PALESTINE MONETARY AUTHORITY

Inflation Report

2016: Second Quarter

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Executive Summary

During 2016Q2, consumer prices in Palestine shrank slightly on annual basis resulting in a deflation of 0.2 percent, but remained relatively stable compared to the previous quarter. This decline came as a result of falling prices in the West Bank, and relatively stable prices in Gaza Strip. The main factor affecting consumer prices during 2016Q2 continued to be the pervious decline in global commodity prices, particularly for oil and food, which are considered key inflation determinants. However, inflation in Palestine was much lower than that registered in the MENA region in 2016Q2 but exceeded that in Jordan and Israel. In general, inflation in Palestine is largely imported and highly sensitive to world prices, particularly for food and fuel.

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 the consumer price index in Palestine.

Inflation forecasts show that consumer prices in Palestine are expected to increase by around 0.3 percent during 2016Q3 on 2015Q3, and by the same rate for 2016 as a whole, declining from the 1.4 percent rate for 2015. 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 food markets, as predicted by international organizations such as 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 takes into account four alternative scenarios based on 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 0.3 percent under the baseline scenario to an average of 0.6 percent during 2016. On the other hand, a negative one-standard deviation shock would bring consumer prices in Palestine down to a deflation of 0.04 percent.

Financial developments in Palestine indicate that the average lending rates on the JD and the NIS have declined in 2016Q1 compared to the previous quarter, while the rate on the USD has remained stable. On the other hand, average deposit rates on the USD and the NIS slightly declined, while the rate increased on the JD. The margin between lending and deposit rates 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, 6.3 percentage point on the JD, and 8.4 percentage points on the NIS.

The Palestinian stock exchange continued to decline during 2016Q2, particularly in April and May as investors kept on watch for listed companies' general assembly meetings decisions regarding dividends' distribution. As a result, the Palestinian stock index (Al-Quds Index) fell to 503.8 points, 0.5 percent below it at end of 2016Q1. This drop was driven mainly by the decline in banking and services sectors' price indices.

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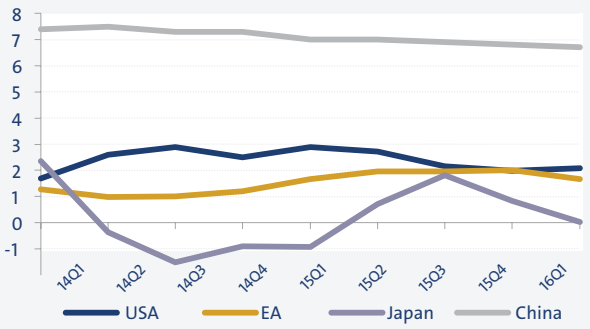
I. Recent Economic Developments

Real GDP

The global economy continued to show weak performance during 2016Q1 in light of poor global trade, sluggish industrial activity and weak investment. Countries continued their policies to stimulate growth and pull economies out of recession. Yet, its percussions on countries' groups were not the same. Growth in emerging and developing countries was somewhat better than expected, while it remained weak among advanced economies in line with previous projections. Moreover, oil prices started recovery since mid-February 2016, exerting various effects on financial markets of oil- importing and exporting countries. On a different note, the results of the UK referendum and the subsequent Brexit heightened market uncertainty and sparked speculations over the future of several EU struggling economies, with the most direct effects impinging on trading partners and economies with close economic ties with the UK. In light of the above, the International Monetary Fund (IMF) downgraded its growth expectations for the global economy[1] in 2016 and 2017 by 10 basis points for each, to 3.1 percent in 2016 (same rate achieved in 2015), and an expected growth of 3.4 percent in 2017.

A closer look at the world's major economies reveals a slight acceleration in activity in the U.S. market during the first quarter on account of better export levels. However, domestic demand and investment remained weak, and the unemployment level increased during the quarter. As a result, the economy accelerated by only 0.1 percentage points to 2.1 percent in 2016Q1. Accordingly, the IMF revised growth forecasts down by 20 basis points to 2.2 percent in 2016, but maintained 2017 forecasts at 2.5 percent.

Figure 1: Real growth rates in some main economies



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

[1] International Monetary Fund, World Economic Outlook update, July, 2016. Previous estimates were published in April, 2016.

Meanwhile in the Euro area, the revised growth figure fell behind the preliminary estimates, reflecting a slowdown to 1.7 percent in 2016Q1, compared with 2.0 percent in the previous quarter. However, observers noticed progress during the first quarter as private demand and investment performance improved compared to previous years. Such developments led the IMF to raise the forecast for EA's 2016 growth by 10 basis points to 1.6 percent, and lower the 2017 growth forecast to 1.4 percent. Nevertheless, those figures fell below the growth achieved in 2015, reflecting slow recovery.

In Japan, government efforts to spur growth failed to stop both a slowdown to 0.02 percent in 2016Q1, compared to 0.8 percent in the previous quarter, and a further decline in inflation rate. Those developments led government to postpone an April 2017 consumption tax hike to October 2019. Thus, the Japanese economy was set to face additional challenges arising mainly from an appreciating Yen during the quarter. As such, the IMF downgraded the 2016 growth forecast by 20 basis points to 0.3 percent, and lowered the expected growth to 0.1 percent in 2017.

