An Econometric Modelling and Prediction of the Pattern of Corporate Failure in Periods of Financial and Currency Crisis: A Conceptual Analysis on the Asian Continents

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Abstract: Exchange rate misalignment (which is a prelude to financial crisis), macroeconomic volatility, linear and non-linear exchange rate exposure, financial crisis, contagion and spillovers are key vices that often pose significant threats to corporate survival. In view of this, this paper shows how the 1966 corporate failure models failed to reflect the challenges of the 21st century’s economic dynamics and experiences of corporate failure, particularly in Asia. The paper exposes the weakness of the 1966 models and makes the case for the need for more cogent models that can parsimoniously capture lingering and untamable systematic risks in an economy. To do this, we argue that there is a chicken and egg relationship between corporate failure and the range of financial and macroeconomic crisis indicators in order to determine if corporate failures can be efficiently predicted by ratios or by exogenously induced catastrophic factors. We do this by applying the teaching and philosophy of the concept of catastrophe theory. The result of our theoretical and conceptual analysis indicates that modern corporate failure prediction is not able to rely on the ordinary ratio. As a result of this, we recommend and establish a procedure for an ex ante econometric estimation and prediction model of corporate failure that has generally encompassing features relevant particularly during an incoming financial crisis.

JEL Classification: F3 · F31 · L26 · M21 · M16 · G32
Key words: Corporate failure · Catastrophe theory · Financial crisis · Macro-financial

INTRODUCTION

Corporate organizations the world over are propellers of economic growth and development. They also serve as a distinct path through which national economic objectives are formulated and implemented in order to shield economies against endogenous and exogenous shocks. Similarly, the implementation of national economic objectives cannot in any way be possible without viable, real sector corporate entities. Notwithstanding these laudable objectives, the consensus view of the majority of the literature surveyed considers that exchange rate misalignment is a prelude to a financial crisis. It also considers that exchange rate misalignment crucially impedes corporate competitiveness, reduces production below the scale required for maximum efficiency and also produces dismal policy responses, particularly in emerging market economies. The menace of exchange rate misalignment, as documented in the empirical work of Claessens, Djankov and Xu [1] showed how corporate financial structures tend to became too weak to withstand the combined shock of increased interest rates, a devalued currency, exchange rate misalignment, exchange rate volatility and sharp declines in domestic demand that may arise through macroeconomic volatility and other exchange rate vagaries.

Dornbusch [2], on the other hand, documented that there is a considerable link between misaligned exchange rates and corporate balance sheets. Aguiar [3], Bénassy et al. [4] and Prasetyantoko [5], expanding upon the assertion made by Dornbusch [2], emphatically agreed that currency depreciation could affect corporate entities through two principal channels: the competitive effect and the net worth or balance sheet effect. Priestley and Ødegaard [6], in their classic findings, stated that in typical periods of exchange rate misalignment, indigenous