PALESTINE MONETARY AUTHORITY

Inflation Report

2016: Fourth Quarter

Volume 21

Research and Monetary Policy Department

March, 2017

Suggested Citation:
Palestine Monetary Authority (PMA), 2017.
Inflation Report: 2016: Fourth Quarter.
Ramallah – Palestine

All Correspondence should be directed to:
Palestine Monetary Authority (PMA)
P. O. Box 452, Ramallah, Palestine.

Tel.: (+ 970) 2-2409920
Fax: (+ 970) 2-2409922
E-mail: info@pma.ps
www.pma.ps

Design & Artistic Direction:
Public Relations & Communication Dept.

Foreword

On behalf of the PMA, I am honored to present the new version of the Quarterly Inflation Report, which comes in line with the PMA's duties and responsibilities to monitor and analyze changes in key macroeconomic indicators, such as growth, inflation, budget deficit, external current account, etc.

The importance of the publication of the inflation report reflects the fact that inflation, to a significant extent, represents a monetary phenomenon, as the increase in money supply, oftentimes, leads to a corresponding increase in the general price level. Actually, the causes of inflation, measures to counter it and variable and divergent consequences on various economic sectors and social strata remain a noteworthy subject of economic research. Generally, inflation is disadvantageous to economic agents relying on fixed incomes like workers, employees, and other wage earners, while it favors those with unsteady income, like producers and merchants. Consequently, inflation can have damaging effects in both cases: (1) a rapidly rising inflation, which serves the interests of producers rather than consumers (as is the case historically, and for most developing economies), and (2) a decreasing inflation that disfavors output prices and subsequently dampens profits and growth rates (as is currently the case in most Euro Area countries and Japan). Suffice it to say that (a) monetary stability (controlling the inflation rate); (b) financial stability (maintaining the soundness of the banking and non-banking financial sectors); and (c) contribution to increased growth, reduced unemployment and sustained economic development, respectively, represent the most important goals of the PMA and central banks in general.

The Inflation Report the PMA publishes includes four main sections which address: (1) the most salient global, regional and domestic economic developments including real growth, aggregate demand, employment and price movements; (2) financial developments such as changes in interest rates on currencies circulating in Palestine; (3) the performance of the local financial market in comparison with its Arab counterparts; and (4) inflation forecasts over future periods and analysis of local and external risks that may affect or be affected by the forecast inflation rate. Generally, the inflation rate in Palestine remain relatively low, as it continues to be chiefly imported and mainly affected by global prices, particularly for food and fuel whose sagging prices led the decline in local inflation rates.

The Quarterly Inflation Report, the Annual Economic Report, the Economic Forecasts Report, the Quarterly Economic Developments Report, and the annual Financial Stability Report constitute PMA's most important economic publications. These reports have been generally well-received by other central banks, local and international financial institutions, researchers, academics and decision-makers. Furthermore, they are highly relevant to Palestinian producers and consumers alike, as they provide credible and vital data and information, specially for setting the annual wage and salary increases, and overall budget revenues and expenditures.

Finally, I am grateful to the PMA's executive board members, and staff for their diligent efforts to realize the PMA’s goals and its aspirations to become the central bank of a sovereign and independent Palestinian state. I am also thankful to Arab, regional and international institutions for their continuous cooperation with, and support to PMA and the financial sector with a view to bolster the steadfastness of Palestinians in their land and foster sustainable economic development in Palestine.

Governor

Azzam A Shawwa

Executive Summary

During 2016Q4, consumer prices in Palestine contracted on annual basis by 1.3 percent, as most indices of commodity categories declined, particularly food and transportation, affected by the previous drops in global prices. In general, inflation in Palestine is largely imported and highly sensitive to world prices, particularly for food and fuel; and for the first time, it fell below that for Jordan and Israel, and remained well below that for the MENA region.

The approach followed in this report for inflation analysis and forecasting purposes depends on two key variables: (i) cost of imports, which reflects the inflation and exchange rates of Palestine's main trading partners, among which Israel accounts for the highest portion (80 percent of exports and 70 percent of imports on average); and (ii) world food prices, as food has the highest weight (35 percent) in Palestine's consumer price index.

Inflation forecasts show that consumer prices in Palestine are expected to grow by around 0.9 percent during 2017Q1, and to accelerate in coming quarters. Accordingly, the inflation rate for 2017 as a whole is expected to grow to 1.3 percent, compared with deflation by 0.2 percent in 2016. Forecasts depend on assumptions regarding the most likely future paths for (i) Palestine's most important trading partners' prices and exchange rates, (ii) prices in the international commodity markets, as predicted by the IMF and by foreign central banks, and (iii) domestic and seasonal factors.

Given that Palestine's inflation may deviate from the baseline scenario due to deviations in foreign prices and exchange rates, the forecast is supplemented with a risk analysis. Beside the baseline, the forecast considers four alternative scenarios based on a positive and negative one-standard deviation shock in Palestine's cost of imports and in world food prices. The expected effects on Palestine's alternative inflation outcomes indicate that a positive one-standard deviation shock in external conditions would increase Palestine's prices from 0.9 percent under the baseline scenario to an average of 1.3 percent during 2017Q1. On the other hand, a negative one-standard deviation shock would bring prices in Palestine down, to register deflation by 0.4 percent.

Financial developments indicate that the margin between lending and deposit rates in Palestine have widened during 2016Q3 due to an increase in lending rates accompanied with a decline in deposit rates. Moreover, the margin in Palestine remained noticeably higher than for its counterparts in the currency-issuing countries. The margin was about 6.2 percentage points on the USD, 6.6 percentage points on the JD, and 9.0 percentage points on the NIS.

Palestine Stock Exchange “PEX” maintained a stable performance during most of 2016Q4. Al-Quds index closed at 530.2 points, growing by only 2.2 percent compared to the end of 2016Q3. This reflected varied sectoral performance; indices of insurance, banking, industry and investment increased, while it declined for services.

Contents

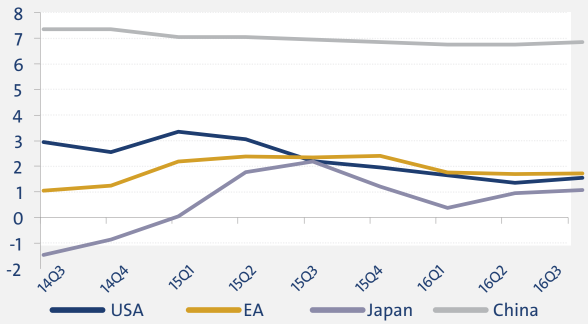
I. Recent Economic Developments

Real GDP

A state of cautious optimism emerged across world markets during 2016Q3 in the wake of fast-tracking growth in several developed economies, including the United States, and to a lesser extent, Japan. The absence of material "Brexit" effects on economic conditions in the U.K. fostered this positive outlook throughout the quarter. In contrast, the prevalent languor in global trade weighed on export-dependent Germany, France and several other European countries. Eventually, these opposing trends ended in overall progress in developed economies, bridging part of the gap between this group and emerging and developing economies. This divergence was further facilitated by signs of an unexpected slowdown in the EDCs, hampered by deteriorating performance in Argentina, Brazil and Turkey, among others. However, IMF forecasts[1] for global growth remained unchanged for 2017 at 3.4 percent. The Fund also expects growth to reach 3.6 percent in 2018.

