Bank of Israel

MONETARY POLICY REPORT

July–December 2014

PRELIMINARY TRANSLATION

(Text only, for graphs and tables please see Hebrew version)

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February 2015

Section 55(a) of the Bank of Israel Law, 5770–2010, establishes the publication of this report, which is submitted to the government and the Knesset Finance Committee twice a year. The report surveys the economic developments that occurred in the period covered by the report. It also surveys the policy required, in the view of the members of the Bank of Israel's Monetary Committee, to maintain the inflation rate within the range set by the government and to achieve the other objectives of the government's economic policy. A survey of financial stability appears in the Financial Stability Report for the period covered.

In accordance with Section 55(b) of the Law, this reports contains a detailed explanation of why the inflation rate deviated from the target range set by the government for six consecutive months, beginning with the publication (on December 15th) of the Consumer Price Index (CPI) for November. The rate of inflation during this period declined to below the lower bound of the target range, and explanations appear in Section 2 (Monetary Policy) inside.

The Monetary Policy Report for the second half of 2014 is prepared by economists in the Research Department, within guidelines set by the Bank of Israel Monetary Committee, the forum in which monetary policy decisions are reached. This report is based on data that were published up to January 26, 2015, the date of the decision on the interest rate for February 2015.

Monetary Policy Report

2014

Second Half

Summary

Monetary and macroprudential policy: During the second half of 2014, the Bank of Israel's Monetary Committee continued to reduce the interest rate: It reduced the interest rate for August and for September by 0.25 percentage points, to 0.25 percent. These reductions, especially the second one, were unexpected, taking the market by surprise. Since the interest tool is nearly exhausted, the Committee examined other tools during the surveyed period. In addition, the Bank of Israel continued its foreign currency purchases, which totaled about $1.76 billion during the surveyed period; of which about $1.46 billion was part of the program to offset the effects of natural gas production on the foreign exchange rate. The members of the Committee believe that the main financial risk stems from credit to the housing sector, which is mitigated by the steps taken by the Supervisor of Banks in recent years. With respect to the first half of 2015, the interest rates for January and February were left unchanged.

Inflation and inflation expectations: The Consumer Price Index (CPI) decreased by 0.2 percent in the twelve months ended in December, and was thus significantly lower than the lower bound of the target range (1.0 percent). The low rate of inflation recorded in the surveyed period is primarily the result of reduced prices for tradable goods, which were affected by the continuing appreciation of the exchange rate during the first half and global price reductions; these include reduction in global commodities prices, especially the significant and surprising reduction in oil prices. It is also the result of a lower rate of increase in the prices of non-tradable goods, due to moderate domestic demand as well as structural changes, such as in the communications market, the effect of which continues. Expectations of inflation for the coming year, from various sources, continued to decrease, and were at the lower bound of the target range at the end of the period. Some of the factors moderating inflation expectations are temporary, and are not expected to affect future inflation rates. The long-term inflation expectations are at the center of the target range .

Domestic real economic activity: In the second and third quarters, moderate growth continued and was near zero in the third quarter, as a result of Operation Protective Edge. Private consumption continued to support the continued GDP growth, but exports and fixed asset formations declined. As to the labor market, during the third quarter, there was a slight increase in unemployment as compared to the levels seen in previous quarters, but updated fourth quarter data suggested significant improvement, as well as an increase in the number of employees and a moderate growth in real wages. Other indicators of the state of the economy paint a positive picture and reflect a return to the moderate growth seen prior to Operation Protective Edge.

The exchange rate: During the surveyed period, there was a turnaround in the shekel-dollar exchange rate (a 15 percent depreciation), as well as in the shekel-euro exchange rate (a 4.5 percent depreciation); the calculation compares December's average to July's average. The depreciation stems mainly from the strengthening of the dollar worldwide, a development which is attributed to the US economy's recovery. It

also stems from two interest rate reductions and the continued foreign currency purchases by the Bank of Israel.

The global environment: The global economy continues to grow at a moderate rate, with increasing variance among countries. As to advanced economies, the US economy is recovering but Japan's is in a recession and Europe is on the verge of one. As to developing countries, the actual growth rates, as well as forecast ones, are lower than in the past. In some countries – such as China – this development is due to structural changes, while in others – such as in Russia – it is due to the sharp and unexpected plunge in oil prices. Monetary policies remain highly accommodative and interest rates set by central banks in several countries were even negative, due to low inflation expectations and negative inflation rates in many countries. The US Federal Reserve has indeed put an end to its quantitative easing in October, but the markets expect the interest rate to increase only during the second half of 2015. The European Central Bank (ECB) continued to reduce the interest rate on the excess reserves of the commercial banks – and in October also began to purchase asset-backed securities – while additional European countries continued to reduce their interest rates. Japan decided to expand its quantitative easing.

The housing market: The 12-month rate of increase (through September and October) in home prices moderated but remained high, and currently stands at 5.8 percent; since the end of 2012, home prices have increased by an annual rate of between 5 and 10 percent. Home prices declined in some of the recent months, probably as a result of the wait for the "Zero VAT" law. In August to October, home prices rose, along with new mortgage volumes.

The financial markets: Israel's main stock market indices (Tel Aviv 25 and Tel Aviv 100) increased moderately during the surveyed period. The economy's level of risk, as measured by the CDS premium on five-year external debt, continued its downward trend in the past few years – except during the months of Operation Protective Edge (July and August), during which the level of risk, as reflected in the said instruments, increased moderately. Total credit to the nonfinancial business sector (net of indexation and foreign exchange effects) increased slightly during the second and third quarter. Yield spreads on corporate bonds increased toward the end of the surveyed period, but are still low. Total credit to households continued to increase during the surveyed period at a growth rate similar to the one seen in the past two years, with housing credit moderating slightly and increase in the growth rate of non-housing credit.

Fiscal policy: The government's domestic deficit for the surveyed period was similar to the seasonal path, which is consistent with the deficit target. The expenses were similar to the path despite the defense budget supplement for the costs of Operation Protective Edge, due to a parallel reduction in civil expenses. The annual deficit for 2014 reached 2.8 percent of the GDP. Since the 2015 state budget was not approved, after the government's dissolution, its maximum monthly expenditures will be 1/12 of the 2014 budget .

The forecast provided by the Research Department at the end of the surveyed period[1]: According to the forecast developed by the Research Department at the end of December 2014, inflation during the next four quarters is expected to be 1.1 percent – which is in the lower part of the target range. The low

[1] The section regarding the monetary policy includes a discussion of the developments of the forecasts available to the Monetary Committee during the surveyed period.

forecast is the result of a one-time reduction of electricity and water tariffs in January; net of this effect, the expected inflation is 1.5 percent. GDP is estimated to grow by 2.5 percent in 2014. An improvement in the growth rate is expected in 2015, to 3.2 percent, *inter alia* as a result of improved exports due to the depreciation and the tourism sector's recovery from Operation Protective Edge; this forecast is slightly higher than the one presented to the Committee during the surveyed period. Accordingly, the Research Department expects that the interest rate will remain at 0.25 percent in 2015. Interest rates are expected to start increasing in 2016.

