Chapter 1
The Economy and Economic Policy

- During 2010, the economy enjoyed a continuation of the growth which began in the second quarter of 2009 and which can be attributed to the increase in global and local demand.
- GDP grew by 4.6 percent and was accompanied by a continuous increase in employment. The participation rate reached a record high and the rate of unemployment fell to a level of 6.6 percent at the end of the year.
- The global economy continued to recover in 2010, with higher growth rates recorded in the developing economies and slower rates of recovery in the developed economies.
- The expansionary monetary policy contributed to the increase in economic activity this year. It did so by means of the low level of the interest rate and the purchase of foreign currency which moderated the extent of the appreciation of the shekel, thereby helping exports.
- The rate of inflation was 2.7 percent in 2010, within the target inflation range. This development reflected relatively sharp increases in the housing component and energy prices and a significant increase in the prices of fruits and vegetables
- The prices of real and financial assets grew at a relatively rapid rate in 2010 against the background of a rate of interest that is below its long-term level.
- House prices this year continued to increase rapidly, at a rate of 16 percent, and their level relative to wages was higher than in the past. Share prices rose by 13 percent, accompanied by a narrowing of spreads in the corporate bond market.
- The resilience of financial institutions improved and they enjoyed a high level of profitability. This contributed to the continued improvement in their capital structure and financial stability.
- The Bank of Israel responded to macroeconomic developments by raising the interest rate by 0.25 percentage points four times in 2010 to a level of 2 percent by the end of the year. This was accompanied by a number of policy measures that were intended to reduce the risks to financial stability, and to moderate the increase in house prices.
- The increase in the interest rate spread between Israel and the large developed countries contributed to a rise in the inflow of short-term capital and an appreciation in the exchange rate. In order to moderate the appreciation, the Bank of Israel purchased foreign currency during the course of the year and at the beginning of 2011 took additional steps to contend with the inflow of short-term capital. The nominal effective exchange rate appreciated by 7.1 percent during 2010.
- Public consumption grew this year by a relatively high rate of 5.9 percent in nominal terms, although the general government deficit fell to 3.8 percent of GDP due to the larger-than-forecasted increase in tax revenues. The debt-to-GDP ratio fell to 76.2 percent, which is lower than its pre-crisis level.
- Another major development in the Israeli economy during the past two years has been the discovery of large natural gas reserves within Israel's maritime borders. These reserves are expected to provide a significant portion of the economy's energy needs for many years, starting from the second half of the current decade.

1. MAIN DEVELOPMENTS

The Israeli economy enjoyed a continuation of growth in 2010, which began in the second quarter of 2009. The expansion was similar to that of other economies not significantly affected by the global crisis and was more rapid than that in the large developed economies (i.e., the US and European countries) whose recovery is still slow. The driving force behind the increase in economic activity was the sharp increase in both global and local demand.

The upward trend in economic activity continued, accompanied by a drop in unemployment.

The most significant developments this year were the increase in GDP and employment, the decrease in the rate of unemployment, the increase in corporate profits, the significant increase in the prices of financial assets and residential housing and the appreciation of the exchange rate. A sharp rise in short-term capital inflows, which was manifested in a large increase in the proportion of *makam*[1] held by foreign residents accompanied by a moderate increase in the flow of direct investments from abroad, also contributed to the appreciation of the exchange rate. Despite the appreciation, the surplus in the current account remained stable at a high level of $6.7 billion, which is equivalent to 3.1 percent of GDP. This was the result of, among other things, an expansionary monetary policy, and a fiscal policy that supported demand.

GDP grew by 4.6 percent in 2010 and involved an expansion in private consumption and a rapid increase in exports. The increase in activity was reflected in an increase of 3.4 percent in the number of employees and a decrease in unemployment to 6.7 percent, only somewhat higher than during the economy's past periods of prosperity. The drop in unemployment was accompanied by a relatively large increase in the participation rate from 57 percent in 2009 to 57.4 percent and an increase in labor productivity in the business sector. The increase in the participation rate was reflected in a moderate increase in real wages and in unit labor cost in the business sector.

The annual rate of inflation was 2.7 percent.

The high level of activity and the expansionary monetary policy led to a situation in which the rate of inflation was in the vicinity of the upper bound of the inflation target range for most of the year. The rate of inflation for 2010 was 2.7 percent, which reflects a more rapid increase in the price of housing services and slower rate of change in the prices of other items. The prices of assets grew at high rates: the share index rose by 13 percent and the price of houses rose at a similar rate. The expectations of inflation hovered around 3 percent during the course of the year, which is the upper bound of the inflation target range.

The Bank of Israel gradually raised the rate of interest but monetary policy remained expansionary.

The Bank of Israel responded to these developments by gradually adjusting the interest rate through four increases of 0.25 percentage points each during 2010, reaching a level of 2 percent by the end of the year. Despite the increase in the interest rate during the year, the real short-term yield remained negative at around –0.7 percent.

Asset prices increased significantly.

The rapid increase in the prices of assets (houses and shares), goods and services and private and public consumption, together with the slowed rate of growth in exports during the second half of the year signaled the development of imbalances in some of

[1] A short-term zero-coupon debt instrument issued by the Bank of Israel.

the markets. The gradual adjustment of monetary policy, which began at the end of 2009 and accompanied the continuing economic recovery, will help in reducing these imbalances in the economy.

Massive short-term capital inflows led to a number of policy measures.

The flow of capital from the developed countries in which the rate of interest remained low to countries in which the rate of interest began to rise, creating higher expected rates of return in those countries also manifested itself in the increase in short-term capital flows into Israel, which worked towards shekel appreciation. The Bank of Israel responded by continuing to purchase foreign currency, in varying amounts, with a total purchase of about $12 billion in 2010 (about half of the total during 2009). This policy moderated the extent of the appreciation, thereby helping exports. However, it appears that the ability to sustain this policy while increasing the rate of interest and in light of the fundamental forces working towards appreciation, has diminished over time.

In view of the increased involvement of foreign residents in the foreign currency market and the short-term bond market, the Bank of Israel imposed a requirement to report shekel-foreign currency swap transactions and foreign residents' transactions in *makam* and short-term government bonds with the goal of increasing the Bank's information on this activity. In addition, at the beginning of the February 2011 liquidity month, the Bank of Israel imposed a liquidity requirement of 10 percent on foreign currency derivatives transaction (swap transaction and futures transactions) carried out by foreign residents, with the goal of reducing the profitability of short-term capital inflows by foreign residents and thus moderating the appreciation resulting from these flows.[2] At the same time, the Ministry of Finance announced its intention to cancel the tax exemption for foreign residents on profits from investments in *makam* and short-term government bonds. Other central banks in countries where the recovery has been relatively rapid have intervened in the foreign currency market and some of them have also imposed restrictions of various types on activity in the foreign currency market. Their goal was to moderate, at least in the short run, appreciation pressures.[3]

Financial institutions showed increased profitability.

The positive trends in the local financial system continued in 2010, against a background of stability in the global financial system. The resilience of the financial institutions, i.e., banks and insurance companies, which enjoyed a high level of profitability, was reinforced and contributed to the stability of the system as a whole. The relatively low nominal and real rates of interest led to the adjustment of the public's asset portfolio. This resulted in an increased demand for riskier assets which was manifested in a smaller proportion of bank deposits and government bonds, in parallel to an increase in the proportion of shares and corporate bonds, which returned to their 2007 levels. This involved a drop in the yields of corporate bonds and a continuation of the upward trend in share prices. The low rate of interest was also manifested in the low cost of mortgages. Indeed, during the last two years, total outstanding mortgages rose by about 16 percent and house prices rose by about 39 percent. The contribution

[2] See the Bank of Israel's press releases from the 19th and 20th of January, 2011.
[3] See Box 1 in Inflation Report 33 for the fourth quarter of 2010.

of the interest rate to the increase in house prices during this period is estimated at between one-third and one-half. In order to reduce the risk to financial stability as a result of the rapid increase in house prices and total outstanding mortgages, the Bank of Israel has taken a number of regulatory steps in order to more fully reflect the risk in this market and therefore increasing the cost of a mortgage-financed house purchases.

Fiscal policy provided support for the continued expansion of economic activity.

Fiscal policy this year supported the continuing expansion of economic activity, with public consumption rising at a relatively high (nominal) rate of 5.9 percent. The full usage of the government budget stabilized the proportion of public expenditure within GDP, after it had fallen for most of the decade. Revenues grew faster than expected as a result of the boom in economic activity and as a result, the tax burden—the proportion of taxes in GDP—grew by close to one percentage point of GDP.

The large increase in tax revenues reduced the deficit of the general government to 3.8 percent of GDP. The fiscal stance was manifested in a decline in the deficit and in the debt-to-GDP ratio to a level of 76.2 percent, which supported a decrease in the risk premium on government bonds, as measured by the CDS spreads, by one-quarter. Towards the end of the year, a biannual budget was approved, which included declining deficit targets; however, the ability to meet these targets while continuing the planned reduction in tax rates is dependent on high growth rates in coming years or alternatively on budget cutbacks.

A large reservoir of natural gas was discovered at the Leviathan site.

Another major development in the Israeli economy during the last two years was the discovery of natural gas deposits within Israel's maritime borders. The "Tamar" reservoir, which was discovered at the beginning of 2009, was the largest natural gas discovery in the world that year. It is expected to meet local demand for a period of about 30 years, even taking into account the increased demand for natural gas. The "Leviathan" reservoir, which was discovered in late 2010, is double the size of Tamar. The Tamar deposit is expected to begin producing towards the middle of the decade. The use of the Leviathan deposit for future local use or for exports would require investment on a national scale. The discoveries led to a sharp increase in the value of oil and gas partnerships, which raised the General Share Index this year. The economic effects of the natural gas discoveries are important but they will come into play only gradually over the next decade. The government appointed a public committee (the Sheshinski Committee) to examine the fiscal environment for oil and natural gas, which recommended, among other things, the imposition of a levy on surplus profits in the industry. The recommendations have been adopted in a government decision and are now going through the legislative process. They are expected to increase government revenues from this industry, by at least 0.5 percent of GDP, starting from the second half of the current decade.

A new Bank of Israel law was passed.

In March 2010, the Knesset passed the New Bank of Israel Law, which defines the maintenance of price stability as the Bank's primary goal. In addition, the Bank is to support other goals of the government's economic policy, in particular growth, employment and reducing socioeconomic inequities, and also to support financial

Table 1.1
Main Developments in Israel and Around the World, 2007-10

	2007	2008	2009	2010
Israel				
GDP[a]	5.3	4.2	0.8	4.6
Exports[a]	9.3	5.9	-12.5	13.6
Unemployment rate[b]	7.3	6.0	7.5	6.7
Inflation[c]	3.4	3.8	3.9	2.7
Current account of the balance of payments ($ billion)	4.9	1.5	7.1	6.7
Debt/GDP ratio[d]	78.2	76.7	79.2	76.2
Real effective exchange rate[e]	-1.1	-10.7	1.8	-5.0
Nominal effective exchange rate[e]	-3.1	-10.1	4.3	-4.8
Tel Aviv 100 index[a]	25.3	-51.1	88.8	14.9
Around the world				
GDP of advanced economies[a]	2.7	0.2	-3.4	3.0
GDP of developing countries[a]	8.3	6.0	2.6	7.1
World trade[a]	7.3	2.9	-10.7	12.0
Commodities Price Index (Merrill Lynch)[a,f]	30.1	-40.4	52.9	23.4
MSCI share index of advanced economies[a,f]	7.1	-42.1	27.0	9.6
MSCI share index of emerging markets[a,f]	36.5	-54.5	74.5	16.4

[a] Rate of change, percent.
[b] Period average, percent.
[c] During the year, percent.
[d] End of year, percent.
[e] Change, annual average compared with previous year's average. A negative figure indicates appreciation.
[f] Nominal change during the year: December average compared with December average in previous year.
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.

stability on the condition that in the opinion of the Monetary Committee actions in support of these additional goals do not interfere with the attainment of long-term price stability.

