

# Chapter 1

## *Israel's Economy and the Global Crisis*

- ◆ Israel's economy came through the global economic crisis—the worst since the 1930s—relatively well. Following the contraction of economic activity at the end of 2008 and the beginning of 2009, the economy started to recover in the second quarter of the year.
- ◆ GDP grew by 0.7 percent in 2009, the result of a 1.5 percent decline in the first half of the year and 3.3 percent growth in the second half. The rate of unemployment reached 7.9 percent around the middle of the year, and fell to 7.3 percent by the end of the year.
- ◆ Exports shrank by 12.5 percent, and imports by 14 percent, in line with the drop in world trade. The terms of trade improved, leading to an increase in the surplus on the current account to \$7.2 billion, and mitigated the effect of the global crisis on national income and domestic demand.
- ◆ Private consumption recovered rapidly, and by the end of 2009 it surpassed its pre-crisis level, contrary to the development in many other advanced economies.
- ◆ The crisis had a limited effect on Israel's financial system, more moderate than its impact on the advanced economies, and the main financial institutions remained stable. The profitability and the capital ratio of the banking system improved during the year.
- ◆ The factors contributing to the milder effect included a conservative financial system, and in particular a conservative and closely supervised banking system, a balanced housing market, and a successful economic policy.
- ◆ Monetary policy was very expansionary, and in addition to the sharp reduction in the interest rate, it also involved intervention in the foreign currency market and the government bond market.
- ◆ Inflation during 2009 was 3.9 percent, higher than the target inflation range and higher than the inflation environment in the advanced economies, due mainly to the rapid rise of housing prices and the increase in water prices and VAT by the government.
- ◆ Fiscal policy was acyclical, and reflected the operation of the automatic stabilizers. The share of public expenditure in GDP remained unchanged, and the tax burden declined only because of the contraction of economic activity. The general government deficit was 5 percent of GDP.
- ◆ Israel's growth rate in the next few years will be heavily influenced by the rate of recovery of the global economy.

## 1. MAIN DEVELOPMENTS

In early 2009 the level of economic activity declined, but in the second quarter of the year the economy started to recover.

In early 2009 the contraction in economic activity that had started at the end of 2008 continued due to the global economic crisis, but the level of activity started to increase in the second quarter, and in the second half of the year the economy continued to recover. The levels of GDP, employment and the nominal wage remained basically unchanged in 2009 (on average), after five years of rapid increase. The decline in economic activity in Israel led to an increase in the unemployment rate and a drop in GDP per capita, but the impact of the crisis on Israel was more moderate than that on other advanced economies.

At the end of 2009 GDP and private consumption were above their pre-crisis levels.

At the beginning of the year GDP fell, continuing the decline that started at the end of 2008, mainly due to the steep drop in exports, and the unemployment rate rose to 7.9 percent. In the second quarter economic activity began to grow, and in the second half of the year the recovery accelerated, expressed in rapid growth of exports and private consumption, increases in GDP and employment, and a decline in unemployment. At the end of 2009 GDP and private consumption were above their pre-crisis levels, whereas exports, imports and investment were significantly lower than their pre-crisis levels.

The main financial institutions remained stable, and the domestic financial markets showed marked recovery during the year.

Israel's financial system was affected to a limited extent, and the main financial institutions remained stable, despite the fact that some suffered directly from a fall in the value of their assets at home and abroad. The domestic financial market recovered during the year, together with the recovery in financial markets around the world: the situation of the banking system improved, with a rise in profitability and capital; share and bond prices rose rapidly; the volume of share issues increased, and there was a renewal of corporate bond issues, which had come to a halt at the worst point of the crisis; nonresidents' financial investments increased, and the volatility and spreads in the market, which serve as indicators of the level of risk, declined gradually and approached their pre-crisis levels.

The global crisis was characterized by unprecedented falls in trade, commodity prices, asset prices, and global GDP.

The global crisis began as a financial crisis, and spread gradually into the real markets, expressed in exceptional falls in trade, commodity prices, asset prices, and global GDP. The crisis was severe, but it was shorter than expected, primarily because of unprecedented government and central bank policy reactions in the advanced economies—unprecedented in extent and strength—which stopped the downward spiral in the financial system. The recovery around the world started in the second half of 2009, earlier than expected, but it is still supported to a great extent by an economic policy that bears a very high fiscal cost, and is thus not sustainable. The situation in several countries in Europe gives particular cause for concern, as does the relative lack of reaction of employment in the US and Europe so far to the increase in GDP.

Economic activity in Israel developed contemporaneously with global activity, but was affected more moderately by the crisis.

Economic activity in Israel developed in line with global activity when the crisis started, but was affected more moderately than was economic activity in the advanced economies.<sup>1</sup> The main effect on Israel's economy was felt via the fall in demand for

<sup>1</sup> The impact on Israel's economy was also less severe than that in the previous crisis, in 2001–02, when as a result of a number of factors, including the intifada Israel's GDP was affected more strongly than the GDP of the advanced economies (Table 2.1).

exports. The increased severity of the business sector's financing difficulties at the beginning of the year, against the background of the fall in asset prices, also contributed to the contraction of activity. World trade slumped, and at its lowest point was about 20 percent lower than its level before the outbreak of the crisis, and Israel's exports plunged accordingly. Companies reacted to the crisis by reducing investments, while households reacted by cutting their purchases of consumer durables. Imports, which constitute a high share of the latter, thus also fell steeply, even more steeply than exports. A significant improvement in the terms of trade resulted in an increase in the real income of the economy and also in the surplus on the current account of the balance of payments, thus partially offsetting the adverse effect of the crisis on the economy (Table 1.1).

**Table 1.1**  
**Main Developments in Israel and Around the World**

	2007	2008	2009
<b>Israel</b>			
GDP <sup>a</sup>	5.2	4.0	0.7
Exports <sup>a</sup>	9.3	5.2	-12.5
Unemployment rate <sup>b</sup>	7.3	6.1	7.6
Inflation <sup>c</sup>	3.4	3.8	3.9
Current account of the balance of payments (\$ billion)	4.9	1.3	7.2
Debt/GDP ratio <sup>d</sup>	78.2	76.8	79.4
Real effective exchange rate <sup>e,f</sup>	-1.1	-10.7	1.8
Nominal effective exchange rate <sup>e,f</sup>	-3.1	-10.1	4.3
Tel Aviv 100 index <sup>e</sup>	23.4	-51.0	89.1
<b>Around the world</b>			
GDP of advanced economies <sup>a</sup>	2.7	0.5	-3.2
GDP of developing countries <sup>a</sup>	8.3	6.1	2.1
World trade <sup>a</sup>	7.3	2.8	-12.3
MSCI share index of advanced economies <sup>a,g</sup>	7.1	-42.1	27.0
MSCI share index of emerging markets <sup>a,g</sup>	36.5	-54.5	74.5

<sup>a</sup> Rate of change, percent.

<sup>b</sup> Period average, percent.

<sup>c</sup> During the year, percent.

<sup>d</sup> End of year, percent.

<sup>e</sup> Rate of change, percent, annual average compared with previous year's average.

<sup>f</sup> Nominal change during the year, percent: December average compared with December average in previous year.

<sup>g</sup> A negative figure indicates appreciation.

SOURCE: Data on Israel—Bank of Israel, except for the real effective exchange rate (from IFS database) and share price indices (from the Tel Aviv Stock Exchange). International data—World Economic Outlook Update January 2010 and MSCI Barra.

Following a sharp appreciation at the beginning of 2008, the real exchange rate showed marked depreciation from the third quarter of 2008 to the second quarter of 2009, due to significant nominal depreciation of the shekel following intensified intervention in the foreign exchange market by the Bank of Israel. This occurred despite the fact that the effect of the crisis on Israel's economy was milder than that on other advanced economies, and was closer to the effect on developing economies. There was significant real appreciation of the shekel in the second half of 2009, and the real exchange rate returned to a level close to that at the beginning of 2008.

The Bank of Israel cut the interest rate to unprecedented levels, as did the central banks of other advanced economies. In April it reached 0.5 percent, and in addition the Bank of Israel bought government bonds, with the intention of reducing long-term interest rates. The Bank's purchases of foreign currency, which had started in March 2008 and which were intended to increase the reserves, against the background of the appreciation of the shekel, increased substantially in the second half of 2008 and in 2009, with the intention of preventing real appreciation of the shekel, which makes it difficult to export and which may result in deflation. In the second half of 2009, as the trend in economic activity changed, the Bank of Israel gradually increased the interest rate.

Israel's CPI rose by 3.9 percent during 2009 (an average of 3.3 percent), whereas at the height of the crisis the advanced economies experienced deflation. The price increases in Israel led to an erosion in the real wage, and moderated the adjustment required to labor input against the background of the fall in demand. The main reasons for the deviation from the inflation target were the high price increase in housing against the background of the low interest rate, and temporary and unexpected increases in VAT and the price of water.

During the crisis the government's budget policy was neutral (acyclical), so that the share of public expenditure in GDP did not increase, unlike the position in most of the OECD member countries. In July the new government passed a two-year budget, for 2009 and 2010, in which the deficit ceiling was raised to 6 percent of GDP for 2009, and 5.5 percent for 2010, to take account of the expected reduction in tax revenues. The stabilization and increase in tax revenues in the second half of the year resulted in the general government deficit being smaller than planned, at 5 percent of GDP (or 6.6 percent according to the generally accepted international method of measurement). The debt/GDP ratio increased slightly, to about 80 percent of GDP, higher than the (simple) average of 70 percent in the OECD,<sup>2</sup> where it is expected to increase sharply in 2010. The high degree of fiscal credibility together with (1) a government assurance of the safety of the bank deposits and (2) a modest safety net for pension savings played an important role in calming the markets, although almost no use was actually made of the funds allocated by the government to give financial support to the business sector.

<sup>2</sup> Figure 1.1 shows the debt/GDP ratio of the advanced economies as a weighted average, weighted by country size.

The economic crisis had an adverse effect on individuals' welfare: private consumption per capita declined, and the unemployment rate and the number of dismissals increased.<sup>3</sup> The adjustment of labor input by means of a reduction in working hours moderated the increase in the rate of unemployment—which is the most severe impact of crises—and it rose from 5.9 percent to 7.9 percent. The manufacturing and business service industries were the main ones affected, but the level of uncertainty among many employees in other industries increased too (see Box 2.2). The real wage eroded, but the impact was apparently strongest in industries with a high average wage. The public's wealth also suffered, as the value of asset portfolios declined. All of the above was reflected in a sharp drop in the consumer confidence indices. Poverty increased slightly during the crisis. The inequality of income did not rise,<sup>4</sup> however, as the crisis also affected the stronger sections of the population.

The economic crisis had an adverse effect on individuals' welfare.

## 2. THE GLOBAL CRISIS

### a. Developments around the world

The current global crisis is the most severe since the Great Depression of the 1930s. GDP fell by an average of 3 percent in all the advanced economies. World trade slumped more precipitously than ever before in modern economic history, twice as fast as in the Great Depression.<sup>5</sup> The severity of the crisis, the perfect correlation between the drop in economic activity in different countries, as well as the aggressive policy reactions of governments and central banks, were unprecedented. Although some emerging economies, China in particular, continued to grow rapidly, contrary to expectations that it too would suffer the effects of the crisis, the hope that this would stabilize economic activity in the advanced economies was not realized. As a result of the unconventional policy measures, the crisis was contained, and the recovery started earlier than had been anticipated: in the second quarter of 2009 some stabilization was evident, and in the second half of the year a slow recovery started in most countries around the world.

The current global crisis is the most severe since the Great Depression of the 1930s.

The crisis began as a financial crisis in 2007, with the fall in real estate prices in the US, and it became much more severe in 2008, when the collapse of real estate prices led to the writing-off of toxic assets—structured assets whose prices were derived from real estate prices and whose risk post factum turned out to be much higher than assessed. The writing-off of these assets led to the collapse of major financial institutions around the world, a sharp increase in risk, a serious impact on the

The crisis began in 2007, with the fall in real estate prices in the US, and became much more severe in 2008.

<sup>3</sup> Although there are no accurate data about the number of dismissals, according to estimates from the Ministry of Industry, Trade and Labor Employers Survey, the number of job terminations in the period between the third quarter of 2008 and the middle of 2009 was 70,000 greater than the number in the year before the crisis, an indication of large-scale firing. The rate of job terminations in the business service industries increased by 28,000, and in manufacturing by 23,000.

<sup>4</sup> The second half of 2008 and the first half of 2009 compared with 2007. See Chapter 8 for a fuller discussion.

