Beyond the Carry Trade: Optimal Currency Portfolios

Published online by Cambridge University Press: **23 December 2015**

Pedro Barroso and Pedro Santa-Clara

Abstract

We test the relevance of technical and fundamental variables in forming currency portfolios. Carry, momentum, and value reversal all contribute to portfolio performance, whereas the real exchange rate and the current account do not. The resulting optimal portfolio produces out-of-sample returns that are not explained by risk and are valuable to diversified investors holding stocks and bonds. Exposure to currencies increases the Sharpe ratio of diversified portfolios by 0.5 on average, while reducing crash risk. We argue that besides risk, currency returns reflect the scarcity of speculative capital.

Type

Research Articles

Information

Journal of Financial and Quantitative Analysis, Volume 50, Issue 5, October 2015, pp. 1037 - 1056
DOI: https://doi.org/10.1017/S0022109015000460

References

Asness, C. S.; Moskowitz, T. J.; and Pedersen, L. H.. “Value and Momentum Everywhere.” Journal of Finance, 68 (2013), 929–985. Google Scholar

Barro, R.“Rare Disasters and Asset Markets in the Twentieth Century.” Quarterly Journal of Economics, 121 (2006), 823–866. Google Scholar

Barroso, P., and Santa-Clara, P.. “Momentum Has Its Moments.” Journal of Financial Economics, 116 (2015), 111–120. Google Scholar

Bliss, R., and Panigirtzoglou, N.. “Option-Implied Risk Aversion Estimates.” Journal of Finance, 59 (2004), 407–446. CrossRef Google Scholar

Brandt, M. W.; Santa-Clara, P.; and Valkanov, R.. “Parametric Portfolio Policies: Exploiting Characteristics in the Cross-Section of Equity Returns.” Review of Financial Studies, 22 (2009), 3411–3447. Google Scholar

Brunnermeier, M. K.; Nagel, S.; and Pedersen, L. H.. “Carry Trades and Currency Crashes.” Macroeconomics Annual, 23 (2008), 313–347. Google Scholar

Burnside, C.; Eichenbaum, M.; Kleshchelski, I.; and Rebelo, S.. “Do Peso Problems Explain the Returns to the Carry Trade?” Review of Financial Studies, 24 (2011), 853–891. Google Scholar

Burnside, C.; Eichenbaum, M.; and Rebelo, S.. “Carry Trade: The Gains of Diversification.” Journal of the European Economic Association, 6 (2008), 581–588. Google Scholar

Burnside, C.; Eichenbaum, M.; and Rebelo, S.. “Carry Trade and Momentum in Currency Markets.” Annual Review of Financial Economics, 3 (2011), 511–535. Google Scholar

Carhart, M. M.“On Persistence in Mutual Fund Performance.” Journal of Finance, 52 (1997), 57–82. Google Scholar

Cheung, Y. W.; Chinn, M. D.; and Pascual, A. G.. “Empirical Exchange Rate Models of the Nineties: Are Any Fit to Survive?” Journal of International Money and Finance, 24 (2005), 1150–1175. Google Scholar

Christiansen, C.; Ranaldo, A.; and Söderlind, P.. “The Time-Varying Systematic Risk of Carry Trade Strategies.” Journal of Financial and Quantitative Analysis, 46 (2011), 1107–1125. Google Scholar

Daniel, K., and Moskowitz, T.. “Momentum Crashes.” Working Paper, Columbia University (2012). Google Scholar

DeMiguel, V.; Garlappi, L.; and Uppal, R.. “Optimal versus Naive Diversification: How Inefficient Is the 1/N Portfolio Strategy?” Review of Financial Studies, 22 (2009), 1915–1953. Google Scholar

Dornbusch, R., and Fischer, S.. “Exchange Rates and the Current Account.”