Israel was accepted as a member of the OECD.

During the year, the process of Israel's entry into the OECD was completed and it became a member of the organization. Although growth in Israel during 2009–10 was higher than any other country in the OECD, GDP per capita in Israel is about 84 percent of the OECD average, and the rate of participation in the workforce is also lower than the OECD average.

2. THE GLOBAL ENVIRONMENT

The world economy continued its two-speed recovery, with higher rates of growth in the developing countries.

The global economy continued to recover in 2010, as expected, and grew this year by about 5 percent, which is similar to the long-term rate. This was accompanied by growth of about 12 percent in world trade. While the developing countries grew at a high rate of 7.1 percent, the developed countries, which were more adversely affected by the crisis, grew by only 3.0 percent. Growth in the developed countries, and also in some of the developing countries, was dependent on the continuing expansionary policies. The rate of recovery in the US was moderate and in the Euro bloc growth was very slow (1.8 percent) despite the impressive growth in Germany, the leading European economy. This is a result of the continuing decline in GDP in countries that are experiencing a fundamental crisis, such as Greece, Spain and Ireland. Another developed country that grew rapidly was Japan. The gap between the growth rates of developed and developing countries was a result of the differential rates of growth in local demand, while exports grew at similar rates (Figure 1.1).

The fiscal crisis in a number of European countries worsened.

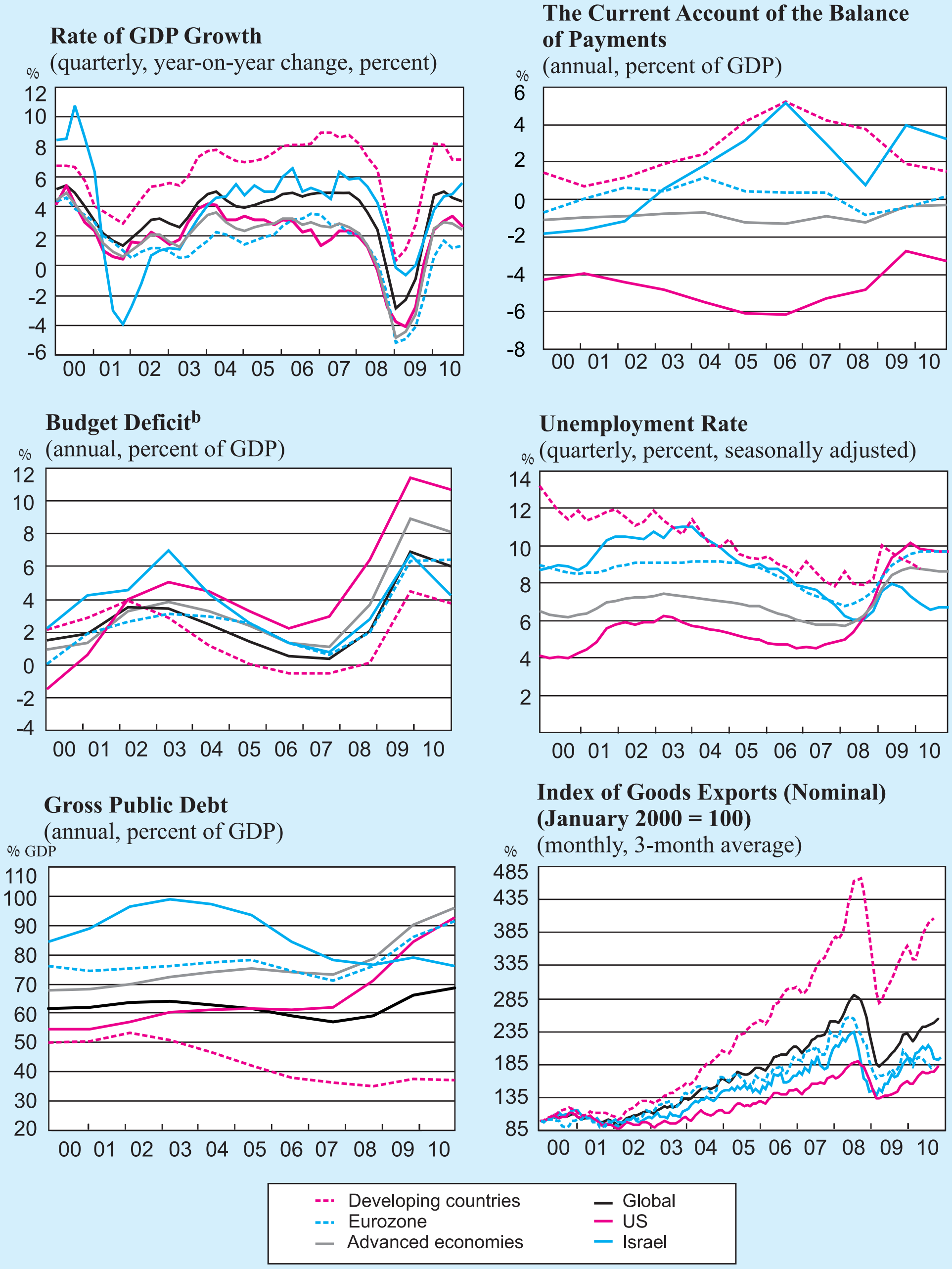
Despite the recovery, the government debt crisis intensified during the second quarter in a number of European countries. This crisis threatened the economic stability of these countries and other countries that have close financial and real economic ties with them. Following an announcement by the EU and international institutions of an assistance package, together with the announcement by a number of countries that they are adopting a contractionary fiscal policy in order to deal with the crisis, the leading share indices stabilized. Later in the year concerns regarding the ability of the problematic countries to repay debt were reignited and the indicators of risk rose again. Towards the end of the year, financial markets calmed, which included a drop in the spread between corporate and government bonds and easier credit conditions. The level of inter-bank interest rates in the various currencies (the LIBOR) rose somewhat in mid-year; however, it fell again subsequently and its level at the end of the year was very close to the interest rate set by the relevant central banks.

In the global financial markets, there was a continuation of the positive trends that began in 2009, which were manifested in a continuation of increases in share prices and in the issue of corporate bonds. There was also a significant gap between developed and developing economies in the rate of increase in share indices in the two blocs (see Figure 1.2).

Monetary policy in the developed countries continued to be expansionary.

As a result of the slow recovery in the developed countries and fears of its stalling, monetary policy in these countries remained expansionary and interest rates remained at low levels and are expected to remain there for at least the near term. In addition, the central banks in the US and Europe again intervened in the market through the use of quantitative easing—after such intervention had been reduced in scope—and thus intensified their expansionary monetary policy. In contrast, a slow process of raising interest rates, which varied according to the improvement in local economic conditions, began in countries—both developed and developing—that were less

Figure 1.1
Indicators of Economic Activity in Israel and around the World,[a] 2000-10



[a] 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, Latvia, Lithuania, Malaysia, Peru, the Philippines, Russia, South Africa, Thailand and Turkey.
[b] 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 2010 and 2011, IFS database and OECD database.

affected by the crisis.[4] Nonetheless, even in those countries the rate of interest still remained relatively low in historical terms.

As a result of the appreciation of their currencies, the developing countries are taking steps to reduce capital inflows.

The difference in the trends of recovery between developed and developing economies are evident in the current account surpluses of the developing countries, which are the result of the rapid expansion in their exports, and are continuing to exert pressure toward the real appreciation of their currencies. In addition, the high nominal rates of interest increase the incentive for the import of short-term financial capital into these economies, which also add to the forces for nominal appreciation. Although this appreciation reflects, at least in part, the surplus in the current account of these countries and other basic factors, because of the fear that the appreciation will adversely affect the export sector and therefore growth, various countries use additional tools, particularly intervention in the foreign currency market and/or the imposition of restrictions or taxes. These measures reduce the attractiveness of the import of short-term financial capital in an attempt to moderate the pressure in the foreign currency market for appreciation. In a number of countries, including Australia, South Africa, Korea, New Zealand and Switzerland, the central bank has intervened directly in the foreign currency market for limited periods. Other countries such as Brazil, South Korea, Indonesia and Thailand have in addition imposed various restrictions on activity in the foreign currency market. The economies that are intervening in the foreign currency market are doing so in response to the appreciation of their exchange rate and in a number of economies (Japan, Brazil, Peru and Columbia) the exchange rate is at particularly appreciated levels relative to the last decade. The accumulation of foreign currency reserves in these economies is facilitating the import of capital together with a surplus in the current account. Evidence from research[5] that has examined the effectiveness of imposing restrictions on the import of capital is ambiguous. Based on past experience, it appears that the main effect of such restrictions is on the composition of flows, i.e., the reduction in the flow of short-term capital relative to the flow of long-term capital with less of an effect on total volume.

The prices of commodities and oil continued to rise this year.

Commodity prices continued to rise at a rapid rate, as in 2009.[6] The price of a barrel of oil remained relatively stable at about $80 for most of the year and rose to about $95 at the end of the year (which in part is a result of the weakening of the dollar) following a relatively rapid increase in 2009 from the low starting level of about $45 at the end of 2008. Metal prices continued to rise during 2010 and reached the levels that prevailed prior to the global crisis. These increases reflect the rise in demand as a result of the global economic recovery. Food prices continued to increase at a relatively rapid rate and their current levels are significantly higher than the record levels of mid-2008. The rate of global inflation remained moderate, despite the increase in food prices. In

[4] In addition to Israel, the central banks of Canada, Sweden, New Zealand, Chile and Korea, as well as China, Hungary, Brazil, Taiwan, Malaysia and Thailand raised their interest rates during the past year. The central banks of Australia, Norway and India started to do so already at the end of 2009.

[5] See IMF Staff Position Note, SPN/10/04, February 2010 “Capital Inflows: The Role of Controls”.

[6] For a detailed analysis of the factors explaining commodity prices, see Appendix 1.1 in IMF World Economic Outlook, October 2010.

particular, the rate of inflation was lower in the developed countries whose economic activity was still far from full employment while in the developing countries the rate of inflation tended to be higher due to the more rapid recovery of their economies and the greater influence of commodity prices on inflation in these countries.

Fiscal policy in the developed countries continued to be expansionary.

