

International Portfolio Choice and Corporation Finance: A Synthesis

MICHAEL ADLER, BERNARD DUMAS

First published: June 1983

<https://doi.org/10.1111/j.1540-6261.1983.tb02511.x>

Citations: 663

International Portfolio Choice and Corporation Finance: A Synthesis

MICHAEL ADLER and BERNARD DUMAS*

THE STRUCTURE OF THE theory of international finance largely mirrors that of domestic financial theory. Starting from a micro-theory of individual portfolio choice one obtains, via aggregation and market clearing, equilibrium pricing relationships and risk-return tradeoffs. These provide objectives for value maximizing firms from which decision rules can be computed. This analytical sequence is the same whether there is one or more capital markets. To distinguish between the domestic and international settings, one needs an economic concept of nationhood.

Alternative approaches to international economics differ essentially in their conception of what a nation is. Ricardian theory identifies countries by their technologies and consumption preferences. The Heckscher-Ohlin theory of international trade defines nations as zones within which physical factors of production are confined.¹ In monetary economics, individual economic units holding the same currency in their portfolios as a means of payments are recognized as belonging to the same nation, and currencies are distinguished from each other by the fact that they are issued by different central banks.²

In portfolio theory, two avenues have so far been explored in an attempt to capture the international dimension. Most of the recent literature stemming from Solnik [179] has been devoted to models where nations are defined as zones of a common purchasing power unit or, more precisely, as subsets of investors

* The authors are Professor of Business, Columbia University and Professor, C.E.S.A. (H.E.C., I.S.A., C.F.C.), respectively. The article was begun while Dumas was Visiting Professor at Columbia and completed while he was Visiting Professor at Berkeley. We are grateful to André Saurel, who helped supply part of the data base, and to Jean-Francois Dreyfus, who contributed to the data processing. We received valuable critical comments from Professors Bradford Cornell, Jeffrey Frankel, Bruce Lehmann, David Modest, Patrice Poncet, Richard Roll, Piet Sercu, Bruno Solnik, René Stulz and, especially, Michael Brennan. Errors may remain despite their efforts: they are our responsibility. We apologize to the authors whose work is not quoted. This is no indication of the quality of their work but only of our ignorance or of the limited scope of this survey.

¹ Generalizations of the Heckscher-Ohlin theory to economies with uncertain production and securities trading may be considered as belonging to the field of international finance but they will not be reviewed here. See Helpman and Razin [85, 86, 87], Baron and Forsythe [20], and Dumas [48, 49].

² This approach is germane to portfolio theory and originates from balance-of-payments analysis, especially since the latter took a very strong monetary orientation in the sixties under the influence of Mundell [145], and since the advent of the "portfolio-balance" approach: Branson [28]. The link with portfolio theory is, however, not complete since the latter is only today in the process of introducing money holdings into the portfolios of individual investors (for an early attempt, see Roll [159], Kouri [108], and more recently Fama and Farber [58], Hodrick [90], Poncet [151], and Dumas [49]). The device most commonly employed is the injection of real money balances as a separate argument of the utility functions.

1 M. Adler. "The Cost of Capital and Valuation of a Two-Country Firm." *Journal of Finance* 29 (March 1974), 119-33.

[Web of Science®](#) | [Google Scholar](#)

2 M. Adler. "Investor Recognition of Corporate International Diversification: Comment." *Journal of Finance* 36 (March 1981), 187-91.

[Web of Science®](#) | [Google Scholar](#)

3 M. Adler and B. Dumas. "Optimal International Acquisitions." *Journal of Finance* 30 (March 1975), 1-20.

[Web of Science®](#) | [Google Scholar](#)

4 M. Adler and B. Dumas. "The Long-Term Financial Decisions of the Multinational Corporation." In E. J. Elton and M. J. Gruber (eds.), *International Capital Markets*. Amsterdam: North Holland, 1975.

[Google Scholar](#)

5 M. Adler and B. Dumas. "Portfolio Choice and the Demand for Forward Exchange." *The American Economic Review* 66 (May 1976), 332-40.

[Web of Science®](#) | [Google Scholar](#)

6 M. Adler and B. Dumas. "Default Risk and the Demand for Forward Exchange." In H. Levy and M. Sarnat (eds.), *Financial Decision Making under Uncertainty*. New York: Academic Press, 1977.

[Google Scholar](#)

7 M. Adler and B. Dumas. "Foreign Exchange Risk Management." In B. Antl (ed.), *Currency Risk and the Corporation*. London: Euromoney Publications, 1980: 145-158.

[Google Scholar](#)

8 M. Adler and B. Dumas. "The Exposure of Long-Term Foreign Currency Bonds." *Journal of Financial and Quantitative Analysis* 15 (November 1980), 973-95.

[Web of Science®](#) | [Google Scholar](#)

9 M. Adler and B. Dumas. "Should Exposure Management Depend on Translation Accounting Methods?" *Euromoney* (June 1981), pp. 132-8.

[Google Scholar](#)

10 M. Adler and B. Lehmann. "Deviations from PPP in the Long Run: A Random Walk?" Working paper, Columbia University, August 1982.

[Google Scholar](#)

11 M. Adler and G. V. G. Stevens. "The Trade Effects of Direct Investment." *Journal of Finance* 29 (May 1974), 655-76.

[Web of Science®](#) | [Google Scholar](#)

12 T. Agmon. "The Relations Among Equity Markets in the United States, United Kingdom, Germany and Japan." *Journal of Finance* 27 (September 1972), 839-56.

[Web of Science®](#) | [Google Scholar](#)

13 T. Agmon and D. R. Lessard. "Investor Recognition of Corporate International Diversification." *Journal of Finance* 32 (September 1977), 1049-56.

