The Cost of Sovereign Lending
In The Middle East After September 11

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Abstract

One of the casualties in the aftermath of the attacks on September 11 has been global confidence in the Middle East. Sovereign risk - the credit risk assessment to the obligations of central governments – is believed to have increased. In response, credit rating agencies like Moody's and Standard and Poor (S&P) have revised their ratings or placed specific countries on their watch list, a move which normally precedes a credit downgrade. Using data from JP Morgan, Moody's, S&P, and the World Bank, we explain and quantify the variability of sovereign risk in five MENA countries between 1998 and 2002. Our results show that the sovereign risk is sensitive to the variability in the current account, a country's credit rating, and per capita income. Further tests of the impact of September 11 on the region reveal that its sovereign risk has risen by 135 basis points on average. Three immediate implications emerge from our results. Our findings help policymakers in MENA countries (1) better understand how financial markets are pricing their risk, (2) identify the specific risk bins which influence their credit spreads, and (3) suggest mitigation techniques on how their sovereign risk can be reduced.

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1. Introduction and Objective:

One of the casualties in the aftermath of the attacks on September 11 has been global confidence in the Middle East. Sectors such as tourism have been mauled hurting the economies of several tourism-dependent countries like Egypt, Jordan and Morocco. Compounding the problem are the on-going Palestinian uprising and Iraq both of which have cast dark shadows on the region's financial sectors. Many of the local stock markets have felt the impact. For example, the Kuwaiti Stock Exchange witnessed on October 2, 2002 the second biggest decline throughout its history. Moreover, the attacks of September 11 occurred at a time when equity markets worldwide were in a broad retreat and eighteen months into what is now known as the bear market. As a result, many of the falling stock markets, which were looking for an anchor, accelerated their downward slide. Asset deflation has been widespread from Arab governments, investment institutions and individual investors. In several affluent MENA countries, the private sector is believed to have carried the brunt of the adverse effects of September 11. The Saudi Arabian Monetary Agency (SAMA) estimated that the value of holdings of the Saudi private sector alone fell by $50 billion as a result of the terrorist attacks.

Against this backdrop, the tragic events have also brought positive changes to the region. For one, the dip in Western markets made investment funds flow back into the MENA region providing a much-needed boost for the local stock exchanges. This trend seems to have accelerated in the second half of 2003 with many equity markets in the region registering new highs. There are also signs of an increased propensity to repatriate private capital to the region in order to take advantage of the private sector investment opportunities. For example, during the

first three quarters of 2002, the value of the traded shares in Saudi Arabia grew 65% over the same period in 2001. Capital repatriation was also far more pronounced in Saudi Arabia where total commercial bank deposits with SAMA swelled by 84% to 22.5 billion riyals in the third quarter of 2002 relative to the same period in 2001. Other Arab countries also experienced growth in their banking sectors, albeit more slowly. Egypt's bank deposits increased 17% between June 01 and June 02, while for Kuwait, the figure is 11% for the entire 2002.

With these conflicting factors at play, two questions emerge: (1) how did these factors impact the MENA region as a whole and (2) did investor's risk assessments change as evidenced in the sovereign risk premium they require.

2. Sovereign Debt Analysis in MENA:

Sovereign risk is the risk of the government or government related entity meeting its obligations. Sovereign risk can be divided into three major risk buckets: political, financial, and economic. Sovereign ratings measure the ability and willingness of governments to meet their financial obligations.

A parallel metric to sovereign risk is the country risk rating which measures the potential volatility of local stocks and the potential default of government bonds due to political or financial events. Country risk encompasses both the government (sovereign) and commercial (cooperate, banks, etc) sectors. The main rating agencies are Standard & Poor (S&P) and Moody's, although latecomers like Fitsch and others are increasingly gaining ground. The two main agencies use somewhat different notations in their ratings. Although they both assign a "triple-A" for debt that is considered to carry the least risk, the rating moves down the alphabet as the risk increases.

