

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Global Finance Journal

journal homepage: www.elsevier.com/locate/gfj

The effects of options listing and delisting in a short-sale-constrained market: Evidence from the Indian equities markets

Pradip Banerjee^a, Arjun Chatrath^b, Rohan Christie-David^{c,*}, Debasish Maitra^a

^a Indian Institute of Management, Indore 453556, India

^b School of Business, University of Portland, Portland, OR 97203, United States

^c Business School, University of Colorado, Denver, Denver, CO 80217, United States

ARTICLE INFO

JEL classifications:

G14

G28

Keywords:

Delisting

Relisting

Options

Short sales

ABSTRACT

We investigate short- and long-horizon effects of 237 option listings/relistings and 140 delistings in a short-sale-constrained market—specifically, India's National Stock Exchange from 2001 to 2012, when institutional short selling was either curtailed or banned outright. We find a strong positive impact on listings/relistings, signalling a favorable market perception of the event, but a negative impact on delistings. Over long horizons volatility is higher in both listed and delisted periods, especially the latter. We also find evidence to suggest that traders migrate from stock venues to (from) option venues following a listing (delisting), especially during short-sale bans.

1. Introduction

Several studies suggest that trading in equity options improves liquidity, stability, and the informativeness of the underlying market (e.g., [Beber & Pagano, 2013](#); [Easley, O'Hara, & Srinivas, 1998](#); [Kumar, Sarin, & Shastri, 1998](#); [Ross, 1976](#)). For instance, [Kumar et al. \(1998\)](#) find that options listing is associated with lower bid-ask spreads, higher depth and volume, and increased transaction size in the spot market. Other studies also document a positive response to options listing (e.g., [Branch & Finnerty, 1981](#); [Conrad, 1989](#); [Detemple & Jorion, 1990](#)), with few exceptions ([Sorescu, 1999](#)).

A less explored argument revolves around the efficacy of equity options trading when an underlying market limits short sales (e.g., [Figlewski & Webb, 1993](#); [Miller, 1977](#)). A ban on short sales effectively constrains bearish investors from trading on their information.¹ This potentially results in overvaluation and subsequent corrections (e.g., [Bris, Goetzmann, & Zhu, 2007](#); [Chang, Cheng, & Yu, 2007](#); [Fung & Dapper, 1999](#); [Hong & Stein, 2003](#)). [Hong and Stein \(2003\)](#) argue that a short-sale ban leads to underweighting of negative information, thus increasing the likelihood of crashes or extreme volatility. [Bris et al. \(2007\)](#) find that stock returns display significantly less negative skewing in the absence of short selling. Since options allow bearish trades, the listing of options may partially offset this illiquidity and instability brought on by short-sale constraints (e.g., [Danielsen & Sorescu, 2001](#)); but there is little evidence about the role of option delistings in such markets. Additionally, it is hard to find evidence about the role of options listing/delisting for companies whose stocks underperform, where factors such as price stability may be much more important. In this study, we provide evidence on these important issues by examining the Indian stock market.

There is a precedent to our investigation on the regulatory actions on leveraged trading in Indian markets. Before the introduction of derivative trading, the Securities and Exchange Board of India (henceforth SEBI) introduced an indigenous trading system called

* Corresponding author.

E-mail addresses: pbanerjee@iimdr.ac.in (P. Banerjee), chatrath@up.edu (A. Chatrath), rohan.christie-david@ucdenver.edu (R. Christie-David), debashishm@iimdr.ac.in (D. Maitra).

¹ Previous evidence from multiple countries indicates a sharp decline in liquidity following a short-selling ban (e.g., [Beber & Pagano, 2013](#)).

<http://dx.doi.org/10.1016/j.gfj.2017.10.002>

Received 11 April 2017; Received in revised form 10 October 2017; Accepted 11 October 2017

1044-0283/© 2017 Published by Elsevier Inc.

“Badla,” allowing traders to buy stock with money borrowed from a stock exchange, under an agreement to repay the loan within 70 days, with interest. As with options, regulators banned and then later allowed Badla with the view that the contracts undermine market efficiency. The effects of those regulatory measures appear inconclusive.²

This study examines the immediate and long-horizon effects of listings/delistings (henceforth simply listings) of options in a short-sale-constrained market. The Indian equities market from January 2001 through 2012 presents an ideal laboratory for such an examination. During this period, under Indian securities law, options trading in a particular stock was suspended if that stock failed to meet certain trading and capitalization criteria. But the delisted options could be reinstated if certain (relisting) criteria were met. The eligibility criteria for the listing and delisting of options centered around price performance and trading volume (see https://www.nseindia.com/products/content/derivatives/equities/selection_criteria.htm). Over the same period, institutional short selling was either prohibited or deeply constrained for all companies—a reaction by regulators to the stock market crash of 2001. This ban was partially lifted in early 2008, when institutions were permitted to hold short positions up to but not beyond the close of a trading day.

