ISRAEL'S FINANCIAL ACCOUNT LIBERALIZATION

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Abstract

During the last two decades the Israeli economy underwent a gradual, consistent and successful process of liberalization in the financial account. This process was part of a strategy of increasing the openness of the economy in order to utilize the economy's growth potential. This paper analyses the sequence of the process from 1985 to 2005, and in the light of the failure of the big-bang liberalization in 1977. The paper also explores the effect of the liberalization process on two events undermining financial stability, and examines the macroeconomic impact of liberalization on the Israeli economy.

The sequence in which the liberalization process was implemented was consistent with the concept of slower progress in capital outflows and short-term instruments, as compared to faster progress in capital inflows and long-term instruments. The order by sector affiliation gave priority to the business sector and nonresidents over households and institutional investors.

A comparison of the "big-bang" liberalization of 1977 with the success of the gradual process of the current liberalization, reveals the reasons for the failure of the first one. Understanding these factors facilitated a more successful process. These factors being: inadequate macroeconomic conditions, the extent of the openness of the local capital markets, the information infrastructure on capital flows, and the extent to which policy tools were adapted to the removal of foreign exchange control.

An examination of the macroeconomic impact of the liberalization process on the Israeli economy reveals numerous indications of increased openness of the economy, an expansion of its financial account (inflows as well as outflows), and an improvement in its financial status. In addition, the growing involvements of nonresident in capital markets, led to more efficient capital markets, and enabled the economy to exploit the advantages of globalization in order to integrate successfully into international markets.

I. Introduction - Liberalization Against the Background of Macroeconomic Reforms

The liberalization process in the foreign-exchange market was conducted from the end of the 1980s with the objective of abolishing foreign exchange control and leading to the full convertibility of the Shekel. This process was part of a strategy of increasing the openness of the economy, it being understood that the benefit from liberalization would outweigh the cost involved in it – a cost deriving from the structural and institutional preparations necessary for the development of the capital markets. Worldwide experience shows that liberalization increases the openness and competitiveness of the economy, contributes to an expansion of its sources of finance and the opportunities for diversifying investments, increases nonresidents' investments, and contributes to the development of the capital markets and the foreign-currency market. The local markets become more efficient and sophisticated, thereby enhancing the allocation of saving and investment. All these make it possible to fully exploit the economy's growth potential and increase economic efficiency. At the same time however, liberalization increases the economy's exposure to external shocks and to contagion from financial crises in other economies. This danger compels the business and financial sector to cope with exchange-rate risks, and macroeconomic policy-makers to manage a responsible and suitable policy that can withstand the constant test of the markets.

Worldwide experience gained with respect to liberalization programs shows that the elements necessary for removing the restrictions on capital flows are: monetary and fiscal policy in accordance with accepted macroeconomic standards, flexibility in the exchange-rate regime in a manner that matches the environment of global financial markets with high capital mobility; and deregulation in the money and capital markets.

Until the 1980s, the financial markets in Israel were effectively nationalized: the government and the Bank of Israel were heavily involved in the individual financial decisions of the public and financial intermediaries; special financial frameworks existed for different sectors that were managed with no regard to the state of the markets; the budget deficit was financed by "money printing"; and the foreign exchange market, including the determination of the exchange rate, was a government monopoly. Macroeconomic policy under these background conditions led to a crisis in the mid-1980s that was reflected by inflation of 400 percent, a current account deficit of 6 percent of GDP, and a budget deficit of 15 percent of GDP.

In 1986 the conduct of macroeconomic policy in the Israeli economy was restructured.

A decision was taken to reduce government involvement and to move to a market economy. The move to a market economy proceeded on the basis of a number of components that were managed

simultaneously for a period of 20 years. The components of the transition to the new economy included:

(1) A move to a responsible macroeconomic policy

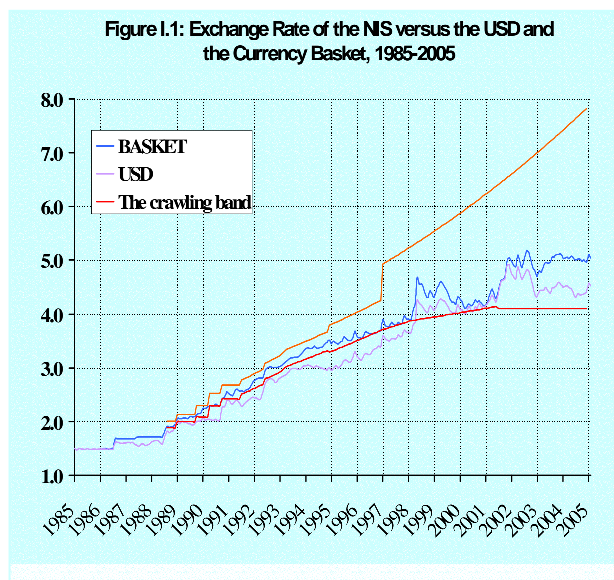
From the mid-1980s an economic stabilization program was conducted with the aim of halting the inflationary spiral. The program included a number of elements. The government undertook to balance the budget, to stop administrative devaluations and to accept a prohibition on borrowing from the central bank. The labon unions accepted an erosion in their wages, and the employers froze price increases. At the beginning of the 1990s, a decision was taken to bring economic policy into line with what was formulated under the Maastricht Treaty. Under this framework, separate quantitative objectives were defined for fiscal policy and monetary policy. With respect to fiscal policy, a target for the reduction of the government deficit was defined, and it was agreed that this policy would focus on scaling down the balance-of-payments deficit. For monetary policy, inflation targets were determined and it was agreed that this policy would focus on reducing the inflation differentials between the economy and the developed world. Today, annual inflation amounts to 2 percent, the economy has a balance-of-payments surplus of one percent of GDP, while the budget deficit is declining, and currently amounts to 3 percent of GDP.

(2) The change in the monetary anchor from a nominal exchange-rate regime to an inflation target regime

At the start of the program, disinflation policy was based on the exchange rate as a nominal anchor for prices. A gradual transition was then made to a regime of inflation targets with the use of the interest rate as a key policy instrument. The landmark stages in this process were the setting of annual inflation targets in 1991. A decade later, from the year 2000, in view of the large drop in the inflation environment the government decided to set a downward course of inflation targets and in that year it was also decided to set a multi-year price stability target from 2003. Under present monetary policy, a multi-year price stability target has been defined as within the range of 1-3 percent inflation a year.

