

Relationship between Consumer Sentiment and Stock Price in Korea*

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Both consumer sentiment and stock prices are considered leading indicators of general economic conditions. This paper analyses the relationship between the consumer sentiment index and stock prices in Korea. The findings are that stock returns Granger-cause consumer sentiment, but not vice versa. Second, both wealth effect and information effect are accountable for the causal relationship. Third, only the positive news of consumer sentiment influences daily stock returns to show an asymmetry between positive and negative news.

JEL Classification: E21, D12, G10

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1. INTRODUCTION

Consumer sentiment index (CSI) provides useful information on how much consumers feel confidence about individual financial conditions or general economic situations. Many papers exist on the usefulness of the CSI in predicting consumer expenditure (for example, Carroll *et al.*, 1994; Acemoglu and Scott, 1994; Bram and Ludvigson, 1998 with the U.S. and the U.K. data, Kim and Goo, 2005, 2008; Jo and Hwang, 2009 with Korean data), but the studies on the relationship between CSI and stock price are limited, especially with Korean data.

Both stock price and consumer sentiment could be leading indicators of general economic conditions. Since stock price reflects the future cash flow of business firms, stock price typically leads business cycles. CSI includes measures of consumer sentiments on future economic conditions, so CSI also provides information on perceived future economic conditions. When we look at the relationship between stock price and CSI, the causation between the two variables is flexible. Stock price may respond to changed consumer sentiment or consumer sentiment may reflect stock price changes. Thus, it is empirical to form a study that could provide a possible answer for the relationship.

Most of the previous studies found that there is a strong contemporaneous relationship between consumer sentiment and stock returns. However, the leading role of one of the two variables has not been clearly found in the literature. Otoo (1999) and Jansen and Nahuis (2003) find that stock returns Granger-cause consumer sentiment. Higher stock price leads higher consumer sentiment. A somewhat different result is reported by Fisher and Statman (2003) who find low stock returns followed by high consumer confidence. As a different direction of causality, Charoenrook (2005) reports that consumer sentiment predicts stock returns. As the only study with Korean data, Park (2005) finds some of the leading roles of stock price to consumer sentiment. In general, it appears that the empirical literature does not form a consensus on the relationship between consumer sentiment

and stock returns.

We explore this issue with Korean data. The purpose of this paper is to find the relationship between consumer sentiment and stock prices, in order to explain the observed relationship. All of the three consumer sentiment indexes published in Korea are used to accomplish this task. The three institutes that publish CSI are the Korea National Statistical Office (KNSO), the Bank of Korea (BOK), and the Samsung Economic Research Institute (SERI). We also investigate the effect of consumer sentiment news on daily stock price. Park (2005) analyzes the relationship in Korea with the survey data from the KNSO for a five year sample period (1998:12M-2003:12M). We expand the data sample by including two more survey data with longer sample periods. Moreover, we try to understand the relationship in detail by examining the possible wealth effect and information effect on stock price. Furthermore, we add an analysis on the news effect of consumer sentiment publications on stock price that has not been previously studied.

The paper is organized as follows. Section 2 introduces the data. In section 3, empirical results are reported and explained. Section 4 contains the conclusion.

2. DATA

The CSI data are from the KNSO, the BOK, and the SERI. We focus on the composite CSI which is the average of indexes from several questions on current or expected economic conditions. Both the BOK and the SERI announce one comprehensive composite index, but the KNSO reports a current condition index (KNSO PI) and an expected condition index (KNSO FI).

The monthly data from the KNSO are from December 1998 to August 2008.¹⁾ The data from the BOK are quarterly from the second quarter of 1996

¹⁾ The CSI for August 2008 was the last month surveyed by the KNSO. The monthly survey of consumer sentiment by the KNSO was combined to the BOK survey from September 2008.

Table 1 Survey Questions in the Composite CSI

Questioned Issue	KNSO FI	KNSO PI	BOK CSI	SERI CSI
Current household financial conditions		○	○	○
Current general economic situation		○	○	○
Expected household financial conditions	○		○	○
Expected general economic situation	○		○	○
Expected household consumption spending	○		○	
Current durable goods purchase sentiment				○
Expected household income			○	

Note: ○ if this question is included.

to the second quarter of 2008, while the SERI data are from the fourth quarter of 1991 to the second quarter of 2008. Table 1 shows the survey questions included in the composite CSIs. The answers for the questions consist of ‘very high’, ‘somewhat high’, ‘the same’, ‘somewhat low’, and ‘very low’. By assigning numbers for each type of answers, the index numbers for each question are derived and the composite CSI is calculated from several individual index numbers. The base numbers of the KNSO index and the BOK index are 100, which occurs when consumers select ‘the same’ answer on average. Thus, consumer sentiment is considered to be positive or optimistic if the CSI is above 100. The base number for the SERI CSI is set to 50.²⁾

