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“Financial Markets of the Middle East and North Africa:  
The Past and Present”

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# **Financial Markets of the Middle East and North Africa:**

## **The Past and Present**

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### **Abstract**

The recent political developments in the Middle East have prompted increased scrutiny of the economies of the nations lying in this region. Over the past few months, the financial markets of Middle East and North Africa (MENA) have been affected by the speculations that existed before the war in Iraq as well as its subsequent repercussions. Factors such as lagging domestic, political reforms, government interference, and inflexible monetary and fiscal policies remain obstacles to privatization, globalization, and foreign investment in MENA economies. As the economies enter the post-war recovery phase, reform of financial markets seems necessary to accelerate economic growth.

Key words: Middle East and North African (MENA) Emerging Financial Markets; Bahrain, Egypt, Israel, Jordan, Kuwait, Lebanon, Morocco, Oman, Tunisia, Turkey; Foreign Direct Investment; Globalization and Growth; Iraq War; Gulf War; Macroeconomic and Financial Indicators;

JEL Classification: E0, E1, F3, F4, G1, N2, O4, O5

# **Financial Markets of the Middle East and North Africa: The Past and Present**

## **I. INTRODUCTION**

The looming threat of a war in Iraq had finally become a reality on March 20, 2003. While this threat caused continuous uncertainty and a negative impact on the global market, it also undermined Middle East and North African (MENA) stock markets and brought the region's economies to a standstill. Although the commencement of the war eliminated the ambiguity that had dominated the markets in the previous months (causing crude oil prices to surge above \$33 a barrel, pushing stock market indices and consumer confidence even lower), the developing MENA region is still confronting the challenges of spurring recovery and initiating structural reforms. While the military conflict may have had a compounding impact on foreign direct investment and other foreign-based income, the root of the problem precedes the war, going back to the political regimes and economic policies that dominate the region. Even while the region's oil production remains the most important factor in MENA's economies, the topics of most interest for this issue are the emerging markets in the area that present potential

opportunities for global investment. As a consequence of constant political friction and tight political controls, foreign investment remains minimal. Yet, this is necessary to assure the region's economic development.

The question one naturally asks is: why are MENA countries lagging behind growth and globalization? Some of the factors include poor integration into the global economy, higher-than-average population growth rates outpacing employment rates, lagging political reforms, a large public sector, and underdeveloped financial markets partly due to high trade restrictions and inflexible exchange rate policies. Continued reforms of the financial sector would bring greater financial development and increasing globalization, albeit challenged by strong government interference.

Upon initiating this special issue about two years ago, there was high potential and expectation for future growth. However, the sluggishness in the world economy and the increasingly hostile situation in the Middle East have reversed most economic forecasts and caused the regional markets to loom in a state of uncertainty. The process of globalization has created important interdependence between

international markets, businesses, and nations. The countries surrounding Iraq are faced with greater risk and the impact of the outcome is of even more immediate concern. A regime change in Iraq would lead to a significant adjustment in trading partners and their economies while at the same time, possibly opening up lucrative opportunities for Western nations. The economies that are particularly of interest for this special issue of the journal are those of Bahrain, Egypt, Israel, Jordan, Kuwait, Lebanon, Morocco, Oman, Tunisia, and Turkey. Since these newly emerging financial markets are less known and researched, the next section of the introduction presents a brief summary of each economy with a particular emphasis on its financial markets and the specific roles and interests of foreign investors. To gain a better understanding of the current financial state and future potential development, each country's economic background and development are introduced. Next, studies relating to the MENA region that are presented in this issue are summarized. These papers are by Tzachi Zach; BenZion, Klein, Shachmurove, and Yagil; Girard, Omran, and Zaher; Muradoglu, Zaman, and Orhan; Hadi Hassan; Hakim and Neaime; and

Mohammed Omran. Through the papers included in this issue, it is hoped that new possibilities will arise for further research of the area.

## **II. AN INTRODUCTION TO MIDDLE EAST AND NORTH AFRICAN COUNTRIES AND THEIR FINANCIAL MARKETS**

This section introduces the major Middle Eastern and Northern Africa economies and their financial markets. In order to facilitate further referencing to these markets, each country is presented alphabetically.