(3) The change in the exchange-rate regime from fixed to freely floating

The move from the monetary anchor of the exchange rate to inflation targets accentuated the need for a transition to a floating exchange rate. This was against the background of the central bank's inability to maintain simultaneous control over the interest rate, the exchange rate and the money supply. The landmark stages in the process were the move to a horizontal band of floating, which was replaced by a band with an upward slope ("the diagonal band") that was expanded over time, permitting increasing volatility in the exchange rate. At the outset, the Bank of Israel intervened in determining the limits of an internal band. But from mid-1997 the Bank of Israel stopped intervening in the market. In that year the band was expanded considerably, the slope of the lower limit was flattened and the range of mobility was increased repeatedly. As a result, the exchange-rate regime became floating, both in theory and in practice. In 2005 the band was officially abolished, and the exchange rate is now freely floating (Figure I.1).



(4) Deregulation of the capital and money markets

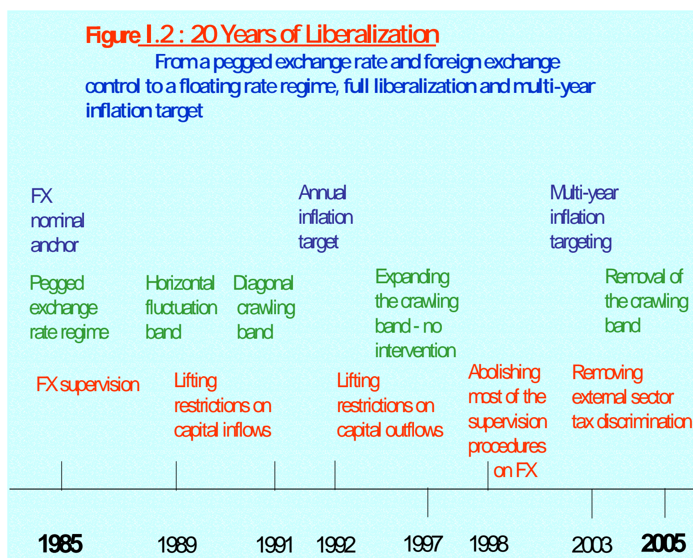
The objective of the reform in the capital and money markets was to provide the infrastructure for a competitive and tradable capital market, while reducing government involvement in the financial markets and moving to a modus operandi based on market discipline. Under the deregulation processes, special credit frameworks, that were given without connection to the state of the markets, were disbanded, quantitative restrictions on financial transactions between the public and financial intermediaries were abolished, the government stopped serving as a financial intermediary between savers and investors, the government debt was rolled-over, and the tax discriminations favoring the government in borrowing from the public were abolished. The deregulation processes also included an expansion of the room for maneuver in monetary policy, which gradually began to use market tools instead of administrative tools.

(5) Liberalization in the financial account

The abolition of the requirement for the exchange rate to serve as a nominal anchor and the move to a floating exchange rate obviated the need for restrictions on capital flows, and facilitated a liberalization process that in principle ended in 2004 with the removal of the tax discrimination on

investments abroad. The Israeli shekel is now freely convertible, and there are no restrictions on foreign exchange activity.

All the previously mentioned processes were conducted **concurrently** over a period of 20 years (1985-2005, Figure I.2), and contributed greatly to a dramatic change in the economy's macroeconomic environment, to a substantial improvement in the economy's fundamentals, and to its successful integration in the international markets.



This paper is concerned only with the latter component, that is, the liberalization process in the financial account, and focuses on the processes involved in increasing the openness of the economy. The paper does not refer to the other elements that were managed concurrently and that are described above.

The structure of the rest of the paper is as follows:

Section II deals with the sequence of the liberalization process ; **Section III** compares the current liberalization process with the "big-bang" liberalization of 1977; **Section IV** describes the expansion of the information base concurrent with the liberalization process; **Section V** examines the relationship between the liberalization process and the undermining of financial stability; **Section VI** discusses the macroeconomic effects of the liberalization process; **Section VII** summarizes the paper.

II. The Liberalization Process Sequence

Economic literature is replete with studies that attempt to determine the correct order of a liberalization process. Most of them relate mainly to the correct sequence of the reforms that accompany liberalization. Part of the studies present macroeconomic stability and structural reforms in the money markets as preconditions for the liberalization of the financial account. Others argue that the liberalization process can constitute the first stage within the framework of more extensive economic reforms. The latter approach states that liberalization must occur concurrent with the implementation of macroeconomic reforms and deregulation in the capital markets. This approach, of concurrent processes, was applied in Israel as stated and was described in the introductory

section. This section will describe only the sequence of the liberalization process itself, focusing on the processes of opening up the economy and not on local activity in foreign currency. One should note that Israeli residents had access to numerous forms of activity in foreign currency within the economy during the period of hyperinflation and foreign-exchange control. These created a tradition of indexation to foreign currency as a value retainer, a factor that slowed and hindered the disinflation process over the years.

The sequence of the liberalization process in Israel was determined in the first stage on the basis of broad categories: trade in goods and services, as compared to capital flows. The extensive literature on the subject reflects a consensus that the liberalization in the current account must be implemented first, and should be completed in an indirect manner before the start of a major liberalization process in the financial account. In Israel, prior to the liberalization in the financial account, the current account was completely open, except for restrictions covering outgoing tourism and in the current transfers item. In this paper the description of the sequence of the liberalization is relating only to the financial account, in the course of which the last restrictions governing the current account were removed.

The sequence of the liberalization process in the financial account can be categorized by several basic parameters: (1) type of capital movement– capital inflows as compared to capital outflows (2) the extent of capital flows liquidity (3) sectors of the economy – business sector, households and institutional investors.

The liberalization in the Israeli economy's financial account, which began in the early 1990s, proceeded gradually in all the previously mentioned areas, was staggered over 15 years, and was comprised of a long series of minor measures that were reflected by hundreds of changes in the foreign exchange control directives. The process was notable for consistency in the policy measures applied, without backtracking or reversals of direction in policy during the years in which the process was implemented.

Sequence by direction and type of capital flow

Prior to the start of the liberalization process, hardly any restrictions were imposed on nonresidents' investments in the economy except for those on short-term investments: derivative instruments, credit and deposits, and short-term local-currency bonds. Direct investments, including in real estate, and investments in securities and long-term bonds were permitted without any restriction. Under the first stage in the liberalization process, the supervision of Israeli residents' long-term capital inflows – direct loans from abroad, and issues of long-term bonds - was lifted. This was based on the concept that the removal of the restrictions on short-term capital inflows should be

very gradual due to the high volatility characteristic of them. At a later stage, the restrictions on Israeli residents' capital exports were removed. Initially, the restrictions on financial investments were lifted, and several years later permission was gradually granted to the business sector to make free direct investments abroad. The removal of the restrictions on short-term capital outflows was left to the last stages in the process – The granting of permission for such outflows was associated with the concern that financial stability would be undermined and that the foreign exchange reserves could be depleted.