[Web of Science®](#) | [Google Scholar](#)

14 R. Z. Aliber. "The Interest Rate Parity Theorem: A Reinterpretation." *Journal of Political Economy* 81 (November-December 1973), 1451-9.

[Web of Science®](#) | [Google Scholar](#)

15 R. Z. Aliber. *Exchange Risk and Corporate International Finance*. London: Macmillan, 1978.

[Google Scholar](#)

16 R. Z. Aliber and C. P. Stickney. "Accounting Measures of Foreign Exchange Exposure: The Long and Short of It." *Accounting Review* 50 (January 1975), 44-57.

[Web of Science®](#) | [Google Scholar](#)

17 M. J. Bailey. "The Welfare Cost of Inflationary Finance." *Journal of Political Economy* 64 (April 1956), 93-110.

[Web of Science®](#) | [Google Scholar](#)

18 B. Balassa. "The Purchasing-Power Parity Doctrine: A Re-appraisal." *Journal of Political Economy* 72 (December 1964), 584-96.

[Web of Science®](#) | [Google Scholar](#)

19 D. P. Baron. "Flexible Exchange Rates, Forward Markets and the Level of Trade." *American Economic Review* 66 (June 1976), 253-66.

20 D. P. Baron and R. Forsythe. "Models of the Firm and International Trade under Uncertainty." *American Economic Review* 69 (September 1979), 565-74.

21 R. Barro. "Inflationary Finance and the Welfare Cost of Inflation." *Journal of Political Economy* 80 (September 1972), 978-1001.

22 V. S. Bawa, S. J. Brown, and R. W. Klein. *Estimation Risk and Optimal Portfolio Choice*. Amsterdam and New York: North Holland Publishing Co., 1979.

23 F. Black. "Capital Market Equilibrium with Restricted Borrowing." *Journal of Business* 45 (July 1972), 444-54.

24 F. Black. "International Capital Market Equilibrium with Investment Barriers." *Journal of Financial Economics* 1 (December 1974), 337-52.

25 M. E. Blume. "On the Assessment of Risk." *Journal of Finance* 26 (March 1971), 1-10.

26 J. Braga de Macedo. "Portfolio Diversification across Currencies." Working Paper, Princeton University, November 1980.

27 W. H. Branson. "The Minimum Covered Interest Differential Needed for International Arbitrage Activity." *Journal of Political Economy* 77 (November-December 1969), 1028-35.

28 W. H. Branson. "Asset Markets and Relative Prices in Exchange Rate Determination." IIES Seminar paper No. 66, Stockholm, December 1976.

29 W. H. Branson, S. I. Katz, and T. D. Willett. "Exchange Rate Systems, Interest Rates, and Capital Flows." *Princeton Essays in International Finance*, No. 78, January 1970.

[Google Scholar](#)

30 D. T. Breen. "An Intertemporal Asset Pricing Model with Stochastic Consumption and Investment Opportunities." *Journal of Financial Economics* 7 (September 1979), 265–96.

[Web of Science®](#) | [Google Scholar](#)

31 H. L. Brewer. "Investor Benefits from Corporate International Diversification." *Journal of Financial and Quantitative Analysis* 16 (March 1981), 113–26.

[Web of Science®](#) | [Google Scholar](#)

32 E. R. Canterbery. "Foreign Exchange, Capital Flows and Monetary Policy." *Princeton Studies in International Finance*, Department of Economics, Princeton University, 1965.

[Google Scholar](#)

33 C. Chamley and H. M. Polemarchakis. "Asset Markets, General Equilibrium and the Neutrality of Money." Working paper, Cowles Foundation, September 1981.

[Google Scholar](#)

34 B. Cornell. "Spot Rates, Forward Rates and Exchange Market Efficiency." *Journal of Financial Economics* 5 (August 1977), 55–66.

[Web of Science®](#) | [Google Scholar](#)

35 B. Cornell. "Relative Price Changes and Deviations from Purchasing Power Parity." *Journal of Banking and Finance* 3 (September 1979), 263–79.

[Google Scholar](#)

36 B. Cornell. "Inflation, Relative Prices and Exchange Risk." *Financial Management* 9 (Autumn 1980), 30–34.

[Web of Science®](#) | [Google Scholar](#)

37 J. C. Cox, J. E. Ingersoll Jr., and S. A. Ross. "Theory of the Term Structure of Interest Rates." *Econometrica*, forthcoming.

[Google Scholar](#)

38 L. Crouhy-Veyrac, M. Crouhy, and Jacques Melitz. "More About the Law of One Price." *European Economic Review* 18 (July 1982), 325–44.

39 R. E. Cumby and M. Obstfeld. "A Note of Exchange Rate Expectations and Nominal Interest Differentials: A Test of the Fisher Hypothesis." *Journal of Finance* 36 (June 1981), 697-704.

40 M. P. Dooley. "A Model of Arbitrage and short-term Capital Flows." *International Finance Discussion Papers*, No. 40 (January 1974), Division of International Finance, Board of Governors of the Federal Reserve System.

41 M. P. Dooley and P. Isard. "Capital Controls, Political Risks, and Deviations from interest-Rate Parity." *Journal of Political Economy* 88 (April 1980), 370-84.

42 M. P. Dooley and J. R. Shafer. "Analysis of short-Run Exchange Rate Behavior." Board of Governors of the Federal Reserve System, *International Finance Discussion Papers*, No. 76, February 1976.

43 R. Dornbusch. "Exchange Risk and the Macroeconomics of Exchange Rate Determination." In R. Hawkins *et al.*, editors. *The Internationalization of Financial Markets and National Economic Policy*. Greenwich, CT: JAI Press, 1982.