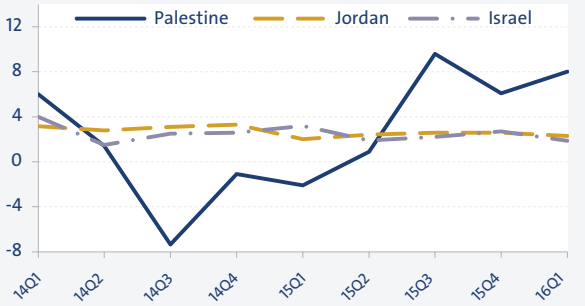
In the meantime, activity continued to slowdown in China, falling by 10 basis points to 6.7 percent, still in the target range of 6.5- 6.7 percent. On a positive note, the Chinese economy was expected to improve in light of expansionary fiscal and monetary policies. Accordingly, the IMF upgraded the 2016 forecast by 1 basis point to 6.6 percent, but expected a further slowdown to 6.2 percent in 2017. These rates were the lowest in more than 25 years.

Similarly, the 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. As a result, the IMF expected the MENA region to grow by no more than 2.9 percent in 2016, reflecting a lack of stability and negative spillovers of sliding oil prices on exporting countries. However, growth is expected to accelerate to 3.5 percent in 2017, according to the latest updates.

Regionally, growth in Israel notably slowed down during 2016Q1, falling to 1.9 percent compared to 2.7 percent in the previous quarter. During the quarter, exports significantly declined, but both private spending and investment improved. However, the most recent figures revised by the IMF in last April indicate a growth of 2.8 percent in 2016, and to accelerating to 3.0 percent in 2017.

Similarly, activity in Jordan decelerated to 2.3 percent, compared to 2.6 percent in the previous quarter due to a major slowdown in manufacturing, and weakening transportation and storage activities. IMF latest forecasts for the Jordanian economy indicate that GDP will grow by 3.2 percent in 2016, and by 3.7 percent in 2017.

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



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

Domestically, real GDP growth during 2016Q1 recovered to 8.0 percent, compared to 6.1 percent in the previous quarter. In particular, it increased from 1.0 percent to 4.2 percent in the West Bank, and maintained its post-war high levels in Gaza Strip, growing by 21.1 percent in 2016Q1, compared to 24.7 percent in 2015Q4.

In general, most economic activities grew on annual basis, particularly construction which picked up remarkably (by 44.3 percent), mainly due to the reconstruction process in Gaza and moderate growth in the West Bank. Besides, finance and insurance, services, manufacturing, and communications activities all grew in the two regions, with rates of 11.7, 9.3, 6.9 and 2.9 percent, respectively. Transportation and storage grew also, rising by 6.1 percent, despite its contraction in GS. In contrast, trade activity declined during the quarter by 2.1 percent.

Aggregate demand

Palestine's Gross Domestic Product grew during 2016Q1, reaching USD 2,000.5 million in 2004 prices, an increase by 8.0 percent on 2015Q1, and by 0.6 percent on the previous quarter. Also consumption (both private and public) and investment have also both expanded during the quarter.

Private consumption[2] has grown in the WB, rising by 8.4 percent from its level in 2015Q2, while public consumption declined by 4.5 percent. Investment has expanded during the same period, increasing by 3.6 percent over 2015Q2. On the other hand, trade indicators weakened, as exports declined by 5.2 percent, while imports grew by 2.6 percent. This

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

widened the trade deficit to USD 595.1 million (in 2004 prices), equivalent to 39.9 percent of WB's GDP.

In GS, private consumption remained weak and below the pre-war level, despite its slight increase by 1.0 percent on annual basis. Tarde indicators have also strengthened this quarter, as exports picked up by 9.0 percent, while imports declined by 2.4 percent, narrowing the trade deficit to USD 141.3 million. Moreover, public consumption's extensive growth (by 7.5 percent) overcompensated for the weakening private consumption. Simultaneously, overall investment increased to USD 26.3 million on account of an improvement in building investment.

It is worth to note that investment in GS remained below the level achieved in the previous quarter, in which construction activity soared with the recovering inflow of building materials into Gaza; such inflow usually fluctuates with Israeli-imposed restrictions on trade movement across border crossing.

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

(USD million)

	2015				2016
	Q1	Q2	Q3	Q4	Q1
Private consumption	1,703.0	1,746.3	1,665.7	1,776.2	1,814.9
Government expenditure	473.7	535.6	524.6	556.5	474.4
Investment	339.5	457.6	386.2	491.5	429.7
Exports	398.6	456.7	387.5	418.1	379.6
Imports	1,096.3	1,206.8	1,262.1	1,236.7	1,116.5
GDP[3]	**1,852.0**	**1,959.3**	**1,921.9**	**1,988.5**	**2,000.5**

Source: PCBS.

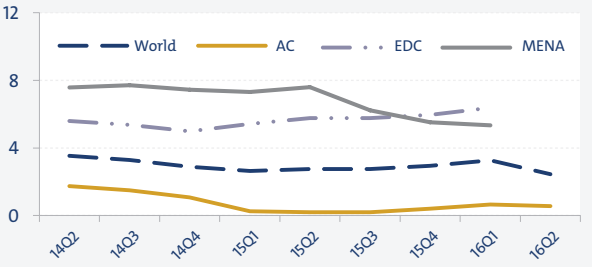
Inflation

Inflation rates witnessed a further decline during 2016Q2 in both advanced, and developing and emerging countries, causing global inflation to drop from 3.3 percent to 2.5 percent (see figure 3). Advanced economies suffered from very low inflation rates (way below targeted levels), reflecting weak economic activity, particularly sluggish private demand. These conditions along with the consequences of pervious commodity prices declines persisted during 2016Q2, pushing inflation further down to 1.05 percent. In the

[3] The difference between the sum of former items and the GDP is the net errors and omissions.

U.S., for example, inflation declined slightly (3 basis points), and remained below the target level. Moreover, prices in both Japan and the Euro Area shrank, causing a deflation of 0.3 percent and 0.1 percent, respectively. In sum, inflation in advanced economies declined by 10 basis points to about 0.6 percent during 2016Q2.

