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An intergenerational farm transfer: when to start handing over the reins?

CASE STUDY

Iuliia Tetteh[Ⓐ] and Michael Boehlje^ᵇ

[Ⓐ]*Assistant Professor, Illinois State University, Department of Agriculture, 134
Ropp Agriculture Building, Normal, IL 61790-5020, USA*

^ᵇ*Professor Emeritus of Agricultural Economics, Purdue University, Department of
Agricultural Economics, 660 Krannert, West Lafayette, IN 47907, USA*

Abstract

This case illustrates a challenging management decision faced by the family farm: when should they bring the younger generation to the farm full-time? Under consideration is a critical trade-off between the firm's growth and transfer tax implications that drives the farm transfer decision. Industry practitioners and students are asked to use the results of the intergenerational farm transfer simulation model to evaluate this trade-off and provide an effective recommendation. The case can be used as part of succession/estate planning workshops attended by agricultural producers, farm managers, agricultural lenders, as well as in Master's level courses in agricultural finance and farm management.

Keywords: intergenerational farm transfer, estate and succession planning, farmer productivity, farm family living expenses

JEL code: Q14, Q15, Q12

[Ⓐ]Corresponding author: iproto1@ilstu.edu

1. Introduction

Winter of 2016, Clayton County, Iowa. Dennis Pole, a grain farmer, can finally sit down in the off-season to think about an important decision regarding his career choice: should he accept a high-paying promotion in his corporate job or quit his off-farm job and start farming full-time at his family farm? Dennis is at a crossroads.

Growing up on a farm, Dennis always dreamed of taking over and growing the farm when his dad retired. He is a strong believer that farmers can make a difference in the world by helping feed the world's fast growing population and wants to be a part of it. For the last 35 years, Dennis has been helping his father on the farm during harvest and planting. Recently, he started providing some suggestions on capital investment decisions. Currently, he holds a full-time management position at Landus Cooperative, a farmer-owned agricultural cooperative, headquartered in Ames, Iowa about four hours from the farm. Dennis has a strong interest in returning to the farm and running the operation as his full-time job. He believes he can apply his knowledge, expertise in technology, and analytical skills to grow the farm business. However, he wants to maintain the standard of living he is used to and realizes that the additional family living withdrawals would impact the farm's growth.

Gary Pole, Dennis's father turned 71 last week; he is the fourth generation farmer on this family operation. Agriculture is not only the means to earn a living for Gary. It is a calling and lifestyle. Having weathered the storm of the 1980s in production agriculture, he became even more conservative in handling the farm's growth and other management decisions. Gary recently read an extension publication in which a university professor showed evidence that farmer productivity increases, peaks at a certain age, and then declines with age. This article and several unfortunate cases of family-farm breakdowns in his community encouraged Gary to think about the future of his family farm. In addition, the issue of high estate transfer taxes has been a frequent discussion point among farmers at the local coffee shop. Gary has watched Dennis closely in the last couple of years, and he believes that his son has the experience and passion to take over the reins. He believes that his son's analytical background in business and economics, and knowledge of markets and current technology might indeed help enhance the farm's profitability and grow the business. At this point, Gary is open to having a conversation about the future of the farm with Dennis, but has not had a chance to do so yet.

Dennis attended a producer workshop hosted by extension services on estate and succession planning to better understand the key drivers of farm transfer decisions. He plans to talk to his father about this matter after he analyzes their available information.

2. Background

2.1 The farm

White Oak Legacy Farm was established in the early 1900s and is now one of the oldest farms in Clayton County, Iowa. Currently, the farm is a 720-acre grain enterprise owned and operated by the 4th generation of the Poles family (Figure 1). Gary is the primary owner-operator of the White Oak Legacy. Dennis helps during planting and harvesting seasons when he has time off work. Currently, Dennis has 20% interest in the farm's ownership structure.

Table 1 shows selected financial information for the White Oak Legacy Farm. This operation is classified as a large farm with a relatively high financial efficiency and a strong liquidity position (Hoppe and MacDonald, 2013). The White Oak Legacy seems to manage the capital structure well, and the owners have been able to generate an adequate return on capital.

