



PALESTINE MONETARY AUTHORITY

Inflation Report

Fourth Quarter: 2017

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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

A handwritten signature in blue ink that reads "Azam Ashawwa". The signature is written in a cursive style with a blue ink color.

Executive Summary

During 2017Q4, consumer prices in Palestine grew slightly on annual basis, registering an inflation by 0.5 percent against the backdrop of a deflation in the West Bank and despite a modest price growth in Gaza Strip. In general, inflation in Palestine is largely imported and highly sensitive to world prices (particularly for food and fuel) but has been largely well-below the average 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 weight (80 percent of exports and 70 percent of imports); and (ii) world food prices, as food has the highest weight (35 percent) in Palestine's consumer price index basket.

Inflation forecasts show that consumer prices in Palestine are expected to grow insignificantly during 2018Q1, leading to a deceleration of inflation rate by around 0.4 percent. However, inflation is expected to speed up in the coming quarters, registering a rise by 1.2 percent for 2018 as a whole. 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 International Monetary Fund (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 0.4 percent under the baseline scenario to an average of 0.6 percent during 2018Q1. On the other hand, a negative one-standard deviation shock would register a deflation by 0.1 percent.

Financial developments indicate that the lending rates on the USD and the NIS have declined during 2017Q3, while that on the JD has risen. At the same time, the deposit rate on the three currencies have risen modestly. On a different note, the margin between

lending and deposit rates in Palestine is noticeably higher than for its counterparts in the respective currency-issuing countries. During the quarter, the margin was about 4.4 percentage points on the USD, 4.6 percentage points on the JD, and 5.8 percentage points on the NIS.

The Palestine Stock Exchange "PEX" experienced a sluggish performance during 2017Q4 against a backdrop of slowing prices and weak liquidity. Hence, the growth in al-Quds index declined notably to 1.2 percent compared to 2017Q3, scoring only 574.6 points. This comes as a result of the variant growth in all sectors, except for the services index.

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I. Recent Economic Developments

Real GDP

Despite the global and regional political tensions, the global economy has stepped forward in recovery in the light of a better global trade and investment in major economies. Both developed economies, and emerging and developing countries registered faster growth rates, reflecting better domestic conditions in major economies, except for Chinese economy which continued to decelerate. In this light, the International Monetary Fund's upgraded its expectations^[1] for global growth in 2017 by 10 basis points to 3.7 percent, and by 20 basis points in 2018 to around 3.9 percent, compared with an economic growth of 3.2 percent in 2016.

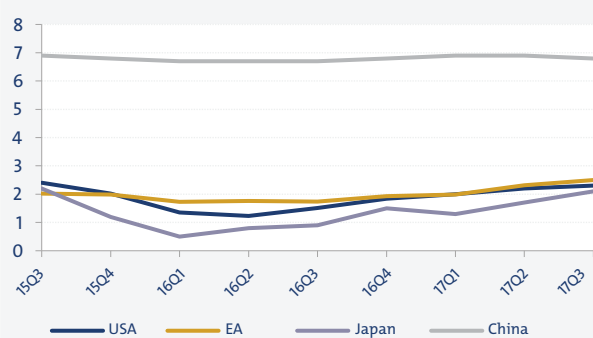
A closer look at the data shows gradual acceleration in the U.S. economy, owing to the recovery in exports and private nonresidential fixed investment, and reflecting better investors' confidence mainly in the U.S. productive sectors. Thus, the U.S. economy grew by 2.3 percent in 2017Q3, up from 2.2 percent in the previous quarter.

As such, the IMF upgraded its expectations for the U.S. growth in 2017 by 10 basis points to 2.3 percent and by 40 basis points to 2.7 percent in 2018.

Meanwhile, recovery edged further to the EA supported by robust private consumption and stronger exports. As a result, the growth of the region as a whole accelerated, growing by 2.5 percent on annual basis, up from 2.3 percent in the previous quarter. As a result, the IMF upgraded its growth expectations for the EA in 2017 and 2018 by 30 and 20 basis points, to 2.4 and 2.2 percent, respectively.

The same was true for Japan, which experienced a notable recovery as real GDP grew by 2.1 percent in 2017Q3, compared with 1.7 percent in 2017Q2. This growth is attained in light of a strong foreign demand and private investment. In light of these developments, IMF

Figure 1: Real growth rates in some main economies (%)



Source: IFS database and: <http://www.tradingeconomics.com>.

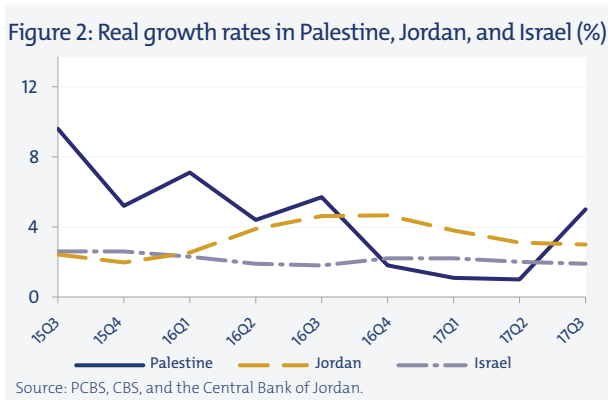
[1] International Monetary Fund, World Economic Outlook update. January, 2018.

forecasts were upgraded by 30 basis points to 1.8 percent in 2017, and by 50 basis points for 2018 to 1.2 percent.