Figure 3: Inflation rates in World regions

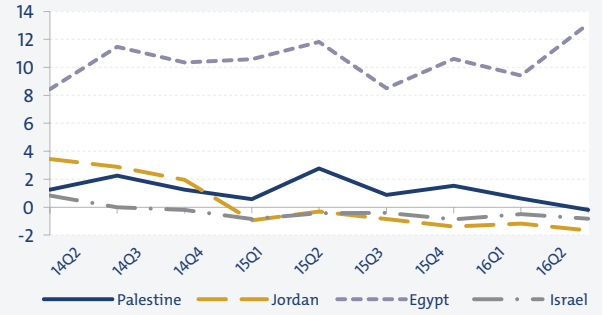


Sources: IFS and PCBS.

However, inflation in emerging and developing countries exceeded that in the advanced ones. Although data for the first group were not available for 2016Q2 as a whole, data on April and May indicated a slight slowdown in inflation to 4.9 percent. Moreover, preliminary indicators revealed a decline in inflation in main economies, particularly in China where inflation decreased to 2.1 percent. It is worth mentioning that the emerging and developing countries have experienced persistent price hikes during the past few years, as inflation reached its peak in 2011, before it started to decline afterwards. Prices in the MENA region countries (heavily dependent on imports) experienced a notable downward trend during previous quarters, reaching their lowest levels in more than a decade, affected mainly by declines in commodity prices. As a result, inflation reached around 5.1 at the end of April, as the most recent data indicate.

Likewise, consumer prices in Palestine and neighboring countries shrank during 2016Q2. As figure (4) indicates, the movement of the inflation rate in Palestine during the quarter consisted with that in Israel and Jordan, but contradicted that in Egypt. Inflation continued to decline in Palestine, falling from 0.6

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



Sources: IFS and PCBS.

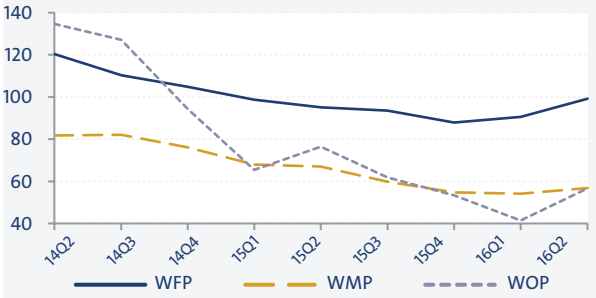
percent in 2016Q1 to a negative value of 0.2 percent (deflation) in 2016Q2. This followed from a price decline in the WB, along with relative price stability in GS.

Similarly, Jordan and Israel continued to experience a deflation due to a continuous drop in imported commodity prices. Moreover, during this quarter deflation deepened in both countries, to 1.6 and 0.8 percent compared to a deflation of 1.2 and 0.5 percent in the previous quarter, respectively. Conversely, inflation in Egypt stayed on an upward trend. Though the final inflation figure during 2016Q2 is not available yet, preliminary data indicate inflation close to 13 percent, up from 10.6 percent in the previous quarter.

Global and local prices

This section deals mainly with developments in local and global markets, commodity prices, the most important determinant of inflation trends. Commodity prices experienced a downward trend since the second half of 2014, but this trend was reversed since 2016Q2, when prices picked up at varying rates (see figure 5). World oil price (WOP), for example, which had declined to its lowest level ever subsequent to the financial crisis, resumed its sharp increase during April-June months, rising by 36.7 percent, touching USD 44.8 per barrel. This sharp jump was attributed to the lack of supply from non-OPEC countries, along with a fluctuating supply from some countries such as Nigeria and Canada. Nonetheless, the price of oil by mid-2016 remained below its corresponding level in 2015 by more than a quarter.

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



Source: IFS.

Likewise, world metal prices (WMP) increased during 2016Q2 due to better demand from China, which consumes roughly half of global metals production. As a result, WMP grew by 5.1 percent on the previous quarter but remained below its level in 2015Q2 by 15.1 percent. Also, world food prices (WFP) picked up in light of increases in most food items' prices, particularly cereal, diary, meat, and sugar. Thus, the WFP grew by 9.5 and 4.3 percent compared to the previous and corresponding quarters of 2015, respectively.

Meanwhile, local prices witnessed only slight developments during 2016Q2, particularly when comparing to the previous quarter. In general, prices' trends are not consistent

between the WB and GS depending on variant price determinants; however, these differences narrowed down this quarter.

In the WB, where prices are highly sensitive to global levels, consumer prices in 2016Q2 declined by 0.9 percent on annual basis, and by 0.8 percent when comparing to the previous quarter. Looking at price categories, food prices declined by 3.0 percent on annual basis lagged previous declines in the WFP. Likewise, housing services' prices continued their downward trend that began two years ago, partially affected by the pervious decline in oil prices, in addition to the oversupply of housing units. As a result, the housing services price index declined by 4.3 percent on annual basis. Likewise, the communications price index declined marginally (1.6 percent) in light of the strategy the Ministry of Telecommunications adopted to lower prices. Also prices of cultural and miscellaneous goods fell marginally, by 0.2 and 0.3 percent, respectively.

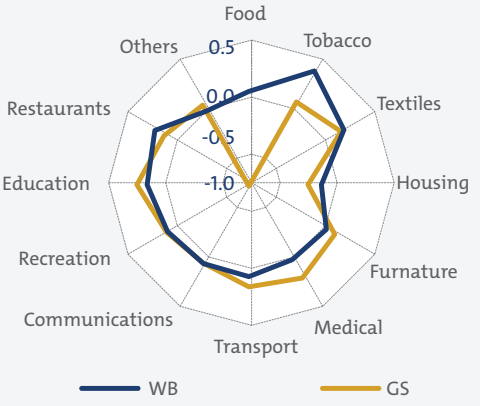
In contrast, in 2016Q2 the education price index increased by 4.4 percent due to a gradual rise in tuition fees, while the medical care and textile indices increased by 2.8 and 2.0 percent, respectively. However, the corresponding growth in prices of the remaining categories of alcohol and tobacco, furniture, transport, and restaurants and cafés services remained marginal, none of which exceeded 2.0 percent.

