

THE SAUDI CAPITAL MARKET: THE CRASH OF 2006 AND LESSONS TO BE LEARNED

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ABSTRACT

Saudi Arabia's stock market crash of 2006 was a defining moment in the economic, and political, life of the Kingdom. In many ways, economic growth during the 1980s and 1990s exceeded the government's ability to control it, resulting in a very inefficient capital market. The damage was so widespread— from large multinational corporations to retirees and workers – that, it seemed, the Kingdom might not be able to recover. Yet the real question is not who was to blame for the capital market's sudden, unexpected, and sharp downturn. There is more than enough blame to go around, from the government to the media to the investors themselves. Instead, this paper focuses on the remedial events that have taken place since the crash, and how they affect the Kingdom's future. The government's response to the crisis, especially in the early stages, was mostly inadequate, as inexperienced agencies sought to cope with the tragedy. However, in the decade since the crash, the capital market has moved towards fairness and transparency, which should mean that the economy will be much less traumatized by future incidents.

Key words: Saudi Stock Market, Market Crash of 2006, Market Efficiency, Transparency, Insider Trading, Manipulation, Saudi Capital Market Authority.

I. Overview¹

The Saudi capital market had not experienced a major crash until 2006. Beginning in 2003, the capital market suddenly expanded significantly, and the Tadawul All Share Index ("TASI") closed at 4437.6 points at the end of the year, compared with a 2518.1 close at the end of 2002. As a Saudi Arabian Monetary Agency ("SAMA") annual report indicated, the growth and expansion in the capital market was caused by the growth of the domestic economy, enhanced confidence in the market, high earnings of many companies, the declining rate of return on deposits, and a large number of new market investors.² At the end of 2004, the TASI increased 84% to 8,206.23 points.³ At the end of 2005, the TASI closed at 16,712.64 points, rising by 103.7%.⁴

Behind the numbers, the market capitalization of issued shares increased rapidly from US\$75 billion in 2002⁵ to US\$157 billion in 2003,⁶ and again from US\$306 billion in 2004⁷ to US\$650 billion by the end of 2005.⁸ Eventually, the TASI registered the highest point in its history, 20,634.86, on February 25, 2006.⁹

The main reason for the dramatic and sustained rise was the large increase in demand due to a large number of additional investors in the stock market, either directly or through banks with various types of portfolios.¹⁰ At one point, more than half of Saudi adults invested money in the capital market. Unfortunately, many of these people borrowed money or liquidated their assets to finance stock purchases.¹¹

According to SAMA annual reports, the gross loan balance among individuals in 2002 was SAR 50.5 billion- US\$13.4 billion,¹² and only three years later, the outstanding balance increased sharply to over SAR180 billion- US\$48 billion.¹³ Consumer lending patterns changed dramatically as well. In 2002, most of these loans were granted for real estate, durable goods and equipment,

¹ Note: this article is part of the author's S.J.D. dissertation at Dedman School of Law, Southern Methodist University.

² Saudi Arabian Monetary Agency, (2004). *40th Annual Report*, p. 140-41.

³ Saudi Arabian Monetary Agency, (2005). *41st Annual Report*, p. 137.

⁴ Saudi Arabian Monetary Agency, (2006). *42nd Annual Report*, p. 105.

⁵ Saudi Arabian Monetary Agency, (2003). *39th Annual Report*, p. 146.

⁶ Saudi Arabian Monetary Agency, *40th Annual Report* at 141.

⁷ Saudi Arabian Monetary Agency, *41st Annual Report* at 138.

⁸ Saudi Arabian Monetary Agency, *42nd Annual Report* at 106.

⁹ Saudi Stock Exchange "Tadawul", (2006). *The 2006 Annual Report*, p. 3.

¹⁰ Al-Twajjry, Abdulrahman A. (2007). *Saudi Stock Market Historical View and Crisis Effect: Graphical and Statistical Analysis*, J. Human Sciences, 34, 1, 8.

¹¹ Niblock, Tim & Malik, Monica, (2007). *The Political Economy of Saudi Arabia*, p. 218, London: Routledge.

¹² Saudi Arabian Monetary Agency, *39th Annual Report* at 108.

¹³ Saudi Arabian Monetary Agency, *42nd Annual Report* at 69.

and lines of credit. Also, there is a classification for “Other Purposes,” which amounted to a mere SAR 29.5 billion-US\$ 7.8 billion in 2002.¹⁴ However, in 2005, “Other Purposes” loans exceeded SAR137 billion- US\$36 billion out of a total US\$ 180 billion. In other words, more than three quarters of consumer loans in 2005 were for something other than real estate, durable goods or lines of credit.¹⁵ It seems apparent that many people saw an opportunity to invest in the capital market at a time when the market showed evidence of extremely high growth. To many, it was worth the additional risk of investing money that they did not have.

According to a Saudi expert, other factors were at work as well. After 9/11, a large amount of capital returned to the Kingdom from abroad, due to investor fears of overseas instability. Since there were no effective investment alternatives at the time, much of that money went directly into the stock market. Trading shares was largely unsupervised, banks provided both easy credit and physical facilities for investors, and there was a considerable amount of legal and illegal speculation in the shares of some companies. Ultimately, after a series of decisions by the Capital Market Authority (“CMA”), most notably one that the daily stock price fluctuation limit of listed companies decreased to 5%,¹⁶ the bubble burst in February 2006.¹⁷

The TASI started to fall dramatically at the end of February 2006 and quickly lost about 13000 points. Within the first three weeks after November 25, 2006, TASI fell from 20,634.86 to 15000 points, decreasing 25%. The TASI then appeared to stabilize, hovering above 15000 for several weeks. But the TASI then fell for the second time to reach almost 10000 points within less than a month. The total lost of the TASI during these two and a half months was 50%.¹⁸ By the end of 2006, TASI had bottomed out at 7,933.29 points, decreasing 52.53% from the previous year.¹⁹ Ultimately, TASI lost about 65% of its value during 2006 from its highest level, 20,634.86 points.²⁰ Moreover, the market capitalization dropped to US\$326.9 billion by the end of 2006, falling 49.72% from 2005.²¹

During this period, over four million Saudis had invested money in the stock market.²² Many of these investors were rather unsophisticated and inexperienced. Moreover, a number were widows, retired persons and other lower-income people who liquidated their savings and other assets, unrealistically expecting big returns. These persons could ill afford to lose significant sums of money in the stock market, and their losses had repercussions throughout the economy.²³ To make matters worse, instead of making investment decisions based on a company’s performance, the overall economic outlook, and other related factors, these people based decisions on advice from family and friends, public announcements, and prior pricing patterns.²⁴

Unrealistic expectations may have fueled investment, but certain aspects of the market itself also contributed to the stock market bubble of 2004 and 2005. Prices rose artificially, because certain wealthy investors essentially bought and sold stock among themselves, thus creating the illusion of high margins and fervent trading activity. There were noneconomic factors as well which contributed to spiraling prices. Inside information was certainly an issue in some cases, and in other cases, the rumored profits simply did not exist. Smaller investors took note of these trends and, after assuming that the upward spiral would continue, purchased shares at already inflated prices. Too many times, instead of providing sound financial advice, banks acted as enablers by granting credit to overextended borrowers.²⁵

The crash hit working families the hardest. Many people lost their jobs and/or sought psychiatric help, while others resorted to begging or were incarcerated because of a failure to pay debts, since they had essentially lost their entire life savings.²⁶ As the crash was completely unprecedented, some investors had a difficult time coping with the new economic reality. Many became physically ill, even to the point of death in some cases.²⁷ All told, the country lost a significant portion – SAR 2 trillion - US\$533 billion – of its overall wealth.²⁸

The crash’s impact spilled over into other Gulf Cooperation Council (“GCC”) countries. Investors in these nations began to

¹⁴ Saudi Arabian Monetary Agency, 39th Annual Report at 111.

