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*The Informational Effect of an Offshore Securities Offering:  
Evaluating the Risk to U.S. Investors*

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# The Informational Effect of an Offshore Securities Offering: Evaluating the Risk to U.S. Investors

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## Abstract

Examining a sample of 701 offshore securities offerings under Regulation S of the Securities Act from 1993 to 1997, the article tests whether foreign investors expect to resell Regulation S securities into the United States ahead of the U.S. secondary market reaction to news of the offering. The article provides evidence from an event study that the secondary market reaction to a Regulation S offering is negative and statistically significant. Foreign investors able to resell into the United States ahead of the secondary market reaction, therefore, may act as conduits for issuers attempting to sell overvalued securities into the United States to the detriment of U.S. investors. To the extent managers seek to benefit pre-offering shareholders, they will negotiate to give foreign investors as small an offering discount as possible. In contrast, where foreign investors are unable to resell prior to the secondary market negative reaction to news of the offering, foreign investors will demand a greater discount in compensation for the entire expected market reaction. Without such a discount, Regulation S offerings result in a transfer in value from foreign investors to U.S. investors; rational foreign investors will choose not to participate in such offerings. Controlling for other factors that may affect the offering discount, the article furnishes evidence on the offering discount consistent with the hypothesis that foreign investors were in fact unable to engage in resales ahead of the U.S. secondary market reaction to a Regulation S offering.

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February 14, 2000

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## Introduction

Regulation S of the Securities Act of 1933 (the “Securities Act”) represents a policy choice to respect territorial boundaries:<sup>1</sup> where a securities transaction affects parties within the United States, the U.S. securities regime should apply. Conversely, where a transaction occurs wholly outside the United States then the securities regulatory regime of other countries should apply. Through an exemption from the registration requirements of Section 5 of the Securities Act for those offerings occurring “outside the United States,”<sup>2</sup> Regulation S provides a limited means for U.S. issuers selling abroad to evade the U.S. securities regime.<sup>3</sup> Proponents argue that the territorial approach of Regulation S promotes respect for the sovereignty of foreign jurisdictions and alleviates the risk of conflict with other regime’s securities regulatory requirements.<sup>4</sup>

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<sup>1</sup> See SEC, Offshore Offers and Sales, Securities Act Release No. 33-6779, 1988 WL 239804, \*9 (S. E. C.) [hereinafter, the 1988 Proposing Release] (“The Regulation proposed today is based on a territorial approach to section 5 of the Securities Act. Under such an approach, the registration of securities is intended to protect the U.S. capital markets and all investors purchasing in the U.S. market, whether U.S. or foreign nationals.”). Regulation S is contained in Rules 901 through 905 of the Securities Act. See Rules 901 – 905, Securities Act.

The SEC adopted Regulation S in 1990. See SEC, Offshore Offers and Sales, Securities Act Release No. 33-6863, [1989-1990 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 84,534 (Apr. 24, 1990) [hereinafter the “Adopting Release”]. See also Guy P. Lander, Regulation S – Securities Offerings Outside the United States, 21 N.C. J. Int’l L. & Com. Reg. 339 (1996) (providing a summary of the original Regulation S).

<sup>2</sup> Rule 901, Securities Act.

<sup>3</sup> Section 5 of the Securities Act governs the registration process for securities offered or sold through any means of interstate commerce. See Section 5, Securities Act. Interstate commerce, in turn, is defined broadly to include transactions between the United States and a foreign country. See Section 2(a)(7), Securities Act. For a description of the operation of Section 5 see Louis Loss and Joel Seligman, *Fundamentals of Securities Regulation* 72 – 77 (1995).

Even after complying with the exemption requirements under Regulation S, U.S. companies issuing securities abroad are still potentially subject to U.S. antifraud liability and Securities Exchange Act of 1934 (the “Exchange Act”) periodic disclosure requirements. See Preliminary Notes 1, 3, Regulation S.

<sup>4</sup> See 1988 Proposing Release, *supra* note 1, at \*9 (“Principles of comity and reasonable expectations of participants in the global markets justify reliance on laws applicable in jurisdictions outside the United States to define disclosure requirements for transactions effected offshore.”).

A debate presently exists in the securities regulation literature on the merits of regulatory choice. Several commentators have argued that issuers should have some amount of regulatory choice in the securities regulatory regime that governs transactions in the issuers’ securities regardless of the physical location of the issuer. See Stephen J. Choi and Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. Cal. L. Rev. 903 (1998); Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 Yale L.J. 2359 (1998). But see Merritt B. Fox, *Securities Disclosure in a Globalizing Market: Who Should Regulate Whom*, 95 Mich. L. Rev. 2498 (1997) (arguing against regulatory choice and

With this policy choice, however, emerges a dilemma: what should regulators do about offshore offerings that result in resales of unregistered securities back into the United States.<sup>5</sup> The U.S. securities regime is transaction-focused. Once foreign investors possess investment intent and the offering has “come to rest abroad,” the investors are not treated as participating in the issuer’s distribution of the Regulation S securities.<sup>6</sup> Foreign investors may then freely resell into the United States.<sup>7</sup> Through resales, securities intended for foreign markets may make their way into the United States, providing issuers a means of avoiding the Securities Act’s registration requirements while indirectly placing their securities in U.S. markets. In the extreme, foreign purchasers may engage in short sales of a Regulation S securities into the United States immediately after making their purchase, thereby eliminating any investment risk to themselves and locking in whatever discount at which they purchase from the issuer.<sup>8</sup>

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advocating instead that the home country of an issuer should regulate the disclosure regime for the issuer regardless of where investors are located or transactions take place).

<sup>5</sup> In 1996, Arthur Levitt, the Chairman of the SEC, was quoted as stating that Regulation S was “one safe harbor with too many pirates in it.” Brett D. Fromson, SEC Tightens Overseas Sales Rules, Wash. Post, Oct. 11, 1996, at F3.

<sup>6</sup> See SEC, Registration of Foreign Offerings by Domestic Issuers; Registration of Underwriters of Foreign Offerings as Broker-Dealer, Securities Act Release No. 33-4708, 29 Fed. Reg. 9828 (1964) (“[T]he Commission has not taken any action for failure to register securities of United States corporations distributed abroad to foreign nationals, even though use of jurisdictional means may be involved in the offering. It is assumed in these situations that the distribution is to be effected in a manner which will result in the securities coming to rest abroad.”).

<sup>7</sup> See 1988 Proposing Release, *supra* note 1, at \*10 (“After the foreign distribution has been completed and the marketing efforts have terminated, routine secondary trading may begin as a matter of course. The periodic reporting requirements of the Exchange Act would protect investors in the U.S. market by assuring that information concerning the issuer would be available.”). See also Sara Hanks, Direct Regulation S Offerings and the SEC’s “Problematic Practices” Release, 2 Stan. J. L. Bus. & Fin. 303, 321 (1996) (“The author would suggest that the restricted period [of the Original Regulation S] raises a presumption against availability of Section [4(1)] during its running, which presumption is reversed on the fortieth day.”).

Foreign investors, for example, may use Section 4(1)’s exemption for transactions “not involving an issuer, underwriter, or dealer.” Section 4(1), Securities Act.

<sup>8</sup> In a well-publicized case, the SEC issued a cease-and-desist order against GFL Ultra Ltd., a British Virgin Islands investment company. See *In re GFL Ultra Fund Ltd.*, Securities Act Release No. 7423, [1997 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 85,949 at 89,752 (June 18, 1997). GFL Ultra had engaged in several purchases of securities sold overseas through Regulation S typically at a discount of 15 to 20 percent of the U.S. secondary market price. Rather than wait until the expiration of the 40-day restricted period under Regulation S, GFL Ultra immediately engaged in short sales of securities of the issuer inside the United States. At the end of the 40 day restricted period, GFL Ultra then used its Regulation S securities to cover its short position. GFL Ultra, therefore, was able to guarantee a profit from its large discount from the U.S. secondary market price without any risk to itself

The SEC responded to this policy dilemma in 1998 through the imposition of additional limitations on Regulation S transactions (the “1998 reforms”).<sup>9</sup> Under the 1998 reforms, all domestic issuers and distributors taking part in a Regulation S equity offering must comply with certification,<sup>10</sup> legending,<sup>11</sup> and stop-transfer<sup>12</sup> restrictions during the one-year “distribution compliance period” after the end of a Regulation S offering.<sup>13</sup> Once sold, Regulation S securities are also considered “restricted”;<sup>14</sup> foreign investors may not resell such securities into the United States without meeting the registration requirements under Section 5 of the Securities Act or an exemption from Section 5. For example, foreign investors may avail themselves of Rule 144’s resale exemption to the extent, among other requirements, they wait one year before commencing resales into the United States.<sup>15</sup>

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through its short sale technique. See *id.* at 89,753 & n.5 (reporting that the total profit to GFL Ultra was greater than \$840,000).

<sup>9</sup> See SEC, Securities Act Release No. 33-7505, Offshore Offers and Sales, 1998 WL 63607 [February 17, 1998] [hereinafter the “1998 Amending Release”]. The amendments embodied in Securities Act Release No. 33-7505 became effective on April 27, 1998.

In response specifically to the risk of short sales and other hedging transactions, the SEC in its 1998 reforms promulgated Rule 902(g)(1)(ii), requiring distributors of a Regulation S offering to agree in writing that they will “not engage in hedging transactions with regard to such securities prior to the expiration of the distribution compliance period specified in Category 2 or 3 . . . unless in compliance with the [Securities] Act.” Rule 902(g)(1)(ii), Securities Act. In addition, purchasers of a Category 3 Regulation S offering (including all domestic issuers of equity securities) must agree “not to engage in hedging transactions with regard to such securities unless in compliance with the [Securities] Act.” Rule 903(b)(3)(iii)(B)(2), Securities Act.

<sup>10</sup> Rule 903(b)(3) includes a requirement that purchasers certify that they are not a U.S. person and agree to resell the securities only in accordance with Regulation S, in compliance with Section 5’s registration requirements, or through another exemption from registration. See Rule 903(b)(3)(iii)(B)(1)-(2), Securities Act.

<sup>11</sup> Issuers are required to place a legend on issued securities indicating that the securities were sold through Regulation S and are unregistered. See Rule 903(b)(3)(iii)(3), Securities Act.

<sup>12</sup> Issuers are required to refuse to register any transfer of the securities not made in through a registered offering, an exemption from registration, or under the terms of Regulation S. See Rule 903(b)(3)(iii)(4), Securities Act.

<sup>13</sup> U.S. issuers of equity through a Regulation S offering face a distribution compliance period of 1 year. See Rule 903(b)(3)(iii), Securities Act. Prior to the expiration of the distribution compliance period issuers and distributors must ensure that “no offers or sales are made to a U.S. person or for the account or benefit of a U.S. person (other than a distributor).” See Rule 903(b)(2)(i), Securities Act. Issuers and distributors must also implement “offering restrictions” prior to the expiration of the distribution compliance period. See Rule 902(g), Securities Act.

<sup>14</sup> See Rule 905, Securities Act.

<sup>15</sup> See Rule 144, Securities Act. Rule 144 provides a safe harbor from the definition of an “underwriter” under the Securities Act for those who attempt to resell restricted securities. To the extent the conditions of Rule 144 are met, an investor may then use the transaction exemption under Section 4(1) of the Securities Act to avoid the registration requirement under Section 5 of the Securities Act. See Rule 144, Securities Act.

The desirability of the SEC's 1998 reforms to Regulation S turns on the possible harm to U.S. investors from the resale of unregistered securities into the United States.<sup>16</sup> This article focuses on one particular harm: the harm from the sale of overvalued securities. U.S. issuers, for example, may use foreign investors as conduits to sell unregistered securities quickly to unsuspecting purchasers in the United States when the market overvalues the securities.<sup>17</sup> Once the market learns of the overvaluation and the market price falls, U.S. purchasers experience negative returns to the benefit of both foreign investors and the issuer.

Crucial to the ability of issuers and foreign investors to gain at the expense of U.S. investors is the U.S. secondary market reaction to information about the offering prior to the commencement of resales into the United States. Where the market reacts negatively to information about a Regulation S offering prior to resales, for example, foreign investors receive a much lower return from their Regulation S investment; foreign investors will then demand a greater offering discount from the issuer in compensation, reducing the gain to the issuer.<sup>18</sup> To

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<sup>16</sup> See SEC, Problematic Practices Under Regulation S, Securities Act Release No. 33-7190, 1995 WL 385849 (S.E.C.) (June 27, 1995) [hereinafter, 1995 Problematic Practices Release]. Others have also questioned whether U.S. investors are harmed through resales of Regulation S securities into the United States. See Sara Hanks and Richard Cohn, *The Wrong Weapon and the Wrong Target: The SEC's Recent Proposed Changes to Regulation S*, 11 No. 8 Insights 23, 24 (1997) ("[The SEC] has never stated that investors are somehow harmed by the secondary trading of the securities into the United States after the securities have come to rest abroad. Indeed, the Commission has not even asserted that offerings complying with the provisions of the safe harbor have resulted in a large volume of flow back."); Hanks, *supra* note 7, at 325 (1996) (noting that "the first public grumblings about Regulation S came from shareholders who discovered that companies in which they had invested had made Regulation S offerings at substantial discounts from market price, resulting in the dilution of their holdings and often in reduced value of the securities.").

<sup>17</sup> I address the range of harms that Regulation S may pose to investors more fully in *The Unfounded Fear of Regulation S: Empirical Evidence on Offshore Securities Offerings* (Working Paper, 2000). For example, managers may use a Regulation S offering to engage in self-dealing, selling securities at a large discount to entities in which the managers own an equity interest.

<sup>18</sup> The offering discount is defined throughout the article in relation to the U.S. secondary market price for the issuer's common stock at the start of the Regulation S offering. The offering discount may be expressed as:

$$\text{Offering Discount} = \frac{\text{U.S. Secondary Market Price at Start of Offering} - \text{Offering Price}}{\text{U.S. Secondary Market Price at Start of Offering}}$$

the extent that market is correct in its reaction, eliminating the overvaluation, issuers and foreign investors receive no gain from the sale of securities into the U.S. securities market.

This article examines how the market reacts to information of a Regulation S offering and whether issuers are able to use Regulation S to engage indirectly in the sale of overvalued securities to U.S. investors before the U.S. market learns of the offering. The article provides evidence that, even under the original Regulation S, foreign investors were unable to resell before the U.S. markets learned of the offering. Therefore, although Regulation S offerings are sold at a discount, much of the discount represents compensation for the expected secondary market reaction to news of the offering.

Part I provides a theoretical discussion of the relationship of information-related effects in the U.S. secondary market to the Regulation S offering discount. Possible harms to U.S. investors are also analyzed. Part II reports the article's empirical tests of the information effect from a Regulation S offering. Part III concludes.

## **I. The Information Effect from Regulation S Offerings**

Regulation S offerings are typically sold at a large discount from the U.S. secondary market price at the time of the offering.<sup>19</sup> The discount is the result of a combination of factors. Foreign investors, for example, may demand compensation for the illiquidity risk they bear while

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<sup>19</sup> See BNA Securities Law Daily, May 25, 1999 at d7 (“Stock issued under Regulation S typically is priced at substantial discounts below the prevailing market price of the issuing company’s stock....”) (citing release from the U.S. Attorney for the Eastern District of New York dated May 21, 1999).

