THE IMPACT OF PUBLIC LISTING ON BANK PROFITABILITY

Miri Park *, Hyeonji Song *, Jijun Niu **

* Beedie School of Business, Simon Fraser University, Canada
** *Corresponding author* Beedie School of Business, Simon Fraser University, Canada
Contact details: Beedie School of Business, Simon Fraser University, Burnaby, BC V5A 1S6, Canada

OPEN ACCESS

How to cite this paper: Park, M., Song, H., & Niu, J. (2018). The impact of public listing on bank profitability. *Corporate Ownership & Control, 15(4),* 58-63. http://doi.org/10.22495/cocv15i4art5

ISSN Online: 1810-3057
ISSN Print: 1727-9232

Received: 08.05.2018
Accepted: 22.06.2018

JEL Classification: G21, G32
DOI: 10.22495/cocv15i4art5

Abstract

This paper examines the impact of public listing on bank profitability. Using a large sample of US banks, we find that the impact depends on bank size. Specifically, for small and medium-sized banks, the public listing has a negative impact on profitability. In contrast, for large banks, the impact is positive. Our results are consistent with theories predicting that the net benefit of public listing increases with firm size.

Keywords: Bank, Public Listing, Profitability.

Acknowledgements: We would like to thank an anonymous reviewer and Ying Duan for helpful comments and suggestions. All errors are our own.

1. INTRODUCTION

Thousands of banks operate in the US. While the stocks of some banks are listed on exchanges ("public banks"), the stocks of other banks are privately held ("private banks"). A question naturally arises: What is the impact of public listing on bank profitability?

A large body of research indicates that public listing has both benefits and costs. Public firms have better access to capital markets than private firms do (Brav, 2009; Nichols, Wahlen, & Wieland, 2009). This financing advantage allows public firms to be more responsive to investment opportunities (Gilje, & Taillard, 2016; Phillips, & Sertsios, 2017). However, public firms often have a greater separation of ownership and control, which implies higher agency costs (Jensen, 1989; Bhide, 1993). Private firms, in contrast, typically have more concentrated ownership and lower agency costs (Nichols, Wahlen, & Wieland, 2009; Asker, Farre-Mensa, & Ljungqvist, 2015).

Prior research also indicates that the net benefit of public listing increases with firm size. Indeed, a major benefit of a public listing is the improved access to capital markets (Nichols, Wahlen, & Wieland, 2009; Gilje, & Taillard, 2016). This benefit is more valuable for larger firms than for smaller ones because larger firms typically need to raise larger amounts of capital (Doidge, Karolyi, & Stulz, 2017).

To examine the impact of public listing on bank profitability, we use quarterly observations on US banks over the period 2002: Q1 to 2015: Q4. Our sample includes 3,140 unique banks, of which 794 are public and 2,346 are private. We divide banks in our sample into three groups: small banks (total assets up to $1 billion), medium-sized banks (total assets exceeding $1 billion and up to $10 billion), and large banks (total assets exceeding $10 billion). We then run regressions separately for the three groups.

We find that public listing has a negative impact on the profitability of small and medium-sized banks, but a positive impact on the profitability of large banks. These results hold after controlling for a variety of bank-specific variables and time fixed effects. The results are also robust to using alternative measures of profitability.

Understanding the impact of public listing on bank profitability is important because banks play important roles in an economy (Diamond, & Dybvig, 1983; Diamond, 1984; Berger, & Bouwman, 2009), and profitable banks are better able to supply liquidity and credit to corporate and individual borrowers. While a growing body of literature examines the impact of public listing on firm performance, few studies exist on this topic for banks.

The remainder of this paper is organized as follows. Section 2 reviews the related literature. Section 3 describes the sample and variables. Section 4 presents empirical results. Section 5 discusses the reasons behind the results. Section 6 concludes.

2. RELATED LITERATURE

2.1. Implications of public listing

A growing body of literature examines the implications of a public listing. One major finding is that public firms have better access to capital markets than private firms do. For example, Pagano, Panetta, and Zingales (1998) examine a sample of Italian firms and find that firms experience a reduction in borrowing costs after they go public. Schenone (2010) finds similar results using a sample of US firms. Saunders and Steffen (2011) find that public firms face lower borrowing costs in loan markets than private firms do. Brav (2009) finds that private firms have higher leverage ratios and tend to avoid equity issues. He argues that this is because private equity is costlier than public equity.