Fiscal policy in the developed economies continued to be expansionary and this was reflected in the continuing high level of budget deficits and as a result a continuing upward trend in the debt-to-GDP ratio. The deficit and debt situation in the developing countries continued to be less severe than in the developed countries in 2010 (Figure 1.1). The debt crisis in some European countries forced them to adopt fiscal consolidation programs. However, these programs are expected in the short run to hamper the recovery in these economies, even though it is imperative that they be implemented in order to prevent a more serious crisis in the future. In other developed countries as well, there is a need for fiscal restraint programs which in the medium and long term will facilitate a return to a level of public debt that will reduce the risk to stability and will in the future allow the use of anti-cyclical fiscal policy in a period of economic recession.

In countries where housing prices rose prior to the crisis, prices continued to drop this year with a tendency towards stabilization.

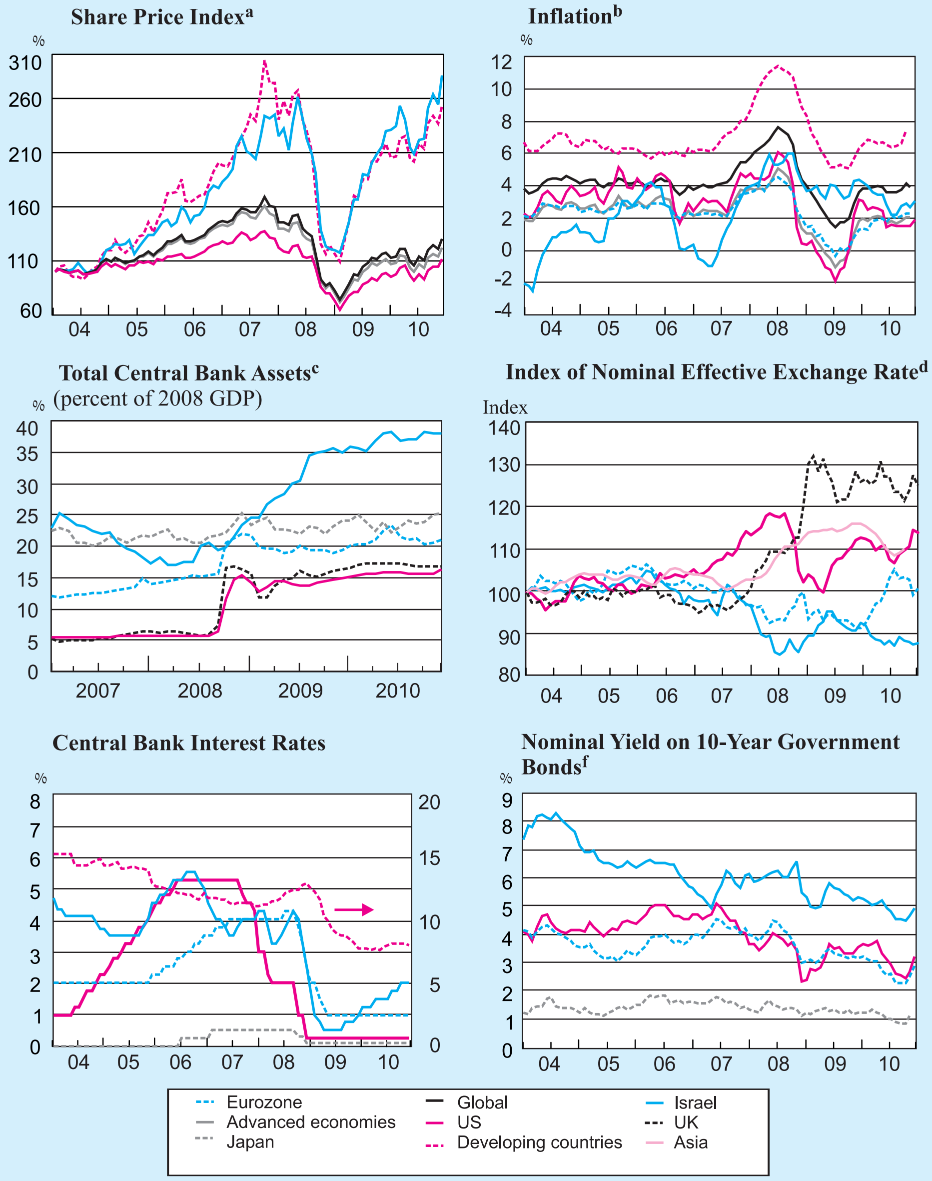
The housing market, which was the source of the financial crisis that began in the US in 2008, continues to be a focus of attention worldwide.[7] In most countries that experienced a rapid increase in house prices up until 2007, prices continued to fall with a tendency towards stabilization, as a result of the reduction in household debt and the excess supply of housing. In contrast, there are other countries, where the rise in house prices in the past was more moderate (primarily countries in Asia, the Scandinavian countries and Canada), house prices again started to rise, accompanied by increased investment in construction. Indicators in the mortgage market in these economies, particularly China, point to the risk of overheating in the housing market.

The worldwide discussion continues as to the policy needed to maintain the stability of financial institutions.

As a result of the crisis, there has been intensified global discussion of the need for macro prudential policies to stabilize financial institutions. This discussion has taken place not only from the traditional perspective, which focuses on the stability of each individual institution, particularly the banks, but also on the macroeconomic level (macroprudential policy) where the focus is on the stability of the system as a whole and its effect on the economy. As part of this discussion, the question has arisen as to the structure of supervisory institutions and their powers, particularly the role and authority of the central bank. According to this perspective, the role of the central bank is not only to maintain price stability while supporting economic activity, but also to prevent imbalances arising in the various markets and in this way minimize the risk to the stability of the financial system. Beyond the improvement and tightening of supervision over the banking system through, among other things, measures that are intended to strengthen the banks' capital structure, there is an understanding that tighter supervision is needed. This new framework needs to include other non-bank financial institutions and banking activities that are outside the banks' traditional scope of activity, as well as the regulation of trading in complex financial instruments that

[7] See Box 1.2 in IMF World Economic Outlook, October 2010.

Figure 1.2
Monetary Indicators, Israel and Abroad, 2004-10



[a] 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: Bloomberg.
[b] Inflation over the previous twelve months. The groups of counties are as per the IMF definition.
SOURCE: IFS database.
[c] Monthly average. Central bank websites and the Bank of Israel.
[d] SOURCE: For data on Israel, Japan, the UK and the US--IFS; for Asia-- IMF World Economic Outlook.
Higher values indicate depreciation.
[e] 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.
[f] SOURCE: The Federal reserve, Bloomberg, and the Bank of Israel.

were at the center of the global crisis. In order to improve the ability to supervise the financial system as a whole, changes have been made in a few countries in the structure of supervision over financial institutions. This includes a tendency to consolidate the various authorities and to transfer more supervisory powers to the central bank, partly because it has the status of lender of last resort during a crisis.[8] The coordination between the supervisory authorities is important not only within each country, but also between countries due to the extensive ties between the financial systems.

3. THE ISRAELI ECONOMY

a. Real activity

Economic activity expanded significantly in 2010. The increase in local demand and the demand for exports led to an increase in activity, which was reflected in the labor market. This can be seen from the increase in employment as well as the increase in the labor share in the business sector, i.e., the share of wages in business sector product.

Economic activity expanded significantly, with an increase in local demand and exports and a drop in the rate of unemployment.

GDP grew by 4.6 percent, with an increase of about 3.4 percent in employment and a drop in unemployment to 6.7 percent, which is only somewhat higher than its pre-crisis level (6 percent). While at the beginning of the recovery process, demand was led by exports and private consumption, this year investment in fixed assets also rose significantly and public expenditure increased at a relatively high rate. Thus, all the components of demand contributed to the increase in economic activity. Per capita GDP grew by 2.7 percent, which followed the decline of about one percent in 2009.

The growth in demand was accompanied by growth of 3 percent in factor inputs, i.e., capital and labor, and the increase of 1.5 percent in total factor productivity. This was accompanied by an increase in wages which was similar to the increase in labor productivity. The real exchange rate, which is experiencing a prolonged trend of appreciation, was affected this year by capital inflows, in addition to real factors.

There has been an increase in the factors of production, growth in productivity and a real appreciation.

The surplus in the current account remained at the high level of $6.7 billion, which represents 3.1 percent of GDP, despite the worsening in the terms of trade and the real appreciation. While a current account surplus has characterized the economy since 2003, the trade balance during the last two years has also been in surplus, which contrasts with the deficit that characterized Israel since the founding of the country.

Growth was led this year by exports and investment, with private consumption also contributing to the increase in demand. This development indicates a return to an increasing share of investment in GDP, following the low level it reached during the crisis. Particularly noticeable this year was the acceleration in investment in the construction of residential housing. The continued expansion of activity can also be seen in the significant decline in inventories, such that gross domestic investment grew

Growth was led by exports and investment, though private consumption also increased.

[8] For more details, see Chapter 4.

Table 1.2
Developments in 2009–10

	2009				2010			
	I	II	III	IV	I	II	III	IV
GDP[a]	-2.8	1.5	3.7	4.9	5.1	5.4	4.6	7.7
Business sector product[a]	-4.9	2.1	3.5	5.0	6.8	6.6	4.8	9.1
Unemployment	7.5	7.9	7.7	7.2	6.9	6.5	6.6	6.6
Exports excluding diamonds[a]	-32.5	-4.8	10.8	33.9	3.2	19.3	0.7	3.7
Private consumption[a]	-2.2	9.2	6.3	8.0	0.9	6.3	0.7	8.0
Civilian imports (excl. ships, planes and diamonds)[a]	-36.8	7.1	18.7	12.1	23.5	3.5	4.7	4.1
Fixed investment[a]	-13.6	-0.1	3.1	-7.1	19.5	22.8	20.2	15.7
Current account of the balance of payments[b]	2.2	1.4	1.0	2.6	1.9	1.8	1.7	1.4
Real effective exchange rate[c]	4.8	2.5	-4.5	0.8	-2.0	-2.5	0.6	-1.5
Nominal effective exchange rate[c]	4.4	3.5	-2.9	0.4	-3.4	-2.2	1.7	-1.6
Foreign currency purchases[d]	5.4	5.0	7.8	1.4	2.3	3.2	1.3	5.2
Inflation[e]	-0.1	2.3	1.3	0.5	-0.9	1.5	1.2	0.7
One-year forward inflation expectations[f]	0.7	1.9	2.3	2.4	2.8	2.8	2.8	3.1
Bank of Israel interest rate[g]	0.75	0.5	0.75	1.0	1.25	1.5	1.75	2.0
Interest on overdrafts[h]	8.0	7.8	7.9	8.3	8.8	9.1	9.3	9.7
Change in Tel Aviv 100 index[i]	18.1	20.3	15.8	14.8	8.5	-14.3	14.0	8.4

[a] Percent change in annual terms, seasonally adjusted.
[b] Seasonally adjusted, $ billion.
[c] Percent change during the quarter. A negative figure indicates appreciation.
[d] Total purchases, $ billion.
[e] During the quarter.
[f] Quarterly average.
[g] Published rate, last month in quarter.
[h] Quarterly average, nominal, in annual terms.
[i] Change during quarter, percent
SOURCE: Based on Central Bureau of Statistics and Tel Aviv Stock Exchange data.

by only a moderate rate. The increase in fixed investment—if it continues—together with the increase in labor supply, which could be seen in the increased participation rate, will work towards raising the level of GDP over time.