### **A. Bahrain**

Bahrain's heavy regional dependence on trade and its central location among Persian Gulf countries have a direct impact on its economic condition given any changes in oil prices or political stability. With the approval of the National Action Charter in February 2001, the new amir introduced economic and political reforms aimed at achieving sustained growth, economic diversification, and making Bahrain a regional banking and financial center.

The development of information technology infrastructure and privatization of the economy and service sectors will be of particular importance in the process. The Bahrain Stock Exchange (BSE) is one of a number of developing stock markets in the region concentrating on diversifying the range of securities listed to develop the region's capital markets. There is no taxation system on foreign investors. Resolution NO. 1 of 1999 permits non-Bahrainis to own and trade in Bahraini joint-stock companies' shares. The citizens of Gulf Co-operation Council (GCC), i.e., those of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates, are allowed to own up to 100% of these shares. However, other foreign investors are limited to only 49%, limiting the attractiveness to foreign entrepreneurs.<sup>1</sup>

The BSE reported a modest performance in 2002, rising by 3.41% after falling by 2.45% in 2001. It started 2002 on a positive note, but faltering optimism about 2001 dividends and periodic profit-taking caused losses to fall to as low as 4% in the second week of October. BSE recovered in the last two months of the year on strong third-quarter corporate results, higher oil prices, and a surge in U.S. stocks. While the impact of the decline in tourism is expected to be minimal compared to

other MENA nations, the bond issues by the government has helped broaden the region's investor base and allow for greater market confidence.

## **B. Egypt**

Since implementing a wide-ranging macroeconomic stabilization and structural reform program in 1991, Egypt has been undergoing economic development targeted at increasing the growth rate of its economy, with a main focus on creating a more efficient stock market. Following the International Monetary Fund's (IMF) advice, Egypt managed to improve its macroeconomic performance by implementing structural changes, such as privatization and legislation that prompted increased foreign investment. In recent years, its excessive spending on national infrastructure has exacerbated its budget deficit. The events of September 11, 2001, decline in tourism, and other economic strains have caused the devaluation of the Egyptian pound and a change to a floating regime at the end of January. The industry forecasts that due to the war on Iraq, lost revenues to tourism will be at least \$1.7 billion, and with a



possible lifting of sanctions on Iraq, exports to the region may plummet, as new economic Iraqi interests would replace its previous political ties with its trading partners.<sup>2</sup>

The Egyptian stock market is made up of two exchanges, located in Cairo and Alexandria, which are governed by the same board of directors and have the same trading, clearing, and settlement systems. As of December 2000, the Cairo and Alexandria Stock Exchanges were made up of 1,076 companies, making it the largest market in North Africa, a direct result of removing limits on foreign investment. It holds no foreign investment ceiling and does not withhold taxes on interest or dividends from foreign investors. There is also free entry and exit in the market allowing for greater investor opportunities. In 1999, the Egyptian Index reflected some progress in government privatization and increased foreign investment. More recently, the efforts to affect economic reforms and enhance trading in the stock market were outweighed by unfavorable regional political developments. This was mainly due to the weak economy, recurrent pressures on the Egyptian pound, and mixed corporate results that exacerbated investors' confidence in the market.

The Index ended 2002 up a mere 3.5% following substantial losses of 38% in 2001.<sup>3</sup>

### **C. Israel**

Israel's market economy is technologically advanced with substantial government participation. Despite limited natural resources, Israel has developed intensively its agricultural and industrial sectors over the past 20 years and is largely self-sufficient in food production, except for grains. Large transfer payments from abroad and foreign loans enable Israel to cover its current account deficit. The influx of Jewish immigrants during the period 1989-99 from the former USSR along with the opening of new markets at the end of the Cold War stimulated Israel's economy in the early 1990s. However, in 1996, the government imposed tighter fiscal and monetary policies resulting in more moderate growth. Despite strong growth in 2000 with 6.4%, the outbreak of the Palestinian uprising in late September 2000 along with declines in the high-technology and tourist sectors led to a 0.6% drop in 2001 GDP and another 1% drop in 2002. As the United States declared war on terror

following September 11, foreign direct investment endured a substantial decline in 2001 and 2002, generating an aversion to investments that carried a relatively high perception of risk.<sup>4</sup>