¹⁵ Saudi Arabian Monetary Agency, 42nd Annual Report at 69.

¹⁶ Capital Market Authority, the Board of the Capital Market Authority Resolution Number 1-141-2006, dated 24/01/1427 H (Feb. 23, 2006). On March 27th, 2006, the Capital Market Authority issued a decision to return the daily stock price fluctuation limit of listed companies back to 10% starting April 1st, 2006, because the risks associated with market prices correction have decreased. Capital Market Authority, the Board of the Capital Market Authority Resolution Number 3-154-2006, dated 27/02/1427 H (Mar. 27, 2006).

¹⁷ Al-Ghamidi, Abdulsalam S. (2010). *The Fogginess of Saudi Stock Market Crash 2006 and the Effect of Firm’s Financial Performance*, The Arab J. Acct., 13, 86, 89.

¹⁸ Al-Twajjry at 9

¹⁹ Saudi Stock Exchange “Tadawul”, 2006 Annual Report at 15.

²⁰ Al-Twajjry at 26.

²¹ Saudi Stock Exchange “Tadawul”, 2006 Annual Report at 3.

²² Al-Nwaisir, Sami, (2012). *Saudi Stock Market Needs to Be Reformed*, Arab News,

<http://www.eurasiareview.com/11012012-saudi-stock-market-needs-to-be-reformed-oped/>

²³ Al-Nwaisir, *Saudi Stock Market Needs to Be Reformed*.

²⁴ Al-Twajjry at 18.

²⁵ Niblock at 218.

²⁶ *Id.*

²⁷ *Id.* at 2.

²⁸ Al-Nwaisir, *Saudi Stock Market Needs to Be Reformed*.

question the level of transparency and fairness in the market, and as a result, some chose to limit their investment activity in Saudi Arabia. There were policy considerations as well. Before the crash, most GCC states adhered to a policy of “popular capitalism” which relied on large initial public offerings of state-owned companies to serve as vehicles for investment. But in the wake of the crash, most GCC states abandoned that approach. The result has been a “polarisation [*sic*] between small-time stockholders and well-connected ‘big fish’ who manipulate local markets.” The investing landscape has yet to fully recover.²⁹

The crash was not bad news for everyone. The economic elite took full advantage of the artificially high prices by selling their shares just before the fall. Most of these people were from very wealthy Saudi families.³⁰ There were also a significant number of speculators in the market as the bubble grew. Since these investors cared little about the market’s long run share performance, they helped prop up prices and reaped high profits when they suddenly withdrew their money.³¹

The Saudi stock market might be seen differently from most other markets in the world during and after the 2006 crash. Because of the speculation and artificial spiral, a company’s performance had little, if anything, to do with share prices. In fact, some of the worst performing companies in 2005 and 2006 had some of the highest values on the capital market.³² At the same time, many large speculators bought and sold these shares as both individuals and groups, so the price went up even further based on trading volume. Because of the lack of oversight and penalties, some of these acts continued even after the 2006 crash.³³ The CMA finally intervened in 2007, by suspending trading in companies whose losses exceeded 75% of their capital.³⁴

There were other factors at work that artificially increased prices. First, domestic liquidity was still growing, so prices increased to an unreasonable level regardless of the listed companies’ financial statements. In effect, some companies were able to use their capital reserve to disguise their operating losses. Second, abusive practices occurred continually because the CMA feared possible negative consequences from any tough action that might be taken against manipulators in the market, possibly because the inexperienced CMA had only been formed in 2004. Regardless of the reason, the Agency’s hesitation encouraged violators to persist in their behavior and their illegal acts.³⁵ Many of these behaviors were evident as far back as 2000, but the speculation and counter-speculation continued almost unabated. At the same time, these speculators purchased as many inflated shares as possible, to maximize their return. Along with inexperienced investors who may have made questionable decisions, for whatever reason, the speculators essentially created the bubble.³⁶

Some other factors also contributed to the 2006 crash. One of them was the lack of transparency and disclosure by listed companies, banks, and some governmental agencies that were related to the stock market. Many listed companies failed to disclose their financial statements. These, and other, violations occurred continually with little, or no, response from the government. Such violations included insider trading, manipulating prices, and making false statements. Rumors steadily increased during 2005 and 2006, and there was no effective method to detect and punish violators, partially because some investors had power and relationships that allowed them access to material inside information. These investors used the inside information as individuals or groups to speculate in the market illegally. Furthermore, the large size of liquidity in the Saudi economy with few listed companies led to inflation in the market. Also, the selfishness, greed and the lack of responsibility in some Saudi banks led these banks to expand their lending policy, instead of restrict it, which flooded the capital market with liquidity.

The CMA’s lack of experience in dealing with the emerging market led the CMA to issue decisions, procedures, and statements without fully examining them. These actions by CMA made the capital market unstable, and many investors lost confidence in the market. The CMA could not identify the real issue at the time of the crash so the CMA used questionable procedures that worsened an already deteriorating situation. Finally, some government officials and analysts continued to issue statements until the end of 2005 encouraging citizens to invest in the market. These statements brought new investors to a market that was on the verge of collapse.³⁷

In a nutshell, the crash was caused by a confluence of factors that included weak investor knowledge as to the nuances of investment and securities, readily available financing from financial institutions which essentially encouraged these individuals to continue to invest money that they simply could not afford to lose, a tepid response to disclosure and insider trading violations which resulted in significant damage to market transparency, and a lack of leadership from government authorities who did not

²⁹ Hertog, Steffen, (2012). *Financial Markets in GCC Countries: Recent Crises and Structural Weaknesses*, (p. 8), NOREF Policy Brief, <https://www.ciaonet.org/attachments/22070/uploads>

³⁰ Niblock at 219.

³¹ Al-Twajjry at 21.

³² Alsultan, Abdulrahman Mohammed, (2006). *New Bubble is Forming in the Saudi Stock Market*, Al Eqtisadiyah Newspaper, http://www.aleqt.com/2006/07/03/article_5702.html

³³ *Id.*

³⁴ Masari, Abdulsabor Abdulkawi, (2012). *The Legal Regulation of the Corporate Governance*, (p. 150), Riyadh: Maktabt Alganon Oa Alagtsad.

³⁵ *Id.*

³⁶ Al-Aqeel, Mohammad & Spear, Nasser, (2006). *Private Information Trading in Emerging Markets: Evidence from GCC Security Markets*, paper presented at Ways to Develop Accounting Conference, 11th Meeting, (p. 3), Riyadh, 5-6 December.

³⁷ Aljuhani, Hamdi Hamzah, (2006). *The Stock Market Crisis in 2006 is a Warning and a Call for Reforming*, (pp. 178-181), Riyadh: Obekan Printing and Packaging.

have the experience to deal with the rapid uptick in trading volume.