Among emerging market and developing economies, the Chinese economy slowed down to 6.8 percent compared to 6.9 in the previous quarter due to deaccelerated investment. Hence, the IMF maintained its expectations for growth in 2017 at 6.8 percent, while it revised the growth expectations for 2018 up by 10 basis points to 6.6 percent.

In the meantime, political and economic turmoil lingered in the MENA region, which continues to limit its capacity to achieve adequate growth levels, particularly in countries like Iraq, Syria, Egypt, Libya and Yemen. Under the OPEC extended agreement to reduce oil production through the first quarter of 2018, oil exporters in the MENA continued to cut production levels in hopes of higher-priced equilibrium, and possibly incurring narrower growth horizons for producing states. However, some countries like Algeria and Qatar showed resilience against these cuts, while other countries like Saudi Arabia, seemed to be less harmed this quarter by the oil production shock. Accordingly, the IMF maintained its growth forecast for the region at 2.2 and 3.2 percent in 2017 and 2018, respectively. 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 continued to slow down against the backdrop of weak public expenditure and investment, in addition to higher imports given the NIS appreciation. The Israeli economy grew by 3.0 percent in 2017Q3, compared to 3.1 percent in the previous quarter. Despite of the resilient exports under the unfavorable exchange rate, the IMF tended to downgrade its growth expectations in 2017 and 2018 by 10 and 60 basis points, to 3.0 and 2.8 percent, respectively.



The Jordanian economy slowed down again during 2017Q3, growing by 1.9 percent compared to 2.0 percent in 2017Q2 against the backdrop of varying performance among

the main economic sectors. However, the IMF showed some optimism in the future, expecting the Jordanian economy to accelerate to grow by 2.3 percent in 2017 and by 2.5 percent in 2018.

Locally, growth accelerated further during 2017Q3, rising by 5.0 percent compared with a subdued growth of 1.0 percent in the previous quarter, owing to higher activity in the WB (6.9 percent versus 1.2 percent), and despite the deterioration in GS economy which shrunk by 0.6 percent compared to slight growth by 0.4 percent in the previous quarter.

Generally, growth in 2017Q3 reflected the varying performance among various economic sectors. On one side, the trade sector jumped by 16.6 percent, followed by growth in the construction industry by 15.8 percent. Financial and insurance, and the transport and storage have also grown, rising by 8.6 and 7.7 percent, respectively. Meanwhile, growth in the agriculture and the industry sectors approximately amounted to 3.5 and 3.3 percent, respectively, while the wholesale and retail trade grew at only 1.2 percent. Conversely, the information and communication sector is still on downward trend, declined by 5.9 percent, and the general administration and defense fell by 3.5 percent again.

Aggregate demand

Palestine's Gross Domestic Product during 2017Q3 amounted to USD 3,502.3 million in 2015 prices, of which the West Bank accounted for around 76 percent. This growth resulted from accelerated private consumption, higher investment and flourishing exports on the national level. However, these trends in the West Bank proved to be very different from them in Gaza Strip.

The WB experienced a notable economic acceleration on annual basis as exports grew by 6.9 percent, the remarkable jump in investment (21.7 percent) due to higher investment in buildings and slightly lower imports by 0.4 percent. Nonetheless, public consumption fell by 1.2 percent, while private consumption stabilized. The afore-mentioned trade developments lowered the trade deficit by 4.5 percent. As a result, WB's economy speeded up in 2017Q3, growing by 6.9 percent from the corresponding period and by 4.1 percent from the previous period.

Meanwhile, the aggregate demand components' trends painted less optimistic picture of Gazan economy. Despite the private consumption acceleration to 2.0 percent, the remarkable jump (23.5 percent) in investment owing to investment in non-building and withdrawal from inventory and the one-third growth in exports, the decline in the remaining components dampened the potential overall growth. Mainly the significant

drop (7.2 percent) in the public consumption drove the decline, and the continued economic leakage due to accelerated imports by 8.7 percent, which widened the trade deficit by 7.8 percent, reaching to its highest level ever. In light of these developments, GS shrunk by 0.6 percent from the corresponding quarter, and achieved a subdued q-o-q growth by 0.2 percent.

Table 1: Aggregate demand at constant prices (2015=100)

(USD million)

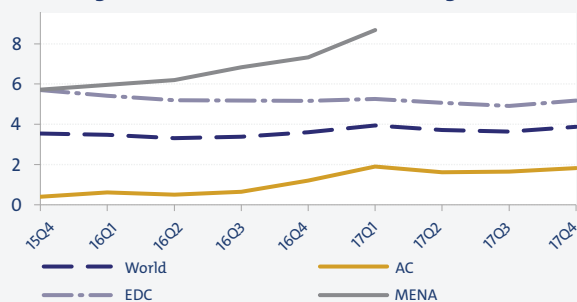
	West Bank			Gaza Strip		
	2016Q3	2017Q2	2017Q3	2016Q3	2017Q2	2017Q3
Private consumption	2,442.8	2,312.1	2,442.1	666.7	665.1	680.0
Government expenditure	530.6	574.0	524.0	323.7	337.0	300.4
Investment	566.3	643.8	689.3	100.3	84.8	123.8
Exports	584.1	644.5	624.5	25.7	31.8	34.5
Imports	1,636.2	1,607.7	1,629.1	250.1	257.5	276.5
GDP^[2]	2,486.0	2,554.8	2,658.5	848.7	842.0	843.8

Source: PCBS.