Meanwhile in GS, consumer prices witnessed a slight increase by 0.1 percent on annual basis and 0.8 percent on quarterly basis. Regarding price categories, the conflicting price trends were clearer. On one side, alcohol and tobacco grew notably (12.2 percent) in 2016Q2 in light of weak control over tobacco traders, and the continued adverse price effect of the Israeli blockade on GS. Other price indices also grew, by 8.6 percent in restaurants and cafés services, and by 2.6 and 1.9 percent in the textiles and education services indices, respectively.

In contrast, housing services prices continued to decline from high levels during the Israeli war in 2014. Despite the flow of building raw materials entering the Strip remained irregular, the house supply increased, pushing house rents down. As a result, housing prices declined by 2.9 percent on 2016Q2, but remained relatively stable compared to the previous quarter. Besides, the medical services index declined by 3.1 percent, and the communications price index dropped by the same rate (1.6 percent) as in the WB affected by subsequent to a national strategy to lower communications prices. Prices for the remaining commodity categories (furniture, cultural goods and transportation) have all decreased marginally (by less than 1 percent).

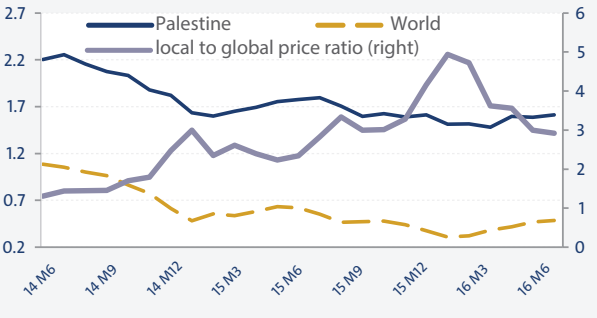
Overall, the decline in food prices contributed negatively (by -1.0 percentage point) to inflation in the WB during 2016Q2, (see figure 6). On the other hand, the two factors which affected (in opposite directions) the GS inflation rate most were alcohol and tobacco prices which contributed 0.38 percentage points, and housing prices which contributed by -0.24 percentage point.

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



Regardless of different price determinants in the WB and GS, commodity prices in Palestine hit much higher levels than in the world market, especially because the pervious declines in global prices were not reflected completely in local prices. However during 2016Q2, local prices didn't reflect fully or instantaneously the increase in global prices, resulting in narrowing the prices gap overtime. For example, the global gasoline price jumped by 11.0 percent from the previous level, while the increase in local prices didn't exceed 1.8 percent. Moreover, both local and global prices remained less than in the corresponding periods in the previous year. Consequently, the gasoline price in Palestine in 2016Q2 has become 3.6 times its level in the global market, compared to around 4.6 times the price in the previous quarter (see figure 7).

Figure 7: Gasoline prices in USD per liter



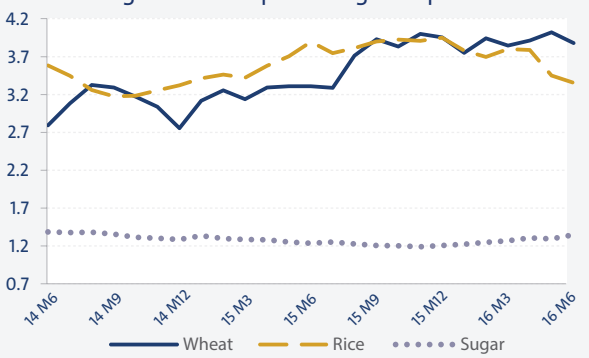
Source: PCBS and IFS.

It is noteworthy that the USD exchange rate against the NIS declined during 2016Q2, which partially contained the increase in local prices, and narrowed the price gap further. But in general, the USD exchange rate against the NIS remained at a high level, limiting the

possible benefits for local consumers. During 2016Q2, a liter of gasoline was about USD 1.5 (around NIS 5.8) in the local market, compared with USD 0.4 in the global market.

As is the case in fuel prices, other commodity prices like those for wheat, rice, and sugar stayed much higher locally than in world markets. During 2016Q2, price movements of the three-abovementioned commodities were limited both globally and locally, but led to a slight decline in the price gap for rice and wheat (see figure 8), although the gap remained considerably wide. Both rice and wheat prices in the local market were 3.9 and 3.7 times their price in global markets, while local prices of sugar became around 1.3 times global prices. Several factors stood behind these discrepancies, including: taxes imposed on imported products, the high cost of transportation and storage, and oligopolistic pricing.

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 sensitive to global trends but are still much higher than world prices due to their unduly high production cost.

As is the case in imports, non-imported commodities witnessed slight movements during 2016Q2, but were downward trended. Consequently, the price gap remained stable and wide. For instance, fresh chicken meat prices were around 1.5 times the world price, while beef meat prices were around 3.7 times world prices. Table (2) shows price developments for some selected commodities (imported and non-imported) in the local market during the current and previous quarters.

