Bank Capital and New Regulatory Requirements for Risks in Trading Portfolios

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The 2007–2009 financial crisis was the impetus behind a new set of financial regulations known as Basel 2.5 and Basel III, measures designed by the Basel Committee of Banking Supervision (BCBS) to strengthen the resilience of the banking sector.[1] These measures build upon an ongoing program to both strengthen and sensitize to risk the regulatory capital requirements to which banks are subject [BCBS, 1996a, 1996b, 2005, 2006]. The aftermath of the financial crisis involved losses far in excess of anything observed in recent history. International supervisors have focused on constructing an enhanced set of capital requirements to ensure that in the future banks have resources sufficient to withstand a similar or worse crisis, which has been discussed by Moshirian [2011, 2012] and Francis and Osborne [2012], among others.

Although credit risk played a central role in this downturn,[2] it is less well known that the epicenter of these losses was in institutions' trading portfolios [BCBS, 2009a]. Even as significant price risk materialized due in large part to changes in the market price of risk in this period above and beyond market factor volatility Berg [2010], credit events were a major catalyst behind the massive losses realized by institutions. In light of this, the BCBS's objective is to ensure that institutions can withstand such a confluence of risk factors through heightened regulatory scrutiny of the credit risk residing in the trading books. Another motivation behind these new regulations is to enforce a greater degree of symmetry in measuring and managing credit risk between banking books and trading books, minimizing the tendency of institutions to try to reduce regulatory capital by regulatory arbitrage, that is, booking assets across these. Hence, we have a set of new regulations tailored to addressing the credit, liquidity, and stressed-market risk embedded in trading portfolios of defaultable instruments.

Although supervisors expect that an institution will hold sufficient capital to remain a going concern while sustaining losses during a downturn, the recent episode resulted in trading book losses far in excess of these minimum requirements [BCBS, 2009b]. This was the impetus behind the BCBS program of overhauling banking regulations and a host of new measures [BCBS, 2009b, 2010c]. With a view toward fortifying the resilience of the banking sector, the BCBS introduced two additional risk metrics: the incremental risk charge (IRC), measuring the credit risk residing in trading books, and the stressed value-at-risk (S-VaR) measure, quantifying estimated mark-to-market losses ascribed to market moves in a downturn period. The IRC is meant to measure portfolio value changes due to spread changes, rating migration, and default events