

## An International Analysis of Earnings, Stock Prices and Bond Yields

Alain Durré, Pierre Giot 

First published: 05 June 2007

<https://doi.org/10.1111/j.1468-5957.2007.02010.x>

Citations: 15

They would like to thank discussants at the National Bank of Belgium and the European Central Bank for insightful comments. The opinions expressed in this paper are those of the authors and do not reflect the views of the European Central Bank or other institutions. The authors also thank the editor, an anonymous referee and participants at the 2006 *JBFA* Capital Markets Conference for very insightful comments which helped to improve the paper. The usual disclaimer applies.

### Abstract

**Abstract:** This paper assesses the contemporaneous relationship between stock prices, earnings and long-term government bond yields for a large number of countries. The time period of our data spans several decades. In a time series framework our analysis first tests the presence of a long-term contemporaneous relationship between these three variables (the so-called Fed model). Next, we assess if government bond yields play a significant role in the long-run relationship. Our empirical results question the validity of the Fed model in the sense that we show that long-term market movements are mainly driven by the earnings yield and not the differential between bond and earnings yields. As such, our analysis validates the results of [Asness \(2003\)](#) for a much larger collection of countries while using a dynamic time series (cointegration) framework. Finally, we also show that changes in long-term government bond yields have a short-term impact on stock prices.

### REFERENCES

Anari, A. and J. Kolari (2001), 'Stock Prices and Inflation', *Journal of Financial Research*, Vol. 24, pp. 587–602.

[Google Scholar](#)

Asness, C. (2000), 'Stocks vs. Bonds: Explaining the Equity Risk Premium', *Financial Analysts Journal*, Vol. 56, pp. 96–113.

[Google Scholar](#)

Asness, C. (2003), 'Fight the Fed Model', *Journal of Portfolio Management*, Vol. 30, pp. 11–24.

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

---

Boudoukh, J. and M. Richardson (1993), 'Stock Returns and Inflation: A Long-horizon Perspective', *American Economic Review*, Vol. 83, pp. 1346–55.

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

---

Brooks, C. (2002), *Introductory Econometrics for Finance* (Cambridge University Press).

[Google Scholar](#)

---

Campbell, J. and R. Shiller (1987), 'Cointegration and Tests of Present Value Models', *Journal of Political Economy*, Vol. 95, pp. 1062–88.

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

---

Campbell, J. and R. Shiller (1988), 'Stock Prices, Earnings and Expected Dividends', *Journal of Finance*, Vol. 43, pp. 661–76.

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

---

Campbell, J. and R. Shiller (1989), 'The Dividend-price Ratio and Expectations of Future Dividends and Discount Factors', *Review of Financial Studies*, Vol. 1, pp. 195–228.

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

---

Campbell, J. and R. Shiller (1998), 'Valuation Ratios and the Long-run Stock Market Outlook', *Journal of Portfolio Management*, Vol. 24, pp. 11–26.

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

---

Campbell, J. and R. Shiller (2001), 'Valuation Ratios and the Long-run Stock Market Outlook: An Update' (Cowles Foundation DP1295).

[Google Scholar](#)

---

Campbell, J. and T. Vuolteenah (2004), 'Inflation Illusion and Stock Prices', *American Economic Review Papers and Proceedings*.

[Google Scholar](#)

---

Campbell, J., A.W. Lo and A.C. MacKinlay (1997), *The Econometrics of Financial Markets* (Princeton University Press Princeton).

[Google Scholar](#)

Capstaff, J., K. Paudyal and W. Rees (2001), 'A Comparative Analysis of Earnings Forecasts in Europe', *Journal of Business Finance & Accounting*, Vol. 28, pp. 531–62.

[Google Scholar](#)

---

Clare, A.D., S.H Thomas and M.R. Wickens (1994), 'Is the Gilt-Equity Yield Ratio Useful for Predicting UK Stock Returns?', *The Economic Journal*, Vol. 104, pp. 303–15.

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

---

Clarida, R., J. Gali and M. Gertler (2000), 'Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory', *Quarterly Journal of Economics*, Vol. 115, pp. 147–80.

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

---

Cohen, R.B., C. Polk and T. Vuolteenaho (2005), 'Money Illusion in the Stock Market: The Modigliani- Cohn Hypothesis', NBER Working Paper 11018.

[Google Scholar](#)

---

Enders, W. (1995), *Applied Econometric Time Series* (Wiley).

[Google Scholar](#)

---

Engle, R.F. and C.W.J. Granger (1987), Co-integration, and Error Correction: Representation, Estimation and Testing, *Econometrica*, Vol. 55, pp. 251–76.

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

---

Favero, C. and F. Mosca (2001), 'Uncertainty on Monetary Policy and the Expectations Model of the Term Structure of Interest Rates', *Economics Letters*, Vol. 71, pp. 369–75.

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

---

Fraser, P. and A.J. McKaig (1987), 'Do Investors Expect Mean Reversion in Asset Prices?', *Journal of Business Finance & Accounting*, Vol. 26, pp. 57–81.

[Google Scholar](#)

---

Gordon, M.J. (1962), *The Investment, Financing and Valuation of a Corporation* (Irwin).

[Google Scholar](#)

---

Gwilym, O.A, G. Morgan and S. Thomas (2000), 'Dividend Stability, Dividend Yield and Stock Returns: UK Evidence', *Journal of Business Finance & Accounting*, Vol. 27, pp. 261–81.

[Google Scholar](#)

Gwilym, O.A., J. Seaton, K. Suddason and S. Thomas (2005), 'Does the Fed Model Travel Well?', *Journal of Portfolio Management* (forthcoming).