The renewed recovery in the U.S. stood out as the highlight of 2016Q3 in the absence of significant developments in other major economies. Economic improvement was mainly driven by a recovery in exports, strong private consumption, and easing contraction in private investments; but it was inhibited by slowing public spending. As a result, the U.S. economy grew by 1.5 percent in 2016Q3, compared with 1.3 percent in Q2. IMF forecasts were accordingly upgraded to 2.3 percent in 2017 (from 2.2 percent). Economic expansion is expected to accelerate to 2.5 percent in 2018.

Figure 1: Real growth rates in some main economies



Source: IFS database, BoEA, and http://www.tradingeconomics.com.

Conversely, growth rates stabilized in the Euro Area at 1.7 percent for the third consecutive quarter, in light of discrepant performance among members. Recovery picked up pace in the Euro periphery as private demand gained track. It, however, tumbled in core economies

[1] International Monetary Fund, World Economic Outlook. January, 2017.

owing to sluggish export activity. As such, growth patterns in the EA are expected to persist with no significant acceleration in the medium term; the IMF expects the EA economy to expand at 1.6 percent in 2017 and 2018.

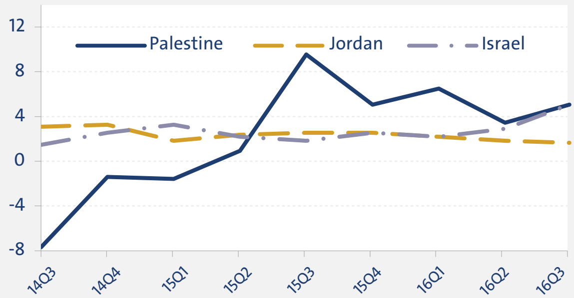
Japan, on the other hand, resumed its muted recovery with a marginal rise in growth rates; GDP expanded by 1.0 percent in 2016Q3, compared with 0.9 percent in Q2. The trend reflects a relative pick up in export, as opposed to a general fragility in other demand components and falling private investment spending, in particular. In light of these developments, IMF forecasts were upgraded by 20 basis points to 0.8 percent in 2017, while remaining at a mere 0.5 percent in 2018.

Signs of marginal improvement have also appeared in China, where growth reached 6.8 percent in 2016Q3, compared to a steady rate of 6.7 percent for several consecutive quarters. The slow progress seems to result exclusively from rising government spending, as industrial production and export activity remained subdued. Nonetheless, the IMF forecasts more favorable conditions in 2017, upgrading expected growth from 6.2 to 6.7 percent, while remaining cautious about the medium term, with growth expected to reach 6.8 percent in 2018.

In the meantime, political and economic turmoil lingered within the MENA region, limiting its capacity to achieve adequate growth levels, particularly in countries like Iraq, Syria, Egypt, Libya and Yemen. In this light, IMF growth forecasts for 2017 were downgraded from 3.4 percent to 3.2 percent, while the region is expected to expand by 3.4 percent in 2018. It is worth noting that growth remains susceptible to high fluctuations in light of political uncertainty and economic instability within the historically-volatile regional conditions.

On the regional front, the Israeli economy recorded its highest year on year (y-o-y) growth in years at 5.2 percent, compared to 3.0 percent in the second quarter; a consequence of improvements in exports, investment, and government spending, coupled with relative stability in private

Figure 2: Real growth rates in Palestine, Jordan, and Israel



Source: PCBS, CBS, and the Central Bank of Jordan.

consumption growth. The IMF maintained its 2017 forecasts at 3.0 percent, and expects the Israeli economy to grow by 2.9 percent in 2018.

The Jordanian economy continued to lose momentum in 2016Q3, with GDP growth falling slightly from 1.9 to 1.8 percent, at the back drop of contractions in construction and mining activities, in addition to slowing production in agriculture, transport and several types of services. IMF forecasts remained optimistic, however, estimating growth at 3.3 and 3.8 percent in 2017 and 2018, respectively.

Locally, the Palestinian economy gained track during 2016Q3, with real GDP rising by 5.2 percent y-o-y, compared with 3.5 percent in the previous quarter, owing to a pick-up in activity in the WB (3.9 percent versus 3.1), and in GS (9.7 percent versus 5.1). The resumed inflow of building materials to GS has sparked this notable surge in growth, compared to meager conditions in the second quarter in light of partially interrupted inflow.

As a result, total value added from construction in Palestine rose by 8.6 percent due to a surge in GS, and despite a relative decline in the WB. Higher growth rates were also observed in manufacturing, transport and storage, and services by 8.4 percent, 17.7 percent and 6.5 percent, respectively. This is in addition to renewed growth in trade (2.0 percent) in light of spurred activity in both regions. In contrast, growth in financial and insurance services slightly decelerated to 12.6 percent, originating mainly from the WB. Finally, activity in communications declined by 1.2 percent on account of a fall in the WB, and zero growth in GS.

Aggregate demand

Palestine's Gross Domestic Product during 2016Q3 amounted to around USD 2,023.1 million in 2004 prices, of which the West bank acquired around 76 percent. The growth in the WB was supported mainly by a jump in exports, which picked up by 17.5 percent y-o-y, though it maintained the average level of the previous quarters. At the same time, imports declined by 4.2 percent, thus narrowing the trade deficit to USD 606.7 million. Conversely, consumption, both private[2] and public, have slightly declined by 0.1 percent to the former and by 0.2 percent to the latter. Moreover, investment dropped to its lowest level in around a year, and contracted by 11.0 percent as investment in both building and non-building receded, while inventory has accumulated.

[2] The private consumption includes; household consumption and the consumption of non-profit institutions serving households "NPISH".

Meanwhile, investment in GS proved to be the main engine of growth during the quarter, which doubled by 1.7 times from the corresponding level. Investment in building and non-building improved, accompanied by higher withdrawals from inventory. Nevertheless, overall consumption has remarkably shrunk as private and public consumption dropped by 5.5 percent and 2.1 percent, respectively. Furthermore, trade indicators showed negative developments, with exports declining by 16.2 percent, while imports grew by 3.2 percent, which resulted in a higher trade deficit, amounting to USD 165.7 million.