A key stage in the liberalization process was the amendment to the Foreign Exchange Control Law that was passed in May 1998. Under this amendment, nearly all transactions in the financial account and the current account are permitted. At that time, permission was granted simultaneously for nonresidents' short-term capital imports, except for activity in derivatives, and Israeli residents' short-term capital exports, except for restrictions on institutional investors' and households' investments abroad.

Sequence by sectors

The removal of the restrictions on the different sectors of activity over the years was concurrent with the liberalization process. However, preference was given to removing the restrictions on the business sector and for nonresidents, since these sectors were considered to be those that would spur the economy's integration into the world economy and contribute to its growth. As a result, at a certain stage the business sector was granted permission to directly invest abroad while such investment was prohibited for households. The household sector was permitted to make certain types of financial investments abroad subject to tax discrimination. The subsequent permission granted for wider financial investment by the business sector was not accompanied by tax discrimination. The removal of all the restrictions on households financial investments abroad, and the holding of foreign-currency accounts abroad was delayed to later stages in the process. The institutional investors sector, representing mainly households' savings, was left to the end of the process in view of this sector's considerable potential for transferring capital abroad. Even after the restrictions on investment abroad were removed, a certain element of tax discrimination remained in comparison with investment in local assets. This tax discrimination was abolished only recently, in 2003 and 2005.

International comparison

Although the liberalization process in Israel was similar to that in West European countries, the process in those countries was more rapid. The slow and gradual nature of the process in Israel

made it possible to develop supportive information systems and to expand the reporting base, as compared to countries where the process was rapid. This issue will be discussed in Section IV.

A comparison with emerging economies shows that the liberalization processes in those countries were very often accompanied by backtracking from the process and a resumption of restrictions on capital flows. Some countries, such as Chile and Malaysia, formally re-adopted a policy of restrictions on capital movements as a result of shocks. The literature reviewing the liberalization in emerging economies shows that the success of or retreat from liberalization resulted less from one particular order of implementation or another, and was mainly associated with the resilience of the financial system and the responsibility and transparency with which fiscal and monetary policy were conducted.

III. The" Big-Bang" liberalization of 1977

In 1977, the Israeli economy was subjected to an unsuccessful liberalization attempt before the liberalization described above. In this section we will examine the reasons and the conditions that led to the failure of this liberalization. Recognizing these reasons, subsequently made a more successful liberalization possible.

In October 1977, it was decided to launch a new era in the economic regime: liberalization in the foreign-currency market. The liberalization was sudden and rapid, and was implemented against the background of fragile macroeconomic conditions, leading shortly after, to its almost complete abolition.

The liberalization process was accompanied by a change in the exchange-rate regime, from a crawling peg regime to a floating exchange rate. This change went along with an administrative devaluation of 50 percent, and an abolition of the differential exchange-rate mechanism that had operated in the economy for many years. The liberalization took the form of removal of all restrictions on activity in foreign currency, as well as lifting controls on current account and financial account.

The liberalization had two principal macroeconomic effects on the economy, which eventually necessitated its abolition.

The first effect derived from the fact that before the liberalization, the public held foreign-currency denominated local assets on a large scale compared with the local money supply. The 50 percent devaluation led to a large increase in the local value of these assets.

However, the growth in capital imports to the economy resulted in a real appreciation of the exchange rate (Figure III.1). The rate of price increase from October 1977 to October 1978 was 54 percent, while the concurrent depreciation of the nominal exchange rate was only 22 percent. The

real appreciation threatened to inflate the current account deficit. The Bank of Israel took action to absorb the supply of foreign currency and increased the money supply in order to prevent a more radical real appreciation.

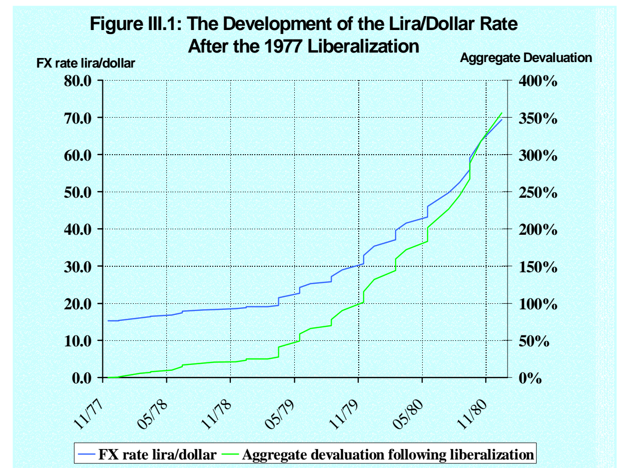


Figure III.1: The Development of the Lira/Dollar Rate After the 1977 Liberalization

These two developments - the increase in the value of the public's indexed assets, and the growth in the money supply resulting from incoming capital flows – pushed the economy into an inflationary spiral, with inflation surging from a level of 43 percent in 1977 to 111 percent in 1979. The rapid implementation of the liberalization precluded the opportunity for constructing alternative information infrastructures to those existing in the period of foreign exchange control. As a result, the authorities lacked adequate real-time data on capital inflows. When policy-makers managed to comprehend the relationship between the liberalization in the foreign-exchange market and the upsurge in inflation, they took measures in the opposite direction, and foreign exchange controls were re-imposed. At a certain stage, the floating exchange-rate regime was abandoned completely, and the Bank of Israel returned to manage the exchange rate. These measures failed to stop inflation, which surged and reached a record of over 400 percent at 1984.

Comparison of the failure of the 1977 liberalization attempt with the success of the present liberalization process, reveals several major key points: The 1977 liberalization was implemented rapidly and came as a surprise, as compared to the slow and gradual nature of the present process. In 1977, background macroeconomic conditions were fragile and deteriorating, compared with the better and improving conditions at the end of the 1980s. The financial markets prior to the first liberalization attempt were controlled, there were no developed capital and money markets, and relative prices in the capital markets did not reflect economic value. This is in comparison to the reforms in the capital and money markets that were implemented simultaneously with the present liberalization process. Policy-makers were not prepared for coping with large capital flows and their impact on monetary policy in 1977, because of inadequate real-time information on capital flows and policy tools that were mainly administrative in nature. The present liberalization process however was implemented while obtaining full information on capital flows, and concurrent with the move to the use of market tools in monetary policy and the staged adaptation of policy instruments to the removal of control on capital flows.

