

The Impact of the Asian Crisis on Stock Market Liquidity: Evidence from the Malaysian Stock Exchange

Engku N. Engkuchik

College of Business Administration
Prince Sultan University
P.O. Box 66833, 11586 Riyadh
Kingdom of Saudi Arabia

Halil D. Kaya

521 Lancaster Avenue, BTC108
Eastern Kentucky University
Richmond, KY 40475
United States of America

Abstract

In this study, we examine the impact of the 1997 Asian Crisis on the liquidity levels in the Malaysian stock market. We find that the level of liquidity went up and the stock prices went down in the Malaysian stock exchange after the Asian Crisis started. We argue that the forced trading by the investors to quickly exit the stock market and avoid further losses had caused higher turnover rates (i.e. higher liquidity levels) and lower stock prices in this market. Our results also show that the variation in the liquidity levels went down after the crisis. These findings imply that while the sellers dominated the market after the crisis, the volume of trading did not fluctuate as much as the Pre-Crisis Period.

Keywords: market liquidity; turnover ratio; stock returns; Asian crisis

1. Introduction

The previous research shows that financial crises have a significant impact on market liquidity (see Amihud et al., 1990; and Wong and Fung, 2001). More specifically, these studies show that financial crises have a negative impact on the liquidity of global equity markets. At the same time, the relationship between asset prices and liquidity has been well established in the literature (see Fouse, 1977; Amihud and Mendelson, 1986; Brennan et al., 1998; Chordia et al., 2001; Datar et al., 1998; and Jun et al., 2003). Especially in the developed markets, there is a negative and significant relation between market liquidity and stock returns.

Given these two proven relationships, we contend that financial crises are very important to equity markets due to their huge impact on market liquidity. In this study, we contribute to the literature by focusing on the 1997 Asian Crisis and examining the impact of this crisis on an emerging stock market, i.e. the Malaysian stock exchange. While we focus on the impact of the crisis on market liquidity, we also examine the impact of the crisis on firm size, book-to-market equity ratio, and stock returns.

We use two widely used liquidity proxies, i.e. turnover ratio and turnover-volatility ratio in our analysis. The turnover ratio is the natural log of the ratio of the monthly trading volume to market capitalization of each stock at the end of the month, and it is associated with the depth dimension of liquidity, i.e. the volume of trades possible without moving the prevailing market prices. This measure has been proposed by Datar et al. (1998), and later used in Bekaert et al. (2003), Chan and Faff (2003), Chordia et al. (2001), Jun et al. (2003), and Rouwenhorst (1999). The turnover-volatility ratio, on the other hand, is essentially a volatility-adjusted measure of the turnover ratio. It is calculated as turnover ratio divided by the standard deviation of past stock market returns (interday volatility).

First, we examine the impact of the crisis on firms listed on the Malaysian stock exchange. We do observe some negative impact on the number of listed firms after the crisis. In general, there was a gradual increase in the number of listed firms before the crisis. However, at least for the first few years after the crisis, the number of new listings each year is smaller than before the crisis.

Then, we compare the market liquidity measures during the Pre-Crisis Period versus the Post-Crisis Period. Our nonparametric tests show that while the liquidity levels (i.e. the turnover ratio) went up after the crisis, the volatility of liquidity (i.e. the turnover-volatility ratio) went down. We argue that, in order to avoid further losses, the sellers dominated the market just after the crisis, and that this caused the level of liquidity to go up. We also argue that the selling volume was relatively constant; therefore the volume of trading did not fluctuate as much as the Pre-Crisis Period.

We also compare the firm size, the book-to-market equity ratio, and the stock returns during the Pre-Crisis versus the Post-Crisis Period. Our nonparametric tests show that while the average firm size and the stock returns went down after the crisis, the average book-to-market equity ratio went up after the crisis. The paper proceeds as follows: Section 2 discusses the previous literature. Section 3 explains the hypotheses. Section 4 explains the data and the methodology. Section 5 shows the results, while section 6 concludes.