1. Economic developments in the period covered

The factors considered in monetary policy decisions

According to the Bank of Israel Law, 5770-2010, the Bank of Israel has three objectives: (1) the main objective of price stability, which has been defined as an annual rate of inflation within the range of 1–3 percent; (2) supporting the stability of the financial system and its normal functioning; and (3) supporting other goals of the government, especially growth, employment and the narrowing of social gaps, as long as this does not adversely affect price stability. In order to achieve these goals, the Monetary Committee employs a number of tools, the main one being the monthly setting of the short-term rate of interest. In addition, the Bank of Israel intervenes from time to time in the foreign currency market.

Several factors influenced the decisions of the Committee during this period: (1) Inflationary pressure has decreased. Actual inflation during the previous 12 months fell during the period under review and at the end of the period was significantly lower than the lower bound of the target range. Expectations of annual inflation obtained from the various sources continue to decline and towards the end of the year reached the lower bound of the target range. (2) The economy continued to grow at a moderate pace during the second quarter while during the third quarter growth was close to zero due to the Protective Edge operation. (3) Global growth recovered slowly. In the US, the rate of growth exceeded that in most of the developed countries while growth in the developing economies was lower than in the past. Monetary policy remained highly expansionary worldwide. The Fed ended its quantitative easing program but is expected to leave the interest rate at close to zero in the near future and at least until mid-2015. The ECB continued to reduce the interest rate on the surplus reserves of the commercial banks, in view of deflationary pressures. In October, it began buying asset-backed bonds and later on declared that it would do whatever is necessary in order to return the rate of inflation and expectations to their targets as quickly as possible. (4) There was a major depreciation of the shekel against the dollar and a moderate depreciation against the basket of currencies. (5) Housing prices continued to rise, though at a lower rate, due to the uncertainty related to various government programs and when they will begin.

In view of the various developments, the Monetary Committee decided to reduce the rate of interest in August and September (by 0.25 percentage points each time) to 0.25 percent. In the other five meetings held during the period being reviewed, as well as for the first two decisions for 2015, it left the interest rate unchanged. In parallel to the interest rate decisions, the Bank of Israel purchased foreign currency in exchange transactions, which for the most part was part of the plan to offset the effect of natural gas production on the exchange rate.

a. The global environment

Developments in the global environment have a major effect on a small and open economy such as Israel's. These developments affect the main variables of the domestic economy, including the level of activity, exports, price levels and the financial markets.

1) Activity, prices and policy

The global economy continues to grow at a moderate rate, with considerable variance among countries. Among advanced economies, the US economy is growing at a moderate rate and is exhibiting signs of improvement, while Japan is in a recession and Europe is on the verge of one. Among developing economies, actual as well as forecast growth rates are lower than before. Among advanced economies, the US has recovered and is exhibiting signs of improvement. Europe's economy has barely grown in the past two quarters, mainly due to the weak growth in Germany, which led the eurozone's growth in the past few years. There is considerable variance within the eurozone as well. Despite the weak growth in Germany, its unemployment rate is still markedly lower than in some of the other countries, such as Spain and Italy. Japan is currently in recession, against the background of the increase in the VAT rate and significant government debt. As to developing economies, their growth rates are lower than before due to lower global demand and structural changes. China's economy grew by its lowest annual rate since the financial crisis, and Brazil's economy contracted over the last three quarters (Figure 1). According to a forecast issued by the International Monetary Fund (IMF) in January, global growth rates will continue to be uneven—in advanced economies, the growth rates for 2014 are only expected to be 1.8 percent, and to increase to 2.4 percent in 2015. In developing economies, the growth rates for 2014 are expected to be 4.4 percent, lower than the growth rate for the past two years—which ranged from 4.7 percent to 5.1 percent (Figure 2). The projected growth rate for 2015 is 4.3 percent—yet another downward adjustment made to this forecast in the half.

World trade is expected to continue to expand. Although the global growth rate is more moderate than before, world trade volume is projected to increase by approximately 3.1 percent in 2014 and by approximately 3.8 percent in 2015. The growth rate for 2014 was revised downward from the first half of 2014. Global recovery and the further expansion of world trade support growth in Israeli exports and, as a result, in overall domestic economic activity.

The global inflation environment continues to be low, especially in the advanced economies, affected by, *inter alia*, the decline in commodity prices, especially crude oil. Since global demand is moderate, the inflation environment continued to be moderate during the surveyed period, especially in advanced economies (Figure 2). During this period, this inflation environment was also supported by the decline in crude oil prices—a decrease of approximately 50 percent—as a result of increased supply. Food prices also declined (Figure 4), after increasing in the first half of the year due to the severe weather in the US and Brazil. Thus, in many countries, the annual inflation even reached negative rates (Figure 3). According to the IMF's forecast, the inflation rate in advanced economies will reach 1.4 percent for 2014, and 1 percent in 2015. In contrast, the inflation rate in developing economies is expected to reach 5.4 percent in 2014 and 5.7 percent in 2015.

Monetary policy remained highly accommodative worldwide. Monetary policies in advanced economies remained accommodative, against the background of the moderate activity and low inflation rates. The US Federal Reserve ended its quantitative easing program but committed to leave the interest rates at their low level for some time, while Europe continued to increase the scope of monetary easing: The European Central Bank (ECB) and central banks of other countries[2] adhered to the interest rate reduction path. In addition, in October the ECB began purchasing asset-backed securities for a minimum period of two years, and near the end of January 2015 announced an extended program of quantitative easing. In contrast, several countries—mainly developing ones—increased their interest rates during the surveyed period due to a sharp depreciation of their foreign exchange rates (Figure 5).

The US

The US continues to grow at a moderate rate and exhibit signs of improvement. In the first quarter of 2014, US GDP contracted as a result of the severe winter it endured, but in the last two quarters of the year, it grew—by an annualized rate of 4.4 percent in the third quarter and 5 percent in the fourth quarter. During the surveyed period, domestic consumption continued its recovery and the Consumer Confidence Index—an indicator of domestic demand—continued to rise. Although the US dollar strengthened worldwide, the US economy is not expected to be negatively affected much as a result, since it mainly relies on domestic demand. The unemployment rate continued to decline, and by the end of the year it even dropped below 6 percent—its level prior to the financial crisis. However, analysis of labor market features identifies several weaknesses: 1) There has been no significant increase in real wages, 2) Labor force participation rates are still far from their levels prior to the crisis, and there was no marked improvement during the surveyed half year, but these figures are partially the result of the population's age composition rather than a direct result of the financial crisis, 3) Relative to the unemployment rate, a high percentage of workers still hold only part time jobs. Monthly indicators, such as the Consumer Confidence Index (CPI) and the Industrial Production Index show that the US economy continues to improve.

