

The Impact of SEC Rule 144A on Corporate Debt Issuance by Foreign Firms

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Abstract

In April 1990 the U.S. Securities and Exchange Commission (SEC) approved Rule 144A, a reform that permitted firms to raise capital from “qualified institutional buyers” (QIBs) without requiring registration of the securities and compliance with U.S. GAAP. The rule, while intended to ease access to capital for all firms, was especially targeted towards foreign firms for which the cost of complying with U.S. disclosure standards has always been high. We examine the impact of Rule 144A on the borrowing decisions of foreign firms. *Ceteris paribus*, foreign debt issued in the 144A market tends to be smaller in size, shorter in maturity, of lower credit quality and more likely to be from emerging markets than public debt issues by foreign firms. Investment grade debt offered in the 144A market is associated with significantly higher yield spreads relative to public debt. The findings reverse for high yield debt where lower yield spreads are observed in the 144A market relative to the public debt market but not significantly so. Our findings also suggest that over time, the 144A market has replaced the public debt market both in terms of the number and volume of foreign debt issues, especially for high yield and non-rated issues.

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*Companies never say they want to issue in one market versus another today. They come to you and say, "We want the best terms and conditions."*¹

1. Introduction

In April 1990 the U.S. Securities and Exchange Commission (SEC) approved Rule 144A, an initiative that allowed for the immediate resale of private placements among "qualified institutional buyers" (QIBs). Under this ruling, large financial institutions can sell previously acquired private placements without having to register the securities or hold the securities for two years. By lifting the registration requirements for purchasers of 144A securities, the SEC sought to reduce regulatory costs and create a more liquid market for these restricted securities. Rule 144A was seen as a particularly important innovation for foreign issuers. Under 144A, foreign firms gained access to institutional investors without having to meet the strict disclosure standards required of U.S. public companies. Heretofore, these disclosure requirements were viewed as a major impediment to foreign issuance in the U.S. capital markets, driving many issuers to off-shore markets.² The primary purpose of this study is to examine the effect of this regulation on the borrowing opportunities of foreign firms and to assess to what extent the rule has affected their costs of raising capital in the U.S. markets.

While Rule 144A permits issuers to raise both debt and equity capital, the total amount of capital raised via debt is nearly eight times the amount raised via equity. In terms of volume, 144A debt issues by industrial firms have grown from less than \$1 billion in 1991 to close to \$60 billion in 1997. Hence, in relatively short order, the 144A debt market has grown to be a significant source of corporate funds for all firms. For foreign issuers, this growth is even more significant. In particular, the volume of foreign 144A debt has grown from \$378 million in 1991 to \$12.1 billion in 1997. As a proportion of the total debt

¹ Thomas Skwarek, head of private placements at J.P. Morgan quoted in "The Amazing Private Placement Market," *Institutional Investor*, May 1989, p. 199.

² Bhagat and Frost (1986), Smith (1986) and Blackwell and Kidwell (1988), Krishnaswami, Spindt and

issued by foreign firms, 144A issues have grown from 11 percent in 1991 to 65 percent in 1997. Hence, over time foreign issuers have shifted the bulk of their capital raising in the U.S. from the public debt to the 144A debt market. Going forward there is little doubt that the 144A market will be the principal debt market for foreign issuers in the U.S.

While Rule 144A was specifically intended to increase the borrowing opportunities of foreign firms, the waiving of public disclosure requirements and the need to reconcile financial statements to U.S. Generally Accepted Accounting Principles (GAAP) issues was the most controversial aspect of the initiative. The U.S. investment community is generally less familiar with foreign issuers and the diversity of foreign accounting standards makes evaluation of their credit worthiness more difficult. If a lack of disclosure and familiarity subjects firms to higher capital costs (Myers and Majluf (1984), Merton (1987)), foreign issuers might incur higher costs in the 144A debt market relative to the public debt market. Alternatively, although mandated disclosure is generally less in the 144A market, buyers of 144A debt may not demand a premium for the 'gap' in information. Institutional investors or QIBs could have greater ability than individual investors either to value the debt on available information or to require creditors to provide the information they desire, and hence QIBs may not value the safeguard of disclosure to the same degree as individual investors.

From the firms' perspective, the choice to issue in the public or 144A debt markets depends on a number of factors, such as liquidity, disclosure costs, information intensity, and credit quality. High quality foreign firms are likely to have the option to issue in either market. To continue to observe firms issue in both markets, the total costs of issue should be the same across the two markets in equilibrium. Since the public market encompasses a larger group of buyers it offers more liquidity. Hence, the yield spreads on 144A debt should be higher than public debt to offset the lack of liquidity. Alternatively, the 144A market offers less disclosure, greater speed to market, and lower issue costs through more

Subramaniam (1999) show that the fixed costs of a public issue are larger compared to private placements of debt.

streamlined placement to a smaller group of buyers.³ All else equal, the yield spreads on 144A debt should be higher than public debt to offset the lower issue costs.

Firms with poor credit quality, high information intensity, and other factors suggestive of high uncertainty, may not have the “choice” to issue in the public debt market. For these firms, the 144A market can provide a more efficient means of informing buyers of the merits of the issue. The foregoing suggests a scenario where higher quality firms end up issuing in both markets but facing higher yield spreads in the 144A market and lower quality firms issue only in the 144A market. Our empirical findings support such a scenario.

Examining 144A fixed rate debt issues from 1991-1997, we find that 144A debt issues are smaller in size, shorter in maturity, and have lower credit quality than public debt issues by foreign firms. Specifically, a significantly larger fraction of the 144A issues are high yield and arise from emerging market countries. Foreign firms are typically not listed on either their home market or a U.S. stock exchange, and therefore not subject to on-going disclosure by the SEC or their home country regulators. Thus, for over 60 percent the foreign 144A issues, there are limited sources of public information available to judge credit quality. In addition, only 63 percent of foreign 144A issues are rated compared to the near universality of ratings available for public debt offers. Over time we find that while more foreign issues have become rated, the number of issuers meeting full disclosure remains largely unchanged. These findings indicate that higher risk claims are financed in the 144A market relative to the public market.

In terms of cost, for the overall sample of rated issues, the average yield spread in the 144A market is significantly higher relative to the public debt market. For investment grade debt, the cost of issuing in the 144A market is on average 30 basis points greater than that for public debt. For high yield

³ We search the Fitch Investment database for information on the gross spreads for 144A issues but we do not find information for any of the foreign issues. For 21 domestic 144A issues and 2,400 domestic public debt issues, the gross spread averages 22 basis points for 144A issues and 132 basis points for public debt issues. Hence,

debt issues, the yield spreads are lower in the 144A market but not significantly so. Increasingly the 144A market is the market of “choice” for foreign high yield debt issuers. Starting with 50 percent of the high yield debt in 1991-1993, the 144A market has grown to account for 91 percent of high yield debt issued in 1997. The near absence of high yield public debt issues in recent years makes cost comparisons between the two samples less reliable. Further, the high risk, low disclosure profile of many issuers in the high yield 144A debt market argues against their likely public debt issue. Hence, it is not clear that the appropriate benchmark for these 144A issues should be the cost of public debt issues. Nonetheless, especially for foreign issuers without the choice to issue public debt, the 144A market extends their borrowing opportunities.

Similarly all non-rated issues are issued in the 144A market. These issues represent some 37 percent of the sample and, more so than any other, they represent issuers without the choice of a public debt issue. Using predicted yields based on separate regressions of public debt and 144A issues we find that 77 percent of the time, yield spreads would be higher for non-rated issuers if they issued in the public debt markets. This evidence suggests that non-rated issues are priced more favorably in the 144A market from the issuer’s perspective.

