"Liberalization and Financial Integration of MENA Stock Markets":

A Comment ♣

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The MENA country financial markets, including the stock markets, are at their 'emerging market' if not 'pre-emerging' market stage. The level of market maturity, investor participation, institutional development and regulatory oversight and supervision are in their formative phase. This is despite the fact that the region includes some of the oldest markets in the world: Turkey's stock exchanges were established in 1866, Egypt's in 1890, Lebanon in 1920 and Morocco in 1929. Indeed, like many of the stock markets of Asia and Latin America that were developed and accompanied the major wave of 'globalization' in the second half of the XIXth century and early XXth century, they have only recently re-emerged from the doldrums, as a result of policy changes and liberalization. Thus, Turkey's stock market was liberalized in 1989, Egypt in 1993, Morocco in 1994 and Jordan in 1995[1]. In nearly all cases, stock market liberalization accompanied wider, multi-dimensional liberalization programs. However, the economic and financial liberalization programs in the MENA region, rarely focused on capital market development and stock market liberalization as a major plank of economic reform. In particular, the structural economic changes, institutional reforms and privatization of the 1990's and ongoing (viz. the experience of Morocco, Tunisia and Egypt) were not built on to create the momentum, effect the necessary development, the take-off of the stock and financial markets. In the GCC countries, the establishment of modern, organized stock exchanges is a relatively new phenomenon, with most markets being established over the past three decades; they have yet to become an important component of the saving –investment process or of domestic corporate finance[2].

More generally, the lack of capital markets development, the absence of financial instruments, has also meant that the MENA region was not able to attract international capital flows and foreign direct investment. The MENA region's share of international financial flows to the developing countries has been consistently less than 3% of such flows. Portfolio financial flows have been very limited: less than 2% of such international flows, with a few countries –namely Lebanon who has been an extensive borrower in the Eurobond market- accounting for the bulk of such flows

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Table 4. World Capital Flows to Developing Countries, 1980 – 2001, in billion $

	1980	1990	1995	1996	1997	1998	1999	2000	2001

♣ Comment on the paper by Simon Neaime, presented at the Economic Research Forum (ERF) 9th Annual Conference on "Finance and Banking", Sharjah, United Arab Emirates, 26-28 October 2002. The analysis and views expressed are those of the author and do not necessarily reflect official views and positions

[1] For a recent discussion and analysis see N. Fuchs-Schundeln and R. Funke, "*Stock Market Liberalizations: Financial and Macroeconomic Implications*", IMF Working Paper, WP/01/193, 2001.

[2] See Henry Azzam's book, **The Emerging Arab Capital Markets**, Kegan Paul International, 1997, for a survey of these developments.

World	74.5	99.3	260.1	310.8	340.3	334.1	264.9	294.8	196.5
Arab Countries	8.6	10.1	2.9	6.3	7.8	14.5	2.5	9.3	6.2
Arab countries' share (%)	11.5	10.2	1.1	2	2.3	4.3	0.9	3.2	3.2

Source: World Bank, 2002

Second, capital inflows and investment have been directed at the oil and oil-related sectors, and to a limited extent to privatization. But, even the reform process launched in the 1990's leading to privatization of state assets did not attract substantial capital inflows. The only form of finance where our share is significant is in project finance, which has gone into the exploitation of mineral resources –oil and gas- connected with a number of projects in Qatar, Saudi Arabia and Bahrain.

On the other hand, the region is a *net exporter of capital* to the rest of the world. Our apparent inability to attract external resources is due to many factors. Investors look at the expected total return on their investment compared to the expected risk over the lifetime of the investment. The evidence is that the risks, economic, political, security and other, at the level of the region and in individual countries, sovereign risk, have been high compared to the expected returns on investment.

In addition, the channels for investment and financial intermediation in our region have not been developed. We have not developed our capital markets, our equity and bond markets. International investors have many opportunities: they will search and invest where transactions costs are lowest and will look for investments allowing easy exit if the investment environment deteriorates. Finally, the barriers to investment – in terms of discriminatory rights of establishment, regulations, red tape and bureaucracy – have been a major disincentive for foreign *and* domestic investment. Note that the share of FDI compared to total investment and relative to GDP in the region is one of the lowest in the world: it is on average six times lower in the MENA countries compared to middle-income countries.