To be fair, the unprecedented nature of the crash may have caught some officials off guard. The Kingdom had never experienced an economic crisis of this magnitude. Alas, large crashes are basically inevitable in a capital market. So, the real question is not so much what happened, but rather what will the government do to prevent, or at least contain, the next economic catastrophe?

II. The Government's Response

Based on Article IV of the International Monetary Fund's ("IMF") Articles of Agreement,³⁸ the agency concluded at the end of 2005 "authorities needed to be cautious in light of the continuing strong increase in stock prices." Nevertheless, IMF "commended the authorities for the steps already implemented, and encouraged them to further strengthen prudential oversight on stock market-related lending and on consumer lending."³⁹ After the IMF's conclusion, SAMA, Ministry of Commerce, CMA, and the Committee for the Resolution of Securities Disputes ("CRSD") were encouraged to take some measures to prevent the stock market crash.

Action began almost immediately. On January 1st, 2006, SAMA started to enforce the Regulation for Consumer Finance, which is applicable to financing contracts and all related guarantee agreements executed by banks and authorized institutions.⁴⁰ The next day, CMA published a CRSD decision regarding three defendants who violated Article Forty-Nine of the CMA and Article Three of the Market Conduct Regulations. The three defendants conducted manipulative and deceptive acts in eight listed companies in the Saudi stock market. CRSD imposed penalties on these three defendants totaling SAR 169 million - US\$ 45 million. This money went directly to the CMA. Additionally, CRSD barred these three defendants from working in the listed companies in the stock market or membership in a Board of Directors for three years.⁴¹

Next, on January 22, 2006, CMA changed Article Twenty-Five and Thirty of the Listing Rules.⁴² These changes aimed to impose greater transparency and disclosure about transactions made by big investors, members of boards of directors, and senior executives. The new articles also monitored any changes in their investments.⁴³

On January 23, 2006, CMA Board issued a resolution⁴⁴ that prohibited listed companies from buying or selling shares of other joint stock companies, unless their articles of incorporations allow them to do so and the transaction was not inconsistent with relevant regulations. Also, the resolution required joint stock companies whose investment did not comply with the resolution to correct their statuses within a period of three months from the date of the resolution and provide the CMA with their plans to correct their conditions within one month from the resolution.⁴⁵

Many Saudi experts welcomed the CMA's decision, even though it was late. The CMA found that many listed companies invested primarily in the stock market when their business types were in something else, which caused them to neglect their main course of investments. But, while it was intended to refocus investors, this decision would cause many of these listed companies to liquidate their stock portfolios, thereby decreasing the market prices. Moreover, CMA failed to coordinate with Minister of Commerce, which is responsible for businesses registrations and licensing, among other things. Some experts criticized the CMA's decision because it did not contain any sanctions for any companies that violated the decision.⁴⁶

³⁸ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members. A staff team visits the country, collects economic and financial information, and discusses the country's economic developments and policies with the proper officials. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

³⁹ International Monetary Fund, (2005). *IMF Executive Board Concludes 2005 Article IV Consultation with Saudi Arabia*, Public Information Notice No. 05/161.

⁴⁰ Saudi Arabian Monetary Agency, (2006). *The Regulation for Consumer Finance*, <http://www.sama.gov.sa/News/Pages/News14270214.aspx>

⁴¹ Capital Market Authority, (2006). *Announcement Regarding imposing penalties on three violators who violated the Capital Market Law Amount of Hundred and Sixty Nine Million Riyals and Ban them from working in Joint Stock Companies*, Capital Market Authority, http://www.cma.org.sa/Ar/News/Pages/CMA_N151.aspx

⁴² The Board of the Capital Market Authority Resolution Number 2-128-2006, dated 22/12/1426H (Jan. 22, 2006).

⁴³ Capital Market Authority, (2006). *The Decision of the Capital Market Authority Board No. 2-128-2006, Dated 12/22/1426 H Corresponding to 01/22/2006 AD*, http://www.cma.org.sa/Ar/News/Pages/CMA_N156.aspx

⁴⁴ The Board of the Capital Market Authority Resolution Number 5-126-2006, dated 23/12/1426H (Jan. 23, 2006).

⁴⁵ Capital Market Authority, (2006). *A Decision from the Capital Market Authority Board Regarding the Investment of Joint Stock Companies In the Share of Other Joint Stock Companies*, http://www.cma.org.sa/Ar/News/Pages/CMA_N157.aspx. Later on June 24, 2006, the CMA Board extended the correction period for joint stock companies for three more months, until October 23, 2006. Capital Market Authority, (2006). *CMA Board's Decision to extend the Period of Correction for Joint Stock Companies to Correct its Investments*, http://www.cma.org.sa/Ar/News/Pages/CMA_N235.aspx

⁴⁶ Albashari, Ali, (2006). *Experts: Regulating the Investment of Saudi Companies in the Stock Market Stimulates their Main Business Activities*, Alsharq Al-Awsat News, <http://awsat-a.com/details.asp?section=6&article=345409&issueno=9923#.VIDeR74kNUQ>

Tadawul announced on the 29th of January 2006 that after CMA approval, the tick size⁴⁷ would be changed from SAR 0.25 to SAR 1.00 starting on February 4th, 2006. As Tadawul mentioned, this change was due to the huge increase in many stocks prices in the market.⁴⁸

On February 14, 2006, the CMA board requested a department in the CMA to accelerate the investigative procedures in the activities of a number of traders in the capital market. This request came when the trading data showed abnormal increases in speculations by a number of traders over a period of only a few weeks. As the CMA's Board stated, these activities improperly influenced the prices of some listed companies because these companies did not disclose any information to justify these high price levels. These activities threatened to compromise the integrity of the capital market and harm investors, especially small investors. Thus, the Board ordered the specialized department to speed up the inquiry and investigation procedures to detect any manipulation or misleading transactions, and then take the necessary actions in accordance with the Capital Market Law ("CML").⁴⁹

On the same day it requested an accelerated investigation, the CMA's Board ordered Tadawul to immediately stop executing any buy orders for a certain trader who engaged in abusive practices. The CMA had evidence that this trader intentionally sold and bought stocks with huge amounts of money to create a false impression of the prices of some companies' stocks. The decision also included a lawsuit to be filed against this trader before the CRSD in accordance with the CML.⁵⁰ Similarly, on February 21, 2006, CMA made a similar request to Tadawul to stop a trader from buying stocks. Allegedly, the trader was engaging in abusive practices and circulating untrue statements of material facts and statements of opinions on the Internet for the purpose of influencing the price of a security. These acts are prohibited under Article Forty-Nine of the CML and Article Eight of Market Conduct Regulations.⁵¹ It is worth noting that the CMA only prevented these two traders from buying stocks, not selling them. Thus, these two big investors likely increased the market supply that caused the market prices to decrease.