IV. Expansion of the Information Base Concurrent with the Liberalization Process

One of the main aspects of the proper management of a liberalization process relates to the area of information systems. A move from a foreign exchange control to liberalization, naturally deprives policy-makers of the data on capital flows. A slow pace of liberalization made it possible to develop an extensive infrastructure of information on Israeli residents' activity abroad and in foreign currency. The process included a shift from supervision to reporting without encountering obstacles from the private sector. Worldwide experience showed that countries which removed supervision in one step without having developed reporting infrastructures prior to the liberalization process had difficulty in constructing them afterwards. A notable example was the case of the UK where supervision was lifted in one step without creating a suitable reporting infrastructure. As a result, the foreign-currency information infrastructure there has had to rely on surveys.

The information system in Israel is mainly built around a network of reports that different entities in the economy are legally required to report to the central bank on a current basis. This report network expanded as the liberalization process progressed, and now includes reports from various financial intermediaries, primarily the banks, on their activity abroad and in foreign currency, as well as direct reports from corporations and individuals whose volume of activity exceeds a given threshold.

A data base was constructed from the array of data reported from different sources. The data reflects the activity of the economy and the different sectors within it in two main areas: (1) activity vis-a-vis abroad - the financial account, that is transactions between Israeli residents and nonresidents (balance of payments data), the outstanding of the economy's foreign assets and liabilities, (IIP),and the economy's external debt; (2) the local activity in foreign exchange: Due to the large amount of this activity in the Israeli economy, the need arose to monitor the different sectors' foreign-currency purchases and sales, their foreign-currency asset and liability balances and asset surplus (exposure to changes in the shekel exchange rate), and nonresidents' local currency activity.

The principal use of the information system is the monitoring of capital flows and the going on in shekel-foreign-currency markets, as a key component of the management of monetary policy and the retention of financial stability. The collation of real-time information on the size and composition of capital flows and foreign-currency purchases and sales, the types of actors operating in the market facilitates the early identification of new developments and an orderly decision-making process. The importance of monitoring capital flows and foreign-currency activity in the Israeli economy has increased during recent years. This is because it is an open economy that is integrating increasingly into the world economy, and because of the rising proportion of capital

flows in its activity and its classification as an emerging economy that is perceived as more vulnerable to external shocks, especially after the financial crises in various countries during the previous decade.

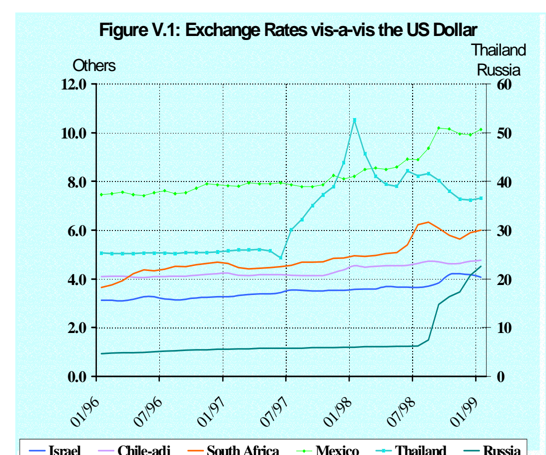
V. Relationship between Liberalization and Financial Instability

liberalization tends to increase the economy's exposure to external shocks, and it can also intensify the impact of local shocks. The Israeli economy experienced two instances in which financial stability was undermined in the course of the liberalization process, and that were reflected by a large depreciation of the exchange rate and a large increase in its volatility: in October 1998 due to the impact of worldwide financial crises; and in 2002 as a result of local developments that affected the yield-versus-risk ratios in the economy. In the case of both crisis situations, the mechanism through which the crisis developed was Israeli residents' purchases of foreign currency rather than nonresidents' large-scale repatriation. In both crises, the central bank refrained from intervening in foreign exchange market, but had to react vigorously with the interest rate tool in order to stop the process of undermining financial stability.

The liberalization's contribution to the aggravation of the crises was minor. This was because of Israeli residents' ability to purchase foreign-currency denominated instruments even before the liberalization process. Although the liberalization made it possible to buy foreign-currency assets abroad, had the liberalization not been implemented it can be assumed that the demand for foreign currency from the non-banking private sector would have been directed to foreign-currency indexed local assets. Moreover, the perception of a shortage of foreign currency in the situation of a closed economy could have intensified the depreciation of the exchange rate and the undermining of the stability in the market during both crises. However, the crises increased Israeli residents' awareness of exchange-rate risk and as a result, led to a growth in demand for hedging instruments.

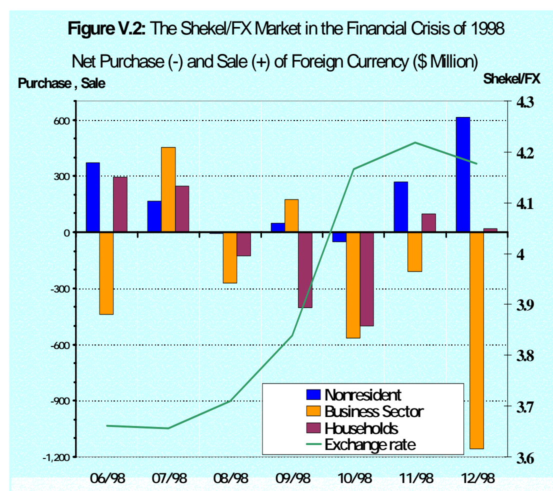
world financial crisis of October 1998

The world financial crisis at the end of 1998 developed as a result of the Russian government's debt moratorium and concern following of the collapse of the LTCM hedge fund. This was against the background of the currency crises in South East Asia. Throughout the world, investors' concept of risk changed overnight, and they began to withdraw a large part of their investments in emerging economies.



Consequently, the risk premium that foreign investors required on the credit that they granted to these economies increased considerably. As a result of these developments, the local currencies of part of the emerging economies depreciated rapidly (Figure V.1).

Israel was not spared the effects of the financial crisis, which were reflected by a large depreciation of the shekel against the dollar and by a large increase in exchange rate volatility and in bid-ask spreads in the foreign-exchange market. However, the mechanism through which the crisis spread to Israel was not via nonresidents repatriation but via the business sector, that changed its concept of risk, and therefore reduced its appreciable exposure to a depreciation by accruing foreign currency in deposits in Israel and abroad. Nonresidents who had realized their investments on a large scale in most of the emerging economies, operated in Israel to a very limited extent, and at the mid of the crises resumed net investment in the economy (Figure V.2).

