working paper 04 14

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FEDERAL RESERVE BANK OF CLEVELAND

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Working Paper 04-14 December 2004

Bank Seasoned Equity Offers: Do Voluntary & Involuntary Offers Differ?

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We examine whether the offer price discount for seasoned equity offers made by undercapitalized banks (involuntary issues) is different from those made by banks that were already overcapitalized prior to issue announcement (voluntary issues). Voluntary issues are likely made by opportunistic managers at times when their stock is overvalued. For involuntary issues, such timing discretion may be limited. However, we find no significant differences in the issue-date discount, and in issue-date abnormal returns between the two types of issues. The post-issue long-run returns are *positive* for both types of issues. Inconsistent with prior research, we do not find a significant difference even in the announcement date returns of the involuntary and voluntary issues.

JEL Codes: G21, G32
Keywords: seasoned equity offers, capital, offer price discount

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1. Introduction

Several recent papers have examined the impact of the discount at which seasoned equity is offered relative to the stock price just preceding the offer date. Specifically, this body of research has examined the market reaction to the offer price discount for utilities and industrial issuers.[1] The results are that the seasoned equity offering (SEO) issue day price reaction is more negative the larger the offer price discount (OPD). Altinkilic and Hansen (2003) argue that the offer price discount is a signaling device that investment bankers use to apprise their buy-side clients (the capital suppliers) of the potential quality of the SEO firm, based upon the investment bankers' updated information.

Prior academic research, including Altinkilic and Hansen (2003), has excluded bank SEOs while analyzing the impact of the OPD. However, bank SEOs provide an interesting setting to examine the OPD-effect because Cornett and Tehranian (1994) document that all bank issues are not created equal. They argue that bank SEOs should not be pooled together and examined as one non-differentiated group. Cornett and Tehranian segregate seasoned equity offers (SEOs) made by banks that are already adequately capitalized from SEOs where the issuing institution has fallen below the capital adequacy standard.[2] The former are called "voluntary" and the latter are labeled "involuntary" SEOs. They argue that voluntary offers are possibly made by opportunistic managers, who find their stock overvalued and seek to capitalize on that opportunity (a la Myers and Majluf (1984)). On the other hand, managers may have limited discretion to time involuntary offers because such issues are made under duress from bank regulators. Consistent with their reasoning, Cornett and Tehranian (1994) find that the price reaction to SEO announcements is significantly more negative for voluntary offers.

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[1] Altinkilic and Hansen (2003) examine industrial offers, Singh (1997) examines utilities, and Safieddine and Wilhelm (1996) examine a combination of industrials and utilities.

[2] Banks are required to follow capital adequacy requirements and regulators monitor whether banks are adhering to that minimum acceptable standard.

We consider bank SEOs to be particularly interesting because equity offers by industrial firms and utilities are not distinguishable into voluntary and involuntary offers. If the motivations behind voluntary and involuntary issues are potentially different, it is not obvious that the Offer Price Discount (OPD) effect should be the same across the two types of offers. If involuntary offers are made by relatively poorly performing banks then OPD may be higher for such offers to compensate the investment bank's buy-side clients for the risk they are taking. If involuntary offers are made at relatively shorter notice under duress from the regulators, then again OPD may be higher for such offers. On the other hand, investment bankers may set deeper discounts for voluntary offers if such offers are perceived as opportunistic action. Moreover, the information content of the OPD may not be the same across the two classes of issues; that is, the market may react differently to the same amount of discount across the two types of issues because the poor performance and undercapitalization of the involuntary issuers are observable and may already be priced in. Thus, the OPD effect for voluntary and involuntary SEOs is an unresolved empirical issue: it is not evident whether the OPD effect exists for banks, and it is not obvious if the OPD is used as a signaling device, and whether the effect of this signal is different for voluntary and involuntary offers. To resolve these issues, we ask the following question in this paper: Does the magnitude and information content of the offer price discount vary across voluntary and involuntary issuers?

Consistent with the literature, we find that the greater the offer price discount (OPD) relative to the price on the previous day, the more negative the offer day price reaction. Surprisingly, however, we find *no* significant differences in the issue-date discount, in issue-date discount surprises, in the market's reaction to discount surprises, in the 60-day post-issue abnormal returns run-up, and in the one-year post-issue abnormal returns between voluntary and involuntary offers.

The lack of a difference between the stock price reactions to voluntary and involuntary offers at the offer date and in the post-issue period is unexpected, in light of Cornett and Tehranian (1994). To further explore this lack of difference between investors' reaction to voluntary and involuntary offers, we examine the announcement day returns for the two classes of bank SEOs, as in Cornett and Tehranian (1994). We find no difference even in the announcement day returns between voluntary and involuntary offers. We restrict our study

period to 1983-1989 to match Cornett and Tehranians' (1994) sample period. For this period, we have 60 involuntary bank SEOs and 65 voluntary bank SEOs as compared with Cornett and Tehranian's sample of 59 involuntary offerings and 61 voluntary offerings. We still find no difference in the announcement day returns between voluntary and involuntary offers. Also, Cornett and Tehranian argue that the pre-event run-up may be regarded as evidence of managerial opportunism to time the SEO of an overvalued stock. Once again, we cannot support Cornett and Tehranian (1994). We find that both involuntary and voluntary SEOs are timed after a significant stock price run-up and that the run-up does not differ across the two classes of bank SEOs. If the pre-event run-up is evidence of managerial opportunism and ability to time the SEO, then the fact that it does not differ across the two types of bank SEOs is evidence that managers are able to time the involuntary offers just as well.

The examination of one-year post-issue long-run abnormal returns for the two types of bank seasoned equity issues reveals two new results.[3] The post-issue long-run returns are *positive* for both voluntary and involuntary offerings, and the difference is insignificant.

Our results do not support the notion that investors react differently to voluntary and involuntary SEOs. Our results do not support Cornett and Tehranian's findings for our entire sample period (1983 – 1999) or for the period employed in their study (1983 – 1989). Our results are robust when we limit our attention to large issuers (assets greater than $1 billion) and large issues (issue proceeds greater than 1% of total assets). One explanation for our finding is the fact that tapping outside equity is an expensive form of raising capital. Banks often use alternatives methods to fix their capital adequacy problems, such as restricting asset growth.[4] Thus, resorting to an SEO to raise additional equity to meet capital adequacy requirements may strike investors in much the same way as they regard SEOs by well-capitalized banks.

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[3] We compute the long-run returns in different ways: the Buy-and-Hold abnormal returns and the Fama-French factors risk adjusted returns. We lose only one bank that does not survive the twelve-months following the issue.

[4] These alternative methods include cutting growth, shrinking in size, retaining a larger fraction of their earnings, and adjusting their balance sheet towards assets with lower capital charge. For example, a bank can sell its mortgage portfolio and replace it with mortgage-backed securities. This arrangement reduces a bank's credit risk exposure and cuts its capital charge by more than half (4 cents for every dollar in mortgages versus 1.6 cents for every dollar in Government Sponsored Enterprise backed Mortgage Backed Securities).

A second contribution of our paper is the following. Safieddine and Wilhelm (1996) find that SEO offer dates are accompanied by a marked increase in trading volume. We also check to see if there is an increase in trading volume for bank SEOs and whether it holds across the two types of bank offerings. We find that the trading volume increases dramatically at the offer date relative to a pre-event "normal" trading volume benchmark. Interestingly, we find that although the trading activity reduces within a few days (relative to the immediate post-issue peak) it stays at abnormally high levels over a 60-day post–offer period and it is accompanied by a *positive* abnormal return in the post-offer period. Again, we do not find any difference in the increased trading volume or the post-issue abnormal returns between the voluntary and involuntary offers.

The remainder of the paper is organized as follows. The next section describes our data of bank SEOs segregated into voluntary and involuntary issues. Section 3 analyzes the issue date discount, the returns around issues date, the post-issue volume and returns for voluntary and involuntary issues. Section 4 analyses the announcement period returns for voluntary and involuntary issues, and section 5 concludes.

2. Voluntary and Involuntary SEOs

Our data comprises public issues of seasoned equity made by commercial banks and Bank Holding Companies (BHCs) in the United States for the period June 1983 through June 1999. The sample starts in June 1983 because the 17 largest banks were first required to comply with new capital standards in this month.[5] The seasoned common stock offering data are taken from the data files of Thomson Financial's SDC Platinum database. The Securities Data Company provides offer data on issue type, lead bank identity, announcement date, offer date, gross proceeds excluding the overallotment option, offer price, and shares issued. For each issuer we search the Lexis-Nexis newswires and the Dow Jones News Retrieval Publications Library (DJNR) for articles reporting the announcement of the offer, to confirm the announcement date. If the announcement date from our Lexis-Nexis and DJNR search differs from that reported in SDC, we use the newswire/DJNR date. We also cross check the issuance dates with the Investment Dealer's Digest (IDD) for issues made until 1996. For

[5] See Moulton (1987) and Cornett and Tehranian (1994).

issues made from 1996 onwards, we check the issue date from the EDGAR database of the Securities and Exchange Commission (SEC). If the issue date found from IDD or EDGAR differs from that reported by SDC, we use the IDD/EDGAR date.