<sup>5</sup> B. Eichengreen and K.H. O'Rourke (2009), "A Tale of Two Depressions," VOX.

operation of the capital market and the credit markets, and a temporary malfunctioning of the money market and the interbank market. Confidence in the financial system was seriously undermined as a result of these developments. The slowdown in real economic activity in the US was felt as early as the end of 2007,<sup>6</sup> and it had the effect of causing further deterioration in the situation in the financial sector. This chain reaction intensified until September 2008, with the collapse of Lehman Brothers, when financial spreads reached record levels. Share prices and the value of the public's assets fell heavily, reducing demand even further, thus causing additional financial hardship via the decline in the value of assets that served as collateral. The harm suffered by the advanced economies extended to the developing countries via demand, as imports into the advanced economies slumped, and also via the contagion of the capital markets, which adversely affected demand in the developing countries too.

Aggressive economic policy supported a slow process of recovery in the global financial system throughout 2009.

Aggressive economic policy, which mainly took the form of direct intervention in the credit markets and the provision of liquidity to the markets, led to a halt in these trends at the end of 2008. In the course of 2009 the pressure in the global financial system began to ease and immediate risks were diminished. Towards the end of the year most indicators pointed to a return to normal functioning. During the year prices in the share markets rose, and spreads contracted, with increased yields on government bonds and improved credit terms, changes that express lower risk and greater confidence in the financial system. The money and interbank markets that were at a standstill when the crisis deteriorated at the end of 2008 started functioning again, relying on massive support by central banks, and international capital flows also recovered during the year. The marked recovery notwithstanding, there are still problems with regard to the supply of bank credit around the world, banks' balance sheets still need strengthening and toxic assets need to be cleared from the balance sheets of financial institutions, to prevent any renewed deterioration in these institutions' stability.

Real activity around the world reacted to the above events with a lag. In 2008, and in particular with the collapse of major financial institutions in the summer of that year, the crisis spread gradually to the commodities markets and the labor market, and at the end of the year there was a record drop in GDP of the advanced countries, which declined even further in the first quarter of 2009, due to the contagion effect in both the financial and real channels. As the year progressed, economic activity stabilized, essentially because of the aggressive economic policies adopted, both fiscal and monetary, which included the use of unconventional tools and direct intervention in the markets. The second half of 2009 saw the start of a slow process of recovery (Figure 1.1).

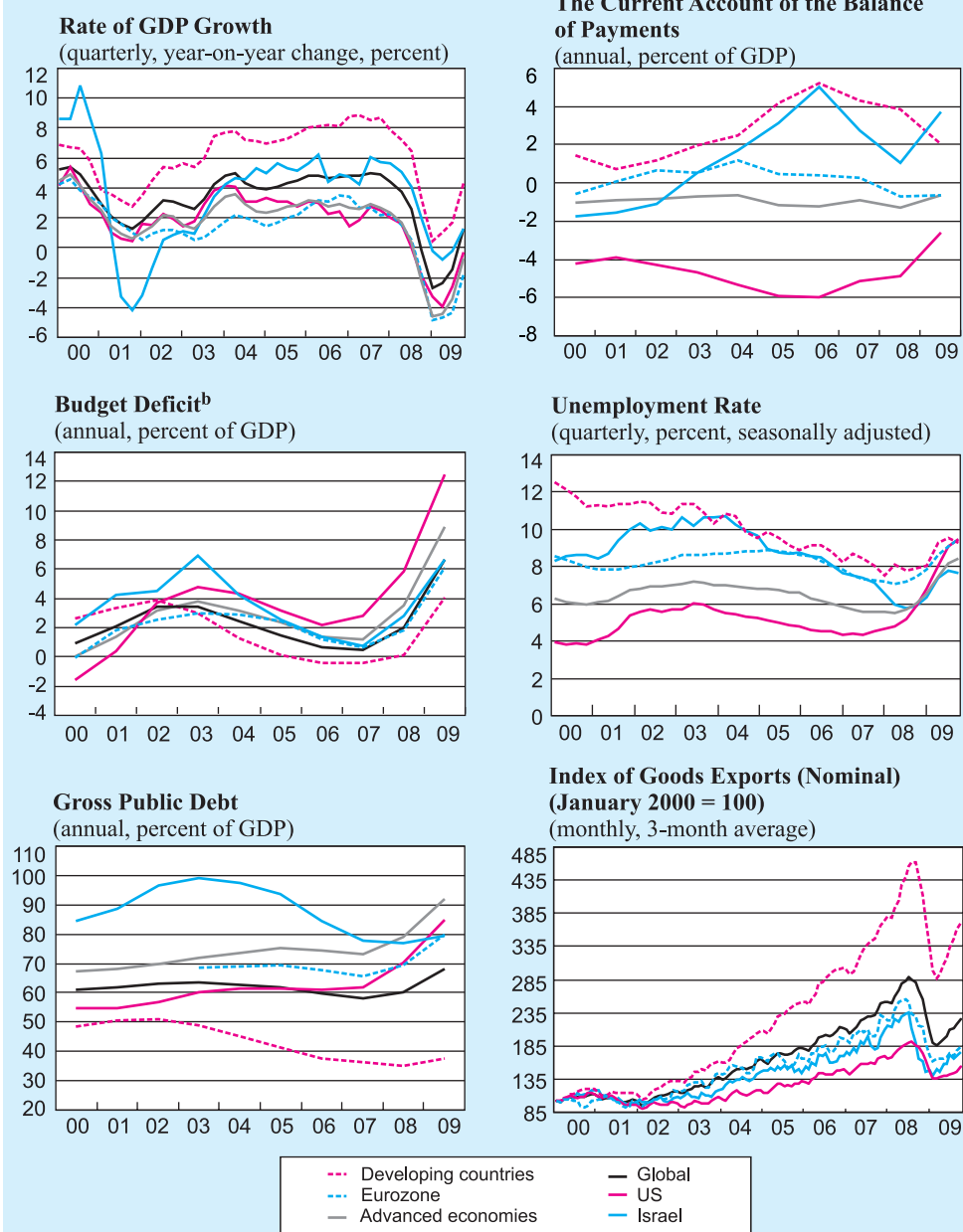
World trade collapsed even more severely than in the 1930s.

World trade slumped at the end of 2008 and continued falling at the beginning of 2009. This can be explained mainly by the fall in demand, particularly for investment goods and durables, but it seems that credit shortage, also played a part. The greatly increased elasticity of world trade to output since the year 2000 also added to the

<sup>6</sup> The NBER in the US dated the beginning of the current recession at December 2007, and has not yet dated its end.



**Figure 1.1**  
**Indicators of Economic Activity in Israel and around the World,<sup>a</sup> 2000-09**



<sup>a</sup> The aggregates in all graphs are taken from the IMF World Economic Outlook, except for unemployment, for which the figure for the advanced economies is taken from the OECD database, and the figure for the developing countries is calculated from the weighted average (the weights relate to size of GDP in 2008 in PPP terms) of Argentina, Brazil, Bulgaria, Chile, Colombia, Estonia, Latvia, Lithuania, Malaysia, Peru, the Philippines, Russia, South Africa, Thailand and Turkey.

<sup>b</sup> The figure for Israel is adjusted to conform with the international definition to enable the international comparison to be made.

SOURCE: For Israel—the Bank of Israel; international data—IMF World Economic Outlook 2009 and 2010, IFS database and OECD database.

impact on world trade.<sup>7</sup> Nonetheless, even if all the above factors are taken into account, some of the decline in world trade remains unexplained.<sup>8</sup> The collapse of world trade led to a sharp drop in the trade/GDP ratio in the advanced countries, for the first time since the end of the Second World War. Direct investment flows between countries, which had remained steady during previous crises, declined sharply, and interbank loans in different countries also fell.<sup>9</sup>

The steep drop in world demand caused a rapid decline in inflation in the advanced economies, and in some of them, actual deflation. Commodity prices slumped during the crisis. Oil prices, which peaked at \$144 per barrel at the beginning of July 2008, dropped to \$40 towards the end of that year. At the beginning of 2009 oil prices were on an upward trend, and at the end of the year they settled at \$75 per barrel. Metals prices and basic agricultural commodity prices followed a similar but more moderate pattern. The decline in global commodity prices acted to reduce inflation around the world, and corrected some of the global imbalance—the deficits or surpluses in countries' current accounts (Figure 1.2).

Unlike in previous crises, most developing countries exhibited greater resilience than did the advanced economies, and generally they maintained their financial stability, although some economies in Eastern Europe encountered serious difficulties.<sup>10</sup> The main reasons for their better performance in the crisis than in the past were the improvement in their fiscal situations, the transition from deficits in their current accounts to surpluses, the transition to floating exchange rate regimes, and the increase in their foreign asset balances. It may be that the lower level of development of the capital markets in some of those countries may have made them less vulnerable to contagion from the financial failures in the advanced economies. The rate of growth declined considerably in the developing economies too (Figure 1.1), however, it was not cushioned by an increase in public expenditure as was done in advanced countries. Thus, the crisis did not cause fiscal problems in the developing countries that would undermine future growth.

## **b. Economic policy in the advanced economies**

Economic policies of governments and central banks in the advanced economies had a common feature: reliance on unconventional means—unconventional in their strength and in their extent—to prevent the financial crisis from becoming more severe, reduce its adverse effect on the public's confidence in the financial system, moderate its impact on real activity, preserve the stability of the financial markets, and prepare the ground for a recovery. The variety of methods used within the ambit of policy, particularly

Developing countries exhibited greater resilience than did the advanced economies.

Aggressive economic policies implemented by governments and central banks halted the decline.

<sup>7</sup> C. Freund (2009). "The Trade Response to Global Downturns: Historical Evidence," World Bank Policy Research Working Paper No. 5015.

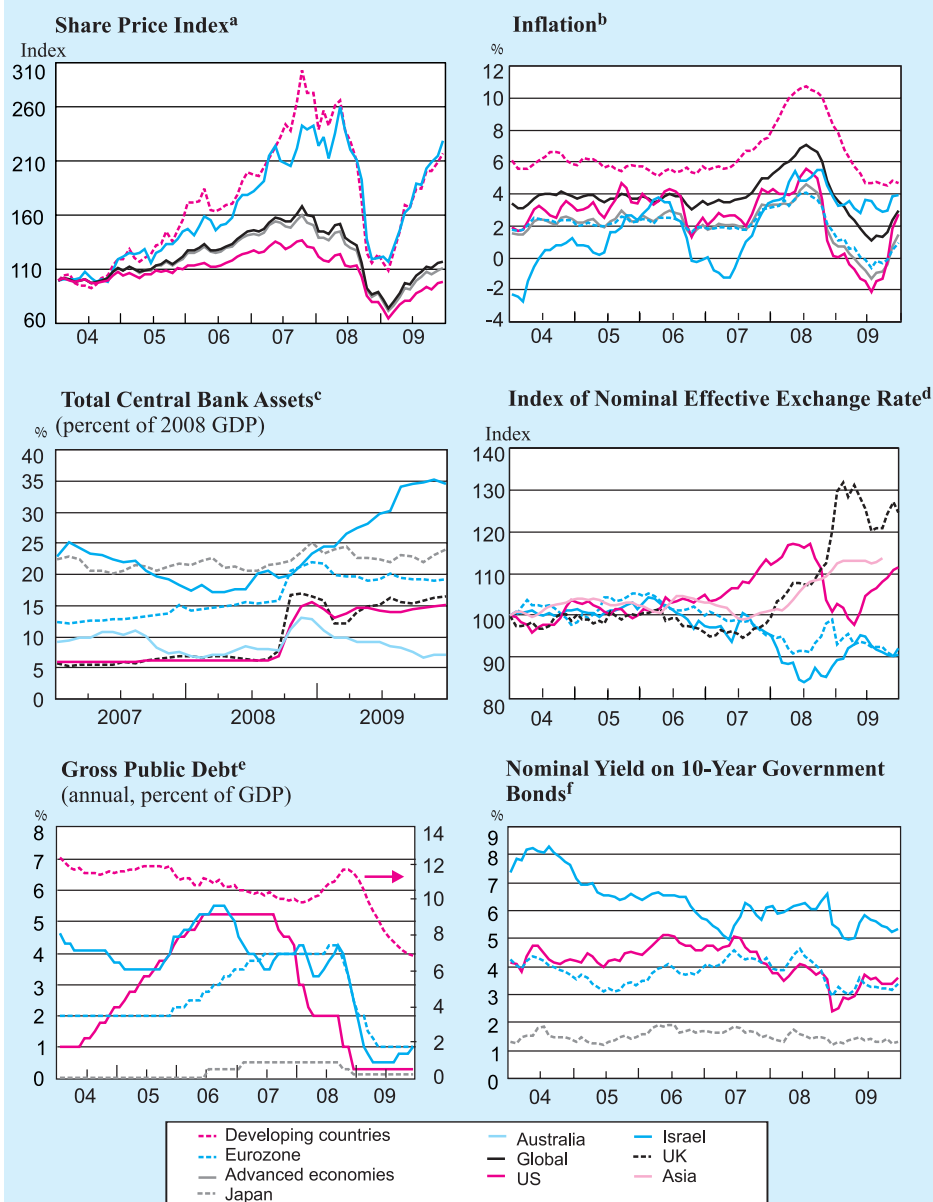
<sup>8</sup> C. Cheung and S. Guichard (2009). "Understanding the World Trade Collapse, 2009," Economics Department Working Papers No. 729, OECD.