Overall, our evidence suggests that Rule 144A has enhanced the borrowing opportunities of foreign issuers. While the total debt issuance by foreign firms has remained a relatively constant portion of the total debt raised in the U.S. markets in recent years, the majority of foreign issuers now opt to raise debt in the 144A market rather than the public debt market, more so if they are issuing high yield or non-rated debt. For many, the high risk, low disclosure profile would in all likelihood prevent issuance in the public debt market. Thus, the 144A market provides significant benefits to foreign firms that have often complained that U.S. disclosure requirements impede their capital raising.

based on the information at hand, issue costs appear to be lower in the 144A market.

The plan of the paper is as follows. Section 2 discusses the legal and regulatory origins of Rule 144A and discusses the information requirements of 144A offerings. Section 3 describes the sample of 144A debt issues by foreign firms used in the study and examines their characteristics relative to public debt issues by foreign firms. Section 3 also examines the costs and information effects associated with 144A debt in comparison to public debt and domestic (U.S.) 144A issues. Section 4 gives our conclusions.

2. The Rule 144A Initiative

2.1 Legislative Origins

Since passage of the Securities Exchange Act of 1933, firms seeking to raise external capital have avoided registration requirements and the oversight of the U. S. Securities and Exchange Commission (SEC) through private placements. The Securities Act of 1933 makes a fundamental distinction between distributions of securities (primary offerings) and transactions in securities. Offerings that involve the distribution and underwriting of securities are viewed as public offerings and require registration. By contrast, issuers and purchasers of private placements must meet certain conditions to qualify for an exemption from registration.⁴ Under Section 4(2) and its safe harbor of SEC Regulation D, issuers can qualify for an exemption from registration if they place securities with accredited investors and a limited number of individual investors who intend to hold the securities for investment purposes.⁵ Less recognized, however, is that the exemption granted to the issuer does not extend to investors and financial institutions purchasing private placements. Because the SEC recognized that financial intermediaries could effectively distribute securities through resales of private placements, prior to Rule 144A purchasers of private placements were restricted in their ability to resell them. An institution purchasing

⁴ See Carey, et al. (1993) and Cox, Hillman, and Langevoort (1997) for further information and discussion of the issues in this section.

⁵ Accredited investors include, among others, banks, savings and loan associations, insurance companies,

private placements could resell them if they subsequently registered the securities or if they could establish that the purchase was motivated for investment purposes. One guide that the SEC has traditionally relied upon to establish 'investment intent' is the length of time a purchaser holds a security. Typically, resales of private placements could be sold without registration, if the purchaser held the securities for at least two years.⁶ The net effect of these rules was to significantly inhibit resale opportunities for purchasers of private placements.

2.2 *Definition of Qualified Institutional Buyers (QIB)*

Rule 144A lifted registration requirements for resales of private placements as long as the sale is to qualified institutional buyers (QIB).⁷ In the initiative, the SEC recognized that certain buyers are able to ' fend for themselves' in obtaining and processing information about an issuer. As a consequence, the QIB market is limited to large financial institutions. The requirements to qualify as a QIB are as follows:⁸

1. an institution (e.g., an insurance or investment company, or pension plan) that owns or invests at least \$100 million in securities of non-affiliates,

registered investment companies, corporations and trusts, and high net worth individuals.

⁶In 1972 the SEC adopted safe harbor rules under Rule 144 that granted an exemption from registration to investors who resell private placements after two years. Outside of Rule 144A, a secondary market sale of a private placement could be achieved without waiting two years through application for registration rights, exchange rights, via Section 4 (1-1/2), and via Regulation S, governing off-shore sales. Section 4 (1-1/2) allowed an investor to qualify for an exemption, if the investor could meet the same conditions as the issuer under SEC Regulation D. However, qualification under Section 4 (1-1/2) was an informal market practice and considerable uncertainty surrounded its use. See Cox, Hillman and Langevoort (1997).

⁷Two other events took place in 1990 that also affected the private placement market. In September, the SEC allowed investment banks to treat unregistered issues of investment grade debt as public issues for the purpose of computing capital requirements. Under the new ruling that applied to all private debt securities including 144A, capital requirements dropped to two to nine percent of net capital, depending on the maturity of the claim. Previously, the underwriting of private debt required banks to hold 100% capital against the commitment. In addition, the National Association of Securities Dealers (NASD) established a closed electronic trading system called PORTAL (Private Offerings, Resales and Trading through Automated Linkages) to provide a market for privately traded securities such as 144As.

⁸In addition to placing the securities with QIBs, several other conditions must be met. First, a seller must take 'reasonable steps' to ensure that the buyer is aware of the fact that the sale is being made under Rule 144A. Second, the securities being offered must not be, when originally issued, of the same class as securities listed on an U.S. national securities exchange. This provision ensures that the issuance and trading of common stock remains

2. a bank or savings and loan (S&L) association that meets condition 1a. and also has an audited net worth of at least \$25 million,
3. a broker or dealer registered under the Exchange Act, acting for its own account or for that of QIBs that own and invest at least \$10 million in securities of non-affiliates, or
4. an entity whose equity holders are all QIBs.

Post enactment of Rule 144A, registration would apply only to ‘public offers’, which were defined to concern individual investors rather than QIBs. Under this interpretation, resales of private placements under Rule 144A no longer involve a public offering, and thus do not require registration. That is, subsequent to Rule 144A, resales to QIBs are viewed as transactions and fall outside of the reach of the 1933 Act.

2.3 Information Requirements for Foreign Issuers

The easing of resale restrictions was motivated by a belief that institutional investors are able to independently obtain and process information about 144A securities. However, while Rule 144A eliminates certain disclosure requirements, it would be incorrect to say that it requires no disclosure. Generally speaking, Rule 144A requires issuers to provide a brief statement of the issuer’s business, its products and services, and financial statements (balance sheet, profit and loss, and retained earnings statements) for the preceding two years. The financial statements must be audited to the extent possible, although formal reconciliation to Generally Accepted Accounting Principles (GAAP) is not required. This information requirement does not apply to companies reporting under the Exchange Act of 1934, foreign government issuers, and foreign private issuers that have applied for a ‘home country (Rule 12g3-2(b))’ exemption on a voluntary basis. A home country exemption allows a foreign firm to fulfill the Rule 144A information requirement by providing an English translation of the financial statements used in its own country. The companies with home market exemptions most often are subject to on-going

disclosure in their home markets but typically do not meet the level of disclosure required in the U.S.⁹ The remainder of firms, not subject to on-going disclosure in their home market or the U.S., must meet the general Rule 144A information requirements outlined above. This latter group is likely to have the least available information and present the greatest challenge to QIBs in judging their quality.

Foreign 144A issues differ in another important respect from domestic 144A issues. Fenn (2000) finds that in over 97 percent of issues, a 144A offering is accompanied by a simultaneous application for registration rights. This procedure allows debt to be placed immediately in the 144A market and within two or three weeks the issuer receives registration rights, which permits the debt to be subsequently resold to individual investors rather than to just QIBs.¹⁰ Registration rights also subject the issuer to on-going SEC disclosure if the securities are sold to more than 300 investors. As a result, effectively there is little difference in the pool of potential buyers for a domestic 144A and public debt issue. For foreign issuers, registration rights typically involve increased disclosure and the costs of preparing financial statements according to U.S. GAAP. These costs are likely to be substantially higher than for domestic issuers whose financial statements already reflect U.S. GAAP. For this reason, few foreign issuers apply for registration rights.