2. Literature Review

Previous studies show that financial crises have a significant impact on market liquidity (see Amihud et al. (1990) and Wong and Fung (2001)). Amihud et al. (1990) suggest that the prolonged decline in stock prices during the stock market crash of 1987 occurred because investors realize after the crash that the markets were not as liquid as previously assumed. They study S&P 500 stocks around the crash date using quoted bid-ask spreads for each stock, and find that the stocks that experience greater increase in bid-ask spreads also experience greater price declines during the crash. They also find that stocks with shrinking bid-ask spreads after the crash enjoy greater recovery than stocks that remain illiquid. Consistent with their conjecture, they document significantly wider bid-ask spreads after the crash, reflecting higher illiquidity and lower price levels. In a more recent paper, Wong and Fung (2001) examine the liquidity in the Hong Kong stock market during the pre- and post-Asian and Russian crises. They examine the five largest stocks in the Hong Kong stock market and find that the liquidity levels for these stocks have worsened during both crises.

While these studies link financial crises to market liquidity, other studies link liquidity to stock returns. Fouse (1977) is perhaps one of the first studies to examine this relation. Fouse (1977) suggests that risk premium and liquidity premium play pivotal roles in explaining variations in expected stock returns. Later, Amihud and Mendelson (1986) test the hypothesis that the observed expected return is an increasing and concave function of the measure for liquidity costs, i.e. the bid-ask spread. They show that the slope of the relation between illiquidity and expected return decreases with bid-ask spreads, even after controlling for the size effect.

More recently, Brennan et al. (1998), Chordia et al. (2001), and Datar et al. (1998) examine the relation between average returns and liquidity in the U.S. stock market, using the cross-sectional framework. Datar et al. (1998) use the turnover ratio, as measured by trading volume divided by market value of outstanding stocks, as an alternative measure of liquidity in the stock market. Their motivation for using this proxy stems from the difficulty in obtaining bid-ask spread data on a monthly basis over a long period of time. Confirming earlier findings, they provide evidence of a negative relation between liquidity and stock returns. They find this effect to persist after controlling for other well-known determinants of stock returns such as firm size, book-to-market ratio, beta, and January months.

Brennan et al. (1998) investigate the relation between expected returns, risk factors, various security characteristics (book-to-market ratio, size, stock price level, dividend yield, momentum), and market liquidity, as measured by dollar trading volume. They study both the NYSE and Nasdaq stocks and find that in addition to size, book-to-market, and momentum, trading volume significantly explains cross-sectional returns. They provide another support for the notion that trading volume can be used as a proxy for liquidity of the firm's stocks, and that it is actually related to stock returns.

Chordia et al. (2001) extend Brennan et al. (1998) study by investigating the effects of variability of turnover ratio on the expected stock returns from 1966-1995, using two proxies for liquidity, i.e. the dollar trading volume and the share turnover. They confirm previous findings regarding the negative relation between liquidity and expected returns. When they examine the relation between the variability of liquidity and stock returns, they find a negative and significant relation. Interestingly, they consistently find that the variability in liquidity has a more significant effect on stock returns than has the average level of liquidity. Their results hold even after controlling for firm size, book-to-market equity ratio, momentum, dividend yields, price level, and non-linearity.

Jun et al. (2003), on the other hand, focus on the emerging markets and investigate the time-series variation and the cross-sectional behavior of aggregate liquidity across 27 emerging markets. One of their objectives is to examine whether liquidity is a priced factor in the global equity markets. They find that the stock returns in emerging markets are positively correlated to market liquidity. This positive relation between liquidity and stock returns contradicts the previous findings in the developed markets. Jun et al. (2003) argue that if the emerging markets are not fully integrated with the global economy, lack of liquidity will not function as a risk factor. However, they also note that liquidity for an individual security may not equal liquidity for the overall market. So, their use of aggregate liquidity rather than the individual liquidities may have driven their results.

Given the significant relation between the financial crises and liquidity, and between liquidity and stock returns, we contend that financial crises should be very important to the equity investors (because of their huge impact on liquidity). This study examines the impact of one of the biggest financial crises in recent history, the 1997 Asian Crisis, on an important emerging stock market in the Pacific-Rim, i.e. the Malaysian stock exchange.

3. Hypotheses

Since we expect to see a negative impact on market liquidity, our first hypothesis can be stated as:

H₁: The turnover ratio is lower after the crisis compared to the pre-crisis period.

As discussed in the previous sections, the financial crisis generally have a negative impact on stock prices. Therefore, we expect the returns and the average firm size to be lower after the crisis (since we measure firm size as market value of equity). The hypotheses of interest are:

H₂: The stock returns are lower after the crisis compared to the pre-crisis period.