In October, the US Federal Reserve ended its asset purchase program. Toward the end of 2012, the Federal Reserve began purchasing $40 billion of long-term bonds each month, as well

[2] Non-eurozone countries.

as $45 billion's worth of mortgage-backed bonds, due to the economy's slow recovery from the financial crisis. The purchases were aimed at reducing long-term interest rates, as well as to support the mortgage markets and stimulate the economy. In its original announcement, the Federal Reserve said it would halt its purchases provided a number of conditions will have been met, including an improvement in the labor market. During this period, and against the background of the US economy's continued improvement, the Federal Reserve gradually reduced its purchases, ceasing them altogether in October – after declaring that the conditions for ceasing the purchases, as laid out in 2012, have been met. The Federal Reserve emphasized it would keep the federal funds rate within the 0–0.25 percent range for an extended period of time, especially as long as the US economy has not reached full employment. In other words, the timing of the first increase in the federal funds rate will depend on the entrenchment of US economic growth. Toward the end of December, the Federal Reserve reiterated its statement that the conditions for raising the interest rate have yet to be met, and it shall therefore remain low for some time. Despite the economic recovery, federal fund rate futures contracts for the last quarter of 2014 point to the interest rate being raised only in the second half of 2015, at a slower rate than forecast at the beginning of 2014 (Figure 6).

The Eurozone

The eurozone is on the verge of recession. In the last two quarters, the eurozone grew by approximately 0.4 percent in annual terms. As opposed to recent years, the main cause for the slowdown in the eurozone is Germany, as a result of weak investment and exports, areas that make up a significant part of its GDP. Weakness in exports is partially the result of the geopolitical tensions and the sanctions imposed on exports to Russia. Some of the countries hurt by the debt crisis which broke out following the financial crisis are in a trend of growth, especially Spain: Spain is growing for the fifth consecutive quarter, and during the past year, it grew by a moderate rate of 1.2 percent. The growth recovery in these countries is partially the result of structural reforms—such as lower labor costs per unit of output—which have begun to leave their marks. These reforms have increased competition in those countries and increased exports. Nevertheless, the unemployment rate in Europe is still very high, at 11.5 percent, including a high rate of unemployment among the younger generation, which has remained virtually unchanged in the past two years. In addition, productivity in Europe is still low, and has even fallen by 0.8 percent since 2008.

Europe's inflation rate is low, and even negative in some countries. Long term inflation expectations are under 2 percent. Europe's annual inflation continued to decline, reaching -0.2 percent at the end of the year. The decline was partially due to lower commodity prices, especially oil, but net of these items, the core inflation is still moderate and stands at 0.8 percent. In some of the countries – including Spain, Greece and Sweden – the actual annual inflation has reached negative levels. According to the financial markets, long-term inflation expectations[3] for Europe declined to below 2 percent, and were 1.5 percent at the beginning of January 2015.

The ECB continued its accommodative policy and even began quantitative easing. In September, the ECB reduced the interest rate on the excess reserves of the commercial banks to -0.2 percent, after it had reached a negative level in June. In October, the ECB began purchasing asset-backed securities, and announced that the purchases would continue for at least two years. However, the announcement did not indicate the extent of the purchases. Since the ECB reiterated in November it would do whatever is needed in order to bring inflation and inflation expectations to their target levels as soon as possible, it was expected that it would expand the size of its quantitative easing in the near future. Similar to the Federal Reserve, the ECB is also making the purchases in order to reduce long term interest rates, in order to stimulate the economy and return inflation expectations to a 2 percent target.

Japan

Japan's economy is in recession. Japan's GDP contracted in the past two quarters, against the background of an increase in VAT. This increase resulted in a decline in investment and private consumption. Long term inflation expectations remain significantly lower than the 2 percent target. As a result, Japan decided in October to increase its quantitative easing. Towards the end of the year, the date on which the VAT was scheduled to increase once again was postponed (April 2015), the election date was brought forward, and a fiscal incentive program was formulated.

Emerging economies

The growth rates of emerging economies continue to decline, and the most recent growth forecasts were revised downward. The growth rates in emerging economies were down in relation to past years, partially as a result of low global demand; Russia's growth rate remained moderate throughout the year because oil prices are low and oil makes up a significant part of Russia’s GDP, and due to tensions with Ukraine, which led to the imposition of sanctions on Russia. Another reason for the slowdown in the emerging economies is structural, such as the transitioning to reliance on growth based on domestic demand. China is a case in point: During the surveyed period, its GDP showed a decline in the real estate investments component and an increase in the private consumption component.

2) The financial markets

In the second half of 2014, financial market volatility increased. Yields in bond markets were mostly down. The volatility in the markets, as derived from options on stock indices, increased during the surveyed period (Figure 7), and the CDS spreads in most countries widened (Figure

[3] This refers to expectations regarding five-year, five-year forward inflation rates, and are based on inflation swaps.

8). The increased uncertainty reflects the fragility of global growth during the surveyed period, and most of it took place in October—when it became clear that, according to the forecasts of some professional bodies, global growth will continue to be moderate. At the same time, long term yields on government bonds declined again, and stock indices were down in dollar terms (Figures 9 and 10). The US is the exception to this rule, as stock prices increased during the surveyed period, alongside a less significant decline in bond yields against the background of its improved economy.

b. Real economic developments

1) GDP and uses[4]

In the second and third quarters, moderate growth continued in Israel and was near zero in the third quarter, as a result of Operation Protective Edge. Since the beginning of 2011, a trend of the GDP growth rate slowing can be seen (Figure 11). GDP increased by 1.9 percent during the second quarter of the year, and by 0.2 percent in the third quarter, due to the negative influence of Operation Protective Edge. The moderate rate of growth during this period was reflected in the weakening of fixed capital formation in the second and third quarters. In contrast, private consumption continued to support the GDP's continued growth. Exports of goods (excluding diamonds) and services (excluding start up companies) slowed in the second and third quarters.

The increase in private consumption continued to support moderate GDP growth. National Accounts data for the second and third quarters of 2014 indicate that the growth rate of private consumption remained stable, and continues to increase at a rate similar to the one in the past two years. The increase in private consumption is manifested in the consumption of both durable goods and nondurables consumption—excluding in the third quarter, during which current consumption shrunk following a reduction in services consumption during Operation Protective Edge. In the third quarter, there was a marked increase in durable goods purchases, in particular of private vehicles, and this may reflect early purchasing due to expectations that prices will be adjusted in the future due to the depreciation of the shekel during that period. This increase offset the negative impact of Operation Protective Edge, and private consumption continued to grow during the third quarter as well. Initial indications regarding the fourth quarter of 2014 suggest that the increase in private consumption continues.

Fixed capital formation declined. During the second and third quarters of the year, fixed capital formation declined by 12 percent, following the contraction in the first quarter of 2014. The decline included investment in residential construction and investment in the principal industries (excluding ships and aircraft). The decline in fixed capital formation contributed significantly to

[4] The data in this section are expressed in annual seasonally adjusted terms, and reflect the information available at the time of the publication of this report; a discussion of the subject appears in the section that deals with the monetary policy (Section 2).

a slower growth rate, while it had a stabilizing effect until mid-2013. Some of the decline took place in the residential construction component. The increase in the capital stock as a result of the continued current level of investment enables the expansion of the economy's production capacity at a higher rate than the current growth rate.

The growth rate of public consumption increased slightly. Public consumption, excluding defense imports, increased by 6.6 percent in the second quarter and by 5.3 percent in the third quarter, a higher rate than seen in the three previous quarters. Data for the third quarter are mainly influenced by the increase in public consumption following Operation Protective Edge.

