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articles

The INFLUENCE of SELLER CARRY NOTES in TRANSACTION PRICING of SALES of CLOSELY HELD BUSINESS ORGANIZATIONS

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The concept of business exit has been relatively well explored in the literature in terms of publicly traded companies. However, exit from privately held companies has received much less attention. The principal question to be examined by this research is to determine whether or not there is an increase in the transaction price of a privately held firm upon owner exit when a seller carry note is part or all of the consideration. Using a sample of privately held firm sales, we find that the existence of a seller carry note is positively related to a higher transaction price in the sale of these companies. This finding implies a spillover effect that indicates the full risk of carrying the note is not borne by the rate of interest on the note. This information is important to business exit outcomes for owners and managers of these firms as they negotiate the transaction price for their companies and to researchers attempting to increase their understanding of owner exit from privately held business organizations.

Introduction

Publicly traded companies receive the majority of the attention in academic research regarding firm value and business exit outcomes due to the wealth of information available. In contrast, relatively little attention is given to the operations and exit from privately owned companies. These firms are generally small to medium sized businesses that make up approximately 99% of the companies in existence in the United States (U.S. Small Business Administration Office of Advocacy, 2018). Thus, there is a disproportionate amount of study being conducted on publicly traded companies, which represent the minority of business organizations. This is arguably to the detriment of the majority of the companies regarding their ability to benefit from relevant research as owners and managers of privately held businesses.

Value appropriation in organizational management research is often described as being comparable to the financial concept of achieving an operating profit in a business. It has been defined as "extracting profits in the marketplace" (Mizik & Jacobson, 2003). However, another method of observing the appropriation regime is to extend the theory of value capture to firm market value. One study refers to utilizing "market capitalization to reflect value, corresponding to value appropriation by the firm's owners" (Jacobides & Tae, 2015). As is often the case, this research involved publicly traded companies.

The shareholders of publicly traded companies are continuously aware of the market value of the company due to the information available from the stock exchanges. They are also generally able to exit their ownership at any time and, given efficient market theory, receive maximum value upon sale. On the other hand, the owners of a privately held firm are rarely aware of its potential market value unless they have an unrelated reason for seeking it out (e.g. estate planning, insurance, marital dissolution, etc.). In addition, the primary mechanism for capturing this additional value is through some form of business exit, typically a sale of the business.

Exit from a closely held business differs in many ways from that of a publicly traded company. DeTienne (2010) suggests that exit from a closely held business is "the process by which the founders of privately held firms leave the firm they helped to create: thereby removing themselves, in varying degrees, from the primary ownership and decision-making of the firm." However, exit through sale of a closely held business is often difficult since the market is much more restricted (Pratt & Niculita, 2000). Therefore, the owner of a privately held firm would be well-advised

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to implement a strategic plan to maximize value capture on exit, especially since exit can be an important liquidity event in the life of the enterprise.

It is well documented in the research literature, as well as in practitioner guides, that the valuation of closely held businesses is frequently subject to discounts of the estimated fair market value of the firm. According to Pratt & Niculita (2000), these discounts can take the form of illiquidity, lack of marketability, and lack of control. They define liquidity as "the ability to convert the business ownership interest (at whatever ownership level) to cash quickly, with minimum transaction and administrative costs in so doing and with a high degree of certainty of realizing the expected amount of proceeds." The authors further note that the pool of potential buyers for the noncontrolling interest in a privately held firm is bordering on non-existent. As a result, a majority of sale transactions of closely held companies represent a transfer of 100% of the equity ownership. Discounts to the estimated fair market value of a business can often amount to a reduction of 30% to 50% of the value (Pratt & Niculita, 2000).

While discounts to value on sale of a closely held business are common, premiums on transaction prices of closely held businesses are not. Although research in this area is relatively rare, one study noted some potential reasons for the addition of a premium in calculating the value of a privately held small business. These may include such factors as the existence and continuance of key personnel or a lack of debt, which reduces financial risk (Kumar, 2018). However, the addition of a premium to the calculated fair market value of a closely held business is rarely applicable as these firms are much more likely to be subject to a discount as discussed above.

The principal question to be examined by this research is to determine whether there is an increase in the transaction price of a privately held firm (i.e. a "premium") upon owner exit when a seller carry note is part or all of the consideration. This is of strategic importance to entrepreneurs seeking exit from their businesses. Maximizing value on exit is important since the exit liquidity event is the mechanism through which the entrepreneur reaps the value of the business organization, a value that was built through years of hard work. More research on the exit process is necessary to formulate a strategic exit plan. This paper adds to that growing body of research that explores and helps explain entrepreneurial exit. The results presented here provide a foundation for strategic exit by considering the impact on pricing when a seller carry note is included in the transaction.

The remainder of the paper is organized as follows: The next section provides a literature review followed by a discussion of our hypotheses development. After that, we provide a description of the data followed by a discussion of the analysis method and results. We conclude the paper with sections on our findings, research limitations, and future research.