Indeed, it is unclear what harm U.S. investors suffer when a Regulation S offering is sold at a large premium relative to the fundamental value of the issued securities. Absent insider self-dealing or the presence of confidential information, foreign investors systematically lose relative to mostly U.S.-based pre-offering shareholders in the issuer when the foreign investors purchase at a premium. See *infra* 31 and accompanying text.

Nevertheless, the SEC has argued, in the context of convertible debt securities sold through Regulation S, that even securities sold with a high conversion premium relative to the U.S. secondary market price bring the possibility of abuse. See Adopting Release at \*5 (“The potential for abuse exists whenever a domestic issuer can create offshore, in a transaction not subject to the registration provisions of the U.S. securities laws, pools of equity



the securities are prohibited from resale into the United States.<sup>20</sup> Similarly, foreign investors, at an informational disadvantage relative to the issuer's management, may require payment for the risk that the foreign investors may misprice the offered securities. Managerial opportunism may also drive the discount. Insiders, for instance, may utilize a Regulation S offering to engage in self-dealing, selling securities at a large discount to entities in which the insiders own an interest. Insiders may also raise capital through Regulation S with the intention of using the capital for their own private purposes at the expense of shareholders.<sup>21</sup> Foreign investors then will demand a larger discount to compensate for the decrease in company value due to the suboptimal use of capital.<sup>22</sup> This section focuses specifically on the theoretical relationship between the offering discount and the expected secondary market price reaction to news of a Regulation S offering.

News of a Regulation S offering provides valuable information to the securities markets. All other things being equal, managers seeking to maximize the value to pre-offering shareholders will tend to promote offerings where they have reason to believe that the market overvalues the issuer's securities.<sup>23</sup> Conversely, managers will delay offerings where the market

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securities that appear to be immediately tradeable back into the United States because of their unrestricted status.”). The SEC, however, did not elaborate on the precise nature or magnitude of this potential “abuse”.

<sup>20</sup> See 1998 Amending Release, *supra* note 9, at \*16 (“The size of that price discount reflects, at least in part, the compensation buyers of shares receive for giving up the ability to readily sell the shares immediately in the public market.”).

<sup>21</sup> For example, managers may use the proceeds from a sale to engage in an acquisition to increase the quantity of the assets under their control regardless of the value to shareholders of the acquisition. Cf. Bernard S. Black, *Bidder Overpayment in Takeovers*, 41 *Stan. L. Rev.* 597, 599 (1989) (discussing the hypothesis that bidders in a takeover contest pay too much for the target company). Black writes: “These overpayments don't cause bidder stock prices to drop because investors already expect the bidder to waste the money, one way or another.” *Id.*

<sup>22</sup> For example, suppose that a company has 1,000 shares outstanding with a secondary market price of \$100 per share and a total aggregate fundamental value of \$100,000. The company then attempts to raise an additional \$100,000 capital through an offering, issuing 1,000 shares. To the extent the purchasing investors believe that the managers will simply squander the offering proceeds resulting in no net gain to the company, they will refuse to pay \$100 per share for the offering. Instead, purchasing investors will pay at most \$50 per share (the per share value post-offering where the company has 2,000 outstanding shares and is worth \$100,000). The prospect of suboptimal use of capital raised in the offering, therefore, results in a 50% discount from the secondary market price prior to the offering.

<sup>23</sup> See Stewart Myers and Nicholas S. Majluf, *Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have*, 132 *J. Fin. Econ.* 187 (1984) (describing the incentive of managers to sell securities where the secondary market price overvalues the company relative to its fundamental value). For

undervalues the securities.<sup>24</sup> For example, consider the following hypothetical situation involving Zorox, Inc., a company based in Missouri. Zorox has a U.S. secondary market price of \$100 per share and 1 million outstanding common shares traded on NASDAQ. Nevertheless, managers have non-public information that the per share fundamental value of Zorox is \$70, giving a \$30 difference between the secondary market price and the fundamental value (the “overvaluation surplus”).<sup>25</sup> To the extent managers successfully issue an additional 1 million shares of Zorox to the market at \$100 per share, they will increase the fundamental value of Zorox to \$85 per share, benefiting all pre-offering shareholders.<sup>26</sup> Rational investors in the market will recognize this incentive on the part of managers. The fact that a company’s managers seek to raise capital from the market may suggest that the managers believe the market presently overvalues the company.

The market will therefore take news of a Regulation S offering as a signal that the managers may believe the U.S. secondary market price overvalues the securities. Several other motivations, of course, exist for a Regulation S offering. For example, news that a company seeks specifically to raise capital abroad through Regulation S rather than inside the United States may also signal certain information to investors.<sup>27</sup> The possibility of other motivations,

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evidence see Paul Asquith & David W. Mullins, Jr., *Equity Issues and Offering Dilution*, 15 *J. Fin. Econ.* 61 (1986); Ronald W. Masulis & Ashok N. Korwar, *Seasoned Equity Offerings: An Empirical Investigation*, 15 *J. Fin. Econ.* 91 (1986); Wayne H. Mikkelson & M. Megan Partch, *Valuation Effects of Security Offerings and the Issuance Process*, 15 *J. Fin. Econ.* 31 (1986).

<sup>24</sup> See Robert A. Korajczyk et al., *The Effect of Information Releases on the Pricing and Timing of Equity Issues*, 4 *Rev. Fin. Stud.* 685, 688 - 92 (1992) (discussing the incentive of managers to delay an equity offering prior to the disclosure of positive information but not prior to the disclosure of negative information).

<sup>25</sup> For purposes of this article, define the fundamental value as the amount investors would pay for the issuer’s securities if they had the same knowledge as management on the valuation of the company.

<sup>26</sup> This assumes that managers do not simply waste the offering proceeds. To simplify, the article assumes, unless otherwise specified, that managers place the offering proceeds into an interest-bearing bank account, preserving the value for shareholders.

<sup>27</sup> Companies seeking to enter into a new geographical market, for example, may desire to establish shareholder ties with key individuals in those countries. For instance, Nord Pacific Resources Limited sold 600,000 of its common stock to Mineral Resources Development Company Pty, Limited, a corporation wholly owned by the Papua New Guinea government, in late 1997. Nord Pacific planned to use the proceeds of its offering to commence

therefore, may result in a noisy signal sent to the market. Nevertheless, to the extent the market suffers from no systematic biases in how it interprets information, on average the market will correctly determine the degree of overvaluation.<sup>28</sup>

For purposes of discussing the relationship between the offering discount and the secondary market effect from a Regulation S offering, consider two extreme situations for when the market learns of the Regulation S offering: (a) prior to when resales commence and (b) after foreign investors successfully have resold all of their securities into the United States at the pre-disclosure secondary market price.<sup>29</sup>

First, in situation (a) the market may learn of a Regulation S offering before foreign investors begin resales into the United States. An issuer, for example, may voluntarily make a public announcement of the offering before the end of the Regulation S restricted period. Alternatively, the market may learn of the Regulation S offering from the increase in trading volume as resales take place in the United States.<sup>30</sup> To the extent foreign investors are rational, they will take into account the expected secondary market price drop in computing the discount for which they negotiate.

For example, consider Yoshi, an investor located in Japan. Yoshi is considering the purchase of securities from Zorox, Inc. Again assume that 1 million shares of Zorox common stock is outstanding and trade on NASDAQ at \$100 per share. However, Yoshi's best estimate is that Zorox's secondary market price will drop to \$70 per share once information about the

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nickel and gold mining projects in Papua New Guinea. See Form 8-K filing for Nord Pacific LTD, December 27, 1997.

<sup>28</sup> The noise in the information signal sent from news of a Regulation S offering increases the variance in the market's overall reaction.

<sup>29</sup> The market may also learn about the Regulation S offering during the period in which foreigners are conducting resales into the United States. Foreign investors that expect such a situation will anticipate a secondary market reaction somewhere in between the two extremes as described in the text.

offering is made public. Yoshi does not expect to be able to resell into the United States until after information on the Regulation S offering is made public. Where Yoshi negotiates to pay \$100 per share, matching the present secondary market price, he will on average lose on his investment once information on the offering is made public.<sup>31</sup> On the other hand, where Yoshi negotiates to pay only \$70 per share, receiving shares at a 30% discount from the present secondary market price, he will on average break even once resales commence into the United States.<sup>32</sup> Yoshi's large Regulation S discount, therefore, does not benefit Yoshi at the expense of U.S. investors; rather, it simply reflects the anticipated U.S. secondary market price once resales are allowed to commence.<sup>33</sup>

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<sup>30</sup> An increase in trading volume may be due to several alternate possible factors. Nevertheless, a large rise in trading volume may focus analyst attention of the security, leading to further investigation that may pinpoint the cause.

<sup>31</sup> Not only will Yoshi lose systematically but pre-offering investors in Zorox will benefit. For example, assume that 1 million shares of Zorox are outstanding and that each share has a fundamental value of \$70 per share despite the market price of \$100. If Yoshi were to purchase an additional 1 million shares at \$100 per share, Zorox will take in \$100 million in cash, raising its fundamental value to \$85 per share. All pre-offering investors in Zorox therefore benefit at Yoshi's expense.

<sup>32</sup> Of course, the market is not always accurate. However, absent some systematic bias in the market, the market should on average be correct in its assessment of the overvaluation surplus. Rather than change the market's average reaction, inaccuracies will result in a greater variance in the market's reaction. Under certain circumstances, the variance of the market's reaction may provide foreign investors with non-public information on the value of the company with the ability to gain at the expense of U.S. investors from resales. For example, after the market reaction to news of a Regulation S offering, foreign investors may choose to engage in resales only when the market mistakenly continues to overvalue the securities; when the market undervalues the securities, foreign investors may simply choose to hold onto their securities until the market eventually corrects its valuation.

Foreign investors, nevertheless, may face pressure to sell their securities as quickly as possible regardless of whether the market under or overvalues the securities. In particular, foreign investors acting as conduits for the issuer may have a great deal of capital tied up in the Regulation S securities and thus face a large liquidity risk in addition to high capital costs. Such investors may resell into the United States even when the market undervalues the securities. The expected market reaction for such investors will therefore exactly equal the overvaluation surplus.

<sup>33</sup> In contrast, the SEC has noted that one common "abuse" that occurred prior to the 1998 reforms under Regulation S involved "placements of securities purportedly offshore under Regulation S under circumstances that indicate that such securities are in essence being placed offshore temporarily to evade registration requirements with the result that the incidence of ownership of the securities never leaves the U.S. market, or that a substantial portion of the economic risk...is left in or is returned to the U.S. market." See SEC, Problematic Practices Under Regulation S, Securities Act Release no. 33-7190, 60 FR 35663, 35664 (1995).

Where U.S. investors are fully aware of the Regulation S offering, however, before foreign investors are able to shift the risk of the offering back into the United States, foreign investors and issuers are unable to gain even against unsuspecting U.S. investors. To the extent the market price accurately adjusts downward to take into account the news of the Regulation S offering, foreign investors engaging in resales will receive the fundamental value of the securities post-disclosure.

Of course, Yoshi may have negotiated to pay only \$60 a share, below the fundamental value of Zorox. In this situation, he will still enjoy a discount even after the secondary market adjusts for news of the Regulation S offering. Where Yoshi, for example, purchases 1 million shares at \$60 per share, the fundamental value of Zorox will drop to only \$65 per share.<sup>34</sup> Yoshi gains \$5 per share. Importantly, the pre-offering shareholders in Zorox bear the loss from the offering discount below the fundamental value given to Yoshi. To the extent managers own shares in Zorox or are compensated through reference to the share price, managers are also harmed and will agree to an offering price less than the fundamental value of the company in two possible cases. First, managers that engage in self-dealing, selling securities to entities in which they own an equity interest, will readily discount Regulation S securities past the issuer's pre-offering fundamental value. Second, managers may choose to give unrelated foreign investors a discount to compensate the foreign investors for other risks associated with the offering, including the risk of illiquidity while the securities are prohibited from resale into the United States. Such compensation, in turn, may increase the value of the issuer to the extent the discount granted foreign investors is still lower in cost than alternate means of raising capital.<sup>35</sup>

In situation (b), the market learns of the Regulation S offering only after the initiation of resales into the United States and prices may fail to react to this information before foreign investors successfully complete their resales into the United States. Companies whose securities

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<sup>34</sup> Yoshi's purchase will result in offering proceeds of \$60 million to Zorox. Assuming Zorox simply puts the money in a bank account, the fundamental value of Zorox will increase to \$130 million (given a pre-offering fundamental value of \$70 million). With 2 million shares outstanding post-offering, the per share value will equal \$65 per share.

<sup>35</sup> See Hanks, *supra* note 7, at 313 - 14 ("It is no wonder that U.S. issuers favor a direct Regulation S transaction of this sort. Transaction costs are approximately ten percent of those involved in a public offering, and the transaction can be completed in days. This timing advantage is especially helpful where a company needs money fast to complete an acquisition, complete a build-out, or simply stay solvent."). But see Jon B. Jordan, *Regulation S and Offshore Capital: Will the New Amendments Rid the Safe Harbor of Pirates?*, 19 *Nw. J. Int'l L. & Bus.* 58, 85 - 86 (1998) ("[M]any American investors have perceived these discounts as providing an unfair market advantage to foreign investors.").

do not trade in an efficient market,<sup>36</sup> for example, may face the possibility of a slow market reaction to the commencement of resales into the market from foreign investors. Foreign investors that negotiate for a discount based on the negative market reaction to news of the Regulation S offering, therefore, will benefit relative to U.S. investors.

Consider Zorox, Inc. again. Assume that the present secondary market price is \$100 per share. Zorox managers, however, possess non-public information that the fundamental value is only \$70 per share. To take advantage of the market's overvaluation, managers choose to make a Regulation S offering to Gabrielle, a foreign investor, at \$95 per share. Gabrielle then resells quickly into the United States at \$100 per share just prior to Zorox's disclosure of the Regulation S offering. Any U.S. investors purchasing from Gabrielle, therefore, overpay relative to the \$70 fundamental value of Zorox by \$30 per share. Of the \$30 overvaluation surplus, Gabrielle receives a benefit of \$5 per share. The remaining \$25 goes to the issuer as proceeds from the Regulation S offering to the foreign investors, benefiting all pre-offering shareholders.

Note two important points about the theoretical possibility of managers using Regulation S to sell overvalued securities to U.S. investors. First, where securities are overvalued in the U.S. secondary market, managers must negotiate with foreign investors on how to split the return from this overvaluation. For example, in the Zorox hypothetical, managers could have sold Zorox stock to Gabrielle for \$75 per share, giving Gabrielle a gain of \$25 per share from

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<sup>36</sup> This article uses the term "efficient market" to refer to a trading market that displays features of a semi-strong efficient market. The semi-strong version of the efficient capital markets hypothesis posits that the secondary market price of companies reflects all publicly available information on the company. See Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 *J. Fin.* 383 (1970); see also Daniel R. Fischel, *Efficient Capital Markets, the Crash, and the Fraud in the Market Theory*, 74 *Cornell L. Rev.* 901, 911 & n.11 ("The empirical evidence to date (with some exceptions) appears to establish the validity of the weak and semi-strong but not the strong form of the efficient capital markets hypothesis.").

