Journal of International Money and Finance 29 (2010) 1256–1282

Contents lists available at ScienceDirect

Journal of International Money and Finance

journal homepage: www.elsevier.com/locate/jimf

International stock return predictability under model uncertainty

Andreas Schrimpf

Aarhus University and CREATES, School of Economics and Management and CREATES, Bartholins Allé 10, DK-8000 Aarhus C, Denmark

JEL Classification:
G12
G14
G15
E44

Keywords:
Stock return predictability
Bayesian model averaging
Model uncertainty
International stock markets

A B S T R A C T

This paper examines return predictability when the investor is uncertain about the right state variables. A novel feature of the model averaging approach used in this paper is to account for finite-sample bias of the coefficients in the predictive regressions. Drawing on an extensive international dataset, we find that interest-rate related variables are usually among the most prominent predictive variables, whereas valuation ratios perform rather poorly. Yet, predictability of market excess returns weakens substantially, once model uncertainty is accounted for. We document notable differences in the degree of in-sample and out-of-sample predictability across different stock markets. Overall, these findings suggest that return predictability is neither a uniform, nor a universal feature across international capital markets.

© 2010 Elsevier Ltd. All rights reserved.

1. Introduction

Empirical studies have asserted that a plethora of variables contain information about future excess returns in regressions of the form:

$$r_t = \alpha + \beta' x_{t-1} + u_t, \tag{1}$$

where r_t denotes the return of the aggregate stock market portfolio in excess of the risk-free rate, and x_{t-1} is a vector of predictors, such as the dividend yield, an interest rate spread or certain

---

E-mail address: aschrimpf@creates.au.dk.

0261-5606/$ – see front matter © 2010 Elsevier Ltd. All rights reserved.

doi:10.1016/j.jimonfin.2010.03.005

macroeconomic variables. Statistically significant β coefficients in Eq. (1) are taken as evidence for predictability and are typically interpreted as evidence that risk-premia are time-varying.[1]

The existence of return predictability has significant economic consequences (for both individual investors and academia). From an investor's perspective, economic theory suggests that in the presence of return predictability investors should make asset allocation decisions conditional upon predictions of future returns whereas investors who fail to do so may suffer substantial welfare losses (See e.g. Campbell and Viceira, 2002). From an academic perspective, the question of whether returns are predictable is of substantial importance for our understanding of the dynamic (macroeconomic) risks for which investors demand a compensation in equilibrium.

A typical (implicit) assumption in the return predictability literature is that an investor chooses a-priori the particular variables (or combination of variables) that she wants to use to predict returns. This is a restrictive assumption, as there is no guarantee that the combination of variables chosen is the right one. Given the large number of variables proposed in the literature, an investor is thus confronted with a high degree of uncertainty on what the "right" variables are. Moreover, the fact that so many variables have been found to be valuable predictors of returns naturally raises the concern that the apparent predictability may well arise from data-snooping, rather than from genuine variation of economic risk-premia.[2] Hence, it seems clearly warranted to take "model uncertainty" into account when assessing the statistical evidence on return predictability and its potential usefulness from an investor's point of view.

In this paper we investigate the predictability of aggregate stock returns in major international stock markets (United States, France, Germany, Japan, United Kingdom). It is fair to say that the profession's view on return predictability has been shaped for the most part by empirical studies on the U.S. stock market. However, several authors have argued that the strong performance of the U.S. market has been quite unique in history, reflecting the rise of the U.S. to the world's most important economic power (Dimson et al., 2008). A sole focus on the U.S. in empirical research may thus have similar effects to an ex-post selection bias, a point made forcefully by Dimson et al. (2008). Moreover, the different capital markets considered in this paper differ in several institutional regards, e.g. in terms of stock market participation on behalf of individual investors or the role of capital markets as a vehicle for retirement provision, which implies that return predictability can have quite different economic consequences across markets. The major goal of this paper is therefore to explore the robustness of several common predictive variables for international stock returns and to shed light on cross-country differences in return predictability patterns.

In order to account for model uncertainty, we follow the seminal work by Cremers (2002) and Avramov (2002) and use a Bayesian model averaging approach. Unlike the classical framework, the Bayesian approach does not assume the existence of a "true" model. By contrast, a-posteriori model probabilities can be derived for the candidate models, which are then used to weight the coefficients accordingly in a composite model. In this manner, model uncertainty can be accounted for in a coherent way. A new methodological feature of our approach is to account for finite-sample bias of the coefficients in the predictive regressions in a "frequentist" model averaging framework.

While in-sample predictability is a debated topic, the question whether stock returns may be predictable out-of-sample (OOS) has been even more controversial. Recently, several authors – most notably Goyal and Welch (2008) – argue against the existence of stock return predictability, based on the lacking evidence for OOS predictability. The paper of Goyal and Welch (2008) merely considers forecasts generated by individual models but neglects the issue of forecast combination. In environments characterized by model uncertainty and instability, however, model combination may serve as

---

[1] See e.g. Fama and French (1988, 1989), Campbell and Shiller (1988a,b), Lettau and Ludvigson (2001a). In light of the generally supportive evidence for predictability by these articles and many further studies, predictability of market excess returns has received the status of a "stylized fact" in empirical finance (See for instance the literature reviews by Cochrane (1999) or Campbell (2000).

[2] See e.g. Bossaerts and Hillion (1999), Neeley and Weller (2000), Ferson et al. (2003), and Goyal and Welch (2008) for critical views. See Sec. 2 for more details on the relation of this paper to the extant literature.

دریافت فوری ← **متن کامل مقاله**

✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
✓ امکان دانلود نسخه ترجمه شده مقالات
✓ پذیرش سفارش ترجمه تخصصی
✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
✓ دانلود فوری مقاله پس از پرداخت آنلاین
✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات

ISIArticles
مرجع مقالات تخصصی ایران