On February 23, 2006, the Board of CMA made a decision⁵² to change the daily stock price fluctuation limit of listed companies in the Saudi capital market to 5% instead of 10%. This new policy started on February 25, 2006,⁵³ which was one day before the crash. Also on February 23, CMA requested Tadawul to not execute any buying orders for yet another trader due to abusive practices.⁵⁴ Again, CMA prevented this large investor only from buying stock, which would likely increase supply and reduce stocks prices. These actions were a surprise to many investors and served as a warning for the beginning of the market crash.⁵⁵

On February 26, 2006, the Saudi capital market started to fall from its highest point of 20,634.86.⁵⁶ The market continued to fall until it reached 7,933.29 points at the end of 2006, losing 52.53% comparing to the previous year.⁵⁷ In the first two days, the market lost over 1,500 points and most of the listed companies reached the maximum decline, which was 5%.⁵⁸ After the second day of the crash, the stock market sent a clear message to investors that a steep price decline was approaching fast.⁵⁹

On March 1st, 2006, CMA declared that Alhayat newspaper had published untrue statements on its front page stating that the CMA forgave speculators and detainees. The Board of the CMA also confirmed its intention to apply all the CML articles and its regulations on all violators. Moreover, the CMA declared its intention to take legal action against anyone who published or promoted untrue statements.⁶⁰

On March 11th, 2006, the Board of CMA made a decision⁶¹ to impose fines on two listed companies because these two

⁴⁷ The tick size is the minimum price movement of a stock.

⁴⁸ Saudi Stock Exchange "Tadawul", (2006). *Announcement Regarding Changing the Tick Size*, http://www.tadawul.com.sa/wps/portal!/ut/p/c0/04_SB8K8xLLM9MSSzPy8xBz9CP0os3g_A-ewIE8TIwN_D38LA09vV7NQP8cQQ3dnA_3gxCL9gmxHRQCtDLXm/?x=1&PRESS_REL_NO=601

⁴⁹ Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding the Acceleration of the Investigative Procedures in the Activities of a Number of Traders in the Capital Market*, http://www.cma.org.sa/Ar/News/Pages/CMA_N170.aspx

⁵⁰ Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for One Trader*, http://www.cma.org.sa/Ar/News/Pages/CMA_N171.aspx

⁵¹ Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for One Trader*, http://www.cma.org.sa/Ar/News/Pages/CMA_N178.aspx

⁵² The Board of the Capital Market Authority Resolution Number 1-141-2006, dated 24/1/1427H (Feb. 23, 2006).

⁵³ Capital Market Authority, (2006). *Capital Market Authority Announcement in Regarding to a Change in the Daily Stock Price Fluctuation Limit of Listed Companies from 10% to 5%*, http://www.cma.org.sa/Ar/News/Pages/CMA_N179.aspx

⁵⁴ Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for One Trader*, http://www.cma.org.sa/Ar/News/Pages/CMA_N180.aspx

⁵⁵ Aljuhani, *The Stock Market Crisis in 2006 is a Warning and a Call for Reforming* at 119.

⁵⁶ See Saudi Stock Exchange "Tadawul", *2006 Annual Report* at 13.

⁵⁷ *Id.*

⁵⁸ Aljuhani, *The Stock Market Crisis in 2006 is a Warning and a Call for Reforming* at 119.

⁵⁹ *Id.* at 120.

⁶⁰ Capital Market Authority, (2006). *Announcement Regarding What Alhayat Newspaper Has Published Today, Wednesday*, http://www.cma.org.sa/Ar/News/Pages/CMA_N184.aspx

⁶¹ The Board of the Capital Market Authority Resolution Number 1-148-2006, dated 11/2/1427H (Mar. 11, 2006).

companies failed to disclose their financial statements during the required period. The Board's decision was enforced immediately.⁶² It is worth noting that the CMA has started to impose fines against companies who failed to meet the deadlines for financial statements disclosures only on July 20, 2005.⁶³

The Supreme Economic Council held a meeting headed by King Abdullah in March 14, 2006 to discuss recent events in the Saudi stock market, specifically the sharply declining prices. The Council expressed its confidence in the strength of the Saudi economy and its ability to grow and flourish in various types of economic sectors, which, according to the Council, meant a suitable investment future. Furthermore, the Council also expressed its confidence in national companies, likening the investments in these companies to investments in the nation and for the future of its citizens. The Council encouraged the citizens to not follow rumors and misleading information but to make their investment decisions on a sound basis.⁶⁴

On March 15, 2006 according to King Abdullah's instructions, the Minister of Finance held a meeting with a group of Saudi private sector representatives to discuss the Saudi stock market situation. The Minister confirmed that what was currently happening in the capital market was not supported by national economic indicators. The Minister also restated what the Supreme Economic Council had earlier expressed: investments in the national economy and its companies are an investment in the nation and the future of its citizens. Far from discouraging additional investment, the Minister stressed that the government expected businesses to accelerate their investments for the good of the economy. Furthermore, the Minister revealed some of the Supreme Economic Council's recommendations from its meeting the previous day regarding supporting the stock market and allowing investors to take advantage of the available opportunities in the Saudi capital market. Some of these recommendations were to allow non-Saudi residents to invest directly in the stock market and not limited to investment funds, and to reduce the par value of stock that would allow splitting the stocks.⁶⁵

Less than a week from King Abdullah's instructions, the CMA announced on March 20, 2006 that non-Saudi residents could invest in the Saudi capital market, and they were no longer limited to investment funds. Non-Saudi residents could start investing in the market beginning on March 25, 2006.⁶⁶ A day later, the CMA also announced that the Minister of Commerce and the Head of the CMA had agreed to submit a proposal to the King to change the par value of the stocks in the listed companies in the market to SAR 10.⁶⁷ On March 23, 2006, CMA published the terms and requirements for opening investment portfolios for non-Saudi residents, allowing them to trade in the Saudi capital market.⁶⁸ However, even with these actions that were designed to prop up prices, the market index continued to decline, and many investors began to question the level of market transparency. The market at that time was characterized by unstable prices that seemed to rise and fall randomly without any interpretation or clue.⁶⁹

On March 27, 2006, CMA's Board issued a decision⁷⁰ to change the daily stock price fluctuation limit of listed companies in the capital market back to 10% instead of 5%. Moreover, the decision also changed the tick size back to SAR 0.25.⁷¹ The reason for these changes, as the CMA alleged, was because the risks that were associated with the market had been reduced.⁷² Moreover, the CMA made another decision⁷³ regarding the reduction of the par value of stock, which would allow splitting the stocks. The par value of a stock was reduced from SAR 50 to SAR 10 and the stocks of listed companies in the market were splitting to five

⁶² Capital Market Authority, (2006). *Announcement Regarding imposing fines against two companies for not disclosing financial statements during the required period*,

http://www.cma.org.sa/Ar/News/Pages/CMA_N187.aspx

⁶³ The Board of the Capital Market Authority Resolution Number 11-57-2005, dated 28/2/1426H (Apr. 7, 2005).

⁶⁴ Capital Market Authority, (2006). *Press Release about the Supreme Economic Council Meeting which held on Tuesday 3/14/2006*, http://www.cma.org.sa/Ar/News/Pages/CMA_N191.aspx

⁶⁵ Capital Market Authority, (2006). *Press Release About the Minister of Finance's Meeting with Private Sector Representatives*, http://www.cma.org.sa/Ar/News/Pages/CMA_N192.aspx

⁶⁶ Capital Market Authority, (2006). *Announcement Regarding Allowing Non-Saudis Residents to Invest Directly in the Saudi Stocks*, http://www.cma.org.sa/Ar/News/Pages/CMA_N193.aspx

⁶⁷ Capital Market Authority, (2006). *Announcement Regarding Reducing the Par Value of Stock Which Would Allow Splitting Listed Companies' Stocks*, http://www.cma.org.sa/Ar/News/Pages/CMA_N195.aspx

⁶⁸ Capital Market Authority, (2006). *The terms for Opening Investment Portfolios for Non-Saudi Residents for Trading*, http://www.cma.org.sa/Ar/News/Pages/CMA_N196.aspx

⁶⁹ Aljuhani, *The Stock Market Crisis in 2006 is a Warning and a Call for Reforming* at 120.

