPAD at the cooperative level. Still, the practice was not universal and some cooperative boards elected not to pursue the deduction.

The inclusion of Section 199A in the TCJA was notable for two reasons. First, it represented a new deduction that was available only to agricultural and horticultural cooperatives. It is unusual for agricultural cooperatives to receive special tax provisions. Second, it somewhat institutionalized the role of agricultural cooperatives in pooling and distributing tax deductions for their member owners. Our analysis, which is based on representative cooperatives, suggests that the Section 199A tax deduction should be an important component of the cooperative value package. By 2025, the year of its anticipated expiration, cooperatives will understand further the impact on its income tax strategy.

Cooperative boards of directors already face complex financial decisions relating to profit distribution and equity management. Those decisions have cash flow and taxation impacts for both the cooperative and the patron owners. Section 199A has added another layer to that complexity. The provisions of Section 199A are multifaceted and cooperative boards must balance the value of the deduction at the cooperative level with the benefits of passing on the deduction to their members. The cooperative level deduction is specific to each cooperative and heavily influenced by the level of W-2 wages. The producer level impacts are also farm specific. Larger producers likely have different wage expense structures and Section 199A impacts relative to smaller producers. Cooperative boards may need to educate themselves about the wage and tax situations of their farmer members and make strategic decisions as to the importance of tax deductions in their value package.

References

Alejandro Plastina and Ann Johanns, (2017) "2017 Iowa Farm Costs and Returns" Ag Decision Maker File C1-10, Iowa State University.

Davis Brown Law Firm (2018), "The Old, the New and the Delayed DPAD for Cooperatives" September 10, 2018, <https://www.jdsupra.com/legalnews/the-old-the-new-and-the-delayed-dpad-91393/>

Frederick, D. (2013). Income Tax Treatment of Cooperatives. USDA Rural Development Business and Cooperative Services Cooperative Information Report 44, Part 1. Available online: <https://www.rd.usda.gov/files/cir44-1.pdf>

Greenberg, S. (2018) "The 'Grain Glitch' Needs to be Fixed" Tax Foundation, February 8, 2018 <https://taxfoundation.org/grain-glitch-needs-fixed/>

Harris, P.E. and R. A. McEowen (2009), "Domestic Production Activity Deduction for Members of Cooperatives" Center for Agricultural Law and Taxation, Iowa State University, Feb. 12, 2009.

Institute on Taxation and Economic Policy, (2017) "The Domestic Production Activities Deduction: Costly, Complex and Ineffective" October 2017 <https://itep.org/the-domestic-production-activities-deduction-costly-complex-and-ineffective/>.

Kansas Farm Management Association (2018) "Annual Profit Summary, Non-Irrigated All Tillage Wheat, Southwest Kansas Enterprise Summary.

Kenkel, P., K.Jacobs, M. McKee, M. Boland, B. Briggeman and J.Park, "Constructing Representative Cooperatives for Policy Analysis and Stakeholder Education" Staff Paper, Oklahoma State University, 8-11-2019.

Sexton, R.J. 1990. Imperfect Competition in Agricultural Markets and the Role of Cooperatives: A Spatial Analysis." *American Journal of Agricultural Economics* 72 (3): 709-720.

U.S. Department of Agriculture, Rural Business Cooperative Services (1990), "Cooperatives Benefits and Limitations" Cooperative Information Report 1, Section 3, May 1990.