Monthly data of the KNSO expected CSI (FI), the KNSO current CSI (PI) and stock returns are shown in figure 1, and the quarterly data of the SERI

²⁾ The composite CSIs from the KNSO and the SERI are the simple means of index numbers from individual questions. However, the composite CSI announced by the BOK is adjusted from the simple mean of the six individual indexes to make the average CSI become 100 for the entire sample period.

Figure 1 KNSO FI, KNSO PI, and Monthly Stock Returns

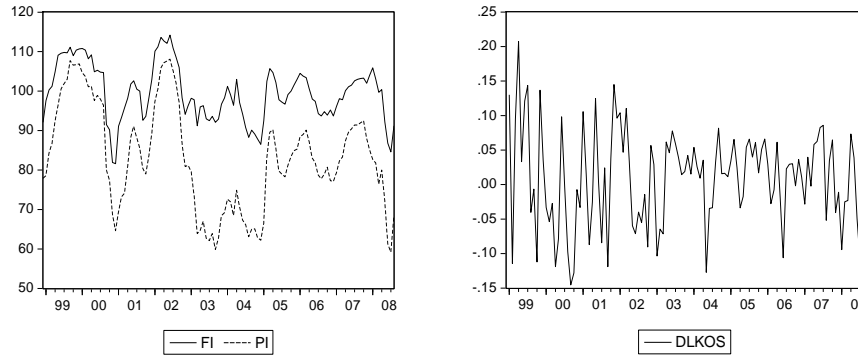
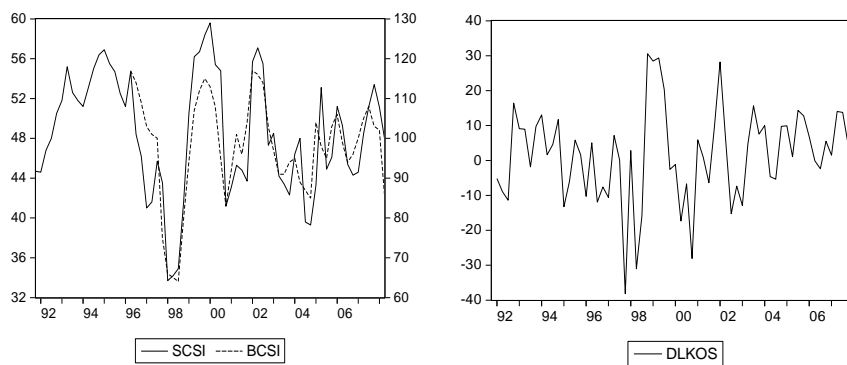


Figure 2 SERI CSI, BOK CSI, and Quarterly Stock Returns



composite CSI, the BOK composite CSI and stock returns are shown in figure 2. The stock returns are from the representative stock price index in Korea, the Korea Composite Stock Price Index (KOSPI). The expected CSI and current CSI of the KNSO move together, but the current CSI always stays at lower level. This indicates a pessimistic view of consumers on current economic conditions compared to the future economy. The CSIs from the SERI and the BOK are shown to fluctuate together in similar patterns.

Table 2 Descriptive Statistics

	KNSO FI	KNSO PI	Monthly KOSPI Return (%)	BOK CSI	SERI CSI	Quarterly KOSPI Return (%)
Mean	99.60	83.12	1.09	97.78	48.50	1.58
Median	99.70	82.30	1.69	100.00	48.40	2.85
Maximum	114.20	108.10	20.72	117.00	59.60	30.59
Minimum	81.60	59.20	-14.54	64.00	33.70	-38.16
Std. Dev.	7.16	13.29	7.12	12.99	6.06	13.36
Skewness	-0.065	0.140	0.034	-0.834	-0.320	-0.337
Kurtosis	2.547	2.153	2.930	3.535	2.542	3.710
Jarque-Bera	1.084	3.881	0.046	6.259	1.733	2.675
Observations	117	117	117	49	67	67

Descriptive statistics are shown in table 2. The stock prices (KOSPI) are shown as growth rate because the level of stock price exhibits the unit root, so we use the rate of stock returns in our empirical analysis. Note that the base numbers for the KNSO and the BOK are 100, and it is 50 for the SERI CSI.