Table 2: Prices of selected commodities in Palestine NIS per unit [4]

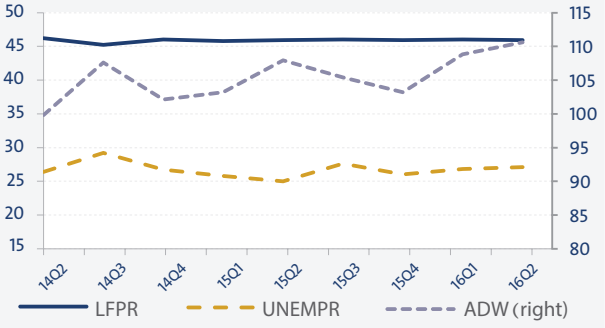
	2015			2016	
	Q2	Q3	Q4	Q1	Q2
Rice	137.3	136.7	135.9	134.6	134.3
Wheat	150.3	148.8	147.9	146.2	143.0
Bread	3.9	3.8	3.8	3.7	3.7
Beef meat	53.3	58.7	57.3	54.3	53.2
Chicken meat	16.9	17.2	14.9	15.2	13.7
Powder Milk (Nido)	96.3	96.4	95.7	95.9	95.9
Yogurt (local)	5.1	5.1	5.0	5.1	4.9
Chicken Eggs	15.8	13.9	14.2	13.0	11.3
Tomatoes	2.9	3.1	6.2	3.3	2.5
Sugar	135.6	132.8	128.1	126.7	130.9
Gas	63.7	57.1	56.6	57.4	57.2
Diesel	5.8	5.5	5.3	4.9	5.2
Gasoline 95	6.4	6.2	5.9	5.6	5.8

Source: PCBS

Labor force and wages

No significant changes were visible in labor market data during 2016Q2, as figure (9) illustrates. The participation rate[5] remained relatively stable for over a year in light of gradual, relatively small increases in new labor market entrants. As such, 2016Q2 participation rate hit 45.7 percent, a 10 basis points decline from the previous quarter.

Figure 9: Labor force main indicators in Palestine



Source: PCBS.

Similarly, the unemployment rate remained close to previous levels, rising slightly due to the limited number of new entrants into the WB's labor market, and the declining number of GS workers (5,000 less). As a result, the unemployment rate in the WB and GS rose only

[4] 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.

[5] The total number of persons aged 15 years and over in Palestine reached 2,918,000 in 2016Q2.

slightly (by 0.3 and 0.5 percentage points), to 18.3 percent and 41.7 percent, respectively. However, unemployment soared (hovering around 40 percent for over two years) in the GS, affected by the continued siege and the adverse fallout of the most recent war.

It is worth mentioning that the absorption by Israeli markets of large numbers of WB workers mitigated unemployment in the WB. Workers in Israel and the Settlements reached 114,000 during 2016Q2, or 20 percent of total WB laborers. However, the Israeli market has remained closed to GS workers for years. And although the Israeli authorities intermittently allowed for no more than 100 GS laborers to enter their labor 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 put much pressure on local wages to rise, but also relatively high wages spur demand for goods and services. However, since the majority of these are imported, domestic prices feuded to rise even further.

In 2016Q2, local wages in the WB and GS fell by 1.5 percent and 0.3 percent, respectively, nearly to their levels in the previous quarter. A worker's average daily wage in the WB amounted to NIS 98.3, compared with NIS 61.6 for workers in GS. In contrast, a worker's average daily wage in Israel and the Settlements continued its rapid multiplicative rise during this quarter, reaching NIS 222, or 2.3 times the wage in the WB.

Data indicate that wages of workers in Israel and the Settlements witnessed an average of 1.5 percent quarterly rise during the past five years, compared to a 0.7 percent rise in the WB. Workers in GS, on the other hand, have seen their wages diminish by 0.1 percent, on average, each quarter for the past five years.

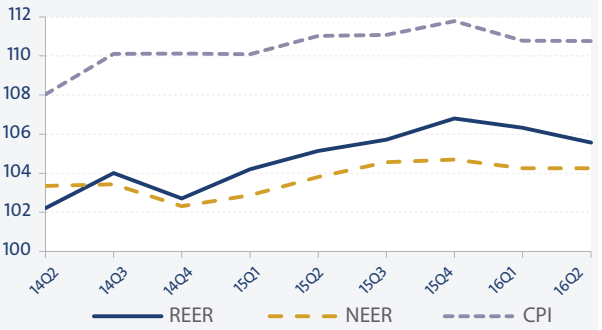
The reciprocal relation between prices and wages implies that when inflation exceeds the rise in the average nominal wage, the purchasing power of real wages decline, and vice versa. However, discrepancies in price trends were evident in WB and GS data during 2016Q2, leaving varying effects on wages in both regions. On a quarterly basis, a deflation of 0.8 percent in the WB mitigated the fall in nominal wages, and thus, average real wages in the WB declined by 0.7 percent during the comparison period. In contrast, prices in GS rose by 0.8 percent, further weighing down real wages, which declined by 1.1 percent. In both cases, workers paid in USD and JD saw a decline in wages owing to falling USD and JD exchange rates by 2.4 percent compared with the previous quarter, while workers in Israel

and the settlements reaped higher benefits than their WB and GS counterparts as they faced falling general price levels despite rising nominal wages, resulting in a net increase of 5.2 percent in their real wages.

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 0.4 percent during 2016Q2, compared with 2015Q2, which indicates that the NIS appreciated against Palestine trading partners' currencies. Likewise, the REER appreciated by the same rate (0.4 percent) during the comparison period, which means that Palestine lost 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.

[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.

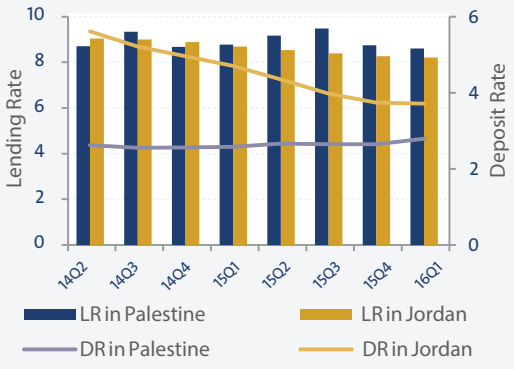
II. Recent Financial Developments

Interest Rates

Lending and deposit rates in Palestine frequently move over time according to changes in the monetary policy 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 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.