⁷⁰ The Board of the Capital Market Authority Resolution Number 3-154-2006, dated 27/2/1427H (Mar. 27, 2006).

⁷¹ The tick size was changed for the third time in September 13, 2008 to a new formula. The tick size is based on the share price, at three new bands. In band one, which is shares SAR 25.00 or below, the tick size would be SAR 0.05. In band two, which is shares SAR 25.10 to 50.00, the tick size would be SAR 0.10. In the last band, which is shares SAR 50.25 and above, the tick size would be SAR 0.25. Tadawul intended the new implementation to keep pace with the increasing growth in the Saudi Stock Market trading. Moreover, the new rule aimed to improve the quality and efficiency of share pricing, as well as boost liquidity and volume of share trading. For more details, see Saudi Stock Exchange "Tadawul", (2015). *Tick Size*,

<http://www.tadawul.com.sa/static/pages/en/TickSize/TickSize.html>; Alriyadh Newspaper, (2008). *Applying a New Tick Size for Stock Prices After a Week According to 3 Bands Which Are Congruence with Global Markets*, Alriyadh Newspaper, <http://www.alriyadh.com/371886>

⁷² Capital Market Authority, (2006). *Capital Market Authority Announcement in Regarding Increasing the Daily Stock Price Fluctuation Limit of Listed Companies from 5% to 10%*, http://www.cma.org.sa/Ar/News/Pages/CMA_N202.aspx

⁷³ The Board of the Capital Market Authority Resolution Number 4-154-2006, dated 27/2/1427H (Mar. 27, 2006).

shares in a gradual manner, based on the number of shareholders in these listed companies. Splitting the stocks started on April 1, 2006 and ended on the 22nd of the same month.⁷⁴

On April 9, 2006, the CMA's Board made a decision⁷⁵ that levied sanctions against two traders who violated Article Forty-Nine of the CML and Article Three of the Market Conduct Regulations. The decision ordered Tadawul to immediately stop executing any buy orders in the Saudi capital market for these two traders due to abusive practices. The CMA had evidence that these two traders intentionally sold and bought stocks with huge amounts of money in order to create a false impression of the prices of some companies stocks. The decision also included the intention to file a lawsuit against these two traders before CRSD in accordance with the CML.⁷⁶ Once again, CMA prevented these two big investors only from buying stocks, which was likely to increase market supply.

On May 12, 2006, King Abdullah issued a Royal Decree⁷⁷ to relieve the chairman of the CMA, Jammaz Al-Suhaimi, from his duties and appoint a new chairman for the CMA, Abdultahman Altuwaijri.⁷⁸ Many experts and investors were happy with the decision as they were looking for some positive reform in the capital market.⁷⁹

On the whole, the government, the media and the traders themselves share responsibility for the crash. Some decisions came late, or not at all. At the same time, the investing public was largely unaware of investing protocol and strategy. In fact, many leapt at the opportunity to make money without really knowing how to invest at all. Instead of sound financial advice, many Saudis made decisions based on informal recommendations and media reports. This same media indirectly encouraged continued speculation, even though prices were unreasonably high, because there was no real warning about an imminent collapse and many writers lacked financial or capital market expertise.⁸⁰

The 2006 crash brought about a major change in many peoples' attitudes about the government's ability to manage the economy. Some investors openly questioned the integrity of the system, and called for more intensive government supervision and intervention to better control market dynamics. Specifically, many were concerned that the market favored large investors at the expense of smaller ones, by giving these large investors access to information that resulted in an unfair advantage.⁸¹

Properly grounded investor confidence and equal access to information are two major keys to a successful capital market. The government may have performed a disservice by pumping up prices and confidence at a time when the market was clearly at a breaking point, and the media was unwilling, or unable, to question these government policies. So, instead of early and effective intervention that could have possibly contained the damage, problems festered and, in many cases, actually became worse.

We now move to the same question that many investors asked in the wake of the crash: is the Saudi capital market, as it is presently constituted, consistent with the Kingdom's overall economic goals?

III. Is The Saudi Capital Market Efficient?

Over the past several decades, a number of studies have been conducted to try and answer this question, and the majority of this research has concluded that the Saudi stock market is inefficient. The study authors cite various reasons for this deficiency, including high transaction costs, lack of information, inadequate infrastructure, lack of transparency, and several other factors.

A study by Butler and Malaikah tested the efficiency of Saudi Arabia and Kuwaiti stock markets over the period of 1985-1989. Along with volatile prices and a rather weak rate of return, the authors concluded that high transaction costs contributed mightily

⁷⁴ Capital Market Authority, (2006). *Announcement for CMA Regarding Splitting the Stocks of Listed Companies in the Market*, http://www.cma.org.sa/Ar/News/Pages/CMA_N203.aspx

⁷⁵ The Board of the Capital Market Authority Resolution Number 1-160-2006, dated 11/3/1427H (Apr. 9, 2006).

⁷⁶ Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for Two Traders*, http://www.cma.org.sa/Ar/News/Pages/CMA_N208.aspx

⁷⁷ Royal Decree No. A/41, dated 14/4/1427H (5/12/2006).

⁷⁸ Abdultahman Altuwaijri was also relieved from his duties in February 5, 2013. Mohammed Alsheikh appointed by a Royal decree to serve as chairman of the CMA. Royal Decree number A/92, dated 24/3/1434 H (Feb. 5, 2013). In January 2015, Mohammed Aljadaan was appointed as the chairman of the CMA by a Royal Decree number A/90, dated 9/4/1436 H (Jan. 29, 2015). Mr. Aljadaan has served until now as the chairman. Mr. Aljadaan has opened the Saudi stock market in the 15th of June, for the first time, to qualified foreign investors. The CMA issued in May 2015 rules that regulate qualified foreign investors, "Rules for Qualified Foreign Financial Institutions Investment in Listed Shares." Capital Market Authority, (2015). *CMA Announcement in Regard to the Rules for Qualified Foreign Financial Institutions' Investment in Listed Shares*, http://cma.org.sa/En/News/Pages/CMA_N_1742.aspx

⁷⁹ Alaqarara, Abdulaziz, (2006). *The Saudi Stock Market is Hugging Altuwaijri by the Green Color, and Investors Are Waiting the New President's Decisions*, Alriyadh Newspaper, <http://www.alriyadh.com/154289> ; Sharkawy, Hazem & Almoshkas, Munira, (2006). *Royal Decree: Relieve Al-Suhaimi from his Duties and Appointed Altuwaijri to Be the Head of the Capital Market Authority*, Aljazirah Newspaper, <http://www.al-jazirah.com/2006/20060513/ec1t.htm>

⁸⁰ Al-Twaijry at 28.

