

THOMAS ANDREAS MAURER

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Citizenship: Swiss
Date of birth: 29.09.1984

Education:

PhD in Finance, 2008-2012, The London School of Economics
Studies Abroad: academic year 2010-2011, The University of Chicago Booth School of Business
Thesis Title: “*Is Consumption Growth only a Sideshow in Asset Pricing? - Asset Pricing Implications of Demographic Change and Shocks to Time Preferences*”
Advisors: Professors Jack Favilukis, Stavros Panageas, Dimitri Vayanos

MSc in Finance and Economics, 2007-2008, The London School of Economics (*Distinction*)
Thesis Title: “*Cointegration in Finance: An Application to Index Tracking*”

BA in Economics, 2003-2006, University of St. Gallen (HSG), Switzerland
Studies Abroad (1): winter term 2005/2006, City University of Hong Kong
Studies Abroad (2): summer term 2006, Chinese University of Hong Kong
Thesis Title: “*Real and Long Term Objectives in Continuous Time Portfolio Optimization*”

Current Position:

Assistant Professor of Finance, Jul 2012 – present, Washington University in St. Louis, Olin Business School.

Previous Employment:

Graduate Teaching Assistant, Oct 2009 – Jul 2010, Oct 2011 – Jul 2012, FM212: Principles of Finance (undergraduate), The London School of Economics.

Research and Teaching Assistant, Nov 2006 – Aug 2007, Assistant to Prof Gärtner, University of St. Gallen (HSG), Switzerland.

Equity and Commodity Research Internship, Apr 2007 – Aug 2007, Credit Suisse, Zurich.

Research Interests:

(General Equilibrium) Asset Pricing; International Finance; Optimal Portfolio Choice; Long Run Risk; Demographic Change and Uncertainty in Finance; Innovation, Growth and Endogenous Capital Accumulation in Finance; Learning in Financial Markets

Teaching at the Olin Business School, Washington University in St. Louis:

FIN532: Investment Theory, Master of Finance course.

FIN524: Options and Futures, MBA and Master of Finance course.

FIN451: Options, Futures and Derivative Securities, undergraduate course.

Honors and Scholarships:

Reid Teaching Award, May 2017, voted as best teacher by Master of Finance class of 2017.

Swiss National Science Foundation (SNSF) Research Fellowship, Sep 2010 - Aug 2011, Sponsored by SNSF, Funding for visiting the University of Chicago Booth School of Business.

LSE (Finance) Research Studentship, Oct 2008 - Jul 2010, Oct 2011 – Jul 2012, Sponsored by LSE, Funding for pursuing a PhD at LSE (maintenance costs).

Economic and Social Research Council (ESRC) Studentship, Aug 2008 - Sep 2010, Oct 2011 – Jul 2012, Sponsored by ESRC, Funding for pursuing a PhD in the UK (tuition fee).

Languages:

English (professional), German (native)

Presentations in Research Seminars:

Bocconi, Finance Seminar, Apr 2017
U Zurich, Finance Seminar, Apr 2017
EPFL/ U Lausanne, Finance Seminar, Apr 2017
U Geneva, Finance Seminar, Mar 2017
U Illinois at Urbana-Champaign, Finance Seminar, Oct 2016
ETH Zurich, Center of Economic Research Seminar, Apr 2014
Southwest U Finance and Economics, Summer Program Seminars, July 2013
Washington U in St. Louis, Finance Seminar, Feb 2012
U Illinois at Urbana-Champaign, Finance Seminar, Feb 2012
HEC Paris, Finance Seminar, Feb 2012
Hong Kong U Science and Technology, Finance Seminar, Feb 2012
U New South Wales, Finance Seminar, Feb 2012
Duke U, Finance Seminar, Feb 2012
U Maryland, Finance Seminar, Feb 2012
Arizona State U, Finance Seminar, Feb 2012
U Washington, Finance Seminar, Jan 2012
Indiana U, Finance Seminar, Jan 2012
U Texas at Austin, Finance Seminar, Jan 2012
Stockholm School of Economics, Finance Seminar, Jan 2012
INSEAD, Finance Seminar, Jan 2012
U Lausanne, Finance Seminar, Dec 2011
INSEAD, PhD Workshop, Oct 2011
City U Hong Kong, Finance Seminar, Jun 2011
Chicago Booth, PhD in Finance Seminar, May 2011
University of Chicago, Economic Dynamics Work Group, Apr 2011
LSE, PhD in Finance Seminar, Dec 2009, May 2010, Jun 2010, Nov 2011

Presentations at Conferences:

European Finance Association Conference, Aug 2017
Marstrand Finance Conference, Jun 2017
Financial Intermediation Research Society (FIRS), Jun 2017
FMA Applied Finance Conference, May 2017
20th Annual Conference of the Swiss Society for Financial Market Research, Mar 2017
Midwest Finance Association Annual Meeting, Mar 2017
American Finance Association Meeting, Jan 2017
HKUST Finance Symposium, Dec 2016
Western finance Association Meeting, June 2016*
Society for Financial Studies (SFS) Cavalcade, May 2016
Midwest Finance Association Annual Meeting, Mar 2016
Summer Symposium in Financial Markets, Gerzensee, Jul 2014
North American Summer Meetings, Econometric Society, June 2014
CEAR Workshop on Longevity Risk, April 2014

Summer Institute of Finance Conference, July 2013
Finance Down Under Conference, Mar 2013
Adam Smith Workshop for Asset Pricing and Corporate Finance, Mar 2012
24th Australasian Finance and Banking Conference, Dec 2011
EconCon2011 Conference at NYU, Aug 2011

*indicates presentation by co-author.