Others have argued that markets are not efficient because of investor irrationalities and cognitive limitations in processing information. See Donald C. Langevoort, *Theories, Assumptions, and Securities Regulation: Market Efficiency Revisited*, 140 *U. Pa. L. Rev.* 851, 853 - 54 (1992); Lynn A. Stout, *Are Stock Markets Costly Casinos? Disagreement, Market Failure, and Securities Regulation*, 81 *Va. L. Rev.* 611, 648 - 50 (1995).

reselling into the U.S. at \$100 per share and the Zorox prior shareholders a gain of \$5 from the overvaluation.

To the extent managers seek to maximize the welfare of pre-offering shareholders, however, managers will attempt to give foreign investors as *small* a discount as possible.<sup>37</sup> Managers, of course, may seek to maximize their own individual welfare. Where no self-dealing is involved, however, there is no incentive to give foreign investors an unnecessary premium. Therefore, in situations where it is likely that the U.S. secondary market will react slowly to information on Regulation S resales into the United States, managers will not negotiate to give foreign investors the entire information-related overvaluation surplus. The exact division of the overvaluation surplus will depend on the relative bargaining strengths of foreign intermediary investors and managers. Where many foreign investors compete to purchase Regulation S offerings, for example, managers will be able to capture more of the overvaluation surplus for the issuer and its pre-offering shareholders.

Second, the ability of foreign investors to resell securities in large quantities secretly into the United States faces a number of obstacles.<sup>38</sup> For issuers followed by several analysts, the increase in trading volume will receive immediate attention. Analysts may then, for example, investigate further to determine the source of the increased volume. Foreign investors that hope to take advantage of a slowly reacting market, therefore, must sell securities piecemeal into the market. Where several foreign investors own securities, they will also face a collective action problem in restraining themselves from flooding the market with their securities. Likewise,

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<sup>37</sup> In the alternative, issuers may set up a phony offshore shell entity to act as a foreign investor and then use the offshore entity to resell directly into the United States. See, e.g., Jordan, *supra* note 35, at 76 - 78 (1998). In the case of a phony offshore shell, issuers will have no incentive to give the shell any discount related to the overvaluation surplus. Instead, issuers will keep the entire surplus for themselves.

<sup>38</sup> Cf. Hanks, *supra*, at 328 ("In modern securities markets, decisions are made on a shorter term than forty days. Investments today are made on a fluid basis, and the holder of securities experiences far greater risk in a few

financial institutions with multinational offices may learn of a Regulation S offering from resales that occur abroad and convey this information to related analysts monitoring the issuer inside the United States.<sup>39</sup> On the other hand, not all companies enjoy an active analyst following.<sup>40</sup> The absence of analysts may make it more difficult for the market to respond accurately to the increased trading volume from resales into the United States. Nevertheless, where few analysts follow a particular company, the market typically is thinly traded.<sup>41</sup> A large influx of securities therefore may create a larger percentage increase in the trading volume, prompting even casual market participants to investigate further to determine the cause of the volume increase.

## **II. Empirical Tests of the Information Effect from Regulation S Offerings**

This Part provides an empirical test of whether foreign investors possess the ability to use Regulation S offerings to resell securities into U.S. markets prior to information disclosure of the offering, providing a conduit for issuers to sell overvalued securities indirectly to U.S. investors. As discussed in Part I, the discount that foreign investors negotiate will depend on whether foreign investors expect (a) the market to learn of the Regulation S offering prior to when resales commence or (b) the market to learn of the offering only after resales are concluded.

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days than would have been experienced over forty days several decades ago. In addition, distributions of securities come to rest in a much short period than in earlier decades.”).

<sup>39</sup> Many financial market intermediaries, for example, are now present in a large number of different countries. For example, The Goldman Sachs Group, Inc. has 41 offices in 23 countries worldwide. See [www.gs.com](http://www.gs.com) (visited February 3, 2000). Information that brokers in a Goldman Sachs office located in Paris learn of U.S. securities issued or traded abroad, therefore, may make its way easily into the U.S. markets through the Goldman Sachs office in New York.

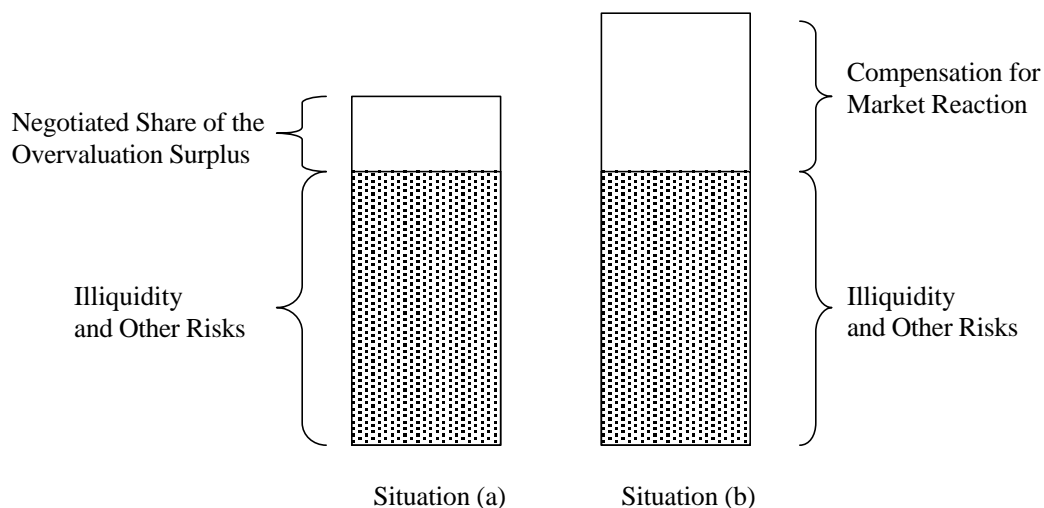
<sup>40</sup> Note that evidence exists that less than one thousand of the more than ten thousand Exchange Act reporting companies have at least one investment analyst actively following the company. See James D. Cox, Robert W. Hillman, and Donald C. Langevoort, *Securities Regulation: Cases and Materials* 41 (Little, Brown 1991) (citing Report of the Advisory Committee on Corporate Disclosure to the Securities and Exchange Commission xviii, 40-42 (1977)).

<sup>41</sup> For example, companies that trade on the U.S. over-the-counter pink sheets market have few active analysts tracking their securities and a relatively low daily trading volume. See also Harold S. Bloomenthal, *Securities and Federal Corporate Law*, 3E Sec. & Fed. Corp. Law s 23.10 (1999) (providing a description of the pink sheets market).



To the extent foreign investors expect the secondary market price to drop in response to information on the offering before resales may commence, they will refuse to pay any more than the expected post-disclosure secondary market price, resulting in a large discount. Where the market reaction is correct, foreign investors will demand a discount equal to the entire overvaluation surplus.<sup>42</sup> All other things being equal, therefore, the Regulation S offering discount will be *larger* for offerings where foreign investors expect the market to adjust for the Regulation S offering prior to resales.<sup>43</sup>

Figure 1 provides a graphic breakdown of the discounts that foreign investors will negotiate under situations (a) and (b).



**Figure 1: Breakdown of the Reg S Offering Discount for Situations (a) and (b)**

<sup>42</sup> For a discussion of the effect of market inaccuracy in its reaction to news of a Regulation S offering see supra note 32.

<sup>43</sup> Of course, everything else may not be equal. For example, post-SEC reporting reform fewer issuers may seek to use Regulation S with the goal of selling overvalued securities to U.S. investors. Nevertheless, the SEC's reforms did not eliminate the presence of overvalued securities in the U.S. secondary markets. Nor did the reforms reduce the incentive of managers with undervalued securities to forego an offering. The paper's empirical tests

To test whether foreign investors are able to resell prior to information disclosure of the Regulation S offering in the U.S. market, the article makes use of Securities and Exchange Commission (“SEC”) reforms in 1996 that greatly increased the amount of information on a Regulation S offering available to the U.S. investing public prior to the commencement of resales into the United States. After November 18, 1996, the SEC required issuers to reveal all equity-related Regulation S offerings under Item 9 of Form 8-K within 15 days of the offering (the “post-reporting reform” period).<sup>44</sup> In such situations, the secondary market will react to the disclosure of the Regulation S discount prior to any resales due to the 40-day restricted period.<sup>45</sup> To the extent foreign investors were able to resell prior to information disclosure pre-reporting reform, one would therefore expect that the offering discount *increased* after the reporting reforms, all other things being equal.

Using the article’s sample of Regulation S offerings, the article tests the information effect of Regulation S offerings. Part A provides a description of the article’s Regulation S data set. Part B reports the article’s empirical tests: first, the article tests the hypothesis that the market reacts negatively to a Regulation S offering. Second, the article examines the driving factors behind how the markets assess a Regulation S offering. Finally, the article tests whether,

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attempt to control for shifts in the pool of issuers seeking to engage in a Regulation S offering. See *infra* Part III.C & D.

<sup>44</sup> See Item 9 of Form 8-K, Exchange Act. See SEC, Periodic Reporting of Unregistered Equity Sales, Release No. 34-37801 (October 10, 1996). Prior to December 31, 1998, Item 9 of Form 8-K requires issuers of equity Regulation S securities to report the information mandated under Item 702 of Regulation S-B, including the offering date, the amount of securities, the total offering price, and the principal underwriters among other information.

After January 1, 1999, the SEC stopped requiring disclosure of Regulation S offerings within 15 days after the offering. Instead, issuers could disclose the offering at the time of their next periodic Exchange Act disclosure filing. See 1998 Amending Release, *supra* note 9, at \*12.

<sup>45</sup> On the other hand, where immediate short sales may occur of a Regulation S issuer’s securities into the United States both prior to and after the reporting reforms, one would expect no change in the offering discount, all other things being equal between the two time periods. For a discussion of this point see *infra* text accompanying note 104.

prior to the SEC's 1996 reporting reforms, issuers use Regulation S to sell overvalued securities through foreign intermediaries to U.S.-based investors.

#### **A. Description of the Regulation S Data Set**

The article's data set of Regulation S offerings spans from January 1, 1993 to December 31, 1997. Individual offerings are identified through examination of Securities Exchange Act of 1934 (the "Exchange Act") reporting filing forms 10-K, 10-Q, and 8-K on Lexis and Westlaw as well as the SEC's own internet version of the EDGAR databases.<sup>46</sup> The PR-Newswire and Wall Street Journal databases on Westlaw are also searched for press releases and news articles useful in identifying Regulation S offerings during the sample period.

Compared with the entire pool of Regulation S offerings, the data set contains two major limitations. First, the procedure used to identify the Regulation S offerings focuses only on Exchange Act reporting companies.<sup>47</sup> As a result, the article's empirical findings may not apply to smaller, non-Exchange Act reporting companies, including issuers that are not listed on a national securities exchange and that fail to meet the SEC's minimum net asset and number of shareholders requirements for Exchange Act reporting status.

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<sup>46</sup> See Forms 10-K, 10-Q, 8-K, Exchange Act. The SEC's online version of the EDGAR database is located on the internet at <http://www.sec.gov>.

<sup>47</sup> The Exchange Act imposes periodic information reporting requirements for certain issuers, commonly known as "Exchange Act reporting companies". Companies listed on a national securities exchange must register and comply with the SEC's periodic information disclosure requirements. See Section 13(a), Exchange Act; Section 12(b), Exchange Act; see also Section 3(a)(1), Exchange Act (defining "exchange" for the purposes of the Exchange Act). As well, companies whose total assets exceed \$10 million and have a class of equity security (other than an exempted security) held of record by more than 500 shareholders must register the securities under the Exchange Act and thereby come under the periodic reporting requirements of Section 13(a). See Section 13, Exchange Act; Section 12(g), Exchange Act; see also Rule 12g-1, Exchange Act (raising the asset requirement to \$10 million).

These required periodic information filings include annual Form 10-K, quarterly Form 10-Q, and occasional Form 8-K. See Section 13(a), Exchange Act; Regulation 13A (providing rules on periodic disclosure requirements of Exchange Act registered companies), Exchange Act; Forms 10-K, 10-Q, 8-K, Exchange Act. Companies which recently filed a registration statement which has become effective under the Securities Act must also comply with the periodic reporting requirements. See Section 15(d), Exchange Act.

Second, the article may miss a disproportionately large number of firms during the pre-reporting reform time period. Prior to the SEC's reporting reforms, issuers disclosed information on the offering in one of their SEC filings or financial statements only to the extent the offerings were "material" to the understanding of some other required information disclosure item.<sup>48</sup> For example, some issuers disclosed information on their Regulation S offerings in their required discussion on capital resources under Item 7 of the annual Form 10-K filing.<sup>49</sup> Regulation S offerings prior to November 1996 therefore comprise only a subset of the entire universe of Regulation S offerings. This subset, moreover, may be biased toward offerings where the issuer believed that disclosure of the offering outweighed any negative effects from disclosure. Nevertheless, due to the materiality requirement for SEC filings, the search uncovers the majority of larger size offerings.

The number of Regulation S offerings in the article's data sample is reported in Table 1 for both for the entire sample and for the subset of the sample not related to a Rule 144A offering. Rule 144A offerings differ from stand-alone Regulation S offering in a number of important ways. Technically only a resale exemption, Rule 144A provides purchasers of a Regulation S offering the ability to resell purchased securities quickly to qualified institutional buyers ("QIBs") comprised mostly of large financial institutions.<sup>50</sup> The prospect of a liquid

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<sup>48</sup> See Rule 408, Securities Act.

<sup>49</sup> Exchange Act reporting companies must make an annual Form 10-K filing with the SEC. Item 7 of Form 10-K, in turn, requires the disclosure of information described in Item 303 of Regulation S-K. See Item 7, Form 10-K (Management's Discussion and Analysis of Financial Condition and Results of Operation); Item 303, Regulation S-K. Issuers may also voluntarily disclose their Regulation S offerings under Item 5 of Form 8-K to the extent the offering was "important". See Item 5 of Form 8-K, Exchange Act.

<sup>50</sup> Rule 144A(a)(1) of the Securities Act defines a Qualified Institutional Buyer as an institutional entity that "in the aggregate owns and invests on a discretionary basis at least \$100 million in securities of issuers that are not affiliated with the entity . . ." Rule 144A(a)(1)(i), Securities Act. Dealers registered pursuant to Section 15 of the Exchange Act must meet only a \$10 million requirement. See Rule 144A(a)(1)(ii), Securities Act. For the securities of non-Exchange Act reporting issuers, the purchaser has the right to demand certain specified information at its discretion. Rule 144A(d)(4), Securities Act. Finally, Rule 144A prohibits securities sold under its provisions from consisting of the same class of any security of the issuer listed on a U.S. securities exchange or traded on an automated U.S. interdealer quotation system, such as NASDAQ (the "non-fungibility" requirement). Securities

aftermarket may result in a reduced discount for Rule 144A-related Regulation S offerings.<sup>51</sup>

Many of the Rule 144A offerings also involve simultaneous placements inside the United States and therefore more regulatory protections for investors than purely overseas Regulation S offerings.

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convertible into a security that does trade on NASDAQ or a national securities exchange are nevertheless considered in compliance with the non-fungibility requirement to the extent a premium on conversion of at least 10% is applied. See Rule 144A(d)(3)(i), Securities Act.