H₃: The average firm size is smaller after the crisis compared to the pre-crisis period.

On the other hand, since equity values generally go down after the crises, we expect the average book-to-market equity ratio to go up after the Asian Crisis. Therefore, our final hypothesis can be stated as:

H₄: The average book-to-market equity ratio is higher after the crisis compared to the pre-crisis period.

4. Data and Methodology

We obtain our data from Thomson Financial's Datastream database. We employ monthly data on stocks listed on the Malaysian stock exchange from January 1994 to December 2003. These stocks mostly comprise firms listed on the Main and the Second boards (we exclude financial firms, utility firms, and foreign stocks). Typically, smaller firms are listed on the Second board on KLSE, and may move to the Main board when they satisfy the standards set by the exchange.

There are 945 Malaysian stocks covered by Datastream. However, the number of companies which meet the criteria and with the required data ranges from over 200 in 1996 to 557 in 2003. For each firm in our sample, we calculate the following variables each month:

Return (lgRET) – the natural log of the returns of individual stocks.

Size (MV) – the natural log of market capitalization of the stock at the end of the month,

Book-to-market equity (BME) – the natural log of the ratio of the book value of equity at the end of fiscal year t (December 31) to the market value of equity at the end of months after March year $t+1$, as December 31 is generally the end of the financial year for Malaysian firms,

Turnover ratio (TR) – the natural log of the ratio of the monthly trading volume to market capitalization at the end of the month, and,

Turnover-volatility ratio (TV) – the turnover ratio divided by the standard deviation of stock market returns (interday volatility) calculated over the past 24 months.

We also use three other variables to measure stock returns over different time periods. These three variables are the momentum variables that are used in the previous studies. With these variables, we want to see if the momentum in the stock returns has changed after the crisis:

Momentum 2-3 (MOM2) – the cumulative return over the two month period ending at the beginning of the preceding month, (i.e. the cumulative return over the preceding 2nd and 3rd months),

Momentum 4-6 (MOM4) – the cumulative return over the three month period ending three months before the measurement month, (i.e. the cumulative return over the preceding 4th, 5th, and 6th months),

Momentum 7-12 (MOM7) – the cumulative return over the six month period ending six months before the measurement month, (i.e. the cumulative return over the preceding 7th, 8th, 9th, 10th, 11th, and 12th months),

The stock return variable, lnRET, is calculated as follows:

$$\lg RET = \ln \left[\frac{(P_{it} + D_{it})}{P_{it-1}} \right] \tag{1}$$

Where P_{it} is the end-of-month stock price, and D_{it} is the monthly dividend reported in Datastream.

We use the Kolmogorov-Smirnov test to see if the variables have normal distribution. Since the distributions are non-normal, we use a nonparametric test, the Rank test, to compare the values of the variables during the Pre-Crisis and the Post-Crisis Periods. Since the crisis started in July 1997, the period from January 1994 to July 1997 is used as the Pre-Crisis period, and the period from July 1997 to December 2003 is taken as the Post-Crisis Period.

5. Empirical Results

Table I shows the number of firms listed on the Malaysian stock exchange from 1985 through 2003. As we can see in the table, the number of firms listed had gradually increased during this period, especially before the crisis. However, the data shows that the 1997 Crisis did have an impact on this trend. Specifically, the number of new companies listed on the exchange increased by a much smaller number (lower percentage change) for at least four years (1998 – 2001) post-crisis. While the annual percentage increase in the number of listed firms during the 1990-1997 period was above 10% each year, during the 1997-2003 period, it was between 2% and 7%. For example, while from 1996 to 1997, the number of listed firms went up from 621 to 708, the increase from 1997 to 1998 was much smaller: from 708 firms to 736 firms.

Table II shows the time-series averages of the liquidity level (i.e. the turnover ratio, TR), the variation in liquidity level (i.e. the turnover-volatility ratio, TV), the firm size (i.e. SIZE), the book-to-market equity ratio (i.e. BME), and the stock return variables (i.e. lgRET, MOM2, MOM4, and MOM7) across all firms in the Pre-Crisis and Post-Crisis Periods. Panel A shows the results for the Pre-Crisis Period, while Panel B shows the results for the Post-Crisis Period.