Israel has been one of the central economic influences in the Middle East region. Regular trading in securities in Israel started in 1935 before Israel became an official state. In 1953, the Tel-Aviv Stock Exchange Ltd (TASE) was incorporated as a public company. Futures and derivatives began to be traded in 1993. TASE consists of three main indices: General Share Index, TA-100 Index, and TA-25 Index. Dividends incur a 25% taxation burden, which is lower for investors of those countries that have tax treaties with Israel. Foreign investors are able to purchase any listed security or mutual fund through an account in a local bank under the foreign investor's name, with the bank being the authorized dealer. Dividends and gains on investments made in foreign currency through an authorized dealer may be realized in foreign currency at prevailing exchange rates. TASE continued to climb at the end of March 2003 as hopes of a quick war dominated market sentiment.<sup>5</sup>

## **D. Jordan**

In Jordan, the main stock market is the Amman Stock Exchange (ASE), renamed from the Amman Financial Market that was originally established in 1976. In 1999, as King Abdallah assumed his throne, a comprehensive reform of the capital market was introduced as part of a broader economic long-term effort to improve living standards. Under IMF watch, Jordan has been practicing a more careful monetary policy and implementing changes toward privatization, including liberalizing trade regime to improve productivity and foreign investment. The ASE Index ended 2002 down by 1.56% after recording a 29.8% gain in 2001. After reaching a high in July, the gains were eroded with an escalating strife in the Palestinian territories and the looming U.S. attack on Iraq. Nevertheless, the market experienced a 42% rise in the value of traded shares to 1.34 billion U.S. dollars in 2002, its highest since 1993. Market capitalization also rose by 14% following the initial public offering (IPO) of Jordan Telecom.<sup>6</sup> Similarly to Egypt, Jordan faced a decline in tourism and exports as the war on Iraq affected its regional neighbors.

## **E. Kuwait**

As a small, rich, and relatively open economy, Kuwait plays an important role in the world's oil prices. Encompassing about 10% of the world's crude oil reserves, which consist of 94 billion barrels, the petroleum industry accounts for nearly half of Kuwait's GDP, 90% of export revenues, and 75% of government income. Higher oil prices put the fiscal year 1999/2000 budget into a 2 billion U.S. dollar surplus. The 2000/2001 budget covered only nine months because of a change in the fiscal year. Kuwait has the most to gain from the war. Although it may have to forego collecting tens of billions of dollars in Iraqi debt and war reparations, the compensation will come from greater security and a revived Iraqi market to support the country's private sector.<sup>7</sup>

The Kuwait Stock Exchange (KSE) was first established in 1984. However all trading operations were suspended when Iraq invaded Kuwait on August 2, 1990. The KSE recommenced trading in September 1992. Its main index, the Kuwait Stock Exchange Index comprises all listed companies. Only nationals of the GCC countries

may trade directly in listed stocks. Others may participate indirectly through two listed mutual funds. In 2002, the KSE finished as a top performer among the Gulf region bourses, with gains totaling 39% compared to 26.8% gains in 2001. The reasons for these gains were the higher liquidity from lower interest rates, firm oil prices, an improved fiscal stance, better economic performance, and better-than-expected corporate results.<sup>8</sup> Although the KSE closed trading with the launch of war, it has quickly gained record highs after reopening a week later with expectations of a swift Iraq war.

## **F. Lebanon**

In Lebanon, the 1975-91 civil war seriously damaged the country's economic infrastructure. Since then, peace enabled the central government to restore control in Beirut, recommence collecting taxes, and begin an economic recovery, all of which was facilitated by a financially-sound banking system and small- and medium-scale

manufacturers. The economy grew at the beginning of 1993 with the implementation of the “Horizon 2000” \$20 billion reconstruction program. However, to fund the reconstruction the government had incurred large national debt, which by 2001 had reached \$28 billion, or nearly 150% of GDP. With the war in Iraq and its unique relation to Syria, Lebanon faces a similar situation to that of Jordan, with a hard-hit tourism sector and \$500 million worth of trade agreements with Iraq in jeopardy.