Following September 11, the sovereign risk for the MENA region is believed to have increased. As the region's governments borrow in the

international bond markets, their credit ratings are gaining significant importance. This is evidenced by rating assignments for new countries that were previously ignored by the agencies (eg. Saudi Arabia). By reducing investor uncertainty about risk exposures, sovereign ratings have enabled several governments to gain access to the Eurobond market. However, the history of credit agencies is fraught with disagreement and controversy over specific rating assignments, primarily because of the difficulty of assessing sovereign risk. In response, financial markets have shown some skepticism towards sovereign ratings when pricing new issues. This has paved the road for alternative risk assessment methodologies to develop. Euromoney magazine, for example, publishes country risk assessment bi-annually (in March and September). In addition, many large lenders do not rely exclusively on the rating agencies or Euromoney's assessments but include them as part of their own internal risk assessment methodology.

While the rating agency disagreements over sovereign ratings are quite common, we believe that they stem from the relative inexperience of the agencies in rating sovereign credits and from the difficulty in assessing the political and economic conditions that affect a country's creditworthiness. In principle, the relationship between sovereign ratings and market yields imply that financial market participants recognize inherent disagreements in measuring sovereign credit risk. Indeed, we found that markets generally require much a larger risk premia for sovereign debt issues than for similarly rated corporate bonds[1]. Moreover, the rank-ordering of sovereign risks implied by market yields frequently differs from the rankings assigned by the agencies. We suspect that rating agencies and market participants may rationale the difference in rating to the governments broad ranging powers to

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[1] Cantor and Packer [1996] found that Sovereign bonds typically trade at higher yields than comparable rated US industrial bonds. They stated that the mean and median sovereign spreads over comparable industrials are 147 and 50 basis point. They also reported that 36 of the 38 sovereign observations are priced at a higher yield than comparable corporates.

tax domestic income and the authority to print the local currency, both of which enhance a government's ability to meet its financial obligations. Our observations are confirmed by results from other regions that there is a substantial disagreement between the agencies in their assessments of credit risk for low-quality sovereigns and more consensus at the high-quality sovereigns (Cantor and Packer [1996]).

Place Tables 1& 2 about here

With regards to the rating of specific MENA countries, we found that S&P has given the Egyptian sovereign currency a rating that ranged between BBB- in 1999 to BB+ in 2003, whereas Moody's ranged from B1 in 2001 to Ba1 in 2003. These ratings are the lowest sovereign credit risk. For Lebanon, S&P sovereign currency rating fluctuated between BB- in 1999 and B- in 2003 and Moody's ranged between B1 and B2 for the same period. These ratings are the lowest sovereign risk ratings. S&P only started rating Saudi Arabian sovereign currency in 2003 by assigning it an A+. However, Moody did not yet rate Saudi Arabian sovereign currency. Turkey's ratings remained relatively stable over the period under study. Although S&P sovereign ratings for the year 2002 and 2003 declined for Egypt and Lebanon and remained stable for Morocco and Saudi Arabia, Moody's sovereign ratings were unchangeds over the same period. This inconsistency highlights the frequent disagreement over specific rating assignments.

Turning to the country ratings for the years 2002 and 2003, we found a decline for Egypt, Lebanon, Morocco and Turkey. Comparing tables 1 and 2, one can observe that, after September 11th, country risk has increased in four of the five MENA countries that we investigated. However, sovereign risk increased in

only two countries after September 11th. One possible explanation is that country risk may be more sensitive to local, regional, and global events than sovereign risk. In terms of sovereign yield spreads, we notice a clear blip in figure 1 around September. The spreads are provided for non-MENA markets in order to make comparison possible. Evidently, all sovereign spreads rose following this event. While there is no doubt that a temporary increase in risk occurred after September 11, what is not clear however is whether there was a permanent shift in risk perception for that region. We seek to answer this fundamental question within the framework of an elaborate time series and cross section econometric analysis in section 3.

