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The cost of bank regulatory capital*

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Abstract

The Basel I Accord introduced a discontinuity in required capital for undrawn credit com-mitments. While banks had to set aside capital when they extended commitments with maturities in excess of one year, short-term commitments were not subject to a capital requirement. We use this difference to infer the price banks are willing to pay to reduce regulatory capital, and to ascertain the role capital regulation plays on the composition of credit in the economy. Our results show that following Basel I, short-term commitments increased as undrawn fees declined (relative to those of long-term commitments). These results are robust and appear to be driven by the Basel I Accord: they are more prevalent among low-capital banks and do not hold in several placebo tests. We estimate that banks are willing to pay at least $0.05 to reduce regulatory capital by one dollar. While this in-ferred cost might appear to be low, our results show that the relative decline in short-term commitment prices induced by Basel I triggered a large shift in quantities, underscoring the sensitivity of credit to regulatory capital regimes.

Keywords: Basel accords, capital regulation, cost of capital, loan spreads.
JEL code: G21, G28.

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1 Introduction

Modigliani and Miller (1958) seminal paper showed us that in a world *á la* Arrow-Debreu — where markets are complete, information is symmetric and other frictions are not present — a firm's value is independent of its capital structure. However, the world we live in is quite different from that envisioned by Arrow and Debreu. The deductibility of interest expenses from income taxes makes debt financing attractive to firms. On the other hand, the cost of financial distress makes equity financing appealing. Firms tradeoff these, and other frictions, to chose their optimal capital structure.

Banks, like nonfinancial corporations, also face these tradeoffs when choosing their capital structure. Additionally, they factor in the presence of the safety net and the special role of deposits as both a source of financing and a product offering, which further tilts their choices towards debt financing. This explains why banks operate with much higher leverage ratios than nonfinancials (Pennacchi and Santos 2018). These are also contributing factors for banks' claim that capital regulation is costly, forcing them to charge higher prices for their services, including corporate lending. Ascertaining these claims has proven difficult. Estimating the cost of different sources of bank funding, in particular capital, remains a difficult exercise. Further, we have had only a very limited number of changes in capital regulations, and various empirical challenges have made it difficult to use these to infer the cost of bank capital.[1]

In this paper, we attempt to overcome these challenges by capitalizing on the differential treatments that Basel I and Basel II gave to commitments with maturities shorter than one year. When Basel I was introduced, it exempted banks from setting aside capital when they extended commitments (e.g. formal standby facilities and credit lines) with an original maturity of up to one year. The Basel II Accord sought to reduce this discontinuity by extending capital standards to short-term commitments. Basel accords appear to have had an important effect on the market place. As we can see from Figure (1), up until the early 1990s, there was not much evidence of 364-day facilities in the market. However, soon after Basel I, these instruments became quite prevalent, only to lose their popularity with the passage of Basel II. These revolving credit facilities appear to have been developed in response to Basel I

[1]These challenges include the endogeneity of changes in capital regulation, data limitations, and the difficulty in identifying an untreated counterfactual, among others.

because they run for 364 days, one day short of the one-year cut off on whether banks had to reserve capital against unused amounts under revolving credits. This gave banks the incentive to offer more attractive pricing on 364-day facilities than on multi-year revolvers. This ability was reduced when Basel II added a capital charge to commitments with maturities shorter than one year.

We start by comparing banks' pricing of commitments with maturities below one year with their pricing of commitments with maturities above one year around Basel I. Next, we perform a set of robustness tests and placebo tests to ensure our findings are driven by the Basel I Accord. In addition, we investigate whether there was an increase in the relative amount of short-term credit lines in the years immediately after Basel I and whether our findings are more prevalent among low-capital banks. Lastly, we investigate banks' relative pricing of short term commitments following Basel II to ascertain if we get the opposite results than the ones unveiled after Basel I. We do our exercises controlling for loan-, borrower-, and bank-specific factors as well as market conditions known to explain commitments' pricing.

The pricing structure of a commitment includes an undrawn fee and an all-in-drawn spread. The undrawn fee includes both the commitment fee and the annual fee that the borrower must pay its bank for funds committed under the credit line but not taken down.[2] The undrawn fee, therefore, compensates the bank for the liquidity risk it incurs by guaranteeing the firm access to funding at its discretion over the life of the credit line and up to the total commitment amount. In contrast, the all-in-drawn spread, which is defined over Libor and equals the annual cost to a borrower for drawn funds, compensates the bank for the credit risk it incurs when the borrower draws down on its credit line.

Basel Accords' "special" treatment of short-term commitments applies only to the portion of the commitment that is undrawn. Once the borrower draws down its commitment, the drawdown amount receives a capital treatment that is independent from its maturity. Given this, we would expect the Basel Accord effects to be concentrated on undrawn fees. However, because the all-in-drawn spread takes into account both one-time and recurring fees associated with the credit line we may also see an effect on these spreads. For this reason,

[2]Dealscan uses the wording all-in-undrawn spread when referring to the price firms pay on undrawn commitments, but in reality that price is not a spread because the fees are not markups over market interest rates.

we investigate the impact on both undrawn fees and all-in-drawn spreads. In addition, we investigate for the subset of commitments in our sample for which we have comprehensive pricing information whether the Basel I Accord had a separate impact on the credit spread component of the all-in-drawn spreads.[3]

Our results show that commitments with maturities up to one year, including 364-day facilities, became relatively less expensive following the passage of Basel I, and this decline is more prevalent amount low-capital banks. Both the undrawn fees and all-in-drawn spreads on short-term commitments decline relative to those of commitments with maturities longer than one year. Consistent with our priors, we find stronger evidence on undrawn fees. Further, our evidence suggests that the all-in-drawn effect is driven by a reduction in the fees rather than a decline in the credit spreads. Our results continue to hold when we use different time windows around the Basel I Accord and different samples of long-term commitments in the control group. They also continue to hold when we compare the commitments' pricing within banks, and are robust to a large set of additional robustness tests that we design.

Our results appear to be driven by the Basel I Accord. They are more prevalent among low-capital banks. Also, we do not find similar evidence when we use a placebo test based on the pricing of commitments with maturities above one year but below two years – indicating that the specific changes introduced by the Basel I Accord account for the decline in prices rather than any coincident change in the term spread. Further, our investigation of commitments' pricing around Basel II yields exactly the opposite results on both undrawn fees and all-in-drawn spreads.

Based on our findings, we estimate that banks are willing to pay at least \$0.05 to reduce regulatory capital by one dollar. This suggests that the cost of regulatory capital is lower than banks have indicated. It is worth noting, though, that this estimate is a lower bound and banks may be willing to pay much more in order to reduce regulatory capital. On the other hand, the inferred cost of regulatory capital might be low because firms are very sensitive to changes in commitment pricing. Indeed, as we document, the small decline in commitment prices induces a large shift in the relative amount of short-term commitments, underscoring the sensitivity of credit to regulatory capital regimes.

[3]Dealscan reports information on undrawn fess and all-in-drawn spreads for virtually all credit commitments, but it only reports separate information on credit spreads for a subset of the commitments.

This shift towards short term credit lines made it easier for banks to monitor borrowers and to manage the liquidity risk posed by credit lines, but it exposed borrowers to additional refinancing risk as well as additional repricing risk. Accoring to our estimates, a one-standard deviaion increase in the triple-B spread in the bond market, our proxy for the market conditions, leads to an increase of 14 bps in the all-in-drawn spreads of short-term commitments rated triple B, the equivalent of a 20% increase when computed at the mean spread for these credit lines. The results highlight the implications of capital standards to impact not only the quantity of lending, but also the characteristics of loans, resulting in increased refinancing risk for borrowers.

Our paper is related to the literature that studies the impact of changes in capital requirements. Several recent papers consider the bank-level response to regulatory changes (e.g. Gropp et al., 2018; Jimenez et al., 2017). In contrast, our work considers the loan-level response, conditional on the bank and, in some specifications, the borrower. This helps mitigate bank or borrower factors that might otherwise explain our findings. Benetton et al. (2017) and Behn et al. (2016) also consider the implementation of internal ratings-based capital requirements under Basel II and show an impact on loan prices and volumes. Our setting and analysis is unique, in that we consider the capital held for undrawn commitments and detect price effects as well as a large change in the maturity structure of credit lines.

In addition we can infer the cost of regulatory capital by exploiting a loophole in the corresponding regulation, along the lines of Kisin and Manela (2017). Kisin and Manela uses the cost of holding assets in an asset-backed commercial paper (ABCP) conduit to estimate the marginal cost for which banks are indifferent to creating a zero capital requirement investment. The authors assume banks can move what they want in an ABCP conduit, so that if they are indifferent, the marginal cost of adding to the ABCP conduit must be equivalent to the benefit of not holding capital against the investment. However, their identification strategy based on liquidity guarantees to ABCP conduits is extremely sensitive to two assumptions. First, they assume that banks can move any asset into an ABCP conduit and second that these contributions can be financed at low CP rates. Deviations in either assumption can significantly change the inferred cost of capital to banks.

Two other related papers are Kashyap, Stein, and Hanson (2010) and Van den Heuvel (2008). The former paper attempts to estimate the impact on loan rates of heightened capital

requirements on large financial institutions, but only imprecisely. The latter paper estimates the cost of bank capital requirements but using a general equilibrium model in which capital requirements reduce liquidity.

The remainder of the paper is organized as follows. Section 2 provides background on Basel Accords and lays out our empirical hypotheses. Section 3 presents our data and methodology, and characterizes our sample. Section 4 discusses the results of our investigation of the impact of Basel I on the pricing of credit commitments while Section 5 presents our robustness tests to these results. Section 6 presents the results of a complementary test based on Basel II. Section 7 discusses the economic significance of our findings, and Section 8 concludes with some final remarks.

2 Background on Basel Accords and Hypotheses

The Basel I Accord introduced in 1988 assigned a risk weight for each on-balance sheet exposure and specified the minimum capital banks had to hold against their risk weighted assets. Risk weights ranged from 0 to 100 percent, depending on the creditworthiness of the counterparty and the nature of the risk.[4] For example, on-balance sheet exposures to corporate borrowers generally received a 100 percent weight.

The Accord also specified a credit conversion factor for off-balance sheet exposures (e.g. credit commitments), which set the amount of capital the bank had to set aside depending on the maturity of the commitment. Commitments to lend to corporations with an original maturity in excess of one year were treated as off-balance exposures and the undrawn portion of the commitment received a 50 percent conversion factor. In contrast, commitments with an "original maturity" of up to one year or the ability to be unconditionally canceled at any time received a 0 percent conversion factor.[5] This difference in the conversion factors meant that banks were not required to set aside capital when they extended commitments with a maturity shorter than one year but had to set aside capital to account for the 50 percent conversion factor when they extended commitments with an original maturity in excess of one year. This gave rise to the so-called 364-day facilities.

[4]See Santos (2001) for a detailed description of the Basel I Accord.

[5]The 0 percent risk conversion applied only to the portion of the commitment that was undrawn. Once drawn, that portion would receive a treatment similar to on-balance sheet exposures to corporates.

To the extent that bank capital is costly, that difference should have made short-term credit lines (those with maturities less than one year at origination) relatively less expensive following the introduction of Basel I. This gives rise to the primary hypothesis we consider in this paper:

Hypothesis 1: The relative cost of short-term to long-term credit lines declined after the introduction of Basel I when compared to the period prior to the Basel Accord.

The Basel II Accord, which was finalized in June of 2004, sought to reduce the "special" treatment for 364-day facilities. Basel II introduced two alternative approaches, the standardized approach and the internal ratings based approach, for banks to determine the amount of capital they needed to set aside to account for the credit risk of their exposures. Under the standardized approach, banks determine the amount of required capital for each exposure in a standardized way using the exposure's rating as determined by external credit agencies. In contrast, under the internal approach, banks use their own internal rating systems to ascertain the credit risk of their exposures.

Both approaches changed the treatment that 364-day facilities received under Basel I. Under the standardized approach, 364-day facilities will now only benefit from a 0 percent credit conversion factor if the bank has the discretion to unconditionally cancel the facility at any time without prior notice, or if the facility contains a covenant triggering automatic cancelation in case there is a deterioration in the borrower's financial condition. Any 364-day facility that does not meet this revised criteria will be subject to a 20 percent credit conversion factor.

Under the 'foundation' internal ratings approach, 364-day facilities are subject to a conversion factor of up to 75 percent, unless the facility is unconditionally cancelable without prior notice, in which case it will qualify for a 0 percent conversion factor. Banks that adopt the advanced internal ratings approach had the discretion to estimate the potential exposure at default and set the credit conversion factor for each facility.

Whichever approach banks use, it is apparent that Basel II made it more expensive for banks to provide 364-day facilities, with such additional cost being passed onto borrowers. Note, however, that Basel II did not fully reverse the advantages of short-term facilities. Not only are some 364-day loans still able to receive a 0 percent conversion factor if they meet the necessary conditions, but other short term loans receive an advantaged conversion factor of

20 percent. Hence, the relative increase may not be of the same magnitude as the decrease predicted in the first hypothesis. We use the introduction of Basel II as a robustness test to our *Hypothesis 1.* In particular, we investigate whether relative cost of short-term to long-term credit lines increased after the introduction of Basel II when compared to the period prior to the Basel Accord.

3 Data, methodology and sample characterization

3.1 Data

The data for this project come from several sources. We use the Loan Pricing Corporation's (LPC) Dealscan database of business loans to identify the firms that took out credit lines from banks. We also use the Dealscan database to obtain information on individual credit lines, including undrawn fee and all-in-drawn spread over LIBOR, maturity, seniority status, and purpose; the borrower, including its sector of activity, and its legal status (private or public firm); and finally, the lending syndicate, including the identity and role of the banks in the loan syndicate.

Dealscan goes back to the beginning of the 1980s; in the first part of that decade it was not very comprehensive, but this has improved steadily over time. For this reason, we begin our sample in 1987. Our sample ends in December 2007, before the start of the recent financial crisis. The crisis was a once-in-a-few-generations event, during which questions of interbank spillovers and government policy and intervention loomed much larger than in normal times, or even "normal" crises. At a minimum, the crisis is a very different regime than our sample period and demands separate analysis. Further, there is ample evidence that it affected bank lending.[6]

We use Compustat to get information on firms' balance sheets. Even though LPC contains loans from both privately-held and publicly-held firms, Compustat is dominated by publicly-held firms. Thus, we focus our analysis on publicly-listed firms.

We use the Center for Research on Securities Prices's (CRSP) stock prices database

[6]Examples of the impact of bank-specific conditions on corporate lending during the crisis include Santos (2011), who focuses on the impact of banks' financial condition, and Ivashina and Sharfstein (2010) and Cornett et al. (2011), who focus on the impact of banks' exposure to unused credit lines.

to link companies and subsidiaries that are part of the same firm, and to link companies over time that went through mergers, acquisitions or name changes. We then use these links to merge the LPC and Compustat databases in order to find out the financial condition of the firm at the time it borrowed from banks. We also use CRSP to determine each borrower's excess stock return, and stock return volatility.

We rely on the Salomon Brothers/Citigroup yield indices on new long-term industrial bonds to control for changes in the market's credit risk premium. We use the yield difference between the indices of triple-A and triple-B rated bonds because these indices go back to December of 1988. We complement these indices with Moodys' corporate seasoned bond yields in order to get information on the triple-B spread further back to January of 1987.

Finally, we use the Reports of Condition and Income compiled by the FDIC, the Comptroller of the Currency, and the Federal Reserve System to obtain bank data for the lead bank(s) in each loan syndicate. Wherever possible we get this data at the bank holding company level from Y9C Reports. If these reports are not available, then we rely on Call Reports which have data at the bank level.