3. EMPIRICAL RESULTS

3.1. Unit Root Test

We use the Augmented Dickey-Fuller method to test for the existence of unit roots and identify the order of integration for each variable. Unit root tests are done without a time trend.³⁾ The Schwartz Information Criterion

³⁾ The test results with a time trend are qualitatively the same as in table 3.

Table 3 Unit Root Test Results

Variable	<i>t</i> -statistic	<i>p</i> -value
KNSO FI	-3.525	0.009**
KNSO PI	-2.899	0.049*
BOK CSI	-3.644	0.008**
SERI CSI	-3.086	0.033*
KOSPI monthly	-0.928	0.776
KOSPI quarterly	0.231	0.973
Δ KOSPI monthly	-8.329	0.000**
Δ KOSPI quarterly	-5.943	0.000**

Notes: 1) Δ is the first difference operator.

2) ** and * are significant at 1% and 5%, respectively.

(SIC) is used to choose optimal lag lengths. As shown in table 3, a unit root can be rejected for the levels of all of the CSI variables at the 5% significance level. On the other hand, a unit root can be rejected for the first difference but not the levels for stock price variables at the 5% significance level. The unit root test reveals that the CSIs are $I(0)$, but the stock price KOSPI is $I(1)$. Thus, we use the log differenced KOSPI as the stock price index which is equal to stock returns.

3.2. Cross Correlation

One of the methods to check the lead and lag between variables is cross correlations. Cross correlations are shown in tables 4 and 5. Based on the maximum value of the cross correlation, we find that stock returns lead the KNSO FI and the KNSO PI by five months and six months, respectively. For the cases of the BOK and the SERI, stock returns lead the BOK CSI and the SERI CSI by one quarter and two quarters, respectively. All of the four cross correlations show that stock returns lead CSI.

**Table 4 Cross Correlation of Monthly CSI
with Leading and Lagged Stock Returns**

	KNSO FI	KNSO PI
-6M	0.36	0.33
-5M	0.37	0.33
-4M	0.30	0.25
-3M	0.28	0.21
-2M	0.28	0.17
-1M	0.20	0.11
0	0.07	0.01
1M	-0.13	-0.13
2M	-0.17	-0.20
3M	-0.22	-0.24
4M	-0.26	-0.25
5M	-0.25	-0.24
6M	-0.28	-0.23

**Table 5 Cross Correlation of Quarterly CSI
with Leading and Lagged Stock Returns**

	-4Q	-3Q	-2Q	-1Q	0	1Q	2Q	3Q	4Q
BOK	0.15	0.32	0.43	0.54	0.30	-0.16	-0.37	-0.49	-0.51
SERI	0.22	0.32	0.50	0.49	0.21	-0.15	-0.27	-0.37	-0.35

3.3. Granger Causality Test

We need to identify the lag length specification before performing the Granger causality test. We use the Schwartz Information Criterion (SIC) to select the lag length, searching over a maximum of 12 lags for the KNSO

Table 6 Test for Granger Causality (*p*-values)

Panel A. with Lag=1			
		Stock Return to CSI	CSI to Stock Return
KNSO FI		0.001**	0.095
KNSO PI		0.001**	0.120
BOK CSI		0.000**	0.054
SERI CSI		0.000**	0.075
Panel B. with Alternative Lags			
	Lag	Stock return to CSI	CSI to Stock Return
KNSO FI	5	0.021*	0.170
	6	0.020*	0.120
KNSO PI	5	0.048*	0.293
	6	0.080	0.293
BOK CSI	2	0.089	0.043*
SERI CSI	2	0.000**	0.111

Note: ** and * are significant at 1% and 5%, respectively.

monthly data and 8 lags for both the BOK and the SERI quarterly data. Optimal lags are found to be one for all four cases.⁴⁾

Panel A of table 6 shows the Granger causality test results with one lag. For all cases, stock price Granger-causes consumer sentiment even at the 1% significance level, whereas the reverse does not hold at the 5% level. This shows that there are unidirectional causal relationships running from stock price to consumer sentiment in Korea. The unidirectional causality is consistent with Otoo (1999), Jansen and Nahuis (2003), and Park (2005). The one-way causalities from stock price to consumer sentiment are also consistent with the results of cross correlation between the two variables.

