

**Internet Appendix A223: Funds: FX Risk
Illustrative Reverse Engineered Pitch Template Example**

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(A) Full Reference	Karen L. Benson, Robert W. Faff “The relationship between exchange rate exposure, currency risk management and performance of international equity funds” Pacific-Basin Finance Journal 12 (2004) 333-357.				
(B) Basic Research Question	To what extent are international funds exposed to exchange rate risk? More importantly, to what extent do FX risk management policies affect the exchange rate exposure and performance of these funds?				
(C) Key paper(s)	Benson, K.L., Faff, R.W., 2003. Exchange rate sensitivity of Australian international equity funds. Global Finance Journal 14 (1), 95– 120. Koski, J. and J. Pontiff (1999), 'How are derivatives used? Evidence from the mutual fund industry'. Journal of Finance 54, 791– 816. Cumby, R.E., Glen, J.D., 1990. Evaluating the performance of the international mutual funds. Journal of Finance 45, 497–521.				
(D) Motivation/Puzzle	While numerous studies have examined the exchange rate exposure and risk management policies of individual corporations and industry portfolios (generally they have found some evidence of exposure), limited work exists looking at equity funds. Koski and Pontiff (1999) is one notable exception – they investigate the use of share derivatives within equity mutual funds.				
THREE	Three core aspects of any empirical research project i.e. the “ IDioTs ” guide				
(E) Idea?	This study is conducted in several parts: (a) Survey/Questionnaire: to determine whether fund managers employed specific currency risk management techniques and if so, then in what form and to what extent. (b) Exchange rate sensitivity and performance evaluation: identify four major characterizations, namely, (1) neutral risk management; (2) ‘perfect’ hedging; (3) ‘asymmetric’ hedging and (4) ‘systematic’ speculation. (c) comparison of groups (d) The importance of the type of risk management techniques. Hypothesis: type of risk management techniques employed influences the level of exchange rate exposure.				
(F) Data?	<ul style="list-style-type: none"> • 1995-2001 The data on currency risk management policies were gathered via a questionnaire, focusing on the previous five to six years. <ul style="list-style-type: none"> • questionnaire was distributed to 128 of the 137 funds and received 62 useable responses representing 16 managers. • Price data were obtained from the Morningstar database, this sample comprised 137 funds represented by 35 managers. • Monthly exchange rate data were obtained from the IMF and Reserve Bank of Australia Web sites. All exchange rates were quoted in terms of the units of foreign currency per Australian Dollar. 				
(G) Tools?	1. Questionnaire analysis 2. Exchange rate sensitivity: assessed via model developed by Jorion (1990, JoB) 3. Performance evaluation: assessed in the context of the Treynor and Mazuy (1966) and Henriksson and Merton (1981) models. 4. Comparison of groups - t-test was used to compare funds that do manage currency risk vs. funds that do not.				

	<p>5. The importance of the type of risk management techniques: cross-sectional regressions were estimated in which the absolute value of the exchange rate sensitivity coefficients related to five risk management techniques => diversification of Shares (SH), Futures (FU), Swaps (SW), Forwards (FW) and Options (OP):</p> $ \lambda_i = \delta_1 + \delta_2SH_i + \delta_3OP_i + \delta_4FU_i + \delta_5FO_i + \delta_6SW_i + \varepsilon_i, \quad (8)$ <p>For hedging purposes:</p> $ \lambda_i = \varsigma_1 + \varsigma_2HE_i + \varepsilon_i. \quad (9)$ <p>speculation purposes, Specifically:</p> $\lambda_i = \partial_1 + \partial_2SP_i + \varepsilon_i. \quad (10)$ <p>The selectivity coefficients from the T&M and H&M models provide a measure of relative performance and they were used as the dependent variables in regressions similar to (8), (9) & (10) Cross-sectional regression equations were estimated using weighted least squares (WLS).</p>
TWO	Two key questions
(H) What's New?	This study is first to explicitly assess the relationship between exchange rate exposure and currency risk management policies and the relationship between the performance of the funds and the currency risk management policies.
(I) So What?	Insights beneficial to individual investors and fund managers, and Australian international equity trusts (no matter their purpose is hedging or speculation). They could better understand which strategy should be employed when diversifying internationally, and could possibly also decrease fund exposure and enhance their fund's performance.
ONE	One bottom line
(J) Contribution?	Expands our knowledge and understanding of the relationship between exchange rate exposure, currency risk management and performance of international equity funds based on a sample of Australian international equity trusts.
(K) 3 Key Findings	<ul style="list-style-type: none"> • Questionnaire: international equity fund managers do specifically manage currency risk, with forward contracts and options most frequently employed. Hedging is the primary reason for using derivatives. • Assessment of exchange rate exposure and performance: significant exchange rate exposure for a number of funds - not consistent with a 'perfect' hedging strategy. • Relationships between risk management policies and the exchange rate exposure of funds and between risk management policies and fund performance: risk management does not greatly impact exchange rate exposure of funds. There is some limited evidence that applying FX risk management policies will enhance the measured (selectivity) abnormal performance of international funds.