3.2 Methodology

Our methodology has two parts. In the first part, our goal is to investigate how the Basel I Accord affected the relative pricing of credit lines with an origination maturity of less than one year versus credit lines with an origination maturity larger than one year. To that end, we estimate the following loan spread Difference-in-Differences (DiD) model on credit lines originated around Basel I.

$$\begin{aligned} PRICE_{f,l,b,t} = c + \alpha ST_{f,l,b,t} + \beta BASEL1_t + \gamma BASEL1_t \times ST_{f,l,b,t} \\ + \sum_{i=1}^{I} \psi_i X_{i,l,t} + \sum_{j=1}^{J} \nu_j Y_{j,f,t-1} + \sum_{k=1}^{K} \eta_k Z_{k,b,t-1} + \rho M_t + \epsilon_{f,t}. \end{aligned} \tag{1}$$

$PRICE_{f,l,b,t}$ is either the undrawn fee or the all-in-drawn spread over LIBOR of credit line l of firm f from bank b at issue date t. According to Dealscan, our source of loan data, the undrawn fee includes both the commitment fee and the annual fee that the borrower must pay its bank for funds committed under the credit line but not taken down. The all-in-drawn spread, in turn, is a measure of the overall cost of the loan, expressed as a spread over the

benchmark London interbank offering rate (LIBOR), that takes into account both one-time and recurring fees associated with the loan as well as the credit spread, and which the borrower pays on the amount it draws down. Because the differential treatment granted by the Basel Accord to commitments with maturities up to one year applied only to funds committed but not yet drawn down, we would expect the price impact of the Accord to be concentrated on the undrawn fee. To the extent that it impacts the all-in-drawn spread this should be via the fees in this variable and not the credit spread. Dealscan is comprehensive with regards to both undrawn fees and all-in-drawn spreads, but reports separate information on credit spreads for only a reduced number of commitments. It is for this reason that we focus our investigation on undrawn fees and all-in-drawn spreads; however we will use the commitments for which we have information on credit spreads to ascertain the source of the Basel I Accord impact on all-in-drawn spreads.

ST is a dummy variable equal to one for credit lines with a maturity at origination up to (and including) one year. In some specifications we narrow this definition to include only facilities with maturities up to eleven months and in some specifications we consider only the so-called 364-day facilities. Both of these variants assure us that the target commitments are below the one-year cut off specified in the Basel Accords, but they pose some challenges. For example, there were a reduced number of facilities categorized as 364-day prior to Basel I, most likely because they did not have any special status at the time of origination.

$BASEL1$ is a dummy variable equal to one for credit lines originated after the Basel I Accord. US banks were required to apply Basel I on a transitional basis starting in 1991, but the Accord became fully phased in starting in 1993. We begin our investigation of Basel I on a sample containing credit lines originated between 1987 and 2003, with the post Basel I period defined by the years 1993-2003. We start in 1987 because our data source on credit lines is not comprehensive prior to that year. We end in 2003 because the Basel II Accord was finalized in 2004. However, we focus on a balanced, three-year window (1990-1995, maintaining 1993 as the first year after Basel I) to reduce concerns that we may pick up other aggregate effects unrelated to Basel I.

The key variable in our pricing model is the interaction between ST and $BASEL1$. The coefficient on this variable, γ, estimates a DiD: the change in the relative price of commitments with maturities up to one year versus longer term commitments from the period prior to the

Basel Accord I compared to the period after. We expect it to be negative under Hypothesis 1. A potential concern with this test is that we compare the pricing of short-term commitments with a pool of commitments containing a wide variety of maturities. Ideally, one would like to compare the pricing of short-term commitments to commitments with maturities only slightly above one year. However, there are not enough observations to carry out this exercise – maturities at origination are issued at discrete maturity horizons. Instead, we repeat our analysis after we narrow the control group to commitments with maturities between one and three years. In addition, we consider a linear control for maturity log(maturity in years) to emphasize the discontinuity in pricing around the 1 year cutoff by controlling for the impact of maturity on spreads.

Another potential concern with our findings is whether they are driven by the Basel I Accord or other changes in the pricing of loan maturity. To address this concern, we investigate two placebo tests. The first test compares the pricing on credit lines with maturities between one and two years to the pricing on credit lines with maturities above two years around Basel I. The second test, in turn, compares the pricing on term loans with maturities up to one year with the pricing on term loans with longer maturities. In addition, we capitalize on the Basel II Accord and investigate whether there was an increase in the relative pricing of short-term commitments after its implementation.

US agencies announced they would accept public comments on Basel Committee's consultative document on Basel II on January 2001, but the Accord was finalized only in June 2004. Contrary to the expectations at the time, the Board did not approve the final rules to implement Basel II until November 2007. Notwithstanding this delay, US banks appear to have began adjusting their business to incorporate Basel II around the time the Accord was finalized. As we can see from Figure (1), starting in 2004/05 there is a sharp decline in the issuance of 364-day facilities, consistent with the premise that Basel II would make these facilities less appealing to borrowers. When we investigate loan pricing around Basel II, we restrict our analysis to the period 2000-2007 and specify the years between 2005 and 2007 as the post Basel II period. Following the example of our analysis of Basel I, we focus on the shorter (balanced) sample period (2002-2007, maintaining 2005 as the first year after Basel II).

We attempt to identify the effects of the Basel accords on commitment pricing controlling for characteristics identified in the literature on loan pricing. For instance, we include

loan-, borrower-, and bank-specific controls as well as various market conditions at the time of origination.[7]

Our loan-specific controls ($X_{i,l,t}$) include loan maturity, amount, and number of lenders in the syndicate, along with indicators to account for whether the loan is senior, secured, the presence of dividend restrictions, the presence of a guarantor, and the loan purpose. Our firm-specific controls ($Y_{j,f,t-1}$) include standard variables such as firm size (proxied by sales), leverage, profitability, asset tangibility, and market-to-book ratio, along with cash flow variables (net working capital and the log of the interest coverage truncated at zero). We complement these variables with two market-based controls, the stock return (in excess of the market return) and volatility of the firm's stock return. We also include dummies for different credit rating levels and for single digit SIC codes.

Our bank-specific controls ($Z_{k,b,t-1}$) focus on the characteristics of the bank that is the lead arranger. Our reasoning is that it is the lead bank that not only negotiates initial loan terms but is charged with enforcing these terms over the life of the loan, so its characteristics will directly affect this behavior. Other members of the syndicate are likely more passive, so their characteristics will have a much weaker effect on the loan negotiations. Our bank-specific controls include bank size, profitability, risk, liquid asset holdings and subordinated debt (both scaled by assets), and credit rating, along with the capital/assets ratio.

Our market controls (M_t) include the spread between BBB and AAA rated bond index yields at the time of the loan origination. The full list and definitions are given in the appendix.

We estimate our commitment pricing model using a pooled regression with and without bank fixed effects. We do not consider specifications with borrower fixed effects because only a small number of firms take out multiple loans within the short windows that we consider around the implementation of Basel I and II, respectively. Throughout our errors are clustered by borrower.

The second part of our methodology aims at investigating the potential economic effects induced by the Basel I Accord favorable treatment of short-term credit lines. To that end, we start by investigating the cost savings that corporations enjoyed as a result of that treatment.

[7]See Bord and Santos (2014) for a study of commitments' undrawn fees, and Santos and Winton (2008, 2017), Hale and Santos (2009), Santos (2011) and Paligorova and Santos (2017) for studies of credit spreads on corporate loans.

Next, we try to ascertain how costly bank capital is. We end with a discussion on the impact of Basel I on the relative amount of short-term commitments in the economy and the associated implications for corporations.

3.3 Sample characteristics

Table 1 presents the characteristics of the samples that we use to investigate Basel I (left panel) and Basel II (right panel), respectively. The left panel compares credit lines issued before Basel I (1987-1992) with those issued afterwards (1993-2003). The right panel, in turn, compares credit lines issued before Basel II (2000-2004) with those issued afterwards (2005-2007).

We compare the credit lines for a wide set of variables that we use in our study. Panels A and B compare the credit lines with respect to their undrawn fees and credit spreads, respectively. Panels C, D and E compare them with respect to the sets of loan-, borrower- and bank-specific controls that we use in our investigation of pricing, respectively. Finally, Panel F compares the credit lines with regards to our control for the market conditions, the triple-B bond spread at the time of the credit line issuance.

Looking at Panels A and B, we see some interesting variations around the Basel I and Basel II Accords. First, undrawn fees and all-in-drawn spreads covary across time periods, though, at different correlations. Second, both of these variables decline after Basel I and Basel II. Third, and more relevant for our purposes, we see that undrawn fees and credit spreads of short-term commitments, regardless of how we identify them, decline by more than for long-term commitments in the post-Basel I period, consistent with Hypothesis 1. In contrast, we see that both undrawn fees and credit spreads of short-term commitments decline by less than for long-term commitments in the post-Basel II period, which is consistent with our expectation that the Basel II accord reverted some of the favorable treatment that the Basel I Accord had given to short-term commitments.

Turning our attention to the remaining panels we see that many of the controls we use in our pricing analysis exhibit statistically significant differences before and after the Basel Accords. In the interest of space, we do not provide here a detailed analysis of these differences. However, they suggest that it will be important to investigate the robustness of our findings to a specification which allows the control variables to have different loadings before and after each Accord. Further, there is one control variable, the loan maturity, that is worth taking

a close look because it provides an important insight on our priors about the effects of the Basel Accords. The average maturity declined significantly after the introduction of Basel I (it went down from four years to three years), while moving in the opposite direction after Basel II (it increased from three years to four years). These changes are consistent with our priors that Basel I incentivized the origination of commitments with maturities below one year while Basel II, at least in part, reduced that incentive.

In order to get a deeper understanding of these changes in the maturities of credit lines, we report in Table 2 the transition matrices for loan maturities around Basel I (top panel) and around Basel II (bottom) panel. This table reports for each credit commitment taken out after the Accord what was the maturity of the most recent commitment the borrower took out prior to the Accord. Given that we want to compare the maturities before and after the Accord, these transition matrices report information only for borrowers that take out commitments before *and* after the Accord. The top panel depicts two results that support our assertion that Basel I made commitments with maturities up to one year relatively more attractive. First, looking at the diagonal of the matrix, which focuses on borrowers that retained the maturity of their commitments before and after Basel I, we see that borrowers who took out one-year maturity commitments before Basel I are the most likely to take out one-year commitments afterwards. Second, looking at the first column, we see that there was a high incidence of borrowers that switch to one-year commitments after Basel I. For example, among borrowers that use to take out two-year commitments, we see that nearly as many of them switch to one-year commitments (17.4%) when compared to those that continue to take out two-year commitments after Basel I (17.6%). As further evidence of the increase in the attractiveness of one-year commitments after Basel I, it is interesting to note that the first column in the top panel is always larger than the first column in the bottom panel. In words, for each maturity the percentage of borrowers that switched to one-year commitments after Basel I is always higher than the percentage of borrowers that does a similar switch after Basel II.

4 Basel I and the pricing of credit lines

We start by looking at the time series of the undrawn fees and all-in-drawn spreads on credit lines with maturities up to one year and credit lines of longer maturities around the Basel I Accord. To facilitate the identification of Basel I impact, we scale these variables by their

average 1992 annual level, the last year before the full implementation of Basel I. The results of this exercise are reported in Figure (3).

It is apparent from that figure that short-term credit lines became less expensive relative to longer term credit lines starting in 1993. Both their undrawn fees and all-in-drawn credit spreads declined relative to those of longer term commitments. This supports the assertion that regulatory capital is costly as the favorable treatment Basel I gave to short-term commitments resulted in lower prices. Of course, these insights are based on univariate comparisons and do not control for any of the factors known to help explain these elements of credit line prices.

We proceed with our investigation by estimating our pricing model, Equation 1, on the sample of credit lines taken out between 1987 and 2003. The results of this exercise are reported in Table 3. Models 1 through 3 report results for the undrawn fees while Models 4 through 6 report results for all-in-drawn credit spreads. Models 1 and 4 report the results of a pooled model where we do not account for firm-specific controls. This allows us to consider credit lines of privately-held borrowers. Models 2 and 5 repeat that analysis after we add our set of firm-specific controls which restricts our sample to credit lines of publicly listed borrowers. Finally, Models 3 and 6 report the results estimated with bank fixed effects and firm-specific controls using the sample of publicly-listed borrowers.

A careful inspection of the three variables in Table 3 that are critical to our analysis, ST, $BASEL1$, and the interaction between these variables, reveals several important insights. First, the results do not vary substantially across the models. While, there are some differences in statistical significance, those variables that retain their significance also retain their signs across the three models in each panel.

Second, prior to Basel I, short-term commitments had lower undrawn fees, but the difference was generally not statistically significant. In contrast, these commitments carried all-in-drawn spreads that were on average 36 basis points higher than those of longer-term commitments.

Third, after Basel I, long-term commitments observed a decline in their undrawn fees, but their all-in-drawn spreads went up. Last, and most importantly for our purposes, both the undrawn fees and the all-in-drawn spreads on commitments up to one year declined relative to those of longer term commitments following the passage of Basel I. Undrawn fees declined by about 3 bps while all-in-drawn spreads declined by about 44 bps. This evidence supports,

from a statistical point of view, Hypothesis 1 that Basel "favorable" treatment of short-term commitments lowered the relative cost for borrowing firms that rely on short-term funding.

Looking at the loan-, borrower-, and bank-specific controls as well as our market control, we see that those which are statistically significant are generally consistent with expectations. In the interest of space, we do not provide a detailed discussion of these controls here. Instead, in the remainder of our paper we present the results of a series of robustness tests of our finding that the relative cost of short term commitments declined following the introduction of Basel I, and on whether that decline was indeed induced by the Basel Accord. In addition, we investigate the economic significance of our findings.

4.1 Tightening Basel I base tests

Our base models compare credit lines with maturities at origination up to one year with all remaining credit lines. A concern with our control group in these models is that it includes a set of credit lines with a wide set of maturities. To address this concern, we redid our analysis after we restrict our control group to credit lines with maturities up to three years. The results of this test are reported in Panel A of Table 4. As in our original analysis models 1 through 3 report results for undrawn fees while Models 4 through 6 report results for all-in-drawn spreads.

Restricting the control group to this more homogenous set of credit lines generates one difference vis-á-vis our initial results. We do not find that credit spreads went up for credit lines with maturities above one year after Basel I. Note that $BASEL1$ is no longer statistically significant in models 4 through 6. However, and most importantly, $BASEL1 \times ST$ continues to be negative in all of the models and its statistical significance went up. In other words, we continue to find, consistent with Hypothesis 1, that the relative cost of commitments with maturities up to one year declined relative to commitments with two or three year maturities after the passage of Basel I.

Another concern with our base models relates to our sample period, which encompasses the years between 1987 through 2003. This is a long sample period (17 years), which raises the prospects of other events driving our findings. In addition, our sample is unbalanced in the sense that the period it considers after Basel I is almost twice as long (eleven years) than the pre-Basel I sample period (six years). To address both concerns, we redo our analysis

on a shorter, balanced sample period encompassing three years before (1990-1992) and three after (2003-2005) the passage of Basel I. Also, for this exercise we retain the restriction we introduced to address the previous concern, that is, we limit the control group to commitments with maturities up to three years.

The new results are reported in Panel B of Table 4, which has a similar structure as the top panel. Narrowing the window around Basel I does not affect our key findings in any meaningful way. $BASEL1{\times}ST$ continues to be negative and highly statistically significant in all of our models, with the exception of Model 6 where that variable is significant only at the 10% level. Further, narrowing the window of our test lowers the magnitude of $BASEL1{\times}ST$ in our models of credit spreads (Models 4 through 6), but it increases the size of that variable in our models of undrawn fees (Models 1 through 3), arguably the component of the credit lines' prices most likely to be affected by the favorable treatment that Basel I granted to short-term commitments. According to the latest results, the relative undrawn fees and all-in-drawn spreads of short-term credit lines declined by about 5 and 18 bps, respectively, following the implementation of Basel I.

