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Structural versus Temporary Drivers of Country and Industry Risk ¹

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Structural versus Temporary Drivers of Country and Industry Risk

Abstract

This paper analyzes the dynamics and determinants of the relative benefits of geographical and industry diversification over the last 30 years. First, we develop a new structural regimeswitching volatility spillover model to decompose total risk into a systematic and a country (industry) specific component. Contrary to most other studies, we explicitly allow market betas and asset-specific risks to vary with both structural changes and temporary fluctuations in the economic and financial environment. In a second step, we investigate the relative benefits of geographical and industry diversification by comparing average asset-specific volatilities and model-implied correlations across countries and industries. We find a large positive (negative) effect of the structural factors on country betas (country-specific volatility), especially in Europe, while industry betas are mainly determined by temporary factors. Not taking into account the time variation in betas leads to biases in measures of industry and country-specific risk of up to one-third of total asset-specific volatility. After correcting for this bias, we find that under the influence of globalization and regional integration, the traditional dominance of geographical over industry diversification has been substantially reduced. In fact, over the last years, geographical and industry diversification roughly yield the same diversification benefits. Finally, our results indicate that the surge in industry risk at the end of the 1990s was partly (but not fully) related to the TMT bubble.

JEL Classification: G11, G12, G15, C32, F37

Keywords: International portfolio diversification, Country versus Industry Effects, Financial integration, Idiosyncratic risk, Time-Varying Correlations, Regime-switching models.