The foregoing discussion leads to several hypotheses about the potential differences in offering yields between 144A and public debt issues. Ordinarily, the SEC has argued that full disclosure is in the public's interest and, consistent with this, studies have shown that investors pay higher prices for securities that provide greater information and transparency (Amihud and Mendelson (1986)). Since more 144A debt is exempt from public disclosure requirements, the offering yield could be higher due to a lack of transparency relative to public debt issues. Alternatively, market participants in the 144A market could

⁹ For some foreign issuers, the most sensitive aspect of U.S. disclosure is the requirement that firms provide detailed geographic and industry segment data. See Brown and Wood, LLP, "Accessing the U.S. Capital Markets (1997)," p. 2-3.

¹⁰ Institutions appear to be the largest buyers of privately placed debt. Life insurance companies account for upwards of 60 percent and mutual funds and pension funds account for the remainder of the demand for private

be able to achieve a satisfactory level of disclosure irrespective of government regulations. The 144A market involves institutional investors, and if QIBs are able to extract equivalent information, *ceteris paribus*, there should be no difference in the cost of borrowing between the markets.

Finally, the debt contracting literature suggests that private lenders can possess an informational advantage over participants in the public debt market. The information advantage a lender enjoys typically evolves from its ability to observe inside information about the borrower (e.g., see Carey et al (1993) and James (1987)). This advantage is less likely to occur in the 144A market due to the overlap in the buyers of 144A and public debt. Anecdotal evidence suggests that investment banks market both types of debt to a similar list of institutional clients. Thus the purchasing institutions appear to have similar capacities to evaluate 144A and public debt.¹¹ However, even without an information advantage, some elements of the debt contracting literature can hold in the 144A market. Information-intensive claims that typify the private-placement market can impose high monitoring costs on a lender, and for these claims, private debt can provide a less costly alternative to public debt. For example, if 144A debt reflects more uncertainty, information-intensity, or other elements of complexity, it can be more cost effective to convey these circumstances and terms to a smaller group of buyers.

3. Empirical Results

3.1 Sample Description

The data for this study are obtained from the *Securities Data Corporation (SDC) New Issues* database. We collect all issues of 144A corporate debt from 1991, the first full year following enactment of Rule 144A, through 1997. The sample is limited to industrial issues of long term fixed rate debt, which we define as debt with a maturity of two or more years. This restriction ensures greater consistency

placements over 1990-1993 [see Carey, et al. (1993) and SEC (1993)].

¹¹ Bethel and Sirri (1998) report based on a survey of CFOs that 43 percent of 144A offering documents are similar to those used in public issues. This suggests comparable information is available for a number of issues.

in the types of firms and debt we examine.¹² Our final sample contains 195 144A issues and 170 public debt issues by foreign issuers. Foreign issuers are firms incorporated outside of the U.S.

Table 1 summarizes the use of the 144A market by foreign firms. Foreign issuers raise a total of \$23.5 billion in 144A debt from 1991-1997. By comparison, they raise \$34.3 billion over the same period in the public debt market. The number of 144A issues by foreign firms has grown from three in 1991 to 84 in 1997 and the amount of debt has grown from \$378 million in 1991 to \$12.1 billion in 1997. The final two years of the sample show the most pronounced increase in 144A issuance. Overall, the total public debt and 144A debt raised by foreign issuers (not reported) has remained more or less constant over the sample. In the start-up years of 1991-1993 a total of \$20,278 million was raised versus \$18,586 million in 1997. Likewise the total 144A and public debt raised by foreign firms has remained a fairly constant percentage (14-16 percent) of the total debt raised by foreign and domestic firms since the mid-1990s. Hence, the growth in the volume of foreign 144A debt has come largely at the expense of public debt.

Another indication of the increasing importance of the market is the growth in the number of foreign countries using the market. The number of foreign countries issuing in a given year has grown from three to 26 over the sample period. The foreign countries issuing in the 144A market is explored further in the bottom portion of Table 1. Issuers from Mexico, Brazil, and Canada make the largest number of issues followed by Argentina and the United Kingdom. *Euromoney* country risk ratings are reported for the year of first issuance from the country.¹³ As one can see, the country risk measures range from 21 to 99 for the sample. By comparison the *Euromoney* country risk ratings for the U.S. range from 97 to 99 over the same period. In general, the sample reflects a relatively heavy representation of

¹² Industrial issuers account for sixty percent of the total Rule 144A debt issued. Eighty-four percent of the foreign issues involve fixed rate debt rather than floating rate debt or serial obligations. This percentage does not differ from domestic issues (83 percent are fixed rate.)

¹³ *Euromoney* country risk ratings are published annually. Later in the regression we update the country risk rating to correspond to the year of issuance. We use a country risk rating of less than or equal to 85 to define

emerging market countries and U.S. investors are exposed to a high degree of country risk from their debt issues.

3.2 Characteristics of foreign 144A and public debt issues

In this section we compare the basic terms and characteristics of 144A debt in relation to public debt to understand the extent of the challenge investors' face in assessing the quality of 144A claims. The overall sample of 144A debt has a median offer size of \$100 million and a median maturity of eight years. This is significantly smaller and shorter than the median size (\$200 million) and maturity (10 years) of public debt offers. We next examine characteristics of the debt, such as seniority, security, complexity, ratings, and country risk related to the uncertainty perceived for the issue. All else equal, seniority and security typically reduce the risk of the debt claim. Debt is defined as secured if it has specific asset backing (e.g., collateralized obligations, leveraged leases, and mortgages.) The vast majority of debt issued is senior debt as 93 percent of 144A debt and 97 percent of public debt are senior in priority. A significantly larger proportion of 144A issues (27 percent) involves secured debt versus 17 percent for public debt.

Bond ratings are not legally required for debt offers, but virtually 100 percent of the public issues are rated.¹⁴ By comparison only 63 percent of the 144A issues are rated, a difference that is statistically significant. Forty-one percent of 144A issues are high-yield, defined as debt with a Moody's rating less than Baa3 or a Standard and Poors' rating less than BBB, compared to 29 percent of public debt issues. Throughout the analysis we use the union of ratings available from the two credit rating services. Moreover, 59 percent of foreign 144A issues come from emerging market countries compared to only 13 percent for public debt issues. Emerging market countries have a *Euromoney* country risk rating lower

emerging market status.

¹⁴ We thank Amelie Wogan of Standard and Poors' rating services for providing this information.

than 85 during the year of the issue. Hence, a large portion of the 144A sample is unrated and from emerging markets. Both factors make judgment of the debt more difficult.

The bottom portion of Table 2 examines factors related to disclosure and transparency. While issuers can always voluntarily choose to disclose more information, we focus on the circumstances where by law, firms are required to meet SEC standards. Firms are required to comply with SEC public disclosure requirements if they are listed on a U.S. exchange or if they have previously issued registered securities in the U.S. We find that only 21 or 11 percent of foreign issues are listed on a U.S. stock exchange and therefore meet SEC disclosure requirements. Another forty-three or 22 percent of foreign issuers are listed on a foreign stock exchange. While these firms do not necessarily meet SEC disclosure standards, at least with respect to U.S. GAAP, they likely have home country exemptions (Rule 12g3-2(b)), which allow them to meet U.S. requirements by filing similar information to that provided in their home country.

