The Determinants of the Variability of Stock Market Prices

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The most familiar interpretation for the large and unpredictable swings that characterize common stock price indices is that price changes represent the efficient discounting of "new information" It is remarkable given the popularity of this interpretation that it has never been established what this information is about. Recent work by Shiller, and Stephen LeRoy and Richard Porter, has shown evidence that the variability of stock price indices cannot be accounted for by information regarding future dividends since dividends just do not seem to vary enough to justify the price movement. These studies assume a constant discount factor. In this paper, we consider whether the variability of stock prices can be attributed to information regarding discount factors (i.e., real interest rates), which are in turn related to current and future levels of economic activity. The appropriate discount factor to be applied to dividends which are received k years from today is the marginal rate of substitution between consumption today and consumption k periods from today, We use historical data on per capita consumption from 1890-1979 to estimate the realized value of these marginal rates of substitution. Theoretically, as LeRoy and C. J. La Civita have also noted independently of us, consumption variability may induce stock price variability whose magnitude depends on the degree of risk aversion.

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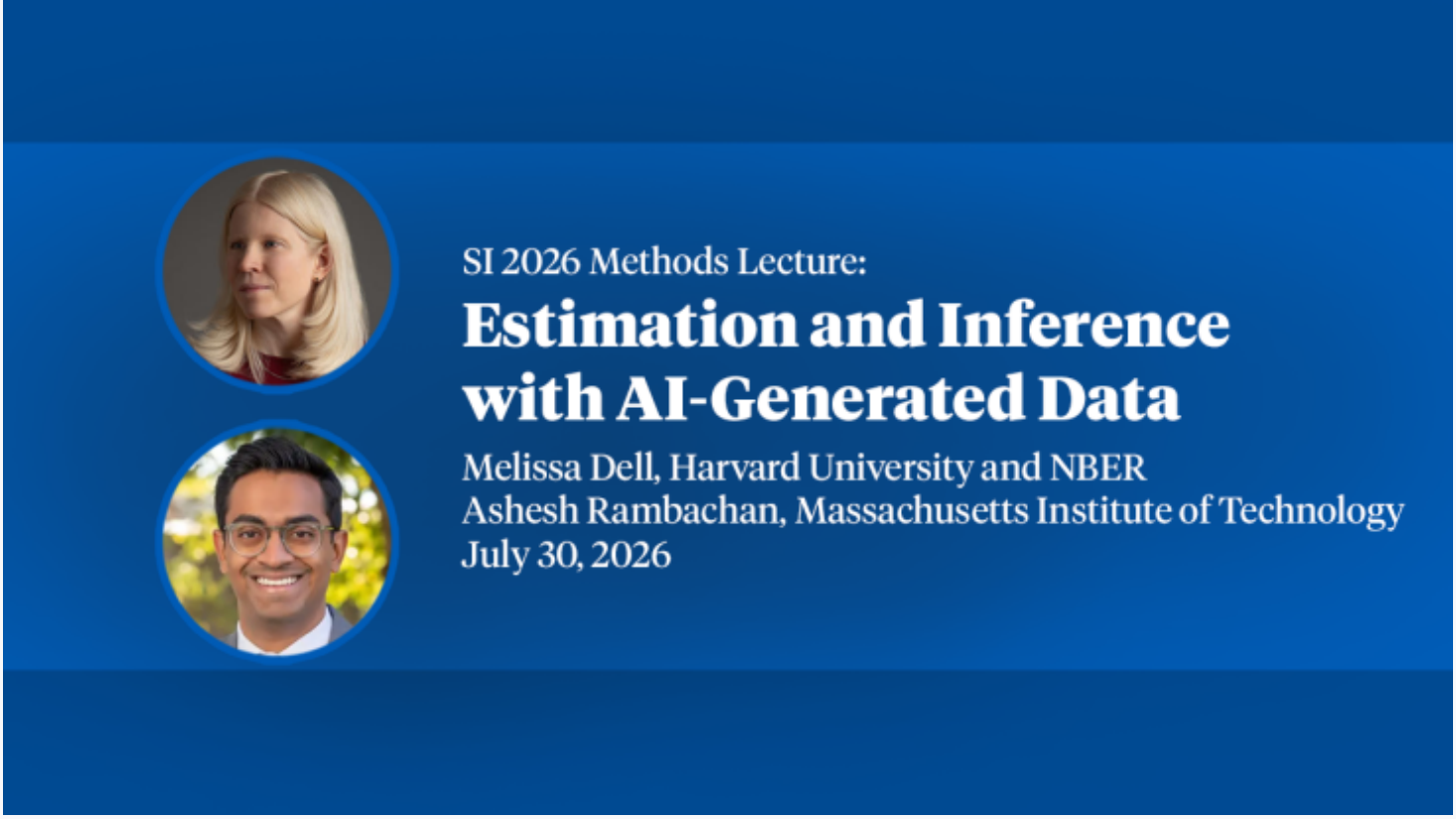


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