



José Alexandre Scheinkman

Fellow of the American Finance Association for 2017

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José Alexandre Scheinkman was born in Rio de Janeiro, Brazil, in 1948 where his father was a physician and his mother a homemaker. He attended Colégio Pedro II and studied economics at the Federal University of Rio de Janeiro and mathematics at IMPA. In 1970, he went to the University of Rochester for his PhD, where he studied under Lionel W. McKenzie.

In 1973, Scheinkman started at the University of Chicago as an assistant professor. He stayed there for more than 25 years and eventually was Chair of the department and Alvin Baum Distinguished Service Professor. In 1999, he became Theodore Wells '29 Professor of Economics at Princeton University where he is now Professor emeritus. Since 2013, he has been at the Department of Economics at Columbia University where he is the Charles and Lynn Zhang Professor.

Scheinkman's research has focused on building theoretical models that shed light on a variety of economic and social phenomena such as economic fluctuations, oligopolistic competition, the growth of cities, informal economic activity, the spatial distribution of crime, the dynamics of asset prices, and asset-price bubbles. He has also developed new statistical tools for analyzing economic and financial data. Scheinkman was a latecomer to finance. His first papers in finance dealt with "rational" models of bubbles and with the implications of limited financial structures for asset prices and economic fluctuations. A 1986 paper with Larry Weiss develops a dynamic model where the absence of complete markets is responsible for fluctuations in output and asset-prices.

In the mid-1980s, with Blake LeBaron, Scheinkman used the then recent developments in the literature on *chaotic dynamics* to study the presence of nonlinearities in financial time-series. With W. A. Brock and W. D. Dechert, Scheinkman developed a new test for nonlinearities now known as the BDS test.

In 1987, Scheinkman took an 18 months leave at Goldman, Sachs. Together with his GS colleague Bob Litterman, he improved on "duration matching" for fixed-income hedging, by showing that most of the variability of U.S. Treasury yield-curves could be explained by three factors.

After returning to Chicago, Scheinkman started a collaboration with Lars Hansen that continues to this day. In their first set of papers they developed moment conditions to test continuous-time Markov models using discrete-time data and applied them, in subsequent work with Conley and Luttmer, to U.S. interest rates. The results developed by Hansen and Scheinkman are especially useful when we suspect that aspects of the model may be misspecified, but wish to target certain properties such as the long-run distribution. An interesting

misspecification addressed in this work is the difference between economic and calendar times.

Much of the empirical finance literature focuses on risk-return tradeoffs over relatively short horizons. Hansen and Scheinkman, often with Jaroslav Borovicka, wrote a series of papers developing tools to study the term-structure of compensations required by investors to hold undiversifiable risks. Much of the analysis utilizes a decomposition, developed by Hansen and Scheinkman, of the stochastic discount factor in a Markov environment into a deterministic trend and martingale and stationary components. This decomposition also clarifies when it is possible to recover investor's beliefs from a single cross-section of asset prices. *Recovery* is possible if the martingale component of the stochastic discount factor is trivial, but estimates of stochastic discount factors in many rational expectations models of asset prices have empirically relevant nontrivial martingale components.

The rise and fall of tech stocks at the turn of the century highlighted the fact that rational-bubble models were incapable of explaining several empirical regularities of actual bubbles. With his new colleagues Wei Xiong and Harrison Hong at the Bendheim Center for Finance, Scheinkman crafted a series of papers showing that models with differences in beliefs and restrictions to short sales are capable of simultaneously explaining three stylized facts about asset-price bubbles: (i) bubbles frequently occur at times of technological or financial innovation; (ii) bubble episodes are accompanied by increases in trading volume; and (iii) bubble implosions often coincide with increases in the supply of the bubble asset. With Patrick Bolton and Wei Xiong he showed that, in the presence of differences in beliefs and restrictions to short sales, optimal compensation contracts may emphasize short-term stock performance, at the expense of long-run fundamental value, as an incentive to induce managers to pursue actions which increase the speculative component in the stock price.

As with other finance scholars, Scheinkman's research was influenced by the events of the 2007 crisis. A paper with Ing-Haw Cheng and Harrison Hong argues that management in financial firms such as Bear Sterns or Lehman Brothers were paid more than managers at other financial firms because their (institutional) shareholders wanted to implement fundamentally riskier strategies. Thus, contrary to the usual entrenchment narrative, improving corporate governance and reducing the wedge between the interest of management and that of shareholders would not have limited risk-taking before the crisis.

With his Columbia colleagues Patrick Bolton and Tano Santos, Scheinkman studied the impact of heterogeneous access to investment opportunities in capital markets. Agents that invest on information can cream-skim the best opportunities. By trading in opaque markets, informed traders can extract informational rents. If the quality of assets is fixed, information acquisition is excessive and the financial industry extracts excessive rents. Otherwise, demand by informed traders motivates the origination of better quality assets, but there is no guarantee that equilibrium investment in information is efficient. In a follow-up paper, Bolton, Santos, and Scheinkman introduce borrowing by the informed

from the uninformed, which allows a discussion of leverage. They show that as aggregate savings grow, leverage increases and is highest precisely when incentives for good asset origination are at their lowest. Thus, plentiful liquidity leads to fragile balance sheets: On the asset side non-performing assets accumulate and on the liability side debt funds more of those assets.