Financial statement information needed to calculate the total capital ratios and other balance sheet and income statement data are obtained from the Federal Financial Institutions Examination Council's Reports and Income and Condition (call reports) for commercial banks and Y-9 statements for BHCs. To calculate the total capital ratios, we use the formulas published by the Board of Governors of the Federal Reserve System in the Federal Register on January 1st of each year (Title 12 Part 225 Appendix A for BHCs and Part 208 Appendix A for commercial banks). After 1989, we use capital adequacy formulas that reflect the risk-based capital guidelines. Thus, the calculation of the total capital ratio varies from period to period, and is different for commercial banks and BHCs. The details on the total capital ratios are calculated, period-by-period, for both commercial banks and BHCs (together called "banks"), are shown in the Appendix.

We exclude all shelf offerings, ADRs, secondary offers, and SEOs that have warrants or are part of a unit offer. Small offers are deleted from the sample (those under $5 million). After these screens, we end up with a sample of 239 SEOs, of which 31 are made by commercial banks and 208 by BHCs. Figure 1 shows the number of SEOs made by banks and BHCs in our final sample spanning 1983-1999, in chronological order.

Figure 1 here

A large number of bank SEOs in 1985-86 resulted from new minimum capital ratio requirements of 5.5% imposed in 1985 and 6% imposed in 1986. The reduction in the number of issues in the period 1988–90 was due to poor market conditions for new bank issues, possibly a consequence of a number of bank failures during this period. Bank SEOs again peaked in 1991-92 as banks felt the market pressure to reach the "well-capitalized" zone set by FDICIA in 1991. The number of issues drops off subsequently because most banking firms appear to have raised the capital required to meet the new capital adequacy requirement.

We look at the minimum total capital ratio a bank must attain to be considered "well-capitalized" according to the Federal Reserve guidelines (or "Zone 1" before the "well-

capitalized" zone was established by FDICIA). Between 1983 and 1989, this regulatory requirement in terms of total capital ratio was 7 percent (also see Cornett and Tehranian (1994)). In 1990 and 1991, it was 8 percent. After 1991, it has been set at 10 percent. Banks that are below these limits at the end of the quarter preceding the SEO announcement are classified as involuntary (IVL) issuers, and those above as voluntary (VL) issuers.

Thus, VL issues are those made by banks that are under no pressure to raise more equity to meet regulatory requirements. IVL issues are those made by banks that are, presumably, under pressure to meet capital adequacy norms. As Cornett and Tehranian (1994) suggest, managerial discretion to time such issues may be limited. Figure 2 shows the distribution of VL and IVL issues on a year-by-year basis.

Figure 2 here

Figure 2 shows that the bulk of the IVL issues occur in the early 1980's at the introduction of the capital requirements. Table 1 shows the summary statistics for our sample of 239 bank SEOs.

Table 1 here

The average bank size in our final sample is around $14 billion in total assets, and the average SEO size is 1.66 percent of total assets. The average *CMR* score is around 8, indicating that the bank SEOs are brought to the market by high quality investment banks on average. Table 2 shows the descriptive statistics for our sample segregated into VL and IVL issues.

Table 2 here

As one would expect, by definition, the total capital ratio is significantly lower for IVL issuers, compared to the VL issuers. The average extent of overcapitalization for the VL issuers is 3.45 percent, while the average extent of undercapitalization for IVL issuers is 0.93 percent of issuer's total assets immediately before issue announcement. The IVL issuers are

also smaller. A higher proportion of all IVL issues, as compared to the VL issues, are located in the Pre-Basel era (1983 - 1987) while a higher proportion of VL issues are located in the period 1988 - 1991.

3. Discount, Returns and Volume around Issue Date

Altinkilic and Hansen (2003), and Safieddine and Wilhelm (1996) examine the discount of seasoned equity offer price relative to the stock price just preceding the offer date for utilities and industrials. Following these papers, we compute the offer price discount, *Discount*, as $\frac{(P_{-1} - OP)}{P_{-1}}$, where P_{-1} is closing price on the day before the offering day, and *OP* is the offer price. All stock price and returns data are taken from the Center for Research in Security Prices (CRSP) database.

Panel A of Table 3 shows that the mean Discount is 1.55% for IVL issues and 1.85% for the VL issues, both of which are significant. Their difference, however, is statistically insignificant. Thus, investment banks seem to offer equity of both the VL and the IVL issuers at relatively the same (significant) discount to the last closing price.

Table 3 here

3.1 Discount Surprise

However, as Altinkilic and Hansen (2003) argue, part of the Discount calculated above may have been expected by investors. Discount may be expected to increase with the relative amount of the offer (issue size relative to the issuer's market value of equity (MVE) a week before the issue) because of adverse selection and placement pressure. Discount may also be higher when the stock price is low because marketing of a low-priced stock may be more difficult, or when stock return volatility is high to compensate investors for the risk. Noting that issue date discount can be a function of the lead underwriter pedigree, the exchange in which the issue is listed, and the issue type (VL or IVL), we calculate discount surprise as the residual, e_D, of the following regression:

$$Discount = \beta_1 VL + \beta_2 IVL + \beta_3 lnIssue + \beta_4 lnMVE + \beta_5 CMR + \beta_6 Nasdaq + \beta_7 \frac{1}{P_{-5}} + \beta_8[stdev(-121,-22)] + e_D, \quad (1)$$

where, following Altinkilic and Hansen (2003), P_{-5} is the closing price 5 days before the Issue date, and *stdev(-121,-22)* is the standard deviation of the market-adjusted return in the 100 day period from 121 days before the issue date through 22 days before the issue date. We compute the market-adjusted return on the issue date, *MARISS(i,j)*, as $\sum_{t=i}^{t=j}[r(t) - v(t)]$, where *r(t)* is the stock return and *v(t)* is the contemporaneous CRSP NYSE/AMEX/Nasdaq value-weighted market returns. The relative size of the offer is captured by the two variables: *lnIssue*, the natural log of the gross issue proceeds from the offering exclusive of overallotment options, and *lnMVE*, the natural log of the market value of equity as computed 7 days before the offer date. The lead underwriter reputation is measured by *CMR*, the Carter-Manaster score, as modified by Ritter and made available on his web site: *http://bear.cba.ufl.edu/ritter/rank.xls.* We have three dummy variables in the regression equation: *Nasdaq* is a dummy variable that takes the value of 1 if the stock trades on Nasdaq, and 0 otherwise, *VL* and *IVL* take the value of 1 if the issue is voluntary and involuntary, respectively.

Panel A of Table 3 shows that the distributions of the discount surprise, e_D, are almost identical for the VL and IVL issues. Panel B shows that the only significant determinants of Discount are the intercept terms (VL and IVL), which are statistically indistinguishable; none of the above-mentioned observable variables are.

We next examine whether the issue date returns are different for VL and IVL issues.

3.2 Returns and Volume around Issue Date

The issue date returns, *MARISS (0,0)*, are insignificantly different from zero for both VL and IVL issues (see Panel A of Table 4).

Table 4 here

To examine if there is a difference in the 60 days post-issue between IVL and VL issues, we compute *MARISS(1,60)* and the post-issue abnormal traded volume, *Volume(1, 60)*, the percent excess cumulative traded volume of a stock from the day after the issue date to 60 days after the issue date, relative to its cumulative traded volume over the 60 day period before issue announcement. Panel A of Table 4 show that there is significant price and volume run-up in the 60 days post issue for both VL and IVL issues. The post-issue market-adjusted abnormal return, *MARISS(1,60)*, is in excess of 6% for IVL issues and over 5% for *VL* issues. *MARISS(1,60)* are insignificantly different from each other for VL and IVL issues. The cumulative traded volume for IVL stocks is over 400% higher in the 60-day post-issue period as compared to the 60-day pre-issue period. The cumulative traded volume for VL stocks is over 500% higher in the 60-day post-issue period as compared to the 60-day pre-issue period. We also examine separately banks that have greater than $1 billion in total assets at the end of the quarter before the issue announcement ("big" issuers) and "big" issues: issue sizes that are greater than 1% of the total assets of a bank. Similar results obtain. Panel B and C of Table 4 show the results. Thus, we find that there is a significant trading volume build-up and stock prices also increase for both types of bank offers in the post-issue period.