<sup>9</sup> Economic Outlook (2009), OECD, No. 86.

<sup>10</sup> World Economic Outlook (2009), International Monetary Fund, October, Box 1.2.



**Figure 1.2**  
**Monetary Indicators, Israel and Abroad, 2004-09**



<sup>a</sup> Based on monthly average, in dollar terms, of groups of shares. "Advanced economies" include the following twenty-three countries: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK, and the US. The "developing countries" include the following twenty-two countries: Brazil, Chile, China, Colombia, the Czech Republic, Egypt, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, Morocco, Peru, the Philippines, Poland, Russia, South Africa, Taiwan, Thailand and Turkey. SOURCE: For Israel--the Tel Aviv 100; for the US--S&P; MSCI Barra and Yahoo Finance.

<sup>b</sup> Inflation over the previous twelve months. The groups of countries are as per the IMF definition. SOURCE: IFS database.

<sup>c</sup> Monthly average. Reserve Bank of Australia, IMF World Economic Outlook (October 2009), and the Bank of Israel.

<sup>d</sup> SOURCE: For data on Israel, Japan, the UK and the US--IFS; for Asia-- IMF World Economic Outlook. Higher values indicate depreciation.

<sup>e</sup> SOURCE: For Israel--the Bank of Israel; for the ECB, Japan and the US--Bloomberg; for the developing countries--the weighted average (the weights relate to size of GDP in 2008 in PPP terms) of the interest rates in Argentina, Brazil, Chile, Colombia, Latvia, Lithuania, Peru, the Philippines, Russia, South Africa, Thailand and Turkey.

direct intervention in the markets, blurred the demarcation between monetary and fiscal policy.

The aggressive policies prevented the collapse of the markets and of financial and real activity, and supported the economies' ability to move from the crisis environment to one of recovery, and to return quickly to a path of growth. The rate of contraction of activity slowed, and in some countries activity actually expanded in the second half of 2009. Many believe that without the unorthodox policy measures taken, the crisis would have been as severe and as long drawn out as the Great Depression of the 1930s.<sup>11</sup>

Monetary policy in the advanced economies was very expansionary, and interest rates were reduced to minimum levels.

The expansionary monetary policy persisted around the world in 2009, and it is expected to continue also in 2010. In early 2009 the rapid process of sharp interest rate cuts ended, and central bank interest rates were close to zero throughout the year. Interest rates were cut significantly in developing market countries too, but in some the levels remained higher than in the advanced economies,<sup>12</sup> due to their higher inflation environment. In many countries additional tools were used to ease bank liquidity shortages and credit rationing to revitalize the financial markets, in which activity had virtually ceased, and to increase the effectiveness of monetary policy, as the zero-interest limitation and the apparently weaker pass-through when the interest rate is close to the limitation greatly weakened the effectiveness of central bank interest rates. These additional tools included the purchase of government bonds and other assets, the extension of the range of assets that can serve as collateral for a loan from the central bank, and intervention in the foreign currency market. In an attempt to halt the negative dynamic of the crisis, many countries prohibited selling shares short.

Governments and central banks served as the lenders of last resort for the whole business and financial sector, and not just for the banking system, and in extreme cases of insolvency even nationalized financial institutions, thereby in effect insuring the public's deposits. The outcome of these actions was a very large increase in central banks' balance sheets in those countries.

The major central banks kept their interest rates low also at the end of the year,<sup>13</sup> and announced their intention of keeping their rates low for some time, until the recovery has become entrenched. At the same time, some started the process of ending the use of the additional tools, thereby embarking on a gradual adjustment that will bring monetary policy back into a non-crisis framework.

Fiscal policy reacted forcibly by employing both conventional and unconventional instruments: support for badly affected specific industries, such as the motor industry, and increasing R&D grants; shortening the working week to minimize the impact on welfare; extending unemployment insurance, and operating active labor market

<sup>11</sup> The Economic Report of the President and the Annual Report of the Council of Economic Advisers (2010). The White House and the Council of Economic Advisers.

<sup>12</sup> For example, 8.75 percent interest in Brazil, and 4.5 percent in Mexico.

<sup>13</sup> The Reserve Bank of Australia and the Bank of Norway increased their interest rates before the end of 2009, against the background of the recovery in real activity and inflation environments significantly above zero.

programs. In some of the advanced economies, in addition to intervention by the central bank, the government also intervened in the financial markets to reduce the risk of their collapse. Steps taken included guaranteeing deposits and loans, injecting capital into financial institutions (“recapitalization”), and various programs for removing toxic assets from the balance sheets of those institutions. At this time increasing public consumption (wages and purchases)—the classic fiscal policy tool for stabilizing demand—was not the main policy instrument used; public consumption in the advanced economies increased in 2009 by an average of only 2 percent, but in some countries tax benefits were introduced to encourage private consumption.

The steep decline in economic activity, together with the rescue plans, created very large government deficits in leading advanced economies such as the US and the UK, and doubts arose as to some countries’ ability to repay their debts—Greece, Spain, Iceland and Ireland—some of which had suffered from fiscal imbalances even before then. The fiscal policy response was stronger in the advanced economies, because the impact on their activity was more severe from the outset. In addition, governments in those countries have larger budgets as a share of GDP and the automatic stabilizers play a more significant role.<sup>14</sup>

The rapid increase of the debt/GDP ratio in the advanced economies in 2009, which apparently will continue in 2010, will make it necessary to implement significant consolidation programs to bring the ratio back to sustainable levels, particularly in light of the demographic trend—aging populations—in those countries.

The economic crisis sparked a renewed discussion of the market economy approach and the conditions necessary for it to function, but it appears that till now, despite the strength of the crisis, it has not changed the basic principles of the economic discussion. In this it is different from the Great Depression, which gave rise to the development of the Keynesian theory that emphasized the role of fiscal policy. Nevertheless, the crisis did cause new thinking in a variety of areas: there was sharper awareness of the importance of the financial intermediation mechanism and the risks it holds for macroeconomic activity; a debate intensified on the structure of incentives in the markets, the distortions they cause and the role and importance of regulation of the markets, and in general, the assumption regarding the efficiency of markets and the belief in their ability to stabilize themselves without external intervention were undermined. Concurrently, the importance of central banks increased, and a discussion started on the targets of monetary policy and the tools available to the central bank to achieve them, particularly direct intervention in the markets and in nonbank institutions, and on regulatory issues from a macroeconomic standpoint. These changes are expressed in considerations of future policy and of the desired structure of the markets and their regulation, and they are expected to have practical implications in the future.

The steep decline in economic activity, together with the rescue plans, created very large government deficits in advanced economies.

The economic crisis sparked a renewed discussion on capitalism and the role of central banks.

<sup>14</sup> World Economic Outlook (2009), International Monetary Fund, October, p. 27.

### 3. THE ISRAELI ECONOMY

The Israeli economy was affected more mildly by the crisis than were the advanced economies.

The impact of the global economic crisis on the Israeli economy was relatively mild. The Israeli economy did suffer a recession in the fourth quarter of 2008 and the first quarter in 2009 that was sharp but short-lived. Nevertheless, actual developments during these two quarters, about which information became available only with a lag, belie the extremely high levels of uncertainty and concern about the possible magnitude of damage to the economy. The recovery in the rest of 2009 left GDP, employment, and wages largely unchanged on average after five years of rapid increase.

The main effect on domestic activity was caused by the decrease in the demand for Israeli exports.

The Israeli economy, open to capital flows and trade, was affected by the crisis in several ways. The main effect was caused by the decrease in the demand for Israeli exports. The domestic financial sector was directly harmed by the decline in share and asset prices at home and abroad, and afterwards, by the results of the decrease in domestic activity.

#### a. Real activity

Aggregate demand contracted due to sharp drops in exports and investments.

Aggregate demand contracted significantly in 2009. Exports and investment decreased sharply, much as they did abroad, while private and public consumption expanded moderately (Table 1.2). The downturn in the value of foreign and domestic assets caused household wealth to erode. This effect, coupled with the increased financial uncertainty, dampened purchases of durable goods. At the peak of the crisis, the upturn in corporate financing difficulties reduced investment, compounding the effect of the decline in demand. The contraction of these import-intensive uses caused imports to plummet, while average GDP increased slightly. Domestic uses were largely steady. Imports declined more steeply than exports, reflecting a steep decrease in investment and a mild increase in national saving.

The most severe effect of the crisis on the domestic economy was sustained by exports due to the decrease in global trade. The decline in this area of activity embraced all sectors—exports of manufactured goods, of services, and of tourism services. From the third quarter of 2008 to the first quarter of 2009, total exports of goods and services fell by almost 20 percent, approximating the rate of contraction of global trade (see Chapter 7). The steep decrease in demand for capital goods in developed countries, to which a relatively large share of Israeli exports is destined, contributed to the decline in exports of goods. The decline of exports of services, which account for almost 30 percent of Israel's exports (compared with 22 percent on average in the OECD), was similar to the decline of goods exports but was slightly more moderate than that in other countries' exports of services. Furthermore, the prices of exported services fell less steeply than the prices of exported goods.

The real exchange rate showed a small depreciation in 2009.

In addition to the quantitative contraction, the sharp appreciation of the shekel in 2007 and early 2008 eroded the profitability of Israel's export industries. In 2009, however, the currency depreciated slightly in real and nominal terms (on average) under the influence of two contrasting forces. The downturn in domestic demand,

**Table 1.2**  
**Developments in 2008–09**

	2008				2009			
	I	II	III	IV	I	II	III	IV
GDP <sup>a</sup>	5.8	3.7	0.7	-2.0	-2.7	1.3	3.6	4.9
Business sector product <sup>a</sup>	6.8	3.9	0.2	-3.2	-4.8	1.2	3.1	5.2
Unemployment	6.1	5.9	6.0	6.5	7.6	7.9	7.7	7.3
Exports excluding diamonds <sup>a</sup>	38.9	-3.1	4.2	-25.8	-27.0	-4.0	9.3	33.8
Private consumption <sup>a</sup>	9.2	-3.6	1.3	-2.1	-2.8	10.5	5.9	5.5
Civilian imports (excluding ships, planes and diamonds) <sup>a</sup>	17.5	-6.9	-3.6	-8.8	-39.0	0.6	14.5	4.5
Fixed investment <sup>a</sup>	16.1	-4.7	-15.2	-5.0	-14.2	1.7	8.0	-7.2
Current account of the balance of payments <sup>b</sup>	0.6	-0.1	0.8	0.5	2.1	1.5	1.2	2.7
Real effective exchange rate <sup>c</sup>	-6.2	-4.3	-1.4	-1.1	4.8	2.5	-4.5	0.7
Nominal effective exchange rate <sup>d</sup>	-6.6	-4.0	-0.3	-0.3	4.4	3.5	-2.9	0.4
Foreign currency purchases <sup>d</sup>	1.2	3.3	3.2	3.7	5.4	5.0	7.8	1.4
Inflation <sup>e</sup>	0.1	2.2	2.0	-0.6	-0.1	2.3	1.3	0.5
One-year forward inflation expectations <sup>f</sup>	2.5	2.8	2.7	-0.3	0.7	1.9	2.3	2.4
Bank of Israel interest rate <sup>g</sup>	3.75	3.5	4.25	2.5	0.75	0.5	0.75	1.0
Interest on overdrafts <sup>h</sup>	10.3	9.5	10.1	9.5	8.0	7.8	7.9	8.3
Change in Tel Aviv 100 index <sup>i</sup>	-19.3	6.0	-17.7	-30.4	18.8	20.5	16.7	13.2

<sup>a</sup> Percent volume change in annual terms, seasonally adjusted.

<sup>b</sup> Seasonally adjusted, \$ billion.

<sup>c</sup> During the quarter. IFS data and Bank of Israel assessments. A negative figure indicates appreciation

<sup>d</sup> Total purchase, \$ billion.