Discussions at Conferences:

Marstrand Finance Conference, Jun 2017
20th Annual Conference of the Swiss Society for Financial Market Research, Mar 2017
Midwest Finance Association Annual Meeting, Mar 2017
HEC-McGill Ski Finance Conference, Jan 2017
BoE, Banca d'Italia, ECB FX Workshop, Dec 2016
Midwest Finance Association Annual Meeting, Mar 2016
Midwest Finance Association Annual Meeting, Mar 2015
University of Washington Summer Finance Conference, Aug 2014
ITAM Finance Conference, June 2014
China International Conference in Finance, July 2013
24th Australasian Finance and Banking Conference, Dec 2011

Referee Work for Academic Journals:

American Economic Review
International Journal of Financial Studies
Journal of European Economic Association
Journal of Monetary Economics
Macroeconomic Dynamics
Management Science
Mathematics and Financial Economics
Quarterly Review of Economics and Finance
Review of Finance
Review of Financial Studies

Referee Work for Academic Conferences:

Midwest Finance Association Conference 2014, 2015, 2016, 2017
Financial Intermediation Research Society Conference 2013, 2014, 2015, 2016, 2017

Research Papers:

“Pricing Shocks to Conditional Market Beta” – with Shiyang Huang and Bo Tang

Abstract: We estimate monthly conditional market beta of 10 momentum and 25 size and book-to-market portfolios between 1946 and 2016 using a multivariate GARCH model. In the ICAPM conditional market beta are important determinants of expected returns and covariances of assets. Thus, shocks to conditional market beta imply shocks to the investment opportunity set. We define shocks to conditional market beta as state variables, and document that they carry economically large and statistically significant risk premia. Moreover, we show that shocks to conditional market beta are related to but clearly distinct from the Fama-French-Carhart size, book-to-market and momentum factors.

“Incomplete Asset Market View of the Exchange Rate Determination” – with Ngoc -Khanh Tran

Abstract: We resolve a long-standing quest to unite the dynamics of the exchange rate with that of country-specific pricing by establishing a necessary and sufficient condition for their unity. Assuming arbitrage-free, frictionless and perfectly integrated international financial markets, the exchange rate is equal to the ratio of countries' stochastic discount factor projectors if and only if every exchange rate risk is singly traded in markets, i.e., exchange rate risks are completely disentangled. Abstracting from structural assumptions, the exchange rate risk entanglement presents a novel and pure market-based rationale for the purported disconnection between prices

and quantities in the international economy. Our study completely characterizes when and how the influential asset market view of the exchange rate does not pose strong implications on the exchange rate dynamics.

“Optimal Factor Strategy in FX Markets” – with Thuy-Duong To and Ngoc -Khanh Tran

Abstract: A mean-variance efficient currency trading strategy, which mimics the inverse of the minimum variance stochastic discount factor, earns a remarkable out-of-sample Sharpe ratio of 1.17 before and 0.91 after transaction costs. It substantially outperforms other popular currency strategies across diverse performance measures and sub-samples. Crash risk and popular pricing factors do not explain the superior performance. The strategy predicts future returns, market volatility and illiquidity. A pricing model with the strategy as a single factor outperforms and subsumes the popular "Dollar"- "Carry" two factor model and the downside risk and intermediary asset pricing factors. A key feature of the strategy is market timing, i.e., dynamic adjustments of its risk exposure in response to time variations in market prices of risk (but not necessarily market volatility), which enhances its unconditional Sharpe ratio.

“Entangled Risks in Incomplete FX Markets” – with Ngoc-Khanh Tran

Abstract: We reconcile the international correlation, currency premium, and the Backus-Smith puzzles by uncovering and employing a novel market-based mechanism of risk entanglement, i.e., the specific configuration in which risks are embedded in incomplete international asset markets. When risks are entangled in FX markets, there exist multiple pricing-consistent exchange rates, but none of them is necessarily equal to the ratio of the given stochastic discount factors (SDFs) or their projectors. Therefore, risk entanglement decouples the exchange rate dynamics from those of cross-country relative pricing. Pursuing this decoupling, we calibrate a simple risk entanglement setup to identify market settings that consistently accommodate the three puzzles.

