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Abstract

In the aftermath of the financial crisis, companies have advanced models for measuring and managing operational disruptions. However, the measurement and management approaches neglect the existence of business cycles. In this exploratory research, we investigate the relationship between business cycles and operational risk in two distinct U.S. industry sectors, namely financial services and manufacturing. We find that a positive lagged relationship between business cycles and the severity of operational disruptions exists. Moreover, we identify and model the dynamics of that relationship when operational risk is categorized according to the industry sector. Our findings also suggest that there is a degree of dependency between operational risk losses in the two sectors. Finally, we provide implications for improved forecasting of operational risk and the development of an effective policy design. The effects of business cycles should be taken into account to more accurately calibrate operational risk models used not only by banks but also by manufacturing firms.

Keywords: Operational disruptions; business cycles; supply chain risk management; dynamic regression; vector autoregression

1. Introduction

Companies in all industry sectors are exposed to operational disruptions as they are a natural consequence of entrepreneurial activity. Disruptions may have negative consequences for the firms and result in lower performance, but also in reputational damage. Different triggers can lead to operational disruptions. As highlighted by Tang (2006, p. 452), “disruptions [are] associated with various types of risks (uncertain business cycles, uncertain consumer demands, and unpredictable natural and man-made disasters).” Surprisingly, and despite the 2007/2008 financial and economic crisis, the relationship of business cycles (or economic cycles) with operational disruptions has not attracted much attention. Noteworthy exceptions are the works of Allen and Bali (2007) and Moosa

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