We check the robustness of the results with different lags implied by the

⁴⁾ Using Monte Carlo study, Bessler and Binkley (1982) and Geweke and Meese (1981) show that the SIC appears superior to other lag length selection methods.

cross correlations. The alternative lags chosen are 5 and 6 months for the KNSO indexes, 2 quarters for the BOK and SERI indexes. The test results shown in Panel B of table 6 are similar to the previous results. But in the tests with 6 month lags for the KNSO PI and 2 quarter lags for the BOK index, the causality from stock returns to CSI is significant only at the 10% level. Also the causality from the BOK CSI to stock returns becomes significant at the 5% level. It is concluded that the Granger causality relation is generally from stock returns to CSI, although there are some variations in the results of this study that are dependent on the lag selection in the test.

3.4. The Link between Stock Price and Consumer Sentiment

This section examines the nature of the Granger causality found in the previous section. As noted in Jansen and Nahuis (2003), the link between stock price and consumer sentiment can be interpreted as either a wealth effect or information effect. The wealth effect could be relevant if a rise in the stock price improves financial status of the consumers. The information effect works when stock price is considered to provide useful information about the future condition of the national economy.

Among the survey questions for the consumer sentiment, the questions on current and expected household financial conditions and the question on current household security asset value are closely related to the wealth effect, while the question on expected general economic situation is related to the information effect. The survey question on current household security asset value could be a more direct test on the wealth effect.⁵⁾ This question is included only in the KNSO survey. We perform the Granger causality test again for the individual survey indexes to find whether the wealth effect or the information effect is more important in the link between the stock price and consumer sentiment.

⁵⁾ The actual survey question on current household security value from the KNSO survey is “How do you think the value of your household security assets has changed over the last six months?”

Table 7 Test for Granger Causality for the Wealth and Information Effect (*p*-values)

	Individual CSI	Stock Return to CSI	CSI to Stock Return
Wealth Effect	KNSO PFI	0.027*	0.041*
	KNSO FFI	0.002**	0.054
	KNSO PSI	0.046*	0.411
	BOK PFI	0.000**	0.071
	BOK FFI	0.004**	0.039*
	SERI PFI	0.000**	0.076
	SERI FFI	0.003**	0.032*
Information Effect	KNSO FBI	0.006**	0.276
	BOK FBI	0.001**	0.112
	SERI FBI	0.000**	0.146

Notes: 1) PFI: Current household financial condition index, FFI: Expected household financial condition index, PSI: Current household security asset index, FBI: Expected general economic situation.

2) Optimal lag=1.

3) ** and * are significant at 1% and 5%, respectively.

As shown in table 7, both the wealth effect and the information effect are present in most of the data. In particular, the wealth effect based on the household value of security assets is significant at the 5% level. The result is different from Jansen and Nahuis (2003) where a significant information effect is found but not the wealth effect.⁶⁾

⁶⁾ The wealth effect test is based on the CSI on both current conditions and expected conditions, while the test in Jansen and Nahuis (2003) is based on the CSI on expected conditions only. To figure out the nature of the link between stock returns and composite CSI as in this study, we need to test with current conditions as well as expected conditions. However, note that the current household security asset index from the KNSO is not included as a component of the current condition index (PI) from the KNSO.

A reason for the presence of wealth effect in Korea could be found in the importance of the stock market in the Korean economy. The ratio of the stock market value to GDP in Korea was 204% in 2000 (3rd among 30 OECD countries) and 204% in 2007 (9th) according to Standard and Poor's Database. Among the European countries studied in Jansen and Nahuis (2003), no country was ranked higher than Korea in 2000, and only 4 countries (Iceland, Netherlands, Spain, and the U.K.) were ranked higher than Korea in 2007. In addition, there are several papers that show the existence of the wealth effect from stock returns in Korea. Recent such papers include Kim (2005), Kim and Choi (2007), and Chang (2009).⁷⁾

3.5. Impulse Response Function and Variance Decomposition

There are two techniques to examine the dynamic relationship between stock price and consumer sentiment: Impulse response function (IRF) and variance decomposition (VDC). The impulse response functions can be used to produce the time path of the dependent variables in the vector autoregression (VAR) responding to the shocks from the explanatory variables. Variance decomposition is an alternative method for examining the effects of shocks to the dependent variables. This method determines how much of the forecast error variance for any variable in a system is explained by innovations to each explanatory variable over a series of time horizon.

For the application of the two methods, we estimate a simple VAR model. The variables in the VAR model are stock returns and CSI. It is well known that the results of IRF and VDC can be sensitive to the ordering of the variables. Following the Granger causality result, the ordering of the variables is stock returns and CSI in the VAR model.⁸⁾ The number of lags is determined to be one by the SIC method.