To examine the link between issue-date returns and issue-date discount, we regress *MARISS (0,0)* on the discount surprise. Other factors like the extent of undercapitalization or overcapitalization of a bank immediately prior to the issue announcement, or the pedigree of the investment bank bringing the issue to the market could influence market reaction to issue announcements. Therefore, we control for other possible factors that may influence issue date returns using the following regression specification:

$$MARISS\ (0,0) = \beta_1\, UnderCap + \beta_2\, OverCap + \beta_3\, IVL + \beta_4\, VL + \beta_5\, e_D \times IVL + \beta_6\, e_D \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon, \quad (2)$$

where e_D is the discount surprise. The degree of undercapitalization, *UnderCap*, is the dollar amount of equity capital needed, as a fraction of total assets, to meet the capital requirements as of the end of the quarter before the issue announcement. The degree of overcapitalization, *OverCap*, is the dollar amount by which the equity capital exceeds the capital requirements as a fraction of total assets, at the end of the quarter before the issue announcement. $\boldsymbol{X}$ is a

vector of control variables that comprises *lnAsset, lnIssue, CMR, PreBasel,* and *Transition*. The variables, *lnIssue* and *CMR* have already been defined before, *lnAsset* is the natural log of the total assets of the issuing bank at the end of the quarter immediately preceding issue announcement, *PreBasel* is a dummy that takes the value of 1 if the issue occurred before the Basel I capital adequacy regulatory norm was announced in 1988, and *Transition* is a dummy that takes the value of 1 if the issue occurred after the Basel I capital adequacy regulatory norm was announced but before its implementation was completed in 1992.

Table 5 shows that the only significant determinant of the issue date returns is the issue date discount surprise. The bigger the discount surprise, the lower the market-adjusted issue date returns, for both VL and IVL issues. Thus, the market reacts significantly negatively to the news of discount on issue date. This is in line with the results found by others for industrials and utilities.

We formally test whether the *VL* and *IVL* coefficients are the same in terms of their effects on *MARISS (0,0)*, and find that they are insignificantly different from each other. We account for the effects of undercapitalization and overcapitalization by examining how different [*VL* coefficient + *OverCap* coefficient x mean(*Overcap*)] is from [*IVL* coefficient + *UnderCap* coefficient x mean(*Undercap*)], and find that VL issues are insignificantly different from IVL issues at their respective mean levels of capitalization in terms of the issue date and post-issue returns. Although the discount surprise effect on issue date returns is significantly negative for both VL and IVL issues, it is significantly more so for VL issues than for IVL issues. In other words, although both types of issues feature discounts of the same magnitude, the information content of discount seems to be more for VL issuers. One likely reason is that the undercapitalization of the IVL issuers was observable to the market and perhaps these issuers have already been subjected to greater market scrutiny. Consequently, there is relatively lower new information content in the offer price discount for IVL issuers.

Table 5 here

To examine the link between post-issue 60-day price and volume run-up, we estimate the following regression equation:

$$MARISS\ (1,60) = \beta_1 UnderCap + \beta_2\ OverCap + \beta_3\ IVL + \beta_4\ VL + \beta_5\ e_D \times IVL + \beta_6\ e_D \times VL + \beta_7\ Volume(1,60) \times IVL + \beta_8\ Volume(1,60) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon, \quad (3)$$

Table 5 shows that there is significant positive relation between the post-issue volume run-up and abnormal returns, for both VL and IVL issues. As the traded volume increases, the abnormal returns also increase significantly in the 60-day period immediately after the issue.

To summarize, we find that there are no significant differences in the issue date discount for VL and IVL issues, no difference in the distributions of discount surprises, no significant difference in issue date abnormal returns, no significant differences in the post-issue traded volume run-up, and in the post-issue abnormal returns. Does a returns difference manifest itself in the long-run? To examine this, we compare the post-issue one-year long-run returns for the VL and IVL issues. [6]

3.3 Post-Issue 1 year Long-run Returns

Appropriate measures of long-run returns have been extensively discussed in the literature in recent years. Buy-and-hold abnormal returns are appealing because the implied investment strategy is both simple and representative of the returns a long horizon investor might earn. However, Fama (1998) and Mitchell and Stafford (2000) argue that calendar time methods may be less likely to yield spurious rejections of the zero null hypotheses than buy-and-hold returns, partly because buy-and-hold returns can exaggerate small initial differences through compounding. We control for the skewness of Buy-and-hold abnormal returns by using skewness-adjusted bootstrapped *t*-statistics to evaluate significance. We also compute *FFAR*, the Fama-French three-factors-risk-adjusted returns, in addition to *BHAR*, the buy-and-hold abnormal returns. We use the CRSP NYSE/AMEX/Nasdaq value-weighted market return for the market adjustments. From investors' point of view, recent work by Fama and French (1992, 1993, 1995 and 1996) indicates that a three-factor model of risk-adjustments may explain the cross section of stock returns. Their three factors are *RM*, the excess return on the market portfolio, *SMB*, the return on a zero investment portfolio formed by subtracting the return on a small firm portfolio from the return on a big firm

[6] We do not compute the long-run returns beyond year 1 to avoid a survivorship bias because several banks (47 of the 239) in our sample get delisted beyond one year of the SEO.

portfolio, and *HML*, the return on a zero investment portfolio calculated as the return on a portfolio of high book-to-market stocks minus the return on a portfolio of low book-to-market stocks.[7] The Fama-French calendar time series regression model is given by:

$$r_{it} = a_i + b_i \times RM_t + s_i \times SMB_t + h_i \times HML_t + \varepsilon_{it}, \quad (4)$$

where r_{it} is the excess return on stock or portfolio i over period t, and ε is an error term. The coefficients b, s and h are time-invariant risk-loadings. The regression intercept a measures the risk-adjusted abnormal return. As Gompers and Lerner (2003) emphasize, it has an interpretation analogous to that of Jensen's alpha in a CAPM framework.

The one-year post-issue *BHAR(1,12)* and *FFAR(1,12)*, computed on a monthly basis from one month after the issue to 12 months after the issue, are shown in Panel A of Table 6.

Table 6 here

Both *BHAR(1,12)* and *FFAR(1,12)* are positive for both *VL* and *IVL* issues. That is, both the VL and IVL issues outperform the benchmark in the one-year after issue. However, only the *BHAR(1,12)* for the VL issues are significantly positive as per the skewness-adjusted bootstrapped t-statistics. Thus, by the *BHAR(1,12)* measure, the voluntary issuers outperform the market benchmark in the one year after the issue. involuntary issuers do not underperform the benchmark.

We also examine whether there is a difference between VL and IVL issues in terms of post-issue one-year performance, after controlling for other influencers of long-run returns, using the following regression specification:

$$\begin{aligned} BHAR\ (1,12) = {} & \beta_1 UnderCap + \beta_2 OverCap + \beta_3 IVL + \beta_4 VL + \beta_5 e_D \times IVL + \\ & \beta_6 e_D \times VL + \beta_7 MARISS(0,0) \times IVL + \beta_7 MARISS(0,0) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon, \end{aligned}$$

$$\begin{aligned} FFAR\ (1,12) = {} & \beta_1 UnderCap + \beta_2 OverCap + \beta_3 IVL + \beta_4 VL + \beta_5 e_D \times IVL + \\ & \beta_6 e_D \times VL + \beta_7 MARISS(0,0) \times IVL + \beta_7 MARISS(0,0) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon, \end{aligned} \quad (5)$$

[7] We obtain the necessary factor returns from Ken French's web site at http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

Panel B of Table 6 shows the results. The only explanatory variable that turns out to be significant in explaining long- run returns is the extent of overcapitalization of the VL issuers. The more overcapitalized a bank is prior to the issue announcement the better the long-run performance. Our results relating to the extent of overcapitalization and long-run performance are consistent with Kwan and Eisenbeis (1997) who find that "…a positive effect of inefficiency on the level of capital is attributable to regulatory pressure on underperforming institutions. At the same time, firms with more capital are found to operate more efficiently than less well-capitalized banking organizations." After controlling for other possible factors, the voluntary or involuntary nature of the issue itself is not an important determinant of long run returns, as evidenced by the insignificance of the *VL* and *IVL* dummy variables.