Inflation

Global consumer prices resumed growing during 2017Q4, thanks to increase in crude oil prices worldwide (see next section). As a result, the inflation rates in both the advanced and the emerging and developing countries have risen, leading to higher global inflation from 3.6 percent in 2017Q3 to 3.9 percent in the fourth quarter (see figure 3).

Figure 3: Inflation rates in World regions



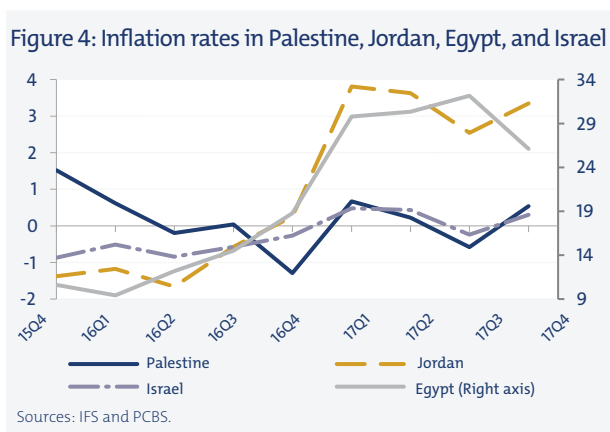
Sources: IFS and PCBS.

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

The headline inflation picked up in the advanced economies, particularly in the U.S, which experienced higher inflation rate at 2.1 percent, close to the target level. However, inflation stabilized relatively at 0.6 and 1.6 percent in Japan and Euro Area, respectively. Accordingly, advanced economies' inflation has slightly grown from 1.6 percent in 2017Q3 to 1.8 percent in 2017Q4. Looking at 2017 as a whole, its inflation accelerated notably from 0.7 percent to 1.7 percent. It is important to mention that the core inflation rates failed to rise along with the headline one, reflecting the continued slow recovery, particularly in the Euro Area. This proved that the increase in oil prices was not effective enough to stimulate the demand.

Meanwhile in the emerging and developing economies, the headline inflation resumed increasing after the decline in early 2017. In China, for example, the largest economy within the country group, the inflation rose from 1.6 to 1.8 percent. The core inflation rates have picked up also, but at a slower pace, reflecting relative improvement in demand levels. As a result, the group's inflation in 2017Q4 has speeded up from 4.9 to 5.2 percent, and registered a rate of 5.2 percent in 2017 as a whole, very close to the previous year.

In the MENA region in particular, inflation is highly affected by various political and economic conditions in each country. In general, the inflationary pressures persisted owing to the exchange rates depreciations, in addition to the lift of subsidies and increases in excise and value-added taxes.



Meanwhile, inflation in Palestine's neighboring countries (Jordan and Israel) resumed growing, increasing from 2.5 to 3.4 percent in Jordan because of price rise in most commodities and services of consumer basket, mainly the increase in rents and fuel.

At the same time, Israel experienced a marginal inflation by 0.3 percent, accelerating from the previous level (deflation by 0.2 percent). The weak food price movements stand behind this subdued inflation, along with the decline in transportation and communication prices. Likewise, Palestine registered a slight inflation by 0.5 percent, followed the previous

deflation by 0.6 percent. The achieved inflation resulted from abating consumer prices in the WB and despite the modest price growth in GS.

Meanwhile, inflation in Egypt continued to be the highest within the MENA region in light of several factors, mainly; the depreciation in the Egyptian pound as it was unpegged during the corresponding period in 2016 (which dramatically increased the cost of imports); and the rise in local commodity prices as the government lifted the subsidies as part of the reform program under IMF’s supervision. After around one year of the aforementioned developments, the inflation rate started to slowly decline, falling from 32.2 percent in 2017Q3 to around 26.1 percent in 2017Q4.

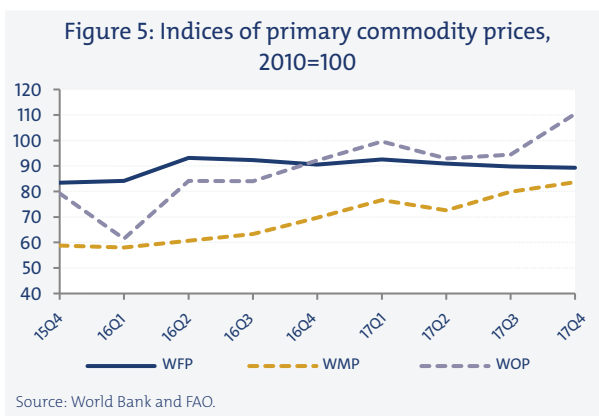
Global and local prices

This section deals mainly with developments in local and global markets’ commodity prices, the most important determinant of inflation trends.

World oil prices (WOP), for example, accelerated during 2017Q4 thanks to the extension of the OPEC agreement to cut oil production by 1.8 million

barrel per a day through 2018Q1. This cut; in addition to the stabilized demand around the world, the improved global growth outlook and the geopolitical tensions in the Middle East have all supported crude oil prices. As a result, the WOP index grew by 16.9 percent on a quarterly basis, and by 19.6 percent from the corresponding levels (see figure 5). It is worth to mention the fluctuations in oil prices during 2017, which constantly met by OPEC’s efforts to support prices through supply reduction. Accordingly, the 2017’s WOP picked up by around one quarter, raising the price of barrel to around USD 52.8.

Likewise, the world metal price (WMP) index grew owing to the strong global demand particularly from China, and accompanied with weak supply in global market following the closure of many mines around the world during the quarter. Accordingly, the World Bank index of metal price grew during 2017Q4 by 4.7 and 20 percent from the previous



and the corresponding levels, respectively. WMP index witnessed a jump during 2017, recovering from the drop in 2016 and growing by almost a quarter.

