



Contents lists available at ScienceDirect

Journal of Financial Economics

journal homepage: www.elsevier.com/locate/jfecTime-varying short-horizon predictability[☆]Sam James Henkel^a, J. Spencer Martin^a, Federico Nardari^{b,*}^a University of Melbourne, Australia^b C.T. Bauer College of Business, University of Houston, United States

ARTICLE INFO

Article history:

Received 11 June 2007

Received in revised form

14 September 2009

Accepted 21 September 2009

Available online 29 September 2010

JEL classification:

E44

G11

G12

Keywords:

Stock return predictability

Asset pricing

Business fluctuations

Financial markets and the macroeconomy

ABSTRACT

In the G7 countries, the short-horizon performance of aggregate return predictors such as the dividend yield and the short rate appears non-existent during business cycle expansions but sizable during contractions. This phenomenon appears related to countercyclical risk premiums as well as the time-variation in the dynamics of predictors. Our empirical model outperforms the historical average out-of-sample in the US, but the results throughout the G7 are mixed.

© 2010 Elsevier B.V. All rights reserved.

1. Introduction

A number of studies document a disappearance of stock return predictability from US markets. Some researchers point to parameter instability or structural breaks and identify the date of disappearance circa 1991 (Pesaran and Timmermann, 2002; Lettau and Van Nieuwerburgh, 2008). A related hypothesis is that predictability was arbitrated away once discovered, in a scenario similar to attenuation of the January effect. Welch and Goyal (2008) argue that predictability has not been significant in-sample or out-of-sample in the past 30 years. Still others take a Galbraithian view, contending it was never actually there (Bossaerts and Hillion, 1999; Goyal and Welch, 2003).¹

In this study we reveal predictability as a phenomenon whose strength is distinctively time-varying. The dividend

[☆] The original version of this paper was circulated with the title, "Stock Return Predictability: *When* is it there?" and was inspired by the similarly titled paper by Ang and Bekaert (2008). We thank an anonymous referee, Giuseppe Alesii, George Cashman, Long Chen, Peter Christoffersen, Mike Gallmeyer, Rick Green, John Griffin, Susan Ji, Jerry Kallberg, Patrick Kelly, Praveen Kumar, Zoran Ivkovic, Chris Lamoureux, Crocker Liu, Christian Lundblad, Bradley Paye, Jesper Rangvid (EFA Discussant), Philippe Rhoner (EFMA Discussant), Ken Roskelley, Sergei Sarkissian, G. William Schwert (the editor), Duane Seppi, Rossen Valkanov (AFA Discussant), Sriram Villupuram, Ziwei Xu (FMA Discussant) and seminar participants at Arizona State University, Barclays Global Investors, Carnegie Mellon University, Indiana University, McGill University, Michigan State University, Queen's University, Thunderbird School of Management, University of Houston, University of Arizona, the 2008 American Finance Association meetings, the 2008 European Finance Association meetings, the 2008 Financial Management Association meetings, the 2009 European Financial Management Association meetings, the 2006 Northern Finance Association meetings and the Duke Financial Econometrics Lunch Group for their useful comments. The usual disclaimer applies.

* Corresponding author.

E-mail addresses: samuel.henkel@yale.edu (S.J. Henkel), martis@unimelb.edu.au (J.S. Martin), fnardari@uh.edu (F. Nardari).¹ John Kenneth Galbraith once said, "There are two types of forecasters: those who don't know and those who don't know they don't know."

yield and commonly used term structure variables are effective predictors almost exclusively during recessions. Fig. 1 provides a direct, simple view of this phenomenon. Plotted are time series of the cumulative proportion of recession months in the US data and the adjusted R^2 (\bar{R}^2) from a one-month-ahead predictive ordinary least-squares (OLS) regression using the contemporaneously available sample. The \bar{R}^2 rises and falls with the proportion of recession months in the available sample. In the US over the 1953–2007 period, the average \bar{R}^2 is about 15% during recessions yet less than 1% in expansions. We investigate this basic pattern in each of the G7 countries with more rigorous econometric methods. No country has \bar{R}^2 significantly different from zero during expansions, and no individual predictor is more important in expansions than in recessions.

The robust prominence of business cycles in these results suggests a potentially substantial tie to the literature on the dynamics of expected returns. Campbell and Cochrane (1999), Menzly, Santos, and Veronesi (2004), and Bekaert, Engstrom, and Xing (2009) show that risk premiums are countercyclical, and that the time-series behavior of risk premiums governs at least some return predictability. Consistent with this literature, we estimate that the market risk premium is higher during recessions in all seven of the countries studied.