<sup>51</sup> The PORTAL market provides QIBs a forum to execute and settle transactions in non-registered securities pursuant to Rule 144A. For a particular issuer's securities to trade in the PORTAL market, the National Association of Securities Dealers must first grant their approval. See Hal S. Scott and Philip A. Wellons, *International Finance: Transactions, Policy, and Regulation* 83-84 (1997, 4th Ed.) (describing the PORTAL market). Due in part to the PORTAL market, the quantity of resales taking advantage of Rule 144A has grown dramatically. From 8 placements totaling \$916.0 million in 1990, the use of Rule 144A grew to 243 placements totaling \$44.672 billion in 1993. See Staff Report on Rule 144A [1994-1995 Decisions] Fed. Sec. L. Rep. (CCH) P 85,428 (Aug. 18, 1994).

In addition, Rule 144A offerings may result in an offering premium to satisfy the non-fungibility requirement for a Rule 144A resale. See *supra* note 50 (describing the non-fungibility requirement of Rule 144A). See also Alan L. Beller, Memorandum from Cravath, Swaine & Moore Regarding Sales of Convertible Securities of U.S. Reporting Companies Under Regulation S (August 24, 1998) RE: Sales of Convertible Securities of U.S. Reporting Companies Under Regulation S, 1085 PLI/Corp. 177, 179 (1998) (noting that the average conversion premium for Rule 144A offerings that include a tranche of securities issued under Regulation S was "well above the 10% threshold required under Rule 144A").

Table 1: Number of Regulation S Offerings Over Sample Time Period

Year	Number of Offerings	Median Offering Amount (millions)	Median Offering Amount (millions)	Market Capitalization (millions)
1993	30	195.0	16.9	1147.8
1994	88	15.2	2.3	204.8
1995	120	18.4	2.6	480.2
1996	249	28.4	2.2	218.1
1997	214	43.3	2.0	400.0
Total	701	36.6	2.3	356.1

Number of Non-Rule 144A Regulation S Offerings

Year	Number of Offerings	Median Offering Amount (millions)	Median Offering Amount (millions)	Market Capitalization (millions)
1993	21	104.9	7.0	174.1
1994	82	7.3	2.0	65.6
1995	109	6.1	2.2	326.4
1996	216	5.5	1.5	70.5
1997	174	7.7	1.5	101.4
Total	602	9.3	1.8	128.7

The summary data in Table 1 provides some evidence that sample selection bias may exist in the data set. In particular, Regulation S offerings from 1993 are both small in number and have a significantly larger mean offering amount relative to other years in the data set. Compared with the 1997 mean offering amount of \$43.3 million, the difference with the 1993 offering amount of \$195.0 million is significant at the 5% confidence level. Two possible explanations exist for this shift. First, in 1993 Regulation S issuers may have generally issued larger dollar amounts of securities. Second, as discussed above, the article's data collection methodology may miss smaller offering amount issuers in 1993. The article, therefore, cannot rule out the possibility of data sample bias for the pre-SEC reporting reform years. On the other hand, the mean offering amount in 1994 is significantly *less* than the offering amount in 1997 (at

the 5% confidence level). Evidence exists therefore that the sample selection bias problem is less severe post-1993.

Offerings of five different types of securities Regulation S treats as equity are tracked:<sup>52</sup> (1) common stock, (2) non-convertible preferred stock, (3) convertible preferred stock, (4) convertible debt securities, and (5) other types of equity-related securities (including warrants). The breakdown of the different securities offerings is presented below in Table 2.

Table 2: Breakdown of Regulation S Offerings by Security Type

Security	Number of Offerings	Percent of Total Reg S Offerings	Mean Offering Amount (\$ millions)	Median Offering Amount (\$ millions)
Common	378	53.9%	7.18	1.50
Preferred Non-Convertible	4	0.6	6.13	7.50
Preferred Convertible	102	14.6	60.96	4.19
Debt Convertible	209	29.8	69.50	5.38
Other	8	1.1	52.93	35.49
Total	701	100.0	36.43	2.28

Note that the majority of offerings were for common stock. However, common stock offerings tended to be for a smaller offering amount, with a mean of \$7.18 million.

<sup>52</sup> The original Regulation S did not provide a formal definition of “equity” security. In application, debt securities that provided for conversion into an equity security within the one-year restricted period for debt securities were considered as equity. Debt securities that provided for conversion only after the one-year restricted period for debt were not considered equity. See Lander, *supra* note 1, at 372 – 374. The conversion time period for all convertible debt securities in the article’s data set were examined to ensure that the conversion period occurred prior to the end of the one-year restricted period.

Notet that the SEC’s 1998 reforms widened the definition of “equity” securities to include all securities convertible into “stock, warrants, options, rights to purchase stock, and other types of equity-related securities.” 1998 Amending Release *supra* note 9, at \*4. Rule 902(a) states that a “debt security” means any security other than an equity security defined in Rule 405 of the Securities Act. Rule 405, in turn, defines an equity security to mean “any stock or similar security...or any security convertible, with or without consideration into such security, or carrying any warrant or right to subscribe to or purchase such a security; or any such warrant or right; or any put, call, straddle, or other option or privilege of buying such security from or selling such a security to another without being bound to do so.” Rule 405, Securities Act.

## **B. Empirical Tests of the Information Effect from a Regulation S Offering**

To test the informational impact of a Regulation S offering, the article examines the U.S. secondary market reaction to an offering using event study methodology developed in the finance economics literature.<sup>53</sup> Where the market for a particular company is efficient, the secondary market price will incorporate publicly announced information rapidly into the stock market price.<sup>54</sup> Examining the U.S. secondary market reaction to the disclosure of information, therefore, provides a means of gauging how the disclosed information affects shareholder welfare.<sup>55</sup>

To calculate the impact of information on the secondary market price of a security, the article's event study methodology utilizes the following steps. First, the article selects an event time window for when information on the Regulation S offering reaches the U.S. secondary market. To assess the impact of information disclosure event on secondary market prices for all the offerings in the sample, the article tracks the returns from the start of the offering date to both 6 weeks and 8 weeks after the start of the Regulation S offering as a match to the 40-day restricted period relevant for offerings during the article's sample time period.<sup>56</sup> Because the 40-

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<sup>53</sup> See Stephen J. Brown & Jerold B. Warner, *Measuring Security Price Performance*, 8 *J. Fin. Econ.* 205 (1980); John Y. Campbell, Andrew W. Lo, A. Craig MacKinlay, *The Econometrics of Financial Markets* 149 – 178 (1997) (describing methods of event study analysis); A. Craig MacKinlay, *Event Studies in Economics and Finance*, 35 *J. Econ. Literature* 13, 27 (1997).

<sup>54</sup> The article's data sample restriction to only Exchange Act reporting companies provides support for the efficient market assumption. But see *supra* note 40 (reporting empirical data on the analyst following of Exchange Act reporting companies).

<sup>55</sup> Many studies use the event study to gauge the wealth effects of new information on shareholders. See Eugene Fama et al., *The Adjustment of Stock Prices to New Information*, 10 *Int. Econ. Rev.* 1 (1969); Jean-Claude Bosch, E. Woodrow Eckard, Vijay Singal, *The Competitive Impact of Air Crashes: Stock Market Evidence*, 41 *J. L. & Econ.*, 503 (1998). For examples of event studies in the legal literature see Roberta Romano, *The Genius of American Corporate Law* (1993).

<sup>56</sup> Prior to the SEC's 1998 reforms, U.S. Exchange Act reporting issuers that sought to sell equity abroad through Regulation S faced a 40-day restricted period. See Original Regulation S, Rule 903(c)(2)(iii), Securities Act. Domestic U.S. issuers seeking to sell equity securities through Regulation S now face a 1-year distribution compliance period. See *supra* note 13 (describing the distribution compliance period requirements).



day restricted period is measured from the close of the offering,<sup>57</sup> resales may commence even after 6 weeks from the start of the offering depending on the duration of the offering. The 8-week event period is therefore used to capture the information effects for longer duration offerings. In addition, the article tracked returns from 2 weeks prior to the offering again to both 6 weeks and 8 weeks post-offering to assess the information effect from any pre-offering announcements to the market.

Prior to the November 1996 SEC reporting reforms, Regulation S issuers faced no specific requirement that they disclose their Regulation S offerings.<sup>58</sup> Thus, investors may learn of the offering only when resales commence in the U.S. after the 40-day restricted period.<sup>59</sup> The 6-week and 8-week event windows, therefore, allow the article to assess information obtained on a Regulation S offering during the pre-reporting reform time period from, among other things, the initiation of resales into the United States market. Conversely, information about the Regulation S offering may have reached the U.S. equity markets earlier than the 6-week and 8-week event windows for offerings that occurred after the SEC's reporting reforms.<sup>60</sup> For post-reporting reform offerings, nevertheless, the article's event windows capture disclosures from issuers slow to meet their obligation to report their Regulation S offering.<sup>61</sup> For issuers that report their offerings in a timely manner, the expanded event windows provide a bias against

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<sup>57</sup> See Original Regulation S, Rule 902(m), Securities Act.

<sup>58</sup> See supra text accompanying notes 48 - 49 (discussing materiality and other requirements that may have led issuers to disclose their Regulation S offering despite no specific disclosure mandate).

<sup>59</sup> See Rule 903, Securities Act. Indeed, foreign investors have, in the past, sold into the United States prior to the expiration of the 40-day waiting period. In 1996, for example, the National Association of Securities Dealers Regulation Inc. fined Alex, Brown & Son for assisting resales back into the U.S. before the end of the 40-day period. See National Association of Securities Dealers Inc.: Alex, Brown, Rep Agree to Fines over Sale of Regulation S Securities, 28 Securities Regulation & Law Report 1217, October 4, 1996.

<sup>60</sup> See supra note 44 - 45 and accompany text.

<sup>61</sup> For example, XXSYS Technologies Inc. conducted a \$2 million common stock Regulation S offering on March 18, 1997 but did not file a Form 8-K reporting on the offering until May 16, 1997, almost two months after the offering.

finding a significant abnormal market reaction.<sup>62</sup> To the extent the article finds a substantial market reaction post-reform using the 6-week and 8-week event windows, therefore, the results are even more significant.

Second, daily secondary market common stock returns are collected from the Center for Research on Security Prices (“CRSP”) for each Regulation S offering.<sup>63</sup> Looking at the secondary market returns during the event window, however, may provide a misleading picture of the impact of a Regulation S offering on the market price. Without any new information, investors will expect an equity investment to provide a risk-adjusted return equivalent to other possible investments (the “expected return”). To separate the return due to the information effect from the expected return, the article estimates the expected return for each issuer’s common stock based on the market model.<sup>64</sup> The daily excess return is then defined to equal the unadjusted secondary market return minus the expected return; the excess return therefore represents a measure of the information’s impact on the stock price of the issuer for a particular day.

Finally, daily excess returns are summed across time in the event window, giving the cumulated excess return (“CER”). The cumulated excess return is taken as the market’s overall

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<sup>62</sup> Expanding the event window to time periods where no significant information is released to the market will, on average, not change the cumulative excess return. On the other hand, the standard error will increase, leading to a lower likelihood that the cumulative excess return will be statistically significant.

<sup>63</sup> The Center for Research in Security Prices is based at the University of Chicago Graduate School of Business.

<sup>64</sup> The market model treats the return for any security as a function of the total market return. For security  $i$ , for example, the expected return for time period  $t$  ( $R_{it}$ ) is equal to:

$$R_{it} = a + b_i R_{mt} + e_{it}$$

Where  $R_{mt}$  is the market return and  $e_{it}$  is the zero mean disturbance term. See Campbell et al., *supra* note 53, at 155 (describing the market model). A value-weighted return based on all the securities trading on the exchange in which the issuer’s securities are listed is used for the market return. The value-weighted return for all NASDAQ securities is used for securities trading on NASDAQ. For each security, returns from -260 trading days to -10 trading days prior to the start of the offering are used to estimate the parameters of the market model.

reaction to the new information. Table 3 reports the cumulative excess returns for all the Regulation S offerings in the sample for the selected event windows.

Table 3: Cumulative Excess Returns from Event Study (All Reg S Offerings)

Time Window	Observations	CER	t-statistic
+0 to +6 Weeks	382	-3.99%	-3.177**
+0 to +8 Weeks	381	-5.36%	-3.672**
-2 to +6 Weeks	379	-4.51%	-3.628**
-2 to +8 Weeks	377	-6.00%	-4.021**

\*\* 5% level; \* 10% level.

Cumulative Excess Returns from Event Study (Excluding Rule 144A Offerings)

Time Window	Observations	CER	t-statistic
+0 to +6 Weeks	300	-3.83%	-2.311**
+0 to +8 Weeks	299	-5.11%	-2.668**
-2 to +6 Weeks	298	-3.82%	-2.221**
-2 to +8 Weeks	296	-5.27%	-2.549**

\*\* 5% level; \* 10% level.

Note from Table 3 that after a Regulation S offering, issuers receive a strong negative cumulative excess return. In particular, for all Regulation S offerings, the cumulative excess return is -3.99% for the +0 to +6 week event window; similarly, for the +0 to +8 week event window, the cumulative excess return is -5.36%. For the sample of Regulation S offerings excluding Rule 144A-related transactions, the secondary market reacts similarly. The cumulative excess return is -3.83% for the +0 to +6 week event window; for the +0 to +8 week event window, the cumulative excess return is -5.11%. All the CERs reported in Table 3 are significant at the 5% confidence level.<sup>65</sup>

The evidence from the event study is consistent with the hypothesis that news of a Regulation S offering results in a negative reaction on average in the U.S. securities markets.

U.S. investors, on the one hand, that purchase a particular Regulation S issuer's securities prior to disclosure are harmed as the information about the offering results in a negative return. On the other hand, U.S. investors that *sell* prior to information disclosure are correspondingly benefited. The harm from the information signal due to a Regulation S offering, therefore, is no different from the harm from any other form of negative information disclosure. Only where foreign investors are able to sell prior to release of the Regulation S offering news into the market are U.S. investors as a group systematically harmed from the secondary market's pre-offering overvaluation of the issuer's securities.

To test the driving factors behind how the market reacts to a Regulation S offering, the article estimates a multivariate ordinary least squares model using the 8-week cumulative excess return as the dependent variable. Five sets of independent variables are included in the model.

First, independent variables related to the informational disadvantage outside investors may find themselves relative to management are added to the model. The lower the informational disadvantage, the less likely the offering will provide a signal that the market has overvalued the issuer's securities. The model uses the natural log of the market capitalization of the issuer as a proxy for the informational disadvantage that outside investors face.<sup>65</sup> Analysts are more likely to follow companies with a greater market capitalization, reducing the informational disadvantage against outside investors. Greater market capitalization, therefore, should lead to a reduced negative market reaction to the offering, all other things being equal.

Second, the larger the offering amount, the greater the signal sent to that market that management believes the company's stock is overvalued. All other things being equal, the gain

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<sup>65</sup> Test statistics for significance based on the Student-t distribution are calculated using the method described in Brown and Warner, *supra* note 53, at 28 – 29.