Literature Review

"Whether a privately held business is large or small, in a traditional field or exclusively in Internet commerce, newly started or generations old, it is owned by one or more individuals – and those owners all have one trait in common: They will someday leave that business" (DeTienne, 2010). This statement is inarguably true, and yet many owners of non-public businesses give little consideration to an exit strategy. DeTienne (2010) argues that most analysis of the entrepreneurial process of business ownership is incomplete when it considers only value creation at formation, followed by growth and maturity. Business exit is an integral part of the ownership strategic plan for privately held firms and may be achieved at any point during the life of the business organization.

The consequences of a lack of or delayed strategic exit planning can often result in poor financial outcomes for the owners. Many firm owners speculate as to the market value of their business organization and make the assumption that this value can be appropriated whenever they decide they are ready to sell. However, this assumption can be disastrous for business owners. A failure to adopt a strategic exit plan can lead to the owner inadvertently limiting the buyer options for business exit. For example, an owner might neglect to transfer sufficient inside knowledge to a manager or managers, consequently dissuading purely investment-type acquirers from purchasing the business (Hawkey, 2017). Hawkey also notes that heirs and employees are potential buyers that are often overlooked. If the need for a business exit arises unexpectedly, such as with the illness or death of the owner, there is no time to groom these potential buyers to take over the business.

Important items to consider in terms of business exit strategy are the antecedents to value capture in the context of business exit (Lepak et al., 2007). The business owner must develop isolating mechanisms such as unique knowledge, entry barriers, and resource management, in order to increase their bargaining power and attractiveness in a sale of the company (Lepak et al., 2007). These are all methods for increasing the potential value of a privately held firm.

Strategic business exit within the discipline of organizational management has been under-researched (Burgelman, 1996; Wennberg & DeTienne, 2014). The literature that does exist has generally focused on publicly traded companies. In this area, the research is concentrated on examination of divestiture, restructuring, product positioning, failing organizations, and escalation and de-escalation (Burgelman, 1996).

One possible reason for the lack of entrepreneurial exit research is the lack of distinction between failure and exit (DeTienne & Wennberg, 2013). "Much of the research on entrepreneurial exit has focused on exit as a dichotomous outcome whereby exit is viewed negatively and survival positively" (Wennberg & DeTienne, 2014). In public companies, exit is often thought of as failure, a misstep that must be corrected. However, in the closely held business organization, exit is often the culmination of years of hard work and can represent an important liquidity event mark-

ing success for the owner. This mode of thinking completely ignores the possibility that the owner of a closely held business might actually choose to leave a successful company through a sale as part of an overall strategic exit plan. In fact, some studies have shown that "in the eyes of entrepreneurs, exit and failure are two distinct concepts" (Wennberg & DeTienne, 2014).

Researchers have begun exploring entrepreneurial exit. DeTienne (2010) suggests that a venture may create wealth for the entrepreneur during its operational lifetime, but an essential component of value capture rests on the ability to harvest that value on exit. Few events in the life of the entrepreneur are more significant than the harvest (Petty, 2000). Stambaugh and Yu (2021) opined that the sale of the closely held business "may represent the single largest monetary transaction of a lifetime and may cap decades of work." Indeed, although many closely held business entrepreneurs are compensated for their labor prior to exiting the firm they created, compensation alone does not result in the entrepreneur capturing the value of the business.

Collins et al. (2016) examined business exit from the standpoint of the well-being expectations of the business owner. Their findings suggest that an important component for the succession outcome is that the incumbent believes there will be an acceptable quality of life after the exit. De Massis et al. (2008) explored the factors that prevent intra-family succession. Based on their findings, low abilities of the potential successor, low motivation of the potential successor, and the personal sense of attachment of the incumbent to the business inhibit successful transition. De Tienne and Cardon (2012) examined potential exit pathways for the entrepreneur including initial public offering, family succession, employee buyout, and independent sale. Leroy et al. (2015) explored the continuation of the firm activities after sale using the theory of planned behavior as a framework.

Extant literature centered on public company closures does not provide the evidence necessary for understanding the entrepreneurial model. Clearly, researchers have an interest in deepening their knowledge of entrepreneurial exit and the literature on this topic is growing. However, while the conversation has begun, much work is still needed to fully understand this important part of the closely held business process. An important contribution of this paper is to add to this body of knowledge by examining factors affecting transaction pricing on exit.

It is common for the seller of a closely held business organization to, at least in part, finance the transaction through a seller carry note. The interest rate on the note is guided by market forces. Edelberg (2006) examined the increasing use of risk-based pricing to determine the interest rates in various types of loans in the consumer market. Although credit scores were utilized during the 1980s and early 1990s, most lenders had a house rate for each type of loan and managed risk by rejecting borrowers with substandard scores. The advent of wide-spread computer use made it possible to take default risk into account. Commercial lenders eventually had access to vast amounts of information regarding the demographics of their borrowers. Some of these characteristics included age, gender, education, marital status, number of children, income, assets, and debt. This made it possible for lenders to price interest rates for each individual loan. Changes in government regulations requiring more loans to high-risk borrowers also led to additional increases in the use of the default risk model to set the interest rate for each individual loan (Edelberg, 2006).