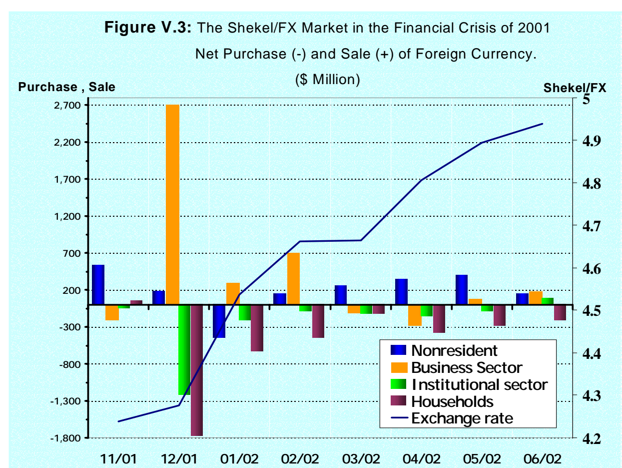


It can be assumed that the economy's integration into world markets that resulted from the liberalization and globalization processes were a factor in the crisis spreading to Israel. Yet it is not possible to determine that the intensity of the shock in the foreign-exchange market in Israel would have been less severe had restrictions existed on the financial account. Moreover, the developments in the foreign-currency market during that period showed that the Israeli economy's vulnerability to the worldwide shock derived from the business sector's extensive exposure to depreciation, as reflected by its large surplus of foreign-currency liabilities. The exposure was a result of monetary policy that endeavored to attain inflation targets under the conditions of an exchange-rate regime that for a long period was not consistent with such a policy. This created a large interest rate differential between the shekel and foreign currency together with a low level of exchange-rate risk, due to the existence of a narrow band of floating and the central bank's intervention in foreign-currency trading. The end of the intervention within the band at the beginning of 1996 and the expansion of the band in mid-1997 failed to reduce the business sector's exposure. This was because firms internalized the increase in exchange-rate risk very slowly. The central bank's policy of non-intervention in trading during the crisis of October 1998, despite the rapid depreciation and the pressure that the Finance Ministry exerted on the bank, made it possible for the exchange rate to be determined by market forces, contributed to the more accurate pricing of exchange-rate risks, and reduced the negative effects of the world crisis on the local market. However, the policy of non-

intervention in foreign-currency trading made it necessary for the central bank to react vigorously with the interest rate tool in order to stop the process.

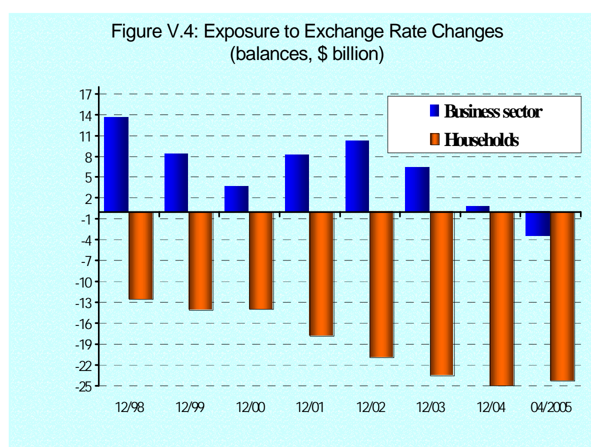
local financial crisis of December 2002

In December 2001, a process of undermining financial stability developed in the Israeli economy. This process derived from a local rather than global event: Under the package deal between the central bank and the government, a change in the composition of economic policy was agreed, and included a monetary expansion and a fiscal contraction. As part of the deal, the shekel interest rate was slashed by 2 percentage points. This rate cut came as a surprise to the financial markets in view of the problematic economic conditions prevailing at the time. The adverse conditions resulted from a continual deterioration in the security situation and from a large drop in capital inflows following the bursting of the high-tech bubble at the end of 2000. These developments harmed the credibility of economic policy as perceived by households, which began to buy large amounts of foreign currency, via foreign-currency mutual funds and by accruing foreign-currency deposits abroad.



The exchange rate depreciated considerably during this period concurrent with a large increase in its volatility and in foreign-exchange trading margins. In this crisis as well, the central bank refrained from intervening directly in foreign-exchange trading, although only a large rise in the interest rate succeeded in halting the process of faltering stability.

Since the trigger for the crisis at the end of 2001 was local as stated, liberalization obviously did not contribute to its onset. As for the development of the crisis, it can be determined that in this case, as well, the liberalization did not play a major role. The reason for that was the ability of the Israeli residents to purchase, prior to the liberalization, local assets linked to the foreign exchange rate; had the residents' capital outflows not been possible, the demand for foreign currency would have been directed to these local assets. It can be assumed that the perception of a shortage of foreign currency in the situation of a



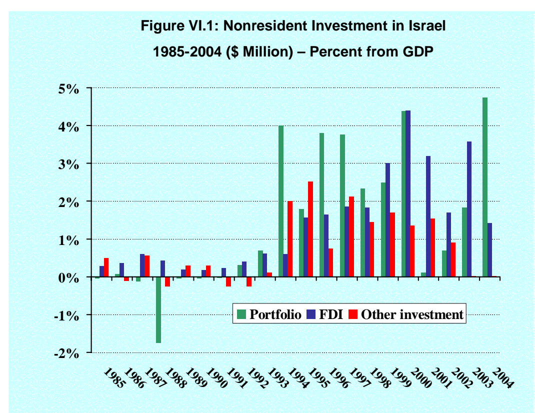
closed economy could have intensified the depreciation of the exchange rate and the undermining of the stability in the market during the crisis.

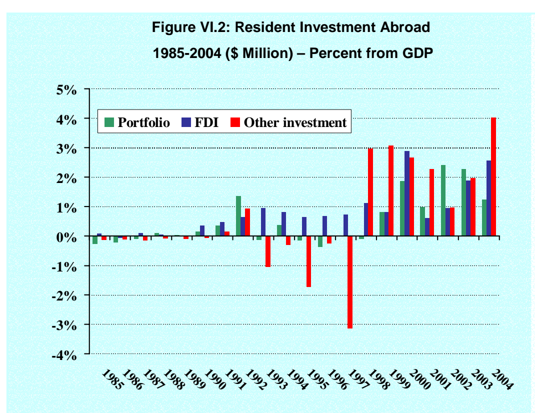
The experience acquired in Israel, like that in other countries, shows that the right way to cope with the financial vulnerability deriving from liberalization and openness to worldwide financial markets, is not to restrict capital flows, but to conduct a disciplined macroeconomic policy conforming to international standards, to closely monitor activity in foreign currency, to strengthen the stability of the local banking system, and to encourage the different sectors, operating in the market, to use financial tools, that protect them from exchange-rate risks.