Another avenue by which foreign firms can become subject to public disclosure is if a firm issues securities in the U.S. To ascertain if a foreign issuer has previously issued securities in the U.S., we search the *SDC New Issues* database for any public debt issue made by our sample firms during 1987-1991. This approach could understate the number of issuers because our check of prior issues is limited to debt issues only and to a four year time period. Nine foreign issuers are subject to SEC disclosure based on previous issuance. Combining the prior issuance and stock listing criteria, we find that 66 percent of foreign firms are not subject to U.S. GAAP disclosure. Other studies use the public company status code on *SDC* to determine the level of disclosure. Using this criterion, 60 percent of our foreign firms are not subject to GAAP disclosure. Since our search of prior issuances is not exhaustive, we rely on the *SDC* code in subsequent analysis, although none of the results differs using either method of classification. By either criterion, well over half of 144A issuers are without regular sources of public information.

3.2.1 *Information intensity of claims*

The private-placement market has traditionally been dominated by information-intensive claims that can impose high due-diligence or monitoring costs on a lender and therefore carry higher yields.¹⁵ Given the growth in the 144A market, it is not clear to what extent 144A debt exhibits the traditional profile of private debt or the ‘plain-vanilla’ profile of public debt claims. Carey et al. (1993) suggests that complex debt is a type of information intensive claim that typifies traditional private debt. Complex debt includes obligations backed by leases, leveraged leases, and equipment trust certificates. Since these claims are also generally secured, complex debt refers to the subset of secured debt that involves complex features. Within secured debt, there is little evidence that complex debt is used to any significant extent. The non-complex nature of the 144A debt is more consistent with the profile of claims in the public debt market than the traditional private placement market (see Fenn (2000), Carey et al. (1993), and McDaniel (1988.))

Private debt is also characterized by more customization and tailoring of terms and conditions than public debt. To examine customization, we compare the categories of debt that are offered in the 144A and public debt market. Overall, there are 40 different categories of debt securities issued in the 144A market compared to 24 for public debt, a significant difference. For example, we find that approximately 7 percent of public debt is classified as some form of “bonds,” which fall into just two categories either “bonds” or “global bonds.” By comparison, 20 percent of the 144A debt is classified as bonds. Within this category we find eight different categories including global bonds, exchangeable bonds, guaranteed bonds, refunding bonds, revenue bonds, sinking fund bonds, subordinated bonds, and senior bonds. Hence, 144A claims are not perfect substitutes for public debt claims. Several features added to the 144A bonds are suggestive of more security being provided to the lender. These customized

¹⁵ See Carey et al (1993) and James (1987).

features bring more potential buyers for the 144A debt. The greater use of customized terms can also be the by-product of dealing with a smaller group of buyers.

3.2.2 Multivariate analysis of issuer characteristics

As a check on the previous results, we perform a multivariate analysis (not reported) of the differences in 144A and public debt issues using a maximum likelihood probit regression. The dependent variable in the regression is one if the issue is a foreign 144A issue, and zero if it is a public issue. The independent variables chosen based on the univariate comparisons between 144A and public debt issues are the logarithm of offer size, the logarithm of the number of years to maturity, bond rating, security, a dummy variable equal to one if the issue meets public disclosure requirements, and a dummy variable equal to one if the issuer is based in an emerging market and is zero otherwise. Generally speaking, foreign 144A issues differ significantly from public issues in that they are smaller, shorter in maturity, have lower credit ratings, and less publicly available information. Foreign issuers from emerging markets are also more likely to issue in the 144A market.

3.3 Changes in issue characteristics over time

Since the 144A market has grown rapidly from its inception in 1990, in Table 3 we examine the characteristics of the 144A debt issues over time. The sample is broken in two periods, 1991-1995 and 1996-1997, since the latter two years in particular have seen large increases in the number and volume of issues. Both the mean and median offer size and maturity have increased over the sample period. However, the most notable difference in the market is the growth in the use of rated debt by foreign issuers from 33 percent in the early period to 77 percent in the latter period. However, it is unlikely that foreign issuers' use of ratings will ever approach the near universality of domestic issuers.' Because rating agencies typically find it difficult to rate a borrower higher than the country's sovereign rating,

strong credit risks can refrain from being rated.¹⁶ The results also suggest that over the sample period, credit quality has deteriorated as the proportion of high yield debt (less than Baa3 or BBB) has increased from 45 percent to 69 percent. Interestingly, there has been no increase in the proportion of foreign issues subject to public disclosure over the same period. Arguably, one can view bond ratings and public disclosure as alternative means to inform investors about the quality of debt. The evidence suggests that foreign issuers have opted to provide information through bond ratings rather than through increased public disclosure. Credit rating agencies do not provide issue ratings unless the firm agrees to on-going credit review over the period the issue is outstanding. For foreign issuers then, ratings allow the firm to convey information about debt quality without incurring the costs of public disclosure.

3.4 *Investment grade versus high yield claims*

To draw finer distinctions between the 144A and public debt samples, we separate the pool of rated issues into investment grade and high yield debt issues in Table 4. At a later point, we examine the differences between rated and non-rated issues. For investment grade issues, many of the features, such as size, maturity, rating, and default premium are similar between 144A and public debt issues. One difference of note, however, is that only 8 percent of investment grade debt offered in the public debt market is from emerging markets. One reason for this could be that only 47 percent of investment grade firms are subject to U.S. GAAP and public debt issue would require meeting this standard. By contrast, the same variables--size, maturity, rating, and default premium--all differ significantly between high yield 144A and public debt issues. Sixty-five percent of high yield issues hail from emerging market countries and 41 percent of issuers are subject to U.S. GAAP. Consequently, the evidence suggests that more pronounced differences in the terms and quality of debt are observed in the high yield market, whereas investment grade credit is more similar across the markets. As for pricing of the debt, in the bottom row

¹⁶ See Standard & Poors' Sovereign Rating Services for discussion on this point.

of Table 4 we report univariate yield spreads for investment grade and high yield debt. The offering yield spread is the difference between the yield to maturity of the issue and that of a Treasury security issued on the same date with comparable maturity. For investment grade issues, the yield spread for 144A debt is about 30 basis points higher than public debt, a significant difference. No significant difference in yield spreads is observed for high yield debt.

3.5 *Regression analysis of borrowing costs*

In Table 5 we investigate to what extent the 144A market affords foreign issuers the same borrowing costs as those available in the public debt market after controlling for differences in issue characteristics. To ensure the greatest control for risk, the analysis in Table 5 is confined to rated issues only. The first column of Table 5 reports cross-sectional regressions of the pooled sample of 144A and public debt issues. The dependent variable is the offering yield spread.¹⁷ Given that there is not a generally accepted view of the determinants of spreads or yields, we estimate regressions similar to those used in Fung and Rudd (1986), Kidwell, Marr, and Thompson (1984), Blackwell and Kidwell (1988), and Fenn (2000.) A dummy variable, RULE 144A, is equal to one if the issue is a 144A issue and zero otherwise, is included to capture the difference in borrowing costs between the two markets. To examine whether there is a time trend in the spreads over the sample period, we also include a time index, TIME INDEX, which is equal to zero in 1991 and increases by one each year thereafter. To ascertain if the yield spreads on 144A issues have changed relative to the public debt issues we also add an interactive term, RULE 144A x TIME INDEX. Because earlier results showed an increase in high yield issuance in

¹⁷ We use exact maturity matches where available and use interpolation between issues with the closest maturity to estimate spreads when exact matches are not available. Consistent with earlier studies, if we use the offer yield in place of the yield spread as the dependent variable, the results are similar to those reported.

the 144A market over the sample period, we include a dummy variable, HIGH YIELD, equal to one for high yield bonds and zero for all others.¹⁸