Average lending and deposit rates have witnessed various developments during the first quarter of 2016. The average lending rate on the JD and on the NIS declined, but remained stable for the USD. On the other hand, the average deposit rate on the USD and the NIS decreased slightly, while it increased notably on the JD during the quarter,

Figure 11: Lending and deposit rates of JD



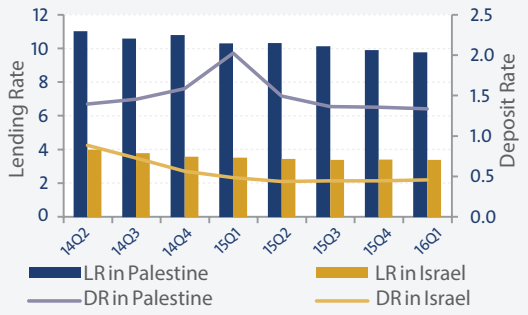
Source: PMA and IFS.

The average lending rate on the JD in Palestine continued to decline during 2016Q1, falling by 14 basis points to 8.61 percent on average concurrent with its decline in Jordan. The lending rate on JD in Jordan has been declining for the last two years, affected by sluggish economic performance. It dropped this quarter from 8.27 percent to 8.22 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, reaching 14.6 percent of net credit in the first half of 2016.

Similarly, the average lending rate on the NIS in Palestine has decreased further, reaching its lowest (9.79 percent), compared to the previous level of 9.92 percent. At the same time, it marginally declined in Israel, falling by 3 basis points to 3.4 percent, as the Bank

of Israel maintained the unprecedented low interest rate (0.1 percent). It is worth mentioning that the high lending rate on the NIS in Palestine is mainly due to the intensive use of the NIS in daily transactions, which increases demand for the NIS. This is evident given the fact that the NIS lending rate in Palestine is consistently the highest among circulating currencies.

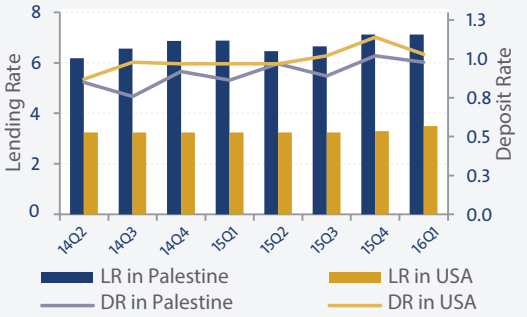
Figure 12: Lending and deposit rates of the NIS



Source: PMA and IFS.

Conversely, the average USD lending rate stabilized at its highest in two years (7.13 percent). At the same time, the lending rate on the USD in the U.S. continued to increase since 2015Q4, rising by 21 basis points to 3.5 percent on average. This change concurred with the changes of the official interest rate, which was raised by the Fed in December for the first time in years, in light of indications of rising economic recovery.

Figure 13: Lending and deposit rates of the USD



Source: PMA and IFS.

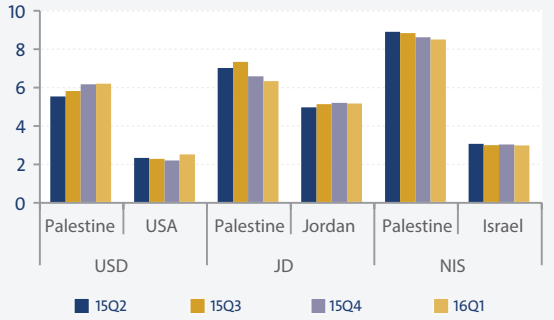
Movements in average deposit rates on the USD and the NIS circulating in Palestine were limited during 2016Q1; they marginally declined by 4 and 2 bases points, respectively, to 0.98 percent on the USD and 1.34 percent on the NIS. However, those trends in issuing countries were not similar; the deposit rate on the USD in the U.S[8] declined from 1.14 percent to 1.03 percent, while the rate on the NIS in Israel relatively stabilized, at 0.46 percent. Moreover, the deposit rate on the JD increased in Palestine from 2.21 percent to 2.33 percent, while it slightly declined in Jordan, falling by 2 basis points to 3.1 percent.

[8] Interest rates on government securities and government bonds in the short-term were used as a proxy for the deposit rate in the U.S.

Deposit rates are determined by several factors, including banks' liquidity, banks' competitiveness, and most importantly, monetary policy. In Palestine, the deposit rates on the NIS and the JD were on a downward trend in the issuing countries, which naturally affected local rates. Meanwhile, it is the opposite regarding the USD. Despite its slight decline locally and in the U.S. during 2016Q1, it is higher than the previous as a result of Fed's increasing its official interest rate, as we clarified earlier.

Consequently, the margins between the average lending and deposit rates remain remarkably higher in Palestine than in the issuing countries (see figure 14). During 2016Q1, the margin on the USD in Palestine amounted to 2.5 times that in the U.S, while the margin on JD amounted to 1.2 times that in Jordan. In comparison, the margin on the NIS remained the highest; almost three times the margin in Israel during the same quarter.

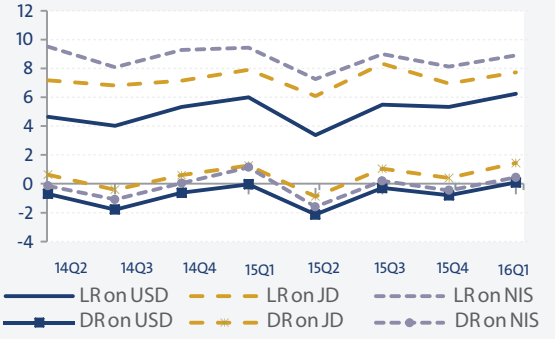
Figure 14: Margins between lending and deposit rates in Palestine compared with issuing countries



Source: PMA and IFS.

