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Reactions of equity markets to recent financial reforms☆

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ABSTRACT

We conduct event studies of broad equity market reaction to the events surrounding introduction and enactment of recent financial reform initiatives. In response to the introduction of the Dodd-Frank Act, financial firms and firms from a few other industries experience a statistically significant decrease in systematic risk, while a substantial number of industries, representing a broad cross-section of the economy, experiences a statistically significant increase in systematic risk. The systematic risk in some industries does not change. The increase in risk is concentrated in industries in which firms are dependent on external capital. The initial market reaction to Dodd-Frank indicates that it may lower the risk in financial firms, but the risk for many non-financial firms simultaneously increases.

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1. Introduction

The financial crisis of 2007–2009 demonstrates that problems in the financial system can have a deleterious impact on the entire economy. Since problems in the financial system extend far beyond the system itself, financial reform has become an urgent priority. In the United States, the most important financial reform arising from the financial crisis is the Dodd-Frank Wall Street and Consumer Protection Act of 2010 (Dodd-Frank), the most fundamental overhaul of the domestic financial system since the 1930s.

Given the scope of the changes stemming from Dodd-Frank, it is likely that the effects of the act will be felt far beyond the financial system. In particular, firms that depend on external financing will be disproportionately affected. Moreover, market participants should anticipate the effects as legislative and regulatory actions are being developed and should adjust market prices accordingly. To test this hypothesis, we conduct event studies of the reactions of the stock market in the United States to the events surrounding introduction, legislative process and enactment of the Dodd-Frank Act. In contrast to many event studies of financial regulations, we examine the effects of Dodd-Frank across the entire economy, not just financial firms. We do this by conducting an event study for each of the 49 Fama-French industry indices. Our research design allows us to test for changes in systematic risk as measured by market beta, as well as measure cumulative abnormal returns associated with important milestones in the legislative process of regulatory reform. We find a statistically significant decrease in systematic risk for seven industries, including financial services (banking, insurance, and trading), real estate and construction. More interestingly, fourteen industries experience a statistically significant increase in systematic risk at the introduction of Dodd-Frank.[1]

To further explore different industry reactions, we obtain a sample of firm-level data during the period 2008–2010 from COMPUSTAT. We divide the sample into three groups: (1) firms in industries that experienced a statistically significant increase in systematic risk; (2) firms in industries that experienced a statistically significant decrease in systematic risk; and (3) firms in industries with no statistically significant change in systematic risk. We then estimate a multinomial logit model and pairwise logit model to examine the characteristics of firms in the different groups. We find that firms in industries with a statistically significant increase in systematic risk are more profitable, have higher leverage, and have higher book-to-market ratios than firms in industries that did not experience a statistically significant change in systematic risk. These findings suggest that the increase in systematic risk is concentrated in industries that are more dependent on external capital. Compared to industries without a statistically significant change in systematic risk, firms in industries with a significant decrease in systematic risk are larger and less tangible, have less cash, invest less in R&D and grow faster. We further find that firms that experienced an increase in systematic risk are significantly more dependent on external finance than firms in industries in which systematic risk has decreased.

The intent of Dodd-Frank Act was to decrease *systemic risk* in the financial system (i.e., the risk that the failure of one or more financial institutions could endanger the financial system). Our tests detect changes in *systematic risk* based on stock market returns (i.e., the covariance between the returns of an individual stock or portfolio of stocks and the returns of the entire market). As we discuss more fully in Section 2.2, the more stringent capital requirements and other provisions of Dodd-Frank are likely to make firms that are dependent on external capital more sensitive to economic conditions, thereby increasing *systematic* risk. Also, existing studies show that *systematic risk* is a valid component of *systemic risk*; see, for example, Allen and Saunders (2004) or Acharya, Pedersen, Philippon, and Richardson (2010). Therefore, the result does raise questions about the unintended

[1] In an appendix available from the authors on request, we also test the impact of the domestic and international regulatory and legislative actions beyond the enacting country's borders. We conduct event studies of reactions of the broad stock market indices in 21 of the world's largest economies to the events surrounding introduction, legislative process and enactment of Dodd-Frank, Basel III and UK Financial Reform. Our results indicate that broad stock markets do react to significant regulatory changes. Moreover, for country-specific reforms, we find that the effects extend beyond the borders of the country implementing the reform. The spillover across borders does not affect all the countries in our study. Countries in closer geographic proximity to the enacting country experience larger and more statistically significant effects.