American Economic Review, 70 (1980), 960–971. Google Scholar

Engel, C., and West, K. D.. “Exchange Rates and Fundamentals.” Journal of Political Economy, 113 (2005), 485–517. Google Scholar

Fama, E. F.“Forward and Spot Exchange Rates.” Journal of Monetary Economics, 14 (1984), 319–338. Google Scholar

Fama, E. F., and Blume, M.. “Filter Rules and Stock Market Trading Profits.” Journal of Business, 39 (1966), 226–241. Google Scholar

Fama, E. F., and French, K. R.. “The Cross-Section of Expected Stock Returns.” Journal of Finance, 47 (1992), 427–465. Google Scholar

Farhi, E., and Gabaix, X.. “Rare Disasters and Exchange Rates: A Theory of the Forward Premium Puzzle.” Working Paper, Harvard University (2007). Google Scholar

Fung, W., and Hsieh, D.. “Hedge Fund Benchmarks: A Risk-Based Approach.” Financial Analysts Journal, 60 (2004), 65–80. Google Scholar

Gourinchas, P. O., and Rey, H.. “International Financial Adjustment.” Journal of Political Economy, 115 (2007), 665–703. Google Scholar

Gourio, F.; Siemer, M.; and Verdelhan, A.. “International Risk Cycles.” Journal of International Economics, 89 (2013), 471–484. CrossRef Google Scholar

Grundy, B., and Martin, J. S.. “Understanding the Nature of the Risks and the Source of the Rewards to Momentum Investing.” Review of Financial Studies, 14 (2001), 29–78. Google Scholar

Hafeez, B., and Brehon, D.. “Exchange Rate Perspectives: 30 Years of FX Investment Returns.” Working Paper, Deutsche Bank (2010). Google Scholar

Jacobs, H.; Müller, S.; and Weber, M.. “How Should Individual Investors Diversify? An Empirical Evaluation of Alternative Asset Allocation Policies.” Journal of Financial Markets, 19 (2014), 62–85. Google Scholar

Jegadeesh, N., and Titman, S.. “Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency.” Journal of Finance, 48 (1993), 65–91. Google Scholar

Jordà, O., and Taylor, A.. “The Carry Trade and Fundamentals: Nothing to Fear but FEER Itself.” Journal of International Economics, 88 (2012), 74–90. Google Scholar

Jurek, J. W. “Crash-Neutral Currency Carry Trades.” American Finance Association 2010 Atlanta Meetings Paper (2009). Google Scholar

Jylhä, P., and Suominen, M.. “Speculative Capital and Currency Carry Trades.” Journal of Financial Economics, 99 (2011), 60–75. Google Scholar

Kroencke, T.; Schindler, F.; and Schrimpf, A.. “International Diversification

Benefits with Foreign Exchange Investment Styles." CREATES Research Paper No. 2011-10 (2011). CrossRef Google Scholar

LeBaron, B."Technical Trading Rule Profitability and Foreign Exchange Intervention." Journal of International Economics, 49 (1999), 125–143. Google Scholar

Lesmond, D. A.; Schill, M. J.; and Zhou, C.. "The Illusory Nature of Momentum Profits." Journal of Financial Economics, 71 (2004), 349–380. Google Scholar

Levich, R., and Pojarliev, M.. "Do Professional Currency Managers Beat the Benchmark?" Financial Analysts Journal, 64 (2008), 18–32. Google Scholar

Levich, R., and Pojarliev, M.. "Detecting Crowded Trades in Currency Funds." Financial Analysts Journal, 67 (2011), 26–39. Google Scholar

Levich, R., and Pojarliev, M.. "A New Look at Currency Investing." Research Foundation of CFA Institute (2012). Google Scholar

Levich, R., and Thomas, L. R.. "The Significance of Technical Trading-Rule Profits in the Foreign Exchange Market: A Bootstrap Approach." Journal of International Money and Finance, 12 (1993), 451–474. Google Scholar

Lo, A. W. "The Adaptive Markets Hypothesis: Market Efficiency from an Evolutionary Perspective." Journal of Portfolio Management, 30 (2004), 15–29. Google Scholar

Lustig, H. N.; Roussanov, N. L.; and Verdelhan, A.. "Common Risk Factors in Currency Markets." Review of Financial Studies, 24 (2011a), 3731–3777. Google Scholar

Lustig, H. N.; Roussanov, N. L.; and Verdelhan, A.. "The Cross-Section of Foreign Currency Risk Premia and US Consumption Growth Risk: A Reply." American Economic Review, 101 (2011b), 3477–3500. Google Scholar

Mancini, L.; Ranaldo, A.; and Wrampelmeyer, L.. "Liquidity in the Foreign Exchange Market: Measurement, Commonality, and Risk Premiums." Journal of Finance, 68 (2013), 1805–1841. Google Scholar

Meese, R. A., and Rogoff, K.. "Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample?" Journal of International Economics, 14 (1983), 3–24. CrossRef Google Scholar

