Consumer confidence or the business cycle: What matters more for European expected returns?

Stig V. Møller a,⁎, Henrik Nørholm b,1, Jesper Rangvid c,2

a CREATES and Department of Economics and Business, Aarhus University, Fuglesangs Allé 4, 8210 Aarhus, Denmark
b Department of Economics and Business, Aarhus University, Fuglesangs Allé 4, 8210 Aarhus, Denmark
c Department of Finance, Copenhagen Business School, Solbjerg Plads 3, 2000 Frederiksberg, Denmark

A R T I C L E   I N F O

Article history:
Received 11 September 2012
Received in revised form 30 April 2014
Accepted 15 July 2014
Available online 24 July 2014

JEL classifications:
E44
G12
G14

Keywords:
Time-varying expected returns
Business cycle risk
Output gap
Consumer confidence
Bootstrap
GMM

A B S T R A C T

Answer: The business cycle.
We show that consumer confidence and the output gap both affect excess returns on stocks in many European countries: When the output gap is positive (the economy is doing well), expected returns are low, and when consumer confidence is high, expected returns are also low. Consumer confidence and the output gap are also highly positively correlated. In fact, we find that consumer confidence does not contain independent information (i.e. information over and above that contained by the output gap) about expected returns. Our use of European data allows us to examine both aggregate European and local-country data on consumer confidence and output gaps. We find that even local-country consumer confidence does not contain independent information about expected returns. Our findings have asset pricing implications: We show that the cross-country distribution of expected returns is better captured when using the European output gap as a risk factor.

© 2014 Elsevier B.V. All rights reserved.

JEL classifications:
E44
G12
G14

Keywords:
Time-varying expected returns
Business cycle risk
Output gap
Consumer confidence
Bootstrap
GMM

1. Introduction

When consumer and investor confidence is high, asset prices are also high and expected returns are low (Baker and Wurgler, 2006; Baker et al., 2012; Brown and Cliff, 2004, 2005; Chung et al., 2012; Lemmon and Portniaguina, 2006; Qui and Welch, 2005; Schmeling, 2009). There are two explanations. First, periods of high confidence are periods of high economic growth. During high-growth periods, risk aversion is low (Campbell and Cochrane, 1999), so investors are willing to invest in risky assets even if asset prices are high, i.e. a rational risk-based explanation. An alternative explanation (Baker and Wurgler, 2006; Brown and Cliff, 2005) is that investors get “overexcited” during good times thereby pushing asset prices up above their fundamental value given the business cycle, i.e. assets become temporarily mispriced. Subsequently, prices return to their fundamental value and the negative relation between confidence today and future returns seen in the data arises. In the latter case, consumer confidence has an effect on expected returns over and above the pure business cycle effect.

The authors would like to thank Nicole Branger, Elisa Nicolato, Carsten Sørensen, and, in particular, Maik Schmeling and two anonymous referees for useful comments and suggestions. Møller acknowledges research support from CREATES, funded by the Danish National Research Foundation (DNRF78).

⁎ Corresponding author at: Fuglesangs Allé 4, 8210 Aarhus, Denmark. Tel.: +45 8716 4825.
E-mail addresses: svm@asb.dk (S.V. Møller), henrn@asb.dk (H. Nørholm), jr.fi@cbs.dk (J. Rangvid).
1 Tel.: +45 8716 4838.
2 Tel.: +45 3815 3615.

http://dx.doi.org/10.1016/j.jempfin.2014.07.004
0927-5398/© 2014 Elsevier B.V. All rights reserved.
Our contribution is to provide new evidence on the relation between the business cycle, consumer confidence, and expected returns. In particular, we examine whether consumer confidence contains independent information (i.e. information not induced by the business cycle) about expected returns. We also examine whether local or global business cycle and confidence measures contain information about expected returns in different countries.

We study return predictability by consumer confidence and the business cycle using data from eleven European countries. As our measure of the business cycle, we use the output gap. Cooper and Priestley (2009) show that the output gap contains additional information about expected returns compared to traditional business cycle variables, such as output growth, consumption growth, and inflation. As our measure of confidence, we use the consumer confidence survey published by the Directorate-General for Economic and Financial Affairs (DG ECFIN). Our first result is that, on their own, both the European output gap and European consumer confidence strongly and significantly influence expected excess returns in basically all eleven countries. The estimated sign is negative, as normally reported in the literature mentioned above, such that periods of high confidence, as well as periods where the economy is doing well, are periods where expected returns are low.