44 G. Dufey and I. Giddy. "The Random Behavior of Flexible Exchange Rates: Implications for Forecasting." *Journal of International Business Studies* (Spring 1975), 1-32.

45 B. Dumas. "Discussion." *Journal of Finance* (May 1977), 512-15.

46 B. Dumas. "The Theory of the Trading Firm Revisited." *Journal of Finance* 33 (June 1978), 1019-29.

47 B. Dumas. "The Theorems of International Trade under Generalized Uncertainty." *Journal of International Economics* 10 (November 1980), 481-98.

48 B. Dumas. "Trade Theorems with Less than Perfectly Correlated Disturbances." CERESSEC Working Paper, 1980.

[Google Scholar](#)

49 B. Dumas. "Trading Rules and Equilibrium in a Monetary Economy." In M. Sarnat (ed.). *Capital Markets and Inflation*. Cambridge, MA: Ballinger, 1982.

[Google Scholar](#)

50 B. Dumas and P. Poncet. "La Demande de Dollars des Personnes ne resident pas aux Etats-Unis." Working paper, 1980, *Archives de l'I.S.E.A.*, forthcoming.

[Google Scholar](#)

51 M. R. Eaker. "The Numeraire Problem and Foreign Exchange Risk." *Journal of Finance* 36 (May 1981), 419-26.

[Web of Science®](#) | [Google Scholar](#)

52 P. A. Einzig. *A Dynamic Theory of Forward Exchange*. New York: Macmillan, 1961.

[Google Scholar](#)

53 S. Ekern and R. Wilson. "On the theory of the Firm in an Economy with Incomplete Markets." *Bell Journal of Economics and Management Science* 5 (Spring 1974), 171-80.

[Web of Science®](#) | [Google Scholar](#)

54 V. R. Errunza and L. W. Senbet. "The Effects of International Operations on the Market Value of the Firm: Theory and Evidence." *Journal of Finance* 36 (May 1981), 401-18.

[Web of Science®](#) | [Google Scholar](#)

55 E. F. Fama. "The Behavior of Stock Market Prices." *Journal of Business* 38 (January 1965), 34-105.

[Web of Science®](#) | [Google Scholar](#)

56 E. F. Fama. *Foundations of Finance*. New York: Basic Books, 1976.

[Google Scholar](#)

57 E. F. Fama. "Stock Returns, Real Activity, Inflation and Money." *American Economic Review* 71 (September 1981), 545-65.

[Web of Science®](#) | [Google Scholar](#)

58 E. F. Fama and A. Farber. "Money, Bonds and Foreign Exchange." *American Economic Review* 69 (September 1979), 639–49.

[Web of Science®](#) | [Google Scholar](#)

59 E. F. Fama and R. Roll. "Some Properties of Symmetric Stable Distributions." *Journal of the American Statistical Association* 63 (September 1968), 817–36.

[Web of Science®](#) | [Google Scholar](#)

60 E. F. Fama and G. W. Schwert. "Asset Returns and Inflation." *Journal of Financial Economics* 5 (November 1977), 115–46.

[Web of Science®](#) | [Google Scholar](#)

61 A. Farber, R. Roll and B. Solnik. "An Empirical Study of Risk Under Fixed and Flexible Exchange Rates." In K. Brunner and A. H. Meltzer (eds.), *Stabilization of the Domestic and International Economy*. Amsterdam: North Holland, 1977: 235–75.

[Web of Science®](#) | [Google Scholar](#)

62 S. Fischer. "The Demand for Index Bonds." *Journal of Political Economy* 83 (June 1975), 529–34.

[Google Scholar](#)

63 S. Fischer. "Capital Accumulation on the Transition Path in a Monetary Optimizing Economy." *Econometrica* 47 (November 1979), 1433–9.

[Web of Science®](#) | [Google Scholar](#)

64 J. Frankel. "The Diversifiability of Exchange Risk." *Journal of International Economics* 9 (August 1979), 379–94.

[Web of Science®](#) | [Google Scholar](#)

65 J. Frankel. "A Test of Perfect Substitutability in the Foreign Exchange Market." *Southern Economic Journal* 48 (October 1982), 406–16.

[Web of Science®](#) | [Google Scholar](#)

66 J. Frankel. "In Search of the Exchange-Risk Premium: A Six-Currency Test Assuming Mean-Variance Optimization." *Journal of International Money and Finance* (December 1982), forthcoming.

[Google Scholar](#)

67 J. A. Frenkel. "Elasticities and the Interest Parity Theory." *Journal of Political Economy* 81 (May/June 1973), 741-7.

[Web of Science®](#) | [Google Scholar](#)

68 J. A. Frenkel. "Flexible Exchange Rates, Prices and the Role of News: Lessons from the 1970's." *Journal of Political Economy* 89 (August 1981), 665-705.

[Web of Science®](#) | [Google Scholar](#)

69 J. A. Frenkel and R. M. Levich. "Covered Interest Arbitrage: Unexploited Profits?" *Journal of Political Economy* (April 1975).

[Web of Science®](#) | [Google Scholar](#)

70 I. Friend, Y. Landskroner, and E. Losq. "The Demand for Risky Assets under Uncertain Inflation." *Journal of Finance* 31 (December 1976), 1287-98.

[Web of Science®](#) | [Google Scholar](#)

71 I. Friend and E. Losq. "Advantages and Limitations of International Portfolio Diversification." In M. Sarnat and G. P. Szego (eds.). *International Finance and Trade*. Cambridge, MA: Ballinger, 1979: 3-16.

