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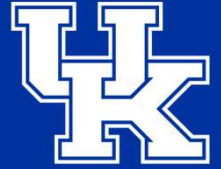
Additional First-Year Depreciation and Section 179's Impact on the Cost of Tractors in the United States From 2006-2022

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Selected Poster prepared for presentation at the 2024 Agricultural & Applied Economics Association Annual Meeting, New Orleans, LA: July 28-30, 2024

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Jonathan D Shepherd, Tyler Mark, Kenny Burdine, Steve Buck

Introduction

The US tax code allows business owners to either expense capital assets over years based on a predetermined class life or immediately expense certain qualifying items all in one year. These immediate expense options are allowed under what is colloquially known as Bonus Depreciation (i.e. additional first-year depreciation) and Section 179 (so named after Code Section 179 of the Internal Revenue Code). The specifics for each have changed over time regarding the amount that can be written off from a low of \$109K in 2006 to \$1.08mit in 2022 for Section 179 eligible items. Over the same period, Bonus depreciation has ranged from non-existent to 50% write-offs in some years and 100% write-offs in other years. The policy impetus, at least in the range of this research, was to spur economic growth within the US (Yuan & Oriaku, 2016). For farmers, it allows for strategic tax management opportunities to significantly lower taxes when eligible capital assets are purchased. Figure 1 shows the trend of capital expenditures on tractors in the US from 2006 to 2022 (USDA ERS).

Arguably, many farmers see their options for tax management in a binary manner. One option is to pay taxes on their income, while the second option is to make investments in their business (capital asset purchases) that will simultaneously reduce their tax liabilities using accelerated depreciation options. The question becomes, do tax policies such as accelerated depreciation options incentivize farmers to purchase tractors, and as a result, over time, do these market interactions put upward pressure on tractor prices? Research has been done to look at fiscal policy's effect on the US's economic growth (i.e. Yuan & Oriaku, 2016, Kitchen & Knittel, 2011). Still, no research looks at the micro level of one specific industry, and the effects that accelerated depreciation has on the farm level. While outside the scope of this research, our results will help better inform the conversation of whether US tax policy has created perverse incentives for farms to overcapitalize to lower tax liabilities.

Research Questions

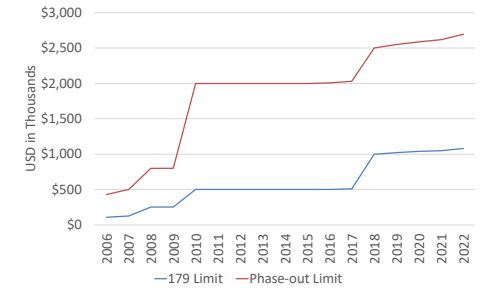
1. Identify the key factors influencing the auction prices of the used tractor market pre and post-accelerated depreciation changes
2. Evaluate the effect of the following on used tractor prices under pre and post-accelerated depreciation policies
 1. Horsepower (in 25 HP increments)
 2. Brand effects
 3. EPA Tier 4 requirements
3. Evaluate which accelerated depreciation policy (Section 179 or Bonus Depreciation) has or has not contributed to increasing auction prices for used tractors from 2006-2004
 1. Evaluate state "decoupling" from US Tax Code on used tractor prices

Methods

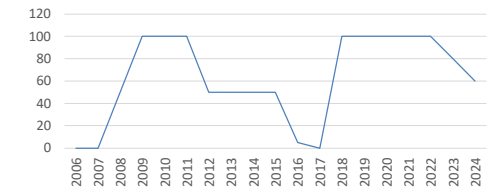
Results

Conclusions

Federal Section 179 Limits & Phaseouts 2006-2022



Federal AFY/Bonus Depreciation Percentages 2006-2024



References

Kitchen, J., & Knittel, M. (2011). *Business Use of Special Provisions for Accelerated Depreciation: Section 179 Expensing and Bonus Depreciation, 2002-2009 Business Use of Special Provisions for Accelerated Depreciation: Section 179 Expensing and Bonus Depreciation*.
 Yuan, X., & Oriaku, E. A. (2016). Does increase in the depreciation expensing allowance spur economic growth? Evidence from USA. In *www.ijbed.org A Journal of the Academy of Business and Retail Management* (Vol. 4). ABRM. www.ijbed.org

Acknowledgments

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