Exports expanded rapidly, despite significant real appreciation.

Exports grew at the high rate of 13.6 percent, which is consistent with the rate of growth in world trade. This growth occurred in spite of the significant real appreciation, which reduced the profitability of the export industries. The share of Israeli exports worldwide is currently higher than it was in 2007, despite the cumulative real appreciation of about 15 percent since then (see Chapter 7). Nonetheless, the real exchange rate has only a moderate effect on the quantity of exports, as has been shown in a number of studies.[9] There are several possible reasons for this: 1. The ability of exporters to adjust by shifting their export destinations to countries which recovered faster from the crisis. 2. The flexibility of wages and employment in the export industries allows them to rapidly increase efficiency in response to an appreciation. Indeed, unit labor cost in the export industries was similar in mid-2010 to its pre-crisis level, despite the real appreciation. The price of the increased efficiency in the manufacturing industries is the decline in employment 3. The specialization in the advanced export industries, which have a high level of profitability, leaves room for a drop in profitability without any major effect on the quantity exported. Despite all this, the ability of exporters to adjust their activities to an appreciation is limited and there is concern that further appreciation will create conditions in which some of the export industries are no longer profitable or in which there is a major decline in exports. It is difficult to identify these conditions through empirical research, partly because the appreciation is sometimes the result of an increase in productivity in the export sector and therefore is not expected to hinder exports (see box 2.1). The trend in manufacturing exports over the course of the year indicates stagnation during the second half of 2010 and it is possible that the level of the exchange rate is one of the reasons for this. In addition, the decline in exporters' profits may adversely affect their investments and future exports.

Private consumption grew by a rate of 4.9 percent, accompanied by a decline in the rate of saving. Nondurable consumption increased at a rate of 4.2 percent while purchases of durable goods rose significantly at a rate of 12.7 percent, which compensated for the decline in purchases in the previous year. Contributing to the large increase in private consumption were the growth in disposable income and the increase in the value of the public's assets. The low real rate of interest, which primarily affected the consumption of durable goods, and the improvement in employment security and consumer optimism worked to reduce the rate of saving for precautionary purposes.[10]

Imports grew by a rate of 12.4 percent, which was also a result of the sharp increase in import-intensive uses, such as investment in equipment and the purchase of durable goods. Although this is a high rate relative to the change in total uses and much higher than the increase in GDP, the level of imports is still lower than its pre-crisis level, despite the real appreciation during the last two years.

Imports grew, partly as a result of the increase in import-intensive uses, i.e., investment and consumption of durables.

In contrast to the uniform rates of growth in GDP and employment during the course of the year, the composition of uses varied during the year. Thus, there was a significant slowing in the rate of growth in exports and imports during the second half of the year. The growth in private consumption moderated during the second

The composition of uses growth was not uniform during the course of the year.

[9] Friedman and Lavi (Bank of Israel Economic Review 79, 2006, Hebrew) found that the elasticity of exports with respect to the real exchange rate is 0.2 in the long run. A similar elasticity for Israeli exports was found by Tokarick (Working Paper 10/180, IMF, 2010). Sopher (Foreign Exchange Discussion Paper Series, Bank of Israel, 2005, Hebrew) finds that the exports of the hi-tech and mixed/hi-tech industries in Israel are not sensitive to the real exchange rate.

[10] See Box 2.2 in the 2009 Annual Report regarding the effect of uncertainty on precautionary saving.

half of the year although investment in fixed assets, including all of its components, continued to grow at a high rate throughout the year and the rate of increase in public expenditure accelerated during the second half of the year. The developments in the second half of the year constitute, to some extent, a correction back to "normal" levels, since the share of consumption in GDP is very high relative to the past while the share of investment is low.

b. Price developments

The rate of inflation in 2010 was 2.7 percent, which was partly due to a 5 percent increase in prices of housing services.

The rate of inflation, as measured by the CPI, totaled 2.7 percent during 2010. An increase of about 5 percent in the housing component contributed about one percent to inflation this year. The CPI without housing rose at a somewhat slower rate of 2.0 percent. During the year, there was a significant acceleration in price rises; while in the first half of the year, the seasonally adjusted CPI rose by about one-half of a percent, during the second half it rose more than 2 percent. The acceleration in inflation was particularly noticeable in the energy component, as a result of the global increase in commodity prices, which was partly offset by the appreciation in the exchange rate. The rapid rise in the prices of fruits and vegetables during the second half of the year also contributed to this development. The global increase in the prices of agricultural commodities was reflected in the food component (which does not include fruits and vegetables) to only a limited extent and for the year as a whole this component rose by a moderate rate of 1.5 percent, which is less than the rise in the other components of the CPI. The CPI without energy, food and fruits and vegetables, which is sometimes a better indicator of the inflationary environment, was more stable during the course of the year, although it also accelerated somewhat during the second half of the year. The direct influence of the government on prices was limited and was reflected primarily in the adjustment of the price of water and a significant reduction in electricity prices at the beginning of the year.

The rate of inflation is consistent with the recovery in economic activity.

The rate of inflation that characterized the past year is consistent with the recovery in economic activity. The underutilization of factors of production made it possible to increase supply without significant pressure on wages and prices.

The increase in rental prices, which reflect the prices of housing services and which constitute about one-fifth of the CPI, slowed significantly this year, from about 15 percent during 2009 to about 5 percent in 2010. House prices, which are not included in the CPI and reflect the market value of a house as an asset, continued to rise at a rapid rate in 2010. During the year, house prices rose by about 16 percent and during the last two years at a rapid rate of 39 percent.[11]

The trend of real appreciation can be seen in the CPI by industry. While the prices of manufacturing output within the consumption basket rose by about one percent, the prices of services rose by about 2 percent and the prices of construction and housing services rose by 4.8 percent.

[11] For a detailed description of the developments in the housing market, see Section d of this chapter and Chapters 2, 3 and 4.

The one-year inflation expectations, as derived from the capital market, remained relatively stable during the course of the year at about 3 percent, i.e., in the vicinity of the upper bound of the inflation target range, with a slight upward trend during the year. The expectations of forecasters rose from about 2.5 percent during the first half of the year to about 3 percent at the end of the year. These forecasts were consistent with the assessment that the economy is continuing to expand and that the Bank of Israel rate of interest will be raised gradually due to the uncertainty regarding the continuing expansion of economic activity and the persistence of the interest rate gap between Israel and abroad, where interest rates remain unchanged. The longer-term expectations, from two to ten years ahead, were also in the vicinity of the upper bound of the target range, with a slight upward trend during the year.

Expected inflation, as derived from the capital market, was about 3 percent during the year.

c. The financial markets

The positive trends that characterized the global financial system were also reflected locally and as in other countries these trends were not as intense as during 2009. The trends were accompanied by a continued drop in the long-term real rate of interest, as in the rest of the world, and they are to be viewed against a backdrop of continued expectations of growth in Israel and the low level of interest rates. These positive trends were reflected in, among other things, the continued increase in share prices and government bond prices and the fall in spreads (between corporate bonds and government bonds), with a continuation of the relatively large volume of (gross) issues.

Trends in the financial system were positive, as they were in other countries.

The long-term real rate of interest fell from levels of above 5 percent at the beginning of the decade to 2.4 percent at the end of 2010. The short-term real rate of interest fell even more to a negative level of –0.6 percent at the end of the year. The decline in the yields on corporate bonds during the course of the year was larger and they reached a historic low, while the spread between them and government bonds fell to 2.6 percent at the end of the year. This is similar to its level in mid-2008, after it began to climb, and higher than its record low level which prevailed in mid-decade. The issue of corporate bonds continued in 2010 at a similar rate to that in 2009. Most of the issuers were highly-rated companies although there was also an increase in issues by lower-rated and unrated companies, particularly real estate companies. However, due to the increase in redemptions relative to the previous year, the net raising of capital by the non-financial business sector was of a small magnitude this year.

The real short- and long-term rates of interest were relatively low.

Share prices rose in 2010 by about 13 percent, which continued the upward trend that began in the previous year and which was accompanied by a decrease in the risk index in this market (derived from the options on the Maof index). Share prices have risen by about 100 percent in the past two years and have reached levels a little higher than these of the end of 2008. Various indicators of the degree to which share prices are consistent with the fundamentals of the economy for the most part indicate that prices are not at excessive levels. Particularly noticeable this year was the continued uptrend in share prices among oil and gas partnerships, following the steep increase

Share prices continued to increase, which in part reflected increased prices of gas and oil sector shares.

in their prices in 2009, as a result of the recent discovery of natural gas. Accordingly, their share in the value of the market rose to about 7 percent from about 1 percent in 2008, and their volume of trading expanded significantly, from a negligible proportion of trading to about 15 percent, with accompanying volatility in their prices. If the effect of oil partnerships is neutralized, the rise in the total value of shares was similar to that in the developed countries.

The proportion of shares and corporate bonds in the public's asset portfolio increased.

Against a background of low interest rates, the composition of the public's asset portfolio underwent various changes. Thus, the proportion of shares and corporate bonds in the public's portfolio of financial assets rose from a low level of 21 percent at the end of 2008 to 33 percent at the end of 2010, primarily as a result of the increase in prices. Low interest rates also provided support for the continued growth in new mortgages provided to the public, which was manifested in a growth rate of about 11 percent in total outstanding housing credit to households. The ratio of household debt to disposable income remained basically unchanged from 2008 and was about 62 percent at the end of 2010, which is significantly lower than in most developed countries.

The resilience of the financial institutions strengthened.

The resilience of the financial institutions, i.e., banks and insurance companies, increased in 2010. They enjoyed a high level of profitability, which together with the withholding of dividend payments contributed to the strengthening of their capital structure that began in 2009. The capital to risk asset ratio in the banking system remained high and exceeded the levels of capital that have been decided on worldwide and which are to be achieved by 2019. The capital held by insurance companies was also higher than the minimal levels dictated by the path decided upon in order for them to meet international requirements. The strengthening of the capital structure was also accompanied by regulatory requirements for enhancing corporate governance and risk management in the financial institutions. In view of the reform processes going on in other countries, a discussion is also taking place in Israel and the implementation of measures intended to reinforce stability and reduce risk in the financial system is beginning. These measures include strengthening the regulation of institutional investors and their capital structure, measures to intensify competition in the pension savings market, adjustments in the corporate bond market, the regulation of the activity of rating companies and improvement of the payment and settlement system.

d. The housing market

Since the beginning of 2008, house prices have increased by 32 percent in real terms.

The housing market played a central role in economic developments during the last year. The most noticeable development this year was the continuing increase in house prices, at a rate of about 16 percent. From the beginning of 2008, when house prices were at their lowest, until 2010, real house prices increased by about 32 percent (i.e., beyond the increase in the CPI). This is a very rapid rate of increase, even relative to countries which experienced a real estate bubble in the 2000's.

The increase in house prices was accompanied by a more moderate real increase (beyond the CPI) in the price of rentals from the beginning of 2008 until the end of 2010 of only about 12 percent, together with a significant slowing of the rate of increase during 2010.

House prices relative to rents and wages were high relative to the past.