We formally test whether the *VL* and *IVL* coefficients are the same, and find that they are insignificantly different from each other. We account for the effects of undercapitalization and overcapitalization by examining how different [*VL* coefficient + *OverCap* coefficient x mean(*Overcap*)] is from [*IVL* coefficient + *UnderCap* coefficient x mean(*Undercap*)], and find that *VL* issues are insignificantly different from *IVL* issues at their respective mean levels of pre-announcement capitalization in terms of the 1-year post-issue performance. We also find that VL issues are insignificantly different from IVL issues from the perspective of the offer price discount surprise effect on the 1-year post-issue performance.

We find that there are no significant differences in the issue-date discount, in issue-date discount surprises, in issue-date abnormal returns, in the 60-day post-issue traded volume and abnormal returns run-up, and in the one-year post issue risk adjusted returns for VL and IVL issues. The question then is: Do investors perceive the VL and IVL issues to be different when they are announced? Do the investors think that the ability of the management to optimally time SEOs is limited in IVL issues as compared to the VL issues? To answer these questions, we examine the announcement date market reaction to VL and IVL issues.

4. Announcement Date Returns

We calculate the post-issue abnormal returns, *MARAD(i,j)* as $\sum_{t=i}^{t=j}[r(t)-v(t)]$, where *r(t)* is the stock return and *v(t)* is the contemporaneous CRSP NYSE/AMEX/Nasdaq value-weighted market returns. Following standard event study methodology, we compute *MARAD(-1, +1),* the market-adjusted announcement period returns from the day before the announcement date to the end of the day after the announcement date. We choose a 3-day window because some investors might receive information in advance of the formal announcement. It is likely that the market is informed after the filing because the filing notice is not always available on Dow Jones News Service until a day later (see Irvine and Rosenfeld, 2000). However, we also analyze *MARAD(-3, +3)* to capture the announcement effect over an extended window.

Cornett and Tehranian (1994) show that investors take into account managerial discretion to optimally time equity issues, when they react to SEO announcements. In their sample of 120 bank SEOs made in the period 1983-1989, they show that the average stock price decline in the announcement period for VL issues are significantly negative (market adjusted abnormal return = -1.56%), while the announcement period average stock price decline for *IVL* issues is insignificantly different from zero (market adjusted abnormal return = -0.64%).

We find that the average *MARAD(-1,+1)* for both IVL and VL issues are significantly negative (-0.94% and –1.00% respectively) for the full sample (see Table 7). [8]

Table 7 here

Thus, we find that the market reacts significantly negatively to both types of issues. In fact, the average abnormal stock price decline is *more* negative for the IVL issues in the (-3,+3) window than for the *VL* issues, but not significantly so. The average *MARAD(-3,+3)* is –1.84% for IVL issues and -0.77% for VL issues. In other words, in contrast to Cornett and Tehranian's findings, we find that equity issue announcements, whether voluntary or

[8] We also compute *MARAD(-1,+1)* as $\sum_{t=i}^{t=j} e(t)$ where $r(t) = \beta_1 v(t-2) + \beta_2 v(t-1) + \beta_3 v(t) + \beta_4 v(t+1) + \beta_5 v(t+2) + e(t)$. The results are consistent: *MARAD(-1,+1)* is -1.22% for *IVL* issues and -1.11% *for VL* issues, not significantly different from each other.

involuntary, are bad news for current shareholders. We examine the bank SEOs made during the period examined by Cornett and Tehranian, 1983-1989. We have slightly more VL and IVL issues than the number Cornett and Tehranian had: 1 more IVL issue, and 4 more VL issues. We find similar results to what we found with our full sample: the market-adjusted abnormal returns around announcement date are significantly negative for both VL and IVL issues.

Thus, our finding is that the market does not seem to distinguish between VL and IVL issuers, despite the possibility, as suggested by Cornett and Tehranian (1994), that IVL issuers may have had limited discretion to time their issues because of regulatory pressure. However, as discussed earlier, the IVL issuers have other means of meeting the capital adequacy requirement. For example, undercapitalized banks could manage the asset side of their balance sheets. If that is indeed the case, then even the IVL issuers may be deliberately choosing to issue stock rather than use other options. In that case, there should be no difference in the timing of issues between the VL and IVL issuers. Accordingly, we examine the pre-announcement run-up for both VL and IVL issuers. The pre-announcement abnormal return run-up, *MARAD(-60,-4)*, is significantly positive for each and statistically indistinguishable.[9] Our results suggest that both the *VL* and *IVL* issuers time their SEOs after a stock price run-up.

We control for other possible influencers of announcement period returns, and then examine market reaction to VL and IVL issues, in a multivariate setting using the following regression specifications:

$$MARAD(-1,+1) = \beta_1 UnderCap + \beta_2 OverCap + \beta_3 IVL + \beta_4 VL + \beta_5 MARAD(-60,-4) \times IVL + \beta_6 MARAD(-60,-4) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon,$$
$$MARAD(-3,+3) = \beta_1 UnderCap + \beta_2 OverCap + \beta_3 IVL + \beta_4 VL + \beta_5 MARAD(-60,-4) \times IVL + \beta_6 MARAD(-60,-4) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon, \quad (6)$$

Table 8 here

[9] This result is consistent with Cornett, Mehran and Tehranian (1998), who document statistically indistinguishable pre-issue 1-year abnormal stock returns between VL and IVL issues.

As Table 8 shows, VL issues are not different from IVL issues in terms of the announcement date returns, as the VL and IVL dummies show. The result holds for the entire sample as well as for the Cornett and Tehranian (1994) sample period. None of the other control variables turn out to have any significant effect on *MARAD*. We formally test whether the VL and IVL coefficients are the same, and find that they are insignificantly different from each other. We account for the effects of undercapitalization and overcapitalization, and find that VL issues are insignificantly different from IVL issues at their respective mean levels of pre-announcement capitalization in terms of how the market reacts at the time of issue announcements. We also find that VL issues are insignificantly different from IVL issues from the perspective of how the pre-announcement run-up influences the announcement period returns. The conclusion is that the investors do not react differently to voluntary and involuntary bank seasoned equity issues

5. Conclusion

We examine the size and the information content of the offer price discount for seasoned equity offerings made by banks. Cornett and Tehranian (1994) segregate bank seasoned equity offers (SEOs) into voluntary and involuntary offers. They contend that involuntary issues are made by banks under duress from bank examiners because they are not adequately capitalized. Accordingly, the "window of opportunity" or issue timing discretion is limited for such offers. On the other hand, voluntary issues are made by already well capitalized banks and are likely made by opportunistic managers when their stock is overvalued. The objective of this study is to examine whether the offer price discount and the associated price effects are different for involuntary offerings from those made by banks that are already adequately capitalized prior to the issue announcement.

Altinkilic and Hansen (2003), Singh (1997), and Safieddine and Wilhelm (1996) have examined the price effects of the offer price discounts for industrial firms and utilities' SEOs only. Our results for bank SEOs are consistent with the findings of prior research. We find that the offer price discount and the issue-day price reaction are significant for bank seasoned equity offerings as well. However, the offer-price discount, the unanticipated component of the discount and/or the issue-day price reaction is not significantly different

for involuntary issues as compared to the voluntary issues. This is a surprising finding because involuntary offers are more likely to be made by relatively poorly performing banks, and by banks that were forced to raise equity capital at short notice to avoid the Prompt Corrective Action sanctions imposed by the regulators, for which the discount can be expected to be higher.

Prior literature (Safieddine and Wilhelm (1996), Altinkilic and Hansen (2003)) has documented an increase in trade volume at the offer date. We also examine bank stocks immediately after the SEO. We find that in the short run post-issue period, the trade volume and the stock price moves up significantly for both voluntary issues and involuntary issues. We check the immediate offer period through 60-days after the issue. We find a significant stock price and trade volume run-up in the 60-day post-issue period. Intrigued by this result, we examine what happens to the stock price in the 12 month period following the SEO. Again the results are surprising: the long-run post-issue 1-year buy-and-hold returns and risk-adjusted returns are significantly *positive*. Both the voluntary and the involuntary issuers' stock outperform the benchmark. We believe that these results have not been documented before and represent new findings.

However, we do not find significant differences in the issue-date discount, in issue-date discount surprises, in issue-date abnormal returns, in the 60-day post-issue abnormal traded volume and abnormal returns run-up, or in the one-year post issue risk adjusted returns for voluntary and involuntary issues. It appears as if the market does not perceive the voluntary and involuntary issuers to be different.

These results are surprising in light of Cornett and Tehranian's (1994) suggestion that management's discretion to optimally time involuntary issues may be more limited than that for voluntary issues. In support of this line of reasoning, Cornett and Tehranian find that the announcement period abnormal returns are insignificantly different from zero for the involuntary issues and significantly negative for voluntary issues. However, we cannot support their results upon examining the announcement period market reaction either. Both the involuntary issuers and the voluntary issuers experience *similar* significant negative price reaction upon announcement. Thus, our findings do not support the Cornett and Tehranian (1994) result.