⁸¹ Al-Aqeel & Spear at 3.

to overall inefficiency. The two researchers also cited illiquidity, trading delays and market fragmentation, and the absence of official market makers.⁸²

A pair of studies examined the capital market's performance in the late 1980s to the mid 1990s. One study, conducted by Al-Razeen, examined the efficiency of the Saudi stock market by applying the weak-form test for the period of 1992-1995. The study result was that the Saudi stock market had a low level of efficiency.⁸³ Another study, from Khababa in 1998, examined the efficiency of the Saudi stock market for the period of 1985 to 1997.⁸⁴ The results strongly suggested inefficiency for the Saudi stock market in both informational and operational aspects.⁸⁵

Later, Alkholifey examined the informational efficiency of the Saudi stock market in 2000. This study concluded that the Saudi stock market was weak and informational inefficient.⁸⁶

The Saudi Chamber of Commerce in Riyadh conducted a survey in 2005 in order to examine both the Saudi capital market's efficiency and its role in supporting the Saudi economy.⁸⁷ The finding of the survey was that the market did not have the fundamental factors needed to be efficient. One of the major drawbacks was the difficulty to access information about the listed companies and shares. Many traders in the market had the ability to influence stock prices, and due to high costs for trading in the market, stock prices in the market moved in random paths and away from available information about listed companies, and many traders in the market did not have the same opportunities to gain profits. Moreover, a large class of traders and market makers could make higher profits than other traders in the market. Also, the number of listed companies, 77 at that time,⁸⁸ was inadequate.⁸⁹ Specifically, the result of the analysis was that the Saudi stock market had, at best, a medium level of efficiency, yet the level of efficiency was closer to the weak level than a strong level. Moreover, the survey pointed out that the Saudi stock market had, to that point, not played a fundamental role in the economy.⁹⁰

Elango and Hussein examined in 2008 the efficiency of the capital markets across the countries of the Gulf Cooperation Council (GCC)⁹¹ during the period of 2001-2006.⁹² The results of this study was that the hypothesis pertaining to random walk and weak-form efficiency of the seven capital markets in GCC countries was rejected for all these markets during the target period of this study.⁹³

Onour's study⁹⁴ used a number of tests in 2009 to examine the weak-form efficiency of the Saudi capital market.⁹⁵ The findings of the tests in the study rejected the hypothesis of random walk behavior of Saudi stock price returns at all three levels including individual, sectoral, and aggregate levels.⁹⁶ The study indicated that the major causes of the inefficiency of the Saudi capital

⁸² Butler, Kirt C. & Malaikah, S. Jamal, (1992). *Efficiency and Inefficiency in Thinly Traded Stock Markets: Kuwait and Saudi Arabia*, Journal of Banking & Finance, 16, 197, 209-10.

⁸³ Al-Razeen, Abdullah Mohamed, (1997). *The Weak-Form Efficiency of the Saudi Stock Market*, p. 233, PhD Thesis, Leicester: University of Leicester.

⁸⁴ Khababa, Nourredine, (1998). *Behavior of Stock Prices in the Saudi Arabian Financial Market: Empirical Research Findings*, J. Fin. Mgmt. & Analysis, 11, 48, 50. This study applied two tests to find evidence for weak form efficiency, namely Auto-correlation and Runs test.

⁸⁵ The study found several reasons behind the informational and operational inefficiency that were associated with the natural and structure of the Saudi stock market. First, the absence of official traders market and brokers in the market caused significant delays in operation and the associated high transaction costs. Second, the government and/or a few investors dominated share holding, leading to a thinness of trading that affected the behavior of price movement and price level in the market. The third reason was related to illiquidity in the market, because banks were not allowed to trade stocks for their own accounts. *Id.* at 54.

⁸⁶ Alkholifey, Ahmed, (2000). *The Saudi Arabian Stock Market: Efficient Market Hypothesis and Investors Behavior*, p. 105, PhD Thesis, Fort Collins: Colorado State University.

⁸⁷ Saudi Chamber of Commerce in Riyadh, (2005). *Explore to What Extend the Efficiency of the Local Stock Market and its Role in Supporting the National Economy*, p. 24, the 15th Annual Meeting of Saudi Economic Association, Riyadh, 13-15 November.

⁸⁸ Saudi Arabian Monetary Agency, *42nd Annual Report* at 115.

⁸⁹ Saudi Chamber of Commerce in Riyadh, (2005). *Explore to What Extend the Efficiency of the Local Stock Market and its Role in Supporting the National Economy* at 24.

⁹⁰ *Id.*

⁹¹ The six GCC countries have seven capital markets including: Saudi Stock Market-Tadawul (Saudi Arabia); Kuwait Stock Exchange (Kuwait); Doha Securities Market (Qatar); Dubai Financial Market (United Arab Emirates); Abu Dhabi Securities Market (United Arab Emirates); Bahrain Stock Exchange (Bahrain); and Muscat Securities Market (Oman).

⁹² Elango, Rengasamy & Hussein, Mohammed Ibrahim, (2008). *An Empirical Analysis on the Weak-Form Efficiency of the GCC Markets Applying Selected Statistical Tests*, Int'l Rev. Bus. Res. Papers, 4, 140, 146.

⁹³ Elango and Hussein's study analyzed the market efficiency of the GCC stock markets over the period between October 2001 and October 2006 based on the data available of these exchanges at the time of conducting this study. The study used the "Kolmogorov Smirnov test" and Runs test to examine the normality and randomness respectively. *Id.* at 152.

⁹⁴ Onour, Ibrahim A. (2009). *Testing Efficiency Performance of Saudi Stock Market*, JKAU: Econ. & Admin., 23, 15, 16.

⁹⁵ Onour's study employed unit root test, stationarity test, and variance ratio test to examine whether the Saudi capital market is efficient. *Id.* at 23-24.

⁹⁶ *Id.* at 25.

market are inadequate information and lack of market transparency.⁹⁷

Al Ashikh examined also the efficiency of the Saudi stock market in 2012. The result was that the Saudi stock market was inefficient and the day-of-the-week effect existed. The study indicated that the returns of the Saudi market are high on the first trading day of the week, and the lowest volatility in Saudi market occurs on the last two trading days of the week. Moreover, the main factors of the existence of seasonal patterns in returns and volatility are measurement errors, trading delay and settlement differences, and non-trading periods, timing of corporate news releases, and time zone differences.⁹⁸

Asiri and Alzeera conducted a test for the weak-form market efficiency of the Saudi stock market between 2006 to the end of 2012. The study concluded that the Saudi stock market was weak-form efficient,⁹⁹ because there are no investors who could generate significant returns with an investment formula based on information gleaned from prior data and technical analysis, at least on an ongoing basis.¹⁰⁰

Al-Ajmi and Kim evaluated in 2012 the GCC stock markets, to determine whether these markets are efficient in the weak form. The study used three new multiple variance tests, including wild bootstrap test of Kim, joint sign test of Kim and Shamsuddin, and the Chen and Deo's test.¹⁰¹ The study concluded that all GCC markets are inefficient in the weak form. The findings hold for both observed returns and the returns corrected for thin trading in all markets. The result against market efficiency is stronger when the daily data is used.¹⁰² The study indicated the reasons behind inefficiency in the weak form in the GCC markets including relatively low institutional ownership, significant government ownership of listed companies, prohibition of short sales in all markets, the limited number of brokerage firms publishing analysts recommendations, none of which published analysis forecasts, non-availability of derivatives for trading in all markets, with the exception of Kuwait, and the failure in matching international standards, although all markets had taken a number of measures to improve disclosure level, transparency and corporate governance requirements.¹⁰³

However, a recent study was more hopeful. In 2014, Jamaani and Roca tested the GCC stock markets to find out whether GCC stock markets are weak form efficient both as single markets and as a regional stock market.¹⁰⁴ The study employed daily index prices denominated in local currencies for the period from the end of December 2003 to the end of January 2013 by applying a number of tests.¹⁰⁵ Findings and results of the study proved that all GCC stock markets are not weak form efficient, in the sense that current stock price movement can be predicted from past price movements. As the efficiency of GCC as a regional stock market, the result is that GCC stock market prices is co-integrated in the long run, so that the past movements of other GCC market prices can predict the movement of individual GCC stock market prices.¹⁰⁶

IV. Conclusion

The inefficiency that contributed to the 2006 crash can be traced back several decades. The bottom line is that the market's infrastructure was insufficient to support a growing economy. Although the existing capital market served a vital function until the economic expansion in the 1970s and 1980s, it was inadequate for a modern economy and modern people. For whatever reason, the government chose not to take a remedial action until after the crisis was already in motion. Progress has been made, but some substantial structural deficiencies still need to be addressed, particularly in terms of transparency and the flow of information.