Meanwhile, world metal price index experienced significant variation across its commodities. Copper and aluminum prices notably increased reflecting strong demand and tight supply. However, iron ore prices sharply fell in light of strong supply. Consequently, WMP index grew by 9.9 percent on a quarterly basis, supported by improvement in macroeconomic sentiment, especially in China.

When looking at the world food prices index, it is important to note that many international organisations (IMF, World Bank and FAO) produce such indices. All of these use the same commodity prices; however, the included items and their weights are considerably different. Moreover, the variation across food commodities' prices during 2017Q4 led to significantly dissimilar food indices. In this report, we usually use the IMF food index, yet data are not available since mid-2017. Instead, this report will use the World Bank index, as its methodology is the most similar to the IMF, especially as both consist of large number of commodities, in contrast to the FAO index that contains only five main commodities. In general, the food price index continued to decline during 2017Q4, and the World Bank index slipped by 0.5 and 1.3 percent from the previous and corresponding periods, respectively. It is worth to mention that the several falls of food prices during 2017, which resulted in a blunt growth of the food price index by 0.7 percent for the whole year.

Locally, movement of the most commodity categories prices in the WB and GS proved to be slight during 2017Q4 compared to the previous quarter. However, these were more dynamic when comparing with those of the corresponding period. Prices have shrunk in the WB, but grew only moderately in Gaza Strip, leading to a slight inflation in Palestine by 0.4 percent on q-o-q and 0.5 percent on y-o-y. As inflation in Palestine is mainly imported, the depreciation of the USD against the Israeli shekel have led to lower imports' cost. This applies to 2017 as a whole, as the USD against NIS depreciated by more than 6 percent during the year, lowering the imports' cost by 3.2 percent according to the PMA estimates, mitigating the associated inflation which grew by only 0.2 percent in 2017.

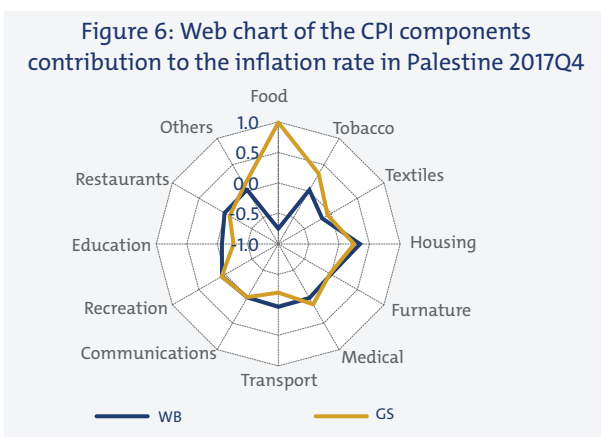
In the WB, the food index declined moderately (2.3 percent) on annual basis as a result of some commodities lower prices, e.g. wheat, meat, poultry, dairy products, sugar and some vegetables. This followed by drops in the textile index (by 2.7 percent), and in the education service index (by 1.9 percent). However, the housing index significantly picked up (by 4.0 percent) in light of increase in some relevant prices such as those for diesel,

benzene and cooking gas. The cultural goods and services index has also increased (by 3.8 percent). The remaining commodities' indices experienced slight increases (less than 1.0 percent each). The conflicting prices trends resulted in a slight inflation by 0.5 percent from the corresponding period, while the general consumer price index relatively stabilized compared to the previous period.

Meanwhile in GS, main food commodities' prices picked up, particularly vegetables, fruits and wheat, resulting in raising food index by 2.5 percent. In addition, tobacco and alcohol remarkably resumed increasing by 10.5 percent. It is worth to note the fluctuations in tobacco prices under the uncertainty in imported quantities, imposed taxes and channels. However, this began to change in mid quarter following Hamas and Fatah signing a reconciliation agreement, which resulted in regulating the flow of imports, unifying taxes and eliminating double taxation. Likewise, indices of medical care, cultural goods and housing have all grown by 5.1, 3.1 and 3.0 percent, respectively.

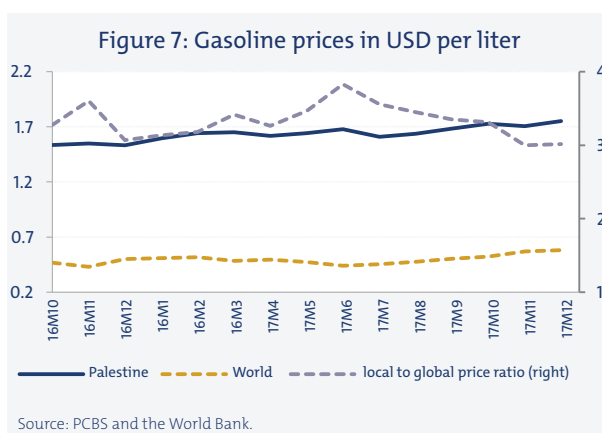
Conversely, the education service index fell notably by 7.3 percent, which may be attributed, partially, to the decline in the Jordanian Dinar, which is the usual currency in paying universities' tuition fees. This was followed by a fall by 4.6 percent in restaurant and cafés services index, and by 2.3 percent in transportation and communication index. Other declines were slight, amounted to 1.0 and 0.4 percent for textile index and furniture index, respectively. These conflicting trends resulted in a y-o-y inflation in GS by 1.3 percent, and by 0.9 percent from the previous quarter.