As indicated in Panels A and B, the results are consistent with our predictions. The average values are lower for firm size (SIZE, or market capitalization), higher for book-to-market equity (BME), and lower for all four return variables (lgRET, MOM2, MOM4, and MOM7) during the Post-Crisis Period compared to the Pre-Crisis Period. The mean value of lgRet is 0.0093 during the Pre-crisis period, while the same measure is -0.0123 during the Post-crisis period. The mean values of Size and BME are 6.0845 and 5.5413 during the Pre-crisis period, while the same measures are 4.9388 and 6.8482 during the Post-crisis period. We also see that, our other return variables (i.e. MOM2, MOM4, and MOM7) are much lower during the Post-crisis period when compared to the Pre-crisis period. When we look at the median values, again we see the same results.

When we compare the turnover ratio (i.e. TR) before and after the crisis, we can see that this measure goes up after the crisis. While the mean value of the turnover ratio is 1.7743 during the Pre-crisis period, it is 1.8598 during the Post-crisis period. So, there is an increase in the turnover ratio (i.e. liquidity) after the crisis.

On the other hand, when we compare the turnover-volatility ratio (i.e. TV) before and after the crisis, we see that this measure goes down after the crisis. While the mean value of the turnover-volatility ratio is 12.1342 during the Pre-crisis period, it is 10.8521 during the Post-crisis period. So, there is a decrease in the turnover-volatility ratio (i.e. variation in the liquidity level) after the crisis.

With regard to our liquidity proxy, the turnover ratio (TR), we find that liquidity actually went up after the crisis. This is a rather surprising finding, but it supports the argument that forced trading by investors to quickly exit the stock market (and avoid further losses) after a financial crisis causes high turnover ratios. In terms of the variation in liquidity (TV, or the turnover-volatility ratio), the table shows a reduction after the crisis. In other words, while the level of liquidity went up, the variation in the level of liquidity went down after the crisis. These two findings imply that while the sellers dominated the market after the crisis, the volume of trading did not fluctuate as much as the Pre-Crisis Period.

The results of our Kolmogorov-Smirnov normality tests are shown in the last column of both panels. These tests show that all of the variables have non-normal distributions during both the Pre-Crisis and the Post-Crisis Periods. All of the results are significant at the 1% level.

Table III shows the Pearson's correlation matrix for our variables. As can be seen from the table, none of the pairwise correlations is high. We have also looked at the VIF's and find low values.

Investigating further, we perform rank tests to see whether the level of each variable is significantly different during the Post-Crisis Period compared to the Pre-Crisis Period. We are mostly interested in the differences of our market liquidity proxies, i.e. the turnover ratio and the turnover-volatility ratio, but we also run comparison tests for SIZE, BME, and the four return variables. Table IV reports the results of these comparisons. The rank tests show that the average firm size and the stock returns are significantly lower, and the book-to-market equity ratio is significantly higher during the Post-Crisis Period compared to the Pre-Crisis Period. The differences are significant at the 1% level.

Table IV also shows that the level of liquidity (TR) is significantly higher (at 1% level) and the variation in liquidity (TV) is significantly lower (at 1% level) during the Post-Crisis Period compared to the Pre-Crisis Period. Overall, the official tests in Table IV confirm that the differences that are shown in Table II are all statistically significant at the 1% level.

6. Conclusion

This study investigates the impact of the 1997 Asian Crisis on the liquidity levels as well as the variation in the liquidity levels in an emerging stock market, i.e. the Malaysian stock exchange. We use the turnover ratio and turnover-volatility ratio as proxies for the level of liquidity and the variation in the liquidity level for each stock. Our results show that while the liquidity levels went up after the Asian Crisis, the volatility of liquidity went down. We argue that, in order to avoid further losses, the sellers dominated the market just after the crisis, and that this caused the level of liquidity to go up. We also argue that the selling volume was relatively constant; therefore the volume of trading did not fluctuate as much as the Pre-Crisis Period. There is one caveat in our study, i.e. our measure of liquidity, the turnover ratio, is a widely used measure, but it looks at the total monthly trading volume. It does not differentiate between the selling volume and the buying volume. Therefore, an increase in the liquidity level (when this turnover measure is used) does not necessarily mean a positive event. If the sellers are dominating the market and driving up the liquidity, then it is a negative event in the stock market. We recommend future studies to examine the selling and the buying volumes separately.