Exports declined during the second and third quarters of the year. Exports (excluding diamonds) declined by 7.5 percent in the second quarter of 2014 and by 2.7 percent in the third quarter. This trend is in line with the moderate growth in world trade, as well as with the negative impact to the tourism sector in the third quarter due to Operation Protective Edge. However, data for the fourth quarter show initial signs that the depreciation that occurred during the surveyed period influenced exports; the Companies Survey indicates that this is evident in low-technology industries and medium-low technology industries, which are more sensitive to foreign exchange rates.

2) The labor market

There was some decline in the labor market during the June to August period, but recent data from October and November show a marked improvement at the beginning of the fourth quarter. The unemployment rate (among 15 year-olds and older) increased from 5.8 percent in April to 6.5 percent in September, partially due to the slowdown in the growth rate and to Operation Protective Edge. Yet at the same time, the participation rate during this period remained stable, at 64 percent (Figure 12). Data for part of the fourth quarter—October and November—show a more encouraging picture. Unemployment declined markedly, to 5.7 percent, with an increase in the number of full-time employees and in job vacancy rate.

c. Financial developments[5]

1) Prices and yields

Equity prices increased during the surveyed half. Israel’s main stock market indices (Tel Aviv 25 and Tel Aviv 100) increased moderately during the half year surveyed, similar to the increases in the previous half, despite the geopolitical events which took place during the period and despite the political uncertainty toward its end.

Government bond yields declined, except for short term real yields. During the surveyed period, the trend of decline in long-term nominal and real yields continued, but the nominal yields declined further. This trend is consistent with the developments in yields worldwide

[5] Further discussion appears in the Financial Stability Report, Bank of Israel, January 2015.

during the surveyed period; in the US, yields declined by a more moderate rate, while the long term real interest rate increased moderately. As a result, the differential between the 10-year nominal yields in Israel and yields on similar securities in the US was even negative during part of the surveyed period (Figure 9). The real short term yields (1-5 years) did not develop uniformly during the survey period, and increased only slightly for the period as a whole, but their level is still negative—the average for December stood at -0.3 percent.

During the surveyed period, the estimated level of risk in the markets declined. The economy's level of risk, as measured by the CDS premium on five-year external debt, continued its trend since 2012 – except during the months of Operation Protective Edge (July and August), during which the premium increased moderately. The CDS premium is currently at a low point and has not yet returned to its pre-financial crisis levels.

2) The credit market

Total credit to the nonfinancial business sector increased slightly, and yield spreads on corporate bonds have stabilized at low levels. Total credit to the nonfinancial business sector (net of indexation and foreign exchange effects) increased slightly during the second and third quarters of the year. This increase included mainly domestic non-banking credit—loans and bonds. But a long term view indicates that there was no increase in credit to the nonfinancial business sector since the end of 2012 (Figure 15). The average yield spreads on corporate bonds stabilized at a low level and increased in December, but the spreads are still low (Figure 16).

Total credit to households continued to increase during the surveyed period. Its growth rate for the twelve months ended in November stood at approximately 5.9 percent. The rate of growth in housing credit slowed and reached 4.6 percent in the twelve months ended December—slightly lower than the rate during the last two years, which stood at approximately 7 percent. In parallel, non-housing credit increased its growth rate to 8.4 percent.

Housing credit continues to constitute the bulk of household credit (Figure 18). In view of the rapid expansion in housing credit and its implicit risk, the Supervisor of Banks has issued several directives in recent years that are meant to reduce the risk to financial stability from this type of credit. In September, the Supervisor of Banks published a directive requiring banks to increase their capital buffers vis-à-vis their housing credit portfolio. As a result of the various directives, the risk characteristics of new mortgages declined and they stabilized at lower levels (Figure 17).

d. Fiscal policy

The government's budget deficit for 2014 was slightly below the target of 3 percent of GDP. The government's domestic deficit for the surveyed period was similar to the seasonal path which is consistent with the deficit target. The defense budget supplement for the costs of Operation Protective Edge, as well as several supplements for public entities, were offset by cost cuts at other ministries and by transfers from unused items. Tax revenues were similar to the forecasts made when the budget was prepared.

Since the 2015 state budget was not approved, the government's monthly expenditures will be 1/12 of the 2014 budget until the 2015 budget is approved. The cumulative expenditure path that the rule permits does not prevent the government from spending amounts that are in line with the expenditure ceiling under the fiscal rule, until the budget is approved. However, additional restrictions on conduct that apply to a period when the government has no approved budget are liable to result in substantially lower spending than what the rule allows.

e. The exchange rate

There was a turnaround in the exchange rate of the shekel during the surveyed period: it depreciated sharply against the dollar and moderately in terms of the nominal effective exchange rate. Following the prolonged appreciation in the previous half, there was a turnaround in the shekel exchange rate, especially against the dollar. In early August, the shekel depreciated by a sharp 15 percent (Figure 19A). The shekel depreciated by 7.5 percent in terms of the nominal effective exchange rate and by 4.5 percent against the euro. (The calculation compares the average in December with the average in July). Most of the depreciation was due to the strengthening of the dollar against other currencies worldwide, a development which began in August, against the background of the recovery by the US economy (Figure 19B). The shekel's depreciation was also due to the two interest rate cuts, demand for foreign currency by institutional investors, which reduced their foreign investment hedges, a temporary rise in geopolitical tensions because of Operation Protective Edge, and the purchases made by the Bank of Israel.

The Bank of Israel continued to purchase foreign currency during the surveyed period, mainly to offset the effect on foreign currency demand of the replacement of imported energy with domestic natural gas. There are two main factors in the shekel appreciation pressure: continued direct foreign investment; and a large and consistent basic surplus in the current account, which is partly due to the natural gas production.[6] Most of the purchases during the surveyed period were made under the program to offset the effect of natural gas on the exchange rate ($1.46 billion in the second half of 2014), a program which the Bank of Israel announced in October 2013. In July, in view of the continuous appreciation trend and before the turnaround in the shekel-dollar exchange rate, $300 million were purchased under the program, which were intended to mitigate exceptional volatility in the exchange rate[7] ,but all subsequent

[6] The production of natural gas affects the current account since it reduces imports of energy materials, thus contributing to the pressure for appreciation of the shekel.
[7] In this program, the Bank acts in the foreign exchange market when there is exceptional volatility which is not in line with the fundamental economic conditions, or when the foreign exchange market does not function properly. Contrary to the plan aimed at offsetting the effects of the gas, in this plan, the Bank does not announce the purchase amounts in advance.

purchases were under the program to offset the effect of natural gas. In December, the Bank of Israel announced it would purchase $3.1 billion in 2015.

f. Inflation

The inflation rate declined—led by prices for tradable goods[8]—against the background of the appreciation of the shekel that began in the first half and low inflation abroad. The Consumer Price Index (CPI) (seasonally adjusted) remained unchanged in the second half of 2014 (July to December). In the past twelve months, the rate of change in the CPI was negative 0.2 percent, i.e., well below the lower bound (1.0 percent) of the inflation target range. The decline in the CPI in the past six months included declines in prices for tradable goods and in the rate of price increases for non-tradable goods.[9] The Tradable Goods Index was negative in view of the prolonged shekel appreciation, which occurred in the first half, and against the background of the low inflation which emerged abroad due to weak global demand in both advanced and developing economies (Figure 2). In addition to these factors, global food inputs prices began to fall in the first half – a development whose influence lags – and the slump in oil prices caused by increased supply. The Non-Tradable Goods Index continued to rise during the surveyed period, albeit at a slower rate. This slowdown is partly explained by structural changes, such as lower prices for communications. In contrast, the housing component in the Consumer Price Index—40 percent of the Non-Tradable Goods Index—continued to be the dominant factor in the CPI, and if excluded, the Non-Tradable Goods Index declined by 0.3 percent.