As abovementioned, inflation's trends and determinants differ in the WB from GS. However, the development of food price index continued to be the most important factor as it acquires the highest share of consumer basket. Overall, the decline in food prices was the main engine for deflation in both the WB, as it negatively contributed by (-0.75 percentage point). Conversely, it positively contributed by 0.99 percentage points to the registered inflation in GS during 2017Q4 (Figure 6).

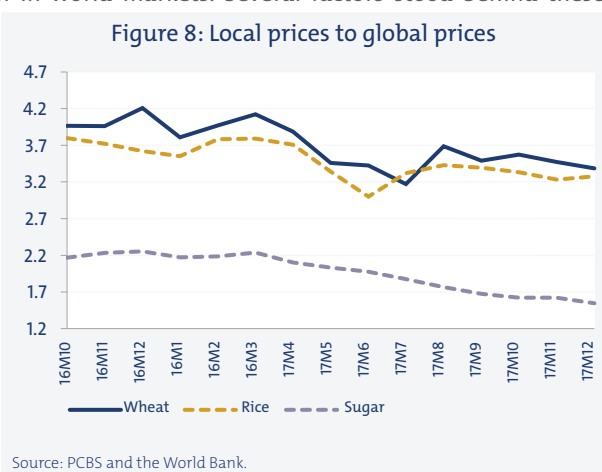


Regardless of different price determinants in the WB and GS, commodity prices in Palestine exceeded those in the world market, usually because, the local prices increase almost as much as the global ones, but declined substantially lesser in case of global prices drop. It is worth mentioning that the movements among global prices are not reflected immediately in local prices, and usually take more time to adjust. During 2017Q4, movements of local commodity prices ranged between increases and declines, not always following global prices.

The global prices of gasoline, a vital commodity for Palestinians, jumped during 2017Q4, registering a y-o-y growth by 19.6 and q-o-q growth by 16.9 percent. Likewise, local gasoline prices grew, albeit at a slower pace due to the aforementioned exchange rate effect, registering a growth by 5.2 and 12.4 on quarterly and annually basis, respectively. Consequently, a liter of gasoline amounted to USD 1.7 (around NIS 6.1) in the local market, compared with USD 0.6 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 2017Q4, the movement of global food prices proved to be marginal, but accompanied with decline in local market prices following the USD depreciation, which pulled the cost of imports



down. The ratio of local to global prices has declined in this quarter for sugar and rice (see figure 8). Consequently, both wheat and rice prices in the local market amounted to 3.5 and 3.3 times their price in global markets, while local prices of sugar were around 1.6 times global prices.

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 1.8 times the world price, while beef meat prices were around three times world prices as for 2017Q4. 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]

	2016	2017			
	Q4	Q1	Q2	Q3	Q4
Rice	131.1	129.0	125.5	121.5	115.4
Wheat	137.5	137.5	137.9	135.0	131.7
Bread	3.7	3.6	3.6	3.6	3.6
Beef meat	49.6	45.1	45.6	46.6	46.9
Chicken meat	13.7	15.1	13.8	13.9	12.8
Powder Milk (Nido)	93.4	91.1	92.4	91.4	88.5
Yogurt (local)	4.9	4.6	4.6	4.5	4.5
Chicken Eggs	15.0	15.4	13.2	13.7	13.8
Tomatoes	2.7	3.2	2.9	3.3	4.0
Sugar	149.7	143.1	131.4	120.9	107.8
Gas	58.9	64.4	63.6	60.4	63.3
Diesel	5.4	5.6	5.4	5.4	5.7
Gasoline 95	5.9	6.1	5.9	5.8	6.1

Source: PCBS

Labor force and wages

The increase in the labor market entrants failed to meet the population growth rate during 2017Q4, and instead it relatively stabilized at 1,348,600 persons. Consequently, the participation rate declined by 1.4 percentage point to 44.1 percent, and the unemployment

[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.

rate fell by 1.2 percentage points to 24.5 percent. These developments resulted from dissimilar trends between the WB and GS.

The WB experienced a slight increase in labor market entrants (by around 1,800 persons), but coupled with a remarkable improvement in the labor market ability to create new jobs (31 thousands)

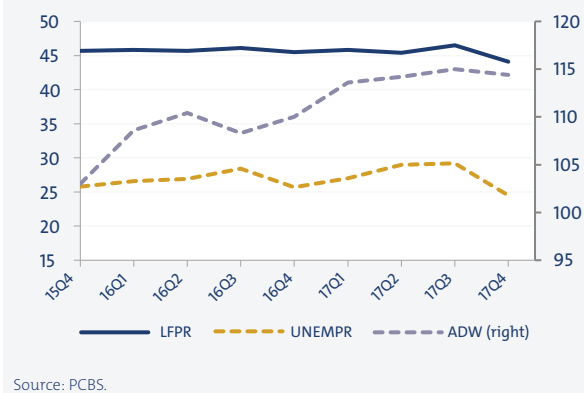
exceeding the number of the new entrants. Accordingly, unemployment declined notably from 16.9 to 13.7 percent. It is worth to mention that the number of WB's workers in Israel and settlements fell this quarter by around 2 thousand workers; however, these workers continued to form around 17 percent of the overall workers from the WB.

Meanwhile in GS, both new entrants and workers' numbers declined during the quarter by around 11 thousand each, leading to a notable increase in the unemployment rate from 40.6 to 42.7 percent between 2016Q4 and 2017Q4.