“The Collateral Value of Housing: Evidence from Servicemember Pension Choice” – with Benjamin Bennett and Radha Gopalan

Abstract: We evaluate the effect of personal characteristics and house prices on servicemembers' pension choices, which vary in the time-profile of cash flows. Personal discount rates vary through time between 2001-2009 and are larger during crisis years. Due to the collateral value of housing, an increase in house prices is associated with a lower propensity of servicemembers choosing immediate liquidity. The effect of house prices is robust to controlling for macroeconomic factors including GDP growth, per capita income growth, changes in the state coincident index, unemployment rate, interest rates, stock returns and the net percentage of banks tightening loan standards.

“The Hirshleifer Effect in a Dynamic Setting” – with Ngoc-Khanh Tran

Abstract: We analyze the value of public information in a competitive endowment economy with multiple consumption and trading dates. We provide a global result that early information releases are desired by all agents, if they disagree about the prospect of the economy and asset markets are complete. Moreover, under disagreements such that agents anticipate modest benefits from risk sharing and sufficiently large benefits from intertemporal consumption smoothing, all agents strictly prefer an early release of information even if they cannot trade in asset markets before the information arrives (incomplete asset markets). Therefore, the well-known Hirshleifer effect reverses in our dynamic setting.

“Pricing Risks across Currency Denominations” – with Thuy-Duong To and Ngoc-Khanh Tran

Abstract: We document a novel empirical regularity that investors in low interest rate countries earn substantially higher Sharpe ratios on identical carry trade strategies than investors in high interest rate countries. We further document that the exchange rate volatility markedly increases with the interest rate differential of the two currencies involved. These observations place new and significant restrictions on no-arbitrage models of international asset pricing. Our analysis naturally gives rise to a new non-parametric procedure to estimate country-specific stochastic discount factors (SDFs) from exchange rate data. In support of our approach, out of sample, the estimated SDFs sort linearly with national output gap fluctuations, and price risks in equity markets.

“Public Information and Risk-Sharing in a Pure-Exchange Economy” – with Ngoc-Khanh Tran

Abstract: We analyze whether the timing of public information releases affects risk-sharing and pricing in a pure exchange economy. Information releases do not matter if agents have time additive preferences, homogeneous beliefs and access to complete markets. In the case of heterogeneity in agents' beliefs, we are able to show

analytically that early information releases are Pareto improving but pricing is essentially unaffected. In the case of recursive preferences we provide numerical results suggesting that early information releases improve risk-sharing, and if the EIS is large enough, they have a negative effect on the ex-ante equity premium.

“Is Consumption Growth merely a Sideshow in Asset Pricing?”

Abstract: I study a parsimonious model of a time-varying market risk premium. State pricing is dominated by time preference shocks that may be independent of the consumption process. The model resolves several asset pricing puzzles and provides predictions for how the risk premium varies with measurable financial quantities like the price-earnings ratio and interest rates. Time preference shocks can generate a low level and volatility in the real interest rate and a high stock price volatility and equity premium. The price-earnings ratio has power to predict future stock returns and reveals information about unobservable financial quantities.

“Asset Pricing Implications of Demographic Change”

Abstract: An overlapping generations model featuring stochastic birth and death rates is solved in general equilibrium. I provide sufficient conditions for the interest rate to be decreasing in the birth rate and increasing in the death rate. If preferences are recursive, demographic uncertainty is priced in financial markets, and the equity premium is higher during periods characterized by a high birth rate and low mortality than in times of a low birth and high death rate. Demographic changes explain substantial parts of the time variation in the real interest rate, equity premium and conditional stock price volatility.

“Time Variation in Life Expectancy, Optimal Portfolio Choice and the Cross-Section of Asset Returns”

Abstract: I solve a portfolio optimization problem with stochastic death rates. An agent demands more of an asset that pays off high (low) in states of the world when he expects to live longer (shorter) than an asset with the opposite payoff. Consequently, in equilibrium, an asset with a positive correlation between its returns and changes in the life expectancy pays a lower expected return than an asset with a negative correlation. Empirical evidence supports the model. Out-of-sample evidence suggests that a trading strategy, which exploits the theoretical relationship, pays 3.25% annual unexplained returns according to the CAPM.

“Cointegration in Finance: An Application to Index Tracking”

Abstract: The purpose of this paper is to construct and test two different index tracking strategies - one based upon cointegration analysis of the price processes of assets (CIT strategy), and the other based on a market equilibrium and continuous time portfolio optimisation approach (MIT strategy). Within a broad empirical analysis it is found that both tracking strategies are able to track an index (FTSE100, DJ Industrial, DJ Composite Average) accurately, even if only a relatively small subset of constituent stocks is used. Thereby, it is also suggested that (particularly in the British stock market) the CIT strategy is preferred since there is some (out of sample) evidence indicating that log-price spreads between index and CIT tracking portfolio follow a stationary process. Moreover, regarding the attempt to perform simple enhanced indexation, no empirical evidence was found that would suggest that either of the two tracking strategies was suitable for such an approach.