The slower rate of increase in the CPI was accompanied by lower inflation expectations across all ranges, and 12-month and 24-month expectations are actually below the lower bound of the target range. Inflation expectations for longer ranges are in the middle of the target range. In the six months surveyed, 12-month inflation expectations from various sources trended downward, and at the end of the period, expectations were below the lower bound of the inflation target range (Figure 21). Twelve month inflation expectations derived from the capital markets 0.6 percent, on average, in December (net of seasonal factors affecting the CPI), expectations derived from banks' internal interest rates were 0.4 percent, and forecasters' expectations averaged 0.7 percent. Some of the factors moderating inflation expectations are temporary, and are not expected to affect future inflation rates. These factors include cuts in water and electricity rates, which will reduce the CPI by 0.4 percent. Net of this factor[10], 1-year inflation expectations are slightly below the lower bound of the target range. The sharp depreciation in the shekel against the dollar in the second half will support a higher inflation environment, through its effect on the prices of tradable goods. Long-range forward expectations (8 to10 years) are firmly anchored within the target rate, at 2.5 percent.

[8] The breakdown of the CPI into tradable and non-tradable components is based on Ben Bassat E., "Price Indices for Tradable and Non-Tradable Goods", Bank of Israel, Research Department, Discussion Paper No. 89.11, 1989.

[9] The Index of Tradable Goods accounts for 36 percent of the Consumer Price Index, and the Index of Non-Tradable Goods accounts for 64 percent.

[10] The reduction is from the average inflation expectations from various sources.

g. The housing market

Home prices continued to increase during the surveyed period, albeit more slowly. The annualized increase in home prices (through September-October) stayed high, although it moderated slightly, declining to 5.8 percent, after rising by 7–10 percent a year since the end of 2012 (Figure 22). Home prices declined in some of the recent months, as did the number of transactions, which peaked in late 2013. Toward the end of the period, in August to October, home prices rose along with new mortgage volume.

The more moderate activity during the surveyed period was apparently due to uncertainty regarding the various government plans and when they will go into effect. In March, the government began formulating up the zero-VAT plan on first homes, with some restrictions. It was announced in the second half of last year that a plan to sell certain homes at target prices—costing 20 percent less than market prices—was being prepared for predetermined areas. The announcement of the plans, especially the zero VAT plan, gave potential eligible buyers an incentive to defer buying a home, and for contractors – an incentive to postpone construction projects. The postponement and delay reduced both supply and demand, which probably explains the virtual standstill in the housing market during part of the period covered and the moderate increase in prices. Toward the end of the year, it became clear that the zero VAT plan would not be implemented, following which a rise in home prices was seen.

MONETARY POLICY[11]

a. Policy and targets

During the second half of 2014, the Monetary Committee twice reduced the rate of interest, by 0.25 percentage points each time. During the second half of 2014, the Monetary Committee reduced the interest rate for August and the interest rate for September by 0.25 percentage points, to a level of 0.25 percent. The reductions represented a continuation of the downtrend trend that began in October 2011 and are intended to push the rate of inflation to within the target range and to support economic activity. The rate of interest was left unchanged for the months of January and February 2015.

Several factors influenced the interest rate decisions during the period being reviewed. Most of the factors supported reducing the rate of interest, particularly the low level of inflationary pressure, the slack in real activity and the pressures for appreciation at the beginning of the period being reviewed. With respect to the inflationary environment, actual inflation was below the target range for most of the period being reviewed. This was partly due to external factors, which included the drop in commodity prices, and in particular the price of oil, which reached its lowest point in six years. If these prices stabilize at their present level, the effect on inflation will diminish. Twelve-month inflation is expected to remain below the target range in the near future,

[11] The Monetary Committee has been short one member since October 8, 2014.

as a result of one-time reductions in the prices of electricity and water, which were largely the result of a long-term plan that was formulated while the investment in local natural gas production was being carried out. In other words, these developments do not create a long-term effect on inflation either. Therefore, the members of the Committee felt that the two reductions in the rate of interest provide the appropriate response to the drop in inflation, since they have a direct effect on encouraging local demand and they support the continuing depreciation of the shekel's exchange rate against most currencies. Depreciation of the exchange rate leads directly to an increase in inflation, with somewhat of a lag, and also indirectly through an increase in demand for tradable goods produced by the economy. According to the forecasts of the Research Department, and the forecasts of some of the professional analysts, we will see further negative indexes in early 2015 and following that inflation will return to the center of the target range. Thus, according to the Research Department, inflation in 2015, adjusted for the effect of changes in the price of water and electricity at the beginning of the year, is expected to be 1.5 percent.

The weakness in the global economy provided support for leaving the rate of interest unchanged at its low level. The low spreads in the corporate bond market, along with the fact that prices in the housing market are continuing to rise, dictated against continuing to lower the rate of interest. Complementing the interest rate policy were purchases of foreign currency, which continued during the period being reviewed. Most of the purchases during the period being reviewed were part of the program to offset the effect of natural gas production on the exchange rate while a small part, i.e., the purchases in July which were a response to the continuing appreciation that began in the first half of the year, were carried out in order to moderate the sharp fluctuations around the appreciating trend of the exchange rate.

The members of the Committee estimated that the primary financial risk originates from the housing market and that the steps taken by the Supervisor of Banks in recent years are working to reduce that risk. One of the main risks to financial stability created by the low interest rate environment involves the stimulation of demand for credit and the fear that when the interest rate eventually begins to rise borrowers will find it difficult to repay their debt. The members of the Committee felt that the main financial risk originates in the housing market and that the steps taken by the Supervisor of Banks in recent years are working to constrain that risk in view of the significant improvement in the risk characteristics of mortgages. An additional risk mentioned by the members of the Committee relates to the low spreads on corporate bonds. The members of the Committee stated that there may be undervaluation of risk in that market. On the other hand, the demand for business credit has expanded and no financial imbalance can be observed in this area.

b. Background conditions and their effect on interest rate policy[12]

[12] Table 3 describes the background conditions that were known to the members of the Committee.

Actual inflation during the last twelve months fell below the target range and even reached negative levels. The actual rate of inflation during the twelve months ending in December was negative. During the period being reviewed, the downward trend in inflation evident since December 2013 continued and inflation fell to significantly below the target range. The twelve-month forecasts and expectations from the various sources were within the target range until October although they were characterized by a continuous downward trend and during the last quarter of the year dropped to below the target range. Although part of the drop in expectations was the result of one-time decreases in prices as a result of structural changes and global price decreases, a decline was also observed in the intermediate ranges (forward expectations for 2-3 years) to a level of 1.5 percent. These developments supported a reduction in the rate of interest. It is worth mentioning that long-term expectations remained within the target range during the period being reviewed.