These developments led to a situation in which levels of house prices relative to rentals and wages were high relative to past levels. The ratio of house prices to the average wage in the economy was about 11 working years, which is higher than the long-term average (of 9.3 years). A similar ratio was reached in the mid-90s when there was a rapid increase in the demand for housing services as a result of the massive influx of immigration during that period. Against this background, fears of a developing "bubble" in house prices began to form in mid-2010. As a result, the Bank of Israel and the government adopted a series of policy measures in order to moderate the price increases and to maintain the stability of the financial system.

House prices reflect the value of housing services to occupants and are dependent on the supply and demand for houses. They also reflect the demand for houses as an asset and therefore are also influenced by the yields on substitute assets and in particular by the interest rate in the market and the expectation of future price changes. The expected price of houses is dependent on the forecast change in rental prices and an evaluation of the risk in holding this asset compared to alternative assets. Research done at the Bank of Israel[12] has shown that the level of house prices is not significantly higher than can be explained by the economy's fundamentals, including the relatively low rate of interest. Thus, there is no evidence for the existence of a bubble in house prices in 2010.

The house shortage and the low rate of interest explain the increase in house prices.

The house shortage, against the background of a slowdown in housing starts in recent years, explains part of the increase in house prices, though not the lion's share. The residential construction industry did not expand during the period of economic prosperity from 2003 to 2007. Total housing starts were somewhat lower than the rate of entry of new households into the market, which is reflected in the decreased ratio of the housing stock to the population, and the result was a shortage that drove up rents and house prices. There was a significant response in the industry only during the last 18 months, during which there was about a 12 percent increase in housing starts (during 2010 compared with the previous year). In 2010 there were about 39 thousand housing starts, a level which is expected to partly eliminate the surplus demand and reduce the pressure for price increases. At this stage, there has still been no increase in housing completions. The investment in residential construction grew by about 11 percent in 2010, following an increase of 5 percent in 2009, 10 percent in 2008 and significantly lower rates in previous years.

One main factor that worked to increase house prices in recent years has been the low rate of interest, which was a result of the expansionary monetary policy adopted in response to the crisis. It appears that between one-third and one-half of the increase in house prices during the past two years can be attributed to the low rate of interest. The large influence of the nominal rate of interest is supported by the possibility of

[12] See the work of Dovman, Yakhin and Ribon (Presentation at the Bank of Israel conference, December 2010, Hebrew).

financing a house purchase with a variable non-indexed mortgage. About half of the new mortgages provided in 2010 were of this type.

The Bank Supervision took measures to reduce the risk to the banks in view of the rapid growth in mortgages.

Total housing debt of households increased this year by about 11 percent in 2010. Against the background of a rapid increase in total new mortgages provided to home buyers, and in particular variable non-indexed mortgages, Bank Supervision worked during the year to reduce the risk to the stability of the financial sector. This was accomplished by setting limits on the activity of purchasing groups[13] and additional requirements for the allocation of capital by the banks for new loans that fulfill certain conditions.[14] In particular, banks were required to increase loan-loss provisions for loans with a high loan-to-value ratio, the result of which is an effective increase in the mortgage rate of interest. The extent of the effect of these measures on the prices of mortgages and the trend in house prices is unclear at this stage; nonetheless, it is possible that they will have an effect on the public's expectations of the future trend in prices, since they are a signal that measures are being taken—and are likely to be taken in the future—to prevent the continuing rapid rise in prices. Through this channel, the measures adopted can contribute to moderating demand and the actual increase in prices. Preliminary evidence of the effect the measures taken by Bank Supervision and the Ministry of Finance are having and the effect of the increase in the interest rate can be found in the partial figures released for January 2011, which indicate a reduction in the proportion of house purchases for investment purposes[15], from about 30 percent at the end of 2010 to about 25 percent at the beginning of 2011.

In the long run, the housing shortage should be eliminated through an increase in supply.

The steps taken by Bank Supervision may moderate demand in the short term; however, the preferred long-term solution to a situation of surplus demand, which is the result of real factors, is to increase the supply of housing. To this end, a number of steps were taken this year, particularly towards the end of the year. In the area of taxation, it was decided to make it easier for landowners to sell land, which will increase supply, and to change the tax rates on the purchase of an apartment in order to dampen (net) demand for investment apartments. In addition, the government took steps to remove barriers in the marketing of land and in land planning and in order to speed up the construction process. Alongside the need to increase supply, care should be taken not to overshoot the surplus demand that is dictated by long-term real factors. An overexpansion in response to demand that is the result of short-term factors, such as a relatively low rate of interest, is liable to create a distortion in the allocation of resources in the economy and thus may in the end lead to financial difficulties as the result of a rapid and steep decline in prices due to the creation of a surplus in supply.

[13] Purchasing groups - An assembly of persons that collectively decide to purchase property for the purpose of constructing a housing project. Due to some loopholes in tax laws, purchasing groups have some tax benefits relative to contractors.

[14] For details of these policy measures and directives, see the press releases of the Bank of Israel from May 24, 2010 and October 25, 2010.

[15] This figure does not include the sale of apartments by investors. Source: the Tax Revenue Authority of the Ministry of Finance.

4. ECONOMIC POLICY

Economic policy contributed to the increase in activity this year. Monetary policy was reflected in the low level of the interest rate, which supported domestic economic activity, and in the purchase of foreign currency, which moderated the extent of the appreciation of the shekel, thereby helping exports.

Monetary policy was expansionary this year, while fiscal policy provided moderate support for demand.

Despite the increase in the Bank of Israel rate of interest during the course of the year, monetary policy is still expansionary. Fiscal policy provided support for aggregate demand though the extent of the stimulus was relatively moderate. Although the level of economic activity clearly indicated a recovery from the global crisis, the adjustment of policy was carried out gradually. This was due to the uncertainty during the year regarding the extent to which export growth is sustainable, and the continuation of the global recovery, which is essential to the growth of the Israeli economy. Additionally, a significant period of time is needed for the adjustment of policy, particularly fiscal policy, and there are significant constraints on monetary policy in a small and open economy, in view of the low level of interest rates in the US and Europe.

a. Monetary policy

Monetary policy in 2010 was characterized by a gradual adjustment of the interest rate according to the improvement in economic activity and the increase in the rate of inflation in Israel. After lowering the rate of interest to only one-half percent in the first half of 2009, in order to deal with the effects of the global crisis, the Bank of Israel began a process of adjusting monetary policy to the trend of recovery and the exit from the crisis during the last quarter of that year. First, it ended its intervention in the government bond market and following that began to raise the rate of interest. This process continued into 2010 with four hikes of 0.25 percent each (in January, April, August and October), which raised the interest rate from one percent at the end of 2009 to 2 percent at the end of 2010. This level of interest rate reflects an expansionary monetary policy, with the real short-term (one year) interest rate remaining negative throughout the year and market interest rates, such as that on mortgages, remaining at relatively low levels (Figure 1.3).

The rate of interest was gradually raised during the course of the year to 2 percent, in accordance with the improvement in economic activity and the inflation environment.

In addition to the use of the interest rate as the main tool for managing monetary policy, the Bank of Israel continued to purchase foreign currency in varying amounts during the year. This was concentrated primarily in the months following the announcement of a hike in the rate of interest in order to moderate the appreciation that followed. At the beginning of 2011, the Bank of Israel imposed reporting and liquidity requirements on transactions in foreign currency derivatives that met certain conditions.[16] In addition, the Bank of Israel took certain supervisory steps in the construction credit market and in the mortgage credit market, with the goal of

The Bank of Israel continued to purchase foreign currency in varying amounts.

[16] See the press release by the Bank of Israel from the 19th and 20th of January 2011. At the same time, the Ministry of Finance announced its intention of canceling the tax exemption for foreign residents on profits from investments in *makam* and short-term government bonds.

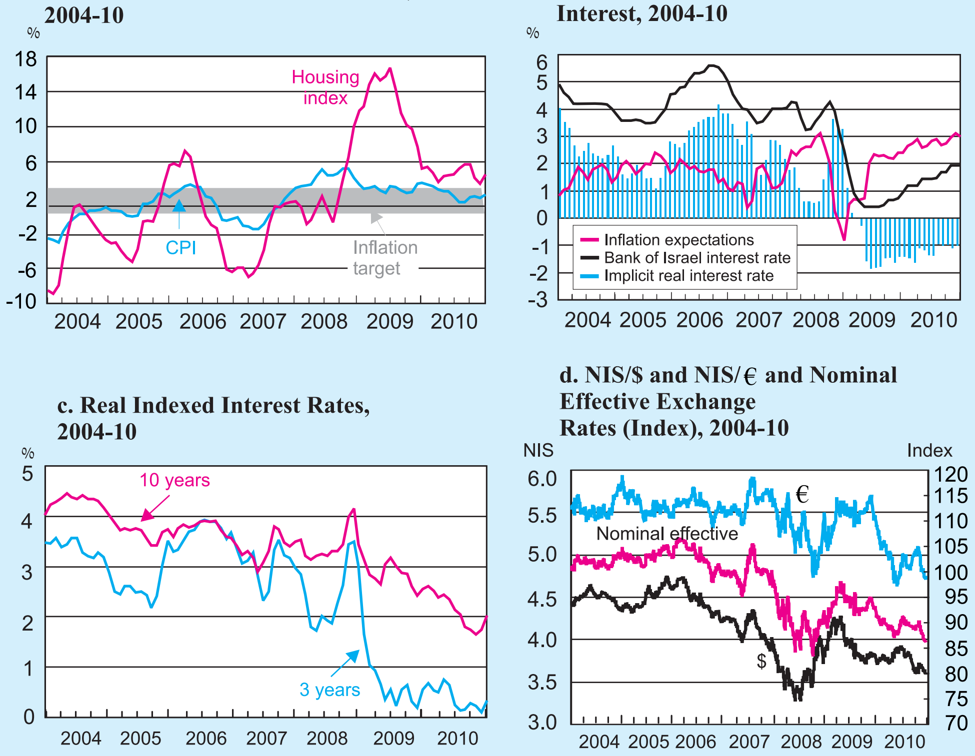
Figure 1.3

a. Rates of Change of Selected Price Indices in the Last 12 Months, 2004-10

b. Bank of Israel Interest Rate, Inflation Expectations, and Implicit Real Interest, 2004-10

c. Real Indexed Interest Rates, 2004-10

d. NIS/$ and NIS/€ and Nominal Effective Exchange Rates (Index), 2004-10



SOURCE: Based on Central Bureau of Statistics data.

reinforcing the stability of the financial system and moderating the rapid rise in house prices.

The pace and timing of the return of the interest rate to normal levels reflect a balance between various considerations.