[Google Scholar](#)

72 H. J. Gailliot. "Purchasing Power Parity as an Explanation of Long Term Changes in Exchange Rates." *Journal of Money, Credit and Banking* 2 (August 1970), 348-57.

[Google Scholar](#)

73 H. Genberg. "Purchasing Power Parity under Fixed and Flexible Exchange Rates." *Journal of International Economics* 9 (May 1978), 247-76.

[Web of Science®](#) | [Google Scholar](#)

74 J. Geweke and E. Feige. "Some Joint Tests of the Efficiency of the Markets for Forward Foreign Exchange." *Review of Economics and Statistics* 61 (August 1979), 334-41.

[Web of Science®](#) | [Google Scholar](#)

75 L. Girton and D. Henderson. "Central Bank Operations in Foreign and Domestic Assets under Fixed and Flexible Exchange Rates." In P. Clark, D. Logue, and R. Sweeney (eds.). *The Effects of Exchange Rate Adjustments*. Washington: U.S. Government Printing Office, 1976: 151-79.

[Google Scholar](#)

76 L. Girton and D. Henderson. "Financial Capital Movements and Central Bank Behavior in a Two-Country, short-run Portfolio Balance Model." *Journal of Monetary Economics* 2 (January 1976), 33-61.

[Web of Science®](#) | [Google Scholar](#)

77 C. W. J. Granger and O. Morgenstern. *Predictability of Stock Market Prices*. Lexington, MA: Heath-Lexington, 1970.

[Google Scholar](#)

78 C. W. J. Granger. "A Survey of Empirical Studies on Capital Markets." In E. J. Elton and M. J. Gruber (eds.), *International Capital Markets*. Amsterdam: North Holland, 1975: 3-36.

[Google Scholar](#)

79 F. L. A. Grauer, R. H. Litzenger, and R. Stehle. "Sharing Rules and Equilibrium in an International Capital Market under Uncertainty." *Journal of Financial Economics* 3 (June 1976), 233-56.

[Web of Science®](#) | [Google Scholar](#)

80 H. G. Grubel. "Internationally Diversified Portfolios: Welfare Gains and Capital Flows." *American Economic Review* 58 (December 1968), 1299-1314.

[Web of Science®](#) | [Google Scholar](#)

81 H. G. Grubel. *Forward Exchange, Speculation and the International Flow of Capital*. Stanford: Stanford University Press, 1966.

[Google Scholar](#)

82 N. H. Hakansson. "On the Relevance of Price-Level Accounting." *Journal of Accounting Research* 7 (Spring 1969), 22-31.

[Web of Science®](#) | [Google Scholar](#)

83 L. P. Hansen and R. J. Hodrick. "Forward Exchange Rates as Optimal Predictors of Future Spot Rates: An Econometric Analysis." *Journal of Political Economy* 88 (October 1980), 828-53.

[Web of Science®](#) | [Google Scholar](#)

84 D. Heckerman. "On the Effects of Exchange Risks." *Journal of International Economics* 3 (November 1973), 379-88.

[Web of Science®](#) | [Google Scholar](#)

85 E. Helpman and A. Razin. "Uncertainty and International Trade in the Presence of Stock Markets." *Review of Economics Studies* 45 (June 1978), 239-50.

[Web of Science®](#) | [Google Scholar](#)

86 E. Helpman and A. Razin. "Welfare Aspects of International Trade in Goods and Securities." *Quarterly Journal of Economics* 92 (August 1978), 489-508.

[Web of Science®](#) | [Google Scholar](#)

87 E. Helpman and A. Razin. *A Theory of International Trade under Uncertainty*. New York: Academic Press, 1980.

[Google Scholar](#)

88 E. Helpman and A. Razin. "Comparative Dynamics of Monetary Policy in a Floating Exchange Rate Regime." Working paper, Tel-Aviv University, 1981.

[Google Scholar](#)

89 R. J. Herring and R. C. Marston. "The Forward Market and Interest Rates in the Eurocurrency and National Money Markets." In Carl H. Stein, John H. Makin, and Dennis E. Logue (eds.). *Eurocurrencies and the International Monetary System*. Washington: American Enterprise Institute, 1976.

[Web of Science®](#) | [Google Scholar](#)

90 R. Hodrick. "International Asset Pricing with Time-varying Risk Premia." *Journal of International Economics* 11 (November 1981), 573-7.

[Web of Science®](#) | [Google Scholar](#)

91 D. Hsu, R. B. Miller, and D. W. Wichern. "On the Stable Paretian Behavior of Stock Market Prices." *Journal of the American Statistical Association* 69 (March 1974), 108-13.

[Web of Science®](#) | [Google Scholar](#)

92 G. C. Hufbauer. *Synthetic Materials and the Theory of International Trade*. Cambridge, MA: Harvard University Press, 1966.

[Web of Science®](#) | [Google Scholar](#)

93 G. C. Hufbauer. "The Impact of National Characteristics and Technology on the Commodity Composition of Trade in Manufactured Goods." In R. Vernon (ed.). *The Technology Factor in International Trade*. New York: Columbia University Press, 1970: 145-232.

[Google Scholar](#)

94 G. C. Hufbauer. "The Multinational Corporation and Direct Investment." In P. B. Kenen (ed.). *International Trade and Finance: Frontiers for Research*. New York: Cambridge University Press, 1975: 253–320.

[Google Scholar](#)

95 G. Hufbauer, and M. Adler. *Overseas Manufacturing Investment and the Balance of Payments*. Washington, D.C.: Government Printing Office, 1968.