References

- Amihud, Y., & Mendelson, H. (1986). Asset pricing and the bid-ask spread. *Journal of Financial Economics*, 17, 223-249.
- Amihud, Y., Mendelson, H., & Woods, R.A. (1990). Liquidity and the 1987 stock market crash. *Journal of Portfolio Management*, 16(3), 65-69.
- Bekaert, G., Harvey, C.R., & Lundblad, C. (2003). Liquidity and expected returns: Lessons from emerging markets. Working paper, Duke University.
- Brennan, M.J., Chordia, T., & Subrahmanyam, A. (1998). Alternative factor specifications, security characteristics and the cross-section of expected stock returns. *Journal of Financial Economics*, 49, 345-373.
- Chan, H.W., & Faff, R.W. (2003). An investigation into the role of liquidity in asset pricing: Australian evidence. *Pacific-Basin Finance Journal*, 11(5), 555-573.
- Chordia, T., Subrahmanyam, A., & Anshuman, V.R. (2001). Trading activity and expected stock return. *Journal of Financial Economics*, 59, 3-32.
- Datar, V., Naik, N., & Radcliffe, R. (1998). Liquidity and asset returns: An alternative test. *Journal of Financial Markets*, 1(2), 203-219.
- Fouse, W.L. (1977). Risk and liquidity revisited. *Financial Analysts Journal*, 33(1), 40-45.
- Jun, S., Marathe, A., & Shawky, H.A. (2003). Liquidity and stock returns in emerging equity markets. *Emerging Markets Review*, 4(1), 1-24.
- Rouwenhorst, K.G. (1999). Local return factors and turnover in emerging stock markets. *Journal of Finance*, 54(4), 1439-1464.
- Wong, J., & Fung, L. (2001). Liquidity of the Hong Kong stock market since the Asian financial crisis. Working paper, Hong Kong Monetary Authority.

Table I: The Number of Listed Companies on the Malaysian Stock Market (i.e. “Bursa Malaysia”) from 1985 through 2003

YEAR	MAIN BOARD	SECOND BOARD	MESDAQ	TOTAL	NEW LISTINGS	% CHANGE
2003	598	276	32	906	38	4.38%
2002	562	294	12	868	56	6.90%
2001	520	292	-	812	17	2.14%
2000	498	297	-	795	38	5.02%
1999	474	283	-	757	21	2.85%
1998	454	282	-	736	28	3.95%
1997	444	264	-	708	87	14.01%
1996	413	208	-	621	92	17.39%
1995	369	160	-	529	51	10.67%
1994	347	131	-	478	65	15.74%
1993	329	84	-	413	44	11.92%
1992	317	52	-	369	45	13.89%
1991	292	32	-	324	39	13.68%
1990	271	14	-	285	-22	-7.17%
1989	305	2	-	307	12	4.07%
1988	295	-	-	295	4	1.37%
1987	291	-	-	291	3	1.04%
1986	288	-	-	288	4	1.41%
1985	284	-	-	284	-	-

Table II: The Level of Liquidity and the Variation of Liquidity in the Malaysian Stock Market, Pre- and Post-Asian Financial Crisis

This table provides the time-series averages of all stocks in the periods before and after the beginning of the Asian (Thai baht) crisis. The pre- and post-Asian financial crisis periods refer to the periods before and after the outbreak of the Thai baht crisis in early July 1997. $lgRET$ is the natural log of the returns of individual stocks. $SIZE$ is the natural log of the end-of-month market capitalization of each stock. BME is the natural log of the ratio of the book value of equity at the end of fiscal year t to the market value of equity at the end of months after March year $t+1$. $MOM2$ is the cumulative return over the two month period ending at the beginning of the preceding month; $MOM4$ is the cumulative return over the three month period ending three months before the measurement month; and $MOM7$ is the cumulative return over the six month period ending six months before the measurement month. TR is the natural log of the ratio of the number of shares traded during a month to market capitalization at the end of the month. TV is the turnover ratio divided by the standard deviation of stock market returns over the past 24 months. The normality test results reported are for the Kolmogorov-Smirnov test. ***, **, and * denote significance at 1 percent, 5 percent, and 10 percent levels, respectively.

