Fear or Fortune? How Global Equity Markets Price Artificial Intelligence

We investigate how global equity markets at different stages of development price artificial intelligence (AI)–related developments. We construct a novel option-implied decomposition of AI-related uncertainty and opportunity by approximating the component of the VIX associated with AI return innovations adjusted for broader systematic factors. The estimated AI-related component represents a time-varying element of aggregate stock market uncertainty. AI-related opportunity is transmitted primarily through returns, with the strongest positive response observed in the U.S., whereas uncertainty affects both returns and conditional variance across the U.S., developed ex-U.S. and emerging markets. Considered as a whole, the AI-related component produces effects that more closely resemble those of uncertainty than opportunity. The overall impact of the AI-related VIX component (OIAV) measure, which captures its joint effects on returns and conditional variance, ranks emerging markets as the most affected and frontier markets as the least affected. Valuation effects are relatively more important in the U.S., while residual ambiguity is more important in developed ex-U.S. and emerging markets, where AI-related information remains less fully resolved. Further analysis suggests that the AI-related component is largely distinct but remains partially associated with broader macro-financial conditions. Our findings have implications for investors, analysts, researchers and policymakers and provide, to our knowledge, the first option-implied decomposition of AI-related opportunity and uncertainty, documenting their asymmetric transmission across global equity markets.

Keywords: artificial intelligence, AI-related uncertainty, AI-related opportunity, global equity markets, volatility, VIX

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