

## **INVESTING SURPLUS SOCIAL INSURANCE FUNDS IN EGYPT'S CAPITAL MARKETS**

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*In the late 1990s the Government of Egypt issued a Ministerial Decree allowing the Ministry of Social Insurance to invest a portion of the surplus from the Egyptian social insurance system in the Egyptian Stock Exchange. By 1998, the accumulated surpluses from the social insurance system had reached nearly LE100 billion (US\$29 billion), and annual surpluses were expected to continue until demographics began shifting, sometime in the next few decades. By investing a portion of these surplus funds in Egypt's emerging capital markets, the government expected to earn higher returns and enhance the financial viability of the social insurance system.*

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### **INTRODUCTION**

In the late 1990s the Government of Egypt was considering a substantial increase in the investment of surplus funds from its social insurance system in the Egyptian capital markets, particularly in equities. Prior investments of surplus social insurance funds in the domestic capital markets had amounted to less than 1 percent of their total financial investments, and included direct purchases in the shares of several companies listed on the Egyptian Stock Exchange. The projected success of future, more sizable investments would depend largely on Egypt's future economic performance, as well as the investability of stocks on the Egyptian Stock Exchange.

The government faced several important questions. First and foremost, was it suitable for the government to invest surplus social insurance funds in the Egyptian stock market? If so, what was the appropriate level of involvement for the Ministry of Social Insurance in the investment of these funds? Was the current staff at the ministry and other closely-related ministries adequately prepared for their involvement in the investment of these funds? Finally, did the Egyptian stock market have sufficient depth and breadth to provide adequate diversification benefits?

To help prepare officials from the Ministry of Social Insurance, the Ministry of Economics, and the Ministry of Finance for their increased responsibilities related to investing surplus social insurance funds in the capital markets, a small team of faculty from the US conducted a series of training workshops in Cairo that focused

on capital market instruments and fundamentals, bond and stock valuation, economic and industry analysis, security analysis, diversification, risk and return, portfolio management, asset allocation, and fiduciary responsibilities.

### **BACKGROUND: EGYPT'S SOCIAL INSURANCE SYSTEM**

Egypt's social insurance system is a mandatory, state-run, pay-as-you-go defined benefit system. In a pay-as-you-go system, current contributions from employers and working employees pay for the current retirement pensions and other benefits. Whether a pay-as-you-go pension system runs an annual deficit or surplus will depend on the number of contributing workers, the payroll tax, the income amount subject to the payroll tax, the number of retirees receiving pensions, and the formula for determining pension payments. Contributions to Egypt's social insurance system were based on a government-levied payroll tax that ranged from 31 to 41 percent of the first LE1,025 of a worker's monthly wages. (The Egyptian pound was pegged to the US\$ at an exchange rate of LE3.41 per US\$.) The basic retirement pension was calculated as 1/45 of average monthly earnings for the last two years before retirement multiplied by the number of years of contributions. The mandatory retirement age for receiving the old age pension benefit was 60.

Egypt's social insurance system was arguably one of the more advanced in the developing world, especially in terms of its coverage ratio. The coverage ratio, which measures the insured workers as a percentage of the labor force, exceeded 80 percent. On the other hand, the youthfulness of Egypt's system was apparent by its old-age dependency ratio of about 15 percent. This ratio measures the percentage of a country's older population (60 and above) to its working-age population (ages 20 to 59). Egypt's old-age dependency ratio was consistent with most other emerging market countries throughout the world. By contrast, many highly-industrialized countries have old-age dependency ratios exceeding 30 percent (older populations with fewer contributors supporting retirees receiving pensions).

With its low old-age dependency ratio and relatively high contribution (payroll tax) rates, annual contributions to Egypt's social insurance system exceeded annual benefit payments and led to an accumulation of surplus pension funds. The Ministry of Social Insurance was required to invest these surplus funds in the National Investment Bank (NIB) of Egypt. By the end of fiscal 1998, LE91.8 billion (US\$27 billion) of surplus social insurance funds had been invested in the NIB. The NIB in turn invested these surplus funds in various development projects throughout Egypt.