⁷⁾ Even in Jansen and Nahuis (2003) where the wealth effect was not generally observed in European countries, the countries with higher rank than Korea in the stock market value to GDP ratio in 2007 such as Netherlands, Spain, and the U.K. had a significant wealth effect.

⁸⁾ See Swanson and Granger (1997) and Granger *et al.* (2000) for the ordering of the variables in a VAR model.

Impulse response functions are shown in figures 3-6. For the cases of both of the monthly KNSO data (expected index (FI) and current index (PI)), a shock to stock returns affects consumer sentiment for about eight to twelve months whereas shocks to consumer sentiment do not have significant impact on stock returns. For the cases of both the BOK CSI and the SERI CSI, a shock to stock returns positively affects consumer sentiment for 4 quarters, while a shock to consumer sentiment does not have a significant impact on stock returns. All of the IRF show the same pattern between CSI and stock returns as was found in the previous section: stock returns affect consumer sentiment but not vice versa. The results from the IRF analysis conform with those of the Granger causality test.

The variance decompositions (VDC) show that stock returns explain most of the variation of consumer sentiment as in tables 8-11. For the stock returns, it is clear that stock returns explain forecast error dominantly and the

Figure 3 Impulse Response Functions for the KNSO FI

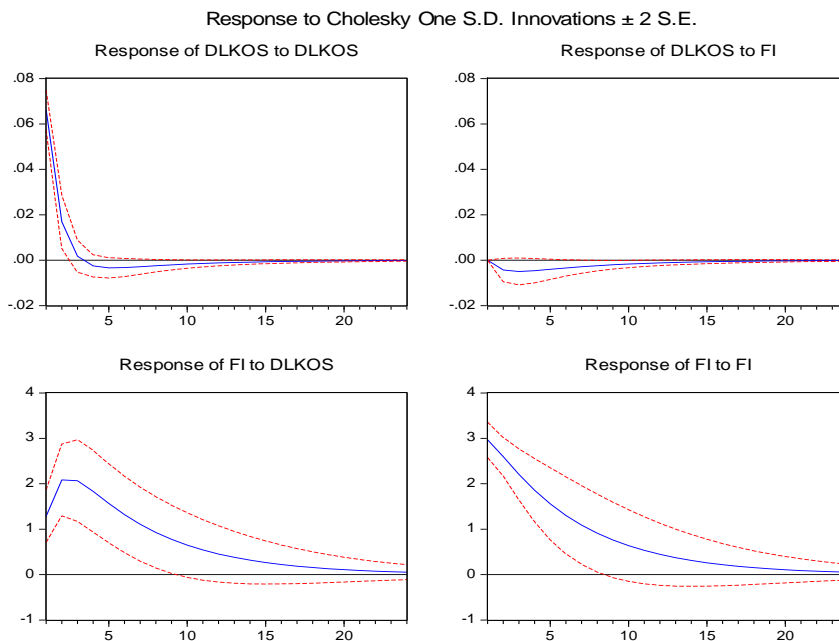


Figure 4 Impulse Response Functions for the KNSO PI

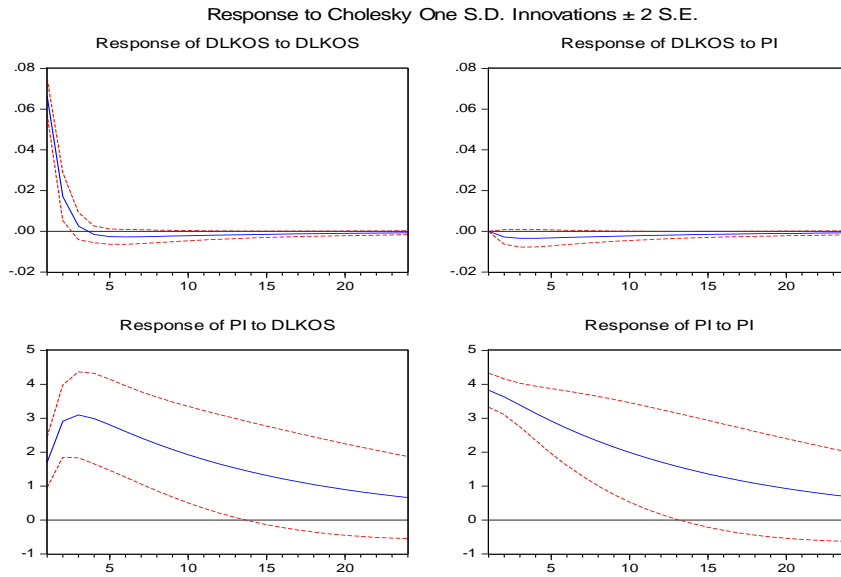


Figure 5 Impulse Response Functions for the BOK CSI

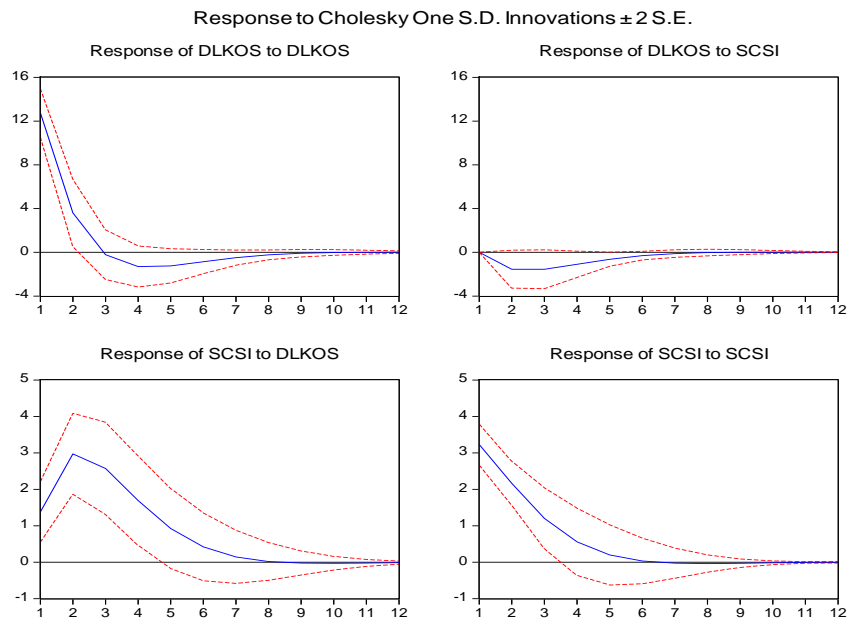
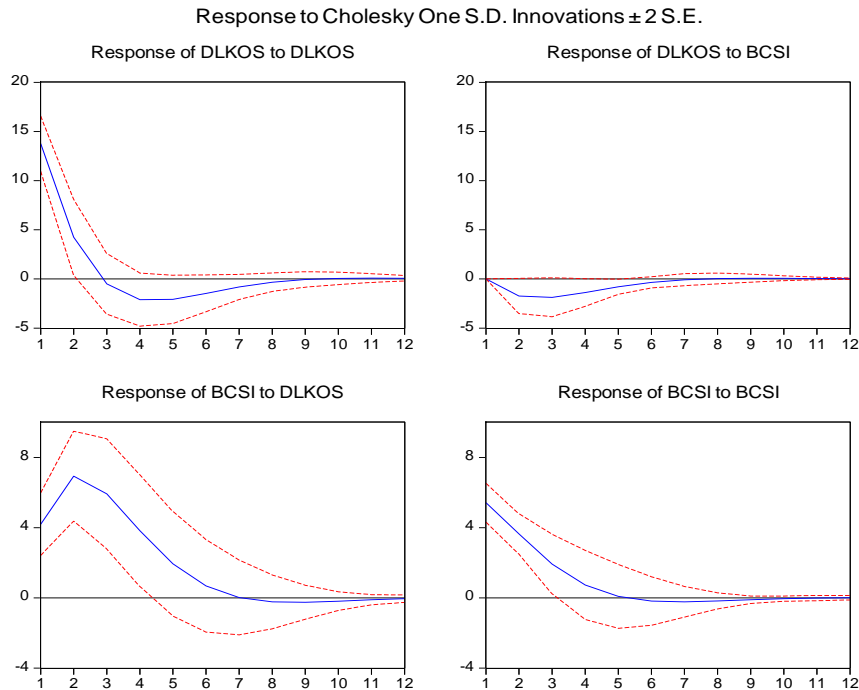


Figure 6 Impulse Response Functions for the SERI CSI

CSI plays a minimal role. For example, the forecast errors of the stock returns for the KNSO FI and PI are explained at 97.6% and 98.3%, respectively, by themselves at 12 months from the shock. Similarly the forecast error of the stock returns for the BOK CSI is explained 96.2% by its own shocks at 4 quarters. It is 96.7% for the case of SERI CSI.

For the CSIs, the stock returns explain forecast errors of the CSI at more than 40% after 1 year. For example, the forecast errors of CSI are explained by the stock returns at 40.5% (KNSO FI), 43.1% (KNSO PI) 71.2% (BOK CSI), and 54.5% (SERI CSI). Note that the portion of explained forecast error variance by stock returns increases over time.