<sup>e</sup> During the quarter, in annual terms.

<sup>f</sup> Quarterly average.

<sup>g</sup> Published rate, last month in quarter.

<sup>h</sup> Quarterly average, nominal, in annual terms.

<sup>i</sup> Change during quarter, percent

SOURCE: Based on Central Bureau of Statistics and Tel Aviv Stock Exchange data.

which was mild relative to developments abroad, and the increase in the current account surplus had pro-appreciation effects, whereas the Bank of Israel's purchases of foreign currency abetted depreciation. Some of the changes in the real exchange rate during 2009 evidently originated in a disparity between domestic and foreign expectations concerning the intensity of the crisis. At the beginning of the crisis, the Israeli economy was perceived as more resilient, as evidenced in share indices and consumer and company surveys. This disparity had a pro-appreciation effect in late 2007 and early 2008; during this time, Israelis repatriated their portfolios thus creating large capital inflows. Signs of adverse effects on the economy in particular in the export

sector, gathered strength in late 2008 and this, coupled with the increasing amounts of foreign currency purchased by the Bank of Israel, contributed to real depreciation in late 2008 and early 2009. Later in 2009, real and nominal appreciation ensued due to the economic recovery and expectations of its continuation, the continued existence of a large current account surplus, and expectations of continued widening of the interest spread between Israel and abroad—as interest abroad remained low. This appreciation took place despite the Bank of Israel's foreign currency purchases.

The recovery of world trade in 2009 led to the increase in Israel's exports.

The recovery of global trade in 2009 was mirrored by a similar pace of expansion in Israel's exports. The real depreciation during the crisis and an improvement in terms of trade improved export profitability and alleviated the hardships that exporters faced at the peak of the crisis.

Domestic firms began to reduce their investments in the second quarter of 2008.

Domestic firms began to reduce their investments in the second half of 2008. Over the next four quarters, nonresidential investment contracted by 15 percent in cumulative terms until it bottomed out in the second quarter of 2009. Despite the decrease, capital stock continued to grow at a 4 percent pace during the crisis. Total domestic investment slumped due to a decline in fixed investment and a steep decrease in inventory investment. The downturn in foreign direct investment (FDI) also dampened investment (see Box 2.1). Along with the decrease in demand for investment, an upturn in the cost of raising money in the capital markets and the toughening of conditions for obtaining bank credit at the beginning of the year made investments difficult to finance at this time.<sup>15</sup>

Private consumption fell at the peak of the crisis, and the saving rate increased.

Households responded to the crisis by cutting private consumption in late 2008 and early 2009 and by increasing the saving rate out of disposable income, which also increased due to cuts in direct taxes. The decrease in the public's assets occasioned by falling prices in foreign and domestic capital markets during the crisis, accompanied by increased uncertainty about future value of the assets, partly explains the decline in private consumption. Some of the upturn in saving may have reflected the adjustment of private saving to the decrease in public saving and precautionary motives in response to the increase in the unemployment rate and the concomitant decrease in job security among those employed (see Box 2.2). The decline in private consumption was manifested in a steep decrease in purchases of durable goods, which are more responsive to changes in wealth, and in only a minor decrease in per capita current consumption. The combination of high private saving before the crisis and relatively cheap credit during the crisis allowed households to smooth their current consumption. The abrupt downturn in purchases of durable goods affected imports in the main; its impact on domestic product was rather minor.

From the second quarter of 2009 private consumption surged.

From the second quarter of 2009 onward, consumers' expectations improved considerably and private consumption surged, unlike the development in other advanced economies. At year's end, the level of current per capita private consumption surpassed the pre-crisis level. The resumption of increases in the value of financial assets during 2009, together with the decrease in the risk that individuals attributed to

<sup>15</sup> For an indication of the financing difficulties, see the Bank of Israel Companies Surveys in 2009.



these assets and the onset of improvements in the labor market, acted in the opposite direction—toward the expansion of private consumption. Public consumption, in turn, grew in 2009 at a rate of 2.1 percent, similar to that in the past decade and slightly above the rate of population growth. (See discussion in the policy section of this chapter and in Chapter 6.)

The labor market responded swiftly to the decrease in demand for goods. Labor input began to decline in the middle of 2008, largely due to a decline in hours worked per person employed; layoffs were less prominent. This elasticity in labor input made it possible to mitigate the damage to welfare and consumption that layoffs would have caused. Labor productivity leveled off, but did not decline as usually happens during a recession. Nominal wages held steady but real wages eroded due to the price increases that occurred at this time. The combination of lower real wages and stable productivity lowered unit labor cost during the recession, thereby helping to stabilize corporate earnings—a matter of particular importance during a financial crisis that made credit harder to obtain. In addition, the real-wage erosion stanching a larger increase in unemployment.

The labor market responded swiftly: labor input declined, mainly due to a decline in hours worked per employee.

The immediate response of the labor market to the recent crisis, in contrast to its belated response to the crisis in 2001–02, also occurred due to the gradual nature of the spillover of the financial crisis into the real economy.<sup>16</sup> In addition, the crisis caused its greatest damage in the export industries—the most elastic segment of the labor market (see Chapter 8).

As for the individual sectors, product of the manufacturing industry, which has the largest share of exports among all industries, fell by 6 percent and employment in that sector plummeted by 10 percent. Trade and services product, which accounts for about 55 percent of business-sector activity, held steady, as did product of the construction sector, primarily a domestic industry. The stability in construction was composed of a decline in nonresidential building investment and an upturn in residential construction. Employment and product in the financial and business services sector increased perceptibly.

Output and employment declined steeply in the manufacturing industry.

The development of construction activity and the housing market was very different in Israel from typical development in developed countries, where the crisis originated in precisely these sectors. Domestic construction activity, which is relatively highly leveraged, was largely unchanged. In late 2008 and early 2009, however, transactions in this market slumped perceptibly. Furthermore, the financing difficulties appear to have worsened somewhat at the beginning of the year but eased later on.<sup>17</sup> The housing market, noted contrarily for falling real prices in the previous decade, was typified by rapid price increases during the review year. (See expanded discussion in Chapter 2, Box 3.2, and Section 5 of this chapter.)

Residential construction activity was relatively stable, unlike in other countries.

<sup>16</sup>See *Recent Economic Developments* no. 125.

<sup>17</sup>A government program designed to provide contractors with collateral and loans, approved in June 2009, was not utilized at all.

The decrease in global demand for raw materials was manifested in downturns in raw materials prices during the crisis and, especially, a precipitous decrease in fuel prices that did much to improve Israel's terms of trade. The improvement benefited the economy and bolstered the income available to it, thereby mitigating the effect of the global crisis on domestic activity. It also contributed, along with the steep volume decrease in imports, to an appreciable increase in the surplus on the current account of the balance of payments, a development that enhanced macroeconomic stability.

The surplus on the current account of the balance of payments increased considerably.

The current account surplus developed differently in Israel than in most countries, since the crisis generally had a stabilizing effect on global imbalances. Overall, the current account surpluses of developing countries narrowed and the current account deficits of developed countries narrowed (see Figure 1.1).

## b. Price developments

The Consumer Price Index exceeded the upper bound of the inflation target despite the low level of activity.

The Consumer Price Index rose by 3.9 percent in 2009, exceeding the upper bound of the inflation target despite the low level of activity. Throughout the year, the inflation rate hovered at or slightly over the upper bound of the target (3 percent). As the global financial crisis worsened at the beginning of the year, however, inflation expectations fell to zero and below. By the second quarter of the year, inflation expectations returned to the middle of the target range and surpassed that level throughout the second half.

The increase in VAT, the imposition of a "drought surcharge" on water prices, and the increase in housing and energy prices contributed to the rise in the CPI.

Several factors explain the relatively high inflation rate. The government's decision to raise the rate of VAT by 1 percentage point and to impose a "drought surcharge" on water prices from July onward were reflected in a generally temporary one-time increase of around 1 percentage point in the price level.<sup>18</sup> Another important factor was the behavior of prices of owner-occupied housing services (as measured by the rental price on new and renewed leases). The housing component of the CPI rose at a 15 percent pace (over the twelve previous months) in the first half of the year, whereas the rate of index increase net of housing was under the lower bound of the inflation target. Later in the year the trends changed. The pace of increase in the housing component slowed considerably in the second half of the year, evidently due to the lagged effect of the increase in unemployment and the appreciation of the shekel against the dollar at that time. Concurrently, increases in other prices accelerated, mainly due to the effects of the 13 percent increase in energy prices in 2009 following a 10 percent decrease in 2008 and the Government's tax hikes. The expansionary monetary policy—adopted in order to support real activity, maintain financial stability, and mitigate the risk of deflation—abetted this price environment.

The GDP deflator rose by 4.9 percent on average, similar to increase in the business product deflator, even though a recession, manifested in factor underutilization, was under way. The prices of total uses, composed of GDP and imports, increased at a lower rate of 2.6 percent due to the decrease in import prices.

<sup>18</sup>The drought tax was suspended in January 2010, but water rates were raised by 25 percent. In January 2010, the VAT rate was reduced by 0.5 percentage point, to 16 percent.

Private-consumption prices rose by 2.1 percent (on average) due entirely to an 11.5 percent increase in housing-services prices,<sup>19</sup> whereas consumption prices net of housing were flat—a development consistent with the slowdown in activity. This aside, the improvement in Israel's terms of trade in 2009, which allowed the economy's real income to increase by 3.4 percent despite stable product, mitigated the reduction in domestic demand and eased the pressure for price cuts.

### c. The financial system

The domestic capital market, like markets abroad, responded to the crisis with falling prices, widening rate spreads that mirrored the increase in risk, and a halt in capital issues. Most of the damage was inflicted on the nonbank credit market, which had been developing very rapidly in recent years, and less on banks. The liquidity difficulties that typified global markets were much milder in Israel and the main financial institutions remained stable, however, at the peak of the crisis, there was a fear that the financial crisis might destabilize some of them. Nonetheless, some large non-financial firms, of which some are associated with the real-estate industry, ran into financial difficulties.<sup>20</sup> The risk of this affecting economic activity at large was relatively minor.

Most of the impact on the capital market was felt in the nonbank credit market, which effectively dried up at the peak of the crisis.

The financial market rebounded during the year, in tandem with its counterparts abroad. Share and bond prices rose swiftly, strongly outpacing those in developed countries and slightly outperforming those in emerging markets. Primary market issues and foreign portfolio investment resumed and business sector profitability, including that of banks and insurance companies, improved.

The domestic financial market rebounded during the year.

Total business sector debt edged downward in 2009 as bank credit decreased, the volume of bonds traded in Israel expanded moderately, and credit from abroad, which accounts for less than 20 percent of total business-sector debt, declined. This development, coupled with the narrowing of the spread between corporate and government bonds, the resumption of issuance, a decrease in the average cost of bank credit, and a decline in the cost of raising sources, is supportive of the belief that the decrease in credit reflects a downturn in demand occasioned by the slowdown in activity, whereas the credit supply constraints, which had impeded expansion at the beginning of the year, eased during the year. Capital raising via equity issues in Israel (net of private allocations) fell to about half of the 2008 level and was pursued entirely by well-established firms, mainly in the second half of the year.

Total business sector debt edged downward in 2009.

The domestic banking system was affected by the crisis due to the banks' exposure to international credit risks via the foreign debt that they held. The system was also susceptible to international market risks occasioned by the change in prices of financial assets abroad, which devalued the financial assets in investment portfolios.

<sup>19</sup>Housing expenditure is only an imputed expenditure for the majority of households; it is charged to housing services obtained from the dwelling that they own. On the other side of the ledger, the income on account of this asset is also imputed.

<sup>20</sup>Fifty-four percent of bonds trading at yields exceeding 8 percent were issued by real-estate firms. (For elaboration, see Chapter 4.)

The contraction of real activity abroad affected the banks indirectly by reducing the value of foreign assets in their investment portfolios and dampening real domestic activity. The value of the banks' assets eroded further as a result of the increase in credit losses and loan-loss provisions, coupled with an upturn in the implicit riskiness of their assets and a decrease in the value of firms' collateral.

As real domestic activity slumped in late 2008, the banks' net earnings dropped due to a steep increase in loan-loss provisions and a downturn in non-interest income. The increase in risk and erosion of the value of borrowers' collateral lowered the supply of bank credit. Concurrently, however, the drying up of the domestic nonbanking credit market and the difficulties that beset the foreign financial system sent additional demand in the banks' direction. In 2009, the banks' earnings improved perceptibly, their capital ratio improved, and their credit risk leveled off. Even though activity and demand rebounded during the year, bank credit did not increase, as household credit increased and corporate credit decreased (see Chapter 4).