By international standards, the Lebanese equity market is still considered a pre-emerging market in terms of size, number of listed firms, and the economic sectors reflected on the Beirut Stock Exchange (BSE). There are no restrictions on foreign exchange or capital movement, and bank secrecy is strictly enforced. The BSE incorporates three markets that consist of an official market, a junior market, and an unlisted or over-the-counter market, each having specific requirements for the companies they include. For the first time since 1997, the Beirut Stock Exchange recorded a 4.32% gain in 2002. Nevertheless, the nation’s huge public debt, its poor fiscal policy, the lack of extensive economic reforms, and unfavorable regional political developments

largely contributed to the market's fall during the first three quarters of the year, ending September down 5.2%. In the last quarter, the market improved when Lebanon received 4.3 billion U.S. dollars in aid pledges at the "Paris II" meeting. In addition, the agreement reached by the end of 2002 with local banks to buy 4 billion U.S. dollars worth of interest-free government paper that would replace high interest bearing government debt, added to investors' confidence and helped drive the stock market higher.<sup>9</sup>

## **G. Morocco**

As a developing nation, Morocco's main goal is to tackle economic problems that include restraining government spending, reducing constraints on private activity and foreign trade, and achieving sustainable economic growth. With support from the IMF, World Bank, and the Paris Club, Morocco implemented structural reforms of the



financial sector and allowed the full convertibility of the *dirham* for current account transactions. During 1999 and 2000, Morocco reported large foreign exchange inflows from the sale of a mobile telephone license and partial privatization of the state-owned telecommunications company. While struggling with a large fiscal deficit, Morocco has tried with only moderate success to overcome resistance to privatization, although still dominated by large state banks.<sup>10</sup>

The most important sectors of the Moroccan economy are represented on the Casablanca Stock Exchange (CSE), although total market value represents only 33% of GDP. CSE was originally established as a private stock exchange in 1929. The exchange went through reform in 1993, introducing an electronic trading system and creating a regulatory body.

The CSE operates two markets, the central market and the block trade market. Under the new structure, all of the listed securities must go through the central market. This means that the trading system is based on a centralized order-driven market. The block market enables the immediate exchange of such orders that cannot be carried out entirely on the open market, where the prices here reflect those of the central market

quotes. This market may not be performing at maximum capability because of the limitations on foreign investment. Although there is free entry and exit in the market and no capital gains tax, there is a 10% withholding tax on dividends and on interest income that is applicable only to foreign investment. There are no restrictions on foreign investment or foreign ownership of companies in the Casablanca stock exchange. However, since most small and medium-sized Moroccan companies are still family-owned and generally are not willing to publish their financial accounts, banks tend to be the preferred source of financing for expansion and new projects.

The CSE remains a local market where institutional investors and mutual funds are the major players. Foreign institutional investors hold less than 5% of total market capitalization. In 2002, the Casablanca Stock Exchange continued its four-year downward trend, which was significantly caused by the absence of institutional investors and the lack of transparency. Moreover, promised economic reforms did not materialize, which further diminished investors' confidence. The CSE recorded a 16.5% loss in 2002 following losses of 7.4% in 2001. The

Index showed the second worst performance among the Arab countries in 2002.<sup>11</sup>

## **H. Oman**

Oman's economic performance improved significantly in 2000 with the rise in oil prices. The government implemented economic reforms that centered on privatizing its utilities, the development of a body of commercial law to facilitate foreign investment, and increased budgetary outlays. After joining the World Trade Organization (WTO) in November 2000 and continued efforts to liberalize its markets, GDP growth improved in 2001 despite the global slowdown.

The Muscat Securities Market (MSM), the stock exchange of Oman, was established in 1988 with trading that began a year later. The MSM is a secondary market (first being the Capital Market Authority, which is a governmental authority responsible for organizing and overseeing the issue and trading of securities), which is also a governmental entity but financially and administratively independent from the authority, yet subject to its supervision. This secondary market