Several papers compare the investment behaviour of public and private firms. Asker, Farre-Mensa, and Ljungqvist (2015) find that, compared with private firms, public firms invest substantially less and are less responsive to changes in investment opportunities. The findings are consistent with the notion that short-term stock market pressures distort investment decisions of public firms (e.g., Stein, 1989). Sheen (2016) studies the chemical industry and finds that private firms make better timing decisions for capacity expansion. Examining the natural gas industry, Gilje and Taillard (2016) show that public firms are more responsive to changes in investment opportunities. They also show that the results are due to the fact that public firms have better access to external capital. Exploiting a quasi-natural experiment in the medical device industry, Phillips and Sertsios (2017) show that the financing advantage of public firms has product market implications.

Researchers have identified other differences between public and private firms. Maksimovic, Phillips, and Yang (2013) find that public firms purchase and sell assets at a higher intensity than private firms do. Moreover, the acquisition decisions of public firms are influenced by stock market conditions. Bernstein (2015) shows that public and private firms use different strategies in pursuing innovation. Gao, Harford, and Li (2013) find that public firms hold more cash than private firms do, and spend excess cash in less efficient ways. The findings are consistent with the notion that there are more severe agency problems in public firms. Michaely and Roberts (2012) find that public firms are more likely to smooth dividends.

Two papers compare CEO compensation and turnover in public and private firms. Gao and Li (2015) find that CEOs of public firms are paid more than CEOs of comparable private firms. Moreover, the pay-performance link is much stronger in public firms. The authors conclude that concentrated ownership in private firms substitutes for performance-based compensation contracts. Gao, Harford, and Li (2017) find that CEOs of public firms have higher turnover rates and exhibit greater turnover-performance sensitivity.

2.2 Public versus private banks

Banking industry provides an attractive setting for assessing the implications of a public listing. There is a large number of public and private banks, and detailed data for private banks are readily available. Such data are rarely available in other industries (Nichols, Wahlen, & Wieland, 2009; Hall, 2016).

Several papers examine the accounting implications of a public listing. Beatty and Harris (1999) compare the use of securities gains and losses to manage earnings in public and private banks. They find that public banks are more likely to engage in earnings management. Beatty, Ke, and Petroni (2002) show that public banks face more pressure to report consistently increasing earnings. Nichols, Wahlen, and Wieland (2009) find that public banks exhibit greater degrees of conditional conservatism.

Two papers examine the impact of public listing on bank operations. Hall (2016) shows that public banks have more elastic labour cost structures than private banks do. Iselin and Nicoletti (2017) document changes in the investment behaviour of public banks after the implementation of an accounting standard.

Kwan (2004) compares the performance of public and private banks. He finds that public banks are on average less profitable, and the results are driven by smaller banks. Akhigbe, McNulty, and Stevenson (2017) document a small difference in profit efficiency between public and private banks in the pre-crisis period. For the crisis period, there is no difference in profit efficiency.

Barry, Lepetit, and Tarazi (2011) show that ownership structure has a significant impact on risk-taking for private banks, but no impact for public banks. They argue that market forces drive the risk-taking behaviour of public banks such that ownership structure is no longer an important determinant. Falato and Scharfstein (2016) find that banks increase risk after the transition from private to public ownership. They also find that the increase in risk is due to the pressure to maximize short-term stock prices and earnings.

3. SAMPLE AND VARIABLES

We begin with all the bank holding companies ("banks") that file the Federal Reserve's Y-9C quarterly reports between 2002: Q1 and 2015: Q4. To identify whether the stock of a bank is listed on an exchange, we rely on the CRSP-FRB Link dataset published by the Federal Reserve Bank of New York[1]. The dataset links the regulatory identification number in the Y-9C database to the permanent company number in the Center for Research in Security Prices (CRSP) database. We classify a bank as a public bank in a given quarter if its stock is listed on an exchange; otherwise, the bank is classified as a private bank. Our sample consists of 74,774 bank-quarter observations, of which 22,322 are public and 52,452 are private.