Several other variables, such as RATING, SIZE, MATURITY, DISCLOSURE, and EMERGING MARKET, control for the quality and terms of the debt.¹⁹ RATING is an index variable based on ratings that is equal to one for issues rated Ccc or CCC and below and that increases by one for each higher credit rating category. EMERGING MARKET is equal to one if the *Euromoney* country risk ratings is less than 85 in the year of issue, and zero otherwise. An additional control variable for seniority is dropped from the specification due to the strong collinearity between it and the 144A dummy (see Table 2.) Prior studies by Friedman and Kuttner (1991) and Blackwell and Kidwell (1988) suggest that movements in the corporate default premium are tied to the underlying strength of the economy and the outlook for debt repayment. DEFAULT PREMIUM is the difference between the *Shearson-Lehman Corporate Bond* index yield and Treasury index yield lagged one day relative to the offer date of the issue.²⁰ The bond index data are from *Datastream, Inc.*

In column 1 a regression of the full sample of rated public and 144A issues is shown. In this specification, the coefficient of the 144A dummy is positive but not significant. The coefficient on the time dummy is negative and significant suggesting that yields have declined over time. The coefficient on the interaction term of TIME and the 144A dummy is positive, but is not significant. Since the time index interacted with the 144A dummy is not significant, we exclude this variable in column 2. Given the

¹⁸ The zero-one dummy for high yield bonds and the rating variable defined above result in yield spreads being a step function with respect to rating where the jump occurs for high yield bonds. Within the sub-groups of high yield bonds and non-high yield bonds however, yield spreads are linear in rating. We tried alternative specifications of the rating variable so as to result in yield spreads being a non-linear function of rating. This analysis (not reported) yields results similar to that reported.

¹⁹ We also include SECURITY in the regressions but the variable is not significant. Another factor that affects yield spreads are call provisions on the bond. However, such information is not readily available for the 144A issues. We found 36 Rule 144A issues on the Fitch Investment database where call provisions were available. All 36 issues are domestic issues and we find no information on call provisions for foreign issues.

²⁰ The *Shearson-Lehman Corporate Bond* index has been used as a measure of interest rates and aggregate credit market conditions - see Kidwell, Marr and Thompson (1984). Fung and Rudd (1986) use a Treasury bond index to proxy for credit risk and interest rates. However, since we find comparable results for both indices and

growth in 144A issues over the period, this also reduces the potential for collinearity between the 144A dummy and the interactive term. In column 2, the coefficient of the 144A dummy is positive and significant. Hence, all else equal, for a typical foreign issuer, borrowing costs are approximately 49 basis points higher on average for rated 144A relative to public debt issues. As expected, high yield bonds have higher spreads on average but when this variable is interacted with the 144A dummy, 144A high yield claims have significantly lower yields than high yield public debt.

Contrary to expectations there is little evidence to suggest that public disclosure affects the borrowing costs of foreign issues, as the coefficients of DISCLOSURE in both specifications are insignificant.²¹ One possible explanation for this is that the information provided by public disclosure for foreign issues is not sufficient to alleviate investor concerns and a lack of familiarity remains for these issues even following public disclosure. Similar to reasons cited in the literature on 'home bias' (see Adler (1998), French and Poterba (1991), Tesar and Werner (1995)), the lack of familiarity associated with foreign investments can be a sizeable hurdle to overcome. Likewise, the emerging market variable is insignificant. The other significant variables suggest that lower spreads result from better ratings and decreases in the default premium.

In the remaining two columns of Table 5, we break the analysis into investment grade and high yield issues. In column 3, the coefficient of the 144A dummy for investment grade is positive and significant, consistent in sign and magnitude with the univariate results in Table 4. In contrast to the overall sample of rated issues, the coefficient on EMERGING MARKET is positive and significant, suggesting that emerging market issuers pay an additional 39 basis points on average in the investment grade market. In column 4, the coefficient of the 144A dummy for high yield issues is negative and

Kidwell, Marr and Thompson (1984) suggest that the Corporate Bond index is more appropriate, we use this index.

²¹ We also examined a stronger version of disclosure for foreign firms requiring them to meet the same standards as U.S. firms by virtue of being listed on a U.S. exchange. The results are qualitatively identical and are not reported given the small number of firms that satisfy this requirement.

marginally significant at the 11 percent level. Hence, there is some evidence that high-yield claims are priced more favorably from the issuer's point of view in the 144A market.

In the case of high yield debt the regressions reveal some tendency for 144A debt to have lower yields but the difference in yields is not significant between the two markets. We conduct a number of sensitivity checks that confirm these results.²² Nevertheless, there are several reasons why the regression results should be interpreted with care. The pattern of high yield issues by foreign firms over time shows that the 144A market is increasingly dominated by high yield debt. Figure 1 plots the proportion of the number of issues of investment grade and high yield debt offered in the 144A market. Early on, few firms issue high yield 144A debt. For example, from 1991-1993, of thirty total issues of high yield debt, 7 issues (23 percent) are issued in the 144A market. By contrast in 1997, of fifty-eight total issues of high yield debt, fifty-three issues (91 percent) are issued in the 144A market. The same pattern holds if we analyze the volume of issue. In 1991-1993, the 144A market accounts for 29 percent of the total volume of high yield debt offered, whereas in 1997, it accounts for 89 percent of the total volume of high yield debt. Hence, the paucity of public debt issues by high yield firms at the end of our sample period reduces the precision of the cost comparisons between public and 144A debt.

Overall, our results suggest that the yield spreads for rated issues in the 144A market are higher on average relative to public debt. The sub-samples reveal, however, that investment grade 144A debt commands a 30 basis point premium over public debt whereas high yield 144A debt sells at a similar spread to slight discount to public debt. What accounts for these differences? Note that in Figure 1 the 144A market accounts for over thirty percent of the investment grade debt offered in 1997. Thus, high quality issuers continue to raise capital in both markets. Liquidity may account for the premium associated with investment grade 144A debt. Fenn (2000) suggests that domestic 144A issuers seek

²² We estimate a number of different regression specifications for high yield debt and in all of them the 144A dummy has a negative but insignificant coefficient. In addition, six foreign firms make both a high yield 144A and public debt issue during our sample period. Five out of the six firms pay a lower spread for 144A debt

registration rights to extend the pool of eligible buyers. Due to the high costs of disclosure, few foreign 144A issues have registration rights and thus the pool of potential buyers is smaller relative to a public debt issue.

Overtime high-yield issues from emerging market countries have come to dominate the 144A market and this raises the issue why foreign firms have gravitated to this market. One factor appears to be that foreign firms face difficult trade-offs in making public debt offers. Only 41 percent of foreign firms meet disclosure requirements, thus public debt issues entail large costs of compliance. Consistent with this, we find that only six foreign firms out of 195 (3 percent) in the sample make both a 144A and a public debt issue during the sample period. This compares to 65 domestic firms out of 591 (11 percent) that conduct “dual offers.” Hence, few foreign issuers appear to have a ‘choice’ about where they issue. Given this, it is not clear that the benchmark for these 144A issues should be the cost of public debt issues. For foreign issuers without the choice of issuing public debt, there is little doubt that the 144A market has extended their borrowing opportunities.

