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The financial crisis of the late 2000's highlighted the importance of strengthening risk management systems in financial markets. Consequently, an increasing interest in strategies to quantify risk under extreme scenarios has spawned. One of such techniques is CrashMetrics, a methodology for estimating the exposure of a portfolio to severe market movements. Using daily data, we find that CrashMetrics complements more traditional stress testing techniques, providing not only a stringent loss scenario, but one that is cemented on an observed market shock and on the estimated sensitivities of the change in portfolio value during periods of financial turmoil. Given that correlations between assets are stronger during a market crash, our findings indicate that financial institutions seem relatively more exposed to market risk under this methodology than using other market risk measures. Thus, results indicate that CrashMetrics provides vital information from a prudential perspective, alerting policymakers of significant individual or sector-specific exposures to market risk and thus, allowing preemptive action to be undertaken in a timely and efficient manner.