We use two measures of profitability. The first measure is a return on assets (ROA), calculated as the annualized ratio of net income to total assets. The second measure is a return on equity (ROE), calculated as the annualized ratio of net income to total equity capital. Both measures are widely used in the literature (Athanasoglou, Brissimis, & Delis, 2008; Trujillo-Ponce, 2013).

We create an indicator variable, Public, that equals one if a bank is a public bank, and

[1] The dataset is available at https://www.newyorkfed.org/research/banking_research/datasets.html

zero otherwise.

We choose control variables based on the literature that examines the determinants of bank profitability (Athanasoglou, Brissimis, & Delis, 2008; Trujillo-Ponce, 2013). First, we control for size, measured as the natural logarithm of total assets in constant 2015 dollars[2]. Second, we control the ratio of total equity capital to total assets. Third, we control the ratio of loans and leases to total assets. Fourth, we control the ratio of deposits to total assets. Finally, we control for income diversification, measured as the ratio of noninterest income to the sum of interest income and noninterest income.

Table 1 lists the definition of each variable. To mitigate the effect of outliers, we winsorize all continuous variables except size at the 1% and 99% levels.

Table 2 presents summary statistics for our sample. ROA has a mean of 0.008, and ROE has a mean of 0.084. Both variables exhibit considerable variation as indicated by the large standard deviation. The average bank has a capital ratio of 0.093, a loans-to-assets ratio of 0.662, a deposits-to-assets ratio of 0.786, and a diversification ratio of 0.174. The public has a mean of 0.299, indicating that 29.9% of the observations in our sample are on public banks.

Table 3 compares the characteristics of public and private banks. We find that public banks are much larger than private banks on average. This result is consistent with Kwan (2004), Nichols, Wahlen, and Wieland (2009), and Hall (2016). We also find that public banks tend to have higher capital, higher loans-to-assets ratio, and higher diversification ratio. Private banks, in contrast, tend to have a higher deposits-to-assets ratio.

Because the impact of public listing on profitability likely depends on bank size (Doidge, Karolyi, & Stulz, 2017), we divide banks in our sample into three groups: small, medium-sized, and large banks. Small banks have total assets up to $1 billion, medium-sized banks have total assets exceeding $1 billion and up to $10 billion, and large banks have total assets exceeding $10 billion.

Table 4 reports the number and per cent of observations on public banks in each size group. We find that 14% of small banks, 50% of medium-sized banks, and 72% of large banks are public banks. This pattern is consistent with the fact that public banks are much larger than private banks on average, and the sample of Akhigbe, McNulty, and Stevenson (2017).

Table 1. Variable definitions

Variable	*Definition*
ROA	Annualized ratio of net income to total assets.
ROE	Annualized ratio of net income to total equity capital.
Public	An indicator variable that equals one if a bank is a public bank, and zeroes otherwise.
Size	The natural logarithm of total assets in constant 2015 dollars.
Capital	The ratio of total equity capital to total assets.
Loans	The ratio of loans and leases to total assets.
Deposits	The ratio of deposits to total assets.
Diversification	The ratio of noninterest income to the sum of interest income and noninterest income.

Table 2. Summary statistics

	Mean	*Std. dev.*	*25th percentile*	*Median*	*75th percentile*	*N*
ROA	0.008	0.011	0.005	0.009	0.013	74,774
ROE	0.084	0.159	0.060	0.101	0.143	74,774
Size	20.778	1.411	19.882	20.458	21.218	74,774
Capital	0.093	0.032	0.074	0.090	0.107	74,774
Loans	0.662	0.134	0.589	0.680	0.756	74,774
Deposits	0.786	0.112	0.752	0.812	0.855	74,774
Diversification	0.174	0.127	0.097	0.147	0.215	74,774
Public	0.299	0.458	0.000	0.000	1.000	74,774

Notes: This table reports summary statistics for the variables. All variables are defined in Table 1.