[Google Scholar](#)

---

Harasty, H. and J. Roulet (2000), 'Modeling Stock Market Returns', *Journal of Portfolio Management*, Vol. 26, pp. 33-46.

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

---

Harris, R.D.F. and R. Sanchez-Valle (2000a), 'The Gilt-equity Yield Ratio and the Predictability of UK and US Equity Returns', *Journal of Business Finance & Accounting*, Vol. 27, pp. 333-57.

[Google Scholar](#)

---

Harris, R.D.F. and R. Sanchez-Valle (2000b), 'The Information Content of Lagged Equity and Bond Yields', *Economics Letters*, Vol. 68, pp. 179-84.

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

---

Harris, R. and R. Sollis (2003), *Applied Time Series Modelling and Forecasting* (Wiley).

[Google Scholar](#)

---

Jones, C.P., J.W. Wilson and L.L. Lundstrum (2002), 'Estimating Stock Returns', *Journal of Portfolio Management*, Vol. 29, pp. 40-50.

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

---

Koivu, M., T. Pennanen and W.T. Ziemba (2005), 'Cointegration Analysis of the Fed Model', *Finance Research Letters*, Vol. 2, pp. 249-50.

[Google Scholar](#)

---

Lander, J., A. Orphanides and M. Douvogiannis (1997), 'Earnings Forecasts and the Predictability of Stock Returns: Evidence from Trading the S&P', *Journal of Portfolio Management*, Vol. 23, pp. 24-35.

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

---

Lansing, K.J. (2004), 'Inflation-induced Valuation Errors in the Stock Market', FRBSF Economic Letter 2004-30.

[Google Scholar](#)

---

Levin, E.J. and R.E. Wright (1998), 'The Information Content of the Gilt-equity Yield Ratio', *The Manchester School Supplement*, Vol. 25, pp. 89-101.

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

MacDonald, R. and D. Power (1995), 'Stock Prices, Dividends and Retention: Long-run Relationships and Short-run Dynamics', *Journal of Empirical Finance*, Vol. 2, pp. 135–51.

[Google Scholar](#)

---

Marshall, D.A. (1992), 'Inflation and Asset Returns in a Monetary Economy', *Journal of Finance*, Vol. 47, pp. 1315–42.

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

---

Mills, T.C. (1991), 'Equity Prices, Dividends and Gilt Yields in the UK: Cointegration, Error Correction and Confidence', *Scottish Journal of Political Economy*, Vol. 38, pp. 242–55.

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

---

Modigliani, F. and R. Cohn (1979), 'Inflation, Rational Valuation and the Market', *Financial Analysts Journal*, Vol. 35, pp. 24–44.

[Google Scholar](#)

---

O'Hanlon, J. (1998), 'The Articulation of Returns and Accounting-related Variables when Returns Lead Earnings: UK Evidence', *Journal of Business Finance & Accounting*, Vol. 10, pp. 1163–201.

[Google Scholar](#)

---

O'Hanlon, J. and K. Peasnell (2004), 'Residual Income Valuation: Are Inflation Adjustments Necessary?', *Review of Accounting Studies*, Vol. 9, pp. 375–98.

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

---

Ohlson, J.A. (1995), 'Earnings, Book Values, and Dividends in Equity Valuation', *Contemporary Accounting Research*, Vol. 11, pp. 661–87.

[Google Scholar](#)

---

Ohlson, J.A. (2006), 'A Practical Model of Earnings Measurement', *The Accounting Review*, Vol. 81, pp. 271–79.

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

---

Ohlson, J.A. and X.J. Zhang (1998), 'Accrual Accounting and Equity Valuation', *Journal of Accounting Research*, Vol. 36, pp. 85–111.

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

---

Ou, J.A. and J. F. Sepe (2002), 'Analysts Earnings Forecasts and the Roles of Earnings and Book Value in Equity Valuation', *Journal of Business Finance & Accounting*, Vol. 29, pp. 287–316.

[Google Scholar](#)

---

Philips, T.K. (1999), 'Why Do Valuation Ratios Forecast Long-run Equity Returns?', *Journal of Portfolio Management*, Vol. 25, pp. 39–44.

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

---

Ritter, J.R. and R.S. Warr (2002), 'The Decline of Inflation and the Bull Market of 1982–1999', *Journal of Financial and Quantitative Analysis*, Vol. 37, pp. 29–61.

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

---

Siegel, J.J. (2002), *Stocks for the Long Run* (McGraw-Hill).

[Google Scholar](#)

---

Spyrou, S.I. (2004), 'Are Stocks a Good Hedge Against Inflation? Evidence from Emerging Markets', *Applied Economics*, Vol. 36, pp. 41–48.

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

---

Thomas, J. (2005), 'Understanding the Fed Model and the Implications of this Remarkable Empirical Regularity (Mimeo, Yale University School of Management).

[Google Scholar](#)

---

Timmermann, A. (1995), 'Cointegration Tests of Present Value Models with a Time-varying Discount Factor', *Journal of Applied Econometrics*, Vol. 10, pp. 17–31.

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

---

Vila-Wetherilt, A. and O. Weeken (2002), 'Equity Valuation Measures: What Can They Tell Us?', *Bank of England Quarterly Bulletin*, Vol. 42, pp. 391–403.

[Google Scholar](#)

---

Yardeni, E. (2003), 'Stock Valuation Models 4.1' (Mimeo, Prudential Financial Research).

[Google Scholar](#)

---

## **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](#)

[Advertisers & Corporate Partners](#)

## **CONNECT WITH WILEY**

[The Wiley Network](#)

[Wiley Press Room](#)

Copyright © 1999-2025 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**