Table 1: Aggregate demand at constant prices (2004=100)

(USD million)

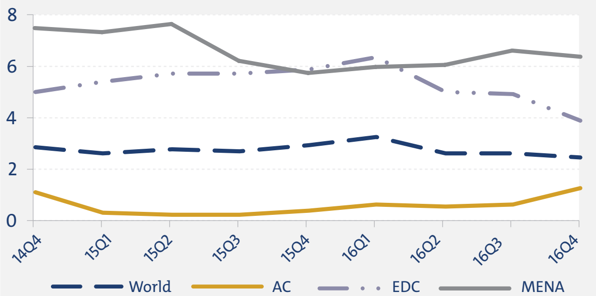
	West Bank			Gaza Strip		
	2015Q3	2016Q2	2016Q3	2015Q3	2016Q2	2016Q3
Private consumption	1,478.5	1,464.3	1,477.7	435.7	443.1	426.5
Government expenditure	320.4	337.8	319.8	218.8	214.8	206.8
Investment	402.7	421.7	358.6	-43.5	-6.7	29.8
Exports	329.0	365.4	386.7	21.6	22.8	18.1
Imports	1,037.0	1,025.9	993.4	178.1	174.4	183.8
GDP[3]	**1,476.4**	**1,551.3**	**1,533.9**	**446.0**	**479.6**	**489.2**

Source: PCBS.

Inflation

Global inflation rates maintained the relative low levels, reflecting weak economic performance, and affected by previous drops in commodity prices. During 2016Q4, global inflation has declined for the fourth consecutive quarter to around 2.4 percent, compared to 2.6 percent in 2016Q3 (figure 3).

Figure 3: Inflation rates in World regions



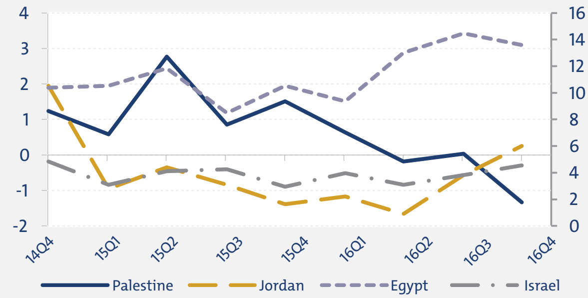
Sources: IFS and PCBS.

This comes amid disparate trends among the main country groups. On one side, the advanced economies finally managed to lift its inflation rate, exceeding the 1.0 percent threshold for the first time in two years. This was supported by signals on a better economic growth during the quarter, particularly in the U.S., and accompanied with higher investors' confidence as oil prices resumed increasing. Data indicates rising inflation rates in the U.S.

(from 1.1 percent to 1.8 percent) and Euro Area (from 0.3 percent to 0.7 percent); however, these rates remained well below targeted levels. Moreover, the monthly consumer price indices for October and November revealed a price increase in Japan. In sum, inflation in advanced economies exceeded 1.2 percent during 2016Q4.

On the other hand, economic slowdown in most emerging and developing countries led to the lowest inflation rates in years. However, it is important to note the mixed trends among the same country group that resulted from the idiosyncratic factors, and the differing exchange rate movements. In China, for example, inflation increased to around 2.2 percent, compared to 1.7 percent in 2016Q3 due to increase in producer prices for the first time in four years. Conversely, inflation in other main countries in the EDCs (like brazil, India and Russia) have all declined, but at uneven degrees. In sum, inflation in EDCs have declined from 4.9 percent to roughly less than 4.0 percent, as preliminary data indicates .

Figure 4: Inflation rates in Palestine, Jordan, Egypt, and Israel



Sources: IFS and PCBS.

In the Middle East and North Africa in particular, inflation is highly affected by various political and economic conditions in each country. But in general, there are signs on abated inflation for the whole group, down to around 6.0 percent, affected by receding inflation in many countries like Algeria and Saudi Arabia.

However, the case in Palestine's neighboring countries (Jordan, Israel and Egypt) was someway different. Jordan, for example, has witnessed a consumer price growth after a consecutive deflation for a while, achieving minor inflation by 0.3 percent compared to price shrunk by 0.6 percent in the previous quarter. Meanwhile, prices in Israel continued to recede, albeit at a slower pace, registering a deflation by 0.3 percent, lower than that in 2016Q3 by 30 basis points. Consumer prices in Israel have been declining for several quarters in light of formerly abating global prices, however, Bank of Israel is expecting a price growth with the beginning of 2017.

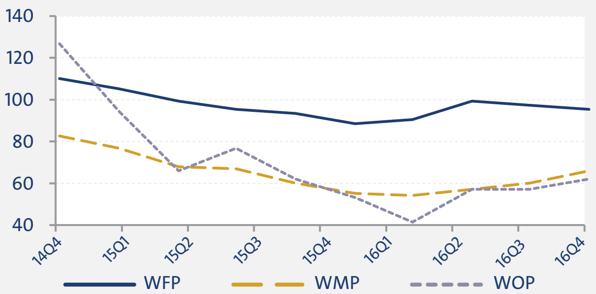
At the same time, inflation in Egypt continued to be the highest rate among the MENA region, with signs of further rise during the quarter in light of many factors, mainly; the continuous depreciation in Egyptian pound; and the increase in local commodity prices as the government lift the subsidies as part of reform program under the IMF supervision. No data are available on inflation for the recent quarter, but it is expected to remain close to the previous quarter level, which amounted at 14.5 percent.

Locally, consumer prices shrank by 1.3 percent compared to the corresponding quarter, due to a remarkable contraction in the GS, and to lesser extent, in the WB.

Global and local prices

This section deals mainly with developments in local and global markets' commodity prices, the most important determinant of inflation trends. Global commodity prices experienced a downward trend since the second half of 2014 till recently, when it resumed increasing (Figure 5).

Figure 5: Indices of primary commodity prices, 2010=100



Source: IFS.

World oil prices (WOP), for example, started to grow mid-2016Q4 following OPEC decision to trim supply for the first time in 8 years to support the abating prices. Accordingly, WOP index jumped on quarterly and annual basis by 9.7 percent and 16.2 percent, respectively, reaching USD 49.1 per crude oil barrel. However, it remained well-below 2016 average.

Likewise, world metal prices (WMP) have grown during the quarter supported by higher demand from China as it witnessed better investment in infrastructure and real estate, and affected by the expectations of expansionary fiscal policy in the U.S. Consequently, WMP index picked up by 10.2 percent and 19.4 percent on quarterly and annual basis, respectively. Meanwhile, world food prices (WFP) increased by 8.8 from the corresponding period due to a notable increase in vegetable oils, nevertheless, it declined slightly from the previous quarter by 1.4 percent.