Sovereign Spreads Around Sept 11 (in bp)
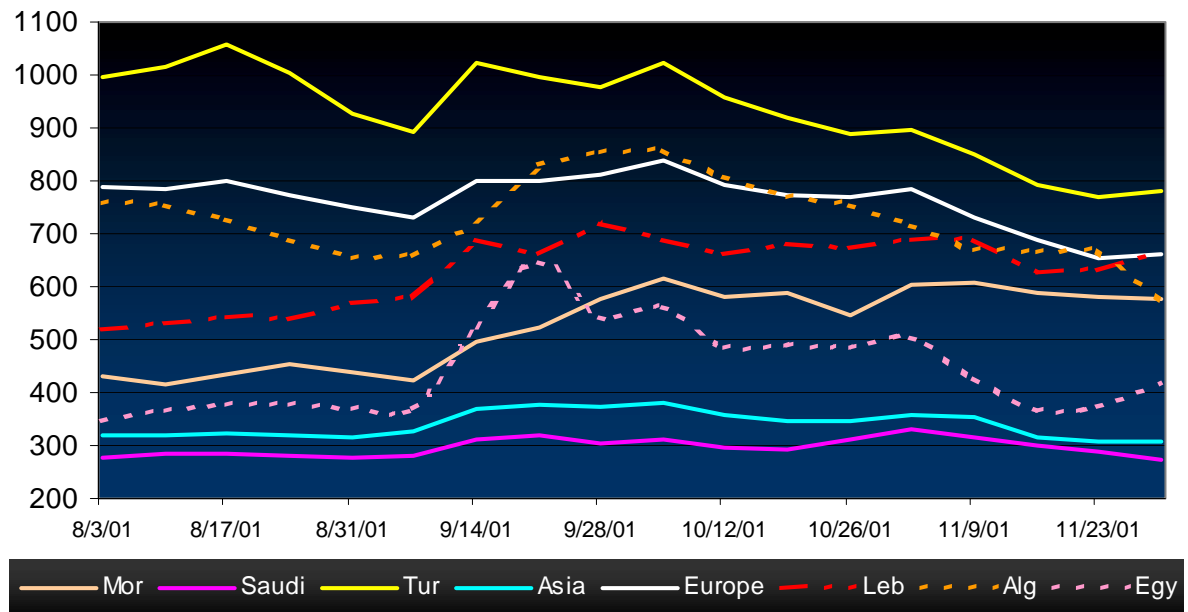
The academic literature on sovereign risk is broad and well developed but not for the MENA region -- in fact, we could not identify a single study on

Sovereign Risk applied to any MENA country. For Latin America and Asia, however, the list is long (Erb et. al. 1994, Hargis et al. 1998, among many others). For example, Edwards (1986) estimated the determinants of the spread on Mexican bonds during the early 1980's. Among the significant variables he found were debt/exports and reserve/imports. Boehmer and Meggison (1990) investigated whether the debt crisis in the 1980s was exacerbated by LDCs' insolvency or market illiquidity. Using data on ten countries, they rule out the impact of liquidity risk and conclude that major credit banks should revise their lending practices. Ramcharran (1999) identified that sovereign credit ratings as the primary determinants of loan prices on the secondary market. However, an earlier study by Cantor and Packer (1996) showed that there is significantly more disagreement between rating agencies in their assessments of credit risk for low quality sovereigns than for similar quality US corporate credits. More recently, Abadie and Gardeazabal (2003) investigated the effect of conflict using terrorist conflict in the Basque Country and found that in the late 1960's, per capita GDP in the Basque country declined about 10 points relative to a synthetic region without terrorism. Chen and Siems (2004) used event study methodology to assess the effects terrorism on global capital market. They examined the US capital markets response to 14 terrorist/military attacks. They reported that US capital market became more resilient than in the past and recover sooner form terrorist attacks than other global markets. Ericsson and Reneby (2004) compared the effectiveness of the authors' proposed structural bond pricing model using the maximum-likelihood method and the more commonly reduced-form model and found that the authors' model prices bond equally well; indicating the model has less predictability when the credit ratings are lower and when the time horizon is further out of sample.