4.2 Effects across banks

The results we reported thus far focus on the average bank. However, we would expect the effects of the Basel I Accord to be larger among capital constrained banks. To investigate this hypothesis, we start by classifying banks as capital constrained if their equity-to-assets ratio is in the first quartile of the sample ratio (6.1%). Next, we expand our loan pricing model to allow us to distinguish how these banks change their pricing of short-term credit lines (relative to the remaining banks) around Basel I. The results of this investigation are reported in Panel A of Table 5, which has a structure similar to Table 3. Following our investigation of our base results, in Panel B of Table 5 we limit the sample to credit lines with maturities up to three years to tighten our control group. To mitigate concerns that low-capitalized banks implement different pricing policies, in these tests we interact all of our controls with $LOWCAP$, our dummy variable to identify banks with low capital, $BASEL1$, and $BASEL1{\times}LOWCAP$.

Looking at Table 5 we see that our key variable of interest, BASEL1×LOWCAP×ST, is always negative and usually statistically significant, particularly in Panel B. Thus, after the introduction of Basel I, low-capital banks reduced both undrawn fees and all-in-drawn spreads

by more than the remaining banks. This is consistent with the idea that it was more important for low-capital banks to seek capital relief by incentivizing their borrowers to take out credit lines that were relatively less affected by the capital charges of the Basel I Accord.

For comparison purposes, we redid the analysis reported in Table 5, but this time focusing on the changes in loan pricing by high-capital banks, $HIGHCAP$, i.e. banks with a capital-to-assets ratio above the third quartile of the sample ratio (8.0%). The results of this exercise are reported in Table 6. In contrast to our previous findings, we see that BASEL1×HIGHCAP×ST, is never negative and statistically significant.

In sum, while low-capital banks apply relatively larger cuts to undrawn fees and all-in-drawn spreads on credit lines with maturities up to one year after Basel I, high-capital banks do not alter their relative pricing of credit lines. This difference corroborates our interpretation that the decline we unveiled in the relative cost of short-term credit lines after Basel I was induced by their favorable treatment in the Basel Accord, adding support to the thesis that regulatory capital is costly.

5 Robustness tests

In this section we report the results from a series of robustness tests. The first test focuses on the approach we use to identify commitments that benefited from the favorable treatment of the Basel I Accord. Next, we present the results of two placebo tests. After that, we investigate what happens when we control for changes in banks' loan pricing policies and for bank-year fixed effects. This is followed by a discussion as to why our results also show an effect in the all-in-drawn spreads in addition to the undrawn fees. We finish with a brief discussion of some additional robustness tests.

5.1 Basel I and the pricing of 364-day facilities

All of the results reported thus far focus on commitments with maturities at origination up to (and including) one year. We decided to include the one-year facilities because notwithstanding their maturity many of these facilities are classified as 364-day facilities. These are revolving credit facilities that run 364 days. They appear to have been developed to benefit from the

favorable treatment offered by Basel I.[8] However, as we noted above the Basel I discontinuity occurs exactly at a maturity of one year. It is possible, therefore, that we have in our target sample commitments that did not benefit from the zero-risk weight defined in Basel I. While this biases us against finding any effect of Basel I, it is still interesting to carry our tests on a set of commitments that have maturities at origination strictly lower than one year.

One way to accomplish this objective is to restrict the target sample to facilities that have eleven or less months to maturity. This assures us that these facilities benefited from the favorable treatment granted by Basel I. The downside of this approach is that we are certainly leaving out from the target sample facilities that also benefited from that treatment. The results of this test are reported in the top panel of Table 7. We use in this test our shorter and balanced window around Basel I, and the control group made of commitments with two- or three-year maturities. As we can see from the negative sign and statistical significance of $BASEL1{\times}ST$, we continue to find that following the introduction of Basel I facilities with maturities strictly lower than one year benefited from a reduction in both their undrawn fees and credit spreads relative to facilities with maturities up to three years.

Another way to investigate this maturity issue is to focus on 364-day facilities. This poses a challenge because there were very few of these prior to Basel I. For this reason, we first compare commitments with maturities up to (and including) one year issued prior to Basel I with 364-day facilities taken out by borrowers afterwards. The results of this test are reported in the middle panel of Table 7. Next, we the repeat this exercise where we also restrict the pre-Basel I commitments to 364-day facilities. The results of this test are reported in the bottom panel of Table 7. Again, we do both of these tests on our shorter and balanced window around Basel I, and use as a control group only commitments with two- or three-year maturities.

Looking at the middle panel of Table 7, we see that restricting our post-Basel I sample of short-term commitments to 364-day facilities does not affect our findings: we continue to observe that $BASEL1{\times}364FACa$ is negative and statistically significant in all of our models

[8]Dealscan has a variable with information on the maturity of the facility (which reports months to maturity) and another one with information on the type of the facility (which indicates whether it is a term loan, a credit line, a 364-day facility and so forth). While nearly all 364-day facilities have 12 months to maturity, there is a good number of facilities that have less than 12 months to maturity and benefit from the Basel I special treatment and yet are not classified as 364-day facilities. In other words, relying exclusively on information about the maturity or the type of the credit facility will introduce some noise.

of undrawn fees and credit spreads.

Turning our attention to the bottom panel of that table, we see that when also restrict the pre-Basel I to 364-day facilities, we no longer find an effect on credit spreads. Doing so does also weakens our findings on undrawn fees, but we still find $BASEL1{\times}364FAC$ to be negative and statistically significant in two of the three models we consider. As we noted above, while this test assures us we are focusing on commitments that meet the cut off set in Basel I, it has the limitation that we only have 36 364-day facilities in our sample prior to Basel I. That said, it is interesting to see that we still retain a statistically significant effect in undrawn fees, precisely the component of the credit line pricing that we expected to be affected the most by the discontinuity introduced by Basel I.

5.2 Placebo tests

The results presented thus far demonstrate the robustness of the decline in relative cost for commitments with maturities below one year under the Basel I Accord. However, one may wonder whether the decline in the relative cost of these commitments was indeed driven by the discontinuity introduced by the Basel I Accord. While we control for the market conditions at the time of the loan origination, could it be that our results are driven instead by a generalized decline in the cost of short term borrowing relative to long term borrowing?

To ascertain whether that is the case, we designed two placebo tests. In the first test, we compare commitments with maturities between one and two years with commitments with maturities between three and four years. If Basel I is the driver of our results, we should not find a similar effect in this test because all of these commitments received the same treatment under the Basel Accord. If, on the other hand, what is driving our result is a generalized decline in the relative cost of short term borrowing then we should find some evidence of this among commitments with maturities between one and two years.

Panel A of Table 8 reports the results of this investigation. As in previous robustness tests, we consider our narrow sample around Basel I. In this case, however, we include in the control group commitments with maturities between three and four years. In contrast to previous findings, we find *no* evidence of a decline in the relative cost of two-year maturity commitments. Note that $BASEL1{\times}ST2y$ is not statistically significant for any of our models on undrawn fees or our models on credit spreads. In some of the models, this interaction

term is even positive, although not significant. This adds important support that the decline in the relative cost of commitments with maturities up to one year was indeed driven by the exemption of these commitments from capital charges under the Basel I Accord.

In the second placebo test we repeat our analysis of short-term credit lines but using term loans instead. In this case, we compare how the cost of term loans with maturities up to one year relative to the cost term loans with maturities between one and three years changed around Basel I. In this case, however, we have to restrict our investigation to credit spreads since borrowers do not pay an undrawn fee when they take out a term loan. Nonetheless, if what is driving our results is a generalized decline in the relative cost of short-term borrowing we should also find evidence of this in the credit spreads of term loans. The results of this second placebo test are reported in Panel B of Table 8. It is interesting to see that $BASEL1 \times STtl$ is positive, though not statistically significant. In other words, while we find strong evidence of a decline in the relative credit spreads of commitments with maturities up to one year in the period immediately after Basel I, our results show that the relative credit spreads of term loans with similar maturities in fact went up around that same period of time. This suggests that our evidence on short-term credit lines is unlikely to be driven by a generalized decline in the relative cost of short-term funding and is instead the result of Basel I, which granted a special treatment to short-term credit lines but not term loans.

5.3 Accounting for changes in pricing policies

Our tests thus far account for a large set of loan-, borrower- and bank-specific controls as well as the market conditions at the time of issuance of commitments. Notwithstanding that, one may worry that our specifications are not flexible enough to account for time variation in banks' loan pricing policies following the introduction of Basel I. To address this concern, we reestimate our models including interactions of each of our controls with the dummy variable identifying the Basel I period, $BASEL1$. The results of this exercise are reported in Table 9. Panel A presents the results analogous to Panel B of Table 4 but after we include the additional set of controls. Recall that in Panel B of Table 4 we use the balanced sample period encompassing three years before (1990-1992) and three after (2003-2005) the passage of Basel I, and restrict the control group to commitments with maturities above one year and below four years. Panels B, C and D, in turn, present the results analogous to Table 5 except we

include the additional set of interacted controls. Again recall that in Table 7 we investigate the robustness of our findings when use different criteria to isolate the commitments that benefit from the favorable treatment offered by Basel I.

Comparing the results reported in Table 9 with the previous results we obtained without interacting all of our controls with $BASEL1$, we see that adding the new controls does not affect our findings in any meaningful way. Our key variable of interest, the interaction of $BASEL1$ with our variables that identify short-term commitments continues to be negative in all of our tests. Further, this variable retains the same level of statistical significance as in our original tests for most of the models. In a small number of models, the level of statistical significance declines but in an equal number of models it goes up after we add the additional controls.

5.4 Controlling for bank-year fixed effects

Throughout, we have also presented results from a model estimated with bank fixed effects. In this case, the identification of the Basel effect comes from a comparison between banks' loan pricing policies before versus after the introduction of Basel I. While we also account for borrower-specific controls, a potential concern with the results derived with bank fixed effects is that they are not immune to changes in the pool of borrowers before and after the arrival of the Basel I Accord. One way to address this concern would be to include bank-borrower fixed effects. However, there are not enough borrowers in the sample that took out multiple credit lines from the same bank within the six-year period in our investigation. For this reason, we consider an intermediate case where we use bank-year fixed effects. In this case, the identification is driven by a comparison of banks' loan pricing policies within each given year.

The results of this test are reported in Table 10. The top panel reports the result estimated without firm controls while the bottom panel adds firm controls. Models 1 though 4 report results for undrawn fees while Models 5 through 8 report results for all-in-drawn credit spreads. Models 1 and 5 report the results when we compare commitments with maturities up to one year with commitments with maturities between two and three years. Models 2 and 6 refine the previous analysis by leaving out from the target sample commitments with exactly one-year maturity. The remaining models repeat the analysis we did before using 364-day

facilities.

As we can see from both the top and bottom panel, with exception of models 4 and 8 which focus exclusively on 364-day facilities, we find that $BASEL1{\times}ST$ is negative and statistically significant in all other models. The absence of an effect when we restrict to 364-day facilties is not surprising given that there are only 36 of these in our sample before the implementation of Basel I. In other words, even when we account for bank-year fixed effects, we continue to find strong evidence that the relative cost of those credit lines that received a favorable treatment under Basel I declined in the years following the implementation of the Basel I Accord. Indeed, the largest declines in undrawn fees ($\tilde{1}0$ basis points) can be found in specifications accounting for bank-year fixed effects and firm-specific controls.

5.5 Impact of Basel I on undrawn fees vs. credit spreads

As we noted above, in principle we would expect the Basel I Accord to impact only undrawn fees but not credit spreads because credit line drawdowns received the same treatment under Basel I irrespective of their maturity. Recall that borrowers only pay the credit spread when they draw down their credit lines. However, the results we reported thus far show that both undrawn fees and all-in-drawn spreads of short-term credit lines relative to longer term credit lines declined after Basel I.

At first sight our finding on all-in-drawn spreads is inconsistent with a Basel I effect. However, this effect could derive from a bank's reduction in credit spreads to entice borrowers to switch to short-term credit spreads. It could also derive from a reduction on short-term credit lines' fees because the all-in-drawn spread accounts for *both* the credit spread and some of the fees borrowers pay when they take out credit lines. Ideally, we would want to investigate the impact of Basel I on the stand alone credit spread, but this information is only available for a small portion of the credit lines. Nonetheless, in an attempt to reduce concerns with this puzzling result, we rerun our base model on the subset of credit lines for which we have information not only on undrawn fees and all-in-drawn spreads but also on the "clean" credit spread.

The results of this investigation are reported in Table 11. This table has a structure similar to our base table, Table 3, except for the firm controls, which we leave out from this analysis because of our small sample size. Looking at Table 11 we see two important results.

First, we continue to find in the subsample for which have information on credit spreads, that both the relative undrawn fees and all-in-drawn spreads of short-term credit lines decline after Basel I. Second, and more importantly, our results show that the relative credit spreads of short-term credit lines do not decline after Basel I. This difference between all-in-drawn spreads and credit spreads suggests that our findings on the impact of Basel I on the former is unlikely driven by a reduction in credit spreads but is instead the result of a reduction in fees as one would expect following Basel I's special treatment of short-term credit lines.

5.6 Other robustness tests

Thus far we have not controlled for the maturity of the credit line other than by restricting the sample to lines with maturities up to four years. We reestimate our models including the log of the maturity of the credit line as a control variable and we find no meaningful impact on our findings.

We also consider variations on the placebo tests reported in Table 6 where we interact all of our controls with the $BASEL1$ dummy variable and where we include bank-year fixed effects. These variations do not affect our conclusions.

Lastly, we assume the first year after the Basel I Accord was 1993, the first year the Accord was fully phased in the US. However, since US banks were required to apply Basel I on a transitional basis starting in 1991, we have also done our tests using 1991 or 1992 as the first year after the Accord. Additionally, we investigate what happens when we exclude credit lines originated in 1992 and 1993; thus, comparing loan pricing in 1990/91 with loan pricing in 1994/95. While these tests change some of our results they do not change the thrust of our key finding that commitments with maturities up to one year became relatively less costly following Basel I.

In sum, our robustness tests support our base findings that show the favorable treatment Basel I offered to credit lines with maturities up to one year lowered the relative cost of these credit lines by an amount that is statically different from zero, thereby, suggesting that regulatory capital is costly. It remains unclear, though, to what extent this reduction is economically meaningful. We will investigate this question in Section 6.

6 A complementary test based on Basel II

As we noted in Section 2, the Basel II Accord sought to erase, at least in part, the "special" treatment that the Basel I Accord had given to commitments with maturities at origination shorter than one year. The exact extent of this effect, however, depends on whether the lending bank uses the standardized approach or the advanced approach to determine capital requirements. Under the standardized approach, commitments with maturities up to one year continue to benefit from a 0 percent credit conversion factor, but only if the bank has the discretion to unconditionally cancel the facility at any time without prior notice, or if the facility contained a covenant triggering automatic cancelation in case there is a deterioration in the borrower's financial condition. Absent these conditions, the commitment would be subject to a 20 percent credit conversion factor, which was still lower than the 50 percent factor applied to commitments with original maturities above one year. Under the 'foundation' internal ratings approach, commitments with maturities up to one year were subject to a conversion factor of up to 75 percent, unless the facility could be unconditionally cancelable without prior notice, in which case it qualified for a 0 percent conversion factor.[9]

To the extent that bank capital is costly, it is apparent that Basel II increased the cost to grant most commitments up to one year for banks under the standardized approach and possibly for banks that rely on internal models. So, in contrast to Basel I, which applied equally to all internationally active banks, the application of Basel II is mixed which makes it harder to identify the potential impact on the relative cost of short-term commitments. There is a second important difference between the two Accords when applied to US banks. As we noted before, US adopted the Basel I Accord, first on a transition basis starting in 1991 and it fully phased in the that Accord starting in 1993. In contrast, even though the Basel II Accord was finalized in June 2004 and the US was an active participant in its design, the Board of Governors did not approve its implementation until November 2007.