We also find significant stock price run-up prior to issue announcements for *both* voluntary and involuntary issuers: both types of issuers seem to be timing their seasoned equity issues. The reason could be that banks that are not adequately capitalized prior to issue announcements deliberately *choose* to issue more equity, instead of electing to meet the capital requirements through asset management. The investors realize that even the involuntary issuers can optimally time their equity offerings, and react negatively to both types of issuances. The bottom line is that while some equity issues are likely made by insiders who do not have the opportunity to optimally exploit "windows of opportunity", voluntary and involuntary bank SEOs are not perceived to be different by the market in this respect.

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Appendix
Table A.1
Calculations of total capital ratio for Bank Holding Companies

This table shows year-by-year detailed calculations of total capital ratio for bank holding companies. Total capital ratio is (Tier 1 + Tier 2)/ Asset Base.

Period	Tier 1	Tier 2	Asset Base	Remarks
Pre-1990	Common stock (CS)	Limited-life preferred stock (LLPS)	Total assets	(ECM+ECN+PDI+PPS) in Tier 1< 0.333 Tier 1
	Perpetual preferred stock (PPS) (restricted)	Subordinated notes and debentures and unsecured long-term debt (SND + LTD)	ALL	(ECM+ECN+PDI) in Tier 1< 0.2 Tier 1
	Surplus (SU)	MCI + PDI + PPS+ ECM not allowed in Tier 1	Deduct Allocated transfer risk reserves (TRR)	ECM in Tier 1< 0.1 Tier 1
	Undivided profits (UP)			Tier 2< 0.5 Tier 1
	Contingency and other capital reserves (CR)			
	Equity commitment notes (ECM) (restricted)			
	Equity contract notes (ECN) (restricted)			
	Allowance for loan and lease losses (exclusive of allocated transfer risk reserves) (ALL)			
	Minority Interest (MI)			
	Perpetual debt instruments (PDI) (restricted)			
	Deduct CS and PPS to redeem ECM			
	Deduct CS and PPS to redeem ECN			
1990-1991	CS	NPPS + CPPS not allowed in Tier 1	Risk-weighted assets (exclusive of IUBS and RHCI)	(NPPS+CPPS) in Tier 1<0.33 (CS+SU+UP+CR+MI)
	Noncumulative PPS (NPPS) (restricted)	ALL (restricted)	Deduct ALL in excess of allowed amount in Tier 2	ALL in Tier 2< 0.015 Risk-weighted assets
	Cumulative PPS (CPPS) (restricted)	Maturity-weighted Intermediate-term preferred stock (ITPS) (restricted)	Deduct Goodwill	(SND+ITPS)< 0.5 Tier 1 - Goodwill
	SU	Maturity-weighted Long-term preferred stock (LTPS)	Deduct TRR	LTD< 0.5 Tier 1 - Goodwill
	UP	Maturity-weighted SND (restricted)		Tier 2< Tier 1 - Goodwill
	CR	Maturity-weighted LTD (restricted)		Deduct Reciprocal holdings of capital instruments (RHCI) of banking organizations from Total Capital BUT not from components
	MI	PDI		If Tier 2 excl. IUBS<0.5 IUBS Deduct excess IUBS from Tier 1
	Deduct Goodwill	ECM		If a bank is engaging in high-risk activities, all intangible assets rather than goodwill are deducted from Tier 1
	Deduct 0.5 Investments in unconsolidated banking subsidiaries (IUBS)	ECN		

Table A.1 contd.

1990-1991 contd		Hybrid capital instruments (HCI) Deduct CS and PPS to redeem ECM Deduct CS and PPS to redeem ECN Deduct 0.5 IUBS		
1992	Same as 1990-1991	Same as 1990-1991	Same as 1990-1991	Same as 1990-1991 EXCEPT ALL in Tier 2< 0.0125 Risk-weighted assets
1993-1994	Same as 1992 EXCEPT Non-cumulative PPS (NPPS) (now unrestricted)	Same as 1992 EXCEPT CPPS not allowed in Tier 1	Same as 1992	Same as 1992 EXCEPT CPPS in Tier 1<0.33 (CS+SU+UP+CR+MI+NPPS)
1995-1998	Same as 1993-1995 EXCEPT Deduct All intangible assets EXCEPT Mortgage servicing rights (MSR) (restricted) and Purchased credit card relationships (PCCR) (restricted) Deduct Deferred tax assets (DTA) (see remark)	Same as 1993-1995 EXCEPT Include MSR + PCCR excluded from Tier 1	Same as 1993-1995 EXCEPT Deduct All intangible assets EXCEPT MSR and PCCR Deduct Deferred tax assets (DTA) (see remark)	Same as 1993-1995 EXCEPT (SND+ITPS)< 0.5 Tier 1 - Other intangibles LTD< 0.5 Tier 1 - Other intangibles Tier 2< Tier 1 - Other intangibles (MSR + PCCR) in Tier 1< 0.5 Tier 1 PCCR in Tier 1< 0.25 Tier 1 DTA to be realized in the next 12 months can be included in Tier 1 upto 10 percent of Tier 1
Post-1998		SAME AS 1996-1998 EXCEPT Include Unrealized holding gains on equity securities (UGE) (restricted)		SAME AS 1996-1998 EXCEPT Upto 45 percent of UGE may be included in Tier 2

Table A.2
Calculations of total capital ratio for Banks

This table shows year-by-year detailed calculations of total capital ratio for banks. Total capital ratio is (Tier 1 + Tier 2)/ Asset Base.

Period	Tier 1	Tier 2	Asset Base	Remarks
Pre-1990	Common stock (CS)	Limited-life preferred stock (LLPS)	Average total assets	ECN in Tier 1$<$0.1667 Tier 1
	Perpetual preferred stock (PPS)	Subordinated notes and debentures (SND)	Allowance for loan and lease losses (exclusive of allocated transfer risk reserves)	LLPS and SND in Tier 2$<$ 0.5 Tier 1
	Surplus (SU)	Equity commitment notes (ECM)	Deduct Goodwill	
	Undivided profits (UP)	Deduct CS and PPS to redeem ECM		
	Contingency and other capital reserves (CR)			
	Equity contract notes (ECN) Allowance for loan and lease losses (exclusive of allocated transfer risk reserves) (ALL)			
	Minority Interest (MI)			
	Deduct Goodwill			
	Deduct CS and PPS to redeem ECN			
1990-1991	CS	ALL (restricted)	Risk-weighted assets (exclusive of ICS and RHCI)	NPPS<0.25 Tier 1
	Noncumulative PPS (NPPS)	All other PPS	Deduct ALL in excess of allowed amount in Tier 2	ALL <0.0125 Risk-weighted Assets
	SU	Long-term preferred stock (LTPS) (original maturity >20 years)	Deduct Allocated transfer risk reserves (TRR)	(SND+ITPS) < 0.5 Tier 1 net of goodwill
	UP	ECN	Deduct Goodwill	Deduct Investments in certain subsidiaries (ICS) from total capital but not from components
	CR	SND (restricted)		Deduct Reciprocal holdings of capital instruments (RHCI) of banking organizations from Total Capital BUT not from components
	MI	Maturity-weighted Intermediate-term preferred stock (ITPS) (restricted)		Tier 2 < Tier 1 net of goodwill
	Deduct Goodwill	Hybrid capital instruments (HCI)		

Table A.2 contd.