Table 8 Variance Decomposition for the KNSO FI

Forecast Error Variance	Shock	1M	2M	4M	12M	24M
Stock Return	Stock	100.0	99.6	98.6	97.6	97.5
	CSI	0.0	0.4	1.4	2.4	2.5
CSI	Stock	15.8	27.8	36.4	40.5	40.7
	CSI	84.2	72.2	63.6	59.5	59.3

Table 9 Variance Decomposition for the KNSO PI

Forecast Error Variance	Shock	1M	2M	4M	12M	24M
Stock Return	Stock	100.0	99.8	99.3	98.3	97.9
	CSI	0.0	0.2	0.7	1.7	2.1
CSI	Stock	16.5	29.0	37.8	43.1	43.9
	CSI	83.5	71.0	62.2	56.9	56.1

Table 10 Variance Decomposition for the BOK CSI

Forecast Error Variance	Shock	1Q	2Q	3Q	4Q	8Q
Stock Return	Stock	100.0	98.6	96.9	96.2	96.0
	CSI	0.0	1.4	3.1	3.8	4.0
CSI	Stock	37.5	60.7	68.5	71.2	71.8
	CSI	62.5	39.3	31.5	28.9	28.2

Table 11 Variance Decomposition for the SERI CSI

Forecast Error Variance	Shock	1Q	2Q	3Q	4Q	8Q
Stock Return	Stock	100.0	98.7	97.3	96.7	96.5
	CSI	0.0	1.3	2.7	3.3	3.5
CSI	Stock	15.4	41.5	51.2	54.5	55.7
	CSI	84.6	58.5	48.8	45.5	44.3

3.6. News Effect of the CSI on Stock Price

This section investigates whether the news on CSI publication has any effect on stock returns. We collect the data on the dates of CSI publication from the KNSO for the period of April 1999 to August 2008 (monthly data, 113 data points) and the BOK from October 1998 to June 2008 (quarterly data, 40 data points).⁹⁾ We examine the news effect in two ways. First, we test if there is any difference in stock returns between high CSI and low CSI publication cases. Second, we test if there is any difference in stock returns before and after the CSI publication. For the second test, we consider high CSI and low CSI cases separately. Since the index number 100 represents no changes in consumer sentiment, we consider the CSI is low if the index number is less than 100 and high if it is greater than or equal to 100. Out of 113 KNSO cases, 57 cases are low CSI and 56 cases are high CSI. For the BOK data, 21 cases are low and 19 cases are high.

If there is any news effect, stock price would increase with a high CSI publication, and vice versa. As shown in table 12, stock prices decrease for the two days from low CSI publications and generally increase for the three days from high CSI. When we look at the difference between high and low CSIs, stock returns are greater for high CSI than low CSI at least for the first three days. However, those are statistically insignificant except for the two day case with the BOK data.

Next, we compare the stock returns before and after the CSI publication, and test if it depends on whether the publication is high CSI or low CSI. The test results are shown in table 13. For the case of low CSI, stock returns are typically low after the publication relative to before the publication for the first two days, but all of them are statistically insignificant at the 5% significance level. When the CSI is high, we find the two cases statistically significant for the BOK CSI. The stock returns after the high

⁹⁾ The KNSO began to publish the CSI data from April 1999, and the BOK from the third quarter 1998. Since the first data of the CSI starts from December 1998 for the KNSO and the third quarter 1995 for the BOK, the number of observation for the official publication is different from the number of available CSI data.

**Table 12 News Effect of the CSI on Stock Returns:
Low versus High Consumer Sentiment**

	Days ¹⁾	Low CSI (A) ²⁾	High CSI (B) ²⁾	(B)–(A)	<i>p</i> -value ³⁾⁴⁾
KNSO FI	1	–0.045	0.476	0.532	0.131
	2	–0.071	0.081	0.152	0.519
	3	0.055	0.052	0.003	0.988
	4	0.016	–0.118	–0.134	0.412
	5	–0.056	–0.034	–0.090	0.556
BOK CSI	1	–0.177	0.438	0.615	0.382
	2	–0.042	0.774	0.816	0.049*
	3	0.163	0.690	0.527	0.128
	4	0.219	0.492	0.272	0.341
	5	0.309	0.249	–0.060	0.826

Notes: 1) Days from the publication.

2) Geometric average of daily changes of the stock price for the days from the publication; Unit: percentage.

3) Null hypothesis: (B)–(A)=0.

4) * is significant at 5%.