Our study elaborates on this literature in two directions: we (1) tie in the debt indicator variables directly to the yield spread on Eurobonds issued by 5 MENA countries, and (2) test whether the events of September 11 has created a shift in risk perception across markets. This test is critical if one wants to challenge any rating change by the agencies.

3. Proposed Data and Methodology

With a better-defined model than Euromoney's country risk analysis, we estimate the determinants of sovereign risk in five MENA countries in a panel setting. Using cross sectional and time series data on credit spreads derived from eurobond issues, we determine the evolution of sovereign risk over time and test whether a fundamental repricing of risk for MENA countries occurred post September 11. Our analysis quantifies the additional cost premium a select group of five countries had to bear as a result of any shift in risk perception. Our results will help policymakers (1) better understand how financial markets are pricing their risk, (2) identify the specific risk bins which influence their credit spreads, and (3) suggest mitigation techniques on how their sovereign risk can be reduced.

The model's explanatory variables consist of trade and debt indicators available from the *World Development Indicators* published by the World Bank. The sovereign risk yield spreads are available by subscription from *JP Morgan*. The historical sovereign ratings are available from Moody's and S&P also by subscription. Finally, the equity data for each country's stock market index is obtained from *Bloomberg*. The data is divided into 3 categories:

- Economic Indicators: calculated by using the (a) current account balance to GDP, and (b) gross national income (per capita). These variables have been widely used by Euromoney and debt rating agencies as a measure of a

country's sovereign risk. There is a slew of other variables[2] that are potentially useful. Their time availability however remains a problem as some MENA countries are slow to report their economic statistics, often after a two-year lag.

- Financial Indicators:
  - Credit ratings: the average of sovereign ratings from Moody's and Standard and Poor's. The letter ratings (AAA, BBB, etc…) are converted into scores from 0 to 10. We follow Euromoney magazine's conversion and let 0 represents default and 10 the highest possible credit rating.
  - Stock Market Performance: calculated as the monthly percentage change in each MENA country stock market. By including this variable, we test whether the sovereign market has anticipated any change in sovereign risk

- Event Indicator: This is a dummy variable to test whether the sovereign risk in MENA countries has changed from pre-September 11 to post-September 11.

Because our data contains information on cross sectional units (countries) observed over time, a panel data estimation technique is adopted. This allows us to perform statistical analysis and apply inference techniques in either the time series or the cross–section dimensions. The model takes the form:

$$SR_{it} = \alpha_i + \beta_{it} x_{it} + u_{it}.$$

where $i = 1,2,...N$ cross sections and periods $t = 1,2,...T$, with $T = 60$ monthly periods (from January 1998 through December 2002) and $N = 5$ countries (Egypt, Lebanon, Morocco, Saudi Arabia, and Turkey). SR_{it} represents the sovereign risk and is computed as the yield spread to a US Treasury security of comparable

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[2] Euromoney for example uses debt service to exports and external debt to GDP. Edwards (1986) used the debt to export ratio and reserve to imports ratio. Unfortunately, as of October 2003, the latest data from the World Bank for all these variables is 2001, thereby preventing a test for the event of September 11.

maturity, and x_{it} is a vector of 5 independent variables explained above. The dummy variable technique will determine if September 11 has produced a fundamental shift in the sensitivity of sovereign risk to each of the independent variables we include. Some of the independent variables will vary over time and across sections, whereas other will only vary across sections. While the error terms are serially correlated for k > l, they are independent of the regressors (ie. $E[u_{i,t+k,k} \otimes x_{it}] = 0$). The residual covariance matrix for this set of equations is given by:

$$\Delta = E(uu') = \sigma^2 I_N \otimes I_T$$

4. Results and Discussion:

The Sovereign Spread measures the yield differential between a country's sovereign bond and a US Treasury security of comparable maturity. As such, the spread provides a direct (and perhaps the best available) market assessment of the sovereign risk of a country. The advantages of using the Sovereign Spread to measure a country's sovereign risk are several: (1) the yields on sovereign bonds are quoted daily thereby providing a frequent update of a country's risk situation; (2) unlike the agencies' subjective credit assignments, the sovereign spreads are determined by the market and therefore more objective; and (3) just as stock prices impute the most efficient information of a company, the yield on sovereign bonds reflects the most direct available market assessment of a country's sovereign risk.