Of particular interest in this area is the fact that large lenders can spread their risk across multiple loans to many borrowers. This drastically reduces risk, even in the event that the economy falters. For the period from 2006 to 2015, the default rate for all Small Business Administration (SBA) loans averaged 17.4% (Patel, 2021).

In the case of a seller carry note in the sale of a privately held business, however, the risk of default is borne entirely by one party, the seller. Moreover, default risk is evaluated based on one borrower, the buyer. The result for the seller in this situation is an inability to diversify the risk inherent in the promissory note. Thus, in the end, the actual default risk outcome for the seller is generally either 0% or 100%. In order to compensate for this elevated risk, it is possible that sellers will try to extract an additional concession in the form of a higher than fair market value transaction price.

Hypothesis Development

Pricing of closely held businesses is as much an art as a science and generally requires a multi-dimensional analysis (Pricer & Johnson, 1997). Discounts on the estimated value are common due to the nature of closely held businesses. In contrast, premiums on pricing of sales of closely held businesses are much less likely to occur. Conditions that allow for the identification and measurement of a premium in the transaction price in the sale of a privately held business are unlikely to exist. However, for purposes of this study, the term "premium" is used to describe a transaction price that exceeds the mean transaction price of sales of similar companies identified by the size of the firm in terms of annual revenue, industry, year of sale, acquirer type, transaction type, and economic conditions at the time of the sale.

Most seller carry notes occur in private buyer transactions. These buyers apparently lack the resources to fully fund the transaction price, or are unwilling to commit the resources to the acquisition. In these cases, the seller makes an accommodation by providing financing, increasing the risk of the transaction by continuing their involvement as a creditor.

Market forces limit the interest rate on the note, leaving a risk spill over which we theorize results in higher transaction pricing. In other words, the stated rate on the note does not cover the full risk of the transaction, so the acquisition cost will be increased resulting a pricing premium. Accordingly, our first hypothesis is:

> H1: The existence of a seller carry note in the sale of a privately held firm will increase the transaction price.

Table 1. Sample Selection

Total firm sale transaction observations (1990-2018)	29,198
Firms with data reported in non-U.S. dollars	(1,933)
Firms with missing revenue data	(135)
Number of observations in final sample	27,130

If a seller increases transaction risk by carrying a note, it follows that the higher the note in relation to the transaction price, the more pressure to extract a pricing premium. This means that as the percentage of the transaction financed by a seller note increases, the amount of the transaction price premium may also increase. This leads to our second hypothesis:

> H2: The transaction price will be higher for firms with a high seller carry note to transaction price ratio than for firms with a low ratio.

Data and Sample

Private firm sale data was obtained by using a proprietary database, DealStats, which is published by Business Valuation Resources. This database consists of data for the sales of nonpublic companies as reported by business intermediaries who assist the buyers and sellers of these firms. All sales in this database represent the transfer of a 100% equity interest in the company. Buyers of these closely held businesses can be privately held or publicly traded. Brokers and intermediaries report transactions of privately held buyers to DealStats. The firm sale data of public company buyers is reported to the Securities and Exchange Commission (SEC) in the Electronic Data Gathering, Analysis, and Retrieval (EDGAR) portal on the Form 8-K. Researchers for DealStats review these disclosures to isolate acquisitions of privately held companies which are then added to the database.

The DealStats database consists of 29,198 observations of private firm sales for the period from 1990 to 2018. Because some of the acquiring companies as well as the target firms were located in Canada with financial statistics reported in Canadian dollars, these firms were excluded to maintain a consistent monetary denomination of measurement for the data. The elimination of these companies resulted in 27,265 private firm sale observations, all located in the United States. The sample was further reduced by eliminating transactions with missing revenue data, resulting in a final sample of 27,130 observations. The sample selection process is detailed in Table 1.

Measurements

The database contains a multitude of quantitative information for each sale transaction. This information includes financial data such as Balance Sheet, Profit and Loss Statement, Purchase Price Allocation, Transaction Price, Debt Assumed, Down Payment, and Amount Seller Financed, which are all reported in U.S. Dollars. As noted above, all transactions represent the transfer of a 100% equity interest.

Other information in the database includes Date of Sale, Standard Industrial Classification (SIC) code, North American Industry Classification System (NAICS) code, Years in Business, and Number of Employees. Additional information about the buyers and sellers of the companies includes a description of the business, location, and, in some cases, the business name. While all of the acquired firms are nonpublic, the buyer firms are identified as either Public or Private. Finally, the type of acquisition is identified as either a Stock Sale or an Asset Sale. It should be noted that not all data points for each transaction are included in the database. Therefore, whether each information item exists for the sale is a potential limitation on the number of transactions incorporated in the analysis.