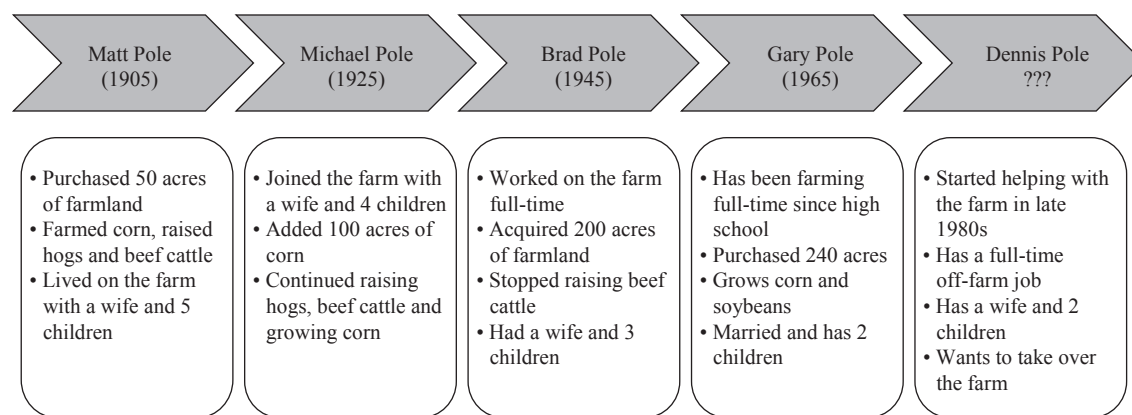


Figure 1. Evolution of the White Oak Legacy Farm.

Table 1. White Oak Legacy's selected key financial information.

Financial variable	Value
Total assets, \$	8,068,680
Current assets, \$	1,224,117
Current liabilities, \$	531,769
Operator age, years	71
Real estate value, \$	5,172,974
Gross sales, \$	1,296,075
Operating expense ratio (OER), %	59.5
Interest expense ratio (IER), %	6.1
Depreciation expense ratio (DER), %	10.0
Asset turnover ratio (ATR)	15.6
Debt-to-asset ratio (D/A), %	22.0

Both Gary and Dennis actively participate in various extension education workshops, such as producer and outlook meetings, to stay up to date on the developments of the farm sector and the economy both domestically and globally. Recently, the farm won the Practical Farmers' 2016 Farmland Owner Legacy Award for the continued soil conservation efforts undertaken by the farm.

2.2 Operators' profile

Gary is the 4th generation farmer on this operation. He has a high school degree, loves what he does and always takes advantage of extension workshops. Gary and his wife Anne have two children (Dennis and Mary). Dennis has been actively involved in the farm business and is interested in taking over the farm. Mary and her family live in Silicon Valley, CA and do not plan to return to their home state.

Dennis is the son of Gary and is currently 51 years old. He holds a Master of Science degree in Agribusiness. Dennis currently works at Landus Cooperative, and meanwhile helps operate the family farm (mostly production and some managerial decisions). At the farm transfer workshop that he attended several weeks ago, Dennis was introduced to the intergenerational farm transfer producer decision tool. The decision tool allows one to quantify the financial impact of the timing of the farm transfer on the financial viability of the business. He plans to further explore this tool and use the analytical findings to assist him and his father with this challenging managerial decision.

2.3 The sector

The issue of the future of the farm has kept more farmers awake than just Gary and Dennis. About half of US farms are expected to change ownership and management over the next twenty years, because their primary operators are currently 55 years or older (USDA, 2014). 97% of US farms are family-owned businesses (USDA, 2016). Due to the nature of farming businesses and farmers' strong attachment to land, the general expectation is that the older generation will pass down the farm to the younger generation. This is to ensure that the farm is kept within the family (Babikian, 2006). In addition, the most recent spike in farmland prices has significantly elevated the equity positions of farm businesses and increased the amount of wealth to be transferred to the successor(s). If not planned appropriately, the firm's wealth may be taxed at a 40% rate. In addition, if the farm transfer is not initiated at the right time, the farm may not be able to take advantage of the younger generation's higher productivity (e.g. technology adoption, use of various marketing strategies, etc.). Altogether, this situation may result in a significant loss of personal wealth and/or reduced growth for the family business if plans are not made.

Under the 2016 tax laws, an individual can transfer up to \$5.25 million to heirs without incurring a federal estate or gift tax. However, the portion of estate that exceeds this exemption amount is taxed at up to a 40% rate (Garber, 2018). While this number may seem to be quite large to trigger the estate tax, high farmland prices in the last decade bring the value of farm assets closer to the exemption limit. Thus, if the farm transfer decision is delayed, the growing value of the estate that needs to be transferred to the younger generation can place large tax obligations on the farm business. Often the farm successor has to sell a portion of farm assets (most of the time, part of the farmland) to meet tax obligations and compensate the off-farm successor. Selling the productive assets can reduce the size of the operation which might negatively affect production efficiency and limit the ability of the farm business to expand. Therefore, these capital sacrifices further undermine the continuity of the business.