Locally, prices witnessed various changes during 2016Q4 on both quarterly and annual basis. In general, most price indices of commodity categories showed declining trend, particularly for those with high weight in consumer basket. Dislike the previous quarters, the prices trend during 2016Q4 seemed to be somehow similar in the West bank and Gaza Strip, and both regions experienced quarter on quarter (q-o-q) and y-o-y price shrunk. Prices declined by 0.6 percent and 1.0 percent in the WB on quarterly and annual basis, respectively. Meanwhile, GS registered a deflation by 0.7 percent compared to the previous quarter, and more sever one (2.3 percent) compared to the corresponding quarter. As result, deflation in Palestine amounted to be 0.7 percent and 1.3 percent on q-o-q and y-o-y, respectively. As for the whole 2016, consumer price index slightly shrunk by 0.2 percent.

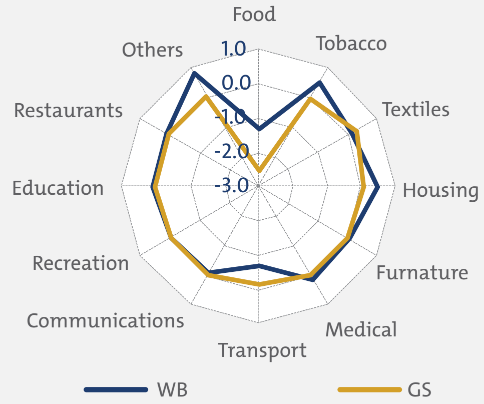
In the WB, food and transportation indices registered notable declines. The food index slipped from the significant high level in the corresponding period of weak agricultural output, dropping by 4.2 percent. While transportation index contracted by 1.3 percent, followed by fall in cultural and recreational goods index by 1.1 percent. On the other side, the remaining indices increased, but marginally for the high-weighted ones. Medical service index went up by 2.3 percent, followed by increase in education index by 2.2 percent. However, the growth in price indices of housing, textile, furniture were slight, and all of them registered less than 1.0 percent growth rate.

Similarly in GS, food index notably declined by 6.2 percent y-o-y as the agricultural crops proved to be better than that in last year. Also transportation index fell by 1.9 percent, followed by a decline in cultural and recreational goods index by 1.4 percent. Indices of alcohol and tobacco and medical services also dropped by 0.9 percent, each. While the drops in indices of furniture and communications were slight, as the former declined by 0.7 percent, and the latter by 0.3 percent. Conversely, the textile index picked up by 5.0 percent. Also, education services index and café and restaurant services index increased respectively by 1.9 percent and 1.7 percent, along with increase in housing index by 0.7 percent.

Overall, the decline in food prices was the main engine for deflation in both the WB and GS during 2016Q4. It contributed negatively (by -1.3 percentage point) to inflation in the WB, and by -2.5 percentage point in GS (Figure 6). By neglecting the decline in food prices, both regions would register a growth in consumer prices. However, it amounted to less than 1 percent.

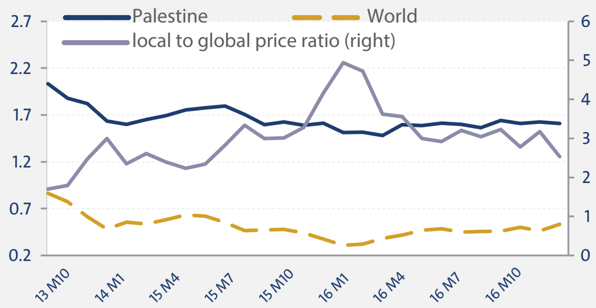
Regardless of different price determinants in the WB and GS, commodity prices in Palestine exceeded those in the world market, usually because the local prices increase almost as much as the global ones, but declined lesser in case of global prices drop. It is worth mentioning that the movements among global prices are not reflected immediately in local prices, and usually take more time to adjust. During 2016Q4, movement of local commodity prices ranged between increases and declines, not always following the global prices.

Figure 6: Web chart of the CPI components contribution to the inflation rate in Palestine



The global prices of gasoline, a vital commodity for Palestinians, resumed increasing during the fourth quarter, jumping by 16.2 percent from the corresponding quarter. However, local gasoline prices marginally grew by 0.4 percent, resulting in narrowing the price gap (Figure 7).

Figure 7: Gasoline prices in USD per liter



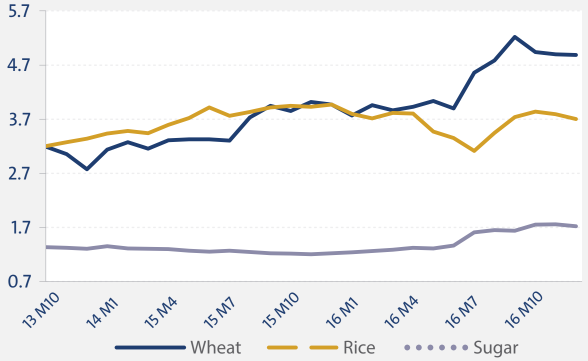
Source: PCBS and IFS.

It is noteworthy that the USD exchange rate against the NIS declined during the quarter, which partially mitigated the increase in local prices. During 2016Q4, a liter of gasoline was about USD 1.5 (around NIS 5.9) in the local market, compared with USD 0.5 in the global market.

As in the case of fuel, other commodities local prices, like those for wheat, rice, and sugar stayed much higher than in world markets. Several factors stood behind these discrepancies, including: taxes imposed on imported products, the high cost of transportation and storage, and oligopolistic pricing.

During 2016Q4, the price gap widened for wheat and sugar, but declined for rice (see Figure 8). As a result, both wheat and sugar prices in the local market increased to 4.9 and 1.7 times their price in global markets, while local prices of rice declined to around 3.7 times global prices.

Figure 8: Local prices to global prices



Source: PCBS and IFS.

Also interesting are prices for some non-imported commodities, like fresh chicken and beef meat. Local prices of these commodities are not as sensitive to global trends but are still much higher than world prices due to their unduly high production cost. For instance, fresh chicken meat prices were around 1.5 times the world price during 2016Q4, while beef meat prices were around 3.3 times world prices. Table (2) shows price developments for some selected commodities (imported and non-imported) in the local market during the current and the previous quarters.