This overall inefficiency came to light in the crash of 2006. It was, in many ways, the perfect storm: the government, the media and the investors themselves all bear some measure of responsibility for the crash. The fact that the crash was an unprecedented event helps explain some of the actions, and inactions, that took place around that time, and in the years leading up to the crash. Government policies at the time are a very good example. Due to their inexperience, and also due to a lack of cooperation and coordination among SAMA, CMA, and others, the decision-makers often took actions without considering the long-term consequences. In many cases, these shortsighted moves simply made a difficult situation almost unbearable.

⁹⁷ *Id.*

⁹⁸ Al Ashikh, Abdullah I. (2012). *Testing the Weak-Form of Efficient Market Hypothesis and the Day-Of-The-Week Effect in Saudi Stock Exchange: Linear Approach*, Int'l Rev. Bus. Res. Papers, 8, 27, 48.

⁹⁹ Asiri, Batool Kasim & Alzeera, Hamad, (2013). *Is the Saudi Stock Market Efficient? A Case of Weak-Form Efficiency*, Res. J. Fin. & Acct., 4, 35, 41. In this study, four tests are applied: Dicky-Fuller unit root, Pearson correlation coefficient, Durbin-Watson (autocorrelation), and Wald-Wolfowitz runs-tests.

¹⁰⁰ *Id.*

¹⁰¹ These tests are well known to have desirable small sample properties. See Al-Ajmi, Jasim & Kim, J. H. (2012). *Are Gulf Stock Markets Efficient? Evidence from New Multiple Variance Ratio Tests*, Applied Economics, 44, 1737, 1746.

¹⁰² *Id.*

¹⁰³ *Id.* at 1746-47.

¹⁰⁴ Jamaani, Fouad & Roca, Eduardo, (2014). *Are the Regional Gulf Stock Markets Weak-Form Efficient as Single Stock Markets and as a Regional Stock Market?*, Res. Int'l Bus. & Fin., 33, 221, 244.

¹⁰⁵ Jamaani and Roca applied in the study different tests including a battery of parametric, nonparametric, unit root, and Johansen co-integration tests. *Id.*

¹⁰⁶ *Id.*

Just as the crash had an impact on other nations, there are also lessons that other nations may glean from Saudi Arabia's experience. Countries should take a proactive approach to market fairness and transparency by not only passing concrete laws that prohibit insider trading and manipulation, but also enforcing these laws in a consistent and firm manner. Additionally, governments should not hesitate to ask for assistance from other nations or international organizations like the World Bank or IMF when it appears that their capital markets might reach a crisis point. Moreover, World Bank or IMF recommendations should be fully and seriously considered.

Now, based on the capital market's current situation, it clearly appears that the Kingdom of Saudi Arabia is on the right track. There are laws and regulations in place to help ensure fairness and transparency. While these laws will not prevent another crash, because no statute has such a capability, the capital market's legal and economic infrastructure is well positioned to, if nothing else, minimize and contain the fallout from any sharp declines that inevitably will occur in the future.

References

Books

- Niblock, Tim & Malik, Monica, (2007). *The Political Economy of Saudi Arabia*, London: Routledge.
- Aljuhani, Hamdi Hamzah, (2006). *The Stock Market Crisis in 2006 is a Warning and a Call for Reforming*, Riyadh: Obekan Printing and Packaging.
- Masari, Abdulsabor Abdulkawi, (2012). *The Legal Regulation of the Corporate Governance*, Riyadh: Maktabt Alganon Oa Alagtsad.
- Alkoholifey, Ahmed, (2000). *The Saudi Arabian Stock Market: Efficient Market Hypothesis and Investors Behavior*, PhD Thesis, Fort Collins: Colorado State University.
- Al-Razeen, Abdullah Mohamed, (1997). *The Weak-Form Efficiency of the Saudi Stock Market*, PhD Thesis, Leicester: University of Leicester.

Articles

- Al-Twajjry, Abdulrahman A. (2007). *Saudi Stock Market Historical View and Crisis Effect: Graphical and Statistical Analysis*, J. Human Sciences, 34, 1.
- Al-Ghamidi, Abdulsalam S. (2010). *The Fogginess of Saudi Stock Market Crash 2006 and the Effect of Firm's Financial Performance*, The Arab J. Acct., 13, 86.
- Al Ashikh, Abdullah I. (2012). *Testing the Weak-Form of Efficient Market Hypothesis and the Day-Of-The-Week Effect in Saudi Stock Exchange: Linear Approach*, Int'l Rev. Bus. Res. Papers, 8, 27.
- Alsultan, Abdulrahman Mohammed, (2006). *New Bubble is Forming in the Saudi Stock Market*, Al Eqtisadiyah Newspaper, http://www.aleqt.com/2006/07/03/article_5702.html
- Albashari, Ali, (2006). *Experts: Regulating the Investment of Saudi Companies in the Stock Market Stimulates their Main Businesses Activities*, Alsharq Al-Awsat News, <http://awsat-a.com/details.asp?section=6&article=345409&issueno=9923#.VIDeR74kNUQ>
- Alaqrara, Abdulaziz, (2006). *The Saudi Stock Market is Hugging Altuwaijri by the Green Color, and Investors Are Waiting the New President's Decisions*, Alriyadh Newspaper, <http://www.alriyadh.com/154289>
- Asiri, Batool Kasim & Alzeera, Hamad, (2013). *Is the Saudi Stock Market Efficient? A Case of Weak-Form Efficiency*, Res. J. Fin. & Acct., 4, 35.
- Jamaani, Fouad & Roca, Eduardo, (2014). *Are the Regional Gulf Stock Markets Weak-Form Efficient as Single Stock Markets and as a Regional Stock Market?*, Res. Int'l Bus. & Fin., 33, 221.
- Sharkawy, Hazem & Almoshkas, Munira, (2006). *Royal Decree: Relieve Al-Suhaimi from his Duties and Appointed Altuwaijri to Be the Head of the Capital Market Authority*, Aljazeera Newspaper, <http://www.al-jazirah.com/2006/20060513/ec1t.htm>
- Onour, Ibrahim A. (2009). *Testing Efficiency Performance of Saudi Stock Market*, JKAU: Econ. & Admin., 23, 15.
- Al-Ajmi, Jasim & Kim, J. H. (2012). *Are Gulf Stock Markets Efficient? Evidence from New Multiple Variance Ratio Tests*, Applied Economics, 44, 1737.
- Butler, Kirt C. & Malaikah, S. Jamal, (1992). *Efficiency and Inefficiency in Thinly Traded Stock Markets: Kuwait and Saudi Arabia*, Journal of Banking & Finance, 16, 197.
- Al-Aqeel, Mohammad & Spear, Nasser, (2006). *Private Information Trading in Emerging Markets: Evidence from GCC Security Markets*, paper presented at Ways to Develop Accounting Conference, 11th Meeting, Riyadh, 5-6 December.
- Khababa, Nourredine, (1998). *Behavior of Stock Prices in the Saudi Arabian Financial Market: Empirical Research Findings*, J. Fin. Mgmt. & Analysis, 11, 48.
- Elango, Rengasamy & Hussein, Mohammed Ibrahim, (2008). *An Empirical Analysis on the Weak-Form Efficiency of the GCC Markets Applying Selected Statistical Tests*, Int'l Rev. Bus. Res. Papers, 4, 140.
- Al-Nwaisir, Sami, (2012). *Saudi Stock Market Needs to Be Reformed*, Arab News, <http://www.eurasiareview.com/11012012-saudi-stock-market-needs-to-be-reformed-oped/>