It is in this context that we welcome research aimed at improving our understanding of the forces shaping the development of our capital markets. The paper by Simon Neaime (hereafter, SN) addresses some of the issues related to the liberalization and integration of the MENA financial markets, i.e. stock markets, with the rest of the world and the effects of liberalization. My comments will fall into three parts. I begin with some background, some broad 'stylized facts' about the region's stock markets. This is followed by specific comments on the methods and conclusions of the SN paper. I end with suggestions for future research in this area. My call is for a different line of research, which is based on more structural modeling and testing, and for a deeper understanding of market logistics and institutions, including the neglected –by economists- areas of clearing and settlement, of security settlement systems and their implications for stock market efficiency, performance and international integration.

Some background, 'stylized facts' on MENA stock markets

The MENA region stock markets are small, whether measured in absolute size, market capitalization, or relative to a measure of aggregate economic activity (market capitalization relative to GDP). Indeed, the *total size* of the MENA region stock markets is smaller than the Greek or Portuguese stock markets, which themselves are considered as peripheral markets! The MENA region is simply not on the equity map of the world.

The small equity markets are also characterized by the small size of the companies listed on the stock exchanges. The large government-owned enterprises that dominate national production are not listed. In turn, the listed stocks display the well-known characteristics of small stocks: small trading volumes, infrequent trading, dominant (typically single family) majority shareholder, and high price and return volatility. Further, the markets typically lack free access (see Table 2 in SN) and the oversight of a strong, independent capital markets authority that would seek to enforce corporate good governance, and sound functioning of the market. These features result in high transactions costs, limited market participation by domestic investors and limited liquidity. As a result, the markets typically lack the desirable characteristics of breadth, depth and liquidity and do not attract either domestic or foreign investors, and the number of 'investable' shares is a small fraction of the listed shares on the exchanges. For example, S&P lists 65 stocks out of a total 1153 listed for the Egyptian stock exchanges.

The MENA region markets have under-performed during the roaring nineties. Whereas the stock markets of both the developing and emerging market economies were booming, attracting a record number of new listings and investors, generating above average returns, and "irrational exuberance", the region's stock markets yielded below average returns, under-performing world markets. In turn, this is likely to have also encouraged capital outflows from the region seeking higher returns.

What can we learn from the statistical tests?

Given this background, the paper by S. Neaime (SN) uses a variety of statistical and econometric techniques to examine the characteristics of price movements on the MENA stock exchanges, and their relationship with developed market stock exchanges, the US, UK and France. What are the results obtained by SN, what information could be gained from the tools used and should we be surprised? The main results based on analyzing weekly stock market price changes for the included markets can be summarized as follows. (a) Stock market prices tend to follow a random walk (RW), though it is not clear whether it is a simple random walk (SRW) or an SRW with drift. On this limited evidence, there do not appear to be gross violations of simple market efficiency. (b) The GCC markets appear to be co-integrated. SN attributes this to policy efforts to remove barriers to capital flows and to integrate their financial markets. However, the underlying reasons are more likely to be the similar economic structures with dominant oil and gas sectors, and the fixed exchange rate regimes, leading to similar risk/return configurations. The industry effect is dominant. On the other hand there should be no surprise that the MENA countries are not integrated. The economies and economic policy regimes are substantially different and there have been important structural changes over the period of analysis. (c) The region's markets, examined as sub-groups, that is MENA and GCC do not appear to be integrated with the world's stock markets. The results of the Johansen co-integration tests suggest that the MENA country stock markets tend to co-move with developed markets (US, UK), but that the GCC markets are less integrated. (d) The results of a vector auto-regression analysis (VAR), appears to validate the suggestion that the MENA stock markets are responsive to external shocks in developed country markets.

A number of comments are warranted concerning the statistical and econometric results and analysis, and the conclusions or inferences that can be drawn.