Since a time-varying predictive relation is the byproduct of the interacting dynamics of expected returns and of the predictors, the complex behavior of the predictors themselves must be considered. The underlying primitives are the potential micro-level objectives of firms and central banks whose activities jointly determine

aggregate predictor variables. The business cycle is an important driver of these micromotives, and this leads us to re-examine predictability using a regime-switching vector autoregression (RSVAR) framework capable of matching the time-varying dynamics of predictors to the dynamics of expected returns. In support of this view, we find the predictors themselves to be less persistent and more volatile during recessions. The increases in predictor volatility can approach the magnitude of the well-known increase in realized market volatility during recessions.

The countercyclical behavior of short-horizon predictability also provides a historical context in which to understand important elements of prior research. Combining our results with the benefit of hindsight illustrates a link between these predictability findings and their contemporaneous economic history. Fig. 2 shows the cumulative ratio of recession months to all months in the Center for Research in Stock Prices (CRSP) data since its inception in 1963. Overlaid are indicative, not comprehensive, citations of early research on predictability for each variable we consider. Several features stand out: the random walk model of stock prices prevailed in the 1970s, based upon CRSP data from the long 1960s era expansion; predictability emerged in research of the late 1970s and mid-1980s, following several recessions; and predictability was subsequently doubted following the long booms of the 1980s and 1990s. Although great technical strides have been achieved, this figure reinforces the notion that the conclusions drawn are ultimately also dependent on the available data sample.

The remainder of the paper proceeds as follows. We lay the foundations of our work in Section 2. Section 3

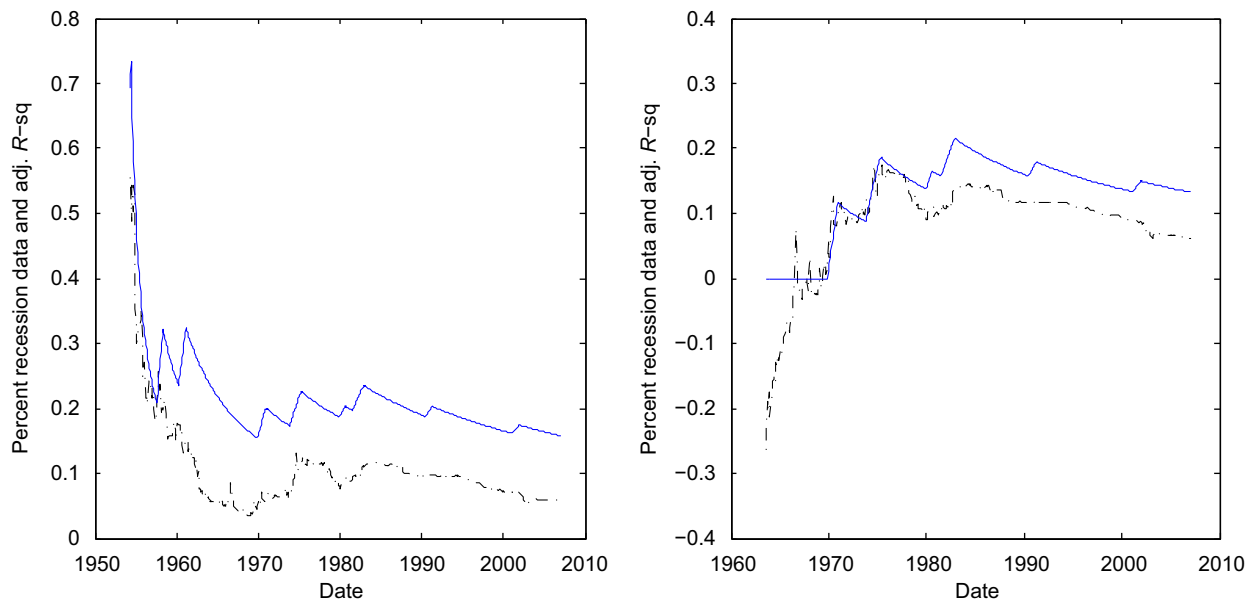


Fig. 1. Recessions and predictability. (a) and (b) plot the adjusted R^2 (\bar{R}^2) from a predictive OLS cumulating regression and the cumulative percent NBER recession data starting from 1953:04 and from 1962:07, respectively. The adjusted \bar{R}^2 is computed from a predictive OLS regression of the excess market return at time t on the dividend yield, short rate, term spread, and default spread at time $t-1$. For (a), the regressions are run for each $t=1954:04$ to 2006:12. For (b), the sample is restricted to the originally historically available CRSP sample starting with $t=1963:07$ to 2006:12. The correlation between proportion of NBER recessions and the corresponding adjusted \bar{R}^2 is 70% to 90% depending on time periods used. The charts are for expository purposes only.

Download English Version:

<https://daneshyari.com/en/article/959748>

Download Persian Version:

<https://daneshyari.com/article/959748>

[Daneshyari.com](https://daneshyari.com)