

Consumer Confidence and the Financial Performance of the Hospitality Industry in Business Cycles

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The Question

- What role does consumer confidence play in explaining the financial performance of firms in the hospitality industry?

- Lodging



- Restaurants



Consumer Confidence

- Answer “positive,” “negative,” or “neutral” to the following:

- Current business operations



- Business condition for the next six months



- Current employment conditions



- Employment conditions for the next six months



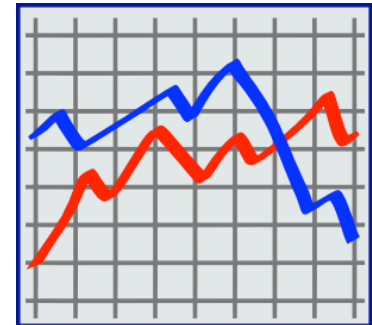
- Total family income for the next six months



*Confidence may be overstated in periods of high inflation.

Historical Consumer Confidence Research

- Changes in stock market → changes in CC
- CC forecasts changes in household spending (USA & UK)
- CC forecasts personal consumption growth in USA
- Impact of stock market returns on expectations of future economic conditions has declined over time



*No convincing argument that CC measures expectations of returns not warranted by fundamentals

Method

- α = abnormal return compared to market
 - Positive and significant \rightarrow outperformance
 - Negative and significant \rightarrow underperformance
- $\hat{R}_{ind,t} = R_{ind,t} - R_{f,t}$ (Excess Returns)
 - Equally Weighted
 - Weighted – Average
- Tested against Fama – French Five Factor Model

Fama-French Five Factor Model

- Captures all variations of expected market returns
- $$\hat{R}_{ind,t} = \alpha_{ind} + \beta_M * \hat{R}_{M,t} + \beta_{SMB} * R_{SMB,t} + \beta_{HML} * R_{HML,t} + \beta_{CMA} * R_{CMA,t} + \beta_{RMW} * R_{RMW,t} + \epsilon_t$$
- $R_{M,t}$ = Excess returns on market portfolio
- $R_{SMB,t}$ = Small cap – Large cap
- $R_{HML,t}$ = High Book to Market – Low Book to Market
- $R_{CMA,t}$ = Conservative – Aggressive
- $R_{RMW,t}$ = Strong Profitability – Weak Profitability

Results

Restaurants				
Value-Weighted			Equally-Weighted	
	Coefficient	P-Value	Coefficient	P-Value
α_{ind}	0.003	0.13	-0.002	0.273
R_M	0.923	0	1.045	0
R_{SMB}	0.086	0.217	0.907	0
R_{HML}	0	0.997	0.435	0
R_{RMW}	0.667	0	0.49	0
R_{CMA}	0.31	0.024	-0.006	0.968
$Adj. R^2$	0.509		0.599	

- Giving equal weight to small cap stocks \rightarrow negative alpha
- Underperformance due to a few smaller stocks

Lodging				
Value-Weighted			Equally-Weighted	
	Coefficient	P-Value	Coefficient	P-Value
α_{ind}	0.001	0.62	-0.005	0.034
R_M	1.441	0	1.286	0
R_{SMB}	0.827	0	0.98	0
R_{HML}	0.793	0	0.767	0
R_{RMW}	0.579	0	0.411	0
R_{CMA}	-0.382	0.058	-0.165	0.321
$Adj. R^2$	0.602		0.66	

Time Periods Post - 1980

- Pre-recessionary = 9 months before recession
- Recessionary
- Post-recessionary

Recession Start Date	Recession End Date	Duration (in months)
Jan. 1980	Jul. 1980	6
Jul. 1981	Nov. 1982	16
Jul. 1990	Mar. 1991	8
Mar. 2001	Nov. 2001	7
Dec. 2007	Jun. 2009	18

Results

RESTAURANTS					
VW			EW		
0.003			-0.0024		
-1.64			(-1.18)		
Pre-Recession		Recession		Post-Recession	
VW	EW	VW	EW	VW	EW
0.0038	-0.0054	0.011	0.0103	-0.0001	-0.0021
-0.55	(-0.93)	-1.9	-1.08	(-0.02)	(-0.41)

LODGING					
VW			EW		
0.0014			-0.005		
-0.53			(-2.29)		
Pre-Recession		Recession		Post-Recession	
VW	EW	VW	EW	VW	EW
-0.0049	-0.0133	-0.0011	-0.0095	0.0012	-0.006
(-0.67)	(-2.11)	(-0.09)	(-0.97)	-0.15	(-0.84)

Predictive Power of Consumer Confidence

- Predictive, lagged regression analysis
 - T-1...6 months before each time period

$$\alpha_t = \gamma + \beta_i \Delta CC_{t-i} + \varepsilon_t$$

- Null Hypothesis: No predictive power in consumer confidence

$$H_0: \beta_i = 0$$

Conclusions

- Our findings indicate that one component of the consumer confidence index predicts abnormal returns in the hospitality industry in 6-month time horizons
- This implies that not all pricing information is reflected in the Fama-French Five Factor Model

Questions?