VI. Macro Economic Impact of Liberalization

The removal of the restrictions on the capital account is expected to enhance the local economy's integration with other economies in a number of ways. Capital flows are expected to expand, in both directions, and the correlation between the economies is expected to increase with respect to such parameters as share indexes, interest rate differentials and inflation rates. The standard deviation of the exchange rate is expected to grow as well due to the impact of short-term transactions.

In the Israeli case, the liberalization process was accompanied by major changes in the economy and in the worldwide financial environment: Progress was made in the peace process, a structural change in Israeli industry began and the economy's relative advantages in the area of high tech were consolidated. Worldwide, financial and real capital flows to the emerging economies increased in line with the continuing process of globalization. The combined result of all these factors was a growth in capital flows. It is therefore difficult to attribute this growth to the liberalization alone. However there are a lot of indications that the liberalization had a positive impact on the economy and the impact is usually in line with the expected direction.



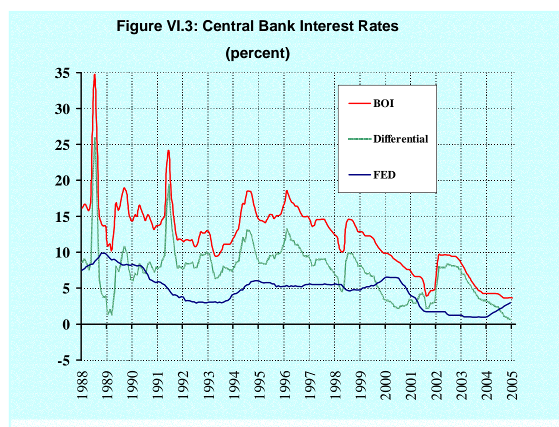


A review of nonresident investment in Israel (figure VI.1), reveals quite extensive capital inflows from the mid 1990s in all types of investment. This growth can apparently be attributed to other factors apart from

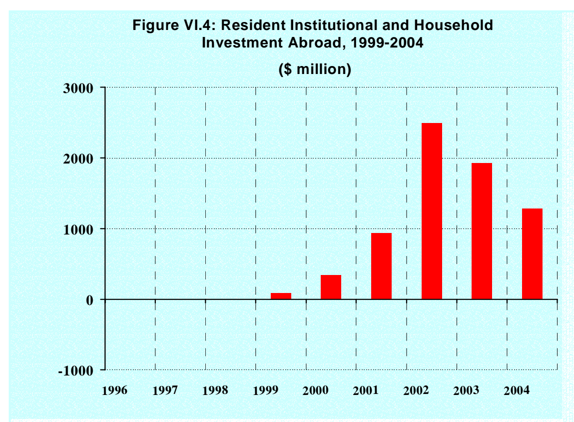
liberalization, such as the change in the geopolitical environment and the development of the high-tech industry. However, it can be assumed that the liberalization process provided a supportive background to this rapid growth in capital inflows.

An examination of resident investment abroad (figure VI.2), reveals some interesting observations:

- At the first stage of the liberalization process, total net investment of residents abroad was actually negative. The most noticeable type of flow was in the category of "other" investment, representing mainly the phenomenon of a huge import of foreign exchange credit by the private sector, as a result of a tight monetary policy and the high interest rate differential (figure VI.3).

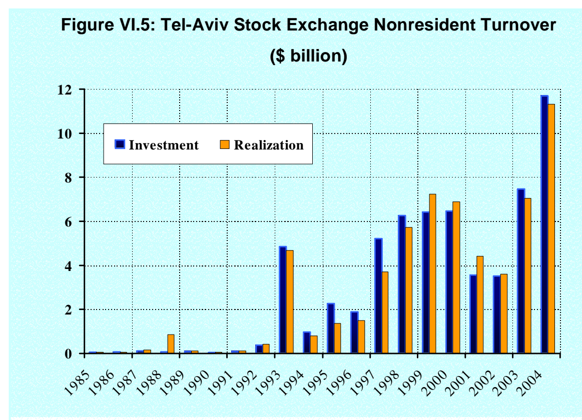


- From 1998, the volume of resident investment abroad, reached a new level. Most of this growth can be directly attributed to the liberalization process.



- Household and institutional investor outflows, were at a very low level during the whole liberalization process and started to increase only recently (figure VI.4). This was due mainly to tax discrimination, which was abolished only recently, and the high yield on local investment.

Another way of analyzing the impact of liberalization on the openness of the economy is to examine the extent of nonresidents' activity on the Tel Aviv Stock Exchange (Figure VI.5). The significant growth trend in nonresidents' activity from 1993, appears to be related mainly to the economic situation in Israel and in worldwide capital markets. However, it can be assumed that the liberalization process provides an encouraging background to this kind of capital inflow.



Another measure of the openness of the economy is the correlation between the local stock market and the world stock markets.

Figure VI.6 present the correlation between the Israeli and selected foreign stock indexes over a 2 year period:

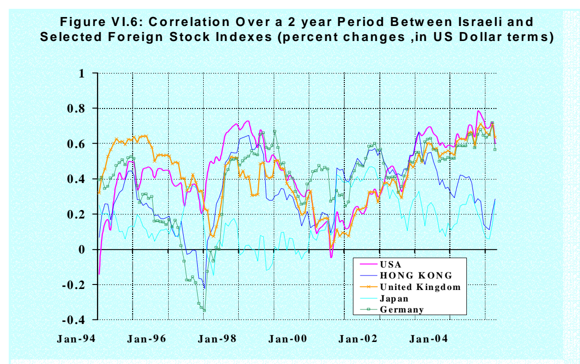


Figure VI.6: Correlation Over a 2 year Period Between Israeli and Selected Foreign Stock Indexes (percent changes ,in US Dollar terms)

It can be seen that in recent years, the correlation with the principal stock markets in the West has increased continually, due to liberalization and globalization.

An area where liberalization directly affected nonresidents' activity concerns foreign exchange. derivatives. Nonresident activity in these instruments was first permitted only in 1998. Figure VI.7 shows nonresident forward transactions.

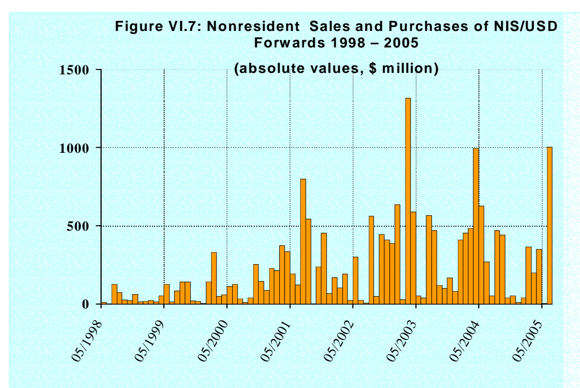


Figure VI.7: Nonresident Sales and Purchases of NIS/USD Forwards 1998 – 2005

A growth in this activity over time, since it was first permitted in 1998, can be discerned as previously mentioned. The increase in forex activity of nonresidents can also be seen from figure VI.8.