The increase in household credit was composed of rapid growth in housing loans and a slower rate of growth of other lending. The increase in the housing loan flow did not keep up with the increase in the value of transactions in the housing market; the total ratio of household indebtedness to disposable income (not only in housing loans) remained stable and even decreased slightly and is low relative to the average in developed countries.

The earnings of insurance companies were affected mainly by capital market developments as opposed to direct activity in insurance business. The insurance companies' transition from losses in 2008 to earnings in 2009 traces to an increase in investment revenues.

In 2009 the domestic financial markets bottomed out and recovered rapidly in tandem with, if not preceding, their counterparts abroad. However, the future stability of the domestic financial system is susceptible to the factors that endanger the stability of the global financial system. The dependency of the domestic financial system on the resilience of large business groups may affect its stability.

The low level of domestic and foreign interest, coupled with the firming of expectations of a recovery of real activity, prompted investors to search for higher-yield assets that entail greater risk. The increase in demand for such assets was manifested in rapid upturns in the prices of equities and corporate bonds traded on the Tel-Aviv Stock Exchange, the resumption of foreign investment inflows, and the reawakening of the primary issues market.

The expansion of bond issues was facilitated by the decrease in yields, which reflected the easing of the average risks attributed to the issuing firms. Issuing firms were joined during the year by less-than-top-rated companies in all sectors of the economy. The proportion of bonds trading at yields surpassing 8 percent, reflecting greater risk, narrowed significantly during the year and resembled their pre-crisis rate but still exceeded their rate at the beginning of 2008.

Credit to households increased in 2009, with a rapid rise in mortgages.

The value of the public's portfolio of financial assets was 20 percent higher at the end of 2009 than it had been a year earlier and 10 percent higher than the previous peak in the middle of 2008, before the crisis worsened. The composition of the portfolio also resembled that in the middle of 2008, as a result of a rapid increase in share prices during the year and corporate bond issues and against the background of the low interest rate, which prompted the public to switch to more liquid assets and to those with higher yields and greater risk. The value of cash and bank deposits was almost unchanged at the end of 2009 relative to the end of 2008, whereas the value of shares in the portfolio climbed by 90 percent and that of corporate bonds (tradable and nontradable) increased by 40 percent. Demand for real estate also increased, and this factor, together with the sluggish response of housing supply, was reflected in a rapid 20 percent increase in housing prices during the year. One may estimate that at least some of the price increase reflected the effect of the low interest rate on housing demand and did not signal a significant deviation of housing prices from the level explained by the underlying factors of supply and demand (including interest). (See Box 3.2).

The value of the public's asset portfolio at the end of 2009 was higher than its peak level in the middle of 2008.

The low level of interest increased the demand for risky assets.

The Bank of Israel's steep rate-cutting during the year, accompanied by a decrease in the implicit short-term real interest rate, also significantly lowered the real yield on medium-term bonds, to nearly zero. Real long-term yields also slumped, although to a lesser extent in view of the decrease in real interest abroad and the slowdown in activity (Figure 1.3).

#### 4. ECONOMIC POLICY IN ISRAEL

Economic policy was typified by unprecedented monetary expansion and fiscal neutrality.

The Bank of Israel responded to the crisis by applying the most expansionary monetary policy in its history, including a reduction of the interest rate to 0.5 percent, and purchases of foreign currency and government bonds. The main monetary-policy goals at the beginning of the year were to prevent damage to financial stability, keep the economy from tumbling into deflation, and support activity. Later in the year, the policy was adjusted to accommodate the first indications of the easing of the crisis and, afterwards, the onset of recovery.

Economic policy was typified by unprecedented monetary expansion and an acyclical fiscal policy.

The share of public expenditure in GDP remained constant; the decline in tax revenues was solely caused by the contraction of activity. The strong fiscal credibility that had been gained in recent years allowed the automatic stabilizers to operate with no significant increase in risk. Policy acted to enhance confidence in the markets by the announcement of a modest safety net for pension savers at the end of 2008, establishing credit funds to facilitate business-sector activity, and passing the 2009–10 budget in July 2009, upon the formation of a new government.

The greater importance of monetary policy than of fiscal policy in tackling the crisis reflects the flexibility that monetary policy offers in the possibility of rapid response by

setting interest rates and intervening in the markets, as against the lengthier processes that come into play in making fiscal decisions. This was true especially in the first half of 2009, when no budget law was in effect until a new government was formed after the elections in February. However, the decrease in the tax burden occasioned by the activity slowdown, reflecting the relatively strong response of taxes to the contraction of activity with no need for active decision-making by the government, resulted in an immediate increase in the deficit during the recession. The nature of the crisis—short in duration and inflicting only a moderate impact on activity relative to previous recessions, to expectations, and to the damage sustained by developed countries—made a significant countercyclical fiscal policy unnecessary.

### a. Monetary policy

The expansionary monetary policy was implemented by reducing the interest rate to a minimum, and by operating other tools.

The Bank of Israel's policy in 2009 was expansionary beyond all precedents, resembling the policies adopted in other developed countries in response to the financial crisis.<sup>21</sup> The Bank implemented its policy by using three tools: (1) setting its interest rate, the principal tool in managing monetary policy within the framework of an inflation target; (2) purchasing foreign currency in the market; and (3) purchasing government bonds in the secondary market. The rapid rate-cutting resembled the exceptional measures that other developed countries took in order to confront the implications of the financial crisis and minimize the risk of sliding into a deflationary environment while supporting activity and market stability.

The exceptional expansion was also intended to minimize the risk of deflation.

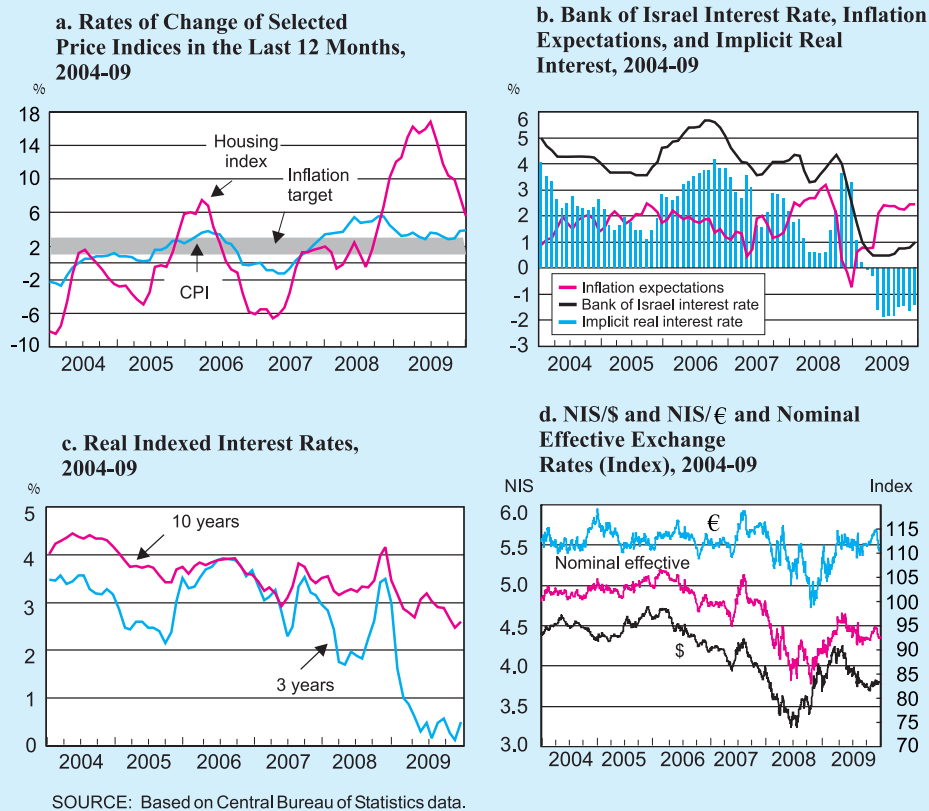
The interest rate path and the use of the other tools during the year corresponded to developments in the economy and assessments about the state of real activity, the inflation environment, financial stability, and interest developments abroad (Figure 1.2). At the beginning of the year, in view of the deceleration of real activity and the fear that the financial crisis would worsen, the Bank of Israel continued to cut its rate steeply—in a process that it had begun in the last quarter of 2008—to 1 percent in February and a historical low of 0.5 percent in April, which was judged to be the level below which further reductions would not be effective. Given the fear that the crisis would induce deflation—a dangerous process in a recession—and the fact that the interest tool had been used to exhaustion, additional tools were implemented. The Bank of Israel continued its higher rate of purchases in the foreign-currency market and began to buy government bonds in the secondary market. In addition, at the beginning of 2009 the Bank of Israel launched a monetary program to increase liquidity in the financial system. The program included reduced issuance of *makam* (short term bills), used to absorb surplus liquidity, and the interest spread between the credit window and the deposit window for commercial banks was reduced. The Bank announced its willingness to offer longer term monetary loans and Repo auctions; but there was no demand for these (see Chapter 3).

<sup>21</sup> See summarizing document on measures taken by major countries: V. Klyuev, P. de Imus, and K. Srinivasan (2009), "Unconventional Choices for Unconventional Times: Credit and Quantitative Easing in Advanced Economies," IMF Staff Position Note, SPN/09/27.



The rapid rate-cutting in late 2008 coincided with a swift downturn in inflation expectations (Figure 1.3). Evidently, despite the exceptional pace of the rate cuts, concern about serious damage to activity due to the crisis and the contraction of monetary policy's ability to allow further expansion and head off deflation left expectations low and the real short-term interest rate high at the end of 2008. In early 2009, as the rapid rate decreases continued, the implicit real interest rate also fell to the vicinity of zero and inflation expectations returned to positive territory.<sup>22</sup> The positive rate of change in the Consumer Price Index from April onward and first indications of bottoming out in the global and domestic economic environment were manifested in an upturn in inflation expectations to around the middle of the target range at this time. Consequently, the implicit real interest rate plummeted and even became negative—a phenomenon not witnessed since the economy entered the price-stability environment—and fear of a deflationary spiral receded perceptibly.

**Figure 1.3**



<sup>22</sup>Forecasters' expectations verged on zero but did not cross into negative territory at any time in the review period.

The Bank of Israel's interest rate was effectively at a minimum from April to September.

From September the Bank of Israel has increased its interest rate, unlike most central banks.

From February to August the Bank of Israel bought government bonds on the secondary market.

From April, interest remained at the low level that had been established. Inflation expectations climbed to the middle of the target range but the main policy goals remained as before: to support activity and financial-system stability amidst uncertainty about the strength and persistence of the recovery. Toward the middle of the year, the global and domestic economic environment began to stabilize and deflation fears abated strongly. From September, as indications of a recovery in economic activity gathered strength, inflation expectations moved into the upper portion of the target and the actual annual inflation rate climbed into the upper part of the target range<sup>23</sup>; in response, the Bank of Israel gradually raised its interest rate to 1 percent at year's end. In August, it stopped buying bonds in accordance with its program and replaced its policy of regular foreign-currency purchases with purchases in variable quantities and timing, according to market conditions.<sup>24</sup> In November and December, the Bank hardly intervened in the foreign currency market. The benchmark interest rate in early 2010—1.25 percent—still reflects monetary expansion; the gradual increases in the rate, however, reflect the need to continue adjusting the interest environment from one that corresponds to an acute crisis and deflation fears to an environment of recovery of activity, inflation at around the upper bound of the target, and the need for continued vigilance in regard to financial stability.

The rate-hiking process that began in September is different from the process pursued by most other countries, which kept their rates low and said that they would continue to do so for some time to come. The difference originates in the different conditions that prevail in the Israeli market, which more closely resemble those typical of emerging markets, and the need to adjust the real-interest environment to the recovery of real activity and the inflation rate. However, given the global environment of unrestricted capital flows and irrespective of the difference in domestic economic conditions, a major deviation of interest from the US and European level, creating wide interest spreads, would be manifested in capital inflows and an appreciation that would also affect real activity.

The Bank of Israel purchased about NIS 18 billion of government bonds on the secondary market between February and August 2009, in accordance with its pre-announced program. The purpose of this intervention was to moderate the slope of the yield curve, thereby lowering the cost of credit affected by interest rates to longer terms. A rise in the price of bonds acts to increase prices of all financial assets and thus to reduce the yield on corporate bonds. It thus helped to bring about a restart of bond issues, which had dried up completely at the end of 2008.