Following the drastic cuts during the crisis, the need to adjust the interest to “normal” levels,[17] which are consistent over time with the level of economic activity and the inflation target, guided monetary policy during the year. The magnitude and timing of the interest rate increases are determined by a balance between opposing forces, which are accompanied by a degree of uncertainty as to their duration. On the one hand, the current interest rate is low relative to the pace of the economy’s real activity and the inflationary environment. On the other, the low interest rates in the developed countries limit the ability to raise the interest rate without taking into account the expected path of interest rates abroad. Too large an interest rate spread would increase the incentive for capital import and would work to appreciate the exchange rate. Although an appreciation of the exchange rate would make it easier to

[17] For an expanded discussion of the concept of a normal interest rate, see Chapter 3 of this report.

attain the inflation target by cheapening imported goods, it would hurt the profitability of exports and therefore could also harm real economic activity. In addition, the interest rate influences the prices of financial assets. On the other hand, a low real rate of interest over time provides incentives for individuals to adjust their asset portfolio by increasing the share of riskier assets. The demand for real estate assets also grew due to the relatively low cost of financing. The growth in the demand for these assets is expected to raise their prices and that is liable to threaten financial stability to an extent that the increase in prices is not supported by the fundamentals of these markets, particularly if it is accompanied by an increase in credit provided for this purpose.

The gradual process of raising the interest rate was consistent with the relatively rapid growth in the economy during the year and the approach to full employment, a process that was accompanied by uncertainty as to its intensity and duration. Moreover, the fears of a renewal of the slowdown, particularly in Europe, increased uncertainty as to the ability of the economy to continue growing at a relatively rapid rate. The rate of inflation during the year and expectations, which were in the vicinity of the upper bound of the inflation target range, also provided support for continuing to increase the rate of interest. A flexible inflation target policy facilitates a more moderate interest rate response, which is accompanied by a temporary deviation of inflation from the target range, in order to support economic activity and to prevent drastic changes in the interest rate as a result of shocks in the economic environment.

The increase in the interest rate created a spread relative to interest rates in the US and Europe, which remained at their low levels. This contributed to an increase in short-term capital inflows.

The process of raising the interest rate in Israel is taking place while the interest rates in most of the developed countries, particularly the US and the EU, remain unchanged at the low rates reached in response to the crisis (Figure 1.2). In addition, the US has instituted a program of quantitative easing that is equivalent to a further reduction in the effective interest rate. As a result, the spread between the local interest rate and the interest rate abroad widened and increased the incentive for foreign residents to invest in short-term shekel-denominated assets, which works to appreciate the nominal exchange rate. In order to moderate the trend of appreciation, which also reflects the forces for a real appreciation that exist in the economy, the Bank of Israel intervened in the market by purchasing foreign currency in varying amounts during the course of the year. During 2010, it purchased the equivalent of about $12 billion in foreign currency.

The intervention in the foreign currency market facilitated a limited appreciation which contributed to moderating inflation.

It seems that the intervention in the foreign currency market moderated the forces for appreciation and temporarily slowed the appreciation trend and thus provided some assistance to the export sector and support for economic activity. However, it is also possible that it influenced the expectations of market players as to the future course of the exchange rate and therefore the volume of capital imports. The persistence of the interest rate spread together with the expectation of future appreciation, which was assumed would occur but was partially offset, are maintaining the incentive for the continued import of capital and this in itself is contributing to continued pressure for a nominal appreciation.

To the extent that fluctuations in the exchange rate and that appreciation pressures are temporary, the intervention in the foreign currency market—which reduces volatility and over-appreciation (which does not reflect fundamental forces)—reduces the adverse effect on the export sector. Intervention that reduces the intensity of the nominal appreciation reduces the decline in exports due to it, but also weakens the transmission (by means of the exchange rate) from the interest rate to prices and contributes to local inflationary pressures. During the year, there was a nominal effective appreciation of the exchange rate of more than 7 percent, which facilitated the moderating influence of the exchange rate on inflation and thus reduced the need for a larger increase in the interest rate, which in itself would increase the interest rate gap and therefore the incentive for capital imports and a larger appreciation.

The increase in the interest rate in Israel was large relative to other countries that also raised their interest rates and it began earlier.

A number of countries have recently started to raise their interest rates,[18] including developing countries such as Brazil and Thailand and developed countries that were not at the center of the crisis, such as Norway and Canada. In most of them, the lowest interest rate reached during the crisis was higher than that reached in Israel (i.e., 0.5 percent). There is a significant variation between countries in the magnitude of interest rate hikes and in the current level of the interest rate. Israel was the first country to raise the interest rate since its recovery from the global crisis began already in September 2009. Most of the other countries (apart from Australia, Norway and India) began the process of raising their interest rates only in mid-2010.

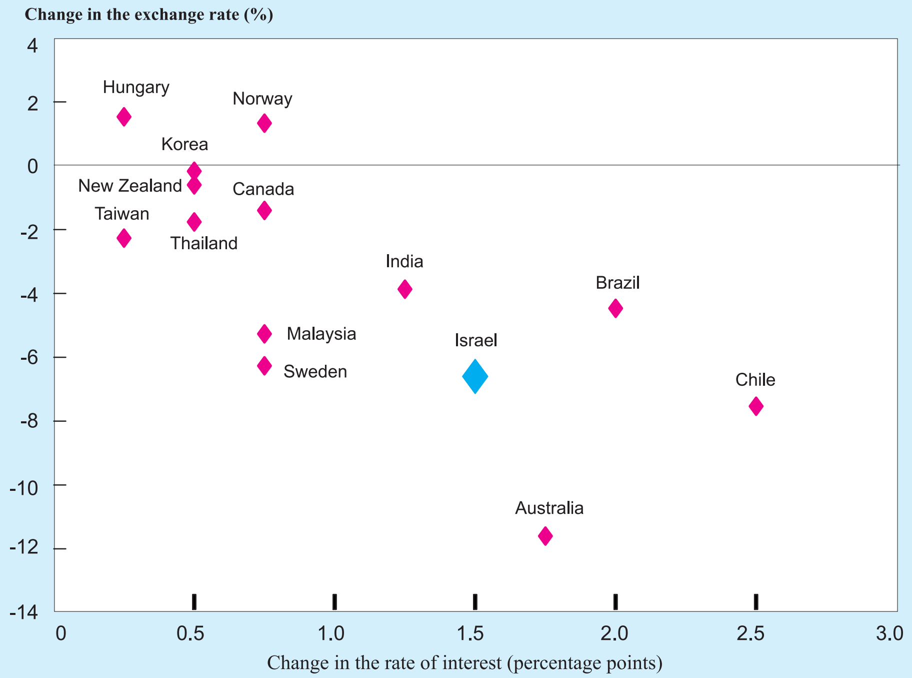
Figure 1.4 presents the change in the exchange rate and the central bank's reserves in each of the countries that raised their interest rate from the time that the process began until December 2010. It can be seen that the rate of increase in the interest rate and the appreciation of the exchange rate in Israel were relatively large. Additional data also shows that the changes in the exchange rate are only weakly correlated with the country's current account situation.

The increase in Israel's foreign currency reserves was relatively large, even taking into consideration the change in the interest rate.

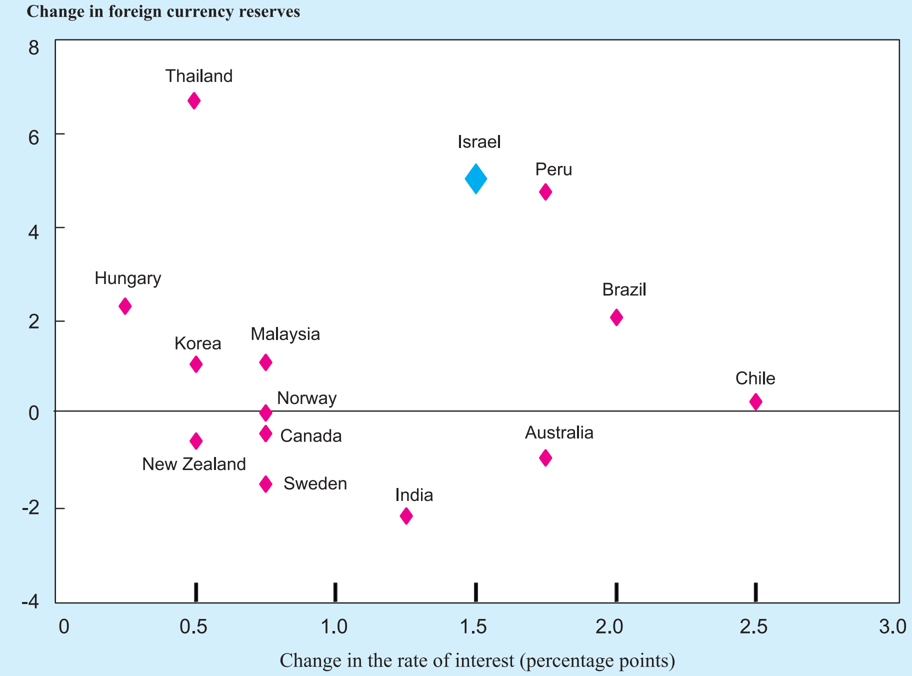
The change in reserves in terms of GDP in Israel since the start of the interest rate hikes, which is presented in Figure 1.4b, is the largest (excluding Thailand). Since the Bank of Israel began raising the interest rate at a relatively early stage, there was a longer period in which the economy was exposed to short-term capital inflows and in which intervention in the foreign currency market was relevant. Nonetheless, the increase in Israel's reserves was relatively large both with regard to the monthly average change in reserves (which corrects for the length of the period) and the change in reserves relative to the change in the interest rate, and taking into consideration the level of reserves at the beginning of the period. Of the 14 countries, apart from Israel, who raised their interest rates, at least seven[19] intervened in the foreign currency market to various degrees and of those some also placed various restrictions on activity in the market. In most of the countries that intervened in the market, and all those who also imposed restrictions, the exchange rate appreciated to one extent or another. This analysis indicates that, against the background of the interest rate gap with the US

[18] See Footnote 3.
[19] See Box 1 in Inflation Report 33 for the fourth quarter of 2010.

Figure 1.4
a. The cumulative change in the nominal effective exchange rate and the change in the interest rate from the start of the period of interest rate increases until the end of 2010 (a negative number indicates an appreciation)



b. The cumulative change in foreign currency reserves* relative to GDP and the change in the interest rate from the start of the period of interest rate increases until November 2010



* The figure for the change in reserves is quarterly and may include other factors in addition to the intervention of the central bank.

and Europe, the appreciation in Israel was relatively large during the period in which the process of raising the interest rate began. This is in spite of the major intervention in the foreign currency market that was manifested in the accumulation of reserves. It can be concluded that the forces for appreciation, both long-term structural factors and short-term factors, were more intense compared to other economies that were in a similar situation to Israel's. In this context, the discovery of offshore natural gas reserves during the last two years constitutes an additional fundamental factor operating to appreciate the exchange rate (see Box 7.2).

At the beginning of 2011, the Bank of Israel imposed reporting and liquidity requirements on certain transactions in foreign currency.

At the beginning of 2011, the Bank of Israel imposed a requirement to report shekel-foreign currency swap transactions of more than $10 million in one day. In addition, a reporting requirement was applied to foreign residents who executed transactions in *makam* and short-term government bonds of more than NIS 10 million in one day. Foreign residents are also required to report their holdings in these assets. From the beginning of the February liquidity month, the Bank of Israel imposed a liquidity requirement of 10 percent on transactions in foreign currency derivatives (swap transactions and futures transactions) carried out by foreign residents.[20] These measures were meant to reduce the profitability of short-term capital imports by foreign residents and thus to moderate the appreciation resulting from these flows. The introduction of these measures was immediately followed by a significant depreciation of the exchange rate. At the same time, the Ministry of Finance announced its intention to cancel the tax exemption for foreign residents on profits from investments in *makam* and short-term government bonds and it appears that this also had an effect on the exchange rate.[21] It is too early to asses the effect of these measures in the longer term.