Mehra, R., and Prescott, E. C.. "The Equity Premium: A Puzzle." Journal of Monetary Economics, 15 (1985), 145–161. Google Scholar

Melvin, M., and Taylor, M. P.. "The Crisis in the Foreign Exchange Market." Journal of International Money and Finance, 28 (2009), 1317–1330. Google Scholar

Menkhoff, L.; Sarno, L.; Schmeling, M., and Schrimpf, A.. "Carry Trades and Global Foreign Exchange Volatility." Journal of Finance, 67 (2012a), 681–

718. Google Scholar

Menkhoff, L.; Sarno, L.; Schmeling, M.; and Schrimpf, A.. "Currency Momentum Strategies." Journal of Financial Economics, 106 (2012b), 620–684. Google Scholar

Neely, C.; Weller, P. A.; and Ulrich, J. M.. "The Adaptive Markets Hypothesis: Evidence from the Foreign Exchange Market." Journal of Financial and Quantitative Analysis, 44 (2009), 467–488. Google Scholar

Obstfeld, M., and Rogoff, K.. "Global Current Account Imbalances and Exchange Rate Adjustments." Brookings Papers on Economic Activity, 1 (2005), 67–123. Google Scholar

Okunev, J., and White, D.. "Do Momentum-Based Strategies Still Work in Foreign Currency Markets?" Journal of Financial and Quantitative Analysis, 38 (2003), 425–447. Google Scholar

Rogoff, K. "Exchange Rates in the Modern Floating Era: What Do We Really Know?" Review of World Economics, 145 (2009), 1–12. Google Scholar

Rogoff, K. S., and Stavrakeva, V.. "The Continuing Puzzle of Short Horizon Exchange Rate Forecasting." Working Paper, Harvard University (2008). Google Scholar

Sarno, L., and Schmeling, M.. "Which Fundamentals Drive Exchange Rates? A Cross-Sectional Perspective." Journal of Money, Credit and Banking, 46 (2014), 267–292. Google Scholar

Silber, W. "Technical Trading: When It Works and When It Doesn't." Journal of Derivatives, 1 (1994), 39–44. Google Scholar

Taylor, D. "Official Intervention in the Foreign Exchange Market, or, Bet Against the Central Bank." Journal of Political Economy, 90 (1982), 356–368. Google Scholar

Taylor, M. P., and Allen, H.. "The Use of Technical Analysis in the Foreign Exchange Market." Journal of International Money and Finance, 11 (1992), 304–314. Google Scholar

Article

When Factors Do Not Span Their Basis Portfolios

Mark Grinblatt and Konark Saxena

Journal of Financial and Quantitative Analysis

Published online: 12 October 2018

Article

Global Political Risk and Currency Momentum

Ilias Filippou , Arie E. Gozluklu and Mark P. Taylor

Journal of Financial and Quantitative Analysis

Published online: 8 October 2018

Article

Currency Regimes and the Carry Trade

Olivier Accominotti , Jason Cen , David Chambers and Ian W. Marsh

Journal of Financial and Quantitative Analysis

Published online: 14 March 2019

Article

International Diversification with Large- and Small-Cap Stocks

Cheol S. Eun , Wei Huang and Sandy Lai

Journal of Financial and Quantitative Analysis

Published online: 6 April 2009

Article

The Optimal Use of Return Predictability: An Empirical Study

Abhay Abhyankar , Devraj Basu and Alexander Stremme

Journal of Financial and Quantitative Analysis

Published online: 4 October 2012

Article

Portfolio Optimization with Mental Accounts

Sanjiv Das , Harry Markowitz , Jonathan Scheid and Meir Statman

Journal of Financial and Quantitative Analysis

Published online: 19 February 2010

Article

Improving Portfolio Selection Using Option-Implied Volatility and Skewness

Victor DeMiguel , Yuliya Plyakha , Raman Uppal and Grigory Vilkov

Journal of Financial and Quantitative Analysis

Published online: 2 January 2014

Article

It’s All in the Timing: Simple Active Portfolio Strategies that Outperform Naïve Diversification

Chris Kirby and Barbara Ostdiek

Journal of Financial and Quantitative Analysis

Published online: 20 January 2012

Article

The Time-Varying Systematic Risk of Carry Trade Strategies

Charlotte Christiansen , Angelo Ranaldo and Paul Söderlind

Journal of Financial and Quantitative Analysis

Published online: 16 May 2011