[Web of Science®](#) | [Google Scholar](#)

96 P. Isard. "How Far Can We Push the Law of One Price?" *American Economic Review* 67 (December 1977), 942–8.

[Web of Science®](#) | [Google Scholar](#)

97 B. Jacquillat and B. Solnik. "Multinationals are Poor Tools for Diversification." *Journal of Portfolio Management* (Winter 1978).

[Google Scholar](#)

98 D. M. Jaffee. Comment on R. Z. Aliber: "The Firm under Pegged and Floating Exchange Rates." *Scandinavian Journal of Economics* 78: 2 (1976), 323–6.

[Web of Science®](#) | [Google Scholar](#)

99 H. G. Johnson. "The Efficiency and Welfare Implications of the International Corporation." In Kindleberger (ed.). *The International Corporation*. Cambridge, MA: MIT Press, 19: 35–36.

[Google Scholar](#)

100 J. Johnston. *Econometric Methods*. New York: McGraw Hill, 1972.

[Google Scholar](#)

101 L. Katseli-Papaefstratiou. "The Reemergence of the Purchasing Power Parity Doctrine in 1970's." *Special Paper in International Economics* No. 13 (December 1979), Princeton.

[Google Scholar](#)

102 P. B. Kenen. "Trade, Speculation and the Forward Exchange Rates." In R. E. Baldwin *et al.* (eds.). *Trade, Growth and the Balance of Payments*. Chicago: Rand MacNally, 1965.

[Google Scholar](#)

103 B. F. King. "Market and Industry Factors in Stock Price Behavior." *Journal of Business* 39 (January 1966), 139–90.

104 S. W. Kohlhagen. "The Forward Rate as an Unbiased Predictor of the Future Spot Rate." University of California, Berkeley, 1976.

[Google Scholar](#)

105 S. W. Kohlhagen. "Rational and Endogenous Exchange Rate Expectations and Speculative Capital Flows in Germany." *Weltwirtschaftliches Archiv* 113 (December 1977), 624-44.

[Web of Science®](#) | [Google Scholar](#)

106 S. W. Kohlhagen. "The Behavior of Foreign Exchange Markets" A Critical Survey of the Literature. NYU Monograph Series, 1973.

[Google Scholar](#)

107 P. Kouri. "The Determinants of the Forward Premium." IIES Seminar Paper 62, University of Stockholm, August 1976.

[Google Scholar](#)

108 P. Kouri. "International Investment and Interest Rate Linkages under Flexible Exchange Rates." In R. Aliber (ed.). *The Political Economy of Monetary Reform*. London: Macmillan & Co., 1977.

[Google Scholar](#)

109 P. Kouri. "The Exchange Rate and the Balance of Payments in the Short Run and in the Long Run: A Monetary Approach." *Scandinavian Journal of Economics* 78: 2 (1976), 280-304.

[Web of Science®](#) | [Google Scholar](#)

110 P. Kouri and J. Braga de Macedo. "Exchange Rates and the International Adjustment Process." *Brookings Papers* (1: 1978), 111-150.

[Google Scholar](#)

111 I. B. Kravis, Z. Kenessey, A. W. Heston, and R. Summers. *A System of International Comparisons of Gross Product and Purchasing Power*. Baltimore: Johns Hopkins University Press, 1975.

[Google Scholar](#)

112 I. B. Kravis and R. E. Lipsey. "Price Behavior in the Light of Balance of Payments Theory." *Journal of International Economics* 8 (May 1978), 193-246.

[Web of Science®](#) | [Google Scholar](#)

113 P. Krugman. "Consumption Preferences, Assets Demands, and Distribution Effects in International Financial Markets." Working Paper No. 651, National Bureau of Economic Research, March 1981.

[Google Scholar](#)

114 Y. Landskroner and M. Liviatan. "Risk Premia and the Sources of Inflation." *Journal of Money, Credit and Banking* 13 (May 1981), 205-14.

[Web of Science®](#) | [Google Scholar](#)

115 S. Laursen and L. Metzler. "Flexible Exchange Rates and the Theory of Employment." *Review of Economics and Statistics* 32 (November 1950), 281-99.

[Web of Science®](#) | [Google Scholar](#)

116 W. Y. Lee and K. S. Sachdeva. "The Role of the Multinational Firm in the Integration of Segmented Capital Markets." *Journal of Finance* 32 (May 1977), 479-92.

[Web of Science®](#) | [Google Scholar](#)

117 D. R. Lessard. "World, National and Industry Factors in Equity Returns." *Journal of Finance* 29 (May 1974), 379-91.

[Web of Science®](#) | [Google Scholar](#)

118 D. R. Lessard. "World, Country and Industry Relationships in Equity Returns: Implications for Risk Reduction through International Diversification." *Financial Analysts Journal* (January/February 1976), 2-8.

[Google Scholar](#)

119 D. R. Lessard. "Evaluating Foreign Projects: An Adjusted Present Value Approach." In D. R. Lessard (ed.). *International Financial Management*. Boston, MA: Warren, Gorham & Lamont, 1979: 577-92.

[Google Scholar](#)

120 R. M. Levich. "Tests of Forecasting Models and Market Efficiency in the International Money Market." In J. A. Frenkel and H. G. Johnson (eds.). *The Economics of Exchange Rates*. Reading, MA: Addison-Wesley, 1978.

[Web of Science®](#) | [Google Scholar](#)

121 J. H. Levin. *Forward Exchange and Internal-External Equilibrium*. Ann Arbor: Michigan International Business Series, No. 12, 1970.

[Google Scholar](#)

122 H. Levy and M. Sarnat. "International Diversification of Investment Portfolios." *American Economic Review* 60 (September 1970), 668-75.