Analysis

The primary variable of interest in analyzing the hypotheses is the Transaction Price upon the sale of the private firm (Transaction_Price). This variable has a range of $1,000 to $17,497,000,000. To adjust for heteroskedasticity, this variable was converted to the Natural Logarithm and labeled LN_Transaction_Price. A similar issue was present for the annual revenue generated for each of the target firms (Revenue). Accordingly, this variable was also converted to the Natural Logarithm as LN_Revenue. Appendix A reports the definitions for the variables of interest included in the regression analysis.

Several of the variables included in the linear regression as control variables are binary. The Acquirer Type of the purchasing firm was expressed as Public or Private, coded as 0 for Public and 1 for Private. The Transaction Type is listed as either a Stock or Asset Sale, depending on what was actually purchased by the acquirer. This variable was coded as 0 for a stock sale and 1 for an asset sale. Finally, the existence of a Seller Note was included in the dataset as either Yes or No. This variable was coded as 0 for no seller note and 1 for a seller note. Table 2 reports the transaction counts for these variables.

Year and industry fixed effects are included in all models to control for differences across time and industries. The sample distribution for year and industry is reported in Table 3. Panel A shows the distribution by year for both the full sample and the transactions with a seller note. Panel B reports the distribution by industry for the full sample and the transactions including a seller note. As shown in the table, the firms were primarily engaged in the Wholesale/Retail Trade, Business and Personal Services, and Manufacturing industries.

Finally, to control for the potential effect of macroeconomic conditions on the Transaction Price of each firm, two additional variables were developed and added to the data set. The first of these additional variables was the change in Gross Domestic Product (GDP) expressed as a percentage. The GDP data was obtained from the U.S. Bureau of Economic Analysis. This data is provided on a quarterly basis; therefore, the average of the four quarters for each year was

Table 2. Sample Transaction Count

	Full Sample (n = 27,130)		
Acquirer Type	No Seller Note (Seller_Note = 0)	Seller Note (Seller_Note = 1)	Total
Public (Acquirer_Type = 0)	5,970	64	6,034
Private (Acquirer_Type = 1)	12,182	8,914	21,096
Total	18,152	8,978	27,130
Transaction Type	No Seller Note (Seller_Note = 0)	Seller Note (Seller_Note = 1)	Total
Stock Sale (Transaction_Type = 0)	4,410	563	4,973
Asset Sale (Transaction_Type = 1)	13,742	8,415	22,157
Total	18,152	8,978	27,130

Table 2 presents the sample transaction count for the indicator variables used in the regression analysis.
All variables are defined in Appendix A.

calculated. The second economic variable added was the change in the Unemployment Rate. This data is available from the U.S. Bureau of Labor Statistics and is expressed as a monthly percentage value. This data was averaged to determine an annual value. Both of these annual values were added to the database by referencing the year of each firm sale, as previously described.

The variable descriptive statistics are shown in Table 4 for the full sample (Panel A), as well as the observations which include a seller note (Panel B). The mean and median, as well as the 25th and 75th percentiles are included. As indicated in the table, 8,978 of the transactions included a seller note, representing approximately one third of the sample. It is interesting to note that 99 percent of the transactions with a seller note had a private acquirer compared to 78 percent of the full sample. In addition, 94 percent of the transactions with a seller note were an asset sale while 82 percent of the full sample were accomplished through the sale of the firm's assets. These initial univariate statistics indicate that the transaction price is lower for the population of transactions with a seller note than it is for the full sample. However, this preliminary analysis does not control for the relationship between all of the relevant variables and thus is not used to draw final conclusions about the dependent variable (LN_Transaction_Price) and the variable of interest (Seller_Note).

The bivariate correlations for each of the variables of interest are shown in Table 5. Panel A reports the correlations for the full sample while Panel B shows the correlations for the transactions with a seller note. LN_Revenue has a high positive correlation to LN-Transaction_Price in both groups while private acquirers and asset sales each have a negative correlation. One item to note is the negative sign of the primary variable interest, Seller_Note, as it relates to the dependent variable, LN_Transaction_Price. However, as shown in the regression analysis that follows, the hypothesized relationship of an increase to Transaction Price when a Seller Note exists is supported when controlling for additional variables.