As for real interest rates[9], data indicate that real deposit rates in Palestine began to improve during 2016Q1, in light of the decline in inflation from 1.5 percent during 2015Q4 to 0.6 percent during 2016Q1. Accordingly, the average real deposit rate notably increased to 0.4 percent for the USD, 1.7 percent for the JD, and 0.7 percent for the NIS.

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



Source: PMA and PCBS.

[9] Fisher's equation: (1+nominal interest rate) = (1+real interest rate) * (1+ expected inflation rate).

At the same time, the decline in inflation rates in Palestine led to a pick-up in the average real lending rates to 6.5, 8.0 and 9.2 percent on the USD, JD and the NIS, respectively. Figure (15) illustrates recent developments in average real interest rates during 2016Q1, including:

- Average real deposit rates on the currencies circulating in Palestine have improved for the three currencies compared to previous quarter. This pick-up implies that the real value or the purchasing power of deposits in these currencies has increased.
- The average real lending rates increased for all currencies circulating in Palestine, implying that the real value of banks' credit has increased during the quarter.

Stock market

The indicators of the Palestinian stock market "Palestine Exchange" continued to worsen in 2016Q2, particularly in April and May. During these months, General Assembly meetings of listed companies were held, in which decisions regarding dividends' distribution are approved. Usually these months are characterized by conservative domination more than changing investment positions. Consequently, most trading indicators have declined. However, performance improved in June as many started to rebound in a correction, especially after achieving the equivalent prices following the dividends distribution. In sum, Al-Quds index declined in April and May below the threshold of 500 points, but resumed to improve in June. However, the whole quarter has ended with a drop by 0.5 percent, reaching 503.8 points (see table 3). In general, observers indicate a weaker performance during the second quarter each year due to drop in shares' prices of companies that distribute dividends. However, the indicator showed a very close performance compared to the corresponding quarter of last year.

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

	2015			2016	
	Q2	Q3	Q4	Q1	Q2
Banking	119.6	124.6	143.6	136.1	132.4
Industry	66.2	64.2	69.9	70.6	72.2
Insurance	44.6	45.3	49.1	54.8	60.1
Investment	22.8	22.2	24.0	23.8	25.2
Service	44.9	45.7	48.4	45.4	44.4
Al-Quds	**478.4**	**484.7**	**532.7**	**506.3**	**503.8**

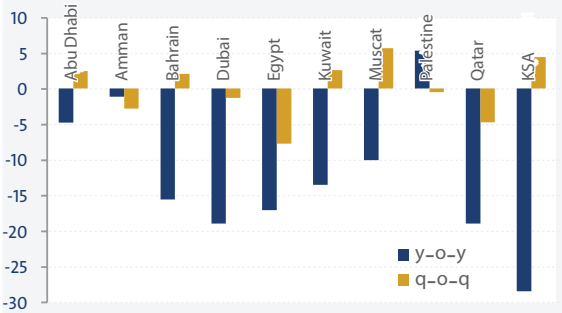
Source: www.pex.ps

Looking at the sectoral indices, banking index has declined by 2.7 percent despite the positive developments it experienced during the quarter like the merger of Palestine

Commercial Bank (PCB) and Bank of Palestine (BOP), and starting the Initial Public Offerings of Islamic Bank Al-Safa (IPO). Services index also declined by 2.3 percent, meanwhile insurance, investment and industry indices grew by 9.7, 6.1 and 2.2 percent, respectively.

Regarding some selected Arab countries' stock markets, the gulf markets managed to overcome the consequences of the very low oil prices since years, and many of them achieved gains during 2016Q2. The Saudi Arabia (KSA) stock market index, for example, closed in the green zone as most of its listed companies realized gains during the quarter. As a result, its index increased by 4.4 percent from the previous quarter. Also the Omani stock market index rose (by 5.7 percent). Moreover, stock markets indices of Kuwait, Abu Dhabi, Bahrain, have all increased (by 2.6, 2.4 and 2.1 percent, respectively). Nevertheless, both Dubai and Qatar stock markets failed to avoid losses, and their indices declined by 1.3 and 4.7 percent, respectively. Also, some non-gulf stock markets' indices incurred losses under sluggish economic conditions, particularly in Egypt and Jordan, which fell by 7.7 and 2.8 percent, respectively.

Figure 16: Stock markets performance, some selected Arab markets



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

It is noteworthy that all previous comparisons made on 2016Q2, meanwhile all former mentioned indices are still below the 2015Q2 level (see Figure 16). These declines on an annual basis are attributed to the adverse effects of dropping oil prices.

III. Model Based Inflation Forecast

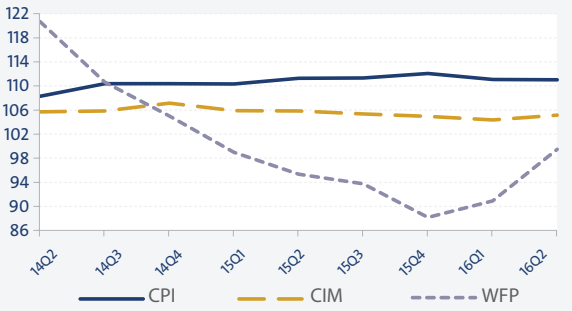
Inflation model and estimation technique

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].

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

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.

Figure 17: CPI, CIM, and WFP



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

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 2016Q3-2017Q4. 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 decline by 0.2 percent in 2016, and to increase by around 2.0 percent in 2017.