From 1980 to 1992, the NIB paid an interest rate of 5 to 6 percent on deposits from the social insurance system, which fell far short of the 18 percent inflation rate. In



1992 the government authorized an increase in the interest rate credited on deposits to 13 percent. This increase represented an effort by the government to improve the financial position of the social insurance system. The NIB, however, did not make cash interest payments on these deposits. Rather, interest was credited to the social insurance account. While noting the importance of paying a market interest rate on the deposits, some economists argued the larger issue was whether the NIB would have the financial stamina to repay its loans to the Ministry of Social Insurance when the population aged and annual surpluses turned to deficits.

### **ECONOMIC OUTLOOK FOR EGYPT**

The economic outlook for Egypt was promising. From 1993 to 1997, annual GDP growth ranged from about 3.9 percent to 5.3 percent. During the same period, annual per capita income increased modestly from US\$1,167 to US\$1,281. Interest rates and inflation had been declining steadily. The inflation rate for 1997 was 6.2 percent and the yield on 90-day Treasury bills by the end of 1997 year was 8.8 percent. The government estimated the unemployment rate at about 9.3 percent.

The Egyptian exchange rate had been informally pegged at LE3.41 per US\$ since 1993. With steady capital inflows, a strong reserve position of about US\$20 billion, and falling inflation, many economists believed the prospects for maintaining a stable exchange rate were strong. With strict and prudent lending regulations imposed on the Egyptian banking sector, limited short-term foreign currency debts, and sufficient interest rate differentials to prevent capital outflow, the weak economic fundamentals that caused currency crises in so many developing countries did not appear to be present in Egypt.

Egypt's external debt service obligations of about US\$1.7 billion did not appear excessive. Short-term debt was a mere 2% of GDP. About half of the external obligations represented rescheduled Paris-club debt owed to the US, France, Germany, and Japan. With its strong foreign currency assets (US\$20 billion in official reserves and US\$11 billion of foreign assets in banks), the external debt was not expected to pose any liquidity problems.

Egypt's economy in the late 1990s was evenly split between production and services. On the production side, industry accounted for about 27% of GDP, agriculture for about 16%, and construction for about 5%. On the service side, trade accounted for about 17% of GDP, government services 8%, personal services 7%, transportation and communications 7%, and tourism about 5% of GDP. The private sector had been growing under the economic reform program and was now accounting for more than 66% of GDP.

### **THE EGYPTIAN STOCK MARKET**

Egypt's stock market was an emerging stock market. By the end of 1998, there were 863 companies whose stocks were listed on the Egyptian Stock Exchange. About 70 of these companies had stocks that were actively traded. Market capitalization at the end of 1998 totaled about LE83.5 billion (US\$24.5 billion), with the 70 most actively-traded stocks accounting for more than half of that total. The most widely represented sectors included building and contracting, building materials, engineering, financial services, housing, food and beverage, trade, and travel and tourism. The largest industry sectors in terms of market capitalization were cement (19% of total market cap) and finance (18% of total market cap). Exhibit 1 provides a pie chart showing the thirteen most prominent industry sectors represented on the Egyptian Stock Exchange along with their sector market capitalization as a percentage of total market capitalization.

Several indexes track the values of stocks on the Egyptian Stock Exchange including the Hermes Financial Index (HFI) and the EFG Index (EFGI). The HFI is a broad-based index tracking the most actively-traded companies (62 firms) on the exchange. As such, the index is useful for tracking general market trends. The EFGI is a large cap index that includes only actively-traded companies with a market capitalization of LE900 million and larger. Both the indexes are revised quarterly and are published daily by Reuters, Bloomberg, and Datastream. The value of the HFI increased more than 400 percent between December 1992 and February 1997. After reaching its peak in February 1997, the index gradually declined throughout the rest of 1997 and all of 1998.

The Egyptian stock market experienced phenomenal growth between 1992 and 1998. As reported in Exhibit 2, the total market capitalization of stocks on the Egyptian Stock Exchange increased from LE11 billion in 1992 to LE79 billion by December 1, 1998. Exhibit 2 also provides other selected market data including the number of listed companies, number of transactions, and the volume and value of shares traded each year during that 1992-1998 period. The data suggests that the substantial increase in market capitalization was largely attributable to increases in the market values of firms already listed on the exchange and to new companies that listed on the exchange during the period.