The period from 2008 to 2012, when the ban was only partial, provided sufficient time for the market to adjust to the less stringent regulatory environment, and gives us a window to examine the effects following an easing of short-sale constraints.³

The Indian experience allows us to assess liquidity and volatility in a market with and without options trading in a short-sale-constrained environment. By contrast, short-sale constraints are rare in U.S. markets, so researchers examining U.S. data have had to use proxies for constraints to assess the effects of short selling. Figlewski and Webb (1993), among others, use the short-interest ratio; Asquith, Pathak, and Ritter (2005) use institutional ownership; Reed (2007) uses the rebate rate; and Diether and Werner (2011) employ a “threshold list.” We are fortunate in that we can dispense with such indirect means, much like Chang et al. (2007), who examine the Hong Kong market.

Our focus is threefold. First, we assess the market perceptions regarding option listings versus delistings. Detemple and Selden (1991) note that prices generally rise when options are introduced. On the other hand, there is insufficient evidence about option delistings. Given that a delisting of an option on the NSE follows months of relatively weak performance in the underlying stock (see https://www.nseindia.com/products/content/derivatives/equities/selection_criteria.htm), it remains unclear from theoretical arguments whether equity traders will view a delisting as good or bad news. From the Indian regulators' actions in setting short-sale rules and rules on derivatives in general, it follows that they likely view delisting options as a means to promote stock-price stability and deter trader manipulation,⁴ and a positive response to delistings will suggest that the markets affirm this view. On the other hand, arguments such as those put forth by Figlewski and Webb (1993) predict that delistings will increase instability, and by extension will be viewed negatively by the market.

Second, and importantly from a regulatory perspective, we assess whether the listing and delisting of equity options are related to the long-horizon price stability of the underlying stock. The Indian regulators appear to believe that options trading in a company with declining capitalization is destabilizing. After all, an optionable stock with a declining price can be expected to witness dynamic hedge-based selling.⁵ To examine price stability, we examine whether return variability differs across the listing and delisting samples, while controlling for market volatility. Because listing and delisting events are unevenly spread throughout the sample, we face the possibility of confounding effects in the data. More specifically, we must deal with the relationship between the trading of options (or the lack thereof) and stock return volatility, while simultaneously dealing with the relationship between stock volatility and overall market volatility. Thus, we deploy a market volatility index to control our assessments of the stability of individual equities. A finding that volatility does not differ between listing and delisting periods would relieve the Indian regulators' concerns.

Third, we examine whether options listing promotes liquidity in the underlying stock. Our empirical work in this regard primarily assesses the frequency of trading (number of transactions) over the listing and delisting intervals. Note that other well-accepted

² Before December 1993, there were 91 stocks that were classified as “most liquid” and qualified to trade under Badla. The system was blamed for excessive speculation, and in December 1993 SEBI announced that it would be discontinued as of March 14, 1994. In October 1995, SEBI reintroduced Badla in a more restricted and refined form, and it was legalized in 1996. It was finally replaced by derivatives trading in 2001. Interestingly, the initial ban on Badla led to a 72 percent drop in the trading volume of its 91 stocks from April to December 1994; but also interestingly, the trading volume for non-Badla stocks increased 17% during the same period (for more see Berkman & Eleswarapu, 1998).

³ The regulators took the line that short selling may be destabilizing, although it may have its benefits:

While international securities market regulators have recognized that short selling can exacerbate market falls and lead to manipulative activities, most of the jurisdictions have also recognized short selling as a legitimate investment activity that has contributed significantly to market liquidity. International securities market regulators have, therefore, permitted short selling with adequate safeguards to prevent any abusive/manipulative market practices. Similar issues may arise in the Indian context also. Genuine short selling could exacerbate price decline but that by itself may not be construed as a manipulative activity unless there are evidences of market misconduct.

(Discussion Paper on Short Selling and Securities Lending and Borrowing, Secondary Market Advisory Committee, SEBI, 2006)

⁴ Regulators in India have a long history of attempting to curtail what they view as manipulation in the derivatives market. For reviews of the recent history of regulation, see Youssef (2000) and Adrangi, Chatrath, Maitra, and Christie-David (2014).

⁵ We doubt that expiration-data effects play a major role in the Indian regulators' perceptions, since all derivatives are cash settled. A steady stream of research argues for or against the relationship between physical delivery in the derivatives market and volatility in the underlying market. In particular, the delivery of physical assets has often been associated with increased market distortions, impacting price discovery and hedging efficiency, and cash settlement is offered as the better alternative (see, e.g., Chan & Lien, 2002). Opposing arguments suggest that it is indeed cash settlement, rather than physical delivery, that facilitates manipulation in commodity markets (e.g., Kumar & Seppi, 1992). On balance, there appears to be more support for cash settlement among academics and regulators for both options and futures contracts (e.g., Lien & Tse, 2006; Lien & Yang, 2005; Miller, 1986).

Download English Version:

<https://daneshyari.com/en/article/7354311>

Download Persian Version:

<https://daneshyari.com/article/7354311>

[Daneshyari.com](https://daneshyari.com)