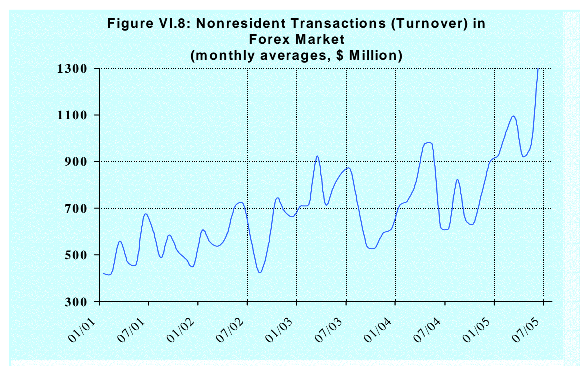


Figure VI.8: Nonresident Transactions (Turnover) in Forex Market

One would also expect that liberalization would have an impact on the volatility of the exchange rate, especially because of the surge in short term transactions. However, Figure VI.9 shows that despite the gradual transition from an exchange rate narrow band regime at the beginning of the 1990s to a freely floating exchange-rate in mid-2005 and the surge in short term transactions, exchange rate volatility did not increase to any major extent, except for short episodes of sharp devaluations, after which the volatility returned to its long term average level.

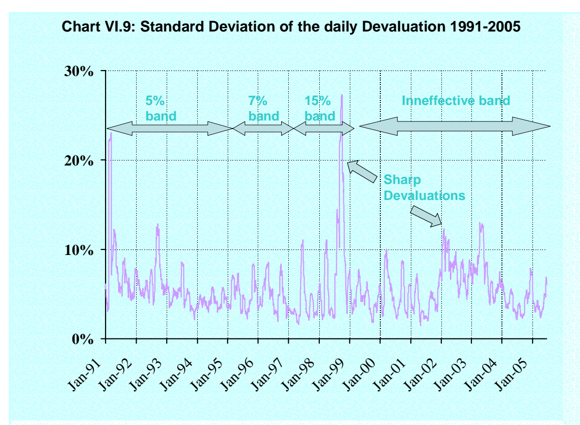


Chart VI.9: Standard Deviation of the daily Devaluation 1991-2005

Comparison of the exchange rate volatility with the average volatility of selected developed and emerging market currencies (figure VI.10), shows a significantly low level of the volatility of the Israeli shekel. Zooming into the group of emerging economies that Israel is associated with (figure VI.11), we find that some of these economies, including Israel, experience low volatility levels, while other have higher volatilities. In a research conducted at the Bank of Israel we are trying to identify the causes of different volatility levels and characterize the countries with high or low volatility using macro-economic variables such as foreign exchange reserves, trade and financial openness, exchange rate regime, and etc. So far, all of these variables were found in-significant in explaining differences in volatility.

From the aspect of macroeconomic analysis of saving versus investment, it is usual to assume that liberalization in the capital account will tend to sever the relationship between local saving and local investment, by providing the opportunity for financing deficits or surpluses in the current account. However, Figure VI.12 shows that the rate of investment in Israel was higher than the rate of saving not just in recent years. All in all, as liberalization progressed the ratio between them approached unity. It seems therefore that liberalization induced capital flows in Israel in both directions, as is also evident from figures VI.1, VI.2.

Another index of the economy's integration into the world environment is the extent of convergence of the interest rate in the economy to the interest rate abroad. Figure VI.3 shows that the differential between the

Figure VI.10: Standard Deviation of the Daily Change of the Exchange Rate versus the Dollar

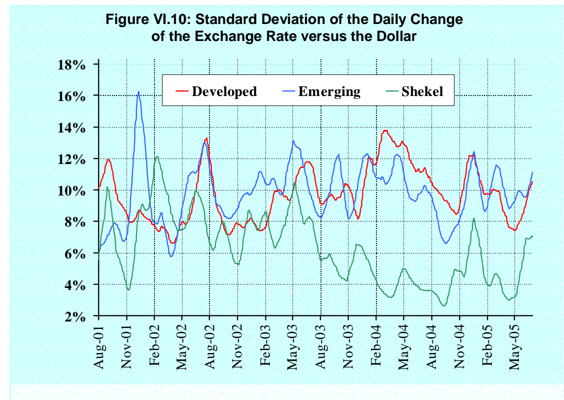


Figure VI.11: Implied Volatility of Selected Emerging Market Currencies Against the Dollar