<sup>66</sup> The natural log transformation is used to generate a more normally distributed independent variable for the market capitalization of the issuer.

from the sale of overvalued securities into the market is larger the more securities that are sold into the market. Managers, therefore, will tend to make larger size offerings when they believe the company's securities are overvalued. Moreover, the size of the offering relative to the issuer's total market capitalization is important. The market will interpret an attempt to make an offering of \$1 million where the issuer has a market capitalization of \$1 million as a stronger signal of overvaluation than an offering of \$1 million where the market capitalization is \$100 million. The model therefore includes the natural log of the offering amount to market capitalization ratio.<sup>67</sup>

Third, independent variables relating to the incentives of managers are included in the model. In particular, managers may use the offering for their own purposes. Some managers may engage in self-dealing, selling securities to themselves at greatly discounted prices at the expense of shareholders.<sup>68</sup> The U.S. market may react negatively to insider self-dealing for two reasons: (1) the shares of non-insider investors are diluted in value and (2) the self-dealing sends a signal that managers may be more likely to engage in subsequent self-dealing activities. The fraction of the board composed of insiders and the fraction of shares owned by managers and directors are included in the model to control for this possibility. The greater fraction of managers on the board of directors, the more leeway managers may have to use the offering for their own purposes.<sup>69</sup> The greater the fraction of shares owned by managers, in contrast, the less

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<sup>67</sup> The natural log transformation is used to generate a more normally distributed independent variable for the offering amount to market capitalization ratio.

<sup>68</sup> For example, Cheniere Energy, Inc. in 1997 sold securities through Regulation S to an overseas investor using Investors Administration Services, Ltd. as its placement agent. One of the principals of the placement agent was the brother of the Chairman of Cheniere Energy. See Form 8-K filing for Cheniere Energy, Inc., August 27, 1997. Managers may also make suboptimal use of the offering proceeds, increasing the managers' own private welfare at the expense of all the issuer's shareholders. See supra notes 21 - 22 and accompanying text.

<sup>69</sup> The composition of each Regulation S issuer's board of directors is obtained through examination of the issuer's proxy filing with the SEC for the year of the offering.

likely that managers will conduct an offering that dilutes their share value.<sup>70</sup> The model also includes a dummy variable for instances where the issuer explicitly reports that the sale is to an insider and a dummy variable for purchasers that obtain a board seat as part of the offering.

Fourth, the model includes controls for the offering's stated use of proceeds. Investors may value an offering differently depending on how the issuer plans to use the proceeds. For example, an issuer with a plan to expand into new markets may receive a different market reaction from an issuer that simply states the proceeds will be used to repay debt.<sup>71</sup> The use of proceeds for each offering is determined through examination of press releases and SEC filing information on the offerings. In cases where multiple uses of proceeds were cited, the first stated use is recorded as the main use of proceeds. Where no use of proceeds is mentioned, the offering is assigned to the "general corporate purposes" use of proceeds category.<sup>72</sup> Dummy variables for whether the use of proceeds are for working capital, product development, capital expenditure, business expansion, balance sheet strengthening, or the repayment of debts are added to the model to compare against the baseline general corporate purposes use of proceeds.<sup>73</sup>

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<sup>70</sup> The beneficial ownership of common shares for the group of all directors and officers as reported in the Regulation S issuer's SEC proxy filing for the year of the offering is used as a measure of the share ownership of directors and officers.

<sup>71</sup> In the article's sample of Regulation S offerings, 21 offerings state business expansion as the first use of proceeds; in turn, 29 offerings state debt repayment as the first use of proceeds.

<sup>72</sup> In addition, 15 Regulation S offerings explicitly stated a "general corporate purposes" use of proceeds.

<sup>73</sup> The table below provides a breakdown of the Regulation S offerings by the use of proceeds. Where more than one use of proceeds is cited in the Regulation S disclosure, the first stated use of proceeds is taken as the use of proceeds for the offering. Note the frequency for the "General Corporate Purposes" category includes only those offerings that explicitly stated a "General Corporate Purposes" use of proceeds. The baseline "General Corporate Purposes" category used in the article's CER model includes both offerings that explicitly state the "General Corporate Purposes" use of proceeds as well as offerings that state no explicit use of proceeds.

Likewise, the greater the number of contacts the issuer has with the world, the less suspect the issuer's motive in making an international securities offerings. Contacts overseas may take the form of either factories or other productive enterprises abroad or overseas export markets to which the company sells. To capture this possibility, the number of countries in which the firm either conducted operations or sold products and services is included in the model. For each Regulation S issuer, the number of countries in which the firm either conducted operations or sold products and services was collected through examination of each firm's SEC 10-K filing concurrent with the offering year.<sup>74</sup>

Finally, the model includes a set of controls for the type of offering. A dummy variable for whether the offered security is common stock is added to the model to control for the possibility that the market reacts differently to changes in the outstanding capital stock of the issuer that involve common stock as opposed to preferred stock or convertible debt securities. Similarly, a dummy variable for whether the offering is a Rule 144A-related Regulation S offering is used in the model. Rule 144A offerings typically involve larger market capitalization

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Table: Use of Proceeds Breakdown for the Regulation S Offerings

Use of Proceeds	Frequency	Percentage
Working Capital	34	19.4%
Product Development	25	14.3%
Debt Repayment	29	16.6%
Build Facilities	10	5.7%
Acquisition	24	13.7%
Business Expansion	21	12.0%
Balance Sheet	17	9.7%
General Corporate Purposes	15	8.6%
Total	175	100.0%

<sup>74</sup> The article calculates the number of world contacts as follows: For each specific country mentioned in the Form 10-K filing, the number of world contacts is increased by 1. Where the issuer's Form 10-K only mentions a particular continent, the average number of contacts other issuers in the article's sample had in the particular continent, conditional on the issuers' having at least one contact, is used as the number of contacts for that continent. For example, in the entire sample, companies that listed at least one country in Europe on average listed 5 European countries. Issuers that listed Europe, therefore, have their number of world contacts increased by 5.

issuers selling significant amounts of securities to institutional investors.<sup>75</sup> The U.S. secondary market, consequently, may interpret a Rule 144A offering differently.<sup>76</sup>

Table 5 reports the results from the model for the entire set of Regulation S offerings. Because the market receives more timely information on Regulation S offering after the SEC's reporting reforms, the market reaction to news of a Regulation S offering may differ post-reporting reform. Table 5 therefore also reports the model estimated only for Regulation S offerings that occurred after the SEC reporting reforms took effect in November 1996.

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<sup>75</sup> See supra notes 50 - 51 and accompanying text (describing the requirements of a Rule 144A offering).

<sup>76</sup> For example, the high market capitalization and the presence of reputable institutional investors may lead the market to view the offering as one providing a decreased risk of overvalued resales into the United States.



Table 5: OLS Model of 8-Week Cumulative Excess Return

Independent Variables	All Regulation S Offerings	Post SEC-Reporting Reform Offerings Only
Natural Log of Market Capitalization	0.007 (0.372)	-0.002 (-0.054)
Natural Log of the Offering Amount to Market Capitalization Ratio	-0.042** (-2.377)	-0.095** (-3.176)
Dummy Variable for Common Stock	0.039 (0.877)	0.065 (0.882)
Dummy Variable for 144A Offering	0.053 (0.731)	0.115 (0.870)
Fraction of Board Comprised of Officers	-0.067 (-0.598)	0.138 (0.680)
Fraction of Common Stock owned by Directors and Officers	-0.095 (-0.874)	-0.153 (-0.832)
Dummy Variable for New Board Seat	0.332** (2.197)	0.572** (2.709)
Dummy Variable for Insider Purchase	0.033 (0.139)	.
Number of World Contacts	-0.006* (-1.901)	-0.005 (-0.912)
Dummy Variable for General Corporate Purposes	Base	Base
Dummy Variable for Working Capital	-0.016 (-0.176)	-0.085 (-0.701)
Dummy Variable for Product Development	0.225** (2.913)	-0.015 (-0.081)
Dummy Variable for Capital Expenditures	0.093 (0.818)	0.104 (0.694)
Dummy Variable for Business Expansion	0.120 (1.185)	0.266† (1.336)
Dummy Variable for Acquisition	-0.036 (-0.410)	0.067 (0.567)
Dummy Variable for Balance Sheet	0.115 (1.075)	0.215 (1.070)
Dummy Variable for Debt Repayment	-0.048 (-0.611)	-0.056 (-0.437)
Constant	-0.138† (-1.422)	-0.362** (-2.371)
Observations	317	124
F-value	1.90**	1.79**
Adjusted R2	0.044	0.088

\*\* 5% level; \* 10% level. †20% level. F-value tests the joint hypothesis that all regression coefficients equal zero.

From Table 5 note several points. First, the coefficient on the natural log of the offering amount to market capitalization ratio is negative and significant at the 5% confidence level for both the entire sample of offerings and the post-SEC reporting reform offerings. The more securities that managers attempt to sell into the market, the greater the negative reaction in the market. Evidence therefore exists that the stock market price of an issuer responds negatively to a signal that managers believe the issuer's common stock is overvalued. Nevertheless, the evidence is also consistent with the possibility that the negative market reaction is the result of price pressure from the increased volume of securities arising from resales of the Regulation S securities into the United States.<sup>77</sup>

Third, offerings where the purchaser obtains a board seat result in a more positive reaction to the offering. The coefficient on the dummy variable for the purchase of a board seat is positive in both models (significant at the 5% for all Regulation S offerings and for offerings after the SEC reporting reform). Where a clear purpose exists for the Regulation S offering, as indicated through the attainment of a board seat by the purchaser, there is less likelihood that the offering is conducted solely because managers believe the company's stock is overvalued. The purchase of a board seat by the foreign investor also may indicate increased oversight over management in favor of shareholders generally. Therefore, the market reacts more positively to such offerings.

Finally, note that weak evidence exists that the market reaction varies depending on the issuer's stated use of proceeds. For the sample of all Regulation S offerings, the coefficient on

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<sup>77</sup> See Lynn A. Stout, *Are Takeover Premiums Really Premiums? Market Price, Fair Value, and Corporate Law*, 99 *Yale L.J.* 1235 (1990) (discussing the argument that investors hold heterogenous beliefs with respect to securities valuation and that securities demand is therefore a downward sloping function). But see Richard A. Brealey & Stewart C. Myers, *Principles of Corporate Finance* 345 - 46 (5th ed. 1996). (noting that the efficient market theory leads to the conclusion that the demand curve for a security investment is perfectly elastic); Alfred E. Osborne, Jr., *Rule 144A Volume Limitations and the Sale of Restricted Stock in the Over-The-Counter Market*, 37

the dummy variable for product development use of proceeds was positive and significant at the 5% level (although negative and insignificant for offerings after the 1996 reporting reform). Likewise, the dummy variable for business expansion use of proceeds is positive (insignificant, however, for all Regulation S offerings; significant at only the 20% for offerings after the 1996 reporting reform). Both working capital and debt repayment, on the other hand, correlate with a more negative market reaction relative to general corporate purposes; neither dummy variable, however, is statistically insignificant.

### **C. Tests of the Overvaluation Resale Hypothesis**

The market's negative reaction to Regulation S offerings is consistent with both the hypothesis that managers are able to use foreign investors to distribute securities at overvalued prices to unsuspecting U.S. investors (the "overvaluation resale hypothesis") and the hypothesis that managers are unable to take advantage of overvaluation through Regulation S because the market reacts too quickly to news of the Regulation S offering.<sup>78</sup> This section examines the relationship between the expected market reaction to a Regulation S offering with the offering discount to test directly the overvaluation resale hypothesis.

Little empirical evidence exists on whether issuers and foreign investors used Regulation S to sell overvalued securities into the United States prior to the reporting reforms. Professors Aggarwal, Gray, and Singer conduct a recent study of 192 Regulation S offerings.<sup>79</sup> They find, among other things, that Regulation S offerings in their data sample consist of primarily smaller

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J. Fin. 505, 514 (1982) (finding no relationship between the market reaction to Rule 144A resales and the size of the transaction).

<sup>78</sup> See supra 40 - 41 (discussing how the U.S. market may learn of a Regulation S offering even without any disclosure from the issuer).

<sup>79</sup> See Reena Aggarwal, Ian Gray, Hal Singer, Capital Raising in the Offshore Market, 23 Journal of Banking and Finance 1181, 1190 - 91 (1999).

market capitalization firms.<sup>80</sup> Foreign investors of Regulation S offerings from their sample also receive large discounts.<sup>81</sup> Testing whether issuers are “gaming the system” through sales of discounted securities to foreign investors timed to enable the foreign investors to resell into the United States prior to information disclosure on the offering, Aggarwal, Gray, and Singer hypothesize that some offerings are sold to foreign investors with enough lead time before the next Form 10-Q filing to provide the foreign investors an option to resell into the United States before the market receives information on the offering. They report evidence that offerings that take place with such a pre-disclosure resale option receive a greater discount than offerings that occur without a resale option.<sup>82</sup>

The Aggarwal, Gray, and Singer article, however, suffers from several flaws. First, the authors admit that the difference in the discount they find between offerings sold with the option to resell into the United States prior to information disclosure and those without such an option is not statistically significant.<sup>83</sup> Moreover, even if the discount were statistically significant, the article’s theoretical discussion in Part II calls into question the interpretation of a greater discount for offerings with a pre-disclosure resale option.<sup>84</sup> Because foreign investors will negotiate for a greater discount where they are unable to sell prior to disclosure of the Regulation S offering, those investors with a pre-disclosure resale option should receive a *reduced* discount, all other

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<sup>80</sup> Aggarwal, Gray, and Singer report that during the period before the SEC reporting reform, the median market capitalization of reporting firms was \$16.82 million. See *id.* at 1188.

<sup>81</sup> Aggarwal, Gray, and Singer report that the mean discount was 32.84% during the pre-SEC reporting reform period and 21.67% in the post-reporting reform period. See *id.* at 1189.

<sup>82</sup> See *id.* at 1191 (reporting that offerings sold with the “option” to resell into the United States prior to the next scheduled Form 10-Q disclosure had a mean discount of 35.77% in comparison to the mean discount of 20.00% at which offerings without such an option were sold).

<sup>83</sup> See *id.*

<sup>84</sup> See *supra* Part II (discussing the relationship between the offering discount and the expected market reaction to news of the Regulation S offering). Aggarwal et al. do not recognize the possibility that part of the offering discount may be due to compensation to foreign investors for an inability to resell into the United States prior to the secondary market reaction to news of the Regulation S offering. Instead, Aggarwal et al. write simply: “The substantial discounts imply large losses for existing US investors who may not even have been aware of these offerings before the rule change and this has also been a cause for concern.” Aggarwal et al., *supra* note 79, at 1188.

things being equal. Second, Aggarwal, Gray, and Singer's pre SEC-reporting reform sample suffers from sample bias to the extent their collection methodology misses many of the Regulation S offerings. The authors look to only Form 10-Q filings to uncover pre-SEC reporting reform issuers;<sup>85</sup> however, issuers may disclose the fact of a Regulation S offering through press releases and other forms of SEC filings, including Form 10-K filings.<sup>86</sup> The Aggarwal, Gray, and Singer study, therefore, provides only inconclusive evidence on the harm posed through Regulation S offerings.<sup>87</sup>

To test the overvaluation resale hypothesis directly, the article relies on the following theoretical distinction. As discussed in Part II above, foreign investors that expect to resell after the securities markets have reacted to news of a Regulation S offering will demand an offering

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<sup>85</sup> See Aggarwal et al., *supra* note 79, at 1186 - 87.

