

Parental Motivation in Family Farm Intergenerational Transfers

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Introduction

Wealth transfers between parents and children can be examined using intergenerational transfer models. These models can indicate both motivation for transfers as well as the allocation of transferred wealth among recipients.

Two primary motivations for wealth transfers are noted:

1. Altruism suggests that a parent derives utility from both consumption and the utility of his child and will make transfers to the child in order to increase the child's utility thereby increasing the parent's utility (Barro 1974; Becker 1974).
2. Exchange motivation suggests that a parent will make transfers to the child in exchange for some type of services provided by the child to the parent (Bernheim, Shleifer, and Summers 1985).

Family farm businesses are much more likely to be passed on from one generation to the next than other types of family businesses (Keating and Munro 1989; Laband and Lentz 1983). These transfers can be interpreted as a specialized type of wealth transfer between parents and children.

Objectives

1. Introduce an intergenerational transfer model which incorporates both altruism and exchange motivation in the family farm business transfer decision making process.
2. Provide evidence from simulated intergenerational transfer decisions as to whether family farm business operators are altruistically or exchange motivated when transferring the family farm business.

Methods

The model used is adapted from Cox and Rank (1992). It allows for assessment of both altruistic and exchange motives and assumes two individuals, a parent and a child. The parent's objective function is:

$$U_p = U(C_p, s, V(C_k, s))$$

subject to the following constraints:

$$\begin{aligned} C_p &= I_p - T \\ C_k &= I_k + T \end{aligned}$$

where U_p is parent utility, V is child utility, C_p is parent consumption, C_k is child consumption, s is services the child provides to the parent, I_p is the parent's net worth, I_k is the child's pre-transfer income, and T is the transfer amount. In the case of farm families, services are considered to be help or work that the child performs within the family farm business. Both the transfer decision as well as the transfer amount can be modeled.

Transfer Decision (estimated using a Probit analysis):

$$t_i = \beta_0 + \beta_1 \text{Child Age} + \beta_2 \text{Child Earnings} + \beta_3 \text{One Sibling} + \beta_4 \text{Two Siblings} + \beta_5 \text{Three Or More Siblings} + \beta_6 \text{Parent Age} + \beta_7 \text{Parent Education-High School} + \beta_8 \text{Parent Education-Some College} + \beta_9 \text{Parent Education-College} + \beta_{10} \text{Parent Net Worth} + \beta_{11} \text{Parent Works Off Farm} + \beta_{12} \text{Parent Will Retire within 5 years} + \beta_{13} \text{Child Helps On Farm} + \varepsilon_i$$

Transfer Amount (estimated using a Tobit analysis):

$$T_i > 0 \text{ iff } t_i > 0, T_i = 0 \text{ otherwise}$$

$$T_i = \beta_0 + \beta_1 \text{Child Age} + \beta_2 \text{Child Earnings} + \beta_3 \text{One Sibling} + \beta_4 \text{Two Siblings} + \beta_5 \text{Three Or More Siblings} + \beta_6 \text{Parent Age} + \beta_7 \text{Parent Education-High School} + \beta_8 \text{Parent Education-Some College} + \beta_9 \text{Parent Education-College} + \beta_{10} \text{Parent Net Worth} + \beta_{11} \text{Parent Works Off Farm} + \beta_{12} \text{Parent Will Retire within 5 years} + \beta_{13} \text{Child Helps On Farm} + \mu_i$$

3000 observations were simulated to model the transfer decision.
660 observations indicated that a transfer of some amount occurred.



Results

Altruism predicts that the coefficient for child earnings will be negative for both the transfer decision as well as the transfer amount. Parent age and the parent achieving a college education were significant indicators of the transfer decision. Child age, child earnings, number of siblings, parent education, and parent net worth were significant indicators of the transfer amount.

Variable	Probit	Tobit
Intercept	-2.71 (38.14)	-1.37 (-20.28)
Child Age	0.002 (0.03)	0.006*** (3.89)
Child Earnings	-0.00002 (0.0001)	-0.002*** (-6.05)
One Sibling	0.08 (1.46)	0.02* (1.98)
Two Siblings	-0.02 (0.06)	0.04** (3.01)
Three or More Siblings	-0.10 (0.83)	0.05** (2.68)
Parent Age	0.03* (6.51)	0.03*** (15.63)
Parent Education-High School	-0.05 (0.15)	-0.06*** (-3.52)
Parent Education-Some College	-0.13 (0.81)	-0.15*** (-7.20)
Parent Education-College	-0.30* (3.31)	-0.23*** (-9.29)
Parent Net Worth	0.001 (0.23)	-0.0005* (-1.67)
Parent Works Off Farm	-0.06 (0.37)	0.002 (0.15)
Parent Will Retire Within 5 Years	0.04 (0.18)	-0.0008 (-0.06)
Child Helps On Farm	-0.02 (0.12)	0.006 (0.78)
Sigma	---	0.1 (36.31)
n=	3000	660

Asterisks (*, **, ***) denote statistical significance at the 10%, 5%, and 1% levels respectively.
Wald $X^2 = 137.28$ ($p < .0001$)

Conclusions

Results indicate that motivation for transfers of family farm businesses from parents to children is altruistic. This conclusion suggests that in families with multiple children, transfers of the business will be allocated proportionally among children in order to equalize utility all of children.

Future research will include conducting surveys of farm families to further examine factors which motivate farm families to transfer farm businesses to members of the next generation.

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