1992-1994	Same as 1990-1991	Same as 1990-1991	Same as 1990-1991	Same as 1990-1991 EXCEPT ALL in Tier 2< 0.0125 Risk-weighted assets
1995-1998	Same as 1992-1994 EXCEPT *Deduct* all intangible assets EXCEPT purchased mortgage servicing rights (MSR) and purchased credit card relationships (PCCR) (restricted) *Deduct* Deferred tax assets (DTA) (see remark)	Same as 1992-1994	Same as 1992-1994 EXCEPT *Deduct* All intangible assets EXCEPT MSR and PCCR *Deduct* Deferred tax assets (DTA) (see remark)	Same as 1992-1994 EXCEPT MSR + PCCR < 0.5 Tier 1 PCCR < 0.25 Tier 1 DTA to be realized in the next 12 months can be included in Tier 1 upto 10 percent of Tier 1
Post-1998	Same as 1995-1998	SAME AS 1995-1998 EXCEPT *Include* Unrealized holding gains on equity securities (UGE) (restricted)	Same as 1995-1998	Same as 1995-1998 EXCEPT Upto 45 percent of UGE may be included in Tier 2 (MSR + PCCR) in Total Capital<Tier 1 PCCR < 0.25 Tier 1

Table 1
Descriptive Statistics of Bank SEOs

This table shows the average, the median, the minimum and the maximum values of several issue- and issuer-related variables for our final sample of 239 seasoned equity offerings (SEOs) issued by commercial banks and bank holding companies in the period 1983-1999. *Total Capital Ratio* is the ratio of Tier1+Tier2 capital over assets as defined in the Appendix. *Assets* of the issuing bank at the end of the quarter immediately preceding issue announcement, *Issue Size* is the gross issue proceeds from the offering exclusive of overallotment options, *CMR* is the Carter-Manaster score, as modified by Ritter and made available on his web site: *http://bear.cba.ufl.edu/ritter/rank.xls, PreBasel* is a dummy that takes the value of 1 if the issue occurred *before* the Basel I capital adequacy regulatory norm was announced in 1988, and *Transition* is a dummy that takes the value of 1 if the issue occurred after the Basel I capital adequacy regulatory norm was announced but before its implementation was completed in 1992.

	n = 239			
	Mean	**Median**	**Minimum**	**Maximum**
Total Capital Ratio	11.19%	9.48%	4.05%	26.55%
Assets ($ mn)	13,941	3,051	40	194,415
$\frac{IssueSize}{Assets}$	1.66%	0.97%	0.06%	31.08%
CMR	7.98	8.83	1.10	9.10
PreBasel	48.12%	0	0	1
Transition	17.57%	0	0	1

Table 2
Descriptive Statistics of Bank SEOs Segregated into Voluntary and Involuntary Issuers

This table shows the average, the median, the minimum and the maximum values of several issue- and issuer-related variables for our sample of 239 commercial bank and bank holding company (together referred to as banks) SEOs, segregated into Voluntary (*VL*) and Involuntary (*IVL*) issues. The degree of undercapitalization, *UnderCap*, is the dollar amount of equity capital needed, as a fraction of total assets, to meet the capital requirements as of the end of the quarter before the issue announcement. The degree of overcapitalization, *OverCap*, is the dollar amount by which the equity capital exceeds the capital requirements as a fraction of total assets, at the end of the quarter before the issue announcement.

	Involuntary Sample n = 65				**Voluntary Sample n = 174**			
	Mean	**Median**	**Minimum**	**Maximum**	**Mean**	**Median**	**Minimum**	**Maximum**
Total Capital Ratio	6.26%	6.26%	4.05%	9.88%	13.04%	12.40%	7.02%	26.55%
Assets ($ mn)	8,249	1,753	40	173,597	16,068	3,665	61	194,415
$\frac{IssueSize}{Assets}$	1.57%	0.98%	0.06%	11.13%	1.69%	0.95%	0.07%	31.08%
CMR	7.82	8.33	1.10	9.10	8.04	8.88	1.10	9.10
PreBasel	90.77%	1	0	1	32.18%	0	0	1
Transition	3.08%	0	0	1	22.99%	0	0	1
UnderCap	0.93%	0.80%	0.03%	2.95%	N/A	N/A	N/A	N/A
OverCap	N/A	N/A	N/A	N/A	3.45%	2.59%	0.02%	14.37%

Table 3
Discount and Discount Surprise

This table shows the offer date *Discount*, the difference between previous day closing price and offer price, divided by previous day closing price, and the discount surprise, the residual, e_D, of the following regression specification:

$$Discount = \beta_1 VL + \beta_2 IVL + \beta_3 lnIssue + \beta_4 lnMVE + \beta_5 CMR + \beta_6 Nasdaq + \beta_7 \frac{1}{P_{-5}} + \beta_8[stdev(-121,-22)] + e_D,$$

where *VL* and *IVL* are dummy variables indicating whether an issue is voluntary or involuntary, P_{-5} is the closing price 5 days before the Issue date, *stdev(-121,-22)* is the standard deviation of the market-adjusted return in the 100 day period from 121 days before the issue date through 22 days before the issue date. Market-adjusted return on the issue date, *MARISS(i,j)*, as $\sum_{t=i}^{t=j}[r(t) - v(t)]$, where *r(t)* is the stock return and *v(t)* is the contemporaneous CRSP NYSE/AMEX/Nasdaq value-weighted market returns. The relative size of the offer is captured by the two variables: *lnIssue*, the natural log of the gross issue proceeds from the offering exclusive of overallotment options, and *lnMVE*, the natural log of the market value of equity as computed 7 days before the offer date. *Nasdaq* is a dummy variable that takes the value of 1 if the stock trades on Nasdaq, and 0 otherwise. Panel A shows the descriptive statistics of *Discount* and *Discount Surprise*, while Panel B shows the regression coefficients and the standard errors in parenthesis of the above regression equation.

Panel A

		IVL	*VL*	**Difference of Means (p-values)**
DISCOUNT	N	65	174	
	MEAN	1.55***	1.85***	0.60
	Median	0.00	0.89	
	Std. Dev.	4.53	3.73	
	Min.	-4.65	-3.70	
	Max.	32.47	33.06	
DISCOUNT SURPRISE, e_D	N	65	174	
	Median	-0.01	-0.01	0.33
	Std. Dev.	0.04	0.04	
	Min.	-0.06	-0.07	
	Max.	0.32	0.32	

Panel B

	DISCOUNT
IVL	0.088
	(0.040) **
VL	0.091
	(0.040) **
lnIssue	0.004
	(0.004)
lnMVE	-0.006
	(0.004)
CMR	-0.002
	(0.002)
Nasdaq	-0.002
	(0.006)
$1/P_{-5}$	-0.114
	(0.138)
Stdev(-130,-30)	8.278
	(5.346)
Adjusted R^2 (%)	16.90
F-stat	7.08
Tests: (p-values)	
i) $\beta_1 = \beta_2$	0.56

***, **, * respectively denote significantly different from zero at the 1%, 5%, and 10% significance level.

Table 4
Returns and Volume around Issue Date

Panel A shows descriptive statistics of the issue day returns, *MARISS(0,0)*, the 60 days post-issue abnormal returns, *MARISS(1,60)*, and the post-issue abnormal traded volume, *Volume(1,60)*, which is the percent excess cumulative traded volume of a stock from 1 day after the issue date to 60 days after the issue date, relative to its cumulative traded volume over the 60 day period before issue announcement. Panel B shows the distributional statistics of *MARISS(0,0)*, *MARISS(1,60)*, and *Volume(1,60)* for banks that have greater than $1 billion in total assets at the end of the quarter before the issue announcement ("big" issuers), and Panel C for "big" issues: issue sizes that are greater than 1% of the total assets of a bank.

Panel A – All SEOs

		IVL	VL	Difference of Means (p-values)
MARISS (0,0)	N	65	174	
	MEAN	0.07	-0.28	0.37
	Median	-0.01	-0.18	
	Std. Dev.	2.57	2.60	
	Min.	-6.42	-7.94	
	Max.	6.88	9.87	
MARISS (1,60)	N	65	174	
	MEAN	6.18***	5.01***	0.56
	Median	5.41	4.67	
	Std. Dev.	10.28	14.70	
	Min.	-21.07	-29.01	
	Max.	28.37	98.33	
VOLUME (1,60)	N	63	172	
	MEAN	414.61***	547.63***	0.21
	Median	367.53	458.19	
	Std. Dev.	654.42	734.41	
	Min.	-1144.31	-792.10	
	Max.	2789.38	4070.67	

Panel B– Big Issuers

		IVL	VL	Difference of Means (p-values)
MARISS (0,0)	N	41	122	
	MEAN	-0.04	-0.36	0.37
	Median	0.02	-0.31	
MARISS (1,60)	N	41	122	
	MEAN	7.04	5.31	0.48
	Median	6.27	4.79	
VOLUME (1,60)	N	41	122	
	MEAN	210.64	394.32	0.07
	Median	324.47	416.36	

Panel C– Big Issues

		IVL	VL	Difference of Means (p-values)
MARISS (0,0)	N	30	83	
	MEAN	0.15	-0.26	0.55
	Median	0.09	-0.29	
MARISS (1,60)	N	30	83	
	MEAN	4.89	5.40	0.88
	Median	4.52	3.99	
VOLUME (1,60)	N	28	81	
	MEAN	764.46	824.39	0.73
	Median	645.38	667.10	