Method

The analysis of the primary effect of the existence of a seller note on the transaction price of private firms was conducted using least squares regression analysis. The regression analysis employed to test the main effects of Hypothesis 1 is expressed as:

$$\begin{aligned} LN\_Transaction\_Price_{yi} &= \beta_0 + \beta_1 Seller\_Note_{yi} \\ &+ \beta_2 LN\_Revenue_{yi} + \beta_3 Acquirer\_Type_{yi} \\ &+ \beta_4 Transaction\_Type_{yi} + \beta_5 Unempl_y \\ &+ \beta_6 GDP_y + \eta_y + \delta_i + \varepsilon_{yi} \end{aligned} \quad (1)$$

The model reflects the dependent variable LN_Transaction_Price, which is the natural log of the transaction price for a 100 percent equity interest in each firm sold. The variable of interest is Seller_Note, which indicates whether or not the seller of each firm financed some or all of the transaction price. Variables for firm revenue (LN_Revenue), public or private acquirer (Acquirer_Type), and asset or stock sale (Transaction_Type) are included in the model. Control variables for unemployment (Unempl) and gross domestic product (GDP), as well as fixed effects for year ($_y$) and industry ($_i$) are also included.

Two additional models have been used to test interaction effects of Seller_Note with Acquirer_Type and Transaction_Type. The first equation using the interaction with public or private acquirers is as follows:

$$\begin{aligned} LN\_Transaction\_Price_{yi} &= \beta_0 + \beta_1 Seller\_Note_{yi} \\ &+ \beta_2 LN\_Revenue_{yi} + \beta_3 Acquirer\_Type_{yi} \\ &+ \beta_4 Transaction\_Type_{yi} \\ &+ \beta_5 Seller\_Note_{yi}\ x\ Acquirer\_Type_{yi} \\ &+ \beta_6 Unempl_y + \beta_7 GDP_y + \eta_y + \delta_i + \varepsilon_{yi} \end{aligned} \quad (2)$$

The second equation testing the interaction of the existence of a seller note and a stock or asset sale is as follows:

$$\begin{aligned} LN\_Transaction\_Price_{yi} &= \beta_0 + \beta_1 Seller\_Note_{yi} \\ &+ \beta_2 LN\_Revenue_{yi} + \beta_3 Acquirer\_Type_{yi} \\ &+ \beta_4 Transaction\_Type_{yi} \\ &+ \beta_5 Seller\_Note_{yi}\ x\ Transaction\_Type_{yi} \\ &+ \beta_6 Unempl_y + \beta_7 GDP_y + \eta_y + \delta_i + \varepsilon_{yi} \end{aligned} \quad (3)$$

Table 3. Sample Distribution

Panel A: Sample Distribution by Year

	Full Sample (n = 27,130)		Seller_Note = 1 (n = 8,978)		
Year	Total Transactions	Percent of Total	Total Transactions	Percent of Total	Percent of Full Sample
1990	3	0.01%	2	0.02%	66.67%
1991	6	0.02%	4	0.04%	66.67%
1992	7	0.03%	4	0.04%	57.14%
1993	20	0.07%	12	0.13%	60.00%
1994	48	0.18%	16	0.18%	33.33%
1995	128	0.47%	32	0.36%	25.00%
1996	414	1.53%	70	0.78%	16.91%
1997	594	2.19%	108	1.20%	18.18%
1998	934	3.44%	192	2.14%	20.56%
1999	999	3.68%	246	2.74%	24.62%
2000	942	3.47%	258	2.87%	27.39%
2001	888	3.27%	362	4.03%	40.77%
2002	968	3.57%	425	4.73%	43.90%
2003	966	3.56%	378	4.21%	39.13%
2004	1,338	4.93%	505	5.62%	37.74%
2005	1,423	5.25%	521	5.80%	36.61%
2006	1,400	5.16%	497	5.54%	35.50%
2007	1,576	5.81%	521	5.80%	33.06%
2008	1,758	6.48%	618	6.88%	35.15%
2009	1,140	4.20%	482	5.37%	42.28%
2010	1,301	4.80%	476	5.30%	36.59%
2011	1,344	4.95%	480	5.35%	35.71%
2012	1,385	5.11%	509	5.67%	36.75%
2013	1,349	4.97%	424	4.72%	31.43%
2014	1,575	5.81%	508	5.66%	32.25%
2015	1,564	5.76%	437	4.87%	27.94%

2016	1,693	6.24%	480	5.35%	28.35%
2017	1,336	4.92%	397	4.42%	29.72%
2018	31	0.11%	14	0.16%	45.16%
	27,130	100.00%	8,978	100.00%	

Panel B: Sample Distribution by Industry

		Full Sample (n = 27,130)		Seller_Note = 1 (n = 8,978)		
Industry Description	SIC Code	Total Transactions	Percent of Total	Total Transactions	Percent of Total	Percent of Full Sample
Agriculture, Forestry, Fishing, Mining	0100-1499	960	3.54%	334	3.72%	34.79%
Construction	1500-1999	1,137	4.19%	577	6.43%	50.75%
Manufacturing	2000-3999	3,909	14.41%	1,089	12.13%	27.86%
Transportation and Communications	4000-4999	1,336	4.92%	324	3.61%	24.25%
Wholesale/Retail Trade	5000-5999	9,175	33.82%	3,429	38.19%	37.37%
Finance, Insurance, and Real Estate	6000-6999	1,051	3.87%	200	2.23%	19.03%
Business and Personal Services	7000-7999	6,954	25.63%	2,164	24.10%	31.12%
Other Services	8000-8999	2,595	9.57%	859	9.57%	33.10%
Public Administration	9000-9999	13	0.05%	2	0.02%	15.38%
Total		27,130	100.00%	8,978	100.00%	

Table 3 presents the sample distribution by year and industry for the data used in the regression analysis.
All variables are defined in Appendix A.