Tauer (1995) studied the age-productivity of US farmers and concluded that the productivity increased about 7.5% as farmers moved into the next age group until they reached 35-44 age group and then started declining at the same rate. Thus, when determining the timing of the farm transfer initiation, the difference in the productivity of the older and younger operators must be taken into consideration since it directly affects the firm's profits and future growth of the business.

Family living expenses are an important financial burden placed on the family farm businesses, unless income earned from off-farm sources is available to cover some or all family living expenses. The withdrawal of farm equity to cover family living expenses places additional requirements on the annual cash flow of the farm business, reduces the retained earnings, and affects the firm's future growth opportunity. It is also critical to recognize the involvement of two generations, the younger and the older generations, in the family farm business. Two generations overlap at different stages of their life-cycles, which might result in different composition in living expenses and level of family withdrawals (Browning and Crossley, 2001; Carriker *et al.* 1993).

Finally, the above two factors (family consumption needs and the age-productivity profile of the owner-operator) affect the firm's profits, growth potential, and the size of the business at the time of transfer. These two factors also determine the terminal wealth among these two generations, which impacts the tax obligations associated with the transfer of wealth to the younger generation. Generally, more growth is desirable to ensure the appropriate life-style for both generations and to increase the wealth position of the farm business. However, the larger the size of wealth to be transferred to the younger generation, the higher the tax obligations and the lower the wealth position and future growth potential of the business. This implies that the trade-off between the firm's growth and potential tax implications at the time of transfer will directly affect the decision of the timing of farm transfer initiation.

Protopop *et al.* (2016) developed the analytical framework (as shown in Figure 2) to analyze the impact of the timing of the farm transfer initiation on the terminal wealth of the farm business. This framework relies on the fundamental concepts of firm growth, its key drivers, and accounting for tax implications. Following this framework, the timing of the farm transfer initiation is affected by the trade-offs between:

- the firm's growth and the potential tax implications at the time of transfer;
- the gains in productivity from bringing in the younger generation to the business (Tauer, 1984, Tauer, 1995, Tauer and Lordkipanidze, 2000);
- the additional consumption withdrawals association with this management change.

When both generations agree on the continuity of the family farm business as their mutual goal, the timing of the farm transfer initiation becomes a crucial determinant of the financial performance of the business. This timing affects their ability to generate income, support consumption of two generations, and build equity of the family farm business.

3. Problem

White Oak Legacy faces an important managerial decision: is it the right time now to bring Dennis into the farm operation full-time? Gary and Dennis agree that Dennis can help grow the operation (e.g. by adopting new technologies, employing new marketing strategies, etc.). But at the same time both are concerned about whether bringing him full-time to the farm will slow down the firm's growth when the farm needs to fully cover his cost of living. In addition, they are concerned about the possible high estate taxes, and how it may affect their operation. Dennis decided to investigate these issues in greater detail to get a better understanding of the best timing to take over the reins.

He hopes that after reviewing the available financial information and the simulation results from the producer decision tool, he and his father will be able to make the decision by addressing the following questions:

1. Should he accept a promotion with Landus Cooperative, or quit his off-farm job and return to the farm full-time?
2. If he decides to start farming full-time, how will the absence of the off-farm income impact his decision regarding the timing of the farm transfer initiation?
3. What are the key financial drivers of their farm transfer decision?

The simulation results and other beneficial information are provided in the supplementary material.

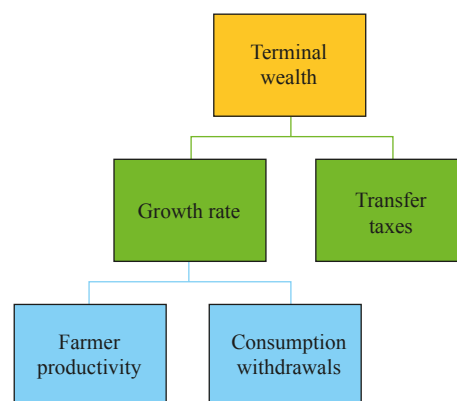


Figure 2. Key drivers of terminal wealth and their interconnectivities.

Supplementary material

Supplementary material can be found online at <https://doi.org/10.22434/IFAMR2018.0002>.

A1. Intergenerational farm transfer simulation decision tool.

A2. Simulation results for white oak legacy farms.

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