Notwithstanding that uncertainty, US banks appear to have responded to the Basel II Accord. As we saw from Figure (2), starting in 2004/05 there is a rapid decline in the volume of 364-day facilities, which had been created to take advantage of the one-year cut off introduced in the first Basel Accord but became less attractive under the second Accord. Further, looking

[9]Banks that adopt the advanced internal ratings approach had the discretion to estimate the potential exposure at default which effectively allows them to set the credit conversion factor for each facility.

at Figure (4), which plots undrawn fees and all-in-drawn spreads around Basel I and Basel II, we see a striking difference in these variables after each Accord. While both undrawn fees and credit spreads of short-term commitments relative to long-term commitments decline after Basel I, we see the opposite pattern after Basel II. Interestingly, consistent with the more nuanced impact of Basel II, the effects after Basel II are not as striking as those we see after Basel I.

Building on this evidence, we investigate the impact of Basel II by looking at the relative pricing of commitments up to one year originated after 2004 with similar commitments originated beforehand. We follow a similar approach to that we used to investigate Basel I and study both undrawn fees and all-in-drawn spreads on commitments. The results of this investigation are reported in Table 12.

Our initial results are reported in Panel A of Table 12, which has a similar structure as Table 3. In the interest of space we suppress all of the controls other than those which are critical to ascertain the impact of Basel II on the relative pricing of credit lines with different maturities. We documented in Section 3 that there was a decline in both the undrawn fees and credit spreads of commitments up to one year relative to those of longer term commitments after the passage of Basel I. The results reported in panel A of Table 12 show exactly the opposite pattern following the passage of Basel II; $BASEL2{\times}ST$ is positive and statistically significant for all of the models on undrawn fees and all-in-drawn credit spreads. In other words, while commitments up to one year became relatively less expensive following Basel I, their relative cost went up after Basel II.

The results reported in panel A of Table 12 build on a comparison between facilities up to one year (including one year) and commitments with maturities above one year. We reestimate our pricing models after we drop from our sample commitments with maturities longer than three years in order to get a more homogeneous control group. In this case, we compare the pricing of commitments with maturities up to one year with commitments with maturities between one and three years. The results of this exercise are reported in Panel B of Table 12. Looking at the new results we see that dropping from our control group commitments with longer maturities does not affect the sign of our key variable of interest, $BASEL2{\times}ST$. Further, that variable continues to be statistically significant in all of the models (with exception of Model 1). This reduction in statistical significance was expected

given that our control group becomes more similar to our target set of commitments once we drop longer term commitments.

Another concern with the results we reported thus far is that they rely on an unbalanced sample that over weights the pre-Basel II time period. The sample period used in panels A and B of Table encompasses five years before the Basel II Accord (2000-2004), but only three years afterward (2004-2007). We did not go beyond 2007 because there is widespread evidence that the financial crisis had a profound effect on banks' corporate lending policies.[10] To address this concern, and as we did when we investigated commitments' pricing around Basel I, we restrict our sample to three years before Basel II (2002-2004) and three years afterward (2005-2007). Also, we continue to rely on our more homogenous sample, that is, we exclude commitments with maturities longer than three years. The results of this test are reported in Panel C of Table 12.

Again, narrowing the sample to a three-year period around Basel II has no material impact on our key variable of interest. $BASEL2{\times}ST$ continues to be positive in all of the models. Furthermore, that variable retains or even increases its statistical significance throughout. Looking at its magnitude we see that the relative undrawn fees and all-in-drawn credit spreads for short-term credit lines went up by about 3 and 21 bps, respectively, following Basel II.

6.1 Basel II and the pricing of 364-day facilities

The adjustment introduced with Basel II targeted commitments with maturities up to one year. However, the results we reported thus far are for commitments with maturities up to (and including) one year. It is possible, therefore, that our target sample contains commitments that were not affected by Basel II. While this biases us against finding any effect of Basel II, it would still be interesting to carry our tests on a set of commitments that have maturities at origination strictly less than one year.

As in the case of Basel I, one way to accomplish this objective is to continue to focus on information about the maturity of the credit facility and restrict the target sample to facilities that have eleven or less months to maturity. This assures us that these facilities benefited from the favorable treatment granted by Basel II. The downside of this approach is that we are

[10] See, for example, Ivashina and Sharfstein (2010), Santos (2011) and Cornett et al. (2011).

certainly leaving out from the target sample facilities that also benefited from that treatment. An alternative way to accomplish that objective is to focus on 364-day facilities. A challenge with this exercise is that 364-day facilities declined substantially after Basel II. To address this problem, following the approach we adopted while investigating 364-day facilities around Basel I, we first compare the pricing of 364-day facilities issued before Basel II with the pricing of commitments with maturities up to one year issued afterwards. Next, we go a step further and also consider only 364-day facilities issued after Basel II.

The results of these three tests are reported in Table 13. As we can see from the positive sign of the interaction term in the three panels we find that following the introduction of Basel II both undrawn fees and credit spreads of facilities with maturities strictly lower than one year went up relative to facilities with maturities up to three years. However, that increase is not always statistically different from zero. For example, $BASEL2{\times}STa$ is never statistically significant when we restrict to facilities with maturities up to eleven months (Panel A of Table 13). In contrast, we find that $BASEL2{\times}364FACa$ is generally statistically significant throughout with the exception of model 1 in Panel C. These results add important support to our previous finding that the relative cost of commitments with maturities lower than one year increase following the passage of the Basel II Accord.

Our findings on Basel II are robust to the same tests we did when we investigated Basel I, including adding a control for the credit line maturity, interacting all of our controls with $BASEL2$, and including bank-year fixed effects. They continue to hold when we exclude credit lines originated in 2004 and 2005; thus, comparing loan pricing in 2002/2003 with loan pricing in 2006/2007, and when we consider 2004 as the first year after Basel II as opposed to 2005, which was the first full year after the Accord was approved by the Basel Committee.[11]

In sum, the results in this section demonstrate that the relative cost of commitments with maturities up to one year increased following the passage of Basel II which further supports our assertion that regulatory capital is indeed costly: both to banks and by extension borrowers. The post-Basel II results, while statistically significant, do not appear to be as strong as those we unveiled after the passage of Basel I. Further, the post-Basel II effects on undrawn fees are generally smaller in magnitude (ranging from 2.4 to 3.7 bps, Panel C of Table 11) than

[11] As we noted before even though the US only implemented the Basel II in 2007 we started seeing a sharp decline in the volume of 364-day facilities staring around 2003/2004.

the post-Basel I effects (which ranged from 4.8 to 6.2 bps, Panel B of Table 4). However, these differences were expected because Basel II sought only to reduce, not eliminate, the favorable treatment that Basel I had given to short-term commitments. Further, while Basel I applied to all banks, the impact of Basel II varied depending on whether banks used a standardized approach or their internal approaches to determine the capital requirements. Last, and perhaps, most importantly, while US adopted the Basel I accord soon after its approval by the Basel Committee, it only implemented the Basel II Accord three years after its approval by the Basel Committee, at a time when there were already discussions to revise the Basel II Accord.

7 Economic significance

All of the results we reported thus far focus on the statistical effects of the Basel I Accord. However, it is also important to ascertain whether these effects are economically important. In this section, we start by using our loan pricing findings to infer the cost of bank regulatory capital. Next, we investigate the economic importance of Basel I effects by looking at their impact on borrowers' cost of funding. Finally, we investigate to what extent the pricing effects of Basel I impacted the relative amount of short-term credit lines in the economy, and discuss some of the associated implications.

7.1 Cost of bank regulatory capital

Our findings provide us with an opportunity to estimate how much banks are willing to pay to lower capital requirements and through this infer the cost of regulatory capital, which has historically been the subject of intentse debate between the banking industry and policymakers. We do so by comparing the foregone profits banks incurred as a result of lowering their spreads on short-term commitments to the capital they can avoid holding. If banks are at an interior solution (they have not exhausted their ability to create one year revolvers), then this reflects their marginal willingness to pay for lower capital requirements. If not, then the price is a lower bound on their willingness to lower capital requirements. This ratio effectively summarizes the

profits banks are willing to forego in order to avoid holding a marginal dollar of capital.[12]

Under Basel I, an undrawn 364-day facility received a risk weighting of 0 percent while longer maturity facilities received a risk weight equal to the conversion factor of 50 percent times the risk weighting of drawn commitment, 100 percent. Hence, the risk weight difference for issuing a 364 day facility is $50\% \times 100\% = 50\%$. The capital saved per dollar of risk weight reduction is the product of 50% and the actual Tier 1 ratio which is approximately 8% for active DealScan banks at this time. Putting this all together, the shift of a $1 undrawn commitment from a long-term revolver to a 364-day facility reduces the need to hold $0.04 in capital.

The cost of this reduction in capital is roughly the reduced undrawn fee of 6 basis points. Therefore, the minimum ratio of lost fees to capital savings (the implied cost of capital) is roughly 1.5%. This reflects the minimum because we have assumed the firm never draws on the commitment. In expectation the cost of this would be equal to the average drawn portion of the revolver times the all in drawn spread plus the undrawn portion times the undrawn spread. The capital savings would be reduced in proportion with the amount drawn as capital is not saved on drawn amounts. Assuming an average draw rate for 364-day facilities of 33%, the estimated cost of capital climbs to 4%. A draw rate of 50%, or roughly the 75th percentile, implies a 6.5% ratio of lost profits per dollar capital saved per annum. As the draw rate increases, the implied cost of the reduction in capital approaches infinity; however, these cases appear to be rare.

If we believe banks could have lowered priced further to incentivize even more 364-day facilities, then we can interpret this as a reflection of bankers willingness to pay to mitigate capital requirements; it suggests on the margin banks are willing to forego as much as $0.065 in profits for a $1 reduction in capital. However, if we believe banks exhausted this capital arbitrage opportunity then they will not have had to reduce fees as much as they are willing to in order to save on regulatory capital. In that case, we can say that banks are willing to forego at least $0.065 to save $1 in capital. This trade-off results in an improvement in ROE given banks at this time typically have ROEs around 15 percent.

Given the banks' own estimates of regulatory capital costs are typically in double digits, our findings appear to be low. If there are limits on the degree to which undrawn spreads can

[12]The methodology is similar in spirit to Kisin and Manela (2017). Also, see Anderson and Sallee (2011) for the original use of this logic in the context of automobile regulation

be reduced, then it may be that banks knowingly reduced all-in-drawn spreads to induce firms to accept shorter maturity revolvers. This might be particularly attractive to banks that anticipated large portions of the revolvers to remain untapped or to be unused for extended periods of time. When we consider low-capital banks these costs roughly double, consistent with the notion that capital constrained banks are willing to pay more to reduce regulatory capital.

7.2 Basel I and the cost of corporate borrowing

Another way to ascertain the economic significance of the pricing effects we have identified is to look at the benefit to the typical borrower when banks are no longer required to hold capital against their credit lines. Both undrawn fees and all-in-drawn spreads on short-term commitments decline relative to those with commitment maturities longer than one year. The decline in undrawn fees is 5 to 6 basis points or roughly 15% of undrawn fees. And the decline in all-in-drawn spreads is 15 to 25 basis points or 5-7%. Given the average size of a 364-day facility is roughly $600 million, the average undrawn facility will save a borrower approximately $400 thousand per annum and a facility fully drawn on day one will save $1.2 million for the year. The average facility is roughly one-third drawn, in which case the borrower is saving roughly $600 thousand per year.[13]

7.3 Basel I and the maturity of credit lines in the economy

Another way to ascertain the economic significance is to investigate whether the pricing effects of the Basel I Accord induced a change in the relative amount of short-term commitments. In other words, was decline in the cost of short-term commitments induced by Basel I large enough to increase their relative importance in the total amount of credit lines banks grant corporations? Table 14 reports the results of our investigation of this question.

Model 1 investigates whether the relative amount of credit lines with maturities up to one year increased in the years after Basel. Models 2 through 6 investigate whether this effect

[13]We compute the drawdown rates using data from the Shared National Program run by the Federal Deposit Insurance Corporation, the Federal Reserve Board, and the Office of the Comptroller of the Currency, which gathers confidential information on syndicated loans that exceed $20 million and are held by three or more federally supervised institutions (see Bord and Santos (2012) for further details about this program).

is more pronounced among banks with low capital (those with a capital-to-asset ratio below the first quartile of the sample distribution). Models 2 through 4 investigate the amount of credit lines with maturities up to one year and the total amount of credit lines the bank granted over the quarter. Models 5 and 6, in turn, investigate the ratio of the amount of maturity-weighted credit lines with maturities up to one year and the total amount of maturity-weighted credit lines the bank granted over the quarter. In some models (1, 2, 3 and 5) we use our original sample period around Basel I (1987 and 2003), in other models (4 and 6) we restrict the analysis to credit lines taken out between 1990 and 1995. Finally, Models 7 through 11 follow the same structure as Models 2 through 6, but focus on high-capital banks (those with a capital-to-asset ratio above the third quartile of the sample distribution).

Table 14 shows three important results. First, there is an increase in the relative importance of short-term commitments in the period after the Basel I Accord (Model 1). Second, that increase is more prevalent among banks with low capital: $BASEL1 \times LOWCAP$ is positive and significant in all of ours models (models 2 through 6). Finally, we do not find a similar effect among highly capitalized banks: $BASEL1 \times HIGHCAP$ is never positive; in fact in some specifications this interaction variable is negative and statistically significant. These results are in line with the results we unveiled in Tables 5 and 6 showing that the decline in the prices of short-term commitments was concentrated in low-capital banks. Together, they show that the favorable treatment Basel I gave short-term commitments was sufficiently important to change the maturity composition of corporate credit lines towards those with maturities lower than one year.

This shift towards short term credit lines has several implications. For banks, it makes it easier for them to monitor borrowers and to manage the liquidity risk posed by credit lines. However, it exposes borrowers to additional refinancing risk as well as additional repricing risk.

It is difficult to estimate the increase in refinancing risk that borrowers will experience when they shorten the maturity of their credit lines. However, the sensitivity of all-in-drawn spreads on one-year credit lines to the triple-B spread in the bond market is a good estimate of the additional repricing risk borrowers incur when they choose short term credit lines. Using a model similar to our Model 1 but restricting to credit lines with maturities up to one year and using firm fixed effects, we find that a one-standard deviaion increase in the triple-B spread in the bond market leads to an increase of about 14 bps in the all-in-drawn spread of triple B

rated credit lines, the equivalent of a 20% increase when computed at the mean spread for these credit lines. This arguably exposes the firm to a meaningful increase in the cost of funding.

8 Final remarks

In this paper, we exploit a discontinuity introduced by Basel I in the capital treatment of undrawn commitments with maturities up to one year. We find strong statistical evidence that regulatory capital is costly. Undrawn fees and all-in-drawn spreads of commitments with maturity less than a year decline relative to longer term commitments in the years immediately after the implementation of Basel I. Our findings are robust to a wide-array of methods and samples. The results do not appear to be driven by other facets of the Basel Accord or time-varying market conditions because our results are stronger among low-capital banks and we do not find similar evidence in placebo tests. Further, and as expected, we find the opposite effects following Basel II, which sought to reduce the favorable treatment that Basel I afforded short-term commitments.

Our results show that a lower bound is that banks are willing to pay roughly $0.07 cents for a dollar saving in capital and for capital constrained banks up to $0.14. While perhaps below what banks may suggest is the cost of capital, the change in pricing was enough for lenders to induce a significant change in the composition of credit in the marketplace. During the Basel I period there was a large shift towards shorter-term credit lines that appears solely explained by their regulatory treatment, hence it may well be that some banks were willing to pay more but that they had exhausted their opportunities to convert borrowers.