Table 4. Descriptive Statistics

Panel A: Descriptive Statistics for Full Sample (n = 27,130)

Variable	P25	Median	P75	Mean	Std. Dev.	Min.	Max.
LN_Transaction_Price	11.695	12.647	14.468	13.345	2.322	6.908	23.585
Seller_Note	0.000	0.000	1.000	0.330	0.471	0.000	1.000
LN_Revenue	12.533	13.444	14.821	13.880	1.963	2.485	23.567
Acquirer_Type	1.000	1.000	1.000	0.780	0.416	0.000	1.000
Transaction_Type	1.000	1.000	1.000	0.820	0.387	0.000	1.000
Unemployment	4.617	5.408	6.158	5.938	1.659	3.892	9.608
US_GDP	1.875	2.475	3.000	2.209	1.710	-2.675	4.900

Panel B: Descriptive Statistics for Seller_Note = 1 (n = 8,978)

Variable	P25	Median	P75	Mean	Std. Dev.	Min.	Max.
LN_Transaction_Price	11.695	12.429	13.305	12.595	1.263	9.018	20.890
LN_Revenue	12.510	13.221	14.034	13.326	1.201	7.901	20.937
Acquirer_Type	1.000	1.000	1.000	0.990	0.084	0.000	1.000
Transaction_Type	1.000	1.000	1.000	0.940	0.242	0.000	1.000
Unemployment	4.742	5.542	7.358	6.076	1.702	3.892	9.608
US_GDP	1.625	2.475	3.000	2.073	1.696	-2.675	4.900

Table 4 presents the descriptive statistics for the variables used in the regression analysis. P25 and P75 represent the 25th and 75th percentiles, respectively.
All variables are defined in Appendix A.

Table 5. Correlation Matrix

Panel A: Correlation Matrix for Full Sample (n = 27,130)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
LN_Transaction_Price	1.000						
Seller_Note	-0.227**	1.000					
LN_Revenue	0.881**	-0.198**	1.000				
Acquirer_Type	-0.789**	0.364**	-0.680**	1.000			
Transaction_Type	-0.624**	0.219**	-0.526**	0.665**	1.000		
Unemployment	-0.143**	0.059**	-0.115**	0.172**	0.132**	1.000	
US_GDP	0.160**	-0.056**	-0.136**	-0.235**	-0.153**	-0.247**	1.000

Panel B: Correlation Matrix for Seller_Note = 1 (n = 8,978)

	(1)	(2)	(3)	(4)	(5)	(6)
LN_Transaction_Price	1.000					
LN_Revenue	0.842**	1.000				
Acquirer_Type	-0.250**	-0.211**	1.000			
Transaction_Type	-0.330**	-0.295**	0.229**	1.000		
Unemployment	-0.045**	-0.047**	0.034**	0.059**	1.000	
US_GDP	-0.028**	-0.025*	-0.009	-0.026*	-0.217**	1.000

Table 5 presents the Pearson correlation matrix for the variables of interest and control variables used in the regression analysis.
** and * Indicate significance at 1% and 5%, respectively. All variables are defined in Appendix A.

Results

Table 6 provides regression results of the analysis. The first column (Model 1) is a control model, which includes only the variable of interest, Seller_Note. As shown on Table 6, Seller_Note explains only 5% of the variance in the data. Of interest is the negative sign on the Seller_Note coefficient indicating transactions with a seller carry note have lower transaction prices. This was expected since seller carry notes are more common in transactions where the buyer is non-publicly traded and transaction prices associated with non-publicly traded buyers are generally lower than when a public buyer is involved (refer to Table 6 Models 2, 3, and 4). As shown on Table 2, 99% of the transactions with a seller carry note were private buyers.

Model 2 of Table 6 reports the regression results for the test of Hypothesis 1. The adjusted R^2 indicates the independent variables explain approximately 86 percent of the variance in the transaction price. The independent variable, Seller_Note, is significant and positively related to the dependent variable LN_Transaction_Price. This result supports Hypothesis 1. The Standardized Coefficients (not tabulated) indicate that LN_Revenue is the most influential factor on LN_Transaction_Price, followed by Acquirer_Type (public or private), Transaction_Type (asset or stock sale), and the existence of a seller carry note (Seller_Note).