Place table 3 about here

Table 3 shows the descriptive statistics for sovereign spreads (in bp), Gross National Income (Atlas Method, in US $), Current Account (as % of GDP) and

Monthly Equity Returns for each of the five MENA countries we investigated[3]. Turkey has the largest sovereign spread, but Lebanon's is the most volatile during more than the 60 quarters of observation. In terms of stock market risk, Turkey is the most volatile equity market, and Morocco's had the least return fluctuation.

Place table 4 about here

Table 4 reports the results of the panel data estimation technique. In terms of sovereign risk, it is important to look at the results across two dimensions: overtime and across countries. For example, the coefficient of the credit rating variable shows the impact in basis points of a one-notch change in credit rating. The negative sign indicates that a rating upgrade reduces a country's sovereign spread. Specifically, if the region's rating improves one level, the sovereign spreads are expected to tighten by $\approx$ 40 bp. How useful is this number? When combined with a target interest rate at which a country desires to borrow, this result will help determine the incremental increase (or decrease) in interest cost a country expect to pay (save) in the event their credit rating drops (improves). For a policymaker, this result provides a direct measurable target towards which a borrowing country can aim.

Place table 5 about here

Turning to the economic variables, all the income coefficients are negative, as expected, with a strong influence on sovereign risk (their p-value is < 1%). In terms of strength, Morocco's sovereign spread is most influenced by a change in

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[3] Sovereign spreads are available on two other countries: Algeria and Tunisia. Algeria was dropped from the analysis because its ratings were sporadic apparently due to the civil strife and which presented a special case. The Sovereign Spreads for Tunisia began being quoted on the market after September 11 and therefore the data is not relevant for this study.

per capita income, followed by Egypt, then Turkey and Lebanon. Saudi Arabia's sovereign risk is the least influenced by its per capita income level. Examining the actual incomes for these countries from the World Bank data (table 5), we find that income levels in Turkey and Morocco actually declined in dollar terms during the study period. The decline was most severe for Turkey than Morocco (21% vs. 5%). During the same period, Saudi Arabia experienced an income growth of 5%. Egypt outperformed all the other countries in the sample with a solid 20% growth rate.

With respect to the current account variable, a 1% deficit produces a widening in the sovereign spread of 18.7 bp for Morocco. However, the results are mixed for other countries. The coefficients for Lebanon and Turkey indicate a similar directional impact but are statistically insignificant. The coefficients of both Egypt and Saudi Arabia show an opposite effect. We suspect that the contradictory signs are attributed to the fewer observations we have on those two countries.

Finally, the results fail to indicate any advance warning in the stock market for an impending change in sovereign risk. The coefficient of the equity variable is statistically insignificant. One explanation is that the domestic equity markets for these countries may not be as well integrated with other financial markets in the world and therefore external signals do not transmit to their segmented domestic markets[4].

Our results also provide a test of the impact of September 11 on sovereign spreads. The coefficient of the dummy variable is positive and highly significant. The magnitude of the coefficient suggests that the marginal impact of September 11 on sovereign spreads for these countries has been to the tune of 135 bp. Of course, the total change in the sovereign spread is far greater, however not all that

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[4] For a discussion on the integration of MENA equity markets, see Darrat et. al. (2000), and Hakim & Neaime (2000).