is subdivided into four markets: the regular market, the parallel market, the bond market, and the Third Market. The regular market is for established companies with a history of profitability and sufficient liquidity. The parallel market is for new companies, or companies that no longer meet the requirements of the regular market. The so-called Third Market is relatively small, and is used for the transfers of shares of privately held joint-stock. The MSM is a governmental entity, one of the most open exchanges to foreign investment among the Arab stock markets. There are no taxes on dividends or capital gains, no restrictions on foreign investor repatriating their profits, and the currency is freely convertible. However, foreign individuals or organization wishing to set up a business in Oman require a license. Tax is charged on the profits of business that have no “permanent establishment” in Oman and the rate varies according to the level of foreign ownership. In 2002, Oman’s MSM was the third best performing Arab stock market. After 2 years of losses, MSM recovered with 26.2% gains. The main causes of the high returns were the better than expected corporate results and the perceived low valuation of stocks. MSM closed March with a two-year high,

largely due to the perception that the market is far removed from the war on Iraq.<sup>12</sup>

## **I. Tunisia**

The economy of Tunisia only recently began its road to improvement by gradually lessening governmental control. Reforms to increase privatization, simplification of the tax structure, and a prudent approach to debt has helped real growth average 5.4% in the past few years and slow down inflation. Although tourism revenues have slowed since September 11, 2001, they were a key contribution the country's steady growth. It still faces the challenges of broader privatization, further liberalization of the investment code to increase foreign investment, and improvements in government efficiency. Similar to GCC members, Tunisia adopted new reforms that strengthened its financial sector regulations. Although its inflexible exchange rate regime may have hindered its integration into the world economy, Tunisia actually targets the real exchange rate for the *dinar*. The interest rate cuts at the end of

March 2003, indicated the government's pro-active attitude towards the economic conditions.<sup>13</sup>

The Tunisian stock market, Tunis Stock Exchange (TSE), was established in 1969. All trades in the market are done through brokers. About 120,000 Tunisians trade on a small scale today. To compete with the tendency of Tunisian companies to list themselves either on the London and or Paris exchange, the government has created an incentive for such companies to participate in the Tunis exchange. Companies will receive a 20% to 35% decrease in their corporate income tax for five years when they list at least 30% of their capital in the stock market. Although the market does not withhold taxes on interest or dividends earned by foreign investors, they do hold a 49.9% ceiling on foreign investment. While purchase is available above 50% only with prior approval, the Tunis market places other regulations that hinder foreign investment, such as the prohibition of foreign institutions to purchase fixed income instruments or open interest-bearing accounts without prior approval from the central bank. While foreigners currently account for 25% of the total capitalization, the market's biggest constraint is its size,

which with a removal of the 49.9% ceiling on foreign investment, could help increase its growth.

In 1999, the TSE's growth reflected the implementation of privatization reforms and new legislation that eliminated taxes on interest derived from foreign currency, investment in securities, and deposits made by nonresidents, which increased foreign investment. However, along with the rest of the world, the TSE took a drastic turn from its earlier gains, suffering losses in 2002, dropping by 11.7% following a 12.2% loss in the previous year. Along with other MENA markets, the TSE experienced considerable increases towards the end of March 2003.<sup>14</sup>

## **J. Turkey**

Turkey's dynamic economy is a complex mix of modern industry and commerce along with a traditional agriculture sector that in 2001, still accounted for 40% of employment. While the government still controls such basic industries as banking, transport, and communication, Turkey also has a strong and rapidly growing private sector. Turkey has pursued a policy of gradual financial deregulation since the early 1980s, albeit with many difficulties.

In the past few years, the economy was characterized by erratic economic growth and serious imbalances. Real GNP growth has exceeded 6% in most years, but was interrupted by sharp declines in output in 1994, 1999, and 2001. A huge burden of interest payments has led to the fiscal deficit frequently exceeding 10% of GDP. In late 2000 and early 2001, a growing trade deficit and serious weaknesses in the banking sector plunged the economy into a crisis - forcing Ankara to float the lira and pushing the country into recession. With inflation looming in the high double-digit range, foreign investment remains low in Turkey.