***, **, * respectively denote significantly different from zero at the 1%, 5%, and 10% significance level.

Table 5
Cross-sectional Regression Analysis: Returns around Issue Date

This table shows the regression coefficient estimates (standard errors in parentheses) when issue date and the 60-day post-issue returns are regressed on several issue-specific variables using the following regression specifications:

$$MARISS\ (0,0) = \beta_1 UnderCap + \beta_2\ OverCap + \beta_3\ IVL + \beta_4\ VL + \beta_5\, e_D \times IVL + \beta_6\, e_D \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon,$$

$$MARISS\ (1,60) = \beta_1 UnderCap + \beta_2 OverCap + \beta_3 IVL + \beta_4 VL + \beta_5\, e_D \times IVL + \beta_6\, e_D \times VL + \beta_7\ Volume(1,60) \times IVL + \beta_8\ Volume(1,60) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon,$$

$\boldsymbol{X}$ is a vector of *CMR, lnAsset, lnIssue, PreBasel, Transition,* where *lnAsset* is the natural log of the total assets of the issuing bank at the end of the quarter immediately preceding issue announcement. e_D is the Discount surprise. The table also shows the adjusted R^2 and the *F*-statistic of the regression. Test (*i*) shows the *p*-value of the test with the null H_0: $\beta_3 = \beta_4$ (i.e., *IVL* vs. *VL*). Test (*ii*) shows whether the difference between *VL* and *IVL* issuers is significant after controlling for the degree of under/over-capitalization where $\overline{OverCap}$ is the average overcapitalization in the *VL* issues and $\overline{UnderCap}$ is the average undercapitalization in the *IVL* issues. Test (*iii*) shows the *p*-value of the test with the null H_0: $\beta_5 = \beta_6$ (i.e., e_D *x IVL* versus e_D *x VL*). Test (*iv*) shows the *p*-value of the test with the null H_0: $\beta_7 = \beta_8$ (i.e., *Volume(1,60) x IVL* vs. *Volume(1,60) x VL*).

	MARISS (0,0)	***MARISS (1,60)***
UnderCap	-0.296	-2.514
	(0.454)	(2.526)
OverCap	0.023	0.720
	(0.075)	(0.420) *
IVL	-0.011	0.001
	(0.011)	(0.073)
VL	-0.015	-0.073
	(0.011)	(0.070)
e_D *x IVL*	-0.121	-0.163
	(0.068) *	(0.382)
e_D *x VL*	-0.293	-0.286
	(0.052) ***	(0.290)
Volume(1,60) x *IVL*		0.005
		(0.003) *
Volume(1,60) x VL		0.005
		(0.001) ***
Adjusted R^2 (%)	13.46	16.90
F-stat	4.38	4.68
Tests: (p-values)		
i) $\beta_3 = \beta_4$	0.47	0.05**
ii) $\beta_4 + \overline{OverCap} * \beta_2 = \beta_3 + \overline{UnderCap} * \beta_1$	0.14	0.18
iii) $\beta_5 = \beta_6$	0.04**	0.80
iv) $\beta_7 = \beta_8$		0.87

***, **, * respectively denote significantly different from zero at the 1%, 5%, and 10% significance level.

Table 6
Post-Issue one-year Long Run Returns

Panel A shows descriptive statistics of the 1-year post-issue long-run buy-and-hold abnormal returns (*BHAR(1,12)*), and the 1-year post-issue Fama-French factors risk adjusted return (*FFAR(1,12)*) (both computed on a monthly basis from the 1st month after the issue to the 12th month after the issue) for voluntary and involuntary issues. For *BHAR(1,12)*, skewness-adjusted *t*-statistics are computed and compared against bootstrapped critical values (over 1,000 replications) to assess significance.

Panel B shows the regression coefficient estimates (standard errors in parentheses) when *BHAR(1,12)* and *FFAR(1,12)* are regressed on several issuer- and issue-specific variables using the following regression specifications:

$$BHAR\ (1,12) = \beta_1\, UnderCap + \beta_2\, OverCap + \beta_3\, IVL + \beta_4\, VL + \beta_5\, e_D \times IVL + \beta_6\, e_D \times VL + \beta_7 MARISS(0,0) \times IVL + \beta_8 MARISS(0,0) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon,$$

$$FFAR\ (1,12) = \beta_1\, UnderCap + \beta_2\, OverCap + \beta_3\, IVL + \beta_4\, VL + \beta_5\, e_D \times IVL + \beta_6\, e_D \times VL + \beta_7 MARISS(0,0) \times IVL + \beta_8 MARISS(0,0) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon,$$

$\boldsymbol{X}$ is a vector of *CMR, lnAsset, lnIssue, PreBasel, Transition*. e_D is the Discount surprise. The table also shows the adjusted R^2 and the *F*-statistic of the regression. Test (*i*) shows the *p*-value of the test with the null H_0: $\beta_3 = \beta_4$ (i.e., *IVL* vs. *VL*). Test (*ii*) shows whether the difference between *VL* and *IVL* issuers is significant after controlling for the degree of under/over-capitalization where $\overline{OverCap}$ is the average overcapitalization in the *VL* issues and $\overline{UnderCap}$ is the average undercapitalization in the *IVL* issues. Test (*iii*) shows the *p*-value of the test with the null H_0: $\beta_5 = \beta_6$ (i.e., e_D *x IVL* versus e_D *x VL*). Test (*iv*) shows the *p*-value of the test with the null H_0: $\beta_7 = \beta_8$ (i.e., *MARISS(0,0) x IVL* versus *MARISS(0,0) x VL*).

(Table on the following page)

Panel A

		IVL	*VL*	**Difference of Means (p-values)**
BHAR (1,12)	N	65	174	
	MEAN	4.97	7.18†††	<0.01†††
	Median	4.28	6.72	
	Std. Dev.	30.13	27.47	
	Min.	-45.13	-65.79	
	Max.	80.10	74.32	
FFAR (1,12)	N	65	174	
	MEAN	2.93	3.05	0.98
	Median	8.49	0.98	
	Std. Dev.	44.49	42.06	
	Min.	-199.89	-110.21	
	Max.	88.97	187.99	

Panel B

	BHAR(1,12)	***FFAR(1,12)***
UnderCap	2.797	-8.826
	(5.171)	(8.096)
OverCap	2.056	1.164
	(0.853) **	(1.336)
IVL	-0.122	0.088
	(0.129)	(0.203)
VL	-0.160	0.023
	(0.125)	(0.196)
e_D x *IVL*	0.243	0.298
	(0.788)	(1.233)
e_D x *VL*	0.212	-1.002
	(0.646)	(1.011)
MARISS(0,0) x *IVL*	0.862	3.593
	(1.393)	(2.182)
MARISS(0,0) x *VL*	1.337	-2.234
	(0.888)	(1.390)
Adjusted R^2 (%)	10.06	-0.98
F-stat	3.06	0.82
Tests: (p-values)		
i) $\beta_3 = \beta_4$	0.58	0.55
ii) $\beta_4 + \overline{OverCap} * \beta_2 = \beta_3 + \overline{UnderCap} * \beta_1$	0.19	1.00
iii) $\beta_5 = \beta_6$	0.98	0.42
iv) $\beta_7 = \beta_8$	0.77	0.02***

††† denotes significantly different from zero at the 1% significance level using skewness-adjusted *t* -statistics. The skewness-adjusted *t*-statistics are computed and compared against bootstrapped critical values (over 1,000 replications) to assess significance.

***, **, * respectively denote significantly different from zero at the 1%, 5%, and 10% significance level.

Table 7
Returns around Announcement Date

This Table shows descriptive statistics of the announcement period abnormal returns, *MARAD(i,j)* as $\sum_{t=i}^{t=j}[r(t)-v(t)]$, where *r(t)* is the stock return and *v(t)* is the contemporaneous CRSP NYSE/AMEX/Nasdaq value-weighted market returns. *MARAD(-1, +1)* is the market-adjusted announcement period returns from the day before the announcement date to the day after the announcement date, *MARAD(-3, 3)* is the market-adjusted announcement period returns from 3 date before announcement date to 3 days after the announcement date, and *MARAD(-60,-4)* is the pre-announcement period abnormal returns from 60 days before issue announcement through 4 days before announcement date. The descriptive statistics are shown for voluntary (*VL*) and involuntary (*IVL*) issues made in all years 1983-1999, as well as for SEOs made in the Cornett and Tehranian (*CT*) (1994) sample period: 1983-1989.