Finally, our paper has some important insights for the design of regulation. First, our evidence on banks' adjustments to credit lines' pricing confirms that discontinuous treatment of "similar" securities induces regulatory optimization. Second, our evidence on the rapid growth of 364-day facilities upon the introduction of Basel I and the equally rapid decline in these contracts after Basel II illustrates the ability of the marketplace to respond to regulatory changes. Finally, our paper shows a novel link between capital regulation and liquidity risk. By offering a differential treatment to commitments with different maturities that impact their relative cost, capital regulation can alter the maturity preferences of corporate borrowers and consequently the liquidity risk they pose to banks.

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Appendix 1: Definition of variables

FIRM CONTROLS

$AA, AA, ...C$: Credit rating of the borrower.
$ADVERTISING$: Advertising expenses over sales.
$LEVERAGE$: Debt over assets.
$LINTCOV$: Log of interest coverage truncated at 0.
$LSALES$: Log of sales of the borrower in 100 million dollars.
$MKTOBOOK$: Market to book value.
NWC : Net working capital (current assets less current liabilities) divided by total debt.
$PROF\ MARGIN$: Net income over sales.
$R\&D$: Research and development expenses over sales.
$STOCKRET$: Return on the borrower's stock over the market return.
$STOCKVOL$: Standard deviation of the borrower's stock return.
$TANGIBLES$: Share of the borrower's assets in tangibles.

LOAN CONTROLS

$ALL-IN-UNDRAWN-FEE$: Fees, incluing the commitment fee and the annual fee, that the borrower must pay its bank for funds committed under the credit line but not taken down.
$ALL-IN-DRAWN-SPREAD$: Measure of the overall cost of the loan, expressed as a spread over LIBOR, that takes into account both one-time and recurring fees associated with the loan, and which the borrower pays on the amount it draws down.
$364FAC$: Dummy variable equal to 1 if the credit line is a 364-day facility.
$364FACa$: Dummy variable equal to 1 if the credit line is a 364-day facility or it has a maturity up to (and including) one year.
$CORPURPOSES$: Dummy variable equal to 1 if the loan is for corporate purposes.
$CPBCKUP$: Dummy variable equal to 1 if the credit line is to backup a CP program.
$CREDITSPREAD$: Measure of the cost of the loan, expressed as a spread over LIBOR, that does not takes into account the fees associated with the loan, and which the borrower pays on the amount it draws down.
$DEBT\ REPAY$: Dummy variable equal to 1 if the loan is to repay existing debt.
$DIVIDEND$: Dummy variable equal to 1 if there are dividend restrictions.
$GUARANTOR$: Dummy variable equal to 1 if the borrower has a guarantor.
$LAMOUNT$: Log of loan amount in 100 million dollars.
$LMATURITY$: Log of loan maturity defined in years.
$LOAN\ SPREAD$: Loan spread over LIBOR at origination.
$LENDERS$: Number of lenders in the syndicate.
$M\&A$: Dummy variable equal to 1 if the loan is to fund M&A activity.
$RENEWAL$: Dummy variable equal to 1 if the loan is a renewal.
$SECURED$: Dummy variable equal to 1 if the loan is secured.
$SECUREDMIS$: Dummy variable equal to 1 if the information on SECURED is missing.
$SENIOR$: Dummy variable equal to 1 if the loan is senior.

$SPONSOR$: Dummy variable equal to one is the borrower has a sponsor.
ST : Dummy variable equal to 1 if the credit line has a maturity up to (including) one year.
STa : Dummy variable equal to 1 if the credit line has a maturity up to eleven months.
$ST2y$: Dummy variable equal to 1 if the credit line has a maturity between one and two years.
$WORK\ CAPITAL$: Dummy variable equal to 1 if the loan is for working capital.

BANK CONTROLS

$CAPITALbk$: Shareholders' equity capital over assets.
$CHARGE\ OFFSbk$: Net charge offs over assets.
$LASSETSbk$: Log of bank assets in 100 million dollars.
$LIQUIDITYbk$: Cash plus securities over assets.
$ROAbk$: Net income over assets.
$ROA\ VOLbk$: Standard deviation of the quarterly ROA computed over the last three years.
$SUBDEBTbk$: Subdebt over assets.

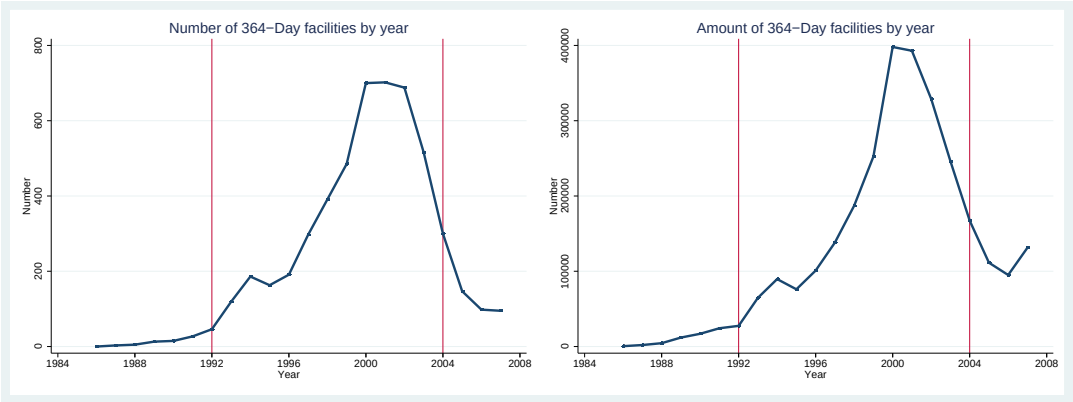
MACROECONOMIC CONTROLS

$BBBSPREAD$: Triple-B minus triple-A yield difference on new industrial rated bonds.

TIME CONTROLS

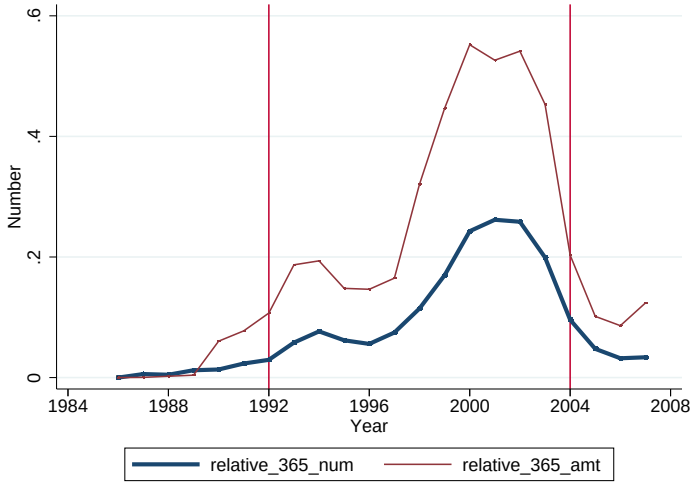
$BASEL1$: Dummy variable equal to 1 for the years after the Basel I Accord (1993-).
$BASEL2$: Dummy variable equal to 1 for the years after the Basel 2 Accord (2005-).

Figure 1: **Number and volume of 364-day facilities by year**



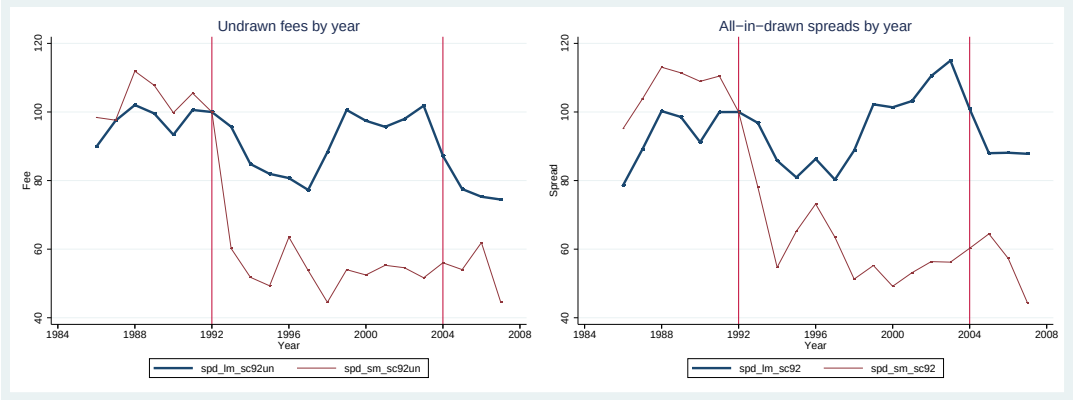
These figures plot the time series of the number and volume of 364-day facilities.

Figure 2: **Relative number and volume of 364-day facilities by year**



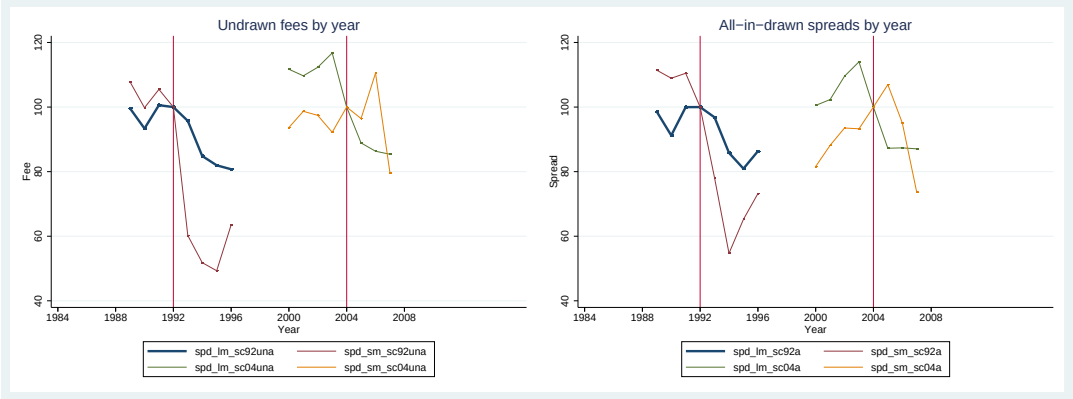
This figure plots the time series of the relative number and volume of 364-day facilities.

Figure 3: **Undrawn fees & all-in-drawn spreads around Basel I**



This figure plots the time series of the average annual all-in-drawn spreads on credit lines of different maturities around Basel I. Spreads scaled to 100 in 1991.

Figure 4: **Undrawn fees & all-in-drawn spreads around Basel I and Basel II**



These figures plot the time series of the average annual all-in-drawn and all-in-undrawwn spreads on short term credit lines around Basel I and Basel II. Spreads scaled to 100 in 1991 and to 2003.

Table 1 Sample characterization[a]

	Basel I sample				Basel II sample			
Variables	Bef	Aft	Diff	T-Stat	Bef	Aft	Diff	T-Stat
Panel A: Undrawn fees								
364FAC	31.73	13.43	-13.30	9.39***	13.707	8.787	-4.920	5.56***
ST	38.54	16.94	-21.61	21.07***	16.336	11.747	-4.590	4.36***
STa	41.78	29.58	-12.20	5.80***	29.091	20.044	-9.047	2.36**
LT	37.91	31.93	-5.98	12.71***	32.934	22.325	-10.609	22.97***
ALL	37.99	27.90	-10.09	22.68***	27.184	21.542	-5.642	13.31***
Panel B: All-in-drawn spreads								
364FAC	178.83	69.72	-109.23	9.36***	75.226	49.256	-25.971	4.80***
ST	263.34	98.91	-164.53	23.31***	96.786	71.161	-25.625	3.51***
STa	302.09	194.60	-107.48	7.47***	186.007	134.056	-51.952	1.97**
LT	179.08	165.34	-13.74	4.65***	176.488	110.669	-65.818	25.92***
ALL	189.70	147.47	-42.23	15.17***	148.877	107.747	-41.130	17.14***
Panel C: Loan controls								
LAMOUNT	3.821	4.821	1.000	26.65***	5.241	5.763	0.521	16.40***
LMATURITY	1.123	0.914	-0.210	12.24***	0.809	1.403	0.594	40.25***
SECURED	0.430	0.434	0.003	0.27	0.388	0.413	0.025	2.26**
DIVIDEND	0.003	0.506	0.503	46.44***	0.534	0.617	0.082	7.38***
GUARANTOR	0.000	0.044	0.044	9.94***	0.107	0.128	0.021	2.98***
SPONSOR	0.027	0.040	0.013	2.91***	0.030	0.052	0.023	5.27***
CORPURPOSES	0.334	0.234	-0.100	9.81***	0.271	0.462	0.191	18.20***
0 DEBTREPAY	0.194	0.294	0.100	9.46***	0.126	0.021	-0.105	16.50***
WORKCAPITAL	0.241	0.148	-0.093	10.62***	0.252	0.325	0.073	7.25***
CPBCKUP	0.018	0.134	0.116	15.48***	0.226	0.040	-0.186	23.04***
M&A	0.132	0.114	-0.018	2.29**	0.059	0.087	0.028	4.94***
LENDERS	6.314	9.080	2.766	12.58***	10.460	10.994	0.535	2.90***
Panel D: Firm controls								
LSALES	5.695	6.710	1.015	22.09***	7.380	7.742	0.362	8.97***
LEVERAGE	0.330	0.302	-0.029	6.32***	0.306	0.270	-0.036	9.09***
MKTBOOK	1.452	1.772	0.320	13.83***	1.713	1.825	0.112	5.12***
PROFMARGIN	0.015	0.011	-0.004	1.02	0.012	0.057	0.045	11.50***
NWC	2.289	3.903	1.614	4.05***	3.858	5.446	1.588	3.31***
LINTCOV	1.720	2.090	0.370	14.01***	2.110	2.432	0.322	12.86***
TANGIBLES	0.795	0.743	-0.052	6.15***	0.737	0.710	-0.027	3.42***
R&D	0.015	0.018	0.003	2.54**	0.019	0.017	-0.002	1.69*
ADVERTISING	0.014	0.010	-0.004	6.83***	0.010	0.011	0.001	1.01
STOCKRET	0.001	0.00	-0.00	3.71***	0.001	0.000	-0.000	8.48***
STOCKVOL	0.033	0.033	-.000	0.75	0.032	0.019	-0.013	34.13***
AAA	0.001	0.007	0.006	3.16***	0.010	0.013	0.003	1.09
AA	0.009	0.034	0.025	6.17***	0.038	0.020	-0.018	4.54***
A	0.073	0.149	0.076	9.42***	0.199	0.151	-0.048	5.52***
BBB	0.111	0.165	0.054	6.31***	0.235	0.258	0.023	2.39**
BB	0.099	0.104	0.004	0.59	0.109	0.172	0.063	8.32***
B	0.091	0.057	-0.034	6.00***	0.055	0.071	0.016	2.97***
CCC	0.006	0.001	-0.005	4.14***	0.001	0.003	0.002	1.82*
CC	0.004	0.002	-0.002	2.54**	0.001	0.000	-0.000	0.42

[a] Continues on the next page.