[Web of Science®](#) | [Google Scholar](#)

123 B. A. Lietaer, *Financial Management of Foreign Exchange: An Operational Technique to Reduce Risk*. Cambridge, MA: M.I.T. Press, 1971.

[Google Scholar](#)

124 J. Lintner. "The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets." *Review of Economics and Statistics* 47 (February 1965), 13-37.

[Web of Science®](#) | [Google Scholar](#)

125 J. Lintner. "Inflation and Security Returns." *Journal of Finance* 30 (May 1975), 259-80.

[Web of Science®](#) | [Google Scholar](#)

126 J. Lintner. "Bankruptcy Risk, Market Segmentation and Optimal Capital Structures." In I. Friend and J. Bicksler (eds.), *Risk and Return in Finance, Vol. 11*. Cambridge, MA: Ballinger Publishing Co., 1977: 1-128.

[Google Scholar](#)

127 E. Losq. "Commodity Price Uncertainty and Capital Market Equilibrium." McGill University, mimeo, 1977.

[Google Scholar](#)

128 R. E. Lucas. "Some International Evidence on Output-Inflation Trade-offs." *American Economic Review* 63 (June 1973), 326-34.

[Web of Science®](#) | [Google Scholar](#)

129 R. E. Lucas. "Asset Prices in an Exchange Economy." *Econometrica* 46 (November 1978), 1429-46.

[Web of Science®](#) | [Google Scholar](#)

130 R. E. Lucas. "Equilibrium in a Pure Currency Economy." *Economic Inquiry* 18 (April 1980), 203-20.

[Web of Science®](#) | [Google Scholar](#)

131 R. E. Lucas. "Interest Rates and Currency Prices in a Two-country World." Working paper, University of Chicago, July 1981.

[Google Scholar](#)

132 S. Magee. "Multinational Corporation, the Industry Technology Cycle and the Transfer of Technology to Developing Countries." *Journal of World Trade Law*, 1978.

[Google Scholar](#)

133 J. H. Makin. "Portfolio Theory and the Problem of Foreign Exchange Risk." *Journal of Finance* 33 (May 1978), 517-34.

[Web of Science®](#) | [Google Scholar](#)

134 J. Maysar. "Transaction Costs and the Pricing of Assets." *Journal of Finance* 36 (June 1981), 583-98.

[Web of Science®](#) | [Google Scholar](#)

135 J. W. McFarland, R. R. Pettit, and S. K. Sung. "The Distribution of Foreign Exchange Price Changes: Trading Day Effects and Risk Measurement." *Journal of Finance* 37 (June 1982), 693-716.

[Web of Science®](#) | [Google Scholar](#)

136 R. I. McKinnon. "The Exchange Rate and Macroeconomic Policy: Changing Postwar Perceptions." *Journal of Economic Literature* 29 (June 1981), 531-57.

[Google Scholar](#)

137 R. Mehra. "On the Financing and Investment Decisions of Multinational Firms in the Presence of Exchange Risk." *Journal of Financial and Quantitative Analysis* 13 (June 1978), 227-44.

[Web of Science®](#) | [Google Scholar](#)

138 R. C. Merton. "Lifetime Portfolio Selection under Uncertainty: The Continuous-Time Case." *Review of Economics and Statistics* 51 (August 1969), 247-57.

[Web of Science®](#) | [Google Scholar](#)

139 R. C. Merton. "Optimum Consumption and Portfolio Rules in a Continuous-Time Model." *Journal of Economic Theory* 3 (December 1971), 373-413.

[Web of Science®](#) | [Google Scholar](#)

140 R. C. Merton. "An Intertemporal Capital Asset Pricing Model." *Econometrica* 41 (September 1973), 867-87.

[Web of Science®](#) | [Google Scholar](#)

141 E. Modigliani and M. H. Miller "The Cost of Capital, Corporation Finance and the Theory of Investment." *American Economic Review* 48 (April 1958), 261-97.

142 Moon Ho Lee. *Purchasing Power Parity*. New York: Marcel Dekker, Inc., 1976.

[Google Scholar](#)

143 J. Mossin. "Equilibrium in a Capital Asset Market." *Econometrica* 34 (October 1966), 768-83.

[Web of Science®](#) | [Google Scholar](#)

144 J. Mossin. *The Economic Efficiency of Financial Markets*. Lexington, MA: D. C. Heath, 1977.

[Google Scholar](#)

145 R. A. Mundell. *International Economics*. New York: Macmillan, 1968.

[Google Scholar](#)

146 R. A. Mundell. *Monetary Theory: Inflation, Interest and Growth in the World Economy*. New York: Goodyear Publishing Company, 1971.

[Google Scholar](#)

147 M. Obstfeld. "Macroeconomic Policy and World Welfare under Flexible Exchange Rates." Working paper, Columbia University, March 1980.

[Google Scholar](#)

148 L. H. Officer. "The Purchasing Power Theory of Exchange Rates: A Review Article." *I.M.F. Staff Papers* 23 (March 1976), 1-60.

[Web of Science®](#) | [Google Scholar](#)

149 F. Papadia. "Forward Exchange Rates as Predictors of Future Spot Rates and the Efficiency of the Foreign Exchange Market." *Journal of Banking and Finance* 5 (June 1981), 217-40.

[Web of Science®](#) | [Google Scholar](#)

150 J. E. Pippenger. "Spot Rates, Forward Rates, and Interest Rate Differentials." *Journal of Money, Credit and Banking* 4 (May 1972), 375-83.

[Google Scholar](#)

151 P. Poncet. "Optimum Consumption and Portfolio Rules with Money as an Asset." Working paper, ESSEC, Department of Finance, November 1979.