Unlike other countries' central banks, the Bank of Israel did not transact in non-government bonds or other financial instruments and did not have to help specific financial institutions and function as a lender of last resort, as happened in other countries. (See Chapter 4 for discussion of financial-system stability.)

<sup>23</sup> The actual inflation rate was also affected by government policy measures (increases in the rate of VAT and water prices).

<sup>24</sup> See Bank of Israel press release of 10.08.2009.

The Bank's intervention in the foreign-currency market, which began in March 2008 in view of the rapid currency appreciation at that time and its wish to build up the foreign-currency reserves, continued in the format of regular amounts until early August 2009 and was replaced then by intervention in varying sums depending on market conditions. The total increase in the reserves as a result of this intervention was about \$30 billion, bringing the reserves to \$60.6 billion by year's end. The Bank's intervention in the market by buying foreign currency evidently thwarted steeper currency appreciation, which would have hindered exports and, in particular, would have eroded export profitability even more in addition to the major downturn in global demand at that time. The Bank of Israel stressed that its intervention in the market was precipitated by the exceptional conditions that the global crisis had brought about and that it intended to revert to a situation of non-intervention in the markets except under especially unusual circumstances.<sup>25</sup> However, by intervening in the market after refraining from this measure for nearly a decade, the Bank of Israel has influenced the public's belief in the possibility that it may intervene again if the circumstances warrant.

The Bank's intervention in the foreign currency market, which has started in March 2008, continued during 2009.

The rate cuts and the use of the supplemental tools were reflected in an increase in the monetary base, the money supply, and the share of liquid assets in the public's portfolio. To hold interest at the rate that had been set, the Bank of Israel absorbed the excess liquidity; bank deposits with the Bank increased by about NIS 60 billion during 2009. The liabilities side of the Bank's balance sheet increased in tandem with the increase in foreign-currency assets in securities (government bonds). The Bank's foreign currency purchases were also reflected in the composition of Israeli assets vis-à-vis the rest of the world—an increase in the proportion of conservative assets, including the foreign-currency reserves (see Chapter 7).

The Bank of Israel, in its capacity as the supervisor of banks, took measures to minimize risks to banking-system stability. The Banking Supervision Department contributed to the stability of the banking system, and to the reduction of uncertainty, by announcing its commitment to take all necessary steps to keep the banks stable. The Supervisor of Banks also directed the banks to increase their capital ratio and acted to reduce their exposure to risky assets and correct their balance sheets in order to reflect their holdings in such instruments.

The Bank of Israel acted to strengthen the stability of the financial system.

Following the intensification of the public's concern regarding the stability of the banking system, towards the end of 2008 the government and the Bank of Israel affirmed its commitment to protect the public's bank deposits.<sup>26</sup> This announcement helped alleviate these concerns.

In 2008, the Banking Supervision Department broadened its monitoring of the condition of banks' by expanding their reporting requirements concerning various kinds of exposures to large and potentially risky customers.<sup>27</sup> In 2009, the Department

<sup>25</sup> See Bank of Israel press release of 19.10.2009.

<sup>26</sup> See Bank of Israel press release of 23.12.2008.

<sup>27</sup> See Chapter 4 of the 2008 Survey of the Supervisor of Banks.

continued to emphasize the management of credit risks in view of the financial crisis and its lessons by reporting to the public about banks' exposure to various risks.

## b. Fiscal policy

Fiscal policy was neutral to the crisis. The share of public expenditure in GDP remained constant.

The “classical” fiscal policies—those relating to expenditure and tax rates—were neutral to the crisis. The share of public expenditure in GDP remained constant, in contrast to developments in other countries: the ratio rose between 2007 and 2009 in OECD countries by 5 percent on average, whereas in Israel it slipped by 1 percent.

Elections in February 2009 led to the swearing in of a new government in April. Until July, when the new budget was approved, government spending in each month was limited to one-twelfth of the previous year's budget.<sup>28</sup> Furthermore, in the first three months of the year, current government expenditure was exceptionally low due to the relatively high portion of government debt that had to be refinanced. When the budget was passed in the middle of 2009, it was as a two-year budget for 2009 and 2010. Its deficit targets—6 percent and 5.5 percent in 2009 and 2010—were set higher than the previously adopted deficit reduction path. They were meant to align the deficit, along with a temporary increase in spending and in tax rates, with the conditions that the economic crisis had brought about and to allow the automatic stabilizers to work.

At the beginning of the year, direct-tax rates were cut as part of a multiannual tax-reduction program; this had an expansionary effect. However, after the new government took office and the budget was passed, indirect *and* direct tax rates were raised for high-income taxpayers in order to finance an increase in spending due to the crisis. Overall, the statutory changes in both directions were similar in magnitude, meaning that the total tax rate did not increase even though the composition of taxes did.

The steep decline in tax revenues was the outcome of the decline in economic activity only.

The steep decrease in total tax collection and the actual tax burden was the outcome of the decline in economic activity, i.e., it expresses the effect of the automatic stabilizers. Consequently, the government deficit climbed to 5 percent of GDP according to the accepted definitions in Israel, i.e., 6.6 percent according to international definitions<sup>29</sup>—surpassing the OECD average—despite the aforementioned standstill in spending.

Israel's tax revenues were especially elastic with respect to the contraction of product, due to the significant decrease in imported durable goods, which are heavily taxed<sup>30</sup> making meaningful active measures during the crisis less necessary.

The government took a series of policy measures that played a significant role in supporting the markets.

The government did, however, take a series of specific policy measures that played an important role in soothing the money markets and bolstering the public's confidence in the financial system: an undertaking to create a safety net for savers with banks and institutional entities and the establishment of a leverage fund to lend to small and medium businesses in late 2008. Ultimately, these funds were put to partial use only,

<sup>28</sup> According to the law, if the budget for the next year is not approved by the end of the current calendar year, the monthly expenditures for that year are limited to 1/12 of the previous year's budget.

<sup>29</sup> See Chapter 6 for a detailed explanation of the different definitions of the deficit.

<sup>30</sup> See Box 6.2.

although this obligation had a potential of increasing public expenditure and public debt.

The government also took steps to ease the plight of jobseekers—a slight temporary relaxation of the terms for unemployment compensation, the extension of the maximum term of such compensation for jobless persons up to age thirty-five, and miscellaneous training programs that were actually put to very scanty use. (See expanded discussion in Chapter 5.)

At the end of 2008, piloting of an Earned-Income Tax Credit (“negative income tax”) began in a small number of localities; countrywide expansion of the program was deferred.

## 5. THE SOURCES OF THE RESILIENCE OF THE ISRAELI ECONOMY

The development of GDP and the unemployment rate indicates that the global crisis affected Israel less severely than it did developed countries and that the effect on Israel more closely resembled that on developing countries (Figure 1.1)— even though the underlying characteristics of the Israeli economy, especially in its sectoral composition, are those of an advanced economy and even though developed countries are the main target markets for Israeli exports.

Inflation in Israel also resembled that of the developing countries (Figure 1.2); the rate of increase in the Consumer Price Index remained positive throughout the period of falling economic activity, in contrast to significant deflationary forces that took shape in developed markets, especially at the beginning of the year.

In the development of share prices, Israel has strongly resembled the emerging markets since 2000 and continued to do so during the crisis (Figure 1.2). From the beginning of 2009 onward, the TA-100 index posted an even steeper rate of increase than that in the emerging-markets, whereas the developed markets recorded a much milder pace of recovery in prices of financial assets.

Israel's main financial institutions remained stable during the crisis. The banking system navigated the crisis without bankruptcies among financial firms and, unlike other countries, did not demand direct state funding for these firms.

The unexpectedly short duration and the timing of the crisis contributed to the relatively minor damage that the crisis inflicted on the economy. The crisis broke out at an auspicious starting point for the economy: the end of a five-year period of steady growth that had brought the unemployment rate down to 5.9 percent—a twenty-year low—and elevated earnings in the business sector and, especially, in the banking system, to their peak.

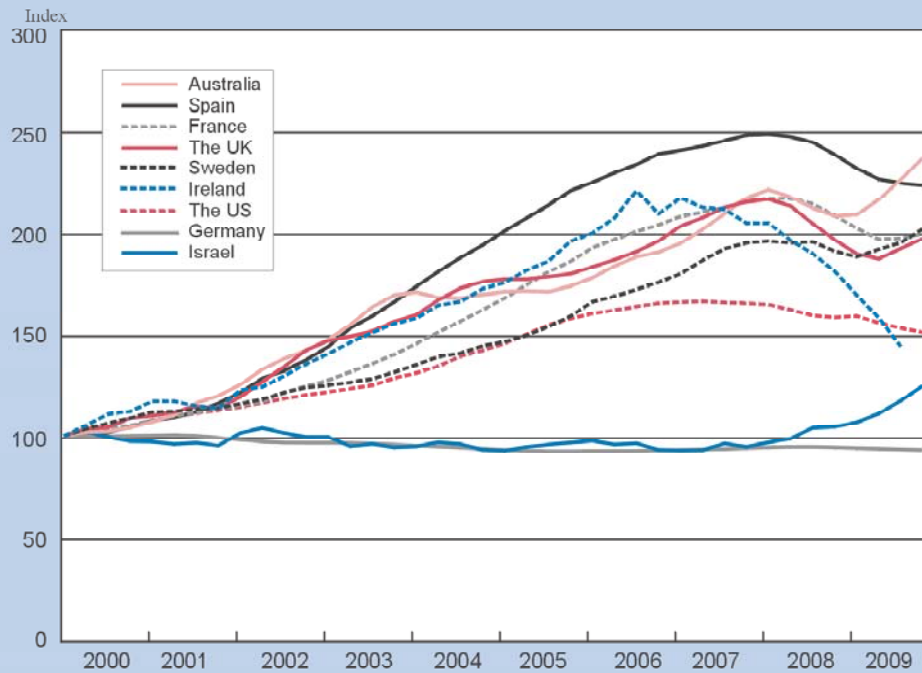
These developments were made possible by favorable fundamentals and an appropriate economic policy.

1. *A conservative financial system:* the country's financial institutions and, in particular, its banking system were managed conservatively on the eve of the crisis. The banks' credit portfolios were properly diversified among sectors of the economy

The effect of the global crisis on Israel was less severe than that on developed countries and more closely resembled that on developing countries.

The unexpectedly short duration, the timing of the crisis, Israel's strong economic fundamentals and the appropriate economic policy contributed to the relatively minor impact of the crisis on the economy.

**Figure 1.4**  
**House Prices, 2000-09 (2000 = 100)**



SOURCE: For Israel - based on Central Bureau of Statistics data; international data - OECD.

The financial institutions acted conservatively; the level of bank supervision is relatively high.

and between the private sector and the business sector, and the financial institutions were not heavily exposed to toxic assets abroad. The domestic banking system is concentrated and closely supervised, and the rapid treatment of the toxic assets that it held, along with the increase in capital ratios, furthered its credibility. Comparison of the level of financial development in Israel with that of other countries<sup>31</sup> shows that the Israeli market is more developed than most emerging markets but less so than most developed markets. In particular, it was found that the level of supervision in the Israeli capital market relative to other countries exceeds its level of development.

The housing market was relatively stable, unlike in other countries.

2. *A balanced housing market and a conservative housing-loan market:* the housing market has been relatively stable in the past two years, even though it is highly leveraged on both the supply and demand sides. Housing prices have been steady in the past decade, in contrast to steep increases in developed countries (Figure 1.4). Housing prices relative to rent levels and relative to the national average wage—ratios that furnish indicators of the existence of a bubble—have also held steady over the

<sup>31</sup> See E. Dorrucchi, A. Meyer-Cirkel, and D. Santabarbara (2009), "Domestic Financial Development in Emerging Economies—Evidence and Implications," ECB Occasional Paper 102 (April 2009), and N. Roubini and A. El Said (2009), "This Time It's Different: Transmission of the Global Financial Crisis to Emerging Market Economies and the Domestic and International Policy Response," World Economic Forum.



past decade, while prices in other countries ballooned at rates exceeding those that can be explained by market fundamentals (supply and demand). In the US, rapid price increases in recent years collapsed together with the subprime mortgage market and steep decreases occurred in other developed markets as well. The collapse of housing prices and housing investment were prime culprits in the crisis in the US and other developed markets such as the UK and Spain.

The different behavior of Israel's housing market evidently traces to several structural and institutional factors. The Israeli housing-loan market is more conservative than its counterparts in other developed countries, especially the US,<sup>32</sup> and its credit risk is lower than that of credit to the business sector. Due to the lack of a domestic securitization market for housing loans, the risk in such loans remains with the banks, giving them an incentive to check borrowers painstakingly and limit housing loans to only part (up to 70 percent) of dwelling value.<sup>33</sup> The sound condition of the mortgage banks and the borrowers allowed them to accommodate the increase in demand; mortgage lending increased significantly as mortgage interest rates fell to a trough—indicating strong pass-through of monetary policy in this industry.