The most recent IMF forecasts indicate that food prices will increase in 2016 and, at a slower pace, in 2017. Accordingly, we calculate that the world food prices will rise by around 3.5 percent in 2016 and 2.3 percent in 2017.

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

[11] VECM, ARDL, and the FMOLS.

for 2016Q3 will be 0.3 percent, and we expect the same inflation rate in 2016 as a whole (0.3 percent). However, we expect inflation to increase in 2017 to 1.1 percent on average (see table 4).

Table 4: Inflation outlook of the three models

	Assumptions		Inflation Forecasts			
	CIM	WFP	VECM	ARDL	FMOLS	Aveg.
16Q1*	-1.37	-8.20	0.64	0.64	0.64	0.64
16Q2*	-0.65	4.32	-0.24	-0.24	-0.24	-0.24
16Q3	0.75	6.37	0.33	0.34	0.17	0.28
16Q4	2.21	12.87	0.09	0.70	0.37	0.39
2016	**0.23**	**3.54**	**0.20**	**0.36**	**0.23**	**0.26**
17Q1	1.76	9.70	1.29	1.34	1.43	1.35
17Q2	2.00	0.24	1.17	1.05	1.05	1.09
17Q3	2.18	-0.01	0.94	0.99	0.83	0.92
17Q4	2.15	-0.17	1.21	1.10	0.91	1.07
2017	**2.02**	**2.28**	**1.15**	**1.12**	**1.05**	**1.11**

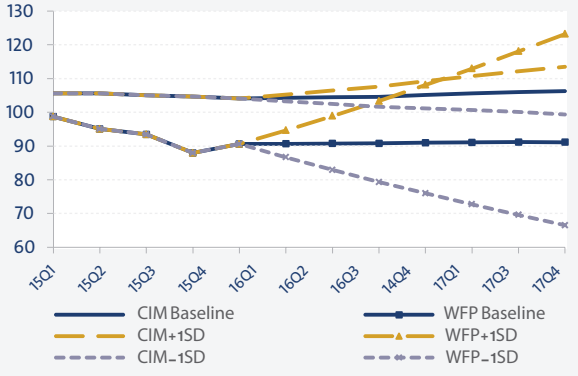
* Actual data.

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.

Figure 18: Scenario assumptions for CIM and WFP



Source: PCBS, PMA, and IFS.

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).

The results of these scenarios are displayed in table (5). They indicate that, given the assumptions, the average inflation forecasts during 2016 would range between -0.04 percent and 0.6 percent, with 0.3 percent as the central baseline outlook. In 2017, the average inflation forecasts are expected to range between -1.1 percent and 3.3 percent, with 1.1 percent as the central baseline outlook.

Table 5: Baseline and risk analysis of the CPI in Palestine for 2015 and 2016

(Percentage point)

Scenario	Shock	Implied annual growth rate CIM		Implied annual growth rate WFP		Implied inflation forecast	
		2016	2017	2016	2017	2016	2017
1	Baseline	0.23	2.02	3.54	2.28	0.26	1.11
2	+1SD CIM +1SD WFP	0.94	5.69	7.11	20.30	0.57	3.34
3	+1SD CIM -1SD WFP	0.94	5.69	0.08	-13.59	0.39	1.68
4	-1SD CIM +1SD WFP	-0.48	-1.54	7.11	20.30	0.14	0.50
5	-1SD CIM -1SD WFP	-0.48	-1.54	0.08	-13.59	-0.04	-1.11

* Actual data.

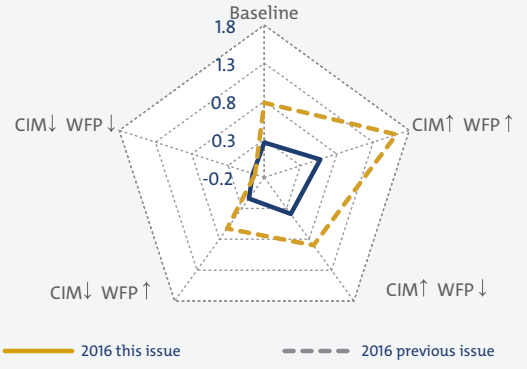
Figure (19) shows the current risk analysis of inflation in Palestine during 2016 compared with the risk analysis in 2016 predicted in the previous report (volume 17). The figure indicates that scenarios 3 and 4 give results close to the baseline forecast; but scenarios 2 and 5 involve upside and downside outliers, respectively. The figure reveals that the risk declined compared with the risk predicted in the previous issue.

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,

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

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.

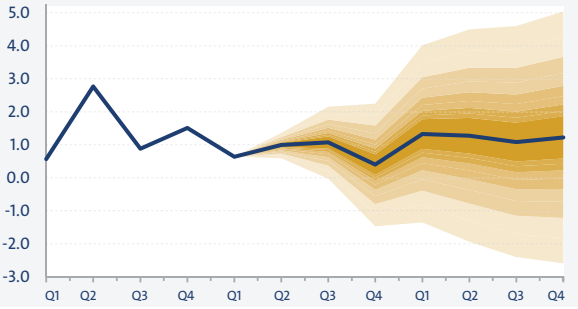
Figure 19: Web chart of the balance of Palestine's inflation risk



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 itself, which are independent 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 2016Q3 -2017Q4. The chart contains the quarterly profile of the baseline inflation forecast mentioned above. The risk parameters start from a standard deviation equal to 0.2 for the 2016Q3, which is based on the inflation volatility observed during the most recent years. It then rises up to 1.5 for the 2017Q4, reflecting the fact that uncertainty rises with the forecasting horizon.

Figure 20: Fan chart of the balance of Palestine inflation risk during 2016Q3 – 2017Q4



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.