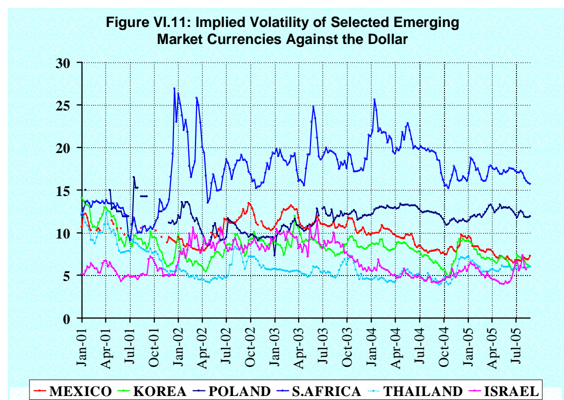


Figure VI.12: Investment and Saving Ratio to GDP and the I/S Ratio

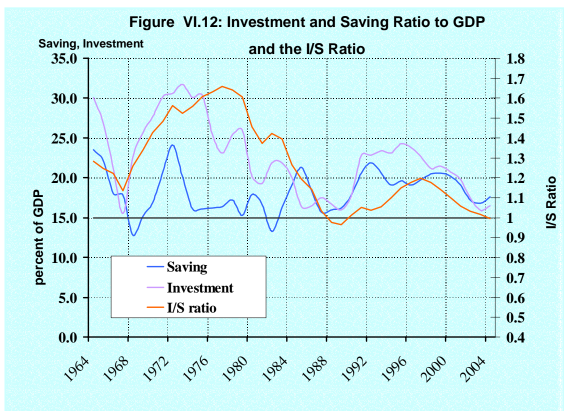
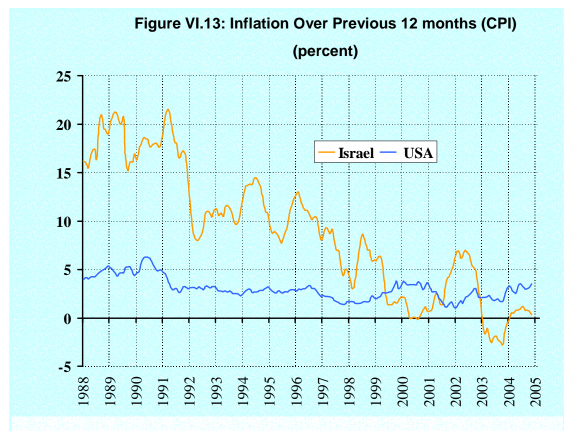
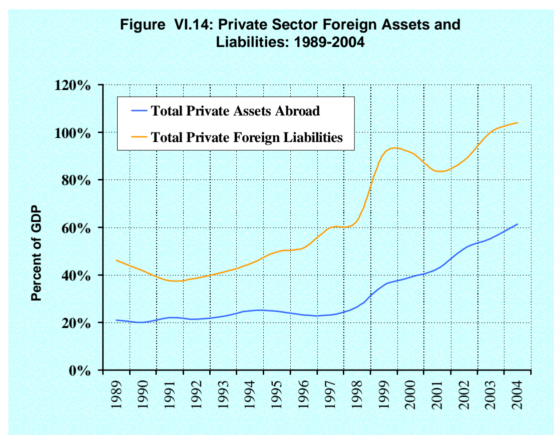


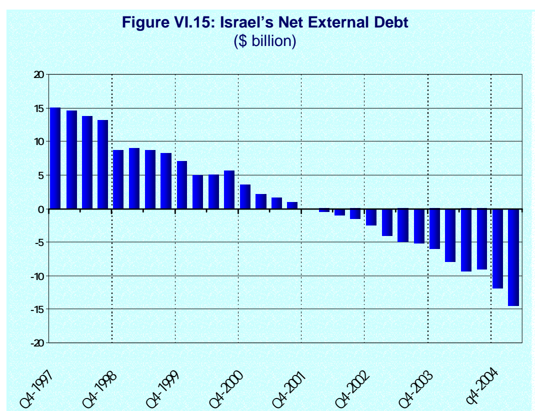
Figure VI.13: Inflation Over Previous 12 months (CPI) (percent)



central bank interest rate in Israel and the USA has been decreasing over the years. However, this decrease in the interest rate differential should be attributed to macroeconomic policy that led to a decline in inflation in Israel to the level prevailing in the developed economies, concurrent with the changes in the exchange-rate regime and the liberalization in the foreign-currency market (VI.13). It can be seen that during the entire disinflation process in Israel the local interest rate was highly volatile as compared to the stable interest rate in the USA (figure VI.3).



The liberalization process alongside macroeconomic reforms, deregulation processes, and the change of the exchange regime, changed the magnitude and the composition of the financial account. The balance of the private sector's assets and liabilities abroad shows impressive growth relative to GDP from 1997 onwards (Figure VI.14) and net external debt decreased dramatically with the economy turning from net borrower to net lender (Figure VI.15).



To wrap up, the liberalization process has had a significant impact on the Israeli economy, the country's openness and on the financial account.

Prior to liberalization, the main concern regarding this process, was that local saving would be transferred abroad. However, this has not, so far, taken place, due to high local returns on investment, home bias and tax discrimination that has been abolished only recently. Notwithstanding this , liberalization has had a strong impact on total capital outflows (mostly of the business sector), which achieved a new level.

The direct impact of liberalization on long term capital inflows, was marginal, mainly because these flows were hardly restricted prior to liberalization. Yet, liberalization provided a supportive background to the rapid growth of capital inflows, which were mostly the result of the change in the geopolitical environment, globalization, and the development of the high-tech industry.

The liberalization process substantially increased the short term capital flows of nonresidents, especially in derivatives. However, exchange rate volatility did not increase and it is still considerably lower than the volatility of Western as well as of emerging economies.

The increased involvement of nonresidents in the capital markets and in the foreign exchange market, led to an improved efficiency of these markets.

Additionally, liberalization and the floating exchange regime, increased private sector awareness of foreign exchange risk. The business sector significantly decreased its exposure to exchange rate devaluation, and increased its use of hedging instruments.

Households, on the other hand, have not yet come to the realization that the exchange rate can fluctuate in both directions, and this sector has a large exposure to appreciation of the exchange rate.

VII. Summary

During the last two decades the Israeli economy underwent a gradual, consistent and successful process of liberalization in the financial account. This process was part of a strategy of increasing the openness of the economy as a condition to fully exploiting the economy's growth potential.

The financial account liberalization process was implemented consistently, gradually and concurrently with macroeconomic reforms, deregulation processes in the money and capital markets, the abandonment of the exchange rate as a nominal anchor , moving to multi-year inflation targeting, and to a freely floating and fully convertible currency.

The sequence of liberalization implementation was consistent with the concept of slower progress regarding outflows and short-term instruments relative to inflows and long-term instruments. The sequence by sector affiliation gave priority to nonresidents and the business sector over households and institutional investors.

A comparison of the "big-bang" liberalization of 1977 with the success of the gradual process of the current liberalization, reveals the factors responsible for the failure of the first one. Understanding these factors facilitated a more successful process regarding the current process. These factors being : inadequate macroeconomic conditions, the extent of the openness of the local capital markets, the informational infrastructure on capital flows, and the extent to which policy tools were adapted to the removal of foreign exchange controls.

In the course of the liberalization process the economy experienced two instances when financial stability was undermined: In 1998 due to the impact of the worldwide financial crisis, and in 2002 due to local factors. With respect to both cases, it is clear that the liberalization process did not play a major role in their emergence. Liberalization does indeed tend to increase the economy's exposure to external shocks and can exacerbate local macroeconomic shocks. But it compels the business and financial sectors to cope with exchange-rate risks, and macroeconomic policy-makers to manage a responsible and suitable policy that can withstand the constant test of the markets.

An examination of the macroeconomic impact of the liberalization process on the Israeli economy reveals numerous indications of an increased openness of the economy, an expansion of

activity in the financial account (inflows as well as outflows) and an improvement in its overall financial status. In addition, the growing involvement of nonresidents in capital markets, led to more efficient markets.

However, it is obvious that these developments also reflect other processes in the economy and in the world environment, that occurred concurrently with the liberalization process. The economy itself saw geopolitical changes, structural changes in industry, and its relative advantage in the field of high technology was consolidated. Worldwide, financial and real capital flows to emerging economies increased concurrently with the developing liberalization process. Accordingly, while it is difficult to attribute all of the previously mentioned impacts to the liberalization process alone, it is evident that the liberalization process enabled the economy to exploit the advantages of globalization in order to integrate successfully into international markets.

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