Turkey finished 2002 with a 7.8% growth rate mainly due to the private sector. At the end of March 2003, finding itself in a delicate situation, Turkey refused to allow U.S. forces to attack Iraq from its soil while maintaining strong ties with Iran and Syria to control any possibilities of Kurdish rebellion. In the meantime, Turkey is likely to benefit from construction contracts in Iraq as it rebuilds, while receiving \$1 billion in grants from the US war budget to ease its troubled economy.<sup>15</sup>

Turkish securities markets date back as far as the 19<sup>th</sup> century with the development of the Dersaadet Securities Exchange in 1866. In 1929, with the creation of the Turkish Republic, a new law reorganized the markets under the name of the Istanbul Securities and Foreign Exchange Bourse. In 1983, the parliament approved "Regulations for the Establishment and Functions of Securities Exchanges," which led to the establishment of the present day Istanbul Stock Exchange (ISE) in 1986. The main National Market is the official market for equity trading along with other ISE Regional Markets that promote regulated trading in stocks of small and medium-sized companies incorporated in all parts of the country.

In the first half of 2000, the stock market sentiment was boosted by the potential EU membership and the IMF-supported stabilization program. However, after delays in structural reforms to privatize and liberalize the banking sector, the negative market reaction turned into generalized panic.<sup>16</sup> With some financial support from the IMF but with continued mixed signals from the economic indicators, the ISE remained volatile during the first months of 2003. Reassurance over Turkish conditional involvement in the Iraq war and financial support from the US helped boost the ISE at the end of March 2003. As the war in Iraq continues to run its course, new questions arise as to its outcomes and the effects of its decisions on the MENA region's economies and markets.

The next section introduces the papers included in this issue.

### **III. INTRODUCTION OF THE PAPERS**

With continuous political turmoil constantly dominating global news headlines, stock indices respond accordingly. The TASE specifically, has endured a particular impact, with the Middle East persistently being in the global headlines. Tzachi Zach argues that headline news of political events has an effect on stock returns. He finds that the returns

on the Israeli stock market's main index, following political events, are more volatile than the returns on the same index in other days. The evidence shows the importance of political turmoil not only in influencing the Israeli stock market, but also having a similar effect on the American exchanges. The assumption that market behavior reflects relevant information is explained by financial market efficiencies in the Random Walk and Efficient Market Hypotheses. These ideas are central in explaining price adjustments after any change in the relevant information having a great impact on securities' prices.

BenZion, Klein, Shachmurove, and Yagil test the moving average (MA) method in comparison to the simple buy-and-hold (BH) policy on the Tel Aviv Stock Exchange and the S&P 500 Index. The study examines the effectiveness of trading techniques in the Israeli market and compares its weak-form market efficiency to that of the S&P 500. They find that the MA method beats the BH policy for the Tel-Aviv 25 Index (TA25) during the shorter period of the MA, yielding higher returns. For the longer MA period, the returns proved to be lower than when using the BH method. For the S&P 500 the MA method yielded substantially lower results.

Girard, Omran, and Zaher investigate the emerging markets in the Middle-Eastern and North African region (MENA). Their study focuses on the management of risk as it determines market return in a market-based Capital Asset Pricing Model (CAPM) framework. Their study shows the MENA markets to have low correlation with the world markets, as is common for other emerging markets. They also show signs of predictability and are highly segmented, which would provide important diversification for foreign investors. Only Israel and Turkey, the more integrated markets, prove to be correlated with the world portfolio. They also find that six (Bahrain, Egypt, Jordan, Lebanon, Oman, and Saudi Arabia) of the markets studied, tend to overreact to news.

Muradoglu, Zaman, and Orhan investigate Initial Public Offerings (IPO). Specifically they examine the beta for IPOs to estimate the expected return. The common techniques for measuring betas are based on regression analysis of historical data, where, for example, CAPM gives simple and straightforward estimates of expected returns. The study introduces an alternative estimation procedure, the Empirical Bayes (EB) Estimates, that also uses historical data, particularly the

stock prices in the same sector. Over a relatively short-period of time, EB estimates are more accurate than Ordinary Least Squares (OLS) by simply relying on same-sector data and thus allowing investors to treat IPO's the same as they would treat other stock.

Hadi Hassan examines the relationships among stock markets of Bahrain, Kuwait, and Oman. As stock markets are becoming more interdependent, these three also have opened their economies to each other. As members of the GCC, they are working towards economic integration to form a single market. In fact, Kuwait and Bahrain prove to have a long-term relationship between their share prices. However, a similar relationship does not appear to exist for the short-term, but in fact alludes to the movement along trend values. Most interestingly, the stock market of Oman does not show to have any relationship with those of the other two countries, indicating great potential for diversification.