At the beginning of the period being reviewed, the indicators of real activity signaled an additional drop in growth—part of which was due to the contractionary effect of Operation Protective Edge during the third quarter of the year—and this provided support for reducing the rate of interest. A later revision of the data, as well as additional indicators received towards the end of the year, presented a more positive picture. The quarterly data available up until September indicated an additional drop in the economy's rate of growth, even before the effects of the Protective Edge operation were felt. The second estimate for the first quarter of 2014 was revised downward at the beginning of the period being reviewed, although the first estimate for the second quarter was lower than the rate that characterized the previous two years and stood at 1.7 percent. In addition, it was revised downward in October—to 1.5 percent—along with a downward revision of the rate of contraction in exports. The contraction in exports, particularly in the export of goods, was disproportionate to the stagnation in global trade and was evidence of the effect of the cumulative appreciation in the exchange rate. Although the growth of GDP in the US recovered during the second quarter, investment companies continued to reduce their forecasts of growth in global trade for 2014 and 2015. As a result, the members of the Committee agreed that for as long as there is only moderate growth in global trade it will be difficult for the economy to grow any faster. At the same time, the members of the Committee were also concerned about a different component of GDP, namely private consumption. The initial estimates for the first quarter indicated weakness in consumption and it was expected that this would continue also in the third quarter as a result of Operation Protective Edge. However, based on past experience, the members of the Committee believed that the effect of Operation Protective Edge would only be temporary. In parallel to the release of disappointing growth figures, there was no further improvement in the labor market and the rate of unemployment rose to 6.4 percent in August, which was a continuation of the upward trend since April. These trends supported the reduction of the rate of interest in August and September, which were intended to encourage commerce, services and exports. In November and December, the indicators pointed to a return to the rate of growth that characterized the economy prior to Operation Protective Edge. These included, among others, an increase in indexes of productivity in the commerce and service sectors, a significant improvement in the labor market and an improvement in foreign trade data. This data supported the decision to leave the interest rate unchanged.

Following the uninterrupted appreciation during the previous six months, the exchange rate of the shekel against the dollar changed direction in August and the year as a whole was characterized by a sharp depreciation. The cumulative appreciation in the shekel between 2013 and the third quarter of 2014 had an effect on both exports and the level of prices, which provided support for a reduction in the rate of interest and continued purchases of foreign currency. Up until August, the exchange rate continued to appreciate. Although there were economic forces behind the appreciation, including the surplus in the current account and the quantity of direct investment in the economy, the members of the Committee believed that the exchange rate had arrived at a level that reflected over-appreciation. In view of the trend of appreciation in the exchange rate, institutional investors increased the hedging of their investments abroad and this also provided support for the continuation of the appreciation. These trends held back the recovery in exports, primarily in view of the continued weakening of growth in global trade. In addition, inflationary pressures weakened even further as a result of the effect of the continuing appreciation on the prices of tradable goods. The two reductions in the rate of interest—for August and September—that were carried out in order to, among other things, provide support for activity in the tradables sector surprised the market and thus supported the change that occurred in the trend of the exchange rate as a result of the global strengthening of the dollar. In order to complement monetary policy, the Bank of Israel continued to purchase foreign currency and during the period being reviewed purchased a total of \$1.76 billion. Of that, \$1.46 billion was part of a program to offset the effect of natural gas production on the exchange rate, which had been decided on in October 2013.

The global economy supported a low domestic rate of interest. During the period being reviewed there were signs of a recovery in growth in the US. Growth in Europe on the other hand continued to be negligible though it varied between the countries that make up the eurozone. Growth also weakened in Germany, which in the past had led growth in the eurozone. Among the developing economies, rates of growth were revised downward and were below past levels. It appears that this was partly the result of structural changes. In the US, the quantitative easing program was terminated, although the markets believed that the rate of interest would remain low over time and would not be raised until the second half of 2015. The ECB continued to lower the rate of interest on surplus reserves of the commercial banks, to -0.2 percent in September. In addition, it began purchasing asset-backed bonds in October and in line with prior expectations it expanded that effort considerably at the beginning of 2015. Countries outside the eurozone also reduced their rates of interest. The low rates of interest worldwide supported a low rate of interest in Israel.

The price of housing has continued to rise and during the period being reviewed there was a certain leveling off of prices as a result of the significant uncertainty created by various

government decisions. Towards the end of the year, prices again began to rise and continued to be a major consideration against reducing the rate of interest. However, the risk profile of new mortgages has become less risky—as a result of measures taken by the Supervisor of Banks—and this has provided policy makers with some room to maneuver and has strengthened the stability of the system. Housing prices continued to rise although the rate of increase leveled off somewhat for the year as a whole. Thus, the rate of increase in housing prices ranged from 5-7 percent, as compared to 7-10 percent since the end of 2012. During the 12 months ending in September-October, housing prices rose by 5.8 percent. The period being reviewed was characterized by a high level of uncertainty in the housing market, as a result of the lack of information on the scope of government programs and when they would begin. This led to a drop in both demand and supply and this was manifested in a decline in the number of transactions and during July and August even resulted in a drop in prices. During the period being reviewed, the members of the Committee reported that it was difficult to know how the clarification of the situation would affect the housing market and they added that one way or another, housing prices can be expected to increase unless there is an appropriate increase in supply. The quantity of mortgages continued to grow at a high rate but their risk profiles were less risky as a result of various directives issued by the Supervisor of Banks in recent years. In particular, there was a moderate decline in the loan-to-value ratio and in the ratio of monthly mortgage payments to income. Towards the end of the period, it became clear that the zero VAT plan would not be implemented and housing prices again began to increase, along with an increase in the quantity of mortgages. The continued increase in housing prices does not provide support for maintaining a low interest rate environment; however, the steps taken by the Supervisor of Banks reduce the risk to households and the banking system of default on mortgages. Thus, these measures provide monetary policy makers with greater room to maneuver in order to adopt measures that will achieve the Bank's main goals, i.e., to support a rate of inflation that is consistent with its target and which supports economic activity.

The spreads in the corporate bond market remained low and were a consideration against lowering the rate of interest. Towards the end of the period there was an increase in spreads. The corporate bond market continued to show a high level of activity, including an increase in net issues. The demand of the public for corporate bonds apparently leveled off to some extent during the period being reviewed and since July there has been a significant outflow from funds that specialize in corporate bonds and an inflow into funds that specialize in general bonds, i.e., those that invest in both government bonds and corporate bonds, although they include a lower proportion of the latter. Nonetheless, the spreads on corporate bonds remained low for most of the period being reviewed, although towards the end of the year there was a certain increase in the real estate and manufacturing sectors. The low rate of interest on its own should not affect the level of risk of bonds; however during a period of low rates of interest investors tend to search for investment channels with higher returns and this reduces the spread of risky assets. Therefore, the spreads on bonds constituted a consideration against reducing the rate of interest.