Trading activity had also increased dramatically, as measured by the number of transactions and the volume and value of shares traded. The trading activity had been highly correlated with the value of the stock market indices and privatization activity. At the height of the privatization program in 1996 and early 1997, the number of transactions was abnormally high. Ignoring these abnormal years, the volume of



shares traded rose steadily over the period from 30 million in 1992 to 457 million in 1998; the value of shares traded increased from LE 597 million to LE 19.5 billion during the same period.

A growing number of investment management and mutual funds provided investment fund choices to investors. In the late 1990s, approximately 132 brokerage firms offered investment services in Egypt. Exhibit 3 provides information on the 18 local mutual funds managed by 9 different investment firms available to investors in 1998. Investors could choose between a variety of open-end and closed-end mutual funds which focused on income, income and growth, and growth objectives.

Exhibit 4 compares the performance of the Egyptian stock market to other emerging stock markets for 1996, 1997, and most of 1998. The 38.3 percent increase in 1997 and the nearly 27 percent decline in 1998 in the Egyptian stock market (as measured by the Hermes Financial Index) is not out of line with other increases and decreases worldwide in emerging-market countries during the same period. Some analysts expressed concern that the price-earnings ratio for the Egyptian stock market for 1998 was lower than most of the market price-earnings in other comparable developing countries. They reasoned that price-earnings ratios, which are typically a proxy for expected future growth, were suggesting lower growth for Egyptian companies than in these other markets. Others, however, suggested that the lower price-earnings ratios for Egyptian stocks suggested they are undervalued relative to stocks in other developing countries.

Exhibit 5 reports the liquidity, as measured by the value of shares traded, for the 20 most heavily-traded stocks on the Egyptian Stock Exchange. It is interesting to note that out of the 20 most actively-traded common stocks, 5 are flour mill, 4 are cement, 4 are in development, hotels, or housing, and 2 are banks. This clustering within just a few sectors, which is also obtained when liquidity is measured in terms of volume of shares traded (not reported), raised some doubts about the ability of investors to achieve adequate diversification when investing in domestic Egyptian stocks.

The Government of Egypt identified two reputable fund management companies, EFG Hermes and HC Securities and Investments, as competent fund managers for managing portfolios invested in Egyptian securities. Both firms had considerable investment analysis and portfolio management skills and experience.

Some economists, however, cautioned that investing even a small fraction of the surplus would make the Egyptian government the largest single shareholder in the capital markets and effectively partially renationalize through share purchases what

the government had already privatized. Did the government understand fully the risks associated with government involvement in the investment of pension funds in the Egyptian stock market.

Formal and informal discussions in our training sessions revealed that many Egyptians believed the stock market was too risky for the investment of social insurance funds. Some likened investing in stocks to gambling in a casino; it simply was not appropriate. Others did not trust the corporate management of the firms in which these funds would be invested.