Table 2: Prices of selected commodities in Palestine NIS per unit [3]

	2015	2016			
	Q4	Q1	Q2	Q3	Q4
Rice	135.9	134.6	134.3	134.7	131.1
Wheat	147.9	146.2	143.0	141.1	137.5
Bread	3.8	3.7	3.7	3.7	3.7
Beef meat	57.3	54.3	53.2	53.2	49.6
Chicken meat	14.9	15.2	13.7	14.5	13.7
Powder Milk (Nido)	95.7	95.9	95.9	94.4	93.4
Yogurt (local)	5.0	5.1	4.9	5.0	4.9
Chicken Eggs	14.2	13.0	11.3	13.8	15.0
Tomatoes	6.2	3.3	2.5	3.9	2.7
Sugar	128.1	126.7	130.9	147.0	149.7
Gas	56.6	57.4	57.2	58.1	58.9
Diesel	5.3	4.9	5.2	5.3	5.4
Gasoline 95	5.9	5.6	5.8	5.8	5.9

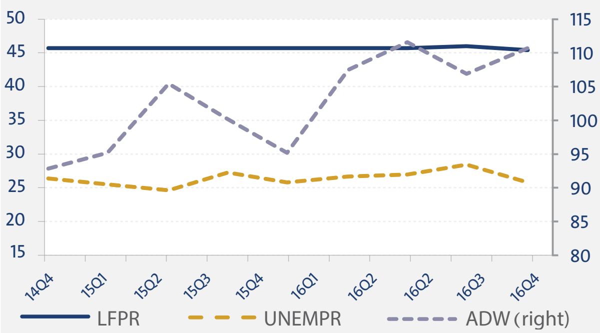
Source: PCBS

[3] Unit for Wheat: 60 Kg sack; Bread: 1 Kg; Rice: 25 Kg sack; Chicken and Beef meet: 1 Kg, Powder Milk: 2.5 Kg can; Yogurt: 500 g can; 2 Kg box; Tomatoes: 1 Kg; Sugar: 50 Kg sack; Gas: 12 Kg cylinder, Diesel and Gasoline: 1 Liter.

Labor force and wages

Labor market data highlight two significant developments during 2016Q4; the first is the rise in new labor market entrants, increasing by 23,000 persons. However, the participation rate[4] stood close to corresponding level at 45.5 percent. The second development concerns the number of employees, which notably rose by 19,200 persons from the corresponding period. Nonetheless, those increases varied between the WB and GS. The number of new workers in the WB exceeded the new labor market entrants, resulting in reducing the unemployment rate by 1.8 percentage points to reach 16.9 percent. Conversely, the new workers in GS were far fewer than the persons entering the labor market, which pushed the unemployment rate to increase from 38.4 percent to 40.6 percent.

Figure 9: Labor force main indicators in Palestine



Source: PCBS.

It is worth mentioning that the absorption of large numbers of WB workers by the Israeli labor market mitigated unemployment in the WB. Workers in Israel and the Settlements reached its highest in years (129 thousand) during 2016Q4, or 22 percent of total WB laborers. Meanwhile, the Israeli labor market remains inaccessible to GS workers for years[5]. And although the Israeli authorities intermittently allowed for no more than 100 GS laborers to enter their market, they soon re-imposed a full ban.

Palestinian labor in the Israeli market remains of considerable significance due to its substantial influence on wages and prices in Palestine, given the sizeable wage differential between the two labor markets. This gap adds pressure on local wages to rise, while simultaneously spurring demand for goods and services. However, since the majority of these goods and services are imported, domestic prices eventually face undesirable inflationary pressures.

During 2016Q4, local wages in the WB and GS increased y-o-y by 4.5 percent and 4.1 percent, respectively. A worker's average daily wage in the WB amounted to NIS 97.6, compared

[4] The number of individuals in working age (15 years and above) in Palestine reached 2,965,200 persons during 2016Q4.
[5] Gazan workers were banned from entering the Israeli market directly after the unilateral Israeli withdrawal from Gaza Strip in 2005.

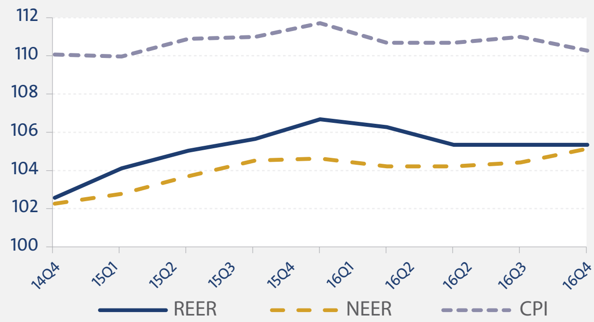
with NIS 63.8 for workers in GS. Meanwhile, a worker's average daily wage in Israel and the Settlements has rapidly grown by 7.5 percent, reaching NIS 215.4, or 2.2 times the wage in the WB.

The reciprocal relation between prices and wages implies that when inflation exceeds the rise in the average nominal wage, the purchasing power of real wages decline, and vice versa. During 2016Q4, the shrunk in consumer prices in the WB (by 1.0 percent) and GS (by 2.3 percent) picked up the real wages by 5.5 percent and 2.3 percent, respectively. In contrast, workers paid in USD and JD saw a decline in wages owing to falling USD and JD exchange rates by 1.3 percent compared with the corresponding quarter.

Effective exchange rates

Figure (10) shows the nominal and real effective exchange rates (NEER and REER) in Palestine[6]. The discrepancy between the NEER and REER indicates that changes in inflation in Palestine relative to its trading partners contributed to the appreciation of the real exchange rate during this period. The appreciation of the NEER indicates that the NIS appreciated against Palestine's trading partners' currencies, while the appreciation of the REER indicates that Palestine lost competitiveness against its trading partners[7].

Figure 10: Effective exchange rates and CPI in Palestine, 2010=100



Source: PMA and PCBS.

Data show that the NEER has slightly appreciated by 0.5 percent during 2016Q4, compared with 2015Q4, which indicates that the NIS appreciated against Palestine trading partners' currencies. Conversely, the REER depreciated by 1.3 percent during the quarter, which means that Palestine gained some competitiveness against its trading partners. It is worth mentioning that the Palestinian foreign trade is substantially affected by the Israeli-imposed restrictions and other obstacles, and these effects were much stronger than the effects of changes in NEER and REER.

[6] The NEER provides a weighted average of a country's nominal bilateral exchange rates, indexed on a chosen base year; The REER corrects the NEER for relative price developments.

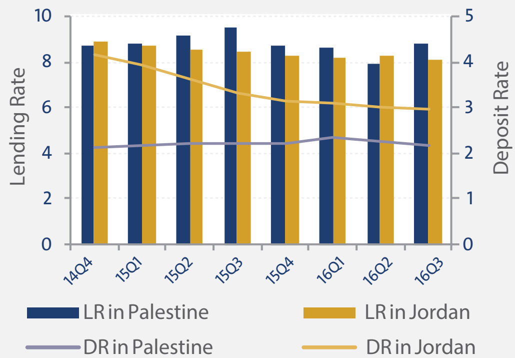
[7] NIS is the currency used in the calculation of the CPI and thus NEER and REER.