Hakim and Neaime study the mean reversion in the MENA stock markets. The mean reversion in a stock market hypothesizes that the volatility of the stock market follows a certain pattern, where periods of negative returns are likely to be followed by periods of positive returns. The contrasting model is the random walk theory where the future

returns have no relationship with return outcomes in earlier periods. Only Turkey showed evidence of mean reversion. They argue that the mean reversion implies that stock return volatility is lower than that predicted by a random walk model, although the Turkish stock market proves to be the most volatile. The Monte Carlo simulations indicate the volatility of stock returns to increase with a slower speed, as returns on prices have a tendency to deviate away from the reverting mean for a longer period.

Mohammed Omran finds long-run and short-run relationships between real interest rates and the stock market performance variables. In his study he focuses on the impact of real interest rates upon functional aspects of stock market performance, such as its activity, liquidity, the extent of trading, capital issues and the dominance of major companies. He attributes Egyptian stock market gains partially due to the rate of decrease in inflation in comparison to the rate of decrease in interest rates. If inflation decreases at a faster rate (as was the case during the time period studied) than the interest rates, the real interest rates increase, encouraging people to save. He concludes that with higher savings, personal banks and other financial institutions have

increased resources available to invest in the stock markets, resulting in important policy implications. Thus, it would be in the best interest of investors and the economy for real interest rates to rise to increase investments.

Table 1 presents some key macroeconomic indicators accompanied with some financial market measures in order to compare market performances and economic factors among the major nine MENA markets in the year-end 2000. Turkey shows to be the leader as measured by market capitalization figures with the largest sum adding up to 69.5 U.S. billion dollars while Israel follows with 66.8 U.S. billion dollars. These numbers prove to be substantial particularly when compared to the smallest market in Lebanon with 1.58 U.S. billion dollars. However, in comparison to each country's GDP, the apparent size completely changes. Bahrain is the leader according to this measure with the market value of 101.38% of nominal GDP and Jordan being the second largest with 65.2%.

Turkey has the highest market liquidity ratio of 238%, and then Israel compared at 42.7%. However, this financial measure is probably sensitive to the limited number of operations on these stock exchanges

since some of the bourses are only open for very few hours each day, and thus their activity is limited. Due to high market volatility and investor expectations with regards to implementing essential economic reform, the growth in market value in Turkey was 1326% for 2000. Egypt was the second largest with 132.5%. Another limitation on these emerging markets is the tight government control and the rigid structure and rules of each bourse. Despite the fact that Egypt is the market with the most companies listed at the time, 1075, like many others it limits foreign intrusion, with only 1 foreign company listed on the exchange. If the governments were to be more lax and allow foreign investment to play a bigger role, this would open further opportunities for foreign investors with higher growth potential. Other indicating factors included in the table are Market price to earnings ratio, P/E, MSCI Index, Short and Long-Term interest rates, Budget deficit as a percentage of nominal GDP, annual increase in broad money supply, the inflation rate and the exchange rate. An investor can utilize these data when choosing the appropriate strategy to diversify his portfolio. Since most bourses show to have very little, if any, correlation with other world indexes, as well as amongst each other, a diversified foreign investor should consider these



emerging markets. However, this observation is hampered as long as peace and stability are foreign to these struggling economies.