Table 1 Continued[a]

	Basel I sample				Basel II sample			
Variables	Bef	Aft	Diff	T-Stat	Bef	Aft	Diff	T-Stat
Panel E: Bank controls								
LASSETSbk	3.468	5.215	1.747	50.22***	5.951	6.649	0.699	26.94***
SUBDEBTbk	0.010	0.023	0.013	66.40***	0.024	0.021	-0.003	13.55***
ROAbk	0.001	0.003	0.002	36.77***	0.003	0.003	0.000	10.01***
CHARGEOFFSbk	0.002	0.001	-0.001	47.80***	0.001	0.001	-0.000	30.37***
LIQUIDITYbk	0.230	0.198	-0.032	20.72***	0.191	0.161	-0.031	21.71***
CAPITALbk	0.058	0.073	0.015	43.29***	0.074	0.082	0.008	20.94***
ROAVOLbk	0.003	0.001	-0.002	69.45***	0.001	0.001	-0.001	32.20***
Panel F: Market controls								
BBBSPREAD	1.044	0.994	-0.050	4.09***	1.369	.752	-.617	68.09***
Observations	2,133	10,452			5,577	3,015		

[a] This table characterizes the samples we use in our investigation of credit lines' undrawn fees and all-in-drawn spreads around Basel I (left panel) and Basel II (right panel), respectively. The sample period used in the left panel is 1987-2004, with 1993 being the first year after Basel I. The sample period used in the right panel is 2000-2007, with 2005 being the first year after Basel II. See Appendix 1 for the definitions of all the variables reported in the table.

Table 2 Transition matrices of loan maturities[a]

Panel A: Transition matrix around Basel I										
Maturity	Maturity after Basel I									
before	1	2	3	4	5	6	7	8	9	10
1	25.7	16.3	21.6	8.9	13.9	4.6	1.5	0.4	0.2	6.8
2	17.4	17.6	25.7	8.9	13.4	5.7	2.1	0.9	0.0	8.5
3	19.1	11.4	24.0	10.2	19.6	5.2	3.1	0.4	0.0	7.0
4	15.7	10.3	19.0	13.0	24.1	5.7	3.3	0.5	0.3	8.1
5	16.0	10.0	17.3	7.9	24.6	8.9	5.2	1.4	0.4	8.5
6	15.4	7.0	18.7	12.1	22.4	8.2	5.7	2.4	0.0	8.2
7	17.0	7.7	16.2	8.8	21.9	8.0	9.8	2.3	0.5	7.7
8	11.2	5.9	14.4	6.4	22.5	15.5	4.8	5.9	3.7	9.6
9	17.7	3.2	11.3	9.7	21.0	6.5	6.5	6.5	11.3	6.5
10	21.6	4.2	13.5	8.4	17.7	6.7	9.2	4.2	6.7	7.6
All	18.0	11.2	20.3	9.6	19.7	6.9	4.3	1.5	0.7	7.8
Panel B: Transition matrix around Basel II										
Maturity	Maturity after Basel II									
before	1	2	3	4	5	6	7	8	9	10
1	25.8	7.8	11.6	4.5	45.6	3.6	0.7	0.0	0.0	0.5
2	9.8	12.1	20.9	12.1	38.1	4.2	0.5	0.5	0.0	1.9
3	6.3	6.3	19.1	10.1	50.8	5.7	0.6	0.0	0.0	1.2
4	3.7	6.2	11.6	15.1	51.7	8.7	0.7	0.0	0.0	2.2
5	4.2	1.9	5.9	9.6	60.4	14.2	1.8	0.1	0.0	1.8
6	2.4	0.6	4.7	10.1	39.1	33.7	5.9	1.2	0.0	2.4
7	2.1	2.1	6.4	2.1	27.7	27.7	27.7	2.1	0.0	2.1
8	0.0	0.0	4.2	8.3	37.5	20.8	20.8	4.2	0.0	4.2
9	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0
10	1.0	3.1	8.3	13.4	46.4	23.7	2.1	0.0	0.0	2.1
All	7.3	4.7	11.4	9.9	51.9	11.1	1.9	0.2	0.0	1.6

[a] This table reports the transition matrices for borrowers that took out credit lines before and after Basel I (top panel), and borrowers that took out credit lines before and after Basel II (bottom panel). The sample period used in the top panel is 1987-2004, with 1993 being the first year after Basel I. The sample period used in the bottom panel is 2000-2007, with 2005 being the first year after Basel II. In each panel we keep all of the credit lines taken out after the Basel Accord and compare their maturities with the borrower's last credit line before the Accord. Rows should add to 100, except for rounding errors.

Table 3 Undrawn fees and all-in-drawn spreads around Basel I[a]

Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	-2.42***	-3.75***	-3.20***	19.55***	12.38***	-0.55
	(-4.02)	(-4.91)	(-3.88)	(6.23)	(3.16)	(-0.12)
ST	-1.67	-2.85**	-1.98	36.27***	37.71***	37.07***
	(-1.51)	(-2.17)	(-1.52)	(6.62)	(5.65)	(5.26)
BASEL1×ST	-4.10***	-2.41*	-3.18**	-48.04***	-41.81***	-43.93***
	(-3.54)	(-1.77)	(-2.37)	(-8.37)	(-6.00)	(-6.01)
Panel A: Loan controls						
LAMOUNT	-1.91***	-1.15***	-1.25***	-28.28***	-18.09***	-17.11***
	(-13.08)	(-5.15)	(-5.58)	(-43.85)	(-17.25)	(-16.28)
RENEWAL	1.68	3.24**	2.61*	-8.56	2.93	5.81
	(1.50)	(2.29)	(1.85)	(-1.51)	(0.42)	(0.83)
SECURED	11.73***	8.83***	8.80***	85.59***	64.85***	61.66***
	(30.80)	(19.05)	(18.73)	(42.63)	(26.34)	(25.19)
SECUREDMIS	4.51***	2.55***	2.27***	26.50***	10.49***	9.91***
	(14.39)	(7.70)	(6.91)	(15.52)	(5.90)	(5.73)
DIVIDEND	1.10***	1.44***	1.56***	-5.52***	-0.36	-0.96
	(3.36)	(3.76)	(4.04)	(-3.32)	(-0.18)	(-0.48)
GUARANTOR	1.07	0.73	0.68	6.01	10.08**	8.85**
	(1.19)	(0.81)	(0.75)	(1.51)	(2.29)	(2.02)
SPONSOR	7.61***	5.85***	5.45***	41.35***	29.06***	25.75***
	(14.11)	(6.15)	(5.61)	(17.27)	(5.86)	(5.18)
CORPURPOSES	-5.18***	-3.02***	-2.94***	-19.60***	-9.40***	-10.83***
	(-10.10)	(-4.58)	(-4.47)	(-8.25)	(-2.75)	(-3.09)
DEBTREPAY	-4.47***	-3.52***	-3.38***	-19.15***	-12.95***	-14.78***
	(-9.16)	(-5.60)	(-5.39)	(-7.88)	(-3.86)	(-4.33)
WORKCAPITAL	-4.84***	-2.30***	-2.12***	-23.12***	-9.94***	-11.17***
	(-8.64)	(-3.25)	(-2.99)	(-8.49)	(-2.63)	(-2.88)
CPBCKUP	-9.60***	-6.02***	-5.94***	-45.14***	-27.37***	-30.74***
	(-15.86)	(-8.26)	(-8.08)	(-14.81)	(-7.43)	(-8.10)
M&A	-0.72	1.87***	1.77**	-1.05	13.33***	12.16***
	(-1.33)	(2.59)	(2.46)	(-0.39)	(3.48)	(3.15)
LENDERS	0.03*	0.04*	0.04*	0.39***	0.53***	0.48***
	(1.89)	(1.91)	(1.87)	(3.90)	(4.23)	(3.80)
Panel B: Firm controls						
LSALES		-0.08	-0.11		-4.46***	-4.47***
		(-0.40)	(-0.58)		(-4.51)	(-4.52)
LEVERAGE		4.23***	4.12***		40.14***	38.68***
		(3.55)	(3.50)		(6.12)	(5.92)
MKTBOOK		-0.66***	-0.71***		-5.93***	-6.38***
		(-3.10)	(-3.36)		(-6.15)	(-6.52)
PROFMARGIN		-5.45***	-5.76***		-0.32	2.24
		(-3.65)	(-3.81)		(-0.05)	(0.37)
NWC		0.02*	0.02		0.08*	0.06
		(1.71)	(1.57)		(1.75)	(1.34)
LINTCOV		-1.45***	-1.35***		-10.30***	-10.43***
		(-6.54)	(-6.22)		(-9.01)	(-9.12)
TANGIBLES		-0.57	-0.52		-8.55***	-8.20***
		(-1.03)	(-0.95)		(-2.87)	(-2.78)
R&D		-15.55***	-13.35***		-52.82**	-89.62***
		(-3.34)	(-2.81)		(-2.32)	(-3.83)
ADVERTISING		4.15	1.61		62.18*	56.14
		(0.60)	(0.23)		(1.80)	(1.63)
STOCKRET		-277.45***	-304.81***		-3782.65***	-3630.09***
		(-3.01)	(-3.35)		(-8.89)	(-8.51)

[a] Continues on the next page.

Table 3 Continued[a]

Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
STOCKVOL		168.12***	169.63***		1784.13***	1722.62***
		(11.59)	(11.63)		(25.46)	(24.32)
AAA	-14.74***	-7.53***	-7.93***	-55.81***	5.75	3.52
	(-13.26)	(-6.87)	(-7.09)	(-7.89)	(0.90)	(0.55)
AA	-13.51***	-10.53***	-10.46***	-57.45***	-20.19***	-21.72***
	(-20.48)	(-11.84)	(-11.59)	(-12.88)	(-4.11)	(-4.42)
A	-10.88***	-9.28***	-9.33***	-49.38***	-23.51***	-25.19***
	(-20.09)	(-13.31)	(-13.13)	(-16.22)	(-6.81)	(-7.21)
BBB	-4.83***	-4.52***	-4.66***	-24.05***	-9.70***	-11.68***
	(-9.05)	(-7.18)	(-7.36)	(-8.11)	(-2.90)	(-3.57)
BB	4.12***	3.74***	3.49***	7.31**	8.13**	7.22**
	(8.15)	(6.67)	(6.14)	(2.16)	(2.18)	(1.99)
B	7.62***	5.74***	5.53***	35.61***	16.63***	15.43***
	(10.65)	(6.45)	(6.23)	(9.61)	(3.67)	(3.42)
CCC	13.79***	4.21	4.31	84.07***	58.02**	44.57**
	(4.22)	(1.50)	(1.50)	(5.16)	(2.54)	(1.99)
CC	12.82***	5.61	4.95	93.94***	30.44	30.60
	(4.22)	(1.42)	(1.22)	(5.87)	(1.34)	(1.38)
Panel C: Bank controls						
LASSETSbk	0.43***	0.32**	0.42	-0.69	-0.45	4.89**
	(3.74)	(2.37)	(0.97)	(-1.21)	(-0.65)	(2.15)
SUBDEBTbk	-62.95***	-53.04***	-63.85**	-508.71***	-478.78***	-34.33
	(-3.59)	(-2.68)	(-2.30)	(-5.98)	(-4.84)	(-0.23)
ROAbk	-87.76	-148.20	-130.85	77.35	-262.20	-32.54
	(-0.93)	(-1.37)	(-1.13)	(0.18)	(-0.48)	(-0.05)
CHARGEOFFSbk	497.67***	383.01**	47.08	2344.83***	1988.28**	323.84
	(3.50)	(2.21)	(0.25)	(3.07)	(2.11)	(0.30)
LIQUIDITYbk	-5.99***	-3.66	10.91***	-20.43*	1.08	20.72
	(-2.72)	(-1.34)	(2.92)	(-1.93)	(0.08)	(1.07)
CAPITALbk	-43.18***	-34.42**	-5.19	-60.85	-86.48	-88.60
	(-4.13)	(-2.57)	(-0.29)	(-1.26)	(-1.27)	(-0.91)
ROAVOLbk	399.76***	241.09*	106.22	2045.43***	1966.65***	722.49
	(3.80)	(1.70)	(0.71)	(3.76)	(2.71)	(0.91)
Panel D: Market controls						
BBBSPREAD	4.29***	2.75***	3.36***	35.65***	24.68***	20.80***
	(13.67)	(7.36)	(7.65)	(23.76)	(12.83)	(9.20)
constant	39.35***	31.84***	26.71***	240.55***	188.49***	167.82***
	(32.13)	(11.91)	(7.99)	(39.57)	(12.45)	(8.83)
Observations	22048	12585	12585	29011	14889	14889
R-squared	0.401	0.491	0.516	0.487	0.608	0.630

[a] The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. See Appendix 1 for the definition of all the variables. All models also include a set of dummy variables to account for the borrower sector of activity. Models estimated on a sample of credit lines taken out between 1987 and 2003. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 4 Basel I: Tightening the Basel I test[a]

Panel A: Restricting to more homogeneous control group						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	-2.43***	-3.16***	-1.74	3.69	1.51	-2.92
	(-2.71)	(-2.84)	(-1.45)	(0.83)	(0.28)	(-0.48)
ST	-1.10	-2.05	-1.23	21.68***	23.76***	24.26***
	(-0.94)	(-1.44)	(-0.87)	(3.70)	(3.27)	(3.24)
BASEL1×ST	-4.86***	-4.39***	-5.16***	-32.36***	-29.39***	-33.28***
	(-3.84)	(-2.87)	(-3.40)	(-5.12)	(-3.69)	(-4.08)
constant	41.06***	30.13***	28.48***	264.44***	204.23***	204.96***
	(23.52)	(8.45)	(6.12)	(31.41)	(11.70)	(9.16)
Observations	12052	7250	7250	15623	8722	8722
R-squared	0.382	0.470	0.502	0.510	0.620	0.646
Panel B: Further restricting to shorter and balanced sample period around Basel I						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	0.62	1.72	2.25	-4.65	-2.57	-5.13
	(0.43)	(1.02)	(1.30)	(-0.65)	(-0.30)	(-0.52)
ST	-1.30	-1.61	-0.22	16.75***	19.27***	16.85**
	(-0.93)	(-0.94)	(-0.13)	(2.58)	(2.59)	(2.06)
BASEL1×ST	-4.80***	-4.71**	-6.16***	-18.67**	-18.15**	-17.59*
	(-2.96)	(-2.39)	(-3.14)	(-2.43)	(-2.04)	(-1.86)
constant	35.50***	33.63***	59.83***	306.19***	202.86***	228.72**
	(7.02)	(5.00)	(4.68)	(13.67)	(2.97)	(2.32)
Observations	2893	1739	1739	3838	2156	2156
R-squared	0.298	0.383	0.479	0.503	0.611	0.655

[a] Panel A reports the results when we restrict the sample to credit lines with maturities up to three years. Panel B reports the results when we restrict the sample to credit lines with matures up to three years and limit the sample period to three years before Basel I (1990-92) and three years afterwards (1993-95). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 5 Changes in credit line pricing around Basel I by banks with low capital[a]