It is worth mentioning the growing number of the WB's workers in Israel and settlements^[4], reaching 126.6 thousand workers during the quarter. Given the sizeable wage differential between Israeli and the WB labor markets, the significant number of Palestinian workers in Israel substantially influences wages and prices in Palestine. The wage 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 2017Q4, the WB average daily wage increased y-o-y by 4.5 percent, reaching NIS 102. Conversely, it declined for Gazans by 2.8 percent to NIS 6.2. Meanwhile, a worker's average daily wage in Israel and the Settlements has grown by 7.6 percent, recording NIS 232.1, or 2.3 times the wage in the WB.

Figure 9: Labor force main indicators in Palestine

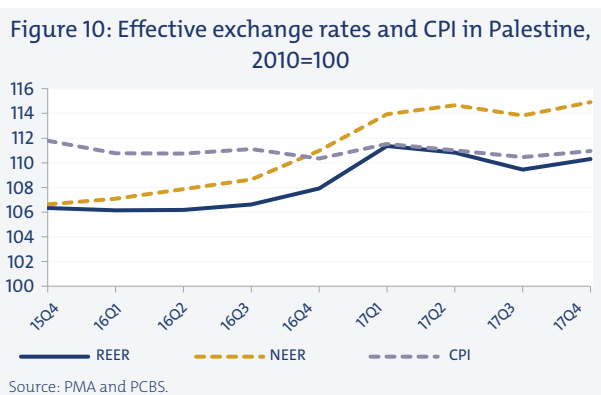


[4] Gazan workers were banned from entering the Israeli market directly after the unilateral Israeli withdrawal from Gaza Strip in 2005.

The reciprocal relation between prices and wages implies that when inflation exceeds the rise in the average nominal wage, the purchasing power of wages decline, and vice versa. During 2017Q4, the WB's prices deflated by 0.5 percent, and hence the NIS real wage grew by 5.0 percent. Meanwhile in GS, the inflation led to further decline in NIS real wages by 4.1 percent. Moreover, workers paid in USD and JD experienced more purchasing power's erosion due to exchange rate depreciation. As a result, their purchasing power declined by 3.3 percent for the WB's workers and by 12.4 percent for Gazans.

Effective exchange rates

Figure (10) shows the nominal and real effective exchange rates (NEER and REER) in Palestine^[5]. 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^[6].

Data show that the NEER has appreciated by 0.9 percent during 2017Q4 compared with the previous quarter, which implies that the NIS has relatively strengthened against Palestine trading partners' currencies. The NEER grew repeatedly in the previous quarters, reflecting appreciation of the bilateral exchange rate of the NIS against currencies of; the US, China, Jordan, Turkey and Egypt. Likewise, the REER slightly appreciated by 0.8 percent during the quarter, 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 in NEER and REER.

[5] 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.

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

II. Recent Financial Developments

Interest Rates

This section deals with the development in the lending and deposits interest rates of the three currencies circulated in Palestine; the USD, the JD and the NIS. Those rates in Palestine frequently move over time according to several factors: the level of cash in the banks operating in Palestine; interbank competition; risks estimated by banks; and changes in the monetary policies in the issuing countries of the currencies locally circulated. It is worthy to mention the importance of tracking the rates' movements in this report as they influence money supply, and hence investment, consumption and prices.

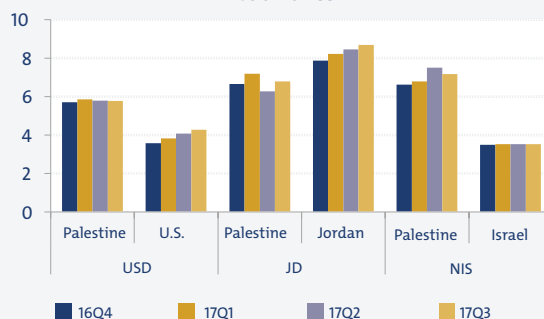
The types of lending and deposit rates differ from one country to another, and for the purpose of comparisons in this report, and as long as it is possible, we will use the rate on loans as a proxy for the lending rate, and the time-deposit rate as the deposit rate.

Interest rates in Palestine tend to increase during 2017Q3 in line with rising global interest rates owing to the gradual tightening of monetary policy in major economies. Both the American Fed and the Jordanian central bank raised their interest rates at the end of 2017Q2, which cast its shadows on both the issuing countries' and local interest rates. Meanwhile, Bank of Israel maintained the two years-unprecedented low interest rate at 0.1 percent.

In sum, lending rates have increased on the USD in the U.S. (from 4.04 to 4.25 percent) and on the JD in Jordan (from 8.42 to 8.65 percent), while it relatively stabilized on the NIS in Israel at 3.49 percent. Locally, lending on the JD remarkably picked up from 6.24 to 6.75 percent, and relatively remained the same on the USD at 5.74 percent.

However, it declined on the NIS by 34 basis points to 3.14 percent, which is attributed to local supply and demand factors.

Figure 11: Lending rates in Palestine and issuing countries



Source: PMA and IFS.

Although it is not possible to confirm the direct and immediate impact of the lending rates' developments on the expenditure and consumption, the national accounts data indicates a significant decline in the public expenditure in both the WB and GS following the aforementioned interest rates developments.