The forecast of the Research Department presented to the Committee during the period changed significantly as a result of developments in the global environment, particularly the movements in oil prices. According to the forecast of the Research Department that was presented to the members of the Committee at the end of June, the forecast of inflation at the end of 2015 was significantly higher than that presented in September. This was the result of, among other things, the influence of Operation Protective Edge and the sharp drop in oil prices. On the other hand, the forecast of growth in GDP in 2015 was somewhat higher than previous forecasts due to, among other things, the sharp depreciation in the exchange rate of the shekel, which is expected to support exports. The forecast predicted a rate of inflation of 1.1 percent at the end of 2015, which is above the lower bound of the target range, and of 1.5 percent when adjusted for one-time reductions in the prices of electricity and water.

The risks to the economy have increased during the period being reviewed. During the period being reviewed, risks increased in both the real and financial domains and inflationary pressures declined significantly. The geopolitical events and the slow global recovery had an adverse effect on the economy during part of the period. At the end of the period, political uncertainty was added to the picture and it was accompanied by uncertainty as to the effect of the situation on economic conditions, including fiscal policy.

BOX:

THE FALL IN OIL PRICES: GLOBAL VIEW AND THE ISRAELI PERSPECTIVE

For three years, until mid-2014, oil prices remained relatively stable but since then have fallen from $110 per barrel of Brent crude to around $50 as of January 2015. The first part of the box examines the recent wave of price decreases from an historical perspective, and presents generally accepted interpretations of its development.[13] The second part refers to the expected implications for the Israeli economy.

GLOBAL VIEW

Over the years and increasingly since the 1970's, oil prices have been notable for considerable volatility, and the stability apparent in them during recent years has been an exception. Preceding it was a long history of sharp increases to high levels and sharp decreases in their wake (Figure

[13] As a source of insight for conceptualization and writing, the following article was used:
Arezki Rabah and Olivier Blanchard (December 22, 2014), "Seven Questions about the Recent Oil Price Slump", *iMF direct*.

B.1). The increases derived *inter alia* from a decrease in world supply against the background of geopolitical events, and the large decreases resulted from a variety of factors: from global recession, which sometimes resulted from the price increase itself, through decisions made by OPEC on the basis of political consideration, to investments that bore fruit—whether with respect to an improvement in production processes and a reduction in their cost, or in the area of substitute and less oil consuming (and therefore less polluting) technologies.

When the price of oil is high over a considerable period, it provides an incentive for the previously-mentioned investments and is sometimes even an essential precondition for them. Accordingly, the high price in itself inevitably bears the seeds of a future price decrease. A low price, in contrast, leads to a reduction in investments of the type mentioned, and therefore inevitably bears the seeds of a future price increase.

The recent declines in oil prices

The declines in oil prices that began in mid-2014 are attributed mainly to supply factors. Although the declines did also derive from demand factors, their contribution appears to be less dominant. The downturn in world demand is expected to be reflected in the prices of other commodities as well. While prices of commodities **excluding energy products** have fallen since mid-2014, they fell much less and their decline appears to have ceased during recent months (Figure 4 in the report). Neither does oil consumption itself indicate that demand-side constraints are a dominant factor behind the fall in price: Data from the most recent monthly OPEC report do not show an appreciable decline in the rate of increase in the quantity of oil consumed (from all sources).

These data are indicative of the dominance of supply factors and of factors unique to the oil market. The explanations provided are based on the developments in the shale industry in the US. The activity of this industry recently reached an extent that promotes the US towards energy independence**. In the past year, production rose to a level that places the US on a par with Saudi Arabia**. This development reflects an important turnaround with a permanent nature.[14] Also indicative of this is the fact that Saudi Arabia, the largest member of OPEC, announced that for the time being, it will not continue in its attempts to regulate the price of oil. This announcement does not conform to its traditional function as the organization's shock absorber.

Expected global implications

The effects of the shale industry on the oil market are expected to be permanent in nature. Even though mixed effects might be expected from country to country, it is possible to generalize and

[14] Other factors contributing to the growth in supply are secondary, and transitory in nature, such as the more rapid than expected recovery in oil production in Libya, and the fact that the supply of oil from Iraq has remained stable despite geopolitical instability.

say that oil importers will benefit from positive effects while exporters will have to cope with negative implications. However, asymmetry exists between the two types of countries: Exporters are usually far more dependent on oil than importers because among exporters, it accounts for the lion's share of GDP, exports and government revenue. It is therefore reasonable to expect that certain exporters will have to absorb far-reaching implications, and these will not be a mirror image of the positive effects which importers will enjoy.

The extent of the negative impact on exporters is obviously dependent on the extent of their dependency on oil. All of them will likely have a budget deficit, the size of which will be dependent on the proportion of government revenue from energy. Among a considerable number of them, oil balances the state budget only when its price is much higher than the present price environment. It is believed that in many of the OPEC member countries, the price that can balance the budget is in excess of $100 a barrel. Many exporters can therefore expect a significant budget deficit, fiscal restraint, impaired GDP and a significant current account deficit, which in itself will lead to depreciation and inflation. The crisis in the Russian ruble exemplifies the financial difficulties that are to be expected by countries which are heavily reliant on oil exports. The developments in question will exacerbate the challenges with which some of these countries are already having to cope. At present, however, these difficulties do not appear to be worsening to the point of a global crisis.

As stated, positive effects are to be expected for oil importers, including Israel, although inexpensive oil poses some challenges for them as well. We will now discuss part of these effects, within the framework of the implications that are to be expected for the Israeli economy.

THE ISRAELI PERSPECTIVE

If the price of oil remains low, it can be expected to affect the Israeli economy in a number of economic and other areas. We will focus below on the economic effects.

Economic activity

The decline in oil prices is expected to favorably affect economic activity. First, there are direct effects on domestic supply and demand—a decline in oil prices frees financial resources for both households and firms. Apart from reduced expenditure on gasoline, it is reasonable to expect a farther reduction in electricity prices as well, due to the reduced cost of raw materials whose prices are affected by the price of oil. At least part of the sources released will be channeled towards the consumption of goods, services and other factors of production. The use of energy itself may increase as well. The reduced cost of energy therefore contributes to economic activity via its contribution to supply and by increasing demand.

Second, there are indirect effects, via the effect of the price of oil on global activity. Just as the fall in oil prices is expected to affect economic activity in Israel, it is expected to contribute to global growth as a whole. A faster pace of global growth obviously has favorable effects on the Israeli economy—via its impact on exports (the economy's principal export destinations are oil importers), and via financial channels.

Prices

The reduced cost of oil has a moderating effect on inflation. In this case as well, a distinction can be made between direct and indirect effects. The direct effect derives from the very decrease in the price of a product for which the demand is inelastic in the short and medium terms. The indirect effect is created in two principal ways: First, the fall in price is passed through to the prices of other goods and services, such as electricity. Second, in Israel a decrease in the price of oil has the effect of contributing to a surplus in the current account of the balance-of-payments. This increase, in turn, leads to an appreciation of the shekel, thereby adding to the effects that are moderating inflation.