Table 3. Comparison of public and private banks

	Mean of public banks	*Mean of private banks*	*Difference in means*
Size	21.729	20.373	1.356***
Capital	0.097	0.091	0.006***
Loans	0.666	0.660	0.006***
Deposits	0.745	0.803	-0.059***
Diversification	0.193	0.166	0.027***

*Notes: This table compares the characteristics of public and private banks. A bank is classified as a public bank if its stock is listed on an exchange; otherwise, the bank is classified as a private bank. All variables are defined in Table 1. Differences in means are assessed using t-tests that assume unequal variances. *** indicates statistical significance at the 1% level.*

Table 4. Number and per cent of observations on public banks in each size group

	Number of observations	*Number of observations on public banks*	*Per cent of observations on public banks*
Small banks	45,473	6,544	14
Medium-sized banks	24,001	11,953	50
Large banks	5,300	3,825	72

Notes: Small banks are banks with total assets up to $1 billion. Medium-sized banks are banks with total assets exceeding $1 billion and up to $10 billion. Large banks are banks with total assets exceeding $10 billion.

[2] We convert all dollar values to constant 2015 dollars using the Consumer Price Index. The index is obtained from the Bureau of Labor Statistics.

4. EMPIRICAL RESULTS

To assess the impact of public listing on bank profitability, we estimate the following equation:

$$Y_{i,t} = \alpha + \beta \cdot Public_{i,t} + \gamma \cdot X_{i,t} + \delta_t + \varepsilon_{i,t} \quad (1)$$

where i indexes banks and t indexes quarters. $Y_{i,t}$ represents either $ROA_{i,t}$ or $ROE_{i,t}$ in separate regressions. $Public_{i,t}$ is an indicator variable that equals one if a bank is publicly traded, and zero otherwise. $X_{i,t}$ is a vector of control variables. δ_t represents quarter fixed effects. We include quarter fixed effects to account for conditions that affect all the banks in a given quarter. $\varepsilon_{i,t}$ is the error term.

We estimate equation (1) using ordinary least squares, and adjust the standard errors for clustering at the bank level.

Table 5 reports the regression results for small banks. In column (1), the dependent variable is ROA. In column (2), the dependent variable is ROE. In both columns, the coefficient on Public is negative and statistically significant. This result indicates that public listing has a negative impact on the profitability of small banks. The economic magnitude of the coefficient is also significant. For example, in column (1), the coefficient on Public is -0.003, which can be compared with the average ROA of 0.008 in Table 2.

Table 5. Regression results for small banks

	(1) ROA	*(2) ROE*
Public	-0.003***	-0.031***
	(0.000)	(0.005)
Size	0.002***	0.026***
	(0.000)	(0.004)
Capital	0.104***	0.393***
	(0.005)	(0.070)
Loans	0.006***	0.077***
	(0.001)	(0.013)
Deposits	0.010***	0.097***
	(0.002)	(0.021)
Diversification	0.014***	0.183***
	(0.002)	(0.019)
Constant	-0.053***	-0.565***
	(0.007)	(0.087)
Quarter fixed effects	Yes	Yes
Observations	45,473	45,473
R-squared	0.268	0.158

*Notes: In column (1), the dependent variable is ROA. In column (2), the dependent variable is ROE. All variables are defined in Table 1. Standard errors are clustered at the bank level and reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.*

Turning to control variables, we find that size is positively associated with profitability. One interpretation of this result is that, for small banks, an increase in size allows banks to realize economies of scale (Regehr, & Sengupta, 2016). Capital is positively associated with profitability. This result is consistent with Berger and Bouwman (2013), who find that capital helps small banks to improve their performance. Table 5 also shows that, for small banks, greater reliance on loans, deposits, and diversification increases profitability.

Table 6 reports the regression results for medium-sized banks. The results are qualitatively similar to those in Table 5 with one exception, namely, the coefficient on size is insignificant. Thus, for medium-sized banks, an increase in size has no impact on profitability. This is perhaps because, for such banks, an increase in size leads to more bureaucratic processes, which offset the benefits associated with economies of scale (Regehr, & Sengupta, 2016).