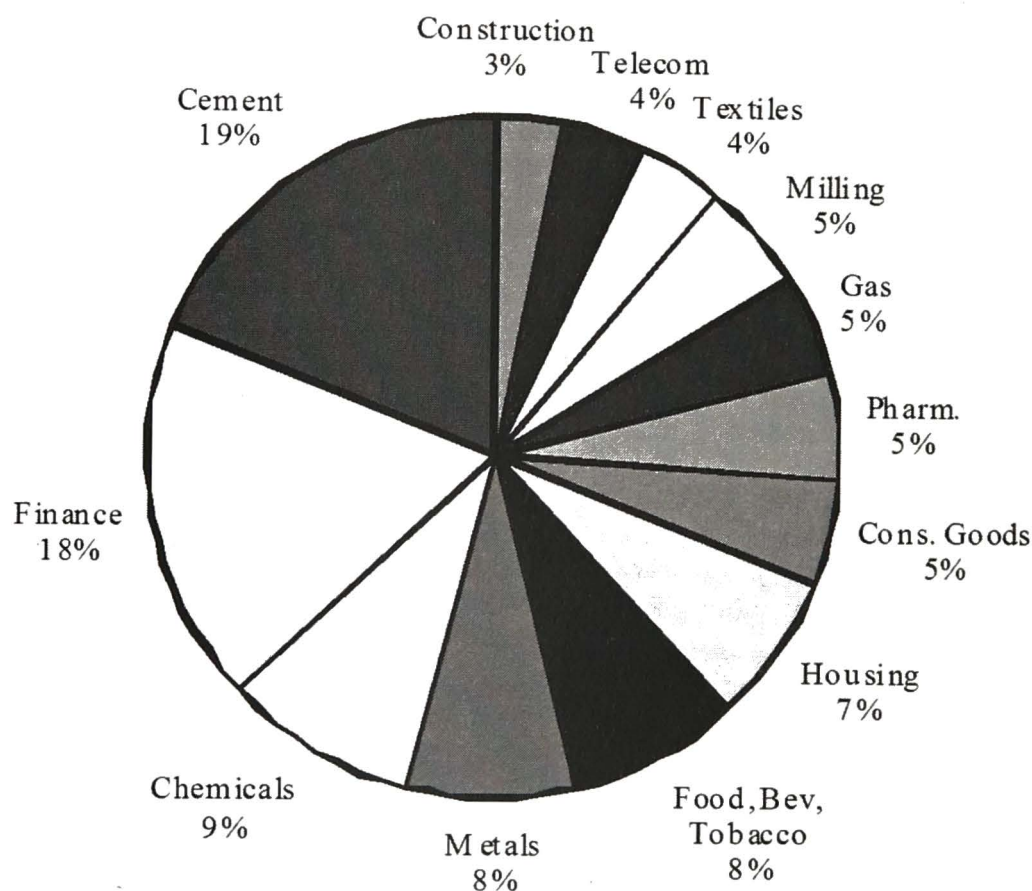
An equally important aspect of our discussions revolved around the investability of Egypt's capital markets. Specifically, could sufficient diversification be attained if investments were limited to domestic common stocks? The data in Exhibits 1 and 6 shed light on this issue. When the benefits of international diversification were discussed, nearly all participants dismissed the possibility of investing their pension funds in foreign stocks. Most felt it would be disloyal when the funds were so badly needed by local Egyptian companies.

### **CASE QUESTIONS**

1. How would you describe the liquidity of the LE90 billion surplus social insurance funds that were invested in the National Investment Bank? In other words, will these "funds" be secure and readily available for future pensioners when demographics change and the annual operating surpluses become annual operating deficits? Would investing surplus social insurance funds in the Egyptian stock market affect the liquidity of future social insurance funds for future pensioners?
2. How would you describe the investability of the Egyptian stock market for surplus social insurance funds? In particular, can portfolio risk be appropriately reduced by adequate diversification? If not, would foreign diversification be appropriate and desirable?
3. What are the risks associated with the Egyptian government directly investing surplus social insurance funds in the Egyptian stock market? Discuss whether it might be more suitable for outside professional portfolio companies to manage the investment of surplus social insurance funds.

## EXHIBIT 1

### Sector Weightings of Firms Listed on Egyptian Stock Exchange



## EXHIBIT 2

### Relevant Stock Market Data

	1992	1993	1994	1995	1996	1997	1998
Number of Listed Companies	656	674	700	746	646	650	834
Market Capitalization (LE bn)	11	13	14	27	48	71	79
Number of Transactions (m)	13	12	94	469	2,316	1,225	636
Volume of Shares Traded (m)	30	18	60	72	208	373	457
Value of Shares Traded (LE m)	597	569	2,557	3,849	10,968	24,219	19,491

Source: IBTCI – figures good through Dec. 1, 1998, and InterCapital figures. Price related ratios are based on April 7, 1999 prices.