change is attributed to September 11 and can be explained away by specific changes in the regions' economic conditions. For example, the average sovereign spread in the MENA region between April 98 and August 2001 was 274 bp. By comparison, the corresponding figure post September 11 and until December 2002 is 860 bp. The net change is 586 bp, of which only 135 bp are purely attributed to September 11. There are two considerations for this finding: (1) the change represents the incremental premium the MENA region had to bear because of a worsening risk perception and (2) the premium should be viewed as an additional tax on the region's borrowing rate (both internal and external), and therefore may have discouraged some countries to tap the world market. Of course determining the real costs of disrupting the region's plans to borrow is difficult to assess. What we do is evaluate the increased risk premia on the region's outstanding non-domestic debt. Data on the external debt (table 6) for the region in 2002 from the World Bank amounted to $202.3 billion on which the impact of 135 bp can be substantial even though a good portion of this debt is under long-term agreements and where the rate may be locked. However, the effect of the higher risk premium on sovereign debt is limited due to its relatively small size. From table 7, based on the outstanding value of the region's sovereign debt ($17.5 b) and its average life (7.1 years), a 135 bp translates into $\approx$ $1.67 b in additional interest cost, the bulk of which was borne by Turkey.

5. Conclusion:

Sovereign ratings measure the ability and willingness of governments or government related entities to honor their financial obligations. The three major components are political risk, financial risk and economic risk. A parallel measure to sovereign risk is the country risk rating which assesses

the potential volatility of local stocks and the potential default of government bonds due to political or financial events. Country risk encompasses both the government (sovereign) and commercial (cooperate, banks, etc) sectors. For both rating assignments, the main agencies are Standard & Poor (S&P) and Moody's, although latecomers like Fitsch and others are increasingly gaining ground. The two main agencies use somewhat different notations in their ratings. Although they both assign a 'triple-A' for debt that is considered to carry the least risk, the rating moves down the alphabet as the risk increases.

Moody's and Standard and Poor's frequently disagree over specific sovereign rating assignments. In fact, split ratings' are prevalent and occur quite frequently, leaving investors uncertain about the credit risks of the governments in question. We noted, for example, a rating change disagreement for Lebanon and Egypt. Overall, however, the majority of MENA countries have the lowest sovereign rating with the exception of Saudi Arabia.

Using data from the JP Morgan, the World Bank, the rating agencies and Bloomberg we examine the determinants of the sovereign yield spreads between 1998 and 2002. The advantage of using the sovereign yield spreads is predicated on the belief that they provide the best available assessment of the sovereign risk of a country. Whereas the agencies country risk ratings are subjective and reviewed infrequently, only as conditions warrant, the yield spreads on sovereign bonds are quoted daily thereby providing a more updated, direct and objective assessment of a country's economic, financial and political conditions. To that end, we presented an econometric analysis based on a panel study of five MENA countries: Egypt, Lebanon, Morocco, Saudi Arabia and Turkey.

Our findings reveal that the temporal fluctuation in Sovereign Spreads is explained by changes in the current account, the assigned rating from the rating agencies, and per capita income. The equity markets however did not seem to react in anticipation of a change in sovereign risk not attributed to the preceding variables, and therefore had no marginal contribution to provide. Our analysis also extended to the behavior of sovereign spreads following the tragic events of September 11. A graphical representation showed that a temporary jump in sovereign spreads worldwide from Asia, Europe, to Central and Latin America, and of course MENA. Further tests confirmed that a fundamental repricing of risk occurred following September 11 with sovereign spreads rising by an average of 135 bp, a significant factor in light of the region's $202 billion in external debt. These results (1) provide policymakers with a tool to assess the 'fair' sovereign spread their country is expected to pay to investors in its Eurobonds; help them (2) identify the individual determinants of the fluctuation in sovereign spreads over time; and (3) develop borrowing strategies to select the optimal timing to tap the world market for funds.

Table 1									
MENA Sovereign Ratings									
	1999		**2000**		**2001**		**2002**		**2003**	
	Moody's	S&P	Moody's	S&P	Moody's	S&P	Moody's	S&P	Moody's	S&P
Egypt	NA	BBB-	NA	BBB-	Ba1	BBB-	Ba1	BB+	Ba1	BB+
Lebanon	B1	BB-	B1	B+	B2	B	B2	B-	B2	B-
Morocco	Ba1	BB	Ba1	BBB-	Ba1	BB	Ba1	BB	Ba1	BB
Saudia Arabia	NA	NA	NA	NA	NA	NA	NA	NA	NA	A+
Turkey	B1	B	B1	B+	B1	B-	B1	B-	B1	B

Figures for Moody's and Standard & Poor's are from September 2003.