Table 6. Regression results for medium-sized banks

	(1) ROA	*(2) ROE*
Public	-0.002***	-0.026***
	(0.000)	(0.006)
Size	-0.000	-0.003
	(0.000)	(0.004)
Capital	0.092***	0.507***
	(0.008)	(0.111)
Loans	0.003*	0.039*
	(0.002)	(0.021)
Deposits	0.004*	0.055**
	(0.002)	(0.028)
Diversification	0.018***	0.204***
	(0.002)	(0.026)
Constant	-0.002	0.058
	(0.007)	(0.091)
Quarter fixed effects	Yes	Yes
Observations	24,001	24,001
R-squared	0.263	0.176

*Notes: In column (1), the dependent variable is ROA. In column (2), the dependent variable is ROE. All variables are defined in Table 1. Standard errors are clustered at the bank level and reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.*

Table 7 reports the regression results for large banks. Importantly, the coefficient on Public is positive and significant in both columns. Thus, the public listing has a positive impact on the profitability of large banks.

Table 7. Regression results for large banks

	(1) ROA	*(2) ROE*
Public	0.002**	0.026***
	(0.001)	(0.010)
Size	-0.000	-0.003
	(0.000)	(0.004)
Capital	0.058***	0.095
	(0.017)	(0.147)
Loans	0.004	0.036
	(0.003)	(0.033)
Deposits	-0.000	0.040
	(0.003)	(0.029)
Diversification	0.016***	0.180***
	(0.003)	(0.032)
Constant	0.012	0.087
	(0.010)	(0.104)
Quarter fixed effects	Yes	Yes
Observations	5,300	5,300
R-squared	0.321	0.252

*Notes: In column (1), the dependent variable is ROA. In column (2), the dependent variable is ROE. All variables are defined in Table 1. Standard errors are clustered at the bank level and reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.*

5. DISCUSSION

Our results suggest that public listing has a negative impact on the profitability of small and medium-sized banks, but a positive impact on large banks. We think there are three possible reasons for our results.

The first reason comes from the literature that examines the costs and benefits of public listing. Public listing allows a firm to have better access to capital markets (Nichols, Wahlen, & Wieland, 2009). There are, however, large costs associated with the public listing (Ritter, 1987). Doidge, Karolyi, and Stulz (2017) propose a model in which both the cost and benefit of public listing increase as firm size increases. While the cost increases slowly with size, the benefit increases rapidly. As a result, the net benefit of a public listing is negative for small firms but positive for large ones.

The second reason comes from the literature arguing that managers of public firms face discipline in financial markets. For example, Kaplan and Minton (2012) find that CEO turnover is significantly related to firm stock performance. Gao, Harford, and Li (2012) find a strong link between CEO pay cuts and poor stock performance. We believe that large banks have more severe agency problems, and thus the disciplinary effect from financial markets is more pronounced for large banks.

The third reason comes from the literature showing that managers can learn from stock price (Dow, & Gorton, 1997; Subrahmanyam, & Titman, 1999; Chen, Goldstein, & Jiang, 2007). This literature argues that stock price aggregates information from many different participants, and thus contains information that managers do not have. By learning from the stock price of their own firm, managers can make better investment decisions. The stock prices of large banks are likely to be more informative to managers because these stocks are more liquid. As a result, large banks benefit more from public listing.

6. CONCLUSION

Prior research indicates that public listing has both benefits and costs. Using a large sample of US banks, we find that the impact of public listing on profitability depends on bank size. The impact is negative for small and medium-sized banks, but positive for large banks. These results add to the literature that examines the implications of a public listing. The results also add to the literature that examines the determinants of bank profitability.

One limitation of this study is that we have focused on a single industry, namely, banking. There are, however, important differences between banks and nonbank firms. For example, banks are highly regulated, and regulations may affect the costs and benefits associated with the public listing. Thus, one avenue for future research is to examine whether the impact of public listing differs across industries. Another limitation of this study is that we have focused on a single country, namely, the US. Regulations and economic conditions, however, differ across countries. Thus, it would be interesting to examine whether the impact of public listing differs across countries.