### **EXHIBIT 3**

#### **Mutual Funds in Egypt**

Fund	Manager	Type	Size (LE m)
Allied Investors	Egyptian-Anglo	Growth	100
AMEX	Hermes Fund Mgmt.	Income/Growth	300
Bank of Alexandria	Egyptian Fund Mgmt.	Growth	200
Banque du Caire	Hermes Fund Mgmt.	Growth	100
Banque Misr 1	Concord Intl. Inv.	Income	500
Banque Misr 2	Concord Intl. Inv.	Growth	400
Delta International Bank	Hermes Fund Mgmt.	Income/Growth/Closed	50
EAB	Egyptian Fund Mgmt.	Growth	200
Egyptian Gulf Bank	Hermes Fund Mgmt.	Income/Growth	100
Egypt International Fund	Concord Intl. Inv.	Growth/Closed	500
Export Development Bank	Cairo Portfolio Mgmt.	Income	100
MIBank	Concord Intl. Inv.	Growth	250
Misr Exterior Bank	Lazard Asset Mgmt.	Income/Growth	100
Misr Iran Devp. Bank	Lazard Asset Mgmt.	Income/Growth	100
National Bank of Egypt 1	National Fund Mgmt	Growth	200
National Bank of Egypt 2	National Fund Mgmt	Income	300
Orient Trust	Egyptian Invest.	Growth/Closed	50
SAIB 1	Prime Securities	Growth	150
SAIB 2	Prime Securities	Income/Growth	50
SAIB 3	Prime Securities	Income/Growth	50
Suez Canal Bank	Egyptian-Anglo	Income/Growth	100

Source: Intercapital



## **EXHIBIT 4**

### **Equity Market Returns of Selected Emerging Stock Markets**

<b>Equity Market Returns</b>	<b>1996</b>	<b>1997</b>	<b>1/98 - 11/98</b>
Egypt	-	38.29	-26.97
China	40.1	-16.4	-32
Indonesia	12.8	-73.5	-40.3
Malaysia	23.3	-68.4	-27.1
Philippines	-20.6	32.1	-69.3
Thailand	-38.4	-78.9	37.6
Argentina	15.5	25.8	-15.7
Brazil	40.3	29.2	-34.2
Mexico	11	49.2	-26.8
Czech Republic	36.7	-32.2	-12.3
Hungary	170.4	93.5	-25.6
Poland	70.9	-17.9	-1.4
Russia	133.5	104.9	-84.8
Greece	14.6	35.4	59.3
Israel	1.2	37.9	-3
Turkey	51	91.5	-51
South Africa	-15.3	-15.7	-20.7

Source: ING Barings' Global Emerging Markets Strategy (6 Nov. 1998)

## **EXHIBIT 5**

### **Liquidity of the 20 Most Heavily Traded Stocks: Value of Shares Traded, November 1-26, 1998**

<b>Name of Company</b>	<b>Value Traded (L.E.)</b>	<b>Market Value* Traded (%)</b>	<b>Market Capitalization**</b>
Commercial International Bk. (CIB)	121,637,665	11.16	1,782,300,000
Alexandria Iron and Steel	43,158,313	3.96	1,070,330,000
Mobinil	38,663,408	3.55	871,795,200
Tourah Cement	37,448,079	3.44	1,379,701,818
Medinet Nasr Housing	35,783,206	3.28	823,680,000
Helwan Cement	35,362,492	3.25	1,215,426,248
Mist International Bank (MIBank)	34,561,470	3.17	1,397,700,000
Industrial and Eng. Projects	32,412,505	2.98	298,560,000
Orascom Holding Hotels	31,605,700	2.90	192,592,200
Suez Cement	30,771,054	2.82	2,518,803,205
Amreyah Cement	29,394,304	2.70	1,005,800,000
Eastern Tobacco Company	28,366,871	2.60	1,797,250,000
Middle and West Delta Flour Mills	27,936,618	2.56	204,225,000
Six of October Dev. and Inv.	25,793,724	2.37	263,400,000
Upper Egypt Flour Mills	22,667,514	2.08	232,260,000
North Cairo Flour Mills	20,621,845	1.89	208,260,000
Amreyah Pharmaceuticals	18,664,500	1.71	540,000,000
East Delta Flour Mills	18,550,670	1.70	138,000,000
Egypt Gaz	17,884,522	1.64	1,542,000,000
Alexandria Flour Mills	17,791,348	1.63	121,680,000
<b>TOTAL</b>	<b>633,401,938</b>	<b>68.38%</b>	<b>15,939,983,671</b>

Source: Financial Securities (monthly bulletin of Cairo and Alexandria Stock Exchanges), Vol. 1. No. 4.

\* Traded Value of the Company / Traded Value of the Market

\*\* Based on November 26 Prices