In order to maintain financial stability, the Bank took macroprudential steps in the market for housing credit.

The Bank of Israel, as part of its role in maintaining financial stability, made use of supervisory tools during the year in order to minimize the risk to the stability of the banks resulting from the developments in the housing market. As part of this effort, the Supervisor of Banks issued directives in March 2010 that reduce the incentive of purchase groups to form. In May, and later in October, directives were issued that require an additional allocation of capital on loans whose loan-to-value ratio exceeded a certain limit and which fulfill certain other conditions.

The main goal of these measures is the maintenance of the banks' financial stability; however, the increased cost of mortgages that was expected as a result is working to reduce the demand for housing and therefore indirectly to slow the rate of increase in house prices. The extent of the direct effect of these measures on the cost of mortgages is not expected to be large; however, the understanding of the public that policy makers are taking action—and will continue to do so in the future—in order to prevent a rapid expansion in mortgages and an increase in house prices in itself has a moderating effect on the public's expectations of price increases. Direct policy measures to deal

[20] See press releases by the Bank of Israel from the 19th and 20th of January, 2011.
[21] The riots in Egypt at that time also contributed to the depreciation.

with surplus demand in the housing market include a change in taxation that will reduce the demand for investment housing and steps that will increase supply.

In March 2010, the Knesset approved the new Bank of Israel Law, which defines the maintenance of price stability as the Bank's primary goal. In addition, the central bank is to support the other goals of the government's economic policy, particularly growth, employment and the reduction of socioeconomic inequality, on the condition that in the opinion of the Monetary Committee, this will not interfere with the attainment of long-term price stability. An additional goal of the Bank of Israel is to support the maintenance of stability in the financial system and its normal functioning. The law defines long-term price stability as a situation in which the Monetary Committee expects that the rate of inflation will enter the decided-upon range of price stability within a period of not more than two years. In other words, a situation is possible in which the actual rate of inflation is outside the price stability range and the Bank adopts a policy that will return it to that range within a reasonable time. A flexible inflation target regime enables the Bank to give weight to other considerations other than the inflation target, as defined in the law, and prevents drastic changes in policy, particularly the interest rate, which also have the potential to disrupt economic stability.

In March 2010, the Knesset approved the new Bank of Israel Law.

The new law allows the Bank, under circumstances in which there is a real threat to the stability of the financial system or to its normal functioning, to provide credit to non-bank financial institutions as well and thus expands its ability to maintain the stability of the financial system as a whole, beyond its role as supervisor of the banks.

The new law specifies that the Bank's policy, and in particular the setting of the interest rate, will be decided upon by a monetary committee composed of six members: three from within the Bank (the Governor, the Deputy Governor and an additional Bank employee) and three members from the public. The decisions are approved by majority vote[22] and a summary of the discussions along with the decisions, their justifications and the voting results are to be made public and submitted to the government. Since the approval of the law, the Monetary Committee has not yet been appointed and therefore decisions to set the Bank of Israel interest rate are in the meantime made by the Governor. The discussions of the Monetary Forum, which precede the decision, are made public about two weeks after the decision.

b. Fiscal policy

Fiscal policy this year was characterized by a relatively high (nominal) rate of increase of 5.9 percent in public consumption. Full usage of the government budget resulted in the proportion of public expenditure in GDP rising somewhat, after it had declined during most of the decade. Revenues grew at a higher-than-expected rate, as a result of the boom in economic activity. The tax burden, i.e., the proportion of taxes in GDP,

There was a relatively large increase in public expenditure this year and its proportion of GDP rose somewhat.

[22] In the event of a tie, the Governor, who serves as the Chairman of the Committee, has the tie-breaking vote.

rose by close to one percentage point, which was the result of the economic boom and asset price increases rather than a tax-rate increase. The development of government expenditures and income means that fiscal policy in 2010 can be characterized as providing moderate support for demand. The general government deficit shrunk significantly to a level of 3.8 percent and the debt-to-GDP ratio fell to 76.2 percent, which is similar to its pre-crisis level. Meanwhile the ratio for the OECD countries continued to increase.

Policy was consistent with the current stage of the business cycle.

Fiscal policy this year was consistent with the current stage of the business cycle, i.e., an economy at less than full employment. Part of the reason for the high level of tax revenues in 2010 is the steep increase in asset prices, which works directly to increase the revenue from the capital gains tax, real estate taxes and the corporate income tax, and indirectly the revenue from consumption taxes. An examination of the deficit, while taking into account the business cycle and the planned tax cuts, indicates that the reduction in the debt-to-GDP ratio to a level of 60 percent by the end of the decade will only be attained with relatively high rates of growth. The process of fiscal consolidation in Israel during the previous decade reduced the share of the public sector in GDP, as well as the tax burden, to levels that are already significantly lower than the average for OECD countries. Thus, a further reduction in the share of the public sector is not recommended and would put into doubt the desirability of a tax reduction program in the future.

An example is the corporate income tax, which was reduced this year as it was in previous years. The corporate income tax in Israel was somewhat lower in 2010 than the average for the OECD countries and its planned reduction to 18 percent in mid-decade will bring it a particularly low level.

Towards the end of the year, a biannual budget was approved for 2011-12.

Towards the end of the year, a biannual budget for 2011-2 was approved. It included a target for reducing the government deficit. While the attainment of the deficit targets during the next two years is consistent with the budget, meeting the deficit reduction targets after 2012—if growth rates are not particularly high—will require a cut in expenditure or alternatively a change in the tax system. According to the proposed budget, an increase in the taxes on gasoline was planned for the beginning of 2011 and again in 2012. However, public opposition following the actual implementation of the tax increase in 2011 led to its cancellation. This is an indication of the government's limited ability to adjust indirect tax rates and to finance the path of expenses dictated by the budget under the present structure of direct tax rates. According to the wage agreement signed towards the end of the year, nominal wages will rise by about 2 percent annually. This rate of increase is consistent with stability in the real wage of a fixed cohort of workers.

5. THE ISRAELI ECONOMY'S LEVEL OF DEVELOPMENT FROM A BROAD PERSPECTIVE

The Israeli economy weathered the last global crisis with relative success, experiencing only a moderate decline in economic activity and a rapid recovery. Despite the rapid growth in the last two years, per capita GDP in Israel is still significantly lower than in the developed countries. Thus, Israel's per capita GDP is ranked 23rd among the OECD countries and is about 84 percent of the OECD average. In order to improve the economy's relative standing, Israel's rate of growth will have to be significantly faster than those of the OECD countries. To accomplish this, an increase is needed in the rate of employment, accompanied by investment in human and physical capital.

The GDP per capita in Israel is 84 percent of the average for the OECD countries.

The level of the economy's development and its residents' level of economic welfare is dependent on other dimensions besides per capita GDP. In recent years, attempts have been made to create broader indices of economic development that better reflect the welfare of individuals.[23] A survey published by the OECD[24] presents a wide spectrum of indicators for each of the member countries.[25] The indicators are divided into four main categories: indicators of self-sufficiency such as employment and education, inequality, health and social cohesion. These are in addition to general indicators such as disposable income.[26] It is also worth mentioning that in recent years, there has been growing interest in issues related to environmental development, which relate to, among other things, the use and preservation of natural resources, and there is a great deal of discussion of the policy required to ensure sustainable global growth.[27]

The level of the economy's development is measured using various indicators besides GDP per capita, in particular economic inequality.

One of the most important indicators of welfare is income inequality. Figure 1.5 presents per capita GDP together with the Gini measure of inequality for Israel and the OECD countries. Among the group of countries in which per capita GDP is not excessively low, Israel's average inequality during the 2000's was the highest, except for the US, and its level of per capita GDP relatively low. The high level of inequality in Israel can also be seen in the extent of poverty in Israel, which is high relative to the OECD countries. These features reflect the stratification of Israeli society, as employment rates among ultra-orthodox men and Arab women are very

Inequality and the rate of poverty are high in Israel relative to other OECD countries and this is liable to hamper the development of human capital.

[23] See the OECD document surveying the various approaches to this issue: Indicators for "societal progress": lessons from international experiences", Statistics Directorate, Working paper no. 33, June 2010.

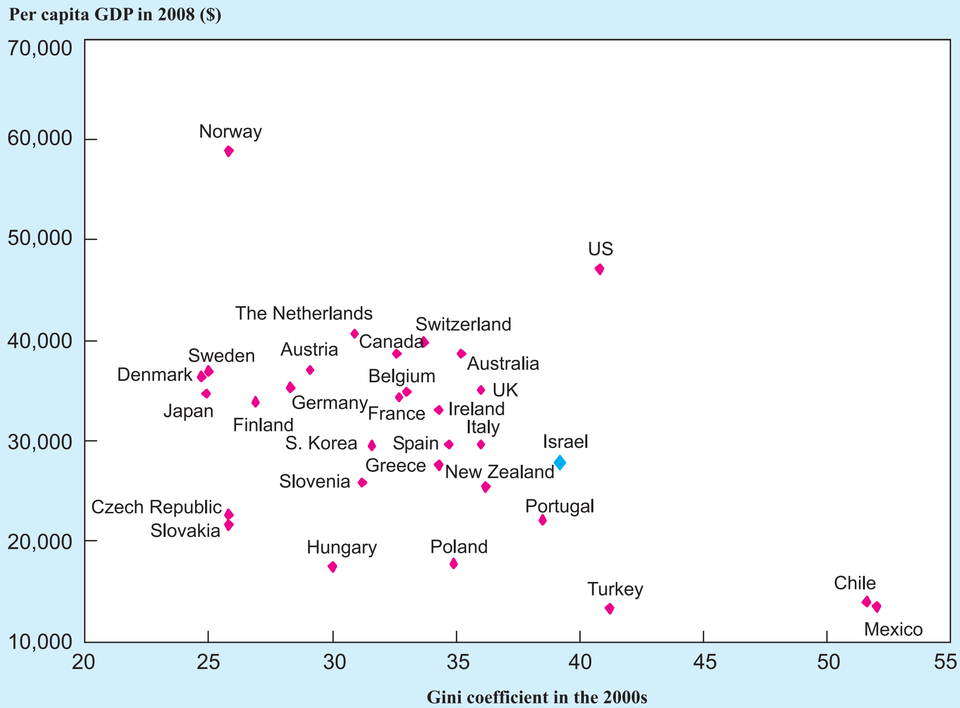
[24] Society at a Glance, OECD Social Indicators, 2009.

[25] Israel is still not included in the figures published in the survey. In April 2011, an updated version of the document will appear.

[26] Another accepted and relatively simple and broadly based indicator for level of development is the UN's Human Development Indicator (HDI) which, in addition to per capita GDP, includes life expectancy, current level of education and the expected level of education. This indicator ranks Israel as 15th in the world and in the middle of the group of countries with a very high level of human development. Israel's ranking according to this indicator has been stable over time.

[27] In this framework, the OECD is planning to publish a report in 2011 that examines the environmental situation in Israel.