II. Recent Financial Developments

Interest Rates

Lending and deposit rates in Palestine frequently move over time according to changes in the monetary policies in the issuing countries of the currencies circulated in Palestine and also to the level of cash in the banks operating in Palestine. However, tracking these movements during the previous quarters reveals that lending rates on the three currencies circulating in Palestine are higher than their counterparts in the countries of origin. On the other hand, the deposit rate on the NIS is higher than its counterpart in Israel, but is consistently lower for the JD in Palestine compared to its counterpart in Jordan.

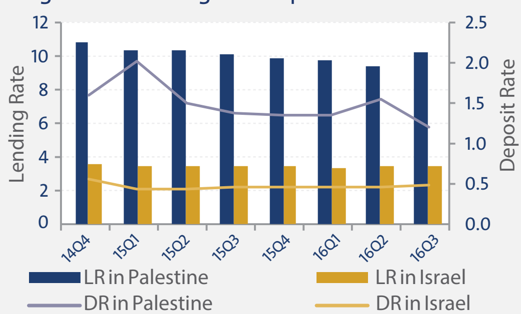
Figure 11: Lending and deposit rates of JD



Source: PMA and IFS.

Average lending and deposit rates have witnessed various developments during the third quarter of 2016. The average lending rate on the three currencies (JD, NIS and USD) increased compared to the previous quarter. On the other hand, the average deposit rates on the aforementioned currencies have all declined.

Figure 12: Lending and deposit rates of the NIS

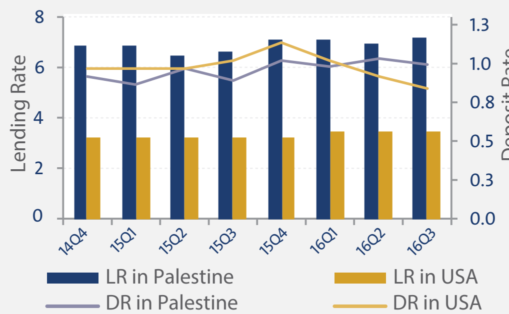


Source: PMA and IFS.

After declining to its lowest level in 3 years, the lending rate on the JD in Palestine resumed increasing during 2016Q3, reaching average of 8.8 percent, compared to 7.98 percent in the previous quarter. At the same time, the rate declined in Jordan by 14 basis points, scoring 8.09 percent. It is worth noting that the JD is the least circulated currency in the Palestinian market and is rarely used in daily transactions. Credit share in this currency is also the lowest, at about 14.0 percent of net credit at end of 2016Q3.

Similarly, the average lending rate on the NIS in Palestine has picked up, increasing by 75 basis points to its highest in a year (10.2 percent). However, it remained well below the rates registered in previous years, as the Bank of Israel maintained the unprecedented low interest rate (0.1 percent). At the same time, the average lending rate on NIS marginally increased in Israel by 1 basis point, reaching 3.41 percent. It is worth mentioning that the lending rate on the NIS in Palestine is invariably the highest compared to those on the other two currencies. This could be mainly attributed to the intensive use of the NIS in daily transactions and hence then increased demand for the NIS, and also to the high cost of delivering the currency to Palestinian banks. Moreover, this currency's share in extended credit is also high, at about 37.0 percent of net credit at the end of 2016Q3.

Figure 13: Lending and deposit rates of the USD



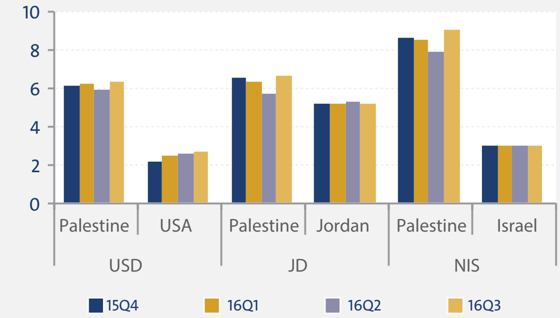
Source: PMA and IFS.

Likewise, the average USD lending rate in Palestine increased, by 30 basis points, to reach 7.25 percent. At the same time, the rate in the U.S. stabilized at 3.5 percent. It is worth mentioning that the lending rate in the U.S. previously stabilized at 3.25 percent for 6 years, as the Fed maintained the official interest rate at low levels, until it slightly raised it for the first time at end of 2015, then recently at the end of 2016, which led to raising the lending rate to the current level.

Movements in average deposit rates on the currencies circulating in Palestine have all declined during the third quarter, albeit at varying degrees. The rate on the NIS fell by 36 basis points to 1.2 percent, while it marginally increased in Israel by 2 basis points to 0.48 percent. Meanwhile, the decline in the rate on the JD and the USD in Palestine was slight, amounted to 8 and 4 basis points, respectively, reaching 2.17 and 1.0 percent. This was concurrent with slight declines in the issuing countries; it fell by 3 basis points on the JD in Jordan (to 2.98 percent); and drooped by 7 basis points in the USD in the U.S. [8] (to 0.85 percent).

Deposit rates are determined by several factors, including banks' liquidity and competitiveness, and most importantly, monetary policy. The low official interest rate in Israel and Jordan (expansionary monetary policy) led to lower deposit rate in those countries, and hence affected the rate in Palestine.

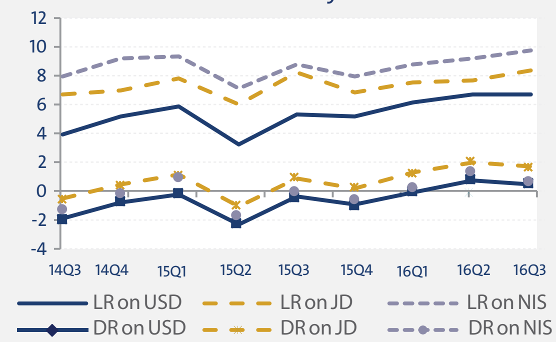
Figure 14: Margins between lending and deposit rates in Palestine compared with issuing countries



Source: PMA and IFS.

Consequently, the margins between the average lending and deposit rates remain remarkably higher in Palestine than in the issuing countries, and increasing further in the 2016Q3 (see Figure 14). As a result, the margin on the USD in Palestine increased to 2.4 times that in the U.S, while it increased on JD to 1.3 times that in Jordan. In comparison, the margin on the NIS remained the highest; around 3.1 times the margin in Israel.

Figure 15: Real lending and deposit rates in Palestine by currency.



Source: PMA and PCBS.