152 W. Poole. "Speculative Prices as Random Walks: An Analysis of Ten Time Series of Flexible Exchange Rates." *Southern Economic Journal* 83 (1966).

153 M. F. Prachowny. "A Note on Interest Parity and the Supply of Arbitrage Funds." *Journal of Political Economy* 78 (May/June 1970), 540-5.

154 G. Ragazzi. "Theories of the Determinants of Direct Foreign Investment." *I.M.F. Staff Papers* 20 (July 1973), 471-98.

155 S. F. Richard and M. Sundaresan. "A Continuous Time Equilibrium Model of Forward Prices and Future Prices in a Multigood Economy." *Journal of Financial Economics* 9 (December 1981), 347-72.

156 J. D. Richardson. "Some Empirical Evidence on Commodity Arbitrage and the Law of One Price." *Journal of International Economics* 8 (May 1978), 341-52.

157 R. M. Rodriguez. *Foreign-Exchange Management in U.S. Multinationals*. Lexington, MA: D.C. Heath, 1980.

158 R. Rogalski and J. D. Vinso. "Price Level Variations as Predictors of Flexible Exchange Rates." *Journal of International Business Studies* (Spring/Summer 1977), 71-81.

159 R. Roll. "Interest Rates on Monetary Assets and Commodity Price Index Changes." *Journal of Finance* 27 (May 1972), 251-77.

160 R. Roll. "A Critique of the Asset Pricing Theory's Test; Part I: On Past and Potential Testability of the Theory." *Journal of Financial Economics* 4 (March 1977), 129-76.

161 R. Roll. "Violations of Purchasing Power Parity and their Implications for Efficient International Commodity Markets." In M. Sarnat and G. P. Szego (eds.), *International Finance and Trade*. Cambridge, MA: Ballinger Publishing Co., 1979.

[Google Scholar](#)

162 R. Roll and S. Ross. "An Empirical Investigation of the Arbitrage Pricing Theory." *Journal of Finance* 35 (December 1980), 1073-1103.

[Web of Science®](#) | [Google Scholar](#)

163 R. Roll and B. Solnik. "A Pure Foreign Exchange Asset Pricing Model." *Journal of International Economics* 7 (May 1977), 161-80.

[Web of Science®](#) | [Google Scholar](#)

164 B. Rosenberg, and J. Ohlson. "The Stationary Distribution of Returns and Portfolio Separation in Capital Markets: A Fundamental Contradiction." *Journal of Financial and Quantitative Analysis* 11 (September 1976), 393-402.

[Web of Science®](#) | [Google Scholar](#)

165 M. Rubinstein. "An Aggregation Theorem for Securities Markets." *Journal of Financial Economics* 1 (September 1974), 225-44.

[Google Scholar](#)

166 M. Rubinstein. "Corporate Financial Policy in Segmented Securities Markets." *Journal of Financial and Quantitative Analysis* 8 (December 1973), 749-62.

[Web of Science®](#) | [Google Scholar](#)

167 P. A. Samuelson. "The Fundamental Approximation Theorem of Portfolio Analysis in Terms of Means, Variances and Higher Moments." *Review of Economic Studies* 37 (October 1970), 537-42.

[Web of Science®](#) | [Google Scholar](#)

168 P. A. Samuelson and S. Swamy. "Invariant Economic Index Numbers and Canonical Duality: Survey and Synthesis." *American Economic Review* 64 (September 1974), 566-93.

[Web of Science®](#) | [Google Scholar](#)

169 A. Santomero and J. Seater. "The Inflation-Unemployment Trade-off: A Critique of the Literature." *Journal of Economic Literature* 16 (January 1978), 499-544.

[Web of Science®](#) | [Google Scholar](#)

170 T. Sargent and N. Wallace. "Rational Expectations, the Optimal Monetary Instrument and the Optimal Policy Rule." *Journal of Political Economy* 83 (April 1975), 241-54.

[Web of Science®](#) | [Google Scholar](#)

171 L. Selden. "An OCE Analysis of the Effect of Uncertainty on Saving under Risk Preference Independence." *Review of Economic Studies* 46 (January 1979), 73-82.

[Web of Science®](#) | [Google Scholar](#)

172 L. W. Senbet. "International Capital Market Equilibrium and the Multinational Firm Financing and Investment Policies." *Journal of Financial and Quantitative Analysis* 14 (September 1979), 455-80.

[Web of Science®](#) | [Google Scholar](#)

173 A. J. Senschak and W. L. Beedles. "Is Indirect International Diversification Desirable?" *Journal of Portfolio Management* 6 (Winter 1980), 49-57.

[Google Scholar](#)

174 P. Sercu. "A Generalization of the International Asset Pricing Model." *Revue de l'Association Française de Finance* 1 (June 1980), 91-135.

[Google Scholar](#)

175 W. F. Sharpe. "A Simplified Model for Portfolio Analysis." *Management Science* 9 (January 1963), 277-93.

[Web of Science®](#) | [Google Scholar](#)

176 W. F. Sharpe. "Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk." *Journal of Finance* 19 (September 1964), 425-42.

[Web of Science®](#) | [Google Scholar](#)

177 J. J. Siegel. "Risk, Interest and Forward Exchange." *Quarterly Journal of Economics* 86 (May 1972), 303-9.

[Web of Science®](#) | [Google Scholar](#)

178 E. Sohmen. *Flexible Exchange Rates*. Chicago: University of Chicago Press, 1969.

[Google Scholar](#)

179 B. H. Solnik. "An Equilibrium Model of the International Capital Market." *Journal of Economic Theory* 8 (August 1974), 500-24.