Figure 1.5
Per capita GDP and inequality in the distribution of net income in the OECD countries



SOURCE: OECD; for Israel - Central Bureau of Statistics.

The size of the government is not large in international terms, despite the need for public services in order to reduce the effects of excess inequality.

low. There has been a continuous increase in the indicator for inequality in Israel over the past decade. This is the result of stability in the inequality of (gross) economic income and a decline in the government's efforts to reduce inequality through taxes and transfer payments (see Chapter 8).

A high level of inequality can hamper the development of human capital, which is the main resource in which Israel has a relative advantage. Although the relationship between inequality and economic growth is difficult to identify in empirical macroeconomic research,[28] there is a large body of evidence both in Israel and worldwide that low income reduces investment in human capital on the level of the individual.[29]

It is in countries that have a high level of income inequality that there is a need for high-quality public services, which will work to reduce inequality's effects on

[28] For an up-to-date survey of the literature that describes the theoretical model and the empirical findings, see: Galor, O., 2009, "Inequality and Economic Development: An Overview, "in Inequality and Economic Development: the Modern Perspective.
[29] See Friedmann Y. and R. Frisch, "The effect of liquidity constraints on the access to higher education," 2008, Discussion Paper, Research Department, Bank of Israel.

investment in human capital. Despite this, the size of the government sector in Israel is not large by international standards and if defense expenditure is deducted it is in fact relatively small. Moreover, the plans to lower tax rates in the future will lead to a further reduction in the government's size. The reduction in public expenditure on education within total GDP in recent years,[30] against the background of a relatively high level of inequality, limits the development of human capital in the economy and therefore the economy's potential for future growth. In particular, the level of expenditure per student in Israel relative to the OECD is lower than in past years. While in 1995, public expenditure per student in Israel and the OECD was similar, in 2007, expenditure per student in the OECD was about 30 percent higher than in Israel. This reality, in which public investment in education is declining relatively and inequality is worsening, such that the ability of the general population to compensate through private funding is also becoming more limited, will lead to a decline in future earning ability among part of the population and in the ability of Israeli human capital to compete in the future global market. In order to prevent this process from continuing, a public initiative to strengthen education is needed, such that the investment in human capital will be less dependent on household income. In this context, the "New Horizon" program which has been implemented in the primary school system in recent years, the gradual implementation of a computerization program in the schools (The Plan to Bring the Education System into the 21st Century) and the future implementation of the "Oz Le'Tmura"[31] program in high schools, will add significantly to the public education system's budget and will increase its effectiveness.

An important channel for reducing inequality is by increasing the employment rate, which is relatively low in Israel: about 74 percent for the 25–54 age group as compared to an average of 77 percent in the OECD countries.[32] This low rate reflects the low participation rate of the ultra-Orthodox and Arabs (primarily Arab women) in the labor market, although in recent years there has been a gradual upward trend in the participation rate of Arabs and ultra-Orthodox women. In July 2010, the Government revised the employment targets, which call for a significant increase in the participation rate by 2020. The goal is to reach a level equal to that in the 15 developed countries, while reducing the employment rate gaps between the various segments of the population. Although the active labor market policy budget has grown in nominal terms in recent years, its proportion of the total budget and of GDP has not changed significantly and it appears not to be sufficient in order to ensure the attainment of these goals (see Chapter 5).

An important channel for reducing inequality is through an increase in the rate of employment. The government has set long-term employment targets.

The earned income tax credit program, for which a pilot was implemented during the last two years, is one of the major tools for increasing the wages of low-salaried workers and therefore it also contributes to the reduction of inequality. The implementation of the government decision to reduce the number of foreign workers is also meant to

[30] See Table 6.6 in the chapter on the General Government in this report.
[31] A reform that includes increased teaching hours in high-schools.
[32] This is the lowest among the OECD countries apart from Turkey and Chile.

attain these objectives; however, in practice, there has been no noticeable drop in the number of foreign workers in the country.

Indicators show a relatively high level of health services in Israel although there are significant differences between segments of the population.

An additional component in evaluating the socioeconomic situation and the welfare of the individual is healthcare. Accepted basic indicators of the quality and accessibility of health services include life expectancy and infant mortality. Life expectancy is relatively high in Israel, both in absolute terms and relative to per capita GDP, while the infant mortality rate is similar to the average for the OECD.[33] Nonetheless, significant gaps can also be seen in these basic healthcare indicators between various segments of Israeli society.[34] During the past decade, there was a noticeable decline in public healthcare expenditure as a percentage of GDP and a simultaneous increase in the proportion of private healthcare expenditure, which is in line with the trends in other OECD countries, apart from the US (corrected for the proportion of the elderly; see Table 6.6). This trend is liable to increase inequality in the consumption of health services in the future and eventually will lower the level of health among the weaker segments of the population.

An economic policy to reduce inequality should be adopted.

The developments in healthcare and education emphasize the need to adopt an economic policy to reduce inequality in Israel in the coming years. The implementation of policy measures in the labor market, in the education system at all levels, in the health and welfare systems and with respect to investment in transportation and other infrastructures (some of which have already been decided upon) is essential to enabling the Israeli economy to grow over time, based on the integration of all segments of the population and concern for their welfare.

[33] Without Turkey and Mexico, where the infant mortality rate is particularly high.

[34] See also the publication of the Taub Center: "Report on the State's Situation: Society, Economy and Policy 2009."

Table 1.A.1
Israel: Basic Economic Data,[a] 2002–10

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Mean population ('000)	6,570	6,690	6,809	6,930	7,054	7,180	7,309	7,487	7,625
Population growth rate (percent)	2.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Israelis employed ('000)	2,330	2,376	2,448	2,543	2,625	2,735	2,832	2,841	2,938
GDP (NIS billion, 2008 prices)	559	568	597	626	661	696	726	732	765
GDP growth rate (percent)	-0.6	1.5	5.1	4.9	5.7	5.3	4.2	0.8	4.6
Per capita GDP ($ '000, current prices)	17.1	17.7	18.5	19.3	20.6	23.3	27.5	26.1	28.5
Unemployment rate (percent)	10.2	10.6	10.3	8.9	8.3	7.3	6.0	7.5	6.7
Real wage per employee post (percent change)	-6.2	-3.0	2.5	1.0	1.3	1.6	-0.7	-2.6	0.9
Nominal wage per employee post (NIS per month, current prices)	7,074	6,909	7,051	7,220	7,468	7,630	7,922	7,974	8,263
Change in real income of family in lowest quintile (percent)	..	-1.8	-1.9	4.4	5.4	1.9	-1.4	1.2	..
Rate of employment in 25-64 year age group (percent)	66.0	66.2	66.7	67.5	68.6	70.1	70.9	69.8	71.0
Inflation rate (during the year, percent)	6.5	-1.9	1.2	2.4	-0.1	3.4	3.8	3.9	2.7
NIS/$ exchange rate (percent change, during the year)	9.8	-6.4	-1.2	6.2	-8.9	-7.1	-0.9	-2.1	-4.9
Nominal effective exchange rate (percentage change, during the year)[b]	16.6	3.5	4.4	0.0	-3.4	-1.4	-8.3	3.5	-7.1
Bank of Israel interest rate (annual average)	6.8	7.5	4.2	3.7	5.1	3.9	3.7	0.8	1.6
Nominal yield on 10-year government bonds (percent)	9.8	9.8	8.7	7.5	6.5	6.2	7.2	6.9	6.4
Real yield on 10-year government bonds (percent)	5.6	4.9	5.0	4.8	3.9	3.6	4.0	4.5	3.7
Public expenditure (percent of GDP)	50.4	49.8	47.0	45.1	44.4	43.4	42.8	42.8	42.6
Tax revenue (percent of GDP)	35.9	35.1	35.2	35.3	35.6	35.9	33.6	31.2	32.3
Actual budget deficit (percent of GDP)	3.6	5.1	3.6	1.8	0.8	0.1	2.0	5.1	3.7
Gross public debt (percent of GDP, year-end)	96.6	99.1	97.4	93.5	84.5	78.2	76.7	79.2	76.2
Goods and services exports ($ billion, current prices)[c]	32.5	35.7	43.2	47.1	53.3	60.9	71.9	62.0	71.6
Goods and services imports ($ billion, current prices)[c]	36.1	37.2	43.6	48.4	53.2	63.9	75.5	58.1	68.0
Current account (percent of GDP)	-1.1	0.6	1.8	3.2	5.1	2.9	0.8	3.6	3.1
Net external debt (percent of GDP)	-0.4	-4.0	-8.3	-15.7	-19.9	-23.0	-21.8	-26.6	-24.1

[a] Annual averages.
[b] The average shekel exchange rate against the currencies of Israel's trading partners, weighted according to the volume of Israel's trade with them.
[c] Excluding diamonds.
SOURCE: Based on Central Bureau of Statistics data.

Table 1.A.2

Basic Economic Data: International Comparison[a], 2000-10

	Average 2000-08				2009				2010			
	Israel	US	Eurozone	OECD	Israel	US	Eurozone	OECD	Israel	US	Eurozone	OECD
GDP growth rate	3.9	2.3	2.0	2.4	0.8	-2.6	-4.1	-3.4	4.6	2.7	1.7	2.8
Per capita GDP growth	1.9	1.3	1.4	1.7	-1.6	-3.6	-4.5	-3.9	2.7	1.7	1.4	2.3
Population growth rate	2.0	1.0	0.5	0.6	1.8	1.0	0.5	0.5	1.8	1.0	0.3	0.5
Civilian labor force participation rate	55.4	75.6	70.8	72.7	57.0	75.0	73.0	72.4	57.4	..	73.0	72.4
Unemployment rate	8.9	5.1	8.2	6.4	7.5	9.3	9.3	8.1	6.7	9.7	9.9	8.3
Inflation rate (during year)	1.9	2.9	2.3	3.0	3.9	-0.3	0.3	0.5	2.7	1.6	1.5	1.9
Exports (percent of GDP)[b]	34.9	10.7	38.1	24.9	36.6	11.2	36.3	24.6	38.8	..	..	..
Gross investment (percent of GDP)	18.8	19.1	21.2	21.1	16.4	14.2	18.9	17.7	15.4	..	..	..
National saving (percent of GDP)	19.9	14.7	..	..	20.3	10.3	..	..	18.1	..	..	..
Current account (percent of GDP)	1.1	-4.9	0.2	-1.2	3.6	-2.7	-0.4	-0.5	3.1	-3.4	-0.2	-0.7
Public expenditure (percent of GDP)	46.6	36.1	47.0	40.2	42.8	42.2	50.8	44.9	42.6	42.2	50.7	44.6
Tax revenue (percent of GDP)[e]	35.5	27.1	..	..	31.2	24.0	..	..	32.3	..	..	..
Gross public debt (percent of GDP)	86.8	60.3	75.3	73.6	79.2	84.4	86.3	90.6	76.2	92.8	91.6	96.9

[a] Figures for the eurozone and OECD countries are weighted averages of the countries in each group, as published in the OECD Economic outlook.

[b] For Israel, exports excluding diamonds.

SOURCE: OECD Economic Outlook, 2010; IMF World Economic Outlook, 2010; OECD Revenue Statistics 2009 and Bank of Israel.