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The price of freedom: A Fama–French freedom factor

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ABSTRACT

Economic institutions in-part explain cross-country variation in levels of investment and capital market characteristics. Here, country-level equity returns are related to cross-country differences in economic institutions as measured by an index of economic freedom. The ex-ante level and ex-post change in economic freedom are observed to be country-level equity return factors exhibiting Sharpe ratios greater than that of the value, momentum, and size factors, factors to which change in economic freedom has a low correlation. Fama–MacBeth regressions confirm the economic freedom factor. Finally, the excess return earned from investing in countries with low economic freedom is the price of freedom.

1. Introduction

The importance of country allocation to investment returns has been known since Lessard (1974) was first to demonstrate the "industry dimension is much less important than the national [country] dimension." However, the number of peer-reviewed papers which investigate the relationship between investment returns and economic policies is few. More popular are studies which examine the connection between economic policy and market development.

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Economic policies enacted at the country-level may relate to the key components of an equity market's valuation: expected cash flow and the discount rate. In the analysis performed here, country-level changes to tax rates, legislated wage levels, regulatory obligations, and international trade restrictions may all result in changes to the cash flows of a country's publicly-traded companies thereby effecting changes in equity prices.

The discount rate used to determine the present value of future cash flows reflects the uncertainties of receiving those cash flows, the expected inflation rate, and the cost of capital. Government policy developments which are increasingly erratic or specifically prejudice against corporations cause the discount rate to increase and the value of equities to decrease. Likewise, in countries with poor economic policy, as measured by a low level of economic freedom, investors may demand a higher investment return to compensate for a riskier policy environment. That additional return being the price of freedom.

In this paper, I attempt to validate that investment returns are related to a measure of economic institutions, those institutions defined as economic freedom. I first review the definition of institutions and the previous research relating institutions to country-level economic performance and financial market characteristics. Next, I present a model framework consistent with existing, well-researched equity factor analyses. I then discuss the data set and the factor returns present. In Section 5, the Fama–MacBeth two stage regression results are described and potential reasons for the observance of economic freedom and market capitalization per capita equity return factors are discussed. The paper is then concluded with a summary.

1.1. Institutions and economic growth

The research undertaken here focuses on institutions related to economic freedom, as measured by Gwartney et al. (2014). North (1991) enabled a framework for measuring economic freedom with his foundational definition: "institutions are the humanly devised constraints that structure political, economic, and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules (constitutions, laws, property rights)." Gwartney and Lawson (2003) focus their index of economic freedom on the institutions which compose economic interaction and describe "an infrastructure for voluntary exchange, and protecting individuals and their property from aggressors seeking to use violence, coercion, and fraud to seize things that do not belong to them."

Utilizing Gwartney, Lawson, and Block's economic freedom of the world dataset (EFW) (1996), Dawson (1998) reported that "empirical results indicate that economic freedom has a significantly positive impact on growth in a large sample of countries…even after controlling for other often-cited correlates of growth." His observation was that economic freedom affects growth through both a direct effect on total factor productivity and an indirect effect on investment. Gwartney et al. (1999) then evidence that incomes in a freer economy grow more rapidly and eventually rise to higher levels than those in economies that are less free. They suggest that low taxes and secure property rights will encourage individuals to engage more intensely in productive activity and freedom of exchange that will lead to the realization of gains which come from specialization and economies of scale. Likewise it is hypothesized that efficiencies are gained through open competition as entrepreneurial endeavors are rewarded for better methods of production.

Others soon suggested that large, unexplained residuals in the Solow (1956) growth model are driven by "differences in capital accumulation, productivity, and therefore output per worker are driven by differences in institutions and government policies…" (Hall and Jones, 1999). Next, Acemoglu et al. (2000) demonstrated the significant information content of institutional quality by examining a measure of the risk of expropriation and concluding "differences in institutions explain three-quarters of the income per capita differences across former colonies." Also validating the role of institutional differences, Mahoney (2001) presented evidence that common-law countries experienced faster economic growth than civil-law countries during the period 1960–1992. His explanation is that common law produces faster growth through greater security of property and contract rights. In consideration of existing economic growth models, Cole (2003) broadly demonstrated that EFW was "quite robust with respect to major changes in model specification" and that "economic freedom is a significant factor in economic growth, regardless of the theoretical framework."

For empiricists, national boundaries mark the borders of public policies and institutions that are not only different but in some cases also better or worse (Olson, 1996). Olson concludes that economic performance is determined mostly by national borders that mark the structural boundaries of incentives when controlling