REFERENCES

1. Akhigbe, A., McNulty, J. E., & Stevenson, B. A. (2017). Does the form of ownership affect firm performance? Evidence from US bank profit efficiency before and during the financial crisis. *The Quarterly Review of Economics and Finance, 64,* 120-129. https://doi.org/10.1016/j.qref.2016.07.015
2. Asker, J., Farre-Mensa, J., & Ljungqvist, A. (2015). Corporate investment and stock market listing: A puzzle? *The Review of Financial Studies, 28(2),* 342-390. https://doi.org/10.1093/rfs/hhu077
3. Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2008). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Journal of International Financial Markets, Institutions and Money, 18(2),* 121-136. https://doi.org/10.1016/j.intfin.2006.07.001

4. Barry, T. A., Lepetit, L., & Tarazi, A. (2011). Ownership structure and risk in publicly held and privately owned banks. *Journal of Banking and Finance, 35(5),* 1327-1340. https://doi.org/10.1016/j.jbankfin.2010.10.004
5. Beatty, A., & Harris, D. G. (1999). The effects of taxes, agency costs and information asymmetry on earnings management: A comparison of public and private firms. *Review of Accounting Studies, 4(3-4),* 299–326. https://doi.org/10.1023/A:1009642403312
6. Beatty, A. L., Ke, B., & Petroni, K. R. (2002). Earnings management to avoid earnings declines across publicly and privately held banks. *The Accounting Review, 77(3),* 547-570. https://doi.org/10.2308/accr.2002.77.3.547
7. Berger, A. N., & Bouwman, C. H. S. (2009). Bank liquidity creation. *The Review of Financial Studies, 22(9),* 3779-3837. https://doi.org/10.1093/rfs/hhn104
8. Berger, A. N., & Bouwman, C. H. S. (2013). How does capital affect bank performance during financial crises? *Journal of Financial Economics, 109(1),* 146-176. https://doi.org/10.1016/j.jfineco.2013.02.008
9. Bernstein, S. (2015). Does going public affect innovation? *The Journal of Finance, 70(4),* 1365-1403. https://doi.org/10.1111/jofi.12275
10. Bhide, A. (1993). The hidden costs of stock market liquidity. *Journal of Financial Economics, 34(1),* 31-51. https://doi.org/10.1016/0304-405X(93)90039-E
11. Brav, O. (2009). Access to capital, capital structure, and the funding of the firm. *Journal of Finance 64(1),* 263-308. https://doi.org/10.1111/j.1540-6261.2008.01434.x
12. Chen, Q., Goldstein, I., & Jiang, W. (2007). Price informativeness and investment sensitivity to stock price. *The Review of Financial Studies, 20(3),* 619-650. https://doi.org/10.1093/rfs/hhl024
13. Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy, 91(3),* 401-419. https://doi.org/10.1086/261155
14. Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *The Review of Economic Studies, 51(3),* 393-414. https://doi.org/10.2307/2297430
15. Doidge, C., Karolyi, G. A., & Stulz, R. M. (2017). The U.S. listing gap. *Journal of Financial Economics, 123(3),* 464-487. https://doi.org/10.1016/j.jfineco.2016.12.002
16. Dow, J., & Gorton, G. (1997). Stock market efficiency and economic efficiency: Is there a connection? *The Journal of Finance, 52(3),* 1087-1129. https://doi.org/10.1111/j.1540-6261.1997.tb02726.x
17. Falato, A., & Scharfstein, D. (2016). *The stock market and bank risk-taking* (Working Paper 22689, National Bureau of Economic Research). https://doi.org/10.3386/w22689
18. Gao, H., & Li, K. (2015). A comparison of CEO pay–performance sensitivity in privately-held and public firms. *Journal of Corporate Finance, 35,* 370-388. https://doi.org/10.1016/j.jcorpfin.2015.10.005
19. Gao, H., Harford, J., & Li, K. (2013). Determinants of corporate cash policy: Insights from private firms. *Journal of Financial Economics, 109(3),* 623-639. https://doi.org/10.1016/j.jfineco.2013.04.008