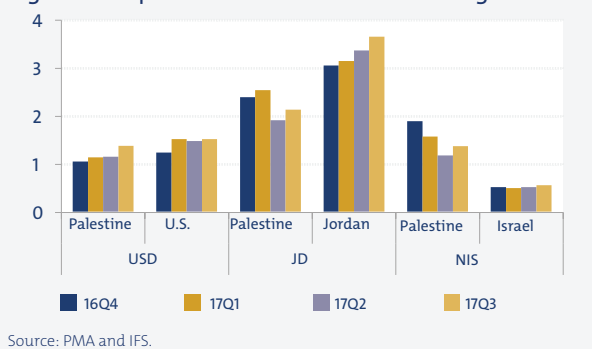
At the same time, deposit rates in issuing countries and Palestine have increased in the three currencies, the USD, the NIS and the JD. It slightly increased on the USD in the U.S (from 1.47 to 1.51 percent) coupled with further increase at the local market (from 1.14 to 1.37 percent). Likewise for the NIS, as it rose in Israel by

4 basis points to 0.55 percent, and in Palestine from 1.17 to 1.36 percent. Meanwhile, the deposit rate on the JD in Jordan has picked up from 3.3 to 3.64 percent. Accompanied with the increase in Palestine from 1.9 to 2.12 percent.

Tracking lending and deposit rates during the previous quarters reveals that lending rates on the USD and the NIS in Palestine are higher than their counterparts in the countries of origin. On the other hand, the deposit rates in Palestine are very low, and sometimes lower than their counterparts in issuing

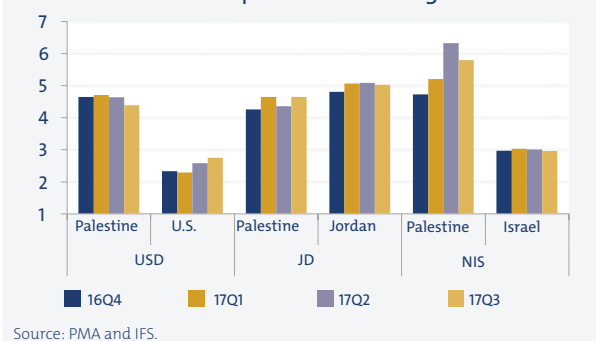
countries. Consequently, the margins between the average lending and deposit rates in Palestine remain remarkably high and ranged between 4.0 percentage point and 6.0 percentage point during 2017Q3. At the same time, it is significantly lower in the issuing countries (see Figure 13). For example, it is around 2.0 percentage points in the U.S. and about 3.0 percentage points in Israel. The high domestic margin reflects high risks within a politically and economically unstable environment.

Figure 12: Deposit rates in Palestine and issuing countries



Source: PMA and IFS.

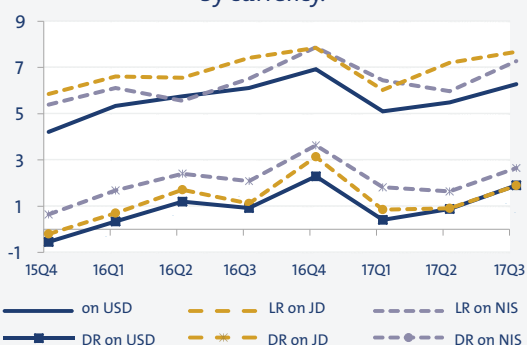
Figure 13: Margins between lending and deposit rates in Palestine compared with issuing countries



Source: PMA and IFS.

It is important to stress that the real interest rate equals the nominal interest rate minus the inflation. As the inflation rate exceeds the nominal deposit rate, an individual's willingness to keep money as bank deposits will decline as it entails lower real value and declining purchasing power, and vice versa. During 2017Q3, subdued inflation by 0.6 percent led to a slightly higher real deposit and lending interest rates for the three currencies circulating in Palestine (figure 14).

Figure 14: Real lending and deposit rates in Palestine by currency.



Source: PMA and PCBS.

Stock market

The Palestine Stock Exchange (PEX) witnessed a weak activity during October and November, characterized by slower price movements of the blue chips and tight liquidity levels. However, the market began to gain a momentum in December owing to many transactions on some leading companies' shares, leading to a relative recovery in liquidity levels. In sum, Al-Quds slowed down in October, declined in November but managed to close on a rise at the end of December by 1.2 percent compared to the 2017Q3 closing, scoring 574.6 points. On the sectoral front, all sectors' indices picked up by the end of 2017Q4, except for the services index, which fell by 1.1 percent. Indices of banking, industry, insurance and investment have all grown by 5.0, 4.8, 2.7 and 1.1 percent, respectively (table3).

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

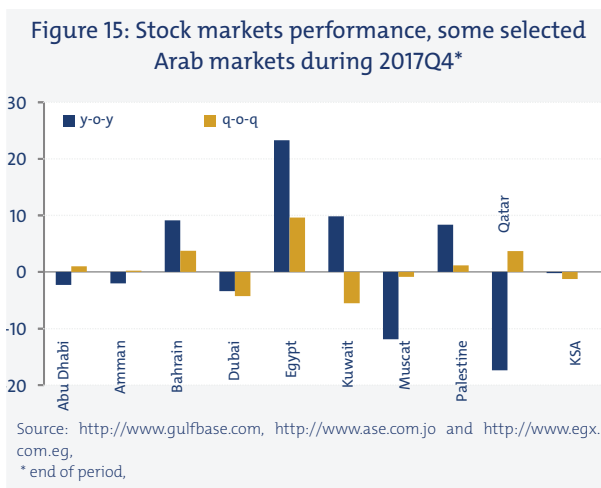
	2016	2017			
	Q4	Q1	Q2	Q3	Q4
Banking	144.4	153.0	150.0	156.2	164.0
Industry	78.2	78.3	79.4	93.7	98.2
Insurance	67.1	68.2	68.7	69.1	70.9
Investment	26.3	25.0	28.8	30.2	30.5
Service	45.0	45.1	Q2	44.0	43.5
Al-Quds	530.2	538.9	150.0	567.8	574.6

Source: www.pex.ps
* end of period.