Consumer confidence and the output gap are correlated, i.e. when the economy is doing well, confidence in the economy is high, and vice versa. In our data, the correlation between the European output gap and European consumer confidence is 0.54 and significant. The next question we ask is whether consumer confidence and/or the output gap contain independent information about expected returns. To test this, we orthogonalize consumer confidence with respect to the output gap. We find that the orthogonalized part of consumer confidence does not affect expected returns at all. This means that consumer confidence influences expected returns because the business cycle influences returns and confidence is correlated with the business cycle. Or, in other words, consumer confidence contains no independent information about expected returns that is not already contained by the business cycle. A number of robustness tests, not least results from extensive bootstrap simulations and results from the U.S. spanning a longer sample period, verify that the output gap contains a lot of information about expected returns, whereas consumer confidence contains nothing that is not already contained by the output gap. The reason why we find that consumer confidence does not contain independent information about expected returns, in contrast to the results in the literature (Brown and Cliff, 2005; Qui and Welch, 2005), is that we control for a business cycle variable that actually contains information about expected returns.

Our use of European data allows us to test whether local or aggregate European confidence (or output gaps) matters relatively more for expected returns on local stocks, something one cannot easily do with, e.g., U.S. data. We do so for the following reason. Baker and Wurgler (2006) argue that two effects can make confidence cause temporary mispricing: An uninformed shock to demand makes investors buy more stocks than they rationally should and limits to arbitrage make it possible that stock prices change more than they rationally should. We couple this with the well-known finding that investors have preferences for stocks they are familiar with, possibly because they (feel that they) have more knowledge about those stocks than about “unfamiliar” stocks. Intuitively, if, for instance, Danes feel more confident about the Danish economy, and Danes like to trade Danish stocks because they are more familiar with these, Danes should, according to the mispricing explanation, bid up the prices of Danish stocks “too much” when they get more confident about the Danish economy. On the other hand, Danes will not bid up prices on Danish stocks “too much” if, e.g., Italians become more optimistic about the Italian economy as Danes are not as familiar with Italian stocks. So, our hypothesis is that local confidence is a better proxy for an uninformed demand shock than more systematic European factors. This implies that we expect to see a strong relation between local confidence and local returns if temporary mispricing causes confidence to predict returns. On the other hand, if investors react to systematic risk factors in a rational way, we should see strong effects from the European business cycle (a European-wide systematic risk factor) on local stocks.

We regress local-country excess returns on local-country consumer confidence. We again condition on the European business cycle in order to see whether confidence contains information over and above its pure systematic business cycle information. We find that, controlling for the European business cycle, local confidence does not move expected returns at all. Hence, local confidence does not seem to matter for local stock returns, given the state of the aggregate European economy. On the other hand, expected stock returns react to the European business cycle; a systematic risk factor. We also estimate the fraction of time-variation in expected returns that is captured by the European output gap and local information variables (local output gaps and local consumer confidence). We find that more than 80% of the variation in returns comes from variation in European-wide output gaps, again indicating that local confidence (as a proxy for an uninformed demand shock) matters less than aggregate European variables.

If the European output gap really is a systematic risk factor, it should help in capturing the cross-country distribution of returns. To investigate whether it does, we consider an unconditional and a conditional European asset pricing model where the conditional model allows for time-variation in expected risk premia. As test assets, we use the returns from the eleven European markets and value and growth portfolios of each market, i.e. all in all 33 portfolios. We find that the unconditional asset pricing model is able to explain only 19% of the variation in returns from the country, value and growth portfolios. On the other hand, when we consider the conditional asset pricing model that uses the European output gap as a conditioning variable, we find that this model is able to explain much more of the variation in returns across the different portfolios; 57%. We also estimate models where we condition on the European consumer confidence. This does not help much in explaining the cross-sectional distribution of returns, however.

---

3 We also orthogonalize the European output gap with respect to European consumer confidence. The orthogonal part of the output gap is still a strong predictor of returns, i.e. consumer confidence predicts returns because it contains information about the business cycle, whereas the output gap contains independent information about returns over and above that contained by consumer confidence.

4 This is well-known from the literature on the Equity Home Bias Puzzle (French and Poterba, 1991), but the same kind of “familiarity bias” has by now been documented in many other situations by Hubermann (2001), Coval and Moskowitz (1999, 2001), Grinblatt and Keloharju (2001), Baik et al. (2010), Seasholes and Zhu (2010), and others.
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