- The data purportedly used are end-of-week transactions price data. However, an issue arises concerning the 'asynchronous' nature of the data. All the MENA country stock markets (GCC, Egypt, Jordan) are closed on a Friday. So end-of-week may mean Thursday or even Wednesday. Whereas the developed markets have end-of-week on Friday. Hence the market prices are responding to different sets of information, different shocks, at different dates. With such measurement error and asynchronous data, it is difficult to predict what the dynamic relationship will be –if any- between the MENA and developed country market returns. The apparent lack of correlation or co-integration may simply be the result of asynchronous data. The empirical results would be strengthened with the use of daily data, relating to market returns (including dividends and not just prices) and to undertake the various tests using synchronous data, when both sets of markets are open. Similar problems arise because of differences in holidays (e.g. Ramadan which is variable from year to year) and differences in time zones. More generally, I would favor the use of spectral analysis techniques to examine the coherence of market returns across markets, at different frequencies.
- It is also not generally true that a "greater degree of co-movement generally reflects greater stock market integration". Two countries could have no trade, investment or financial links, but have similar production and preference structures and be exposed to common world or sectoral/industrial shocks. As a consequence, their stock markets will display a large degree of co-movement and coherence at different frequencies; they will appear integrated. By the same token, the GCC countries appear "integrated" precisely because of the similarity in economic activity and institutional structures. On the other hand, it is not surprising that the non-GCC, MENA countries that possess diverse economic structures and different economic and financial policy regimes do not appear 'integrated'.
- Increased integration with world markets does not necessarily diminish a market's potential risk diversification for international portfolios: that will depend on the risk/return characteristics, whether country or industry effects tend to dominate and the extent of co-movement over the business cycle. Similarly, a low correlation with international markets does not *ipso facto* imply that domestic assets would enter international investor portfolios for risk diversification objectives. Market access may not be available due a large number of foreign investment barriers, cost of access and information, taxation. In addition, other markets with better risk/return characteristics may dominate the low correlation markets.

Recent evidence by R. Brooks and M. Del Negro (2002)[3] has examined the dramatic increase in the correlation of the US market with developed economy markets from an average O.40% in the 1980's to 0.90% in the 1990's. For the MENA countries, there is increased co-movement, and to a lesser extent for the GCC countries. In particular, the issue arises whether this is a permanent phenomenon reflecting increased economic and financial integration, or whether it is a temporary phenomenon associated with the 'global bubble' of the roaring 1990's. For international investors, the issue is whether cross-industry has become more effective a risk diversification strategy than cross-country diversification. Brooks and Del Negro find that industry effects have outgrown country effects as a result of new economy component: telecommunications, media, IT biotechnology and the like. It is the 'new economy' bubble that appears to explain the increase in correlation, the apparent increased integration of the developed economy stock markets. There is no trend, systematic growth of correlation or integration over time between the US and other developed economies. However, the results support the view that there is increased integration *within* the European Union, resulting from increased economic, monetary financial and political integration, so that industry effects dominate country effects. For the MENA countries should seek to examine the sources of increased co-movements, and the extent to which they are temporary or more permanent.

- The SN paper examines some of the dynamic relationships between the stock markets, by estimating a simple vector auto-regression (VAR) model. The main reported results are that shock to the US (S&P) and the UK (FTSE), but not the French (CAC), stock markets have a persistent effect on the MENA markets lasting more than ten weeks. In particular, the results suggest that the Istanbul, Cairo, Amman and Casablanca markets appear integrated with world stock exchanges and respond to shocks to the latter markets, but that the GCC markets appear less responsive. While the results for the Mediterranean countries are not surprising, the limited responsiveness of the GCC markets may be due to the absence of major energy (oil & gas) price shocks over the period of analysis. It would have been interesting to see the results including the years 2001-2002 when oil prices have become more volatile.

Directions for Research on MENA Capital Markets.