Regionally, the influence of the low oil prices on Gulf stock markets appeared to be minimal during 2017Q3. Instead, they mostly affected by the performance of individual listed companies. In general, the stock exchange indices of Dubai and Oman have picked up from the previous closing by 5.1 percent and 0.4 percent, respectively. However, indices of Abu Dhabi and Bahrain fell by 0.6 percent and 2.0 percent, respectively.

The index of Saudi Arabia stock exchange has also declined by 1.9 percent, following expectations emerged mostly at the end of September on not including Saudi Arabia from FTSE Russel’s list of emerging markets. Meanwhile, anticipations about adding Kuwait have prevailed, raising its stock exchange index at the end of 2017Q3, however, it remained lower than the previous closing by 1.2 percent. At the same time, many Arab states cut ties with Qatar, causing losses in the stock market whose index slide by 8.0 percent in a broad sell-off (figure 15).

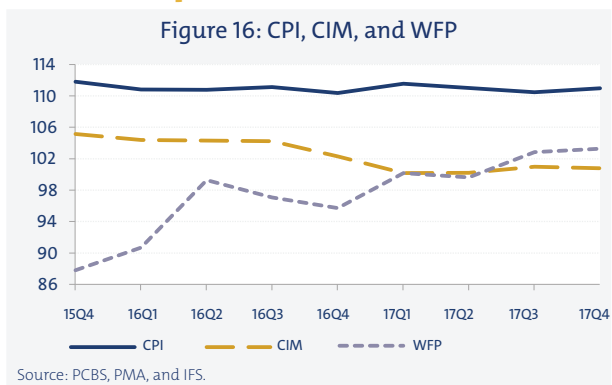
Meanwhile in the neighboring countries, Amman Stock Exchange index locked at low levels, particularly on mid-August against the backdrop of the decline in market capitalization, falling by 1.8 percent from the previous level. Conversely, the Egyptian Exchange continued to rebound as investors’ confidence improved, owing to the three-year reform program under the IMF supervision, and the upgraded credit rating by some rating agencies. Consequently, Egyptian Exchange index grew by 3.7 percent from the previous quarter closing.



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^[7].



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.

To this end, 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 2018Q1-2019Q4. To that end, a baseline scenario for the exogenous variables, CIM and WFP, is needed. The CIM is the denominator of the REER index calculated by the PMA. The baseline scenario for the CIM was derived from the VECM. Thus, under the forecast of consumer price growth in Israel in the coming months, CIM is calculated to resume increasing by 1.3 percent in 2018, and to accelerate by around 1.7 percent in 2019.

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

The recent forecasts on commodity prices indicate that the world food prices will increase moderately in 2018 and by slower pace in 2019. Accordingly, we calculate that the world food prices will rise by around 2.6 percent in 2018 and slightly by 0.9 percent in 2019.

Inflation will be forecasted according to the above-mentioned three estimation techniques^[8], combined with the common baseline growth rates for the CIM, and the WFP, as explained in Table (4).

Table 4: Inflation outlook of the three models

	Assumptions		Inflation Forecasts			
	CIM	WFP	VECM	ARDL	FMOLS	Aveg.
18Q1	1.25	4.75	0.32	0.30	0.45	0.35
18Q2	1.73	5.83	1.04	0.96	1.11	1.03
18Q3	1.05	0.39	1.71	1.78	1.94	1.81
18Q4	1.31	-0.44	1.42	1.87	2.05	1.78
2018	1.34	2.59	1.12	1.22	1.38	1.24
19Q1	1.08	-0.95	1.10	1.62	1.68	1.47
19Q2	1.47	-0.84	1.47	1.58	1.64	1.56
19Q3	1.76	2.33	1.78	1.83	1.89	1.84
19Q4	2.35	3.11	2.01	2.15	2.19	2.12
2019	1.67	0.89	1.59	1.80	1.85	1.75

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 2018Q1 is expected to be 0.4 percent. It is also expected to witness an accelerated inflation in the coming quarters, ending the year 2018 as a whole by 1.2 percent inflation (Table 4).

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.

[8] VECM, ARDL, and the FMOLS.

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^[9], 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 17).

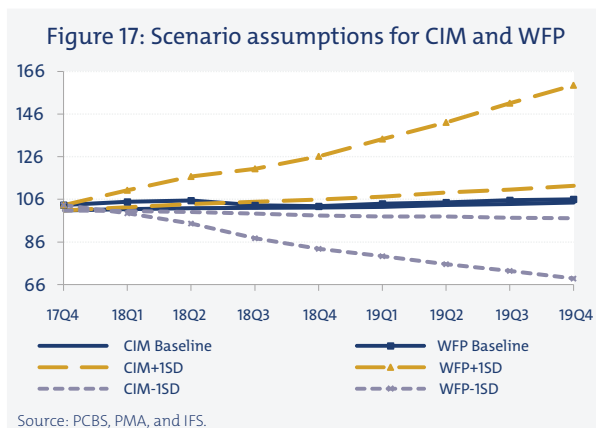


Table 5: Baseline and risk analysis of the CPI in Palestine for 2018 and 2019 (Percentage point)