We have noted the low rating, emerging market status, and lack of disclosure that contributes to the high degree of uncertainty associated with high yield 144A claims. 144A issues also tend to have customized features and are smaller—both features that attempt to control for high levels of credit risk. With this level of uncertainty, there can be efficiencies in informing a smaller group of buyers of the merits of the issue. Given that there is overlap in the buyers of 144A and public debt, it is unlikely that 144A lenders possess an informational advantage over lenders in the public debt market (see the arguments in James (1987), Ramakrishnan and Thakor (1984), Boyd and Prescott (1986), and Hadlock and James (1997)). Rather foreign firms may be more willing to reveal proprietary information to smaller groups of lenders than to a large public market (see Bhattacharya and Chiesa (1995), and Yosha (1995)) or it is more cost effective to tell complicated stories to smaller groups of investors. This dialogue is

than public debt.

more consistent with the customization of terms seen in 144A offerings. Hence, marketing to QIBs can be a more effective way to convey quality in the absence of ratings or to monitor poor quality issuers compared to the public market where such monitoring is likely to be more expensive. Further, since reputation takes time to develop, Diamond (1989) suggests that firms with short credit histories (in the present case foreign firms) will choose to use intermediaries instead of borrowing from public markets. These are all reasons why high yield foreign firms have opted for the 144A market.

3.6 Non-rated 144A issues

We now turn our attention to the non-rated issues by foreign firms. As reported above, 73 issues or 37 percent of the sample are non-rated. These issuers are even less likely to view a public debt issue as an option than high yield issuers. Univariate comparisons of issue characteristics and yield spreads are reported in Table 6. Relative to rated 144A issues, non-rated issues are one-third the size and four years shorter in maturity. Moreover, over 80 percent are from emerging market countries. Consistent with higher risk, the median yield spread is 3.4 percent for non-rated issues, substantially above that of rated 144A claims (2.8 percent.) To determine the possible advantage of a 144A offer for these firms, we estimated separate regressions (using specifications reported in Table 5 but without a 144A dummy) for the 144A and the public debt sample of firms. The coefficients of these regressions are then used to predict the yield spread for the non-rated issues based on their characteristics. We find that 77 percent of the time the predicted spreads using the public debt model are greater than the actual spreads on the non-rated issues. Also, in 88 percent of the cases, the predicted spreads under the 144A model are lower compared to those predicted under the public debt model. Hence, for non-rated firms, the 144A market affords an opportunity to raise capital at more favorable terms relative to the public debt market. Further reinforcing these results, is the fact that 67 percent of these firms would have to incur additional compliance costs in order to make a public debt offer.

3.7 *Comparison of domestic and foreign 144A debt*

Given the newness of research on the 144A market, it is not clear whether the previous findings for foreign 144A claims generalize to domestic 144A debt. In Table 7, we compare yield spreads for domestic 144A and public debt issues. The specifications used are similar to those in Table 5 (with the exception of the emerging market dummy.) The results for all rated issues indicate that domestic 144A issues are offered at a premium relative to public debt issues, but the premium on 144A issues has declined significantly over time. Thus, the results for rated issues are similar between foreign and domestic 144A issues.

Fenn (2000) analyzes domestic high yield 144A issues and we estimate a similar specification his in column 3.²³ He reports a positive and significant coefficient for the 144A dummy, a significantly negative coefficient for the time index, and a significantly negative coefficient for the interaction term of the 144A dummy and time index.²⁴ Hence, the results for domestic issues in column 3 are consistent.

One difference that is observed between the foreign and domestic issues is that rated domestic issues without public disclosure incur significantly higher yield spreads whereas foreign firms appear to incur no such penalty. One possible explanation for the contrasting effects of disclosure is offered by Welch's (1992) cascade theory. Welch (1992) builds a model that explains why underwriters of initial public offerings might issue in segmented markets where investors possess less information and are unlikely to communicate with one another. Under conditions of greater information asymmetry, investors make their purchase decisions based less on their own information and more on the actions of other investors. In this situation, investors exact less of a penalty for being uninformed and underprice offers less. In the current context, the implication is that, to the extent that foreign firms issue under

²³ Fenn (2000) includes a dummy variable for first time issuer that we omit due to lack of data availability.

²⁴ Fenn (2000) finds that domestic 144a have about a 40 basis point premium over public debt on average. Our coefficient on the Rule 144A dummy is higher, but this is likely due to the fact that we omit several dummies, such as first time issuer. He also finds that over time the premium has disappeared. His conclusion of no significant differences between the markets is due to the negative coefficient of the interactive term, Rule 144AxTIME INDEX.

conditions of greater information asymmetry relative to domestic firms, investors exact less of a penalty for being uninformed. However, one caveat with Welch's explanation is that asymmetric information and information costs have never been documented to be as significant for debt issuance as equity issuance.

4. Conclusions

This article examines the effects of SEC Rule 144A on the corporate debt issuance of foreign firms. The major findings of the paper are:

1. Sixty percent of foreign firms issuing in the 144A market are not subject to U.S. GAAP disclosure. Disclosure costs remain a significant impediment to public debt issue by foreign firms.
2. The 144A market is replacing the public debt market especially for high yield and non-rated issues.
3. For rated issues as a whole, the average yield spread in the 144A market is higher relative to the public debt market. This finding also holds for the sub-sample of investment grade debt. For high yield debt, the yield spreads are not significantly different from the public debt market.
4. All non-rated debt, some 37 percent of the sample, is offered in the 144A market. Our analysis suggests that were these issues offered in the public debt market, issuers would face higher cost than they incur in the 144A market.

The increasing attractiveness of the 144A market to foreign issuers is borne out by the significantly higher volume of issuance in the 144A market compared to public debt market. In the most recent period of our sample, 1996-1997, for instance, foreign firms issued twice the volume of debt in the 144A market compared to the public debt market. Hence two-thirds of the total volume of debt issued by foreign firms now occurs in the 144A market. This trend is even more pronounced in 1997 where more than 89 percent of the total volume of high yield debt was issued in the 144A market. Since the overall portion of debt issued by foreign firms has been relatively steady since the

mid-1990s, the evidence suggests that 144A market will soon eclipse the public debt market for foreign firms.

In addition, the number of different countries issuing in the market has grown from three in 1991 to 36 in total as of 1997. Also, the number of new entrants to the U.S. markets (i.e., firms without a prior issue in the U.S.) has increased markedly as the volume of 144A issuance has grown large in recent years. The broadening of the 144A market to include a diverse group of foreign countries is further evidence that the Rule 144A initiative has reduced the entry barriers for foreign firms seeking to raise capital in the U.S.

Table 1
Fixed rate 144A debt issues by foreign firms from *SDC New Issues* database

By Year	Number of issues	Number of foreign countries issuing in year	Total amount issued (\$ millions)	Average amount of issue (\$ millions)
1991	3	3	378	126
1992	3	2	260	87
1993	38	12	3,080	81
1994	11	9	1,005	91
1995	8	6	1,911	239
1996	48	23	4,740	99
1997	84	26	12,127	144
Total	195		23,501	
By Country	Number of issues	Total amount issued (\$ millions)	Year of first issue from country	<i>Euromoney</i> country risk rating at the time of the first issue
Argentina	15	1,085	1993	50.46
Australia	4	725	1995	90.46
Bahamas	3	475	1993	62.93
Belgium	3	398	1994	93
Bermuda	3	325	1991	61
British Virgin Is.	1	11.3	1996	60
Brazil	21	1,961	1993	42.61
Canada	21	2,644	1991	97.14
Cayman	1	15	1996	62
Chile	3	440	1993	68.75
China	2	544	1997	72.81
Colombia	4	366	1993	60.68
Finland	2	600	1997	94.18
France	1	15	1997	94.76
Germany	2	600	1995	96.15
Greece	2	270	1997	77.28
Hong Kong	5	1,250	1993	85.22
India	4	384	1996	63.67
Indonesia	2	185	1993	68.48
Jamaica	2	100	1996	36.8
Japan	1	131	1997	92.15
Malaysia	5	2,000	1993	78.52
Malta	1	113	1994	73.10
Mexico	42	3,592	1991	59.40
N. Antilles	1	135	1996	21.00
Netherlands	6	883	1992	99.08
Norway	4	665	1996	94.97
Philippines	4	100	1994	51.83
Portugal	1	75	1996	80.19
Russia	3	375	1997	50.72
Singapore	1	150	1997	92.66
S. Korea	4	727	1997	78.29
Switzerland	2	129	1997	96.07
Thailand	2	311	1996	77.22
Trinida	2	45	1994	51.02
United Kingdom	15	1,599	1993	94.72