However, the positive effect deriving from the expansion of demand—an effect that was described above—slightly offsets the effects that hold down inflation.

Gas discoveries

It should be remembered that when a problem becomes less acute, the benefit derived from the efforts to cope with it decreases as well. The benefit from the discoveries of gas derives from the fact that they reduce to some extent the economy's dependence on imported sources of energy. When the supplies of these sources increase, the need for reducing the dependence decreases as well. If the benefit from the gas discoveries is impaired to some extent therefore, this does not necessarily express a negative development for the economy as a whole.

In any event, some degree of impairment in the benefit from the discoveries of gas in Israel could include reduced revenues and royalties (part of the gas partnerships' contracts are directly linked to the price of oil), and possibly also the cancellation of transactions or a decrease in their volume (inter alia in transactions from which the benefit is not confined to the economic area alone).

In addition, a decline in the price of oil could reduce the usage of natural gas, a source of energy that is less polluting to the environment than other fuels.

The State budget

The change in the price of oil is not expected to have a major impact on government revenues from tax receipts. The price of oil in Israel includes a proportional tax component (value added tax, whose proportion in the gross price amounts to 15%) and an absolute, that is, per-unit tax component (excise tax, which as of January 2015 amounted to approximately NIS 3 per liter of 95 octane gasoline, which is about half the final price to the consumer).[15]

A decline in price leads to some loss of revenue from VAT on crude oil, since it is a proportional tax that changes with the price. In the business sector, however, a decline in price increases the added value (due to reduced expenses) and therefore the product measured. The growth in the business sector's added value increases VAT revenues, and these offset part of the decrease in VAT revenues from crude oil. Moreover, the fall in price could increase the amount of oil consumed and thereby the amount of tax charged on its sale. Finally, the decrease in price also increases the tax base due to its expansionary effect on activity as a whole.

The excise tax per se is not expected to change, but if oil consumption increases its revenues will actually increase as well. In the past it has happened that the government decided to temporarily change the level of excise tax due to a sharp change in the world price for oil.[16] Since a price decline is involved at present, it seems less likely that the government will want to raise the level of excise tax. This is because it already forms a significant segment of the final price to the consumer.

As for expenditures, the defense establishment is responsible for the bulk of public expenditure on oil. While the defense establishment is able to buy oil with US military aid, this aid can only be used to buy products from the US. As such, the saving from a fall in the price of oil will be directed to other consumption in the US. The direct effect on total public expenditure will therefore be apparent mainly via non-defense consumption and will be only limited in extent.

Monetary policy

Under the Bank of Israel Law of 2010, the central bank's main objective is to maintain price stability. It was stipulated that stability indicates an annual inflation rate in the range of between 1 percent and 3 percent. The law does permit temporary deviations from the targeted range if this serves other purposes, including supporting growth, employment or financial stability. However, growth in the supply of energy would not appear to create a dilemma justifying such a deviation, since inflation and activity-related considerations both support a monetary expansion.

The inflation-moderating effects are a consideration favoring monetary expansion. As stated, these include the direct effect of the price of oil and its indirect effects: pass-through to the prices

[15] The other components of the price are: the price of oil at the "refinery gate" (the price which the fuel companies pay to the oil refinery) constitutes 26 percent of the price to the consumer, and this part reflects mainly the price of crude oil, which is the most volatile component in the price. Another 10 percent can be attributed to the "marketing expenses basket" item. The data are taken from the web site of the Ministry of National Infrastructures, Energy and Water.

[16] For example, in view of the oil price increases in 2011, it was decided to temporarily reduce the level of the excise tax on gasoline. The reduction was intended to alleviate the effect of the price increases to some extent. At the same time, however, revenues from VAT were raised, automatically with the increase in price.

of other goods and services, and appreciation pressures resulting from the effect on the current account of the balance-of-payments.

Activity-related considerations would also appear to support monetary expansion. A decline in energy prices has an expansionary effect as stated, both on the supply of the product and the demand for it. But it is reasonable to assume that the effect on supply is greater than that on demand, such that the full potential inherent in the increased supply of energy is not utilized. In a case such as this, of the emergence of an excess capacity, a restraining effect on prices is created. For this reason, the impact on activity would appear to support monetary expansion as well.

In order to understand why supply is likely to increase more than demand, we will describe each of them separately, beginning with supply. A decrease in energy costs makes it possible to use more energy or, alternatively, to increase expenditures on other factors of production. This means that production can be increased without increasing overall (or the marginal) costs. With demand, however, an only slight increase can be expected. Although growth in demand contributes a substitution effect and an income effect, both are likely to be limited in extent. The substitution effect can be expected to increase the amount of oil consumed, since its price is now lower. But since demand for oil is relatively inelastic, this effect is probably minor. As regards the income effect on demand, while a decrease in energy prices does indeed increase households' disposable income, only part of this increase—probably a very small part—is likely to be directed toward growth in demand. The remainder will likely be directed towards increased saving (or, alternatively, to reducing debt).[17] Since both supply and demand increase, an expansionary effect on demand is created in any event. However, an only minor response on the demand side implies unutilized growth in the economy's production capacity. Activity considerations therefore also support monetary expansion, even though activity can be expected to increase in any case.

Similar considerations support monetary expansion in the rest of the world as well. Worldwide monetary expansion without a simultaneous expansion in Israel has the effect of increasing capital inflows. These lead to appreciation pressures, which themselves create a contracting effect both on activity and on inflation. This is an additional consideration favoring a monetary expansion.

It therefore seems that the response to a decline in oil prices justifies monetary expansion due to both inflation and activity-related considerations. It should be remembered, however, that the fall in oil prices is one among many developments, and monetary policy makers respond to other developments as well and to additional background conditions. At the present time, it is possible that considerations employed with respect to other developments may not support a further monetary expansion.

[17] This hypothesis is based on the generally accepted assumption that the marginal propensity to consume is less than 1. This assumption is also supported empirically.

SUMMARY

The principal reason for the fall in oil prices is attributed to the shale revolution. Recently, this has resulted in the US reaching a level that places it on par with Saudi Arabia in its status as an oil producer. This factor behind the growth in supply is of a permanent nature. However, traditional exporters can try to temporarily crowd out the shale industry by flooding the market with oil whose price undermines the overall economic worthiness of that industry. But the technology already exists and if the flood of supply ceases, it will again be possible to resort to it on a large scale. Moreover, it is reasonable to assume that the technology in the area will continue to improve, with the result that the economic threshold of oil production from shale will continue to fall.

The growth in the world supply of oil, if it continues, is expected to have a major impact on the world and in a wide variety of areas. This box focuses on the economic implications, and has shown that they are mixed. A decline in the price of oil effectively constitutes growth in supply, and this leads to an expansion in the economic activity of oil importers. At the same time, however, a fall in the price of oil also has some less desired implications. First, it leads to the increased use of oil and thereby to resulting damage to the environment. In addition, it reduces the incentive to invest in in capital and R&D promoting alternative sources of energy and oil-saving technologies. A low price today therefore increases the future dependence on oil. From an Israeli perspective, implications for the gas discoveries are also to be mentioned, as well as expected challenges in the monetary-policy area, at least in the short term.