<sup>86</sup> As well, to the extent an attempted resale by a foreign investor itself signals information to the market, it is unclear that Aggarwal et al. are correct in arguing that foreign investors that purchase well before a Form 10-Q filing enjoy an option to resell ahead of information disclosure.

<sup>87</sup> Aggarwal et al. also conduct an event study around information disclosure of a Regulation S offering and find no statistically significant cumulative excess market return. See Aggarwal et al., *supra* note 79, at 1192 – 93. They, however, focus only on the filing date of the Form 10-Q immediately after the Regulation S offering. See *id.* As discussed above, see *supra* text accompanying note 86, using the Form-Q filing date is unreliable to the extent information on the offering may reach the market prior to the filing date. In the alternative, because issuers had no direct compulsion to disclose information on the offering in the Form 10-Q prior to the SEC's reporting reform, information on the offering may reach the market – through an increase in trading volume, for example – well after the Form 10-Q filing date. The article's larger event window, therefore, provides a more accurate representation of the time period in which the market learns of the Regulation S offering.

Similar with the article's finding of a negative market reaction for Regulation S offerings, Professors Kang, Kim, Park, and Stulz. report a negative abnormal return to the announcement of an offshore convertible debt offering by a sample of U.S. issuers chosen to match a corresponding sample of Japanese issuers of equity-related debt securities. See Jun-Koo Kang et al., *An Analysis of the Wealth Effects of Japanese Offshore Dollar-Denominated Convertible and Warrant Bond Issues*, 30 *J. Fin. And Quant. Analysis* 257, 264 (1995) (reporting a statistically significant abnormal return of -1.35% for offshore U.S. convertible debt issues).

In a study of equity private placements into the United States from 1979 to 1985, Professor Wruck, in contrast, finds a positive secondary market reaction to news of an offering. See Karen Hopper Wruck, *Equity Ownership Concentration and Firm Value: Evidence from Private Equity Financing*, 23 *J. Fin. Econ.* 3, 8 - 9 (1989). In particular, where share concentration increases as a result of the offering, the secondary market reaction is even more positive. See *id.* at 10 – 23 (arguing that greater share concentration leads both the increased monitoring of management and a raised probability of an eventual takeover). Wruck theorizes that private equity placements typically involve a fewer number of purchasers able to negotiate with management for access to non-public information to gauge the value of the company. Private placement investors, therefore, face a reduced risk of purchasing overvalued securities; the public secondary market, as a result, assesses a different probability of overvaluation from news of a private placement than for a public offering. See *id.* at 10.

discount equal to the expected negative market reaction all other things being equal.<sup>88</sup> In contrast, where foreign investors expect to resell prior to the market reaction, foreign investors do not need compensation for the entire expected negative market reaction. Instead, managers in such situations will attempt to sell to foreign investors at as great a price as possible to provide the corporation with more proceeds at the expense of U.S. investors that eventually purchase from the foreign investors. Although foreign investors may negotiate for a share of the company's gain from the overvaluation, the discount they receive will necessarily be less than the discount foreign investors who expect to resell only post-disclosure will obtain.<sup>89</sup>

Now consider the pre and post-SEC reporting reform periods respectively. Post-SEC reporting reform, because the market learns of the Regulation S offering well before resales may commence, foreign investors will demand compensation for the expected negative market reaction, leading to an increased discount all other things being equal. Pre-SEC reporting reform, whether the offering discount is similar in magnitude depends on the validity of the overvaluation resale hypothesis. On the one hand, where foreign investors expect to resell prior to disclosure of the offering to the market, the discount they demand will be *lower* during the pre-SEC-reporting reform period. On the other hand, to the extent the market is expected to learn of a Regulation S offering prior to resales,<sup>90</sup> foreign investors will again demand compensation for the expected negative market reaction even during the pre-SEC reporting reform period. Table 6 summarizes the article's hypotheses and predictions:

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<sup>88</sup> See supra text accompanying notes 29 - 35 (discussing the relationship between the offering discount and the expected secondary market reactions to news of the Regulation S offering).

<sup>89</sup> See supra Part I (discussing the incentive of issuers to give foreign investors a discount in the Regulation S offering).

<sup>90</sup> The initiation of resales into the United States, for example, may alert analysts to the possibility of a Regulation S offering. See supra 40 - 41 (discussing how the U.S. market may learn of a Regulation S offering even without any disclosure from the issuer).

Table 6: Summary of the Test of the Overvaluation Resale Hypothesis

Hypothesis	Prediction
No resales prior to information disclosure	Mean Pre-Reform Discount = Mean Post-Reform Discount
Foreign investors engage in resales prior to information disclosure pre-SEC reporting reform (selling overvalued securities to U.S. investors)	Mean Pre-Reform Discount < Mean Post-Reform Discount

To test whether foreign investors are able to resell prior to disclosure of the Regulation S offering prior to the 1996 reporting reforms, the article examines the offering discount relative to the U.S. secondary market price for the issuer's common stock at the start of the offering for pre- and post-reporting reform offerings. For securities convertible into the issuer's common stock, the article uses the conversion price into equity as the Regulation S offering price. The conversion price is measured at the first possible date of conversion and assumes the secondary market price at the time of conversion equals the secondary market price at the start of the offering date. Table 7 reports the summary of the offering discount data below.<sup>91</sup>

Table 7: Summary of the Regulation S Offering Discount Pre- and Post-SEC Reporting Reform

Type of Offering	Observations	Mean Discount	25% Quartile	Median Discount	75% Quartile	p-value
Pre-Reporting Reform	263	18.81%	39.05%	18.15%	-1.75%	0.0000**
Post-Reporting Reform	213	13.56%	30.00%	20.00%	-10.00%	0.0000**

\*\* 5% level; \* 10% level. (t-test of difference in means p-value = 0.0848\*).

#### Excluding 144A Offerings

Type of Offering	Observations	Mean Discount	25% Quartile	Median Discount	75% Quartile	p-value
Pre-Reporting Reform	226	24.97%	41.82%	25.00%	9.00%	0.0000**
Post-Reporting Reform	174	22.13%	35.00%	25.00%	11.97%	0.0000**

\*\* 5% level; \* 10% level. (t-test of difference in means p-value = 0.3539).

<sup>91</sup> See supra note 18 (defining the offering discount for purposes of this article).

Table 7 provides evidence against the overvaluation resale hypothesis. Rather than increase, the mean offering discount decreases in magnitude post-reform. For the entire sample of Regulation S offerings, the discount decreases from a mean of 18.81% to 13.56% (difference significant at the 10% level). The presence of Rule 144A offerings in the sample may skew the mean Regulation S discount. Rule 144A Regulation S offerings of convertible debt securities typically are sold with a conversion right into the issuer's common stock. The conversion premium, moreover, is usually set at above 10% relative to the U.S. secondary market price for common stock at the time of the offering to meet the non-fungibility requirement of Rule 144A, resulting in a downward bias in the mean discount for the pool of all Regulation S offerings.<sup>92</sup> Table 7 reports, nevertheless, that for the sample of only non-Rule 144A Regulation S offerings, the discount also decreases from 24.97% to 22.13%; moreover, the difference is statistically insignificant. Looking at the difference in the mean offering discount from the pre- to post-reporting reform time period, therefore, provides no evidence that foreign investors were able to engage in pre-disclosure resales at overvalued prices to U.S. investors.

The lack of an increase in the magnitude of the offering discount during the post-SEC reporting reform period, however, could be due to a number of other factors that may reduce the size of the offering discount during the post-reporting reform period. In particular, a shift may have occurred in the types of Regulation S offerings occurring post-reporting reform. Even though a decrease in the ability of issuers to use Regulation S to engage in resales of overvalued securities may lead to an increased discount post-reform,<sup>93</sup> the shifts in the pool of offerings may mask the increase with an even greater decrease of the offering discount.

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<sup>92</sup> See supra note 50 (describing the non-fungibility requirement for Rule 144A resales).

<sup>93</sup> See supra Part I (providing a theoretical discussion for the relationship between the offering discount and the expected market reaction to news of a Regulation S offering).



The article therefore provides controls for changes in: (a) the liquidity the Regulation S securities during the restricted period overseas; (b) the risk foreign investors face that they themselves may misprice the Regulation S securities; and (c) the incentive of managers to act opportunistically through a Regulation S offering.

First, the liquidity of the Regulation S securities sold prior to the SEC reporting reforms may differ from the liquidity of securities sold after the reporting reforms. Some have argued, for example, that the reporting reforms increased the “respectability” of Regulation S offerings, leading to larger market capitalization issuers selling securities.<sup>94</sup> To the extent larger market capitalization issuers have greater international contacts and, as a result, more of their securities trade in liquid markets overseas, one would expect that foreign investors would demand a reduced discount post-reporting reform. Thus, issuers and foreign investors may have been able to use Regulation S to sell overvalued securities into the United States prior to the reporting reforms. Nevertheless, the discount did not increase after the reporting reforms due to the shift in offerings toward more liquid Regulation S securities.

Second, foreign investors may demand a discount in part to compensate for the mispricing risk they face due to their information disadvantage relative to the issuer’s management. Where foreign investors purchase with a view to hold the securities, for example, they face the risk that the securities overvalued. Similarly, foreigners purchasing with a view to resell into the United States face a risk of mispricing the degree of overvaluation in the United States, leading to too little compensation from the issuer for the expected negative secondary market reaction prior to resale. A difference in the mispricing risk foreign investors bear after the reporting reforms, in turn, may account for a decrease in the discount they demand post-

reform. To the extent larger, more well-followed companies tend to issue securities through Regulation S with greater frequency post-SEC reporting reform, investors may demand a lower discount than for the lower market capitalization companies more prevalent pre-reporting reforms. As with a possible increase in overseas liquidity, this shift in the risk facing foreign investors may mask any increase in the offering discount post-reporting reforms,

Third, the Regulation S discount may simply be the result of managers engaging in self-dealing, using Regulation S to sell securities at a large discount to themselves. Alternatively, the discount may result from the dilution foreign investors expect from managers using a Regulation S offering to engage in a suboptimal capital investment designed to improve the managers' own private welfare.<sup>95</sup> To the extent managerial opportunism became less prevalent post-reporting reform, due for example to the greater publicity surrounding Regulation S offerings, one would expect the offering discount also to decrease post-reporting reform and counter any increase due to the reduction in the ability to conduct overvalued resales into the United States.

To control for these exogenous shifts in the pool of Regulation S offering after the SEC's reporting reforms, the article constructs a multivariate ordinary least squares model with the Regulation S offering discount as the dependent variable. The ordinary least squares model of the offering discount includes several categories of independent variables.

First, independent variables relating to the liquidity foreign investors expect after purchasing the offering are included in the model. Offerings that provide foreign investors with a high degree of liquidity outside the United States should receive a reduced discount, all other things being equal. The natural log of the offering amount to market capitalization ratio is

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<sup>94</sup> See Aggarwal, et al., *supra* note 79, at 1189 (“Conversations with industry officials suggest that larger firms are using the Regulation S market more [post-SEC reporting reform] because it is not seen as ‘shady’ anymore.”).

<sup>95</sup> See *supra* notes 21 - 22 and accompanying text.

therefore included in the model. Where only a small fraction of an issuer's outstanding capitalization is sold abroad, for example, trading activity will gravitate back to the United States where most securities are located. Conversely, the greater the offering amount sold abroad in relation to the total market capitalization, the greater is the likelihood of a significant resale market overseas. The number of world contacts is also added as an independent variable.<sup>96</sup> The greater the number of world contacts, the more likely that a significant number of overseas investors may follow the issuer leading to the development of a foreign resale market.

Second, variables for the risk to foreign investors of mispricing Regulation S securities purchased from the issuer during the Regulation S offering is included in the model. With a similar effect for liquidity, the natural log of the market capitalization may correlate with the mispricing risk that foreign investors face. The greater the market capitalization of the issuer, the larger is the number of analysts that will follow the company. The more analysts following the company, the less asymmetric informational advantage managers will possess over foreign investors, and therefore, the less risk foreign investors will face. The number of world contacts independent variable also acts as a proxy for the overvaluation risk foreign investors face. The greater the number of world contacts, the more likely that the foreign investors will have good information on the issuer.

Third, variables relating to the incentive of managers to engage in opportunistic self-dealing or suboptimal capital investments are included in the model. Where managers are engaged in self-dealing through the Regulation S offering, one would expect a greater discount. The fraction of the board composed of insiders and the fraction of outstanding common stock owned by directors and officers are therefore included in the model. Greater management

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<sup>96</sup> See supra note 74 (describing the article's methodology in calculating the number of world contacts for each Regulation S issuer).

presence on the board may lead to greater protection against shareholder action, increasing the incidence of opportunistic Regulation S offerings. In contrast, the greater the fraction of shares in the hands of insiders, the more harm insiders face from any dilution resulting from such opportunistic actions. Although linear in the model, Appendix A tests the possibility of a nonlinear relationship between management and director share ownership and the offering discount.

Fourth, the reaction that foreign investors expect the U.S. secondary market will have to the offering is included in the model. The more negative the expected market reaction, the greater discount one would expect foreign investors to demand in cases where they expect to resell only after the market reaction. As a proxy for the expected market reaction, the article uses the actual cumulative excess return in U.S. secondary markets following the offering. Two variations of the model are fitted. The first model uses the 6-week cumulative excess return (calculated from +0 to +6 weeks) as an independent variable; the 8-week cumulative excess return (calculated from +0 to +8 weeks) is fitted in the second model. Appendix B discusses and controls for a possible simultaneity bias between the offering discount and the cumulative excess return.<sup>97</sup>

Fifth, a series of controls for the type of offering are included in the model. Independent variables for whether the offering is for common stock as well as whether the offering is part of a Rule 144A placement are added to the model. Foreign investors may demand a different discount if they receive preferred shares as opposed to common stock. Likewise, foreign investors that partake in a Rule 144A offering and that, as a result, enjoy the prospect of liquid resales into the PORTAL market through Rule 144A will demand a lower discount.<sup>98</sup> For

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<sup>97</sup> See *infra* Appendix B.

<sup>98</sup> See *supra* note 51 (providing a description of the PORTAL market).

convertible securities sold through Rule 144A, the minimum 10% conversion premium into common stock to meet the non-fungibility requirement will also result in a reduced mean offering discount.<sup>99</sup>

Finally, to test the impact of the November 1996 reporting reforms on the overall level of the Regulation S offering discount, a dummy variable for whether the offering is prior to the reporting reforms are included in the model. Table 8 reports the results from the offering discount model fitted for the 6-week and the 8-week cumulative excess returns.

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<sup>99</sup> See supra note 50 (describing the non-fungibility requirement for Rule 144A resales).