3. *High private savings and low leveraging in the household sector:* Israel's private savings rate on the eve of the crisis was high by international standards. Households seem to have prepared for the crisis as savings increased in 2008 (see Box 2.2.) The rate of leveraging among Israeli households is low by world standards and the banking system incurs much lower credit risk for households (not including housing) than for the business sector. This permitted the banks to continue issuing cheap and unrationed consumer credit during the crisis, allowing the credit/consumption ratio to be held steady at that time. The high private savings rate and the regular supply of credit to households allowed households to smooth their consumption even as private consumption plummeted in many other economies.

4. *The current account surplus:* during the years of rapid growth, significant surpluses accumulated on the current account of the balance of payments, mainly due to the increase in national saving. Thus, when the crisis erupted, the economy was not dependent on external financing. In the next few years, countries that had large current account deficits are expected to have lower growth rates than those that had been expected before the crisis because the steep decrease in investment will impair the accumulation of capital stock.<sup>34</sup> Israel's current account surplus shows that some of national saving was diverted to the acquisition of assets abroad. This may also have helped to keep the housing market in balance.

Israel's mortgage market is more conservative than those in other countries.

Israel's private savings rate on the eve of the crisis was high by international standards.

Israel had a significant surplus on its current account.

<sup>32</sup> The Chairman of the Federal Reserve, Ben Bernanke, claimed in a speech in January 2010 that the main reason for the development of a bubble in US housing prices was not monetary policy but the development of new and complex types of mortgages that provided incentives for an increase in mortgage lending without appropriate supervision.

<sup>33</sup> Although there is no supervisory limit to the share of the loan in dwelling value, financing in excess of 70 percent entails a higher capital requirement.

<sup>34</sup> World Economic Outlook (2009), International Monetary Fund, October.

The external assets portfolio of the Israeli economy is conservative relative to the composition of liabilities.

5. *The structure of assets and liabilities of the Israeli economy:* the disparity between total assets of the economy abroad and total liabilities was relatively small at the beginning of the crisis. The economy's net liabilities in the third quarter of 2008 were only 4 percent of GDP. In addition, the external assets portfolio of the Israeli economy is conservative relative to the composition of liabilities. The assets portfolio is intensive in government bonds; the liabilities portfolio is intensive in riskier assets such as shares and direct investments. Therefore, the assets portfolio has an element of insurance. Some of the disparity is also explained by the high level of foreign reserves held by the Bank of Israel, which are invested in liquid and conservative instruments. The structural difference between assets and liabilities was significant: on the eve of the crisis, the economy's net assets in debt instruments exceeded the (gross) external debt by \$47 billion. Indeed, the crisis devalued the liabilities portfolio more acutely than it did the assets portfolio, and during the crisis the value of assets surpassed that of liabilities—a development that had a stabilizing effect on national income.

The decline in the deficit and public debt till the crisis increased fiscal credibility.

6. *Credibility of the fiscal system:* during the rapid-growth years, public expenditure increased moderately. Thus, the deficits contracted and the debt/GDP ratio fell steadily from nearly 100 percent in 2003 to 77 percent in 2008—not much higher than that in other developed countries. In those years, the credibility of fiscal policy strengthened as a result of the government's adherence to its expenditure and deficit targets. The increased credibility reduces Israel's risk premium and improves its credit rating. The buildup of credibility allowed the automatic stabilizers to operate during the crisis with no need for deliberate measures to stanch the increase in the deficit in order to prevent the development of adverse fiscal expectations. The consolidation trend in recent years also contributed to the formation of the current account surplus (see Box 7.1). This credibility allowed Israel to apply a policy in which the automatic stabilizers had an upward effect on the deficit and the debt, in contrast to the situation in the 2001 recession, when higher levels of deficit and debt on the eve of the crisis elevated the risk premium during the crisis. While strong fiscal credibility is typical of many developed countries, it waned in several European countries during the crisis.

The low rate of inflation enhanced the credibility of the Bank of Israel.

7. *A credible price stability environment:* in the past decade, Israel's inflation rate has been lower than the norm among developed countries. The consolidation of monetary-policy credibility and the stable inflation environment in recent years allowed the Bank of Israel to apply a highly expansionary monetary policy with no risk of detriment to policy credibility. Consequently, the Bank was able to emphasize the prevention of harm to real activity and the maintenance of financial stability by slashing interest rates and achieving quantitative expansion by buying bonds and foreign currency. Evidence of the credibility of the policy is provided by the relatively narrow range of inflation expectations: the fluctuations of one-year-forward expectations are much smaller than those of actual inflation and medium- and long-term expectations remained within the target range all year long. The Bank of Israel's solid credibility allowed it to conduct an expansionary policy, whereas in the recession at the beginning of the decade a contractionary policy had to be invoked because the Bank of Israel and the government suffered from weak credibility.

## 6. IMPLICATIONS OF THE CRISIS FOR COMING YEARS

The year 2009 marked the beginning of the exit from the global crisis that began in late 2007—a crisis judged to be the harshest since the Great Depression of the 1930s. Unless the global economy is dealt a further shock, it is expected to continue growing in the years to come. The growth trajectory and its related risks, however, depend significantly on the long-term effects of the aggressive policies that were employed during the crisis, the implications of which are still not fully known, and on the policies that will be invoked in the next few years. The developments will depend in particular on the path of return to a policy suited to an environment that is no longer typified by crisis, and on learning and applying the lessons from the crisis just past.

The implications of the aggressive policies that were employed around the world during the crisis are still not fully known.

### a. Real activity

According to most outlooks, the global recovery from the crisis will be relatively slow in the next few years. There are several reasons for this: the financial systems have not yet completed their own recovery processes, leaving credit supply constraints in place. Households are leveraged and an adjustment of the private saving rate has become necessary. The recovery is being supported by unsustainably aggressive economic policies and the return to a “normal” economic policy also creates risks. Furthermore, the main international agencies believe that many countries will have relatively low potential growth rates in the next few years;<sup>35</sup> this will limit the pace of recovery in activity in these economies.

According to most outlooks, the global recovery from the crisis will be gradual.

In Israel, the crisis so far does not appear to have lowered the potential growth rate. The pace of increase in capital stock remains strong and the decrease in employment was not steep enough to erode human capital. Nevertheless, insofar as developed countries recover sluggishly, Israel's growth rate will be affected due to the impact on its exports.

The global crisis accelerated the process of increase in the share of emerging markets in total global activity because these markets suffered relatively slight damage while the developed economies suffered a substantial impact. China has become the world's greatest exporter and in about ten years the size of the Chinese economy is expected to be closer in terms of purchasing power to the size of the US and the eurozone. The increase in the emerging markets' public debt, however, is expected to prompt these countries to boost their savings by reducing their current account deficits via stronger exports, among other measures. Israel's ability to grow in the long term hinges on the expansion of exports. Despite the rapid development of the emerging markets, Israeli exports still depend heavily on demand in advanced economies, which accounted for about 60 percent of total Israeli exports in 2008. In the 2000s, the emerging markets' imports grew vigorously; Israel's exporters, however, did not manage to exploit this fully. Instead, their market share in these countries fell gradually despite real

The crisis enhanced the importance of the emerging market economies, and Israel's exports will have to adjust accordingly.

<sup>35</sup> Economic Outlook (2009), OECD, No. 86. World Economic Outlook (2009), International Monetary Fund, October, Chapter 4.

depreciation of the shekel against these countries' currencies<sup>36</sup> and no diversion of trade took place even during the crisis (see Chapter 7). To sustain high growth rates in the years to come, Israeli exporters will have to develop products that satisfy demand in emerging markets and to strengthen its marketing systems there.

## **b. Fiscal policy**

The expansionary fiscal policies followed world wide will necessitate consolidation programs.

The expansionary fiscal policies invoked around the world found expression in increases in public deficits and public-debt/GDP ratios. While the increase in Israel's debt/GDP ratio was moderate, the crisis caused most developed countries' public debt to escalate steeply, entailing consolidation programs in order to stabilize the debt at sustainable levels in future years. These programs will reduce each country's aggregate demand. The effect of a coordinated consolidation, however, may be much greater than the sum of the effect on each country separately, because in such a case the stabilizing mechanisms—such as the positive effect of the decrease in public consumption on exports via the creation of real depreciation—will operate only in part. The contraction of global demand will make it impossible to redirect product from domestic uses, which will contract once the fiscal restraint is applied, to exports, because demand in other countries will also be compromised for the same reason. The consolidation programs will also push tax rates upward. Since the tax increases may be carried out in a sub-optimal way, they will exacerbate tax distortions, and impair economic activity.

The crisis did not cause a long-term fiscal problem in Israel.

Unlike other countries, the increase in Israel's public deficit can be traced to the decline in tax revenues occasioned by the recession in activity and not to an increase in public spending. Therefore, now that the recession is being exited, the automatic stabilizers will act to reduce the deficit by increasing tax collection. Some of the decrease in tax collection, however, originated in the lowering of statutory tax rates and, for this reason, is permanent. In contrast, other countries are finding it necessary to reduce public spending and, in particular, the support of real activity (e.g., by cutting consumer subsidies), which increased greatly during the crisis; this is liable to impair these economies' ability to recover. Since Israel's recovery does not depend heavily on government support, there is also much less fear of damaging the recovery by narrowing the public deficit.

As mentioned above, Israel's debt/GDP ratio rose moderately to around 80 percent (Figure 1.1), a level that is no longer as aberrant by international standards as it used to be. However, the high ratio will not allow the burden of interest payments on account of the debt to decline.<sup>37</sup>

Israel's tax burden is slightly lower than the OECD average (Figure 6.3). Since some developed countries are expected to raise their tax rates in the next few years, Israel's relative competitiveness will improve even without further tax cuts. Israel's

<sup>36</sup> See *Recent Economic Developments* No. 126, Box 2.

<sup>37</sup> In the short term, the interest burden fell due to sizable recycling of debt at low interest rates in 2009.

tax-reduction program, established in the 2009–10 budget, prescribes further steady decreases in direct-tax rates until 2016. Corporate tax is expected to fall to only 18 percent, low by international standards, and the tax rate on labor is expected to fall commensurately.

To lower the debt/GDP ratio while treating the tax-reduction program as given, it is necessary to reduce the share of government expenditure in GDP. A further reduction of the share of government expenditure in GDP, however, raises serious questions. Today, Israel's ratio is lower than the OECD average despite its onerous defense burden and relatively high rate of interest payments. By implication, expenditure for civilian purposes—education, healthcare, and infrastructure—is low by the standards of developed countries.<sup>38</sup> Developments in the field of education are especially troubling. Per-pupil public expenditure in Israel is low by international standards and pupils' achievements have been declining. The higher education system, too, is deteriorating according to international rankings. Today's Israeli economy is based on human capital, but current trends in its education system will not allow it to maintain its comparative advantage.<sup>39</sup>

At the beginning of 2010 the government decided on a new fiscal rule, which sets an expenditure ceiling derived from the long-term growth rate and the progress made in reducing the debt/GDP ratio, while maintaining the deficit targets. Without faster growth than was achieved in the last decades, however, the deficit targets will only be met if expenditure increases more slowly than the newly determined rate, or by a more modest reduction in taxes than the path decided upon.<sup>40</sup>

The reduction of the debt/GDP ratio to a lower level will enhance the resilience of Israel's economy and its ability to cope with crises while remaining stable.

### c. Monetary policy

The acutely expansionary policy that was adopted during the crisis, like that invoked abroad, was needed in order to minimize the risk of deep recession and financial instability. This policy, however, and especially the path of exit from it, has implications for nominal and real developments in the near term.

Near zero interest, which was reflected during most of the period in a negative real rate, has implications for the behavior of individuals and the structure of their assets portfolio. Low interest, that was necessary during the crisis, has the effect of diverting the public's demand to assets—portfolio and real, e.g., real estate—that offer an expectation of higher return but are also riskier. The diversion of demand to riskier financial assets may result in price increases that overshoot those warranted by actual economic conditions, possibly aggravating the risk of instability in the financial markets.

Further reduction of the debt/GDP ratio is inconsistent with the tax reduction program and with the provision of proper public services.

The low interest level was appropriate during the crisis, but is not sustainable.

<sup>38</sup> The share of welfare-state expenditure (mainly education, healthcare, and subsidies) in GDP fell from 29 percent in 2002 to 25 percent in 2009.