Panel A: All Credit lines						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	-0.81	-6.83	-7.65	-18.66	-75.43	-92.37
	(-0.16)	(-0.84)	(-0.81)	(-0.59)	(-1.51)	(-1.61)
ST	-1.77	-2.61	-1.32	28.75***	21.18***	18.65**
	(-1.34)	(-1.38)	(-0.73)	(4.40)	(2.98)	(2.46)
LOWCAP	-3.02	-5.04	-3.19	50.30**	2.95	-45.61
	(-0.97)	(-0.69)	(-0.41)	(1.97)	(0.07)	(-1.16)
BASEL1×ST	-3.92***	-2.27	-3.45*	-42.37***	-25.60***	-25.13***
	(-2.78)	(-1.18)	(-1.88)	(-6.25)	(-3.43)	(-3.16)
BASEL1×LOWCAP	-1.74	-3.88*	-2.43	-0.88	0.38	-10.85
	(-0.88)	(-1.67)	(-1.03)	(-0.10)	(0.04)	(-0.95)
LOWCAP×ST	1.62	0.60	-0.48	10.62	16.76	18.70
	(0.75)	(0.26)	(-0.21)	(1.11)	(1.33)	(1.41)
BASEL1×LOWCAP×ST	-2.47	-2.16	-0.98	-14.56	-27.16**	-29.13**
	(-1.15)	(-0.89)	(-0.41)	(-1.45)	(-2.10)	(-2.18)
constant	38.74***	37.00***	31.01***	258.15***	270.36***	267.90***
	(7.81)	(4.86)	(3.04)	(7.87)	(5.58)	(4.61)
Observations	22048	12585	12585	29011	14889	14889
R-squared	0.408	0.503	0.526	0.498	0.623	0.643
Panel B: Sample restricted to credit lines with maturities up to three years						
BASEL1	-4.08	-5.90	-7.17	-45.23	-40.36	-65.36
	(-0.55)	(-0.53)	(-0.49)	(-1.09)	(-0.60)	(-0.75)
ST	-1.89	-2.94	-1.84	15.51**	11.74	7.59
	(-1.40)	(-1.51)	(-1.03)	(2.20)	(1.35)	(0.83)
LOWCAP	-0.57	-14.25*	-11.99	66.26**	-51.15	-105.31
	(-0.11)	(-1.96)	(-1.26)	(2.26)	(-1.08)	(-1.53)
BASEL1×ST	-3.79**	-2.76	-3.83**	-26.87***	-16.86*	-15.58
	(-2.54)	(-1.36)	(-2.02)	(-3.51)	(-1.80)	(-1.62)
BASEL1×LOWCAP	-3.49	-3.24	-2.13	-1.97	4.81	-12.88
	(-1.38)	(-1.08)	(-0.69)	(-0.17)	(0.39)	(-0.87)
LOWCAP×ST	1.58	1.68	0.94	5.77	14.08	18.58
	(0.71)	(0.69)	(0.41)	(0.54)	(1.02)	(1.26)
BASEL1×LOWCAP×ST	-4.28*	-6.14**	-4.89*	-19.93*	-35.09**	-40.45***
	(-1.85)	(-2.09)	(-1.77)	(-1.74)	(-2.38)	(-2.64)
constant	42.74***	36.83***	35.66**	291.09***	264.37***	289.55***
	(5.68)	(3.22)	(2.19)	(6.92)	(3.95)	(3.24)
Observations	12052	7250	7250	15623	8722	8722
R-squared	0.390	0.483	0.515	0.522	0.636	0.660

[a] Panel A reports the results when we use the entire sample of credit lines. Panel B reports the results when we restrict the sample to credit lines with maturities up to three years. $LOWCAP$ is a dummy variable for banks with an equity to assets ratio below the first quartile of the sample ratio (6.1%). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3 as well as the interactions of these controls with $LOWCAP$, $BASEL1$, and $BASEL1{\times}LOWCAP$, respectively. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 6 Changes in credit line pricing around Basel I by banks with high capital[a]

	1	2	3	4	5	6
Panel A: All Credit lines						
BASEL1	-8.44	-14.60*	-20.10**	-29.35	-93.20*	-137.16**
	(-1.62)	(-1.84)	(-2.11)	(-0.92)	(-1.83)	(-2.44)
ST	-0.92	-2.54**	-2.22*	36.68***	33.58***	30.49***
	(-0.84)	(-2.05)	(-1.77)	(6.78)	(4.36)	(3.58)
HIGHCAP	6.36	11.40*	16.02**	-55.90**	10.86	80.63**
	(1.52)	(1.68)	(2.32)	(-2.19)	(0.32)	(2.18)
BASEL1×ST	-5.22***	-3.42**	-3.56***	-51.16***	-42.00***	-41.30***
	(-4.63)	(-2.56)	(-2.62)	(-8.88)	(-5.04)	(-4.61)
BASEL1×HIGHCAP	-3.81	-5.91*	-4.72	-27.94**	-46.08***	-34.06**
	(-1.43)	(-1.90)	(-1.52)	(-2.06)	(-3.09)	(-2.07)
HIGHCAP×ST	1.04	6.28	11.37*	-14.11	-23.38	-8.17
	(0.24)	(1.10)	(1.92)	(-1.03)	(-1.23)	(-0.38)
BASEL1×HIGHCAP×ST	-0.01	-3.51	-8.62	14.33	30.74	17.91
	(-0.00)	(-0.62)	(-1.46)	(0.94)	(1.51)	(0.78)
constant	43.34***	39.81***	37.14***	309.54***	300.06***	274.45***
	(9.76)	(6.49)	(4.60)	(11.10)	(5.94)	(4.77)
Observations	22048	12585	12585	29011	14889	14889
R-squared	0.408	0.505	0.528	0.498	0.625	0.645
Panel B: Sample restricted to credit lines with maturities up to three years						
BASEL1	-11.82	-5.80	-16.02	-46.06	-45.72	-71.21
	(-1.60)	(-0.49)	(-1.11)	(-1.11)	(-0.65)	(-0.87)
ST	-1.02	-2.20*	-1.62	19.45***	21.46***	19.13**
	(-0.98)	(-1.66)	(-1.26)	(3.64)	(2.80)	(2.24)
HIGHCAP	7.73*	8.98	16.21*	-81.45***	4.44	75.52
	(1.68)	(1.09)	(1.94)	(-2.95)	(0.11)	(1.64)
BASEL1×ST	-5.70***	-5.41***	-5.89***	-34.22***	-32.75***	-34.40***
	(-4.35)	(-3.49)	(-3.81)	(-5.51)	(-3.70)	(-3.59)
BASEL1×HIGHCAP	-5.02	-5.98	-4.32	-16.78	-47.87**	-30.54
	(-1.60)	(-1.37)	(-0.88)	(-1.09)	(-2.43)	(-1.47)
HIGHCAP×ST	1.01	5.57	9.03	-3.11	-19.01	-14.33
	(0.25)	(0.88)	(1.42)	(-0.23)	(-0.91)	(-0.67)
BASEL1×HIGHCAP×ST	1.33	-1.27	-4.91	6.57	30.06	29.15
	(0.31)	(-0.20)	(-0.77)	(0.42)	(1.35)	(1.30)
constant	48.28***	32.08***	36.70***	341.09***	267.49***	245.17***
	(7.05)	(3.03)	(2.84)	(8.63)	(3.79)	(3.07)
Observations	12052	7250	7250	15623	8722	8722
R-squared	0.391	0.487	0.519	0.522	0.637	0.661

[a] Panel A reports the results when we use the entire sample of credit lines. Panel B reports the results when we restrict the sample to credit lines with maturities up to three years. $HIGHCAP$ is a dummy variable for banks with an equity to assets ratio above the third quartile of the sample ratio (8.0%). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3 as well as the interactions of these controls with $HIGHCAP$, $BASEL1$, and $BASEL1 \times HIGHCAP$, respectively. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 7 Undrawn fees and all-in-drawn spreads on 364-day facilities around Basel I[a]

Panel A: Restricting to loans with maturities up to eleven months						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	0.51	1.69	1.85	-5.65	-5.07	-6.36
	(0.33)	(0.93)	(0.99)	(-0.73)	(-0.54)	(-0.58)
ST	0.81	1.07	2.47	24.64***	39.16***	38.75***
	(0.39)	(0.43)	(0.97)	(2.98)	(4.14)	(3.63)
BASEL1×ST	-5.87**	-6.99**	-8.51***	-23.86**	-31.13**	-31.88**
	(-2.25)	(-2.20)	(-2.64)	(-2.33)	(-2.39)	(-2.21)
constant	34.58***	29.75***	52.88***	297.87***	246.11***	271.20***
	(6.04)	(3.95)	(3.89)	(11.83)	(4.13)	(2.94)
Observations	2401	1434	1434	3125	1750	1750
R-squared	0.211	0.292	0.403	0.444	0.565	0.617
Panel B: Combined sample before Basel I & 364-day facilities afterwards						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	0.32	1.45	1.78	-5.21	-0.94	-2.46
	(0.22)	(0.87)	(1.03)	(-0.70)	(-0.11)	(-0.25)
364FACa	-1.27	-1.61	-0.15	17.72***	20.44***	17.18**
	(-0.90)	(-0.94)	(-0.09)	(2.71)	(2.73)	(2.08)
BASEL1×364FACa	-6.88***	-6.71***	-8.34***	-31.15***	-27.30***	-26.23***
	(-4.15)	(-3.46)	(-4.31)	(-3.59)	(-2.87)	(-2.67)
constant	35.97***	34.02***	57.53***	294.15***	197.18***	224.73**
	(6.97)	(4.88)	(4.42)	(12.21)	(2.83)	(2.21)
Observations	2738	1652	1652	3438	1968	1968
R-squared	0.306	0.396	0.488	0.502	0.619	0.664
Panel C: 364-day facilities before and after Basel I						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	-0.52	0.60	2.03	-13.13*	-18.89**	-15.32
	(-0.39)	(0.37)	(1.14)	(-1.68)	(-2.01)	(-1.45)
364FAC	-3.75	-2.60	-3.02	-18.67	-4.03	-5.98
	(-1.35)	(-0.97)	(-1.36)	(-1.61)	(-0.34)	(-0.48)
BASEL1×364FAC	-4.71*	-5.85**	-5.56**	4.44	-0.13	-2.70
	(-1.68)	(-2.11)	(-2.30)	(0.35)	(-0.01)	(-0.20)
constant	40.21***	39.86***	61.17***	312.51***	258.13***	281.67***
	(8.78)	(6.34)	(5.00)	(12.41)	(5.46)	(3.73)
Observations	2710	1646	1646	3265	1883	1883
R-squared	0.305	0.397	0.492	0.476	0.586	0.650

[a] Panel A reports the results on models estimated on credit lines with maturities up to eleven months. Panel B reports the results on models estimated on credit lines with maturities up to (an including) one year Before Basel I and credit lines identified as 364-day facilities after Basel I. Panel C reports the results on models estimated on credit lines identified as 364-day facilities. All models estimated on the sample of credit lines taken out three years before Basel I (1990-92) and three years afterwards (1993-95). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 8 Basel I: Placebo tests[a]

Panel A: Using credit lines						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1	-0.81	1.03	0.26	-4.43	-2.12	-3.22
	(-0.57)	(0.64)	(0.16)	(-0.56)	(-0.23)	(-0.32)
ST2y	0.81	1.19	0.54	30.67***	22.17***	25.51***
	(0.61)	(0.78)	(0.41)	(4.04)	(2.70)	(2.94)
BASEL1×ST2y	-0.01	0.01	2.08	-7.58	-3.44	-5.47
	(-0.00)	(0.01)	(0.97)	(-0.82)	(-0.32)	(-0.51)
constant	36.17***	31.17***	45.78***	266.14***	212.70***	220.04**
	(7.55)	(4.38)	(3.71)	(11.19)	(4.12)	(2.49)
Observations	2640	1568	1447	3158	1787	1787
R-squared	0.202	0.286	0.413	0.432	0.557	0.613
Panel B: Using term loans						
Variables				All-in-drawn spreads		
	1	2	3	4	5	6
BASEL1				-38.22*	-60.41*	-76.80*
				(-1.84)	(-1.84)	(-1.88)
STtl				-6.45	-20.19	3.60
				(-0.44)	(-0.98)	(0.13)
BASEL1×STtl				12.16	16.73	6.21
				(0.53)	(0.50)	(0.16)
constant				453.73***	730.79***	22.60
				(6.68)	(4.15)	(0.07)
Observations				478	240	240
R-squared				0.420	0.555	0.751

[a] Panel A reports the results on the sample of credit lines with maturities above one year and up to (and including) four years. Panel B reports the results on the sample of term loans with maturities up (and including) three years. All models estimated on the sample of loans taken out three years before Basel I (1990-92) and three years afterwards (1993-95). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 9 Basel I: Interacting all controls with $BASEL1$[a]

Panel A: Base results with narrow sample period and control group						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
ST	-1.55	-1.90	-0.60	16.81**	18.06**	13.89
	(-1.12)	(-1.07)	(-0.36)	(2.55)	(2.25)	(1.64)
BASEL1×ST	-4.81***	-4.59**	-5.80***	-23.87***	-19.19**	-16.71*
	(-2.91)	(-2.19)	(-2.87)	(-2.95)	(-1.96)	(-1.67)
constant	41.17***	10.59	47.37***	353.41***	-116.05*	-180.72*
	(4.49)	(0.74)	(2.73)	(9.28)	(-1.80)	(-1.79)
Observations	2893	1739	1739	3838	2156	2156
R-squared	0.307	0.400	0.493	0.511	0.626	0.672
Panel B: Restricting to loans with maturities up to eleven months						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
ST	0.47	0.54	1.84	25.20***	35.84***	33.04***
	(0.23)	(0.22)	(0.76)	(3.08)	(3.57)	(3.03)
BASEL1×ST	-5.14**	-6.13*	-7.72**	-27.24**	-27.34*	-23.79
	(-2.00)	(-1.96)	(-2.46)	(-2.52)	(-1.92)	(-1.60)
constant	36.48***	35.52***	51.24***	338.23***	262.69***	284.42***
	(3.74)	(3.75)	(3.05)	(8.07)	(3.78)	(2.61)
Observations	2401	1434	1434	3125	1750	1750
R-squared	0.222	0.315	0.421	0.454	0.582	0.636
Panel C: Combined sample before Basel I & 365-day facilities afterwards						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
364FACa	-1.55	-1.90	-0.59	16.81**	18.06**	13.79
	(-1.11)	(-1.07)	(-0.35)	(2.54)	(2.25)	(1.61)
BASEL1×364FACa	-7.91***	-7.20***	-8.39***	-43.61***	-35.01***	-32.90***
	(-4.60)	(-3.47)	(-4.15)	(-4.88)	(-3.48)	(-3.19)
constant	41.17***	16.33	50.97***	353.41***	-116.04*	-197.75*
	(4.49)	(1.19)	(3.06)	(9.27)	(-1.80)	(-1.92)
Observations	2738	1652	1652	3438	1968	1968
R-squared	0.316	0.413	0.503	0.512	0.635	0.681
Panel D: 365-day facilities before and after Basel I						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
364FAC	-2.55	-1.27	-1.98	-14.06	1.11	-2.92
	(-0.86)	(-0.45)	(-0.84)	(-1.20)	(0.08)	(-0.21)
BASEL1×364FAC	-6.90**	-7.83***	-6.95***	-12.74	-18.06	-16.64
	(-2.24)	(-2.61)	(-2.66)	(-0.98)	(-1.25)	(-1.07)
constant	47.59***	32.98***	58.41***	376.58***	221.81***	214.46**
	(6.52)	(3.22)	(3.90)	(9.39)	(3.38)	(2.46)
Observations	2710	1646	1646	3265	1883	1883
R-squared	0.317	0.417	0.507	0.488	0.605	0.665

[a] Panel A repeats the analysis reported in Panel B of Table 4 after we interact all of the controls with $BASEL1$. Panels B, C and D repeat the analysis reported in Table 5 after we interact all of the controls with $BASEL1$. All models estimated on the sample of credit lines taken out three years before Basel I (1990-92) and three years afterwards (1993-95). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 10 Basel I: Controlling for bank-year fixed effects[a]