Table 2									
MENA Country Ratings									
	1999		**2000**		**2001**		**2002**		**2003**	
	Moody's	S&P	Moody's	S&P	Moody's	S&P	Moody's	S&P	Moody's	S&P
Egypt	Baa1	A-	Baa1	A-	Ba1	BBB+	Ba1	BBB	Ba1	BBB-
Lebanon	B1	BB	B1	BB-	B3	B	B3	B-	B3	B-
Morocco	Ba1	BBB	Ba1	BBB	Ba1	BBB+	Ba1	BBB	Ba1	BBB
Saudia Arabia	Ba1	NA	Ba1	NA	Ba1	NA	Ba1	NA	Ba2	A+
Turkey	B1	NA	B1	B+	B3	B-	B1	B-	B1	B

Figures for Moody's and Standard & Poor's are from September 2003.

Table 3						
Descriptive Statistics						
Variable	**Country**	**Mean**	**Max**	**Min**	**Std. Dev.**	**Quarters**
Sovereign Spread (in BP)	Egypt	356.0	543.0	154.0	92.7	24
	Lebanon	446.4	1052.0	129.0	277.5	63
	Morocco	522.3	1563.0	244.0	194.3	67
	Saudi Arabia	350.4	659.0	228.0	110.8	60
	Turkey	676.8	1114.0	357.0	189.0	67
Gross National Income (in US$ Atlas Method)	Egypt	1,426	1,530	1,270	95	60
	Lebanon	3,914	4,000	3,670	128	60
	Morocco	1,203	1,250	1,180	25	60
	Saudi Arabia	8,103	8,460	7,780	245	48
	Turkey	2,752	3,060	2,420	256	60
Current Account (as & of GDP)	Egypt	-1.3	0.0	-3.0	1.1	60
	Lebanon	-21.6	-18.6	-27.3	3.2	60
	Morocco	1.2	4.8	-1.4	2.5	60
	Saudi Arabia	1.7	7.8	-9.0	6.9	48
	Turkey	-0.7	2.3	-4.9	2.5	60
Monthly Equity Returns	Egypt	-0.002	0.210	-0.175	0.074	68
	Lebanon	-0.011	0.159	-0.166	0.064	56
	Morocco	-0.001	0.121	-0.065	0.042	68
	Saudi Arabia	0.016	0.602	-0.387	0.101	68
	Turkey	0.035	0.798	-0.390	0.197	67

Table 4		
Cross Section and Time Series Analysis (seemingly unrelated regression)		
Time Period: Jan 1998 - Dec 2002		
Dependent Variable: Sovereign Yield Spread to US Treasury		
Countries: Egypt, Lebanon, Morocco, Saudi Arabia, Turkey		
Total panel observations: 233 (5 cross sections and 60 months)		
Variable	**Coefficient**	**Std. Error**	**t-statistic**
Const**	2058.40	236.51	8.70
Credit Rating**	-39.68	11.37	-3.49
Sept 11 Dummy**	134.86	30.28	4.45
Stock Market Index	88.74	70.29	1.26
GNI (Mor)**	-1.15	0.19	-6.24
GNI (Sau Ar)**	-0.20	0.03	-7.10
GNI (Tur)**	-0.49	0.08	-6.01
GNI (Leb)**	-0.50	0.12	-4.35
GNI (Egy)**	-0.98	0.14	-7.16
Curr Acc (Mor)*	-18.74	8.65	-2.17
Curr Acc (Sau Ar)*	6.76	3.39	2.00
Curr Acc (Tur)	-7.80	7.74	-1.01
Curr Acc (Leb)	-23.48	20.43	-1.15
Curr Acc (Egy)**	322.55	68.34	4.72
R-squared	*0.42*	*Durbin-Watson stat*	*0.46*
* Significant at 10%		*** Significant at 1%*	