180 B. H. Solnik. "The International Pricing of Risk: An Empirical Investigation of the World Capital Market Structure." *Journal of Finance* 29 (May 1974), 48-54.

[Web of Science®](#) | [Google Scholar](#)

181 B. H. Solnik. "Why Not Diversify Internationally Rather than Domestically?" *Financial Analysts Journal* 30 (July/August 1974), 48-54.

[Google Scholar](#)

182 B. H. Solnik. "Testing International Asset Pricing: Some Pessimistic Views." *Journal of Finance* 32 (May 1977), 503-11.

[Web of Science®](#) | [Google Scholar](#)

183 R. C. Stapleton and M. G. Subrahmanyam. "Market Imperfections, Capital Asset Equilibrium and Corporation Finance." *Journal of Finance* 32 (May 1977), 307-21.

[Web of Science®](#) | [Google Scholar](#)

184 R. C. Stapleton and M. G. Subrahmanyam. "Uncertain Inflation, Exchange Rates and Bond Yields." *Journal of Banking and Finance* 5 (March 1981), 93-107.

[Web of Science®](#) | [Google Scholar](#)

185 R. Stehle. "An Empirical Test of the Alternate Hypotheses of National and International Pricing and Risky Assets." *Journal of Finance* 32 (May 1977), 493-502.

[Web of Science®](#) | [Google Scholar](#)

186 G. V. G. Stevens. "Two Problems in Portfolio Analysis: Conditional and Multiplicative Random Variables." *Journal of Financial and Quantitative Analysis* 6 (December 1971), 1235-50.

[Web of Science®](#) | [Google Scholar](#)

187 A. C. Stockman. "Risk, Information and Forward Exchange Rates." In J. A. Frankel and H. F. Johnson (eds.). *The Economics of Exchange Rates*. Reading, MA: Addison-Wesley, 1978.

[Google Scholar](#)

188 A. C. Stockman. "A Theory of Exchange Rate Determination." *Journal of Political Economy* 88 (August 1980), 673-98.

[Web of Science®](#) | [Google Scholar](#)

189 H. R. Stoll. "Causes of Deviations from Interest Rate Parity." *Journal of Money, Credit and Banking* 4 (February 1972), 113-17.

[Google Scholar](#)

190 R. M. Stulz. "On the Effects of Barriers to International Investment." *Journal of Finance* 36 (September 1981), 923-34.

[Web of Science®](#) | [Google Scholar](#)

191 R. M. Stulz. "A Model of International Asset Pricing." *Journal of Financial Economics* 9 (December 1981), 383-406.

[Web of Science®](#) | [Google Scholar](#)

192 R. M. Stulz. "The Forward Exchange Rate and Macroeconomics." *Journal of International Economics* 12 (May 1982), 285-99.

[Web of Science®](#) | [Google Scholar](#)

193 M. G. Subrahmanyam. "On the Optimality of International Capital Market Integration." *Journal of Financial Economics* 2 (August 1975), 3-28.

[Google Scholar](#)

194 J. Tobin. "A General Equilibrium Approach to Monetary Theory." *Journal of Money, Credit and Banking* 1 (February 1969), 15-29.

[Google Scholar](#)

195 J. Tobin and W. R. Brainard. "Asset Markets and the Cost of Capital." In B. Balassa and R. Nelson (eds.), *Economic Progress, Private Values and Public Policy: Essays in Honor of William Fellner*. Amsterdam: North-Holland Publishing Co., 1977.

[Google Scholar](#)

196 S. C. Tsiang. "The Theory of Forward Exchange and the Effects of Government Intervention in the Forward Exchange Market." *I.M.F. Staff Papers* 7 (April 1959), 75-106.

[Google Scholar](#)

197 R. B. Upson. "Random Walk and Forward Exchange Rates: A Spectral Analysis." *Journal of Financial and Quantitative Analysis* 7 (September 1972), 1897-1906.

[Web of Science®](#) | [Google Scholar](#)

198 H. R. Varian. *Microeconomic Analysis*. New York: Norton, 1978.

[Google Scholar](#)

199 R. Vernon. "International Investment and International Trade in the Product Cycle." *Quarterly Journal of Economics* 80 (May 1966), 190–207.

[Web of Science®](#) | [Google Scholar](#)

200 N. Wallace. "A Modigliani-Miller Theorem for Open-Market Operations." *American Economic Review* 71 (June 1981), 267–74.

[Web of Science®](#) | [Google Scholar](#)

201 L. Weiss. "The Role for Active Monetary Policy in a Rational Expectations Model." *Journal of Political Economy* 88 (April 1980), 221–33.

[Web of Science®](#) | [Google Scholar](#)

202 J. M. Westerfield. "An Examination of Foreign Exchange Risk under Fixed and Floating Rate Regimes." *Journal of International Economics* 7 (May 1977), 181–200.

[Web of Science®](#) | [Google Scholar](#)

Citing Literature



[Download PDF](#)

ABOUT WILEY ONLINE LIBRARY

[Privacy Policy](#)

[Terms of Use](#)

[About Cookies](#)

[Manage Cookies](#)

[Accessibility](#)

[Wiley Research DE&I Statement and Publishing Policies](#)

[Developing World Access](#)

HELP & SUPPORT

[Contact Us](#)

[Training and Support](#)

[DMCA & Reporting Piracy](#)

OPPORTUNITIES

[Subscription Agents](#)

CONNECT WITH WILEY

The Wiley Network
Wiley Press Room

Copyright © 1999-2024 John Wiley & Sons, Inc or related companies. All rights reserved, including rights for text and data mining and training of artificial intelligence technologies or similar technologies.

WILEY