CSI publication is significantly greater than those before the publication for three and four days. For the two and five day cases, the signs are correct and statistically significant at 10% level. When we check with ten day case, the sign is still correct but not significant at the 10% level.

There is no news effect when the CSI is low. The finding that the news effect is significant only for positive announcements reveals asymmetry in responding to the CSI news in the stock market. It appears that investors are not sensitive to bad news on CSI, but responding to good news about CSI. However, the asymmetric response is observed in the BOK data, but not in the KNSO data.¹⁰⁾

¹⁰⁾ When the CSI growth data are used instead of the CSI level data, we find that stock prices significantly rebound for three to five days after the BOK publication of a drop in CSI.

**Table 13 News Effect of the CSI on Stock Returns:
Before versus After Publication**

	CSI	Days ¹⁾	Before (A) ²⁾	After (B) ²⁾	(B)–(A)	<i>p</i> -value ³⁾⁴⁾
KNSO FI	Low	1	0.219	–0.045	–0.265	0.387
		2	0.122	–0.071	–0.193	0.391
		3	0.067	0.055	–0.012	0.945
		4	0.013	0.016	0.004	0.978
		5	0.050	0.056	0.006	0.958
		10	0.119	0.077	–0.041	0.648
	High	1	0.094	0.487	0.392	0.436
		2	–0.302	0.081	0.038	0.311
		3	–0.067	0.052	0.119	0.680
		4	–0.161	–0.118	0.043	0.861
		5	–0.143	–0.034	0.109	0.633
		10	–0.034	–0.062	–0.027	0.843
BOK CSI	Low	1	0.588	–0.177	–0.765	0.152
		2	0.017	–0.042	–0.059	0.817
		3	–0.163	0.163	0.326	0.322
		4	0.008	0.219	0.211	0.500
		5	0.153	0.309	0.156	0.652
		10	0.056	0.054	–0.002	0.992
	High	1	–0.358	0.438	0.795	0.304
		2	–0.280	0.774	1.054	0.077
		3	–0.298	0.690	0.988	0.030*
		4	–0.254	0.492	0.746	0.044*
		5	–0.343	0.249	0.592	0.083
		10	–0.191	0.108	0.299	0.111

Notes: 1) The days prior and post the publication.

2) Geometric average of daily changes of the stock price for the days from the publication; Unit: percentage.

3) Null hypothesis: (B)–(A)=0.

4) * is significant at 5%.

Investors may consider the news of a drop in CSI as a positive signal for future stock prices in the sense that the current low stock prices fully reflect consumer pessimism over economic conditions. However, significant results from positive growth in BOK CSI are not found. These new results with the growth data do not necessarily contradict the previous results with the level data because the two cases in CSI levels (below 100 and above 100) do not match with the other two cases in CSI growth (positive growth and negative growth). The level data and the growth data provide different information on consumer sentiment. The different contents of the information from the levels and changes in CSI would be an issue for future studies.

4. CONCLUSION

This paper analyses the relationship between consumer sentiment and stock price in Korean data. The findings are summarized as follows. First, stock returns consistently Granger-cause consumer sentiment, but not vice versa. This result of Granger causality test is consistent with cross correlations, impulse response functions, and variance decompositions. Second, this Granger causal relationship can be explained by the information effect in that stock prices provide useful information on future economic conditions. We also find significant evidence of a wealth effect as an increase in stock prices lead better financial conditions for households. Third, the news of consumer sentiment from the BOK has a temporary influence on stock returns. Positive consumer sentiment news is followed by positive stock returns for two or three days, but the effect disappears thereafter. However, there is no effect from negative CSI news.

In theory, the causality between stock price and consumer sentiment is undetermined, but this empirical study supports the leading role of stock prices to consumer sentiment in Korean data. The results are consistent to Otoo (1999), Jansen and Nahuis (2003) and Park (2005). Different from those studies, however, we find substantial evidence of the wealth effect as a source of the leading role of stock returns in Korean data. We also test whether the consumer sentiment news has any influence on daily stock prices. The finding of positive news effect in the BOK data reveals asymmetry between positive and negative news on consumer sentiment.

The empirical evidence reveals some important information on the relationship between consumer sentiment and stock prices in Korea, but several findings in this paper need to be clarified from further studies. The wealth effect of stock returns is significant in Korea, but not in some other countries. The news about the CSI publication appears to be significant in determining the daily stock returns for the case of the BOK, but not for the case of the KNSO. Even for the BOK publications, daily stock returns are influenced by positive news on CSI, but not by negative news on CSI.

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