Table 2

Selected characteristics of 144A issues and public debt issues by foreign firms

The values for Offer Size and Years to Maturity in the first two rows are means and medians respectively. Secured debt is debt that has specific asset backing such as collateralized obligations. Complex debt refers to obligations backed by leases, leveraged leases, and equipment trust certificates. Ratings are determined using either *Moody's* or equivalent category of *Standard and Poors'*. Emerging market is defined as *Euromoney* country risk rating is less than 85. No disclosure implies that the firm is not a public company. P values are associated with a difference of means t test (first row) and Wilcoxon signed rank test (second row).

	144A debt	Public debt	P value
Offer Size (\$ millions)	121	207	< 0.01
	100	200	< 0.01
Years to maturity	9	13	< 0.01
	8	10	< 0.01
Quality of debt			
Proportion of senior debt	93%	97%	0.07
Proportion of secured debt	27%	17%	0.03
Proportion of complex debt	0.5%	0%	0.35
Proportion of rated debt	63%	99%	< 0.01
< Baa3	41%	29%	0.01
Baa3 - A1	19%	63%	< 0.01
>= Aa3	4%	8%	0.08
Proportion of emerging market debt	59%	13%	< 0.01
Disclosure			
No disclosure	60%	0%	< 0.01
Listed on a U.S. exchange	11%	20%	0.01
Listed on a foreign exchange	22%	58%	< 0.01
Number of offers	195	170	

Table 3

Changes in characteristics of 144A issues by foreign firms over time

The values for Offer Size and Years to Maturity in the first two rows are means and medians respectively. Secured debt is debt that has specific asset backing such as collateralized obligations. Complex debt refers to obligations backed by leases, leveraged leases and equipment trust certificates. Ratings are determined using either *Moody's* or equivalent category of *Standard and Poors'*. Emerging market is defined as *Euromoney* country risk rating is less than 85. No disclosure implies that the firm is not a public company. P values are associated with a difference of means t test (first row) and Wilcoxon signed rank test (second row).

	1991-1997	1991-1995	1996-1997	P value
Offer Size (\$ millions)	121	105	128	0.19
	100	50	103	<0.01
Years to maturity	9	8	10	0.08
	8	6	10	<0.01
Quality of debt				
Proportion of senior debt	93%	100%	89%	<0.01
Proportion of secured debt	27%	25%	27%	0.78
Proportion of complex debt	0.5%	0%	0.7%	0.49
Proportion of rated debt				
Proportion of rated debt	63%	33%	77%	<0.01
Investment grade (above Baa3)	35%	55%	31%	<0.01
High yield	65%	45%	69%	0.15
Proportion of emerging market debt				
Proportion of emerging market debt	66%	69%	65%	0.43
Disclosure				
No disclosure	60%	60%	60%	0.59
Listed on a U.S. exchange	10%	8%	12%	0.38
Listed on a foreign exchange	22%	21%	23%	0.65
No. of issues				
No. of issues	195	63	132	

Table 4**Characteristics of investment grade and high-yield foreign 144A and public debt issues**

The values for Offer Size, Years to Maturity, Rating, Default Premium and Yield Spread in the first two rows are means and medians values respectively. Disclosure implies that the firm is a public company. The ratings are index variables where Ccc or CCC and below is one and each higher category is incremented by one (e.g., B1 = 4 and Ba3 = 5.) DEFAULT PREMIUM is the difference between the Shearson Lehman Corporate Bond and Treasury index yield lagged one day relative to the offer date of the issue. Secured debt is debt that has specific asset backing such as collateralized obligations. Offering Yield Spread is the yield to maturity of the issue on the offer date less the yield of a comparable maturity Treasury security on the same date. P values are associated with a difference of means t test (first row) and Wilcoxon signed rank test (second row.)

Investment grade debt (Baa3 and higher)

	Rule 144A (N=43)	Public debt (N=122)	P value
Offer Size (\$ Millions)	200	179	0.29
	198	198	0.45
Years to Maturity	12	12	0.86
	10	10	0.45
Rating	A3	A3	0.94
	A3	A3	0.36
Default Premium	0.64	0.63	0.63
	0.61	0.60	0.21
Proportion with secured debt	15%	29%	0.05
Proportion emerging market	45%	8%	<0.01
Proportion with disclosure	47%	100%	<0.01
Offering Yield Spread (%)	1.23	0.92	0.01
	0.99	0.89	0.15

High Yield debt (Ba1 and lower)

	Rule 144A (N=79)	Public debt (N=48)	P value
Offer Size (\$ Millions)	89	146	<0.01
	59	150	<0.01
Years to Maturity	8	9	0.05
	9	10	0.03
Rating	B1	Ba3	<0.01
	B1	Ba3	<0.01
Default Premium	0.62	0.59	0.06
	0.60	0.58	0.11
Proportion with secured debt	20%	25%	0.53
Proportion emerging market	65%	33%	<0.01
Proportion with disclosure	41%	100%	<0.01
Offering Yield Spread (%)	3.75	3.81	0.84
	3.48	3.60	0.33

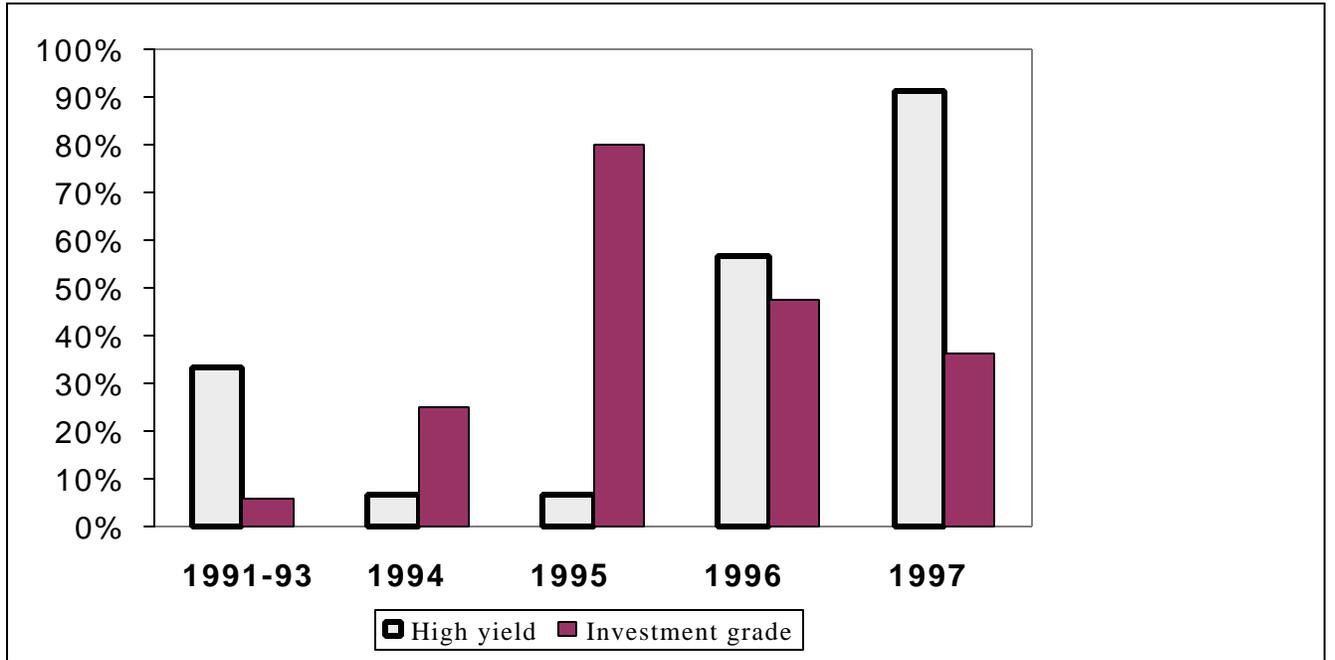
Table 5**Cross-sectional regressions of borrowing costs for foreign 144A versus foreign public issues**