<sup>39</sup> See OECD Reviews of Labour Market and Social Policies: Israel (January, 2010).

<sup>40</sup> See section 7 in Chapter 6.

In addition, excessively low interest for a prolonged period will create an incentive for real investments that deliver low returns, thereby distorting the allocation of capital and labor in the economy.

Interest rates are set as part of a flexible inflation-target policy that treats price stability as a principal target but also bears in mind the impact of interest on activity and financial stability. In other words, the policy allows inflation to stray from the target temporarily in order to avoid serious impairment of activity and stability.

When the crisis was full blown, it was important to employ all tools in support of expectations of continued sustained monetary expansion as long as necessary. During the recovery phase, it is important to adopt a monetary policy that will support the public's expectations that the interest trajectory will be adjusted to the recovery of activity and the financial markets and to the current inflation environment. As of the end of 2009, the economy had just begun the recovery process, the persistence of which will depend largely on that of the global economy. Therefore, the interest adjustment process should be moderate and cautious in order to minimize the risk of harming the recovery. By the same token, a belated adjustment of interest may result in overshooting the inflation target. The challenge facing the Bank of Israel is to keep these considerations in balance.

At the outset of its intervening in the foreign currency market, the Bank of Israel intervened in a regular and foreknown sum. In the current regime, in contrast, the extent of intervention is not foreknown and the target of the intervention—quantity or price—is not stated.

After more than a decade without intervening in the foreign-currency market, the Bank of Israel found such intervention necessary during the crisis in order to attenuate the steep appreciation that was taking place and the harm this was causing to the export sector. The Bank of Israel announced that it intends in the future to intervene only under especially unusual circumstances.<sup>41</sup> Just the same, the public's expectations of central-bank intervention were influenced by the Bank's behavior during the crisis. One may therefore presume that, in contrast to the pre-crisis assessment that the central bank would not intervene in the foreign-currency market at all, the public, including the business sector, now believes that the Bank will be willing to intervene in certain circumstances.

During the crisis, the Bank of Israel intervened in the secondary government-bond market for a certain time and wound up its intervention in the summer of 2009, in accordance with the predetermined program. The bond-market intervention was compatible with the special conditions that prevailed at the time and was terminated when no longer needed. Intervention in the secondary market affects medium- and long-term yields and, unlike the setting of interest rates on banks' deposits with (or loans from) the central bank, these yields cannot be fully controlled. Such intervention becomes important when it is no longer possible to reduce the benchmark rate because

The challenge facing the Bank of Israel is to adjust the interest rate appropriately.

The Bank of Israel's intervention in the foreign currency market was needed during the crisis, and will be used in the future only in exceptional circumstances.

<sup>41</sup> See note 25.



the rate is verging on zero, as happened in 2009; when interest rates are higher, in contrast, the importance of this activity diminishes.

In addition, the Bank of Israel intervened in the secondary market only and did not buy government bonds directly, in accordance with the prohibition against such transactions in the “No Money-Printing” law. Long-term intervention in the bond market might also affect the government’s behavior in choosing the extent and composition of its issues.

The policy of the Bank of Israel should relate to the financial system as a whole. This perception of the Bank of Israel’s role is consistent with the understanding that financial stability is of central importance to the sound functioning of the economy. This is manifested in the new Bank of Israel Law which includes the support of the stability and orderly activity of the financial system among the Bank’s objectives. According to the law, the Bank of Israel may perform actions or transactions in the capital, money, and foreign-currency markets in the course of its regular operations. Under exceptional circumstances, when it is believed there is a genuine threat to the stability or orderly activity of the financial system, the Bank of Israel may also operate as a lender of last resort to other financial institutions, and not only to banking corporations.

The new Bank of Israel Law defines the goals of monetary policy.

#### **d. The financial markets**

The financial crisis that began in the American financial sector and spilled into many additional economies affected real activity around the globe and exposed major problems in financial-system structure in the US and elsewhere. These problems are mainly manifestations of the development of highly complex financial assets that the public, and possibly even professionals, do not understand, together with a distorted incentive structure and supervisory deficiencies that allowed these assets and their markets to develop in an uncontrolled manner.

One of the most important lessons of the crisis, then, is the need for change and improvement in regulation and supervision, including intervention in the structure of incentives in the market and attention not only to the specific risk of each asset or institution but also to systemic risk that may originate in the failure of one of them. This is increasingly described as macro-prudential policy

One important lesson learned from the crisis is the need to assess systemic risk in the markets and to improve regulation and supervision.

Around the world, discussions about a wide range of topics are taking place in various stages; the topics include capital requirements, liquidity, securitization, rating companies, how to relate to large financial institutions, including the “too big to fail” problem, supervision of banks and other financial institutions, and international cooperation in this field. In most domains, these discussions have not yet ripened into practical change but the process of thinking and probing is well along.

Most of the flaws that typified the developed financial markets did not exist in Israel, as noted above. This happened, among other reasons, because the domestic financial sector was less developed and did not have complex financial assets. The crisis in Israel focused on the nonbank credit market, which had been developing rapidly in

recent years. Amid this development, however, the supervisory systems did not adjust fully to the major changes that were taking place in the market, including those set in motion by the implementation of the Bachar Commission recommendations.

To mitigate the risk of future crises in the corporate bond market, it is necessary to assure the existence of mechanisms that will give firms appropriate incentives to reduce their default risk and enhance their transparency vis-à-vis lenders, so that lenders may price correctly the loans that they issue and be confident of their ability to conclude a settlement in the event of default. It is also important to impose restrictions on institutional investors that manage other people's money and have no direct exposure to credit risk on account of corporate bonds, so that they will internalize this risk and thereby help to improve the composition of the debt issued. (For an expanded discussion, see Chapter 4.)

Even though the absence in the domestic capital market of complex assets such as mortgage-backed bonds helped to contain the damage of the financial crisis in Israel, a lag in the development of the financial markets relative to those in developed countries is injurious to the long-term efficiency of these markets and their ability to support economic growth. The crisis cannot serve as a reason to stop the development of the country's financial markets. The lessons of the global crisis, however, may help to develop new and sophisticated tools in the domestic capital market, amidst the adjustment of supervisory systems and the structure of incentives in order to minimize the risk of a future crisis. The opportunity to learn from mistakes in other countries and to take action for the enhancement of these markets and their efficiency should be seized.

To mitigate the risk of future crises in the corporate bond market, it is important to enhance transparency, and to impose restrictions on institutional investors.

It is important to continue with the development of the financial markets, and the crisis cannot serve as a reason to stop such a process.

**Table 1.A.1**  
**Israel: Basic Economic Data,<sup>a</sup> 2001–2009**

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Mean population ('000)	6,439	6,570	6,690	6,809	6,930	7,054	7,180	7,309	7,438
Population growth rate (percent)	2.4	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Israelis employed ('000)	2,265	2,284	2,330	2,401	2,494	2,574	2,682	2,777	2,782
GDP (NIS billion, 2008 prices)	566	562	570	599	630	663	697	725	730
GDP growth rate (percent)	0.0	-0.7	1.5	5.0	5.1	5.3	5.2	4.0	0.7
Per capita GDP (\$ '000, current prices)	19.1	17.2	17.8	18.6	19.4	20.7	23.3	27.7	26.2
Unemployment rate (percent)	9.3	10.3	10.7	10.4	9.0	8.4	7.3	6.1	7.6
Real wage per employee post (percent change)	3.0	-6.2	-3.0	2.5	1.0	1.3	1.6	-0.7	-2.8
Nominal wage per employee post (NIS per month, current prices)	7,133	7,074	6,909	7,051	7,220	7,468	7,630	7,922	7,952
Change in real income of family in lowest quintile (percent)	1.7	-7.6	-2.4	-1.7	2.4	7.6	4.1	-0.1	..
Rate of employment in 25- to 64-year age group (percent)	66.4	66.0	66.2	66.7	67.5	68.6	70.1	70.9	69.9
Inflation rate (during the year, percent)	1.4	6.5	-1.9	1.2	2.4	-0.1	3.4	3.8	3.9
NIS/\$ exchange rate (percent change, during the year)	4.8	9.8	-6.4	-1.2	6.2	-8.9	-7.1	-0.9	-2.1
Nominal effective exchange rate (percentage change, during the year) <sup>b</sup>	1.0	16.6	3.5	4.4	0.0	-3.4	-1.4	-8.3	3.5
Bank of Israel interest rate (annual percent, average)	6.8	6.8	7.5	4.2	3.7	5.1	3.9	3.7	0.8
Nominal yield on 10-year government bonds (percent)	7.0	9.8	9.8	8.7	7.5	6.5	6.2	7.2	6.9
Real yield on 10-year government bonds (percent)	4.9	5.6	4.9	5.0	4.8	3.9	3.6	4.0	4.5
Public expenditure (percent of GDP)	49.3	50.5	49.9	47.1	45.1	44.5	43.7	42.7	42.7
Tax revenue (percent of GDP)	36.5	35.9	35.7	35.5	35.4	36.4	36.0	33.3	31.3
Actual budget deficit excluding credit (percent of GDP)	4.1	3.5	5.2	3.5	1.8	0.9	0.0	2.1	5.1
Gross public debt (percent of GDP, year-end)	88.8	96.6	99.1	97.4	93.5	84.5	78.2	76.8	79.4
Goods and services exports (\$ billion, current prices) <sup>c</sup>	34.9	32.5	35.7	43.1	47.1	53.2	60.9	71.6	61.6
Goods and services imports (\$ billion, current prices) <sup>c</sup>	38.4	36.1	37.2	43.6	48.4	53.2	63.9	75.5	58.2
Current account (percent of GDP)	-1.2	-0.6	1.0	1.4	3.1	5.1	2.9	0.7	3.7
Net external debt (percent of GDP)	0.9	-3.7	-7.6	-8.4	-15.9	-21.2	-24.8	-23.4	-27.6

<sup>a</sup> Annual averages.

<sup>b</sup> The average shekel exchange rate against the currencies of Israel's trading partners, weighted according to the volume of Israel's trade with them.

<sup>c</sup> Excluding diamonds.

SOURCE: Central Bureau of Statistics and the Bank of Israel.

**Table 1.A.2**  
**Basic Economic Data: International Comparison<sup>a</sup>, 1999-2009**  
 Average 1999-2007

	2007				2008				2009			
	Israel	US	Eurozone	OECD	Israel	US	Eurozone	OECD	Israel	US	Eurozone	OECD
GDP growth rate	3.8	2.9	2.2	2.7	4.0	0.4	0.5	0.6	0.7	-2.5	-4.0	-3.5
Per capita GDP growth	1.7	1.8	-	2.0	2.2	-0.2	-	0.3	-1.0	-3.3	-	-4.0
Population growth rate	2.1	1.0	-	0.7	1.8	0.7	-	0.3	1.8	0.9	-	0.5
Civilian labor force participation rate	54.8	76.0	70.3	72.7	56.5	75.6	72.9	72.5	56.7	-	73.0	72.3
Unemployment rate	9.2	5.0	8.5	6.4	6.1	5.8	7.5	5.9	7.6	9.2	9.4	8.2
Inflation rate (during year)	1.6	2.7	2.1	2.9	3.8	3.8	3.3	3.6	3.9	-0.4	0.2	0.5
Exports (percent of GDP) <sup>b</sup>	33.0	10.4	37.4	28.5	40.9	12.7	41.9	41.6	36.6	-	-	-
Gross investment (percent of GDP)	19.1	19.4	21.1	27.1	18.5	17.7	22.1	28.5	16.4	-	-	-
National saving (percent of GDP)	19.9	15.4	-	-	19.5	12.1	-	-	20.1	-	-	-
Current account (percent of GDP)	1.0	-4.7	0.4	-1.1	0.7	-4.9	-0.8	-1.6	3.7	-3.0	-0.6	-0.9
Public expenditure (percent of GDP)	47.3	35.6	47.2	40.0	42.7	38.8	46.9	41.4	42.7	41.5	50.7	44.8
Tax revenue (percent of GDP) <sup>c</sup>	36.0	27.8	-	-	33.3	26.9	-	-	31.3	-	-	-
Gross public debt (percent of GDP)	90.8	59.0	74.9	72.1	76.9	70.0	73.2	78.4	79.4	83.9	81.8	90.0

<sup>a</sup> Figures for the Eurozone and OECD countries are weighted averages of the countries in each group, as published in the OECD Economic outlook.

<sup>b</sup> For Israel, exports excluding diamonds.

SOURCE: OECD Economic Outlook, 2008; IMF World Economic Outlook, 2008; OECD Revenue Statistics 2008 and Bank of Israel.