The regression for Model 3 of Table 6 shows that the interaction variable Seller_Note x Acquirer_Type is significant at the $p < .01$ level and is positively related to LN_Transaction_ Price. This suggests that the existence of a seller note has more of an effect on the transaction price when the acquirer is private rather than public. Model 4 shows that the interaction variable Seller_Note x Transaction_Type is significant at $p < .05$ and is positively related to the dependent variable. This suggests that the existence of a seller note has more of an effect on the transaction price when the transaction is structured as an asset sale rather than a stock sale.

Because the dependent variable has been log-transformed, additional analysis is informative. The interpretation of the coefficient for the Seller_Note indicates a 15.84 percent increase in the transaction price for a unit increase in the Seller_Note. Given that the mean transaction price in the dataset of private firm sales is approximately $872,000, this would result in an average increase of $138,000.

Finally, additional analysis was completed to determine if the ratio of the amount of the seller note to the total transaction price would produce significant positive results in the regression in support of Hypothesis 2. Specifically, this hypothesis states that the transaction price will be higher for firms with a high seller financed note to transaction price ratio than for firms with a low ratio. To test this hypothesis, the ratio of the variable Amount_Seller_Financed to the variable Transaction_Price was calculated, creating a new variable: Percent_Seller_Financed. The 8,978 transactions which included a seller financed note were divided into two groups based on this new variable. The observations with Percent_Seller_Financed greater than or equal to the median value were defined as the high ratio group and those below the median were defined as the low ratio group using a new indicator variable Seller_Financed_Median. This variable was coded as 1 for the high ratio group and 0 for the low ratio group.

Table 7 shows the results of the regression analysis. Model (1) uses the variable Seller_Financed_Median in substitution for Seller_Note. The results showed a negative

Table 6. Regression Analysis Full Sample

	Dependent Variable = LN_Transaction Price			
Variables	(1)	(2)	(3)	(4)
Primary Variables				
Seller_Note	- 1.120***	0.162***	-0.535***	0.070*
	(-38.378)	(13.186)	(-4.858)	(-1.674)
LN_Revenue		0.746***	0.745***	0.746***
		(193.142)	(193.031)	(192.985)
Acquirer_Type		-1.681***	-1.698***	-1.666***
		(-73.848)	(-74.131)	(-70.514)
Transaction_Type		-0.488***	-0.489***	-0.509***
		(-26.266)	(-26.334)	(-24.480)
Seller_Note x Acquirer_Type			0.706***	
			(6.366)	
Seller_Note x Transaction_Type				0.097**
				(2.265)
Constant	13.715***	4.370***	4.386***	4.369***
	(816.970)	(55.728)	(55.943)	(55.718)
Control Variables				
Unemployment		-0.005	-0.004	-0.005
		(-0.699)	(-0.571)	(-0.703)
US_GDP		-0.006	-0.007	-0.006
		(-1.404)	(-1.551)	(-1.398)
Year Fixed Effects	No	Yes	Yes	Yes
Industry Fixed Effects	No	Yes	Yes	Yes
Adjusted R^2	0.051	0.860	0.860	0.860
Observations	27,130	27,130	27,130	27,130

***, **, and * Indicate significance at 1%, 5%, and 10%, respectively.
Table 6 presents the results of the regression analysis for the full sample. Model (1) is the control model with only the variable of interest. Model (2) includes the baseline regression results of Equation (1). Models (3) and (4) include interactions with the variable of interest. t-Statistics are reported in parentheses below each coefficient. All variables are defined in Appendix A.

relationship of Seller_Financed_Median to LN_Transaction_Price which was significant at $p < .01$. Model (2) reports the regression results when Percent_Seller_Financed is the variable of interest. A significant ($p < .01$) negative relationship of Percent_Seller_Financed to LN_Transaction_Price is shown in this model. These results are not supportive of Hypothesis 2. Thus, future research could include additional analysis to determine if there were certain characteristics of these sales transactions that would account for these results.

Discussion and Implications

Although closely held firms constitute the vast majority of companies in the United States, they are underrepresented in the research regarding business exit outcomes. This is largely a consequence of the difficulty in obtaining relevant information regarding firm values, business operations, exit strategies, and exit outcomes for these closely held business organizations. The available research indicates that the theoretical construct in which the entrepreneurial business model ends with value appropriation in the form of ongoing profits is incomplete. Given the inevitability of owner exit at some point, the entrepreneurial business process should be expanded to include business exit and related financial outcomes in the form of potential additional value capture. Achieving maximum value capture on business exit of privately owned companies should be of interest to owners and managers of these firms.

These entrepreneurial businesses can benefit dramatically by understanding the factors that can contribute to value capture upon exit. The financial aspects that are most strongly associated with maximizing potential value capture, once they are known, should be given priority as part of the business exit strategy for these companies. In addition, any factors related to negotiation of the sales price should also be considered.