Panel A: Pre-Asian Financial Crisis							
Variable	N	Mean	Median	Std. Dev.	Skewness	Kurtosis	Normality Test
lgRET	12,733	0.0093	0	0.1327	1.1598	6.7771	.0814***
SIZE	12,743	6.0845	5.9022	1.1505	0.6612	0.3308	.0994***
BME	3,249	5.5413	5.6314	0.8049	-0.8406	1.2686	.0721***
MOM2	12,613	0.0239	0.0085	0.1909	1.0804	4.7945	.0887***
MOM4	11,593	0.0412	0.0148	0.2345	1.0616	4.2000	.1003***
MOM7	9,368	0.0906	0.0530	0.2969	0.9674	2.6015	.0904***
TR	12,668	1.7743	1.7949	1.7934	-0.2814	0.3550	.0220***
TV	10,496	12.1342	12.7722	15.4144	-0.7455	3.5031	.0756***

Panel B: Post-Asian Financial Crisis							
Variable	N	Mean	Median	Std. Dev.	Skewness	Kurtosis	Normality Test
lgRET	40,422	-0.0123	-0.0099	0.1939	-0.0754	13.2401	.1017***
SIZE	40,419	4.9388	4.6852	1.3496	0.8107	0.8475	.0791***
BME	28,457	6.8482	6.9240	0.8301	-0.9430	4.7773	.0564***
MOM2	40,336	-0.0269	-0.0253	0.2832	-0.3158	7.0882	.0764***
MOM4	40,117	-0.0467	-0.0432	0.3531	-0.2525	5.3868	.0745***
MOM7	39,198	-0.1052	-0.0606	0.4839	-0.6581	3.0438	.0716***
TR	39,969	1.8598	1.8140	1.7984	-0.0869	0.4879	.0137***
TV	36,106	10.8521	10.3434	13.9893	0.4463	13.2651	.0750***

Table III: The Pearson Correlation Coefficients

This table provides the cross-correlation matrix for the variables used in the analysis. The whole sample period is from March 1996 to December 2003. *RET* denotes the excess monthly stock returns, i.e. the raw return less the risk-free return. *SIZE* represents the natural log of the market capitalization of firms. *BME* is the natural log of the ratio of the book value of equity to market capitalization. *MOM2* is the cumulative return over the two month period ending at the beginning of the preceding month; *MOM4* is the cumulative return over the three month period ending three months before the measurement month; and *MOM7* is the cumulative return over the six month period ending six months before the measurement month. *TR* is the ratio of the number of shares traded to market capitalization, while *TV* refers to the turnover ratio divided by the standard deviation of stock returns over the past 24 months.

	RET	SIZE	BME	MOM2	MOM4	MOM7	lgTR	TV
RET	1.0000							
SIZE	0.0689	1.0000						
BME	-0.0589	-0.3566	1.0000					
MOM2	-0.0183	0.1177	-0.1320	1.0000				
MOM4	0.0019	0.1351	-0.1614	-0.0301	1.0000			
MOM7	-0.0023	0.2465	-0.2967	0.1097	0.0101	1.0000		
TR	0.0921	-0.1945	0.1309	0.0447	-0.0631	-0.1002	1.0000	
TV	0.0890	-0.0976	0.1116	0.0487	-0.0147	-0.0514	0.8222	1.0000

Table IV: The Results of the “Rank Test” that compares the Pre- and Post-Asian Financial Crisis Periods

This table presents the rank (non-parametric) test results of all variables across the Asian financial crisis shock. *lgRET* is the natural log of the returns of individual stocks. *SIZE* is the natural log of the end-of-month market capitalization of each stock. *BME* is the natural log of the ratio of the book value of equity at the end of fiscal year t to the market value of equity at the end of months after March year $t+1$. *MOM2* is the cumulative return over the two month period ending at the beginning of the preceding month; *MOM4* is the cumulative return over the three month period ending three months before the measurement month; and *MOM7* is the cumulative return over the six month period ending six months before the measurement month. *TR* is the natural log of the ratio of the number of shares traded during a month to market capitalization at the end of the month. *TV* is the turnover ratio divided by the standard deviation of stock market returns over the past 24 months. Asian financial crisis refers to the periods before and after July 1997.

Model	Z-stat	Lower-tailed p-value	Upper-tailed p-value
lgRET	12.8735		0.0000
SIZE	88.4823		0.0000
BME	-73.2064	0.0000	
MOM2	20.9730		0.0000
MOM4	28.4982		0.0000
MOM7	38.1179		0.0000
TR	-2.9591	0.0015	
TV	14.5418		0.0000