Table 8: OLS Models of the Regulation S Offering Discount

Independent Variables	OLS Model of Offering Discount using 6-Week CER	OLS Model of Offering Discount using 8-Week CER
Natural Log of Market Capitalization	-0.068** (-5.140)	-0.067** (-5.147)
Natural Log of the Offering Amount to Market Capitalization Ratio	-0.057** (-4.309)	-0.059** (-4.481)
Number of World Contacts	0.001 (0.298)	0.001 (0.210)
Dummy Variable for Common Stock	0.109** (3.234)	0.110** (3.286)
Dummy Variable for 144A Offering	-0.082† (-1.478)	-0.081† (-1.469)
Fraction of Board Comprised of Officers	0.090 (1.080)	0.087 (1.054)
Fraction of Common Stock owned by Directors and Officers	-0.116† (-1.439)	-0.118† (-1.472)
6 Week Cumulative Excess Return	-0.048 (-0.937)	.
8 Week Cumulative Excess Return	.	-0.086** (-2.041)
Dummy for Pre-Reporting Reform Period	0.047† (1.611)	0.051* (1.751)
Constant	0.164** (2.231)	0.156** (2.134)
Observations	288	288
F-Value	25.42**	26.08**
Adjusted R2	0.434	0.440

\*\* 5% level; \* 10% level. †20% level. F-value tests the joint hypothesis that all regression coefficients equal zero.

The results from Table 8 provide additional evidence against the overvaluation resale hypothesis. First note that for both the coefficients for the 6 and 8-week cumulative excess returns are negative. A more negative secondary market reaction, therefore, correlates with a larger discount from the U.S. secondary market price measured at the start date of the offering. Evidence exists, therefore, that foreign investors demand compensation for the expected drop in market prices. The coefficient is significant at the 5% level for the 8-week cumulative excess

return independent variable; however, the 6-week cumulative excess return coefficient is insignificant.

Second, note that the dummy variable for whether the offering occurs prior to the 1996 reporting reforms is positive for both versions of the model in Table 8. Offerings that occur prior to the SEC reporting reforms, therefore, receive a greater discount than offerings that occur after the SEC reporting reforms (significant at the 20% level for the 6-week CER model and the 10% level for the 8-week CER model). In contrast, the overvaluation resale hypothesis predicts that offerings prior to the reporting reforms where foreign investors are able to resell prior to disclosure of the offering to the market should receive a reduced discount. Even after controlling for other factors that may affect the offering discount, the models in Table 8 do not support the hypothesis that foreign investors were able to resell pre-disclosure prior to the 1996 reporting reforms.

As a further test of the overvaluation resale hypothesis, the article conducted a variation on the offering discount models from Table 8.<sup>100</sup> According to the hypothesis, the U.S. secondary market fails to take into account information on the Regulation S offering prior to the commencement of resales. The pre-reporting reform discount, to the extent the overvaluation resale hypothesis is correct, should therefore not be as strongly correlated with the secondary market reaction. On the other hand, the post-reporting reform discount should strongly take into account the market reaction; foreign investors will demand compensation for the market reaction through a larger discount to the extent they are unable to resell prior to the reaction. To test

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<sup>100</sup> The models in Table 8 are also estimated with geographical dummy variable controls for offering sold to Asia, Canada, Latin/South America, the Middle East, and Other (including Africa) regions in comparison against baseline offerings to Europe. Different geographical regions may provide different levels of liquid security markets. Foreign investors may also enjoy varying regulatory protections depending on the geographical region of the offering. Not reported, the coefficients for the pre-reporting reform dummy variable are positive and statistically insignificant for both the offering discount model involving the 6-week CER and the 8-week CER. Finally, year

directly whether offerings prior to the reporting reform did not take into account the expected drop in the secondary market price, an interaction term between the pre-reporting reform dummy variable and the 6-week and 8-week cumulative excess return variables are added to the model.

Table 9 reports the results of these additional tests for both the 6-week and the 8-week cumulative excess returns.

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dummies are added to the models in Table 8 to test for year-specific effects. Note reported, none of the year dummies are statistically significant.



Table 9: Additional Models of the Regulation S Offering Discount

Independent Variables	OLS Model of Offering Discount using 6-Week CER and interaction term with pre-reporting reform period dummy variable	OLS Model of Offering Discount using 8-Week CER and interaction term with pre-reporting reform period dummy variable
Natural Log of Market Capitalization	-0.068** (-5.141)	-0.067** (-5.125)
Natural Log of the Offering Amount to Market Capitalization Ratio	-0.058** (-4.332)	-0.060** (-4.532)
Number of World Contacts	0.001 (0.324)	0.001 (0.233)
Dummy Variable for Common Stock	0.109** (3.224)	0.111** (3.305)
Dummy Variable for 144A Offering	-0.082† (-1.465)	-0.081† (-1.465)
Fraction of Board Comprised of Officers	0.092 (1.100)	0.094 (1.123)
Fraction of Common Stock owned by Directors and Officers	-0.114† (-1.416)	-0.118† (-1.468)
6 Week Cumulative Excess Return	-0.078 (-1.005)	.
6 Week Cumulative Excess Return x Pre-Reporting Reform	0.053 (0.603)	.
8 Week Cumulative Excess Return	.	-0.120* (-1.940)
8 Week Cumulative Excess Return x Pre-Reporting Reform	.	0.064 (0.763)
Dummy for Pre-Reporting Reform Period	0.049* (1.657)	0.054* (1.831)
Constant	0.159** (2.138)	0.147** (1.978)
Observations	288	288
F-value	22.84**	23.50**
Adjusted R2	0.432	0.439

\*\* 5% level; \* 10% level. †20% level. F-value tests the joint hypothesis that all regression coefficients equal zero.

The results from Table 9 provide inconclusive evidence on whether foreign investors pre-reporting reform expect to sell their securities prior to the secondary market reaction to the Regulation S offering. The coefficients on the 6-week and 8-week CER independent variables are negative (insignificant for the 6-week CER model; significant at the 10% level for the 8-

week CER). As with the models reported in Table 8, the larger the negative response by the market to the offering, the greater the discount foreign investors demand as compensation.

As well, the coefficients on the interaction term between dummy variable for whether the offering occurred prior to the SEC's reporting reforms and the cumulative excess return are positive for both models. Therefore, all other things being equal, foreign investors demand less compensation for an expected negative secondary market price decline prior to the SEC reporting reform, supporting the overvaluation resale hypothesis. The coefficients on the interaction terms, however, are not statistically significant. The results from Table 9, therefore, are only weakly consistent with the overvaluation resale hypothesis that foreign investors are able to sell prior to the secondary market reaction and do not require compensation for the decline.<sup>101</sup>

#### **D. Potential Shortcomings of the Empirical Tests**

Despite the controls for factors that may have shifted after the 1996 reporting reform, other exogenous factors may still exist that may independently have caused the offering discount to drop after the reporting reforms, masking an increase in the discount consistent with the overvaluation resale hypothesis. For example, the pre-reporting period sample of Regulation S offering used in the article may miss a greater percentage of smaller offerings than during the

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<sup>101</sup> The models in Table 9 are also estimated with geographical dummy variable controls. See *supra* note 100. Not reported, the coefficient for the pre-reporting reform dummy variable is positive and statistically insignificant for both the offering discount model involving the 6-week CER and the 8-week CER. The coefficient on the 6-week CER is negative (significant at the 5% level) and the coefficient on the interaction term between the 6-week CER and the dummy variable for the pre-reform period is positive but not statistically significant. Similarly, the coefficient on the 8-week CER is negative (significant at the 5% level) and the coefficient on the interaction term between the 8-week CER and the dummy variable for the pre-reform period is positive but not statistically significant. The geographical control models, therefore, also provide only inconclusive evidence on the overvaluation resale hypothesis.

post-reporting period.<sup>102</sup> This bias, in turn, may result in an observed pre-reporting reform offering discount that is different from the true discount for the population of pre-reporting reform offerings. To the extent, however, issuers typically bear a larger offering discount for a smaller offering to compensate for greater illiquidity risk on the part of foreign investors, one would expect the bias to result in a reduced discount for the pre-reporting reform period. Thus, the bias should raise the probability of finding an increase in the offering discount post-reporting reform in support of the overvaluation resale hypothesis.

The models used to determine the offering discount, as well, may not adequately specify the factors that determine the discount. For example, the relationship between management and director share ownership with the offering discount may not be linear. Appendix A reports evidence that in fact some nonlinearity exists. Using interaction terms between the dummy variable for the pre-reporting reform period and the share ownership of management and directors, Appendix A furnishes evidence that managers may have been more inclined to engage in self-dealing prior to the 1996 reporting reforms. Even after controlling for this shift on the incentives of management, the post-reporting reform offering discount is still not statistically greater than the pre-reform discount, providing no support for the overvaluation resale hypothesis.

A possible simultaneity bias may also exist between the offering discount and the cumulative excess return proxy for the expected market reaction to news of a Regulation S offering. On the one hand, foreign investors will demand compensation for the expected negative market reaction to the extent they must sell after information disclosure, leading to a greater offering discount. On the other hand, a greater offering discount may lead to a larger negative market reaction. Where the offering discount, for example, is due to manager's

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<sup>102</sup> See supra text accompany notes 48 - 49.

opportunistically using Regulation S to transfer value to themselves from the shareholders of the issuer, a greater offering discount will directly reduce the value of the issuer. Where the offering price is below the pre-offering fundamental value, the share value of all pre-offering investors is necessarily diluted. A larger offering discount under such circumstances, therefore, will result in a greater negative market reaction.

Appendix B uses a two-stage least squares model to control for possible simultaneity bias in the estimation of the offering discount model. As discussed in Appendix B, the coefficient on the pre-reporting reform dummy variable in the two-stage least squares model is not statistically significant. The results from Appendix B, therefore, also fail to provide evidence in support of the overvaluation resale hypothesis.

The ability of foreign investors to engage in short sales immediately after an offering of the issuer's securities inside the United States for both the pre- and post-reporting reform periods also calls into question the article's results.<sup>103</sup> Through a short sale, foreign investors are effectively able to sell the economic risk of ownership of the Regulation S securities even prior to the expiration of the resale-restricted period. To the extent short sales occur even during the post-reporting reform period, therefore, foreign investors may be able to sell into an overvalued market prior to disclosure of the offering. Short sales, therefore, may eliminate the beneficial information effect of the reporting reforms and thereby reduce the effectiveness of this article's tests that focus on differences between the pre and post-reporting reform periods. The SEC, nevertheless, started taking a hard line against foreign investors engaging in short sales of

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<sup>103</sup> See supra note 8 and accompanying text. Alternatively, foreign investors both pre- and post-reporting reform may simply ignore Regulation S's resale prohibitions and resell illegally into the United States immediately after the offering. For a discussion of the possibility of illegal resales see Jordan, supra note 35, at 75.

Regulation S securities in 1995.<sup>104</sup> A difference in short sale incidence, therefore, may exist between the pre and post-reporting period samples.

The offering discount model suffers from at least one additional flaw: the controls may not capture all the various exogenous factors that may have shifted between the pre and post-reporting reform periods. The amount of overvaluation in the pool of companies seeking to conduct a Regulation S offering, for example, may have shifted from the pre to the post-reporting reform periods.<sup>105</sup> Prior to the reporting reforms, companies with overvalued securities in the U.S. secondary market may have made use of Regulation S to issue securities indirectly into the United States. The 1996 reporting reform reduces the gain from offering securities into an overvalued market, leading fewer companies with overvalued securities to engage in a Regulation S offering. With a lower average level of overvaluation, the offering discount may decline therefore in the post-reporting reform period. Foreign investors may demand a greater offering discount as a percentage of the overvaluation amount in the U.S. secondary market during the post-reporting reform period due to a decreased ability to engage in overvalued resales; nevertheless, the offering discount may have dropped due to the reduced overall level of overvaluation among companies seeking to engage in a Regulation S offering.

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<sup>104</sup> See 1995 Problematic Practices Release, supra note 16, at \*3 (“Since the adoption of Regulation S, it has come to the Commission's attention that some market participants are conducting placements of securities purportedly offshore under Regulation S under circumstances that indicate that such securities are in essence being placed offshore temporarily to evade registration requirements with the result that the incidence of ownership of the securities never leaves the U.S. market, or that a substantial portion of the economic risk relating thereto is left in or is returned to the U.S. market during the restricted period, or that the transaction is such that there was no reasonable expectation that the securities could be viewed as actually coming to rest abroad. These transactions are the types of activities that run afoul of Preliminary Note 2, would not be covered by the safe harbors and would be found not to be an offer and sale outside the United States for purposes of the general statement under Rule 901.”).

See also *In re GFL Ultra Fund Ltd.*, Securities Act Release No. 7423, [1997 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 85,949 at 89,752 (June 18, 1997) (holding that a fund that purchased securities through a Regulation S offering and then immediately engaged in short sales into the United States acted as a statutory underwriter under Section 2(11) of the Securities Act for the issuer); supra note 9 (discussing the 1998 reforms provisions against hedging transactions).

<sup>105</sup> The use of the natural log of the market capitalization as an independent variable in the article's offering discount models, in part, may control for the difference in mean secondary market overvaluation for Regulation S

Consider the following numerical example. Assume the mean level of secondary market overvaluation among Regulation S issuers equals 40% of the U.S. secondary market price pre-reporting reform. Pre-reporting reform, assume also that foreign investors are able to resell into the U.S. market prior to any market reaction and negotiate a one-quarter share of the overvaluation amount. Pre-reporting reform, therefore, foreign investors will receive a 10% offering discount on average. In comparison, assume that post-reporting reform the mean level of secondary market overvaluation among Regulation S issuers falls to only 5%. Foreign investors unable to resell prior to the market reaction will demand compensation for the entire expected secondary market reaction, leading to a 5% offering discount. Under this particular example, the observed offering discount will decrease in the post-reporting reform period. Nevertheless, such decrease is consistent with the overvaluation resale hypothesis.

To call the article's findings against the overvaluation resale hypothesis into question, however, it is not enough simply to argue that the level of overvaluation in the post-reporting reform pool of Regulation S issuers is lower than the overvaluation among the pre-reporting reform issuers. Importantly, the 1996 reporting reforms did not eliminate the presence of overvalued securities in the U.S. secondary market. Nor did the reforms reduce the incentive of managers with undervalued securities to forego making a securities offering.<sup>106</sup> Instead, the reforms may have resulted in a shift in the subset of the overall pool of U.S. companies that sought to conduct a Regulation S offering toward less overvalued companies. The exact

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issuers prior to and after the SEC's 1996 reporting reforms. However, even among issuers with the same amount of market capitalization, a range of secondary market overvaluation may exist.

<sup>106</sup> See supra note 23 and accompanying text (discussing the incentive of managers to sell when the securities markets overvalue the issuer's securities).

magnitude of this shift, therefore, is crucial in assessing the validity of the article's tests of the overvaluation resale hypothesis.<sup>107</sup>

Suppose that the overvaluation resale hypothesis is true pre-reporting reform and foreign investors acting as conduits negotiate to take a  $x\%$  share of the overvaluation surplus on average. To mask an increase in the offering discount due to a reduced ability to engage in resales of overvalued securities post-reporting reform, the mean level of overvaluation must then fall to  $x\%$  of its pre-reporting reform level. Thus, in the above numerical example, because pre-reporting reform foreign investors negotiated a one-quarter share of the overvaluation surplus, the post-reporting reform mean overvaluation amount must drop from \$40 to at least \$10 per share. Significantly, the smaller the negotiated share of the overvaluation surplus, the greater the drop in the mean overvaluation level among Regulation S issuers that is necessary post-reporting reform to mask any increase in the discount.<sup>108</sup>

The limitations of the article's empirical tests raised in this section make it important not to overstate the finding that the Regulation S offering discount did not change in a statistically significant manner between the pre and post-reporting reform time periods. Other possible exogenous factors exist aside from those covered in this section.<sup>109</sup> Moreover, the article's results apply strictly only for Exchange Act reporting issuers.<sup>110</sup> Nevertheless, the empirical evidence should make policy makers aware of the theoretical possibility that a large offering

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<sup>107</sup> For example, an issuer with highly overvalued securities in the U.S. secondary market may choose to conduct a Regulation S offering post-reporting reform to raise capital for new capital expenditures.