Table I  
Key macroeconomic indicators for 9 MENA markets in 2000

| Country  | Bahrain                                 | Egypt          | Israel                                  | Jordan  |
|--|---|----------------|---|---|
| Market Capitalization (end of 2000) US\$ billion         | 6.6                                     | 28.5           | 66.8                                    | 4.95  |
| Market liquidity ratio* (end of 2000)                    | 3.70%                                   | 41.20%         | 42.70%                                  | 8.20%   |
| Growth in market value (local currency terms, 1996-2000) | (US\$ terms) 40.31%                     | 132.50%        | 112.80%                                 | 1.40%   |
| Market value as a % of nominal GDP (December 2000)       | 101.38%                                 | 10.30%         | 58.64%                                  | 65.20%  |
| Number of domestic companies listed (end of 2000)        | 36                                      | 1075           | 664                                     | 162   |
| Number of foreign companies listed (end of 2000)         | 5                                       | 1              | 1                                       | 1   |
| Market P/E (end of 2000)                                 | 12.28                                   | 8              | 14.7 (GSC Index); 14.8<br>14.6 (TA-100) |   |
| MSCI Index (change in US\$ terms, 2000)                  | not indexed                             | -45.83%        | 6.20%                                   | -22.90%   |
| Short-term (3-month) interest rate (end of 2000)         | 6.70%                                   | 9.09%          | 8.00%                                   | 6.00%   |
| Long-term bond yield (end of 2000)                       | 3.78%                                   | 10.25% (10-yr) | 6.06% (5 to 8-yr<br>real yield average) | 7.25% (3-yr)  |
| Budget deficit as a % of nominal GDP (2000)              | 2.20%                                   | -8.00%         | -1.25%                                  | -6.90%  |
| Annual change in broad money (M3) supply (end 2000)      | (Sept 2000) -0.41%<br>(2001) 1.5%       | 7.63%          | 8.5% (M1)                               | 10.2% (M2)  |
| Inflation rate (2000)                                    | BD 0.377                                | 2.80%          | 0.00%                                   | 0.70%   |
| US\$ exchange rate (end of 2000)                         | fixed rate pegged to<br>the U.S. dollar | E 3.925        | Shk 4.041                               | J D 0.709   |
| Exchange Rate Regime                                     |   |                |   | Since May 1989<br>the Jodanian Dinar<br>has been pegged to<br>a group of currencies |

\*Total market turnover/total market capitalization

Table 1 (continued)

| Country  | Lebanon                | Morocco             | Oman                          | Tunisia                     | Turkey      |
|--|------------------------|---------------------|-------------------------------|-----------------------------|-------------|
| Market Capitalization (end of 2000) US\$ billion         | 1.58                   | 10.9                | 3.46                          | 2.802                       | 69.5        |
| Market liquidity ratio* (end of 2000)                    | 7.46%                  | 32.90%              | 33.70%                        | 23.40%                      | 238.00%     |
| Growth in market value (local currency terms, 1996-2000) | (US\$ terms)<br>-28.2% | 52.00%              | 25.80%                        | -1.60%                      | 1326.00%    |
| Market value as a % of nominal GDP (December 2000)       | 9.52%                  | 33.20%              | 0.02%                         | 14.30%                      | 34.00%      |
| Number of domestic companies listed (end of 2000)        | 12                     | 53                  | 131                           | 44                          | 315         |
| Number of foreign companies listed (end of 2000)         | 1                      | 0                   | 2                             | 0                           | 0           |
| Market P/E (end of 2000)                                 | 7.47                   | 12.8                | (1999) 11.9                   | 16                          | 16.82       |
| MSCI Index (change in US\$ terms, 2000)                  | not indexed            | -25.80%             | not indexed                   | not indexed                 | -50.90%     |
| Short-term (3-month) interest rate (end of 2000)         | 11.18%                 | 5.80%               | (1999, up to<br>1-year) 4.30% | (1999, call<br>money) 5.88% | 107.00%     |
| Long-term bond yield (end of 2000)                       | 14.14% (2-yr)          | 7% (5-yr)           | (5-year) 7.75%                | NA                          | 57% (1-yr)  |
| Budget deficit as a % of nominal GDP (2000)              | 23.40%                 | 2.60%               | -4.76%                        | -2.62%                      | (GNP) -9.5% |
| Annual change in broad money (M3) supply (end 2000)      | -8.70%                 | (Oct 2000)<br>6.41% | M2 6.00%                      | M2 14.10%                   | 48.20%      |
| Inflation rate (2000)                                    | 0.50%                  | 3.30%               | 2.00%                         | 3.30%                       | 39% (CPI)   |
| US\$ exchange rate (end of 2000)                         | L 1,507.5              | DH 10,577           | OR 0.384995                   | TD 1.388                    | TL 671,765  |
| Exchange Rate Regime                                     |                        |                     | fixed rate since 1986         |                             |             |

\*Total market turnover/total market capitalization

## NOTES

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