- Alriyadh Newspaper, (2008). *Applying a New Tick Size for Stock Prices After a Week According to 3 Bands Which Are Congruence with Global Markets*, Alriyadh Newspaper, <http://www.alriyadh.com/371886>
- Hertog, Steffen, (2012). *Financial Markets in GCC Countries: Recent Crises and Structural Weaknesses*, NOREF Policy Brief, <https://www.ciaonet.org/attachments/22070/uploads>

Official/Semi-official Reports-Government & Nongovernment Bodies

- Capital Market Authority, (2006). *Announcement Regarding imposing penalties on three violators who violated the Capital Market Law Amount of Hundred and Sixty Nine Million Riyals and Ban them from working in Joint Stock Companies*, Capital Market Authority, http://www.cma.org.sa/Ar/News/Pages/CMA_N151.aspx
- Capital Market Authority, (2006). *The Decision of the Capital Market Authority Board No. 2-128-2006, Dated 12/22/1426 H Corresponding to 01/22/2006 AD*, http://www.cma.org.sa/Ar/News/Pages/CMA_N156.aspx
- Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for Two Traders*, http://www.cma.org.sa/Ar/News/Pages/CMA_N208.aspx
- Capital Market Authority, (2006). *A Decision from the Capital Market Authority Board Regarding the Investment of Joint Stock Companies In the Share of Other Joint Stock Companies*, http://www.cma.org.sa/Ar/News/Pages/CMA_N157.aspx
- Capital Market Authority, (2006). *CMA Board's Decision to extend the Period of Correction for Joint Stock Companies to Correct its Investments*, http://www.cma.org.sa/Ar/News/Pages/CMA_N235.aspx
- Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding the Acceleration of the Investigative Procedures in the Activities of a Number of Traders in the Capital Market*, http://www.cma.org.sa/Ar/News/Pages/CMA_N170.aspx
- Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for One Trader*, http://www.cma.org.sa/Ar/News/Pages/CMA_N171.aspx
- Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for One Trader*, http://www.cma.org.sa/Ar/News/Pages/CMA_N178.aspx
- Capital Market Authority, (2006). *Capital Market Authority Announcement in Regarding to a Change in the Daily Stock Price Fluctuation Limit of Listed Companies from 10% to 5%*, http://www.cma.org.sa/Ar/News/Pages/CMA_N179.aspx
- Capital Market Authority, (2006). *Announcement from the Capital Market Authority Regarding Stopping Dealing with Investment Accounts for One Trader*, http://www.cma.org.sa/Ar/News/Pages/CMA_N180.aspx
- Capital Market Authority, (2006). *Announcement Regarding What Alhayat Newspaper Has Published Today, Wednesday*, http://www.cma.org.sa/Ar/News/Pages/CMA_N184.aspx
- Capital Market Authority, (2006). *Announcement Regarding imposing fines against two companies for not disclosing financial statements during the required period*, http://www.cma.org.sa/Ar/News/Pages/CMA_N187.aspx
- Capital Market Authority, (2006). *Press Release about the Supreme Economic Council Meeting which held on Tuesday 3/14/2006*, http://www.cma.org.sa/Ar/News/Pages/CMA_N191.aspx
- Capital Market Authority, (2006). *Capital Market Authority Announcement in Regarding Increasing the Daily Stock Price Fluctuation Limit of Listed Companies from 5% to 10%*, http://www.cma.org.sa/Ar/News/Pages/CMA_N202.aspx
- Capital Market Authority, (2006). *Announcement for CMA Regarding Splitting the Stocks of Listed Companies in the Market*, http://www.cma.org.sa/Ar/News/Pages/CMA_N203.aspx
- Capital Market Authority, (2015). *CMA Announcement in Regard to the Rules for Qualified Foreign Financial Institutions' Investment in Listed Shares*, http://cma.org.sa/En/News/Pages/CMA_N_1742.aspx
- Capital Market Authority, (2006). *Press Release About the Minister of Finance's Meeting with Private Sector Representatives*, http://www.cma.org.sa/Ar/News/Pages/CMA_N192.aspx
- Capital Market Authority, (2006). *Announcement Regarding Allowing Non-Saudis Residents to Invest Directly in the Saudi Stocks*, http://www.cma.org.sa/Ar/News/Pages/CMA_N193.aspx
- Capital Market Authority, (2006). *Announcement Regarding reducing the par value of stock which would allow splitting Listed Companies' Stocks*, http://www.cma.org.sa/Ar/News/Pages/CMA_N195.aspx
- Capital Market Authority, (2006). *The terms for Opening Investment Portfolios for Non-Saudi Residents for Trading*, http://www.cma.org.sa/Ar/News/Pages/CMA_N196.aspx
- International Monetary Fund, (2005). *IMF Executive Board Concludes 2005 Article IV Consultation with Saudi Arabia*, Public Information Notice No. 05/161.
- Saudi Arabian Monetary Agency, (2006). *The Regulation for Consumer Finance*, <http://www.sama.gov.sa/News/Pages/News14270214.aspx>
- Saudi Arabian Monetary Agency, (2003). *39th Annual Report*.
- Saudi Arabian Monetary Agency, (2004). *40th Annual Report*.
- Saudi Arabian Monetary Agency, (2005). *41st Annual Report*.
- Saudi Arabian Monetary Agency, (2006). *42nd Annual Report*.
- Saudi Stock Exchange "Tadawul", (2006). *The 2006 Annual Report*.
- Saudi Chamber of Commerce in Riyadh, (2005). *Explore to What Extend the Efficiency of the Local Stock Market and its Role in Supporting the National Economy*, the 15th Annual Meeting of Saudi Economic Association, Riyadh, 13-15 November.

Saudi Stock Exchange “Tadawul”, (2015). *Tick Size*, <http://www.tadawul.com.sa/static/pages/en/TickSize/TickSize.html>
Saudi Stock Exchange “Tadawul”, (2006). *Announcement Regarding Changing the Tick Size*,
http://www.tadawul.com.sa/wps/portal/!ut/p/c0/04_SB8K8xLLM9MSSzPy8xBz9CP0os3g_A-ewIE8TIwN_D38LA09vV7NQP8cQQ3dnA_3gxCL9gmxHRQCtDLXm/?x=1&PRESS_REL_NO=601