Table 5								
GNI per capita Atlas method (current US$)								
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Algeria	1590	1550	1540	1560	1540	1580	1660	1720
Egypt	990	1100	1200	1270	1370	1490	1530	1470
Israel	14960	16160	16710	16470	16310	16710	..	..
Jordan	1580	1570	1580	1590	1620	1720	1750	1760
Kuwait	20700	19350	19600	18880	16730	17900	18270	..
Lebanon	2650	2990	3360	3670	3910	4000	4000	3990
MENA	1760	1930	2060	2080	2070	2160	2230	..
Morocco	1120	1300	1250	1250	1200	1180	1190	1190
Oman	5630	6060	6550	6420	6120	6710	7720	..
Saudi Arabia	7180	7600	8110	8050	7780	8120	8460	..
Sudan	260	270	280	300	320	310	340	350
Syria	910	860	890	940	920	950	1040	1130
Tunisia	1820	2000	2080	2050	2090	2100	2070	2000
Turkey	2750	2820	3100	3060	2800	2980	2420	2500
Yemen	270	280	340	380	390	420	460	490

Source: World Development Indicators 2003, World Bank.
Data unavailable for Qatar, UAE, and Libya

Table 6								
Total External Debt (current US$)								
	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Algeria	33.0	33.6	30.9	30.7	28.0	25.3	22.5	..
Egypt	33.3	31.4	29.9	32.3	30.9	29.0	29.2	..
Jordan	7.7	7.4	7.3	7.6	8.1	7.4	7.5	..
Lebanon	3.0	4.0	5.0	6.8	8.2	9.9	12.5	..
MENA region	211.8	203.7	195.0	209.8	213.9	202.1	200.6	202.3
Morocco	5.8	6.1	6.2	6.3	6.8	6.6	6.0	..
Oman	5.8	6.1	6.2	6.3	6.8	6.6	6.0	..
Sudan	17.6	17.0	16.3	16.8	16.1	15.7	15.3	..
Syria	21.4	21.5	20.9	22.5	22.4	21.7	21.3	..
Tunisia	10.8	11.4	11.2	10.9	11.9	10.6	10.9	..
Turkey	73.8	79.6	84.8	97.1	102.2	118.3	115.1	..
Yemen, Rep.	6.2	6.4	3.9	4.9	5.4	5.6	5.0	..

The World Bank reports to external debt for Israel, Kuwait, Libya, Qatar, Saudi Arabia and UAE.
Source: World Development Indicators 2003, World Bank.

	Face Value Outstanding (US$ mil)	%	Average Life (Years)	Sov Spread	Interest Rate	Yield (%)	Spread (bp)
				Duration			
Table 7							
Sovereign Debt by Country as of August 2003							
By sub-region							
Africa	10,803	4.52	7.7	4.26	5.13	7.98	4.11
Asia	28,825	14.2	8.4	5.39	5.59	6.31	2.19
Europe	53,156	25.16	10.9	6.13	6.32	7.51	3.17
Latin America	130,695	54.5	12.6	5.44	5.77	10.44	6.24
MENA	17,511	3.6	7.1	4.2	4.1	8.3	4.5
By Country							
Bulgaria	3,631	1.62	10.1	5.61	3.43	6.6	2.4
Chile	2,850	1.34	7.3	5.66	5.84	5.04	1.04
Ecuador	3,750	1.11	21	5.74	6	15.83	11.53
Egypt	1,500	0.77	6.2	4.75	4.88	5.24	
Lebanon	3,400	1.63	3.5	2.76	2.8	7.21	4.25
Morocco	1,261	0.53	2.8	2.58	0.38	5.21	2.4
Tunisia	650	0.32	8.6	6.25	6.47	5.88	1.69
Turkey	10,700	5.22	8.8	4.61	4.76	9.55	5.63

Source: JP Morgan Aug 29, 2003.

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