The dependent variable is the offering yield spread. RULE 144A dummy 1 if the issue is a 144A issue and is 0 otherwise; TIME INDEX is an index = 0 in 1991 and increases by one every year thereafter. RULE 144A x TIME INDEX is an interactive term of the Rule 144A dummy and the TIME INDEX. HIGH YIELD is a dummy variable = 1 if the issue is less than Baa3 and is 0 otherwise. RULE 144A x HIGH YIELD is an interactive term of the Rule 144A dummy and HIGH YIELD dummy. RATING is an index variable = 1 for Ccc or CCC issues and below and increases by one for successively higher rating categories. DISCLOSURE = 1 if the firm meets public disclosure requirements and = 0 else. SIZE is the natural logarithm of issue size in millions of dollars. MATURITY is the natural logarithm of the number of years to maturity. DEFAULT PREMIUM is the difference between the Shearson Lehman Corporate Bond and Treasury index yield lagged one day relative to the offer date of the issue; and EMERGING MARKET=1 if the *Euromoney* country risk rating is less than 85. Heteroscedasticity consistent p values are in parentheses.

Independent variables	All Rated Issues	All Rated Issues	Investment Grade Debt (Baa3 and higher)	High Yield Debt (Ba1 and lower)
Constant	4.177 (<0.01)	4.011 (<0.01)	2.813 (<0.01)	5.225 (<0.01)
RULE 144A Dummy	0.036 (0.91)	0.491 (<0.01)	0.304 (0.02)	-0.507 (0.11)
TIME INDEX	-0.171 (<0.01)	-0.148 (<0.01)	-0.125 (<0.01)	-0.186 (<0.01)
RULE 144A x TIME INDEX	0.103 (0.14)			
HIGH YIELD Dummy	1.391 (<0.01)	1.392 (<0.01)		
HIGH YIELD x RULE 144A	-0.714 (<0.01)	-0.654 (<0.01)		
DISCLOSURE	-0.077 (0.72)	-0.081 (0.71)	-0.186 (0.40)	-0.008 (-0.97)
RATING	-0.266 (<0.01)	-0.265 (<0.01)	-0.176 (<0.01)	-0.497 (<0.01)
SIZE	-0.145 (0.15)	-0.134 (0.19)	-0.041 (0.47)	-0.214 (0.13)
MATURITY	0.183 (0.04)	0.180 (0.05)	0.276 (<0.01)	-0.107 (0.71)
DEFAULT PREMIUM	0.821 (0.01)	0.902 (<0.01)	0.127 (0.35)	4.832 (<0.01)
EMERGING MARKET	0.171 (0.27)	0.149 (0.34)	0.388 (<0.01)	0.393 (0.16)
Adj. R squared	0.721	0.720	0.494	0.322
N	292	292	165 (43/122)	127 (79/48)

Figure 1

Proportion of high yield and investment grade debt offered in the 144A market



Percentages shown relate to the number of issues.

Table 6**Non-rated and rated 144A issues by foreign issuers**

The values for Offering Yield Spread, Offer Size, Years to Maturity and Default Premium are means and medians respectively. Secured debt is debt that has specific asset backing such as collateralized obligations. Disclosure implies that the firm is a public company. P values are associated with a difference of means t test (first row) and Wilcoxon signed rank test (second row.)

	Non-rated 144A debt	Rated 144A debt	P value
Offering Yield spread (%)	3.28 3.36	2.86 2.76	0.10 0.04
Offer Size (\$ Millions)	34 26	112 124	<0.01 <0.01
Years to Maturity	6 6	9 10	<0.01 <0.01
Default Premium	0.61 0.58	0.62 0.60	0.38 <0.01
Proportion with senior debt	98%	89%	0.01
Proportion with secured debt	48%	42%	0.06
Proportion with disclosure	33%	44%	0.13
Proportion from emerging markets	81%	58%	<0.01
Number offers	73	121	

Table 7

Cross-sectional regressions of borrowing costs for domestic 144A and domestic public debt issues

The dependent variable is the offering yield spread. RULE 144A dummy 1 if the issue is a 144A issue and is 0 otherwise; TIME INDEX is an index = 0 in 1991 and increases by one every year thereafter. RULE 144A x TIME INDEX is an interactive term of the Rule 144A dummy and the TIME INDEX. HIGH YIELD is a dummy variable = 1 if the issue is less than Baa3 and is 0 otherwise. RULE 144A x HIGH YIELD is an interactive term of the Rule 144A dummy and HIGH YIELD dummy. RATING is an index variable = 1 for Ccc or CCC issues and below and increases by one for successively higher rating categories. DISCLOSURE = 1 if the firm meets public disclosure requirements and = 0 else. SIZE is the natural logarithm of issue size in millions of dollars. MATURITY is the natural logarithm of the number of years to maturity. DEFAULT PREMIUM is the difference between the Shearson Lehman Corporate Bond and Treasury index yield lagged one day relative to the offer date of the issue; and EMERGING MARKET=1 if the *Euromoney* country risk rating is less than 85. Heteroscedasticity consistent p values are in parentheses.

Independent variables	Domestic issues		
	All rated issues	Investment Grade	High Yield
Constant	3.836 (<0.01)	1.995 (<0.01)	8.496 (<0.01)
RULE 144A dummy	0.840 (<0.01)	0.124 (0.58)	1.063 (<0.01)
TIME INDEX	-0.111 (<0.01)	-0.085 (<0.01)	-0.160 (<0.01)
RULE 144A x TIME INDEX	-0.160 (<0.01)	0.033 (0.32)	-0.242 (<0.01)
HIGH YIELD Dummy	1.382 (<0.01)		
HIGH YIELD x RULE 144A	-0.034 (0.78)		
DISCLOSURE	-0.440 (<0.01)	-0.122 (0.47)	-0.118 (0.18)
RATING	-0.226 (<0.01)	-0.123 (<0.01)	-0.603 (<0.01)
SIZE	-0.048 (<0.01)	-0.006 (0.36)	-0.120 (0.07)
MATURITY	0.132 (<0.01)	0.202 (<0.01)	-0.835 (<0.01)
DEFAULT PREMIUM	0.507 (<0.01)	0.359 (<0.01)	1.595 (<0.01)
Adj. R squared	0.793	0.420	0.531
N (144A/Public)	2698 (591/2107)	1660 (113/1547)	1038 (478/560)

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