The real interest rates[9] in Palestine didn't deviate much from the nominal rates in 2016Q3, in light of minor inflation (0.04 percent) during the quarter. Nonetheless, data indicates lower real deposit rates this quarter compared to the previous quarter, declining to 0.96 percent on the USD, 2.1 percent on the JD, and 1.2 percent on the NIS. This fall implies that the real value or the purchasing power of deposits in these currencies has declined.

[8] Interest rates on government securities and government bonds in the short-term were used as a proxy for the deposit rate in the US.
[9] Fisher's equation: (1+nominal interest rate) = (1+real interest rate) * (1+ expected inflation rate).

At the same time, the average real lending rates increased compared to the previous quarter to 7.2 percent, 8.8 percent and 10.2 percent on the USD, JD and the NIS, respectively, implying that the real value of banks' credit has increased during the quarter (Figure 15).

Stock market

The performance of Palestine Stock Exchange "PEX" relatively stabilized during most of 2016Q4 in the absence of significant events warranting unusual market activity. Al-Quds index ended the quarter with a growth of only 2.2 percent from the previous closing, while remained below its level at the end of last year (by 4.8 percent), achieving 530.2 points (Table 3).

Table 3: Palestine stock exchange index (Al-Quds index)

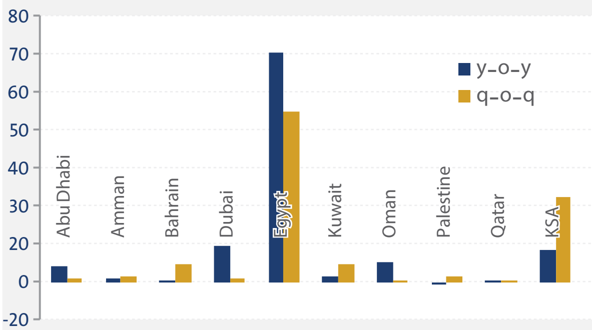
	2015	2016			
	Q4	Q1	Q2	Q3	Q4
Banking	143.6	136.1	132.4	136.7	144.4
Industry	69.9	70.6	72.2	75.3	78.2
Insurance	49.1	54.8	60.1	62.4	67.1
Investment	24.0	23.8	25.2	26.1	26.3
Service	48.4	45.4	44.4	45.3	45.0
Al-Quds	**532.7**	**506.3**	**503.8**	**518.6**	**530.2**

Source: www.pex.ps

This comes amid varied trends of sectoral indices, as the indices of insurance, banking, industry and investment grew from the previous quarter by 7.5 percent, 5.6 percent, 3.8 percent and 1.0 percent, respectively. Meanwhile, the services index declined by 0.7 percent.

Conversely, the Gulf stock markets recorded gains

Figure 16: Stock markets performance, some selected Arab markets during 2016Q4



Source: http://www.gulfbase.com, http://www.ase.com.jo and http://www.egx.com.eg.

during the same quarter in light of OPEC decision to cut supply, which led to notably higher oil prices. As a result, stock markets rebounded, closing with higher levels compared to the previous and the corresponding periods (Figure 16). Saudi Arabia headed the list of revived markets with a 28.2 percent q-o-q jump in its general index, followed by improvement in indices of Kuwait and Bahrain stock exchanges by 6.5 percent and 6.1 percent, respectively. Besides that, the indices of the remaining Gulf's financial markets have grown, except for the stabilized index of Qatar's stock exchange.

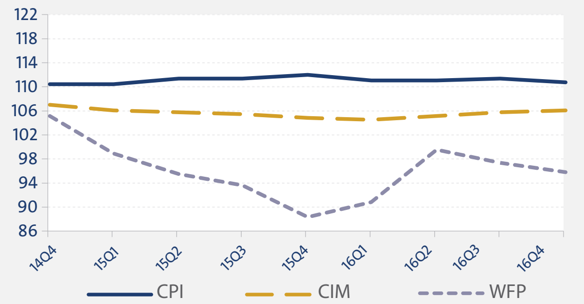
Regionally, Amman Stock Exchange index grew by 2.3 percent q-o-q and 1.6 percent y-o-y. At the same time, the Egyptian Exchange exceptionally rebounded owing to the IMF deal granting Egypt a three-year USD 12 billion extended fund facility. Accordingly, its index jumped by 56.6 percent and 76.2 percent from the previous and the corresponding periods, respectively. However, the Egyptian exchange remains susceptible to considerable fluctuations given successive economic developments.

III. Model Based Inflation Forecast

Inflation model and estimation technique

Analysis shows that the CPI in Palestine is co-integrated with (i) the CIM, which is a weighted average cost of imports, expressed in NIS, and calculated regularly by the PMA, and (ii) the world food price index. The importance of WFP reflects the large weight food occupies in the CPI basket in Palestine[10].

Figure 17: CPI, CIM, and WFP



Source: http://www.ase.com.jo, http://www.egx.com.eg.

Considering this relationship and the CPI, the question arises as to how this long-run relationship is best estimated, and how to model the short-term dynamics that explain how fast shocks to the relationship are corrected over time in order to bring the CPI back to its long-run equilibrium value.

[10] For more details about inflation determinants in Palestine, see Palestine Monetary Authority (PMA), 2011. Inflation Report, April 2010.

In this respect, long and short-run relationships are estimated using three different approaches. The first is the Johansen's (1991, 1995) system-based reduced rank approach. The second is the ARDL test which is based on Pesaran, Shin (1999) and Pesaran, Shin, Smith (2001). The third is the semi-parametric Fully Modified OLS (FMOLS) approach of Phillips and Hansen (1990).

Baseline inflation forecast

The objective of this section is to use the basic inflation model to generate a quantitative CPI outlook for the following years on a quarterly basis, i.e. for the period 2017Q1-2018Q4. To that end, a baseline scenario for the exogenous variables, CIM and WFP, is needed. The CIM is basically the denominator of the REER index calculated by the PMA. The baseline scenario for the CIM was derived from the VECM. Thus, CIM is calculated to increase by 1.4 percent in 2017, and to increase by around 1.2 percent in 2018.

The most recent IMF forecasts indicate that the world food prices will increase in 2017 but will fall in 2018. Accordingly, we calculate that the world food prices will rise by around 1.7 percent in 2017, and will slightly decline by 0.1 percent in 2018.

Inflation will be forecasted according to the above-mentioned three estimation techniques[11], combined with the common baseline growth rates for the CIM, and the WFP, as explained in Table (4).

As is well known, the use of econometrically estimated models to forecast future inflation is subject to model and coefficient uncertainty. To reduce this uncertainty, we will take the simple average of the three models. Accordingly the average annual inflation forecast for 2017Q1 will be 0.9 percent, and we expect inflation to increase gradually in upcoming quarters, ending the year 2016 as a whole by 1.3 percent inflation (Table 4).