This analysis of the sale of privately held companies indicates that there are certain variables that contribute to higher business exit outcomes in terms of an increase in the transaction price. While annual revenue and acquisition by a public company rather than a nonpublic firm are positively correlated with a higher sales price, these are relatively well-known results in prior research. In this paper, we find that the existence of a seller carry note is significantly

Table 7. Regression Analysis - Seller_Note = 1

	Dependent Variable = LN_Transaction Price	
Variables	(1)	(2)
Primary Variables		
Seller_Financed_Median	-0.082***	
	(-5.943)	
Percent_Seller_Financed		-0.002***
		(-6.642)
LN_Revenue	0.845***	0.845***
	(136.918)	(137.146)
Acquirer_Type	-0.855***	-0.849***
	(-10.222)	(-10.149)
Transaction_Type	-0.327***	-0.325***
	(-11.087)	(-11.005)
Constant	2.449***	2.484***
	(17.148)	(17.348)
Control Variables		
Unemployment	-0.019**	-0.020**
	(-2.350)	(-2.440)
US_GDP	-0.004	-0.004
	(0.556)	(-0.594)
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
Adjusted R^2	0.749	0.750
Observations	8,978	8,978

***, **, and * Indicate significance at 1%, 5%, and 10%, respectively.
Table 7 presents the results of the regression analysis for Seller_Note=1. Model (1) includes the regression results using Seller_Financed_Median as the variable of interest. Model (2) includes the regression results with Percent_Seller_Financed as the variable of interest. t-Statistics are reported in parentheses below each coefficient. All variables are defined in Appendix A.

and positively associated with higher transaction pricing in the sale of private firms. In fact, on average private firm owners negotiate a 15.84 percent higher sales price when a seller carry note is involved in the transaction. This is important information for owners and managers of privately held business organizations that has not been addressed in prior research. Understanding the factors driving transaction pricing on exit improves our understanding of the closely held business model.

Limitations and Future Research

This study relies on data provided to DealStats by business brokers, transaction intermediaries, and DealStats technicians. Business brokers and transaction intermediaries contribute transaction details for sales of business in which they represent the buyer and/or seller. DealStats technicians locate closely held business acquisition information from SEC filings of publicly traded companies and include it in the data. As a result, the sample is not random. However, with over 29,000 transaction observations, the data provides strong evidence of the positive influence of a seller carry note on transaction pricing.

Our analysis of the empirical data explains 86% of the variance in transaction pricing for sales of closely held businesses (Table 6). However, many other factors, mostly qualitative in nature, could provide an explanation for the remaining 14% variance. For example, the seller's belief that the buyer will be able to run the business and repay the note plays some part in the decision. Another factor is the seller's motivation for exiting. A seller that is aging out with no heirs to continue the business operation will undoubtedly be more motivated to sell even if a note is involved. Other qualitative factors may include the negotiation skills of the buyer and seller, the motivation of the seller (for example, the seller's attention has turned to other opportunities), or the transaction date cash requirements of the seller. Collins et al. (2016) suggested a seller that does not expect an acceptable quality of life after selling the business might hamper that entrepreneurial exit. In fact, many socio economic factors could play a role in the remaining unexplained variance.

Our analysis focused on the information provided by our data source, DealStats. Extending this analysis by using transaction data from other sources could add to our results. In general, empirical data on exit from closely held businesses by its nature is limited. More analysis is necessary to extend our knowledge of entrepreneurial exit. Researchers should continue to explore this important part of

the entrepreneurial cycle in order to more fully understand strategic business exit from closely held organizations.

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Appendix A. Variable Definitions

Variable	Definition
Transaction_Price	The price at which 100% of the assets or stock of each firm sold expressed in U.S. dollars.
LN_Transaction_Price	Natural log of the variable Transaction_Price.
Seller_Note	An indicator variable equal to 1 if the seller of the firm financed all or part of the transaction price and 0 if no part of the transaction price was seller-financed.
Revenue	The revenue reported by the firm for the last full year of operations before the sale.
LN_Revenue	Natural log of the variable Revenue.
Acquirer_Type	An indicator variable equal to 1 if the acquirer of the firm was a private company and 0 if it was publicly traded.
Transaction_Type	An indicator variable equal to 1 if the transaction took the form of an asset sale and 0 if it was a stock sale.
Seller_Note x Acquirer_Type	Interaction of Seller_Note and Acquirer_Type
Seller_Note x Transaction_Type	Interaction of Seller_Note and Transaction_Type
Amount_Seller_Financed	The value of the seller financed note of each firm sold expressed in U.S. dollars.
Percent_Seller_Financed	A calculated variable resulting from dividing the Amount_Seller_Financed by the Transaction_Price expressed as a percent.
Seller_Financed_Median	An indicator variable equal to 1 if the Percent_Seller_Financed was greater than or equal to the median of Percent_Seller_Financed (high group) and 0 if it was less than the median (low group).
Unemployment	Change in the United States' annual unemployment rate.
US_GDP	Change in the United States' annual gross domestic product expressed as a percentage.