		All Observations			***CT* Years**		
		IVL	***VL***	**Difference of Means (p-values)**	***IVL***	***VL***	**Difference of Means (p-values)**
MARAD (-1,+1)	N	65	174		60	65	
	MEAN	-0.94**	-1.00***	0.91	-0.89**	-1.45***	0.37
	Median	-0.98	-1.19		-1.00	-1.79	
	Std. Dev.	3.04	3.84		2.99	3.80	
	Min.	-7.78	-13.85		-7.78	-13.85	
	Max.	7.67	12.05		7.67	7.72	
MARAD (-3,+3)	N	65	174		60	65	
	MEAN	-1.84***	-0.77**	0.13	-1.72***	-2.02***	0.71
	Median	-1.84	-1.00		-1.84	-1.44	
	Std. Dev.	4.24	5.09		4.26	4.39	
	Min.	-10.94	-16.86		-10.94	-16.86	
	Max.	13.88	16.63		13.88	10.20	
MARAD (-60,-4)	N	65	174		60	65	
	MEAN	4.98***	6.39***	0.52	4.85***	4.22**	0.79
	Median	5.69	4.54		5.90	3.48	
	Std. Dev.	12.51	15.75		10.37	15.39	
	Min.	-27.39	-23.76		-26.26	-23.76	
	Max.	41.76	80.14		30.26	64.04	

***, **, * respectively denote significantly different from zero at the 1%, 5%, and 10% significance level.

Table 8
Cross-sectional Regression Analysis: Returns around Announcement Date

This table shows the regression coefficient estimates (standard errors in parentheses) when announcement period returns are regressed on several issue-specific variables using the following regression specifications:

$$MARAD(-1,+1) = \beta_1 UnderCap + \beta_2 OverCap + \beta_3 IVL + \beta_4 VL + \beta_5 MARAD(-60,-4) \times IVL + \beta_6 MARAD(-60,-4) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon,$$

$$MARAD(-3,+3) = \beta_1 UnderCap + \beta_2 OverCap + \beta_3 IVL + \beta_4 VL + \beta_5 MARAD(-60,-4) \times IVL + \beta_6 MARAD(-60,-4) \times VL + \boldsymbol{\beta}'\boldsymbol{X} + \varepsilon,$$

$\boldsymbol{X}$ is a vector of *CMR, lnAsset, lnIssue, PreBasel, Transition*. The table also shows the adjusted R^2 and the *F*-statistic of the regression. Test (*i*) shows the *p*-value of the test with the null H_0: $\beta_3 = \beta_4$ (i.e., *IVL* vs. *VL*). Test (*ii*) shows whether the difference between *VL* and *IVL* issuers is significant when one controls for the degree of under/over-capitalization where $\overline{OverCap}$ is the average overcapitalization in the *VL* sample and $\overline{UnderCap}$ is the average undercapitalization in the *IVL* sample. Test (*iii*) shows the *p*-value of the test with the null H_0: $\beta_5 = \beta_6$ (i.e., *MARAD(-60, -4) x IVL* vs. *MARAD(-60, -4) x VL*).

	All Observations		**CT Years**	
	MARAD (-1,+1)	***MARAD (-3,+3)***	***MARAD (-1,+1)***	***MARAD (-3,+3)***
UnderCap	-0.316	0.398	-0.018	0.518
	(0.680)	(0.915)	(0.667)	(0.831)
OverCap	-0.093	-0.029	0.206	0.290
	(0.113)	(0.152)	(0.293)	(0.365)
IVL	0.006	-0.031	0.001	-0.035
	(0.017)	(0.023)	(0.024)	(0.029)
VL	0.001	-0.027	-0.008	-0.044
	(0.016)	(0.022)	(0.024)	(0.030)
MARAD(-60, -4) xIVL	0.000	-0.008	0.017	-0.026
	(0.037)	(0.049)	(0.045)	(0.056)
MARAD(-60, -4) x VL	0.037	0.023	0.035	0.057
	(0.018)	(0.024)	(0.029)	(0.036)
Adjusted R^2 (%)	6.47	4.53	8.71	15.88
F-stat	2.50	2.03	2.33	3.62
Tests: (p-values)				
i) $\beta_3 = \beta_4$	0.61	0.79	0.37	0.47
ii) $\beta_4 + \overline{OverCap} * \beta_2 = \beta_3 + \overline{UnderCap} * \beta_1$	0.97	0.26	0.46	0.15
iii) $\beta_5 = \beta_6$	0.37	0.57	0.74	0.22

*** , **, * respectively denote significantly different from zero at the 1%, 5%, and 10% significance level.

Figure 1
Number of Bank Seasoned Equity Offerings in 1983-1999

This figure shows how many of the 239 bank SEOs in our sample are issued by commercial banks and by bank holding companies in the 1983-1999 period.

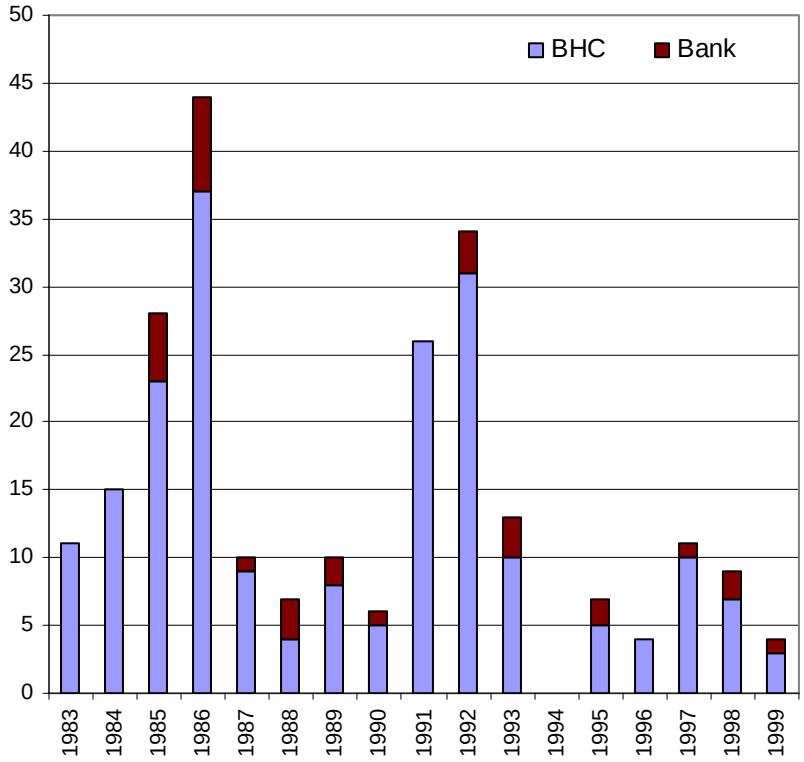
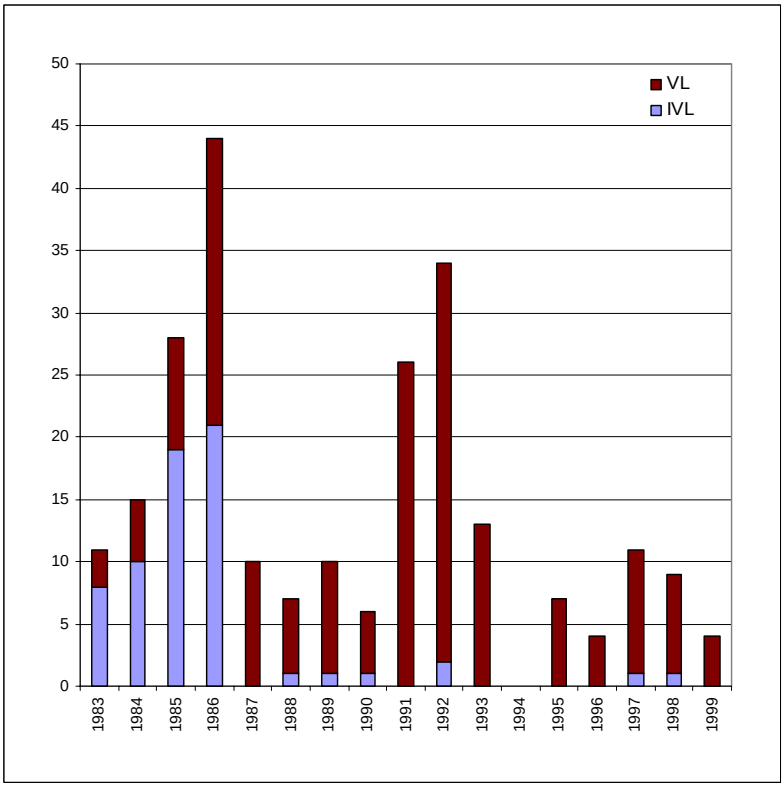


Figure 2
Voluntary and Involuntary Seasoned Equity Offerings in 1983-1999

This figure shows the distribution of Voluntary (*VL)* and Involuntary (*IVL)* bank SEOs made in the 1983-1999 period.



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