<sup>108</sup> For example, if foreign investors took only a 10% share of the overvaluation surplus pre-reform, the mean level of overvaluation among Regulation S issuers must drop from \$40 down to \$4 post-reporting reform to mask the increase in the offering discount due to the reduced ability to engage in resales prior to information disclosure after the reporting reforms.

<sup>109</sup> For example, the liquidity of world markets may have, in general, increased from the pre to post-reporting reform time periods. Foreign investors, therefore, may demand a lower illiquidity premium for their Regulation S securities. This reduction in illiquidity discount then may have offset any increase in the offering discount due to a reduction in the ability of issuers and foreign investors to resell securities into the United States prior to market reaction to news of the Regulation S offering.

discount is not necessarily detrimental to the interests of U.S. investors. The evidence is also at least consistent with the hypothesis that issuers and foreign investors were unsuccessful in using Regulation S as a conduit to sell overvalued securities into the United States during the pre-reporting reform period. Even to the extent non-Exchange Act reporting issuers present a greater risk to U.S. investors, the article sheds doubt on the SEC's 1998 reform's wholesale tightening of Regulation S for all types of issuers regardless of Exchange Act reporting status.<sup>111</sup>

### **III. Conclusion**

Regulation S offerings result in a negative secondary market reaction once U.S. investors learn of the offering. The article provides evidence that the likelihood that managers believe the issuer's securities are overvalued as well as the issuer's stated use of proceeds from the offering are significant in explaining the secondary market reaction.

Focusing on the U.S. secondary market reaction, the article tests whether foreign investors expect to resell Regulation S securities into the United States ahead of the market reaction. Where foreign investors are able to resell prior to information disclosure of the Regulation S offering into the secondary market, foreign investors may act as conduits for issuers attempting to sell overvalued securities into the United States. To the extent managers seek to benefit pre-offering shareholders, they will negotiate to give foreign investors as small an offering discount as possible. In contrast, where foreign investors are unable to resell prior to the secondary market reaction to news of the offering, foreign investors will demand a greater discount in compensation for the entire expected market reaction. Without such a discount,

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<sup>110</sup> See supra text accompany note 47 (describing the methodology used to collect Regulation S offerings for the article's data set).

<sup>111</sup> See supra text accompanying notes 9 - 15 (describing the SEC's 1998 reforms to Regulation S).



Regulation S offerings result in a transfer in value from foreign investors to U.S. investors; rational foreign investors will choose not to participate in such offerings.

The article furnishes evidence consistent with the hypothesis that foreign investors were in fact unable to engage in resales ahead of the U.S. secondary market reaction to a Regulation S offering during the pre-SEC reporting reform time period. For example, the commencement of resales may have signaled sufficient information to U.S.-based financial analysts to trigger a secondary market reaction to the Regulation S offering before significant quantities of securities are resold into the United States. The article therefore weakens the arguments of those that point to the large offering discount foreign investors typically receive as evidence of the danger of Regulation S to U.S. investors. To the extent the offering discount is composed of compensation to foreign investors for the expected drop in the U.S. secondary market price, foreign investors do not gain relative to U.S. investors.

A full evaluation of the benefits from the SEC recent reforms to Regulation S requires additional inquiry into the other ways in which a Regulation S offering may harm U.S. investors aside from the sale of overvalued securities into the United States.<sup>112</sup> Nevertheless, the article's findings cast doubt on the SEC's recent 1998 reforms that increased restrictions indiscriminately for all U.S. companies seeking to raise capital abroad through Regulation S.

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<sup>112</sup> See Choi, *supra* note 19, at *passim* (providing a general analysis of the benefits of the SEC's 1998 reforms to Regulation S).

## Appendix A

The relationship between management and director ownership of common stock and the offering discount may not be linear in the article's ordinary least squares model of the offering discount. On the one hand, greater insider share ownership leads to a greater cost to managers engaged in either self-dealing or suboptimal capital investment. To the extent a manager, for example, siphons value away from the issuer's shareholder for her own private benefit, part of this value comes from the manager's own shareholdings. A countervailing factor, however, exists. At lower absolute levels of share ownership, an increase in management and director shareholdings may entrench management against outside shareholder actions and thereby raise the ability of insiders to engage in opportunistic behavior.

To test the possibility nonlinearity in the coefficient for management and direct share ownership, the offering discount model described in Part II.C is estimated with a piecewise linear regression, breaking the manager and director beneficial common share ownership ("MDHOLD") independent variable into segments based on the different levels of ownership. In particular, the article focuses on the 5% level of ownership as follows (numbers in the equations below represent the fraction of the total outstanding common shares):<sup>113</sup>

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<sup>113</sup> The piecewise linear regression is adapted from the model use in a study by Professors Morck, Shleifer, and Vishny. See Randall Morck, Andrei Shleifer, and Robert W. Vishny, Management Ownership and Market Valuation, 20 *Journal of Financial Economics* 293, 298 (1988) (describing their piecewise regression model). Rather than using two breakpoints at 5% and 25% as in the Morck et al. study, however, the article found that only one breakpoint at 5% proved more statistically significant.

$$\text{MDHOLD}_{0.00\text{to}0.05} = \begin{cases} \text{MDHOLD} & \text{if MDHOLD} < 0.05 \\ 0.05 & \text{if MDHOLD} = 0.05 \end{cases}$$

$$\text{MDHOLD}_{0.05\text{to}1.00} = \begin{cases} 0 & \text{if MDHOLD} < 0.05 \\ \text{MDHOLD} - 0.05 & \text{if MDHOLD} = 0.05 \end{cases}$$

A number of alternate breakpoints were modeled using the piecewise regression methodology.<sup>114</sup> However, the 5% breakpoint was the most significant.

To control for possible shifts in the incentive of managers to engage in opportunistic behavior after the SEC's reporting reform, Model B then estimates Model A using interaction terms between the dummy variable for the pre-reporting reform period and both the  $\text{MDHOLD}_{0.00\text{to}0.05}$  and  $\text{MDHOLD}_{0.05\text{to}1.00}$  piecewise independent variables. Table 10 below reports the results from Models A and B.

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<sup>114</sup> To control for different breakpoints, the model was estimated using a breakpoint at 10% and 15%. The 5% breakpoint, however, was the most statistically significant.

Table 10: Piecewise Linear Regression Model of the Offering Discount

Independent Variables	Model A: Piecewise Regression	Model B: Piecewise Regression with Interaction Terms
Natural Log of Market Capitalization	-0.067** (-5.130)	-0.069** (-5.267)
Natural Log of the Offering Amount to Market Capitalization Ratio	-0.058** (-4.426)	-0.057** (-4.344)
Number of World Contacts	0.001 (0.241)	0.001 (0.180)
Dummy Variable for Common Stock	0.110** (3.284)	0.107** (3.178)
Dummy Variable for 144A Offering	-0.080† (-1.437)	-0.077† (-1.380)
Fraction of the Board composed of Officers	0.086 (1.031)	0.137 (1.030)
Fraction of the Board composed of Officers x Pre-Reporting Reform	.	-0.089 (-0.558)
MDHOLD <sub>0.00to0.05</sub>	0.613 (0.454)	4.317* (1.727)
MDHOLD <sub>0.00to0.05</sub> x Pre-Reporting Reform	.	-5.306* (-1.788)
MDHOLD <sub>0.05to1.00</sub>	-0.136† (-1.566)	-0.343** (-2.581)
MDHOLD <sub>0.05to1.00</sub> x Pre-Reporting Reform	.	0.340** (1.968)
8 Week Cumulative Excess Return	-0.087** (-2.067)	-0.100** (-2.367)
Dummy for Pre-Reporting Reform Period	0.052* (1.779)	0.275* (1.924)
Constant	0.126† (1.356)	-0.017 (-0.132)
Observations	288	288
F-value	23.44**	18.62**
Adjusted R2	0.439	0.444

\*\* 5% level; \* 10% level (t-statistic in parenthesis). †20% level. F-value tests the joint hypothesis that all regression coefficients equal zero.

Note from Model A and B reported in Table 10 that for the 0% to 5% range of management and director share ownership, the coefficient on MDHOLD<sub>0.00to0.05</sub> is positive (but insignificant in Model A and significant at the 10% confidence level in Model B). Increases in share ownership correlates with a rise in the offering discount. As management becomes more

entrenched, their ability to engage in opportunistic Regulation S offerings also increases, leading to a greater offering discount. In contrast, over the 5% to 100% range of management and director and share ownership, the coefficient on  $MDHOLD_{0.05to1.00}$  is negative (significant at the 20% level in Model A and at the 5% level in Model B). Further increases in ownership correlate with a reduction in the offering discount. Managers in their role as shareholders in the issuer suffer a loss from insider opportunistic behavior, leading to a reduction in such behavior.

In addition, Model B provides an additional control for the possibility that the incentives of managers to engage in opportunistic Regulation S offerings shifted between the pre and post-reporting reform periods. Managers, for example, with the exact same level of share ownership may be less inclined to engage in opportunistic behavior after the 1996 reporting reform to the extent the reform increased the amount of public scrutiny on such actions. One would expect, all other things being equal, that the offering discount would decrease during the post-reporting reform period for the same levels of insider share ownership. The positive coefficient on the  $MDHOLD_{0.05to1.00} \times \text{Pre-Reporting Reform}$  interaction term (significant at the 5% confidence level) provides evidence in support of this contention. For the same level of management and director shareholdings, the offering discount was greater in the pre-reporting reform period.

Even after controlling for the possibility of a shift in the incentive of managers to engage in opportunistic behavior after the reporting reforms, however, note that the coefficient on the Pre-Reporting Reform dummy variable is positive (significant at the 10% level in Models A and B), providing evidence against the overvaluation resale hypothesis. The piecewise linear regression models, therefore, provide no evidence to support the argument that issuers and foreign investors were engaged in resales of overvalued securities into the United States prior to the reporting reforms.

## Appendix B

A possible simultaneity bias may exist with the cumulative excess return independent variable in the article's offering discount ordinary least squares models. The greater the expected negative market reaction, as measured using the cumulative excess return, the larger offering discount foreign investors will obtain. The reverse causality, however, is also possible. A larger offering discount may lead foreign investors to expect a more negative market response to the offering. Where insiders gain opportunistically through a Regulation S offering, for example, the size of the offering discount is directly related to the dilution the issuer's pre-offering shareholders endure and therefore will determine the expected U.S. secondary market reaction to the offering.

To control for the simultaneity bias, a two-stage least squares model is estimated for the offering discount, taking both the offering discount and the cumulative excess return variables as endogenous. The equation for the offering discount is based on offering discount model reported in Table 8 with geographical controls.<sup>115</sup> The equation for the cumulative excess return is based on the model reported in Table 5 for the cumulative excess return with the addition of independent variables for the number of institutional investors that own common stock in the issuer and the fraction of common stock in the hands of institutional investors.<sup>116</sup> Both institutional investor-related variables are assumed to correlate with the speed with which the market reacts to news from a Regulation S offering. For companies with a large number of institutional investors, for example, the market may react more quickly to resales of Regulation S securities into the United States even during the pre-reporting reform period, increasing the

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<sup>115</sup> The geographical location of the offering affects the liquidity and investment risk facing foreign investors and therefore will affect the offering discount. See supra note 100 - 101 (reporting on the dummy variables for the geographic region of the Regulation S offering used in the article's models).

expected market reaction prior to when resales commence. Likewise, for companies with a small number of institutional investors, the market may react slowly even during the post-reporting reform period, decreasing the expected market reaction at the time foreign investors are able to engage in resales into the United States. Neither measure of institutional presence, however, is assumed to affect directly the offering discount given to foreign investors.

Table 11 reports the results for the two-stage least squares model of the offering discount using the 6-week cumulative excess return in Model C. Model D then estimates the two-stage least square model using the 8-week cumulative excess return.

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<sup>116</sup> Both the number of institutional investors and the fraction of common stock in the hands of institutional investors are obtain for each Regulation S issuer from the SEC-Disclosure database.

Table 11: Two-Stage Least Squares Model of the Offering Discount

Independent Variables	Model C: Two-Stage Least Squares Model of the Offering Discount (using 6-Week CER)	Model D: Two-Stage Least Squares Model of the Offering Discount (using 8-Week CER)
Natural Log of Market Capitalization	-0.022 (-0.762)	-0.026 (-0.929)
Natural Log of the Offering Amount to Market Capitalization Ratio	-0.021 (-0.874)	-0.021 (-0.872)
Number of World Contacts	-0.001 (-0.150)	-0.002 (-0.352)
Dummy Variable for Common Stock	0.070 (0.968)	0.055 (0.819)
Dummy Variable for 144A Offering	-0.277** (-2.019)	-0.262** (-1.978)
Fraction of the Board composed of Officers	0.427** (2.073)	0.419** (2.050)
Fraction of Common Stock owned by Directors and Officers	-0.001 (-0.003)	-0.013 (-0.071)
Predicted 6 Week Cumulative Excess Return From First Stage of Model	-0.274 (-0.886)	.
Predicted 8 Week Cumulative Excess Return From First Stage of Model	.	-0.167 (-0.661)
Dummy for Pre-Reporting Reform Period	0.025 (0.394)	0.034 (0.560)
Dummy Variable for Europe	Base	Base
Dummy Variable for Canada	-0.023 (-0.261)	-0.022 (-0.256)
Dummy Variable for Asia	-0.006 (-0.048)	-0.022 (-0.183)
Dummy Variable for Middle East	-0.162 (-0.506)	-0.256 (-0.931)
Dummy Variable for Latin/South America	0.119† (1.655)	0.102† (1.480)
Dummy Variable for Other (including Africa)	-0.469† (-1.550)	-0.396† (-1.457)
Constant	-0.049 (-0.289)	-0.014 (-0.087)
Observations	81	81
F-value	3.89**	4.03**
Adjusted R2	0.349	0.375

\*\* 5% level; \* 10% level (t-statistic in parenthesis). †20% level. F-value tests the joint hypothesis that all regression coefficients equal zero.

Both the Offering Discount and the Cumulative Excess Return variables are endogenous in the two-stage least squares model.



As reported in Table 11, even after controlling from the simultaneity bias, the coefficients on the 6-week and 8-week cumulative excess return variables are negative. A greater negative market reaction correlates with a larger offering discount. Neither coefficient, however, is statistically significant.

Note also from Models C and D in Table 11 that the coefficient on the dummy variable for the pre-reporting reform period is both positive and statistically insignificant. If anything, therefore, the discount is greater during the pre-reporting reform period even after controlling for simultaneity bias between the offering discount and the cumulative excess return. Models C and D, therefore, provide no support for the overvaluation resale hypothesis (where foreign investors are able to engage in resales ahead of information disclosure, one would expect a lower discount during the pre-reporting reform period). Nevertheless, the two-stage least squares model may not fully correct for the simultaneity bias to the extent the additional exogenous variables, including the number of institutional investors and the fraction of common stock held by institutional investors, correlate not only with the market reaction but also directly with the offering discount.