[11] VECM, ARDL, and the FMOLS.

Table 4: Inflation outlook of the three models

	Assumptions		Inflation Forecasts			
	CIM	WFP	VECM	ARDL	FMOLS	Aveg.
2016*	**-0.12**	**1.93**	**-0.22**	**-0.22**	**-0.22**	**-0.22**
17Q1	1.89	7.36	0.88	0.90	0.88	0.89
17Q2	1.40	-1.91	1.14	0.79	0.76	0.90
17Q3	1.40	0.23	1.30	1.15	1.12	1.19
17Q4	1.03	1.47	2.00	2.22	2.18	2.13
2017	**1.43**	**1.67**	**1.33**	**1.26**	**1.23**	**1.28**
18Q1	1.13	-0.16	1.37	1.63	1.61	1.53
18Q2	1.20	-0.14	1.15	1.22	1.20	1.19
18Q3	1.24	-0.06	1.02	0.84	0.81	0.89
18Q4	1.28	0.00	1.05	0.85	0.83	0.91
2018	**1.21**	**-0.09**	**1.14**	**1.13**	**1.11**	**1.13**

* Actual data.

IV. The Balance of Inflation Risk

Apart from the abovementioned risks of model uncertainty, the CPI outlook also crucially depends on the assumptions regarding the course of the model's exogenous variable's forecasts; these exclusively refer to external conditions reflecting foreign inflation trends, NIS bilateral exchange rates, and world market food prices.

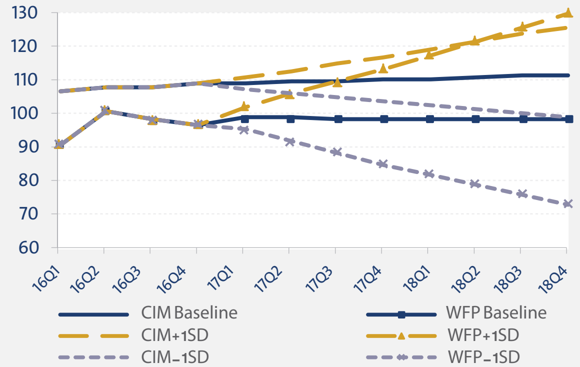
We evaluate the risks for the CPI outlook stemming from potential shocks to these external conditions by setting up four alternative scenarios, resulting from all possible combinations of positive and negative one-standard deviation shocks in the baseline growth rates of CIM and WFP.

These results demonstrate that taking a one-Standard Deviation (1SD) shock may not fully reflect the implied risk. Because of the existence of excess kurtosis[12], the probability distributions are leptokurtic, implying that the occurrence of extreme shocks has a probability that is higher than one would expect on the basis of a normal distribution (see Figure 18).

[12] Kurtosis measures the peakedness or flatness of the distribution of the series.

The results of these scenarios are displayed in Table (5). They indicate that, given the assumptions, the average inflation forecasts during 2017 would range between -0.4 percent and 3.0 percent, with 1.3 percent as the central baseline outlook. In 2018, the average inflation forecasts are expected to range between -2.7 percent and 5.1 percent, with 1.1 percent as the central baseline outlook.

Figure 18: Scenario assumptions for CIM and WFP



Source: PCBS, PMA, and IFS.

Table 5: Baseline and risk analysis of the CPI in Palestine for 2017 and 2018

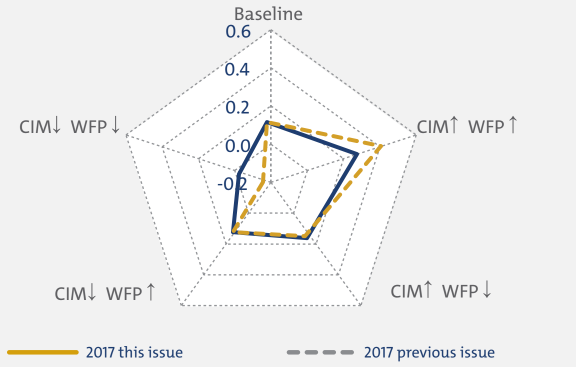
(Percentage point)

Scenario	Shock	Implied annual growth rate CIM		Implied annual growth rate WFP		Implied inflation forecast	
		2017	2018	2017	2018	2017	2018
1	Baseline	1.43	1.21	1.67	-0.09	1.28	1.13
2	+1SD CIM +1SD WFP	4.86	6.72	9.83	13.03	2.96	5.05
3	+1SD CIM -1SD WFP	4.86	6.72	-5.99	-12.03	1.54	1.32
4	-1SD CIM +1SD WFP	-1.91	-4.08	9.83	13.03	1.14	0.92
5	-1SD CIM -1SD WFP	-1.91	-4.08	-5.99	-12.03	-0.4	-2.71

* Actual data.

Figure (19) shows the current risk analysis of inflation in Palestine during 2017 compared with the risk analysis for the same year predicted in the previous report. The figure indicates that both the previous report and this report expect the same inflation for 2017 based on baseline scenario (1.3 percent). It also indicates that scenarios 3 and 4 give results close to the baseline forecast; but scenarios 2 and 5 involve upside and downside outliers, respectively. The figure reveals that the risk declined compared with the risk predicted in the previous issue.

Figure 19: Web chart of the balance of Palestine's inflation risk



The upside risk to the inflation forecast is clearly related to a higher expected risk in world food prices, combined with a higher inflation in Palestine's main trading partners, compared to what is assumed in the baseline. Conversely, inflation in Palestine may turn out to be considerably lower than predicted in the baseline, in case world food prices, together with inflation in the main trading partners, turn out to be lower than expected.

Apart from model uncertainty and uncertainty related to external conditions, the inflation outlook for Palestine also hinges on potential specific shocks that may perturb the economic and political conditions in Palestine independently of shocks occurring in the rest of the world. An example of such shocks was the Israeli withholding of clearance revenues during 2015Q1, resulting in delays and/or disruptions in payment of government employees' salaries, which depresses demand and causes a fall in prices.

Figure (20) shows the fan chart of the balance of Palestine's inflation risk during 2017Q1–2018Q4. The chart contains the quarterly profile of the baseline inflation forecast mentioned above based on the inflation volatility observed during the most recent years. It should be mentioned that the range of the potential outcomes is fairly broad, reflecting the uncertainty of the forecast which is the consequence of all risk factors mentioned above, including the country- specific ones. It should also be mentioned that the most likely outcomes for the predicted inflation are situated in the darkest shaded regions of the chart. The weaker the shading in the chart, the smaller the perceived probabilities of these potential outcomes.

Figure 20: Fan chart of the balance of Palestine inflation risk during 2017Q1 – 2018Q4