Panel A: Models without firm controls								
Variables	Undrawn fees				All-in-drawn spreads			
	1	2	3	4	5	6	7	8
ST	-0.54	2.39			12.58*	26.11**		
	(-0.35)	(1.06)			(1.65)	(2.54)		
BASEL1×ST	-5.92***	-7.47**			-18.58**	-28.20**		
	(-3.35)	(-2.55)			(-2.08)	(-2.21)		
364FACa			-0.56				12.98*	
			(-0.36)				(1.69)	
BASEL1×364FAC			-8.25***				-29.84***	
			(-4.46)				(-3.04)	
364FAC				-3.97				-31.74**
				(-1.31)				(-2.54)
BASEL1×364FAC				-5.06				13.00
				(-1.60)				(0.93)
constant	105.50***	75.31**	94.02***	83.06**	304.18**	25.11	259.40*	147.07
	(3.29)	(2.16)	(2.89)	(2.46)	(2.02)	(0.15)	(1.67)	(0.82)
Observations	2893	2401	2738	2710	3838	3125	3438	3265
R-squared	0.467	0.410	0.479	0.479	0.603	0.566	0.604	0.610
Panel B: Models with firm controls								
Variables	Undrawn fees				All-in-drawn spreads			
	1	2	3	4	5	6	7	8
ST	0.09	3.43			8.96	31.43**		
	(0.05)	(1.16)			(0.97)	(2.45)		
BASEL1×ST	-6.78***	-9.98***			-12.94	-28.27		
	(-3.21)	(-2.72)			(-1.18)	(-1.62)		
364FACa			-0.02				8.92	
			(-0.01)				(0.96)	
BASEL1×364FACa			-8.61***				-20.77*	
			(-3.95)				(-1.81)	
364FAC				-3.83				-18.82
				(-1.45)				(-1.31)
BASEL1×364FAC				-5.15*				6.70
				(-1.78)				(0.43)
constant	77.00**	44.63	68.41*	55.12	192.37	4.04	171.77	259.78
	(2.04)	(1.10)	(1.78)	(1.44)	(0.99)	(0.02)	(0.86)	(1.29)
Observations	1739	1434	1652	1646	2156	1750	1968	1883
R-squared	0.574	0.522	0.584	0.600	0.713	0.691	0.726	0.734

[a] Panel A estimated on models which include all loan- and bank-specific controls reported in Table 3 as well as dummy variables for the borrower's sector of activity. Panel B adds the firm-specific controls reported in Table 3. All models estimated on the sample of credit lines taken out three years before Basel I (1990-92) and three years afterwards (1993-95). The dependent variable in models 1 through 4 is the undrawn fee on the credit line. The dependent variable in models 5 through 8 is the all-in-drawn-spread on the credit line. Models 1 and 5 repeat the analysis in Panel B of Table 6. Models 2 and 6 repeat the analysis in Panel A of Table 7. Models 3 and 7 repeat the analysis in Panel B of Table 7. Models 4 and 8 repeat the analysis in Panel C of Table 7. All models estimated with bank-year effects. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 11 Undrawn fees, all-in-drawn spreads, and credit spreads around Basel I[a]

Variables	Undrawn fees		All-in-drawn spreads		Credit Spreads	
	1	2	3	4	5	6
BASEL1	-4.52**	-3.27	-14.09	-26.40**	-2.10	-17.97*
	(-2.04)	(-1.35)	(-1.39)	(-2.17)	(-0.25)	(-1.68)
ST	3.10	3.95	43.32**	37.26*	22.59	17.05
	(0.64)	(0.89)	(2.19)	(1.85)	(1.24)	(0.91)
BASEL1×ST	-8.26*	-7.72*	-49.96**	-40.95*	-23.63	-16.50
	(-1.66)	(-1.66)	(-2.38)	(-1.91)	(-1.25)	(-0.85)
constant	52.88***	68.71***	344.78***	424.26***	209.06***	272.58***
	(11.70)	(7.90)	(13.21)	(10.42)	(10.34)	(7.53)
Observations	2016	2016	2062	2062	2062	2062
R-squared	0.410	0.491	0.579	0.651	0.478	0.553

[a] Models estimated on a sample of credit lines taken out between 1987 and 2003, and for which we have information on the credit spread on the credit line. The dependent variable in models 1 and 2 is the undrawn fee on the credit line. The dependent variable in models 3 and 4 is the all-in-drawn-spread on the credit line. The dependent variable in models 5 and 6 is the credit spread on the credit line. Models 1, 3 and 5 report results of a pooled analysis. Models 2, 4 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3, except for the set of firm controls, which we leave out from this analysis because of the sample size. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 12 Undrawn fees and all-in-drawn spreads around Basel II[a]

Panel A: Baseline results						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL2	-6.35***	-5.30***	-5.21***	-33.00***	-18.00***	-28.34***
	(-15.41)	(-10.08)	(-8.42)	(-17.07)	(-7.53)	(-9.44)
ST	-5.77***	-5.51***	-5.54***	-19.94***	-15.69***	-16.29***
	(-13.10)	(-12.24)	(-12.13)	(-8.09)	(-5.66)	(-5.92)
BASEL2×ST	4.63***	4.12***	4.10***	32.26***	24.26***	23.11***
	(4.76)	(4.61)	(4.60)	(6.00)	(3.94)	(3.77)
constant	44.90***	27.54***	27.50***	323.35***	235.20***	27.93
	(23.89)	(6.91)	(3.24)	(37.82)	(12.77)	(0.74)
Observations	15481	8592	8592	20235	9684	9684
R-squared	0.483	0.595	0.609	0.538	0.672	0.686
Panel B: Restricting to more homogeneous control group						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL2	-4.20***	-4.82***	-6.09***	-21.87***	-10.07	-27.87***
	(-4.66)	(-3.92)	(-4.33)	(-5.34)	(-1.61)	(-3.90)
ST	-5.90***	-6.01***	-6.03***	-19.66***	-16.00***	-16.69***
	(-9.73)	(-8.19)	(-8.05)	(-6.27)	(-3.74)	(-3.86)
BASEL2×ST	1.92	3.00**	2.75**	17.30***	15.50**	13.45*
	(1.60)	(2.32)	(2.08)	(2.82)	(2.07)	(1.78)
constant	43.52***	22.48***	-0.94	305.74***	206.37***	-94.36
	(13.44)	(4.34)	(-0.08)	(21.39)	(8.32)	(-1.62)
Observations	7239	4099	4099	9475	4690	4690
R-squared	0.438	0.578	0.599	0.496	0.664	0.683
Panel C: Further restricting to shorter and balanced sample period around Basel II						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL2	-4.36***	-5.82***	-4.71***	-30.88***	-24.22***	-16.98**
	(-4.53)	(-4.55)	(-2.85)	(-6.91)	(-3.68)	(-2.06)
ST	-6.35***	-6.07***	-6.43***	-22.38***	-19.84***	-21.25***
	(-8.67)	(-6.45)	(-6.80)	(-5.67)	(-3.60)	(-3.81)
BASEL2×ST	2.38*	3.10**	3.70**	21.13***	21.26***	23.74***
	(1.87)	(2.20)	(2.56)	(3.24)	(2.59)	(2.89)
constant	48.58***	24.66***	36.08*	346.38***	245.05***	299.44***
	(11.51)	(4.14)	(1.81)	(19.37)	(7.65)	(2.98)
Observations	4711	2574	2574	6422	2964	2964
R-squared	0.442	0.579	0.609	0.477	0.656	0.674

[a] Panel A reports the results estimated on a sample of credit lines taken out between 2000 and 2007, and compares the pricing on credit lines with maturities up to (an including) one eyar with those with maturities above one year. Panel B reports the results when we restrict the sample to credit lines with maturities up to three years. Panel C reports the results when we restrict the sample to credit lines with maturies up to three years and limit the sample period to three years before Basel II (2002-04) and three years afterwards (2005-07). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 13 Undrawn fees and all-in-drawn spreads on 365-day facilities around Basel II[a]

Panel A: Restricting to commitments with maturities up to eleven months						
	1	2	3	4	5	6
BASEL2	-4.58***	-6.33***	-4.09**	-31.03***	-22.76***	-5.51
	(-4.25)	(-4.18)	(-1.98)	(-6.35)	(-3.05)	(-0.56)
STa	-0.87	-2.22	-3.89**	13.84	10.33	4.94
	(-0.56)	(-1.18)	(-2.38)	(1.57)	(0.78)	(0.37)
BASEL2×STa	1.90	1.09	2.62	14.63	0.12	8.65
	(0.70)	(0.32)	(0.74)	(0.98)	(0.01)	(0.45)
constant	49.93***	26.67***	55.11**	337.83***	261.77***	589.20***
	(9.49)	(3.21)	(2.03)	(14.51)	(6.37)	(4.71)
Observations	2953	1475	1475	4231	1730	1730
R-squared	0.288	0.403	0.453	0.346	0.539	0.575
Panel B: 365-day facilities before Basel II & combined sample afterwards						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL2	-4.36***	-6.21***	-5.52***	-29.34***	-25.75***	-20.35**
	(-4.51)	(-4.78)	(-3.32)	(-6.60)	(-3.99)	(-2.46)
364FACa	-8.16***	-6.87***	-6.99***	-39.49***	-29.91***	-30.90***
	(-10.70)	(-7.05)	(-6.95)	(-10.08)	(-6.40)	(-6.69)
BASEL2×364FACa	3.73***	3.70***	4.22***	34.63***	26.46***	29.56***
	(2.93)	(2.65)	(2.94)	(5.35)	(3.36)	(3.73)
constant	45.62***	23.05***	34.98*	335.63***	234.70***	274.90***
	(10.59)	(3.88)	(1.71)	(18.20)	(7.25)	(2.69)
Observations	4464	2448	2448	5999	2773	2773
R-squared	0.452	0.594	0.612	0.484	0.678	0.693
Panel C: 365-day facilities before and after Basel II						
Variables	Undrawn fees			All-in-drawn spreads		
	1	2	3	4	5	6
BASEL2	-4.38***	-6.13***	-5.47***	-28.52***	-24.88***	-21.25**
	(-4.56)	(-4.67)	(-3.21)	(-6.38)	(-3.81)	(-2.56)
364FAC	-8.49***	-7.04***	-7.14***	-41.95***	-31.39***	-31.98***
	(-11.00)	(-7.19)	(-7.01)	(-10.55)	(-6.73)	(-6.99)
BASEL2×364FAC	0.48	2.53*	2.97**	14.75**	20.64***	23.13***
	(0.43)	(1.83)	(2.12)	(2.33)	(2.64)	(3.00)
constant	44.12***	22.49***	32.05	334.51***	240.97***	217.43**
	(10.13)	(3.89)	(1.51)	(17.65)	(7.67)	(2.17)
Observations	4331	2400	2400	5747	2710	2710
R-squared	0.462	0.598	0.616	0.494	0.681	0.696

[a] Panel A reports the results on models estimated on credit lines with maturities up to eleven months. Panel B reports the results on models estimated on credit lines identified as 364-day facilities before Basel II and with maturities up to (an including) one year afterwards. Panel C reports the results on models estimated on credit lines identified as 364-day facilities. All models estimated on the sample of credit lines taken out three years before Basel II (2002-04) and three years afterwards (2005-07). The dependent variable in models 1 through 3 is the undrawn fee on the credit line. The dependent variable in models 4 through 6 is the all-in-drawn-spread on the credit line. Models 1, 2, 4 and 5 report results of a pooled analysis. Models 3 and 6 are estimated with bank-fixed effects. Models have the same set of controls as the corresponding models reported in Table 3. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the borrower level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table 14 Changes in the relative amounts of short-term credit lines around Basel I[a]

	1	2	3	4	5	6	7	8	9	10	11
BASEL1	0.07***	0.04	-0.09***	-0.14***	-0.07***	-0.15***	0.12***	-0.03	-0.05	-0.02	-0.07
	(2.77)	(1.22)	(-3.46)	(-2.77)	(-3.83)	(-3.08)	(3.61)	(-1.00)	(-0.79)	(-1.17)	(-1.19)
LOWCAP		0.14	0.11	0.09	0.14	0.03					
		(0.76)	(0.57)	(0.25)	(1.07)	(0.10)					
BASEL1×LOWCAP		0.18***	0.18***	0.33***	0.14***	0.32***					
		(2.96)	(4.00)	(3.46)	(4.09)	(3.53)					
HIGHCAP							-0.32*	-0.21	-0.63	-0.22*	-0.67
							(-1.87)	(-1.26)	(-1.36)	(-1.89)	(-1.47)
BASEL1×HIGHCAP							-0.17***	-0.10**	-0.15*	-0.07*	-0.11
							(-3.33)	(-2.16)	(-1.85)	(-1.66)	(-1.39)
constant	0.24***	0.17**	-0.04	0.70**	0.05	0.69**	0.35***	0.05	0.61**	0.16	0.60**
	(3.59)	(2.07)	(-0.44)	(2.22)	(0.70)	(2.27)	(2.92)	(0.30)	(2.01)	(1.63)	(2.16)
Observations	5163	5163	5163	1197	5163	1197	5163	5163	1197	5163	1197
R-squared	0.022	0.037	0.331	0.329	0.369	0.365	0.036	0.328	0.324	0.367	0.359
BK FE	NO	NO	YES	YES	YES	YES	NO	YES	YES	YES	YES

[a] Dependent variable in models 1, 2, 3, and 4 is the ratio the amount of credit lines with maturities up to one year and the total amount of credit lines the bank granted over the quarter. Dependent variable in models 5 and 6 is the ratio the amount of maturity-weighted credit lines with maturities up to one year and the total amount of maturity-weighted credit lines the bank granted over the quarter. In models 4 and 6, we restrict the denominator in the ratio of the maturity-weighted dependent variable to credit lines with maturities up to three years. Models 1, 2, 3 and 5 are estimated on a sample of credit lines taken out between 1987 and 2003. Models 4 and 6 are estimated on a sample of credit lines taken out between 1990 and 1995. Models 7 through 11 follow the same structure as models 2 through 6, but focus on high-captial banks. $LOWCAP$ is a dummy variable for banks with an equity to assets ratio below the first quartile of the sample ratio (6.1%). $HIGHCAP$ is a dummy variable for banks with an equity to assets ratio above the third quartile of the sample ratio (8.0%). Included in all models are our set of bank controls used in Table 3. models 2 through 6 also include bank controls interacted with $LOWCAP$ while models 7 through 11 also include bank controls interacted with $HIGHCAP$. See Appendix 1 for the definition of all the variables. Models estimated with standard errors clustered at the bank level. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.

Table XX Bank capital and credit line exposure around Basel II[a]

	1	2	3	4	5	6
BASEL1	0.053***	0.049**	0.081**	0.083**	0.005***	0.011*
	(3.07)	(2.14)	(2.45)	(2.00)	(2.85)	(1.69)
CAPITAL	0.496**	0.411	0.085	0.107	0.052***	0.138*
	(2.24)	(1.52)	(0.27)	(0.26)	(3.34)	(1.90)
BASEL1×CAPITAL	-0.718***	-0.605*	-0.990**	-0.912*	-0.050**	-0.106
	(-2.97)	(-1.93)	(-2.30)	(-1.77)	(-1.98)	(-1.17)
constant	-0.065***	-0.002	0.164***	0.489**	0.009	-0.075**
	(-2.76)	(-0.04)	(3.02)	(2.35)	(1.51)	(-2.33)
Observations	6010	6010	2015	2015	2015	2015
R-squared	0.008	0.340	0.018	0.487	0.633	0.941

[a] The dependent variable in models 1 through 4 is the portion of short term credit lines (i.e. credit lines with maturities up to one year) in the total credit the bank granted as captured in SNC. Model 5 scalls the portion of short term credit lines by the bank's total assets while model 6 scalls the portions of the banks' long term credit lines to total assets. Models 1 and 2 estimated on the sample period between 1989 and 2004. Models 3 through 6 restrict the sample to three years before Basel I and three years afterwards (1990-1995). Models 1 and 3 report the results of a pooled analysis. All of the remaining are estimated with bank fixed effects. BASEL1 is a dummy variable equal to one for the post Basel I Accord period (post 2002). CAPITAL is the ratio of the bank's equity capital to total assets at the end of the previous year. All of of the models also control for the log of the bank's assets and its chargeoffs also lagged. See Appendix 1 for the definition of all the variables. Models estimated with robust standard errors. *** denotes 1% significant level, ** denotes 5% significant level, and * denotes 10% significant level.