20. Gao, H., Harford, J., & Li, K. (2017). CEO turnover-performance sensitivity in private firms. *Journal of Financial and Quantitative Analysis, 52,* 583-611. https://doi.org/10.1017/S0022109017000126
21. Gilje, E. P., & Taillard, J. P. (2016). Do private firms invest differently than public firms? Taking cues from the natural gas industry. *The Journal of Finance, 71(4),* 1733-1778. https://doi.org/10.1111/jofi.12417
22. Hall, C. M. (2016). Does ownership structure affect labor decisions? *The Accounting Review, 91(6),* 1671-1696. https://doi.org/10.2308/accr-51384
23. Iselin, M., & Nicoletti, A. (2017). The effects of SFAS 157 disclosures on investment decisions. *Journal of Accounting and Economics, 63(2-3),* 404-427. https://doi.org/10.1016/j.jacceco.2016.09.004
24. Jensen, M. C. (1989). Eclipse of the Public Corporation. *Harvard Business Review, 67(5),* 61-74.
25. Kaplan, S. N., & Minton, B. A. (2012). How has CEO turnover changed*? International Review of Finance, 12(1),* 57-87. https://doi.org/10.1111/j.1468-2443.2011.01135.x
26. Kwan, S. H. (2004). Risk and return of publicly held versus privately owned banks. *FRBNY Economic Policy Review, September,* 97-107.
27. Maksimovic, V., Phillips, G., & Yang, L. (2013). Private and public merger waves. *The Journal of Finance, 68(5),* 2177-2217. https://doi.org/10.1111/jofi.12055
28. Michaely, R., & Roberts, M. R. (2012). Corporate dividend policies: Lessons from private firms. *The Review of Financial Studies, 25(3),* 711-746. https://doi.org/10.1093/rfs/hhr108
29. Nichols, D. C., Wahlen, J. M., & Wieland, M. M. (2009). Publicly traded versus privately held: Implications for conditional conservatism in bank accounting. *Review of Accounting Studies, 14(1),* 88-122. https://doi.org/10.1007/s11142-008-9082-3
30. Pagano, M., Panetta, F., & Zingales, L. (1998). Why do companies go public? An empirical analysis. *The Journal of Finance, 53(1),* 27-64. https://doi.org/10.1111/0022-1082.25448
31. Phillips, G. M., & Sertsios, G. (2017). Financing and new product decisions of private and publicly traded firms. *The Review of Financial Studies, 30(5),* 1744-1789. https://doi.org/10.1093/rfs/hhw106
32. Regehr, K., & Sengupta, R. (2016). Has the relationship between bank size and profitability changed? *Economic Review, Federal Reserve Bank of Kansas City, Q II,* 49-72. Retrieved from the World Wide Web: https://www.kansascityfed.org/~/media/files/publicat/econrev/econrevarchive/2016/2q16 regehrsengupta.pdf
33. Ritter, J. R. (1987). The costs of going public. *Journal of Financial Economics, 19(2),* 269-281. https://doi.org/10.1016/0304-405X(87)90005-5
34. Saunders, A., & Steffen, S. (2011). The costs of being private: Evidence from the loan market. *The Review of Financial Studies, 24(12),* 4091-4122. https://doi.org/10.1093/rfs/hhr083
35. Schenone, C. (2010). Lending relationships and information rents: Do banks exploit their information advantages? *The Review of Financial Studies, 23(3),* 1149-1199. https://doi.org/10.1093/rfs/hhp080
36. Sheen, A. (2016). *Do public and private firms behave differently? An examination of investment in the chemical industry* (Working Paper, University of Oregon). https://doi.org/10.2139/ssrn.2792410
37. Stein, J. C. (1989). Efficient capital markets, inefficient firms: A model of myopic corporate behavior. *The Quarterly Journal of Economics, 104(4),* 655-669. https://doi.org/10.2307/2937861
38. Subrahmanyam, A., & Titman, S. (1999). The going-public decision and the development of financial markets. *The Journal of Finance, 54(3),* 1045-1082. https://doi.org/10.1111/0022-1082.00136
39. Trujillo-Ponce, A. (2013). What determines the profitability of banks? Evidence from Spain. *Accounting and Finance, 53(2),* 561-586. https://doi.org/10.1111/j.1467-629X.2011.00466.x