The SN paper has proposed a number of interesting empirical propositions, and differences between the MENA and GCC countries. The paper also reports on some VAR estimates. However, it is not clear that the simple VAR estimates add much to the statistical/econometric tests in the paper. VARs are, in many ways, a measure of our ignorance. The underlying methods were developed by Chris Sims and Tom Sargent in the 1980's to investigate the rich dynamic relationship between macroeconomic variables (such as money, inflation, output and interest rates) without imposing *a priori* restrictions on leads and lags and causality. The argument was that economic theory (macro theory) did not provide good guides as to the structural

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[3] See the interesting paper by Robin Brooks and Marco Del Negro, "The Rise in Co-movement Across National Stock Markets: Market Integration or Global Bubble?" IMF Working Paper, WP/02/147, September 2002.

dynamic relationships between variables. Estimating VAR's would allow the data to suggest interesting areas for research. However, that is not the case when it comes to finance. Modern finance and the international capital asset pricing model (ICAPM) provide well-defined models, strong theoretical foundations, to guide empirical research in capital markets and the inter-relationship between stock markets[4]. In particular, theory would suggest that empirical research in this area would gain from estimating a three-factor model –global, industry and country factors, for market returns and their interrelationship. Specifically, individual returns for firm i in industry j, **R**it, could be specified as arising from:

$$\mathbf{R}_{it} = \alpha_t + \beta_{jt} + \gamma_{kt} + \varepsilon_{it}$$

Where α is the common global factor affecting all stock markets, β_j, is a global industry factor for industry j, γ_k is the country factor and ε_i is the firm specific or idiosyncratic factor.[5] Estimating such models for individual stock returns or sectors within the MENA region stock markets would be helpful in uncovering common world factors (world business cycle, interest rates, political and security shocks), country factors (economic and other policies) and separating them from (common) industry effects (say those arising in the telecommunications or IT industry, or oil& gas). Such structural models impose discipline and allow a test of hypotheses relating to liberalization and integration. The SN paper has started on the right path. Let us examine more structural approaches. In particular research is needed to address the issues in the title of the paper, namely the effects of liberalization and integration on stock market performance[6].

The other direction for research that is promising at the current level of development of our region's stock markets is to take a Coase-approach[7]. Devote time, effort and research to understanding the logistics of the region's stock markets and which affect transactions costs and liquidity. We should set up a **regional center for research on security prices** that would document and collect individual stock price and transactions data, dividends and events[8]. Such historical data capturing market transactions is an essential requirement for research and analysis. Gain a deep understanding of the payments systems, of the securities settlement systems and their interaction with the operation of the markets. Economists typically neglect clearing and settlement issues; they are unfamiliar territory. However, they are major sources of systemic risk and operational risk, as the Souk Al-Manakh crisis well illustrates.

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[4] See the papers included in G. William Schwert and Clifford Smith, Jr., editors, **Empirical Research in Capital Markets,** McGraw-Hill Inc. 1992**.**

[5] See S. Heston and G. Rouwenhorst, "Industry and Country Effects in International Stock Market Returns", Journal of Portfolio Management, Spring 1995, and Brooks & Negro, op.cit.

[6] See the interesting empirical results for 127 countries including most of the MENA countries in N. Fuchs-Schundeln and N. Funke, op.cit. 2001.

[7] See the inspiring essays in R.H. Coase, **The Firm, the Market and the Law**, The University of Chicago Press, 1988.

[8] This is one of several recommendations made in N. Saidi, "**International Capital Markets and Economic Development in the Arab Countries: A Quiet Revolution is Required**", Arab Banking Summit, Euromoney, London, June 1997.

The third area is to focus research on policies that should be implemented for capital market development in the ERF countries and to promote regional stock market integration. The development of the ERF country money, debt, and equity markets should be high on the policy reform agenda along with the set-up of the enabling laws, independent regulatory authorities and payments infrastructure[9]. Why haven't the announced policies of liberalization and deregulation of the stock markets, of capital market reform borne fruit? What should be done?

I end with an entreaty in favor of policy-oriented research that should seek to identify the major barriers and impediments to regional capital market integration in order for the markets to have the sufficient minimum size and the depth, breadth and liquidity. Well functioning capital markets are required to accompany and support economic and financial reforms, including privatization and increased reliance on the private sector. In particular, post September 11, 2001; the Arab countries are facing a variety of discriminatory barriers, economic, financial and political, that are adversely affecting their integration into the world economy and capital flows into the region. To minimize the negative effects on our economies, we should strive for increased economic and financial integration.

[9] For further discussion on the required building blocks, see N. Saidi, op.cit.,1997.