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# Litigation and the value of tobacco companies

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## Abstract

This study determines how the recent wave of litigation affected returns and systematic risk in the tobacco industry. We test for changes in stock prices coinciding with litigation announcements using a difference-in-difference event study methodology. Unfavorable information concerning litigation reduced tobacco returns. We find a decline in systematic risk as traditionally measured by the covariance between industry returns and returns to a diversified (efficient) portfolio. This decline may imply a substantial decline in the cost of equity capital of at least 2.2% after the period of litigation, which we attribute to common cost shocks experienced by the companies participating in the Master Settlement Agreement combined with the oligopolistic structure of the industry.

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## 1. Introduction

In November 1998, 46 states and the four major tobacco companies entered into the Master Settlement Agreement (MSA), which settled litigation brought on behalf of the states

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in order to recover medical expenses paid by government insurance agencies attributed to illness resulting from consumption of tobacco products (National Association of Attorneys General, 2003). The four remaining states (Florida, Minnesota, Mississippi, and Texas) settled separately with the companies. The MSA stipulated that the tobacco companies pay states an estimated US\$ 206 billion (undiscounted) over the next 25 years (Cutler et al., 2002; Viscusi, 2002). The MSA brought to an end a period of intense litigation against cigarette manufacturers that began in 1988 with *Cipollone versus Liggett Group*, the first tobacco lawsuit in which damages were awarded to the plaintiff.<sup>1</sup> This award was eventually overturned, but language in the Supreme Court opinion encouraged further filings. Since then, a large number of suits have been brought against cigarette manufacturers by individuals, groups of individuals (class action suits), and government entities.

This study's objective is to determine how the recent wave of litigation affected equity returns in the tobacco industry and systematic risk of securities issued by these firms, and thereby their cost of equity capital. The topic is important for two reasons. First, to the extent that equity returns are affected by litigation in general and the MSA in particular, there are potential distributional effects—some winners and some losers. The MSA had direct impacts on smokers through the associated increases in cigarette prices and on taxpayers through the payments made to the states pursuant to provisions in the MSA. The MSA and related litigation also affected owners of cigarette manufacturers' equity. As explained below, the MSA and other litigation may have affected the volatility in returns to investments in the manufacturers' cost of capital and by reshaping the incentives to both the firms and regulators at the state level, the correlation of returns with the market. To the extent that litigation against the tobacco companies and the resulting settlements affected the cost of capital, the long-run size of the sector is potentially affected. If cost of equity capital rises, some investments in the sector which were heretofore profitable are no longer so and conversely for decreases in equity cost.

We use an event study method to analyze daily stock returns and test for significant changes in stock prices at announcements of new information regarding litigation against the industry. Under the efficient market hypothesis, stock prices should reflect all available information about future cash flows and risk of the firm (Johnson et al., 1991). Thus, as new information becomes available regarding changes in the industry, the change in the stock prices of the firms in that industry can be used to assess the impact of the information on expected firm profitability.

Ours is the first study of this kind to assess industry returns in a period during which litigation has been widespread and the first to explicitly account for diversification by cigarette manufacturers in several other markets. Any financial shocks in these other markets that coincide with litigation events would cause us to erroneously attribute changes in returns to tobacco litigation. We use a difference-in-difference approach to net out the effects of shocks common to tobacco and other related industries.

We find that systematic risk declined after the period of litigation, a result robust to various controls for the time-series behavior of the stock data and definitions of the event window. We attribute this finding to provisions in the MSA in combination with the oligopolistic structure of the industry. In addition, unfavorable information concerning litigation reduced

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<sup>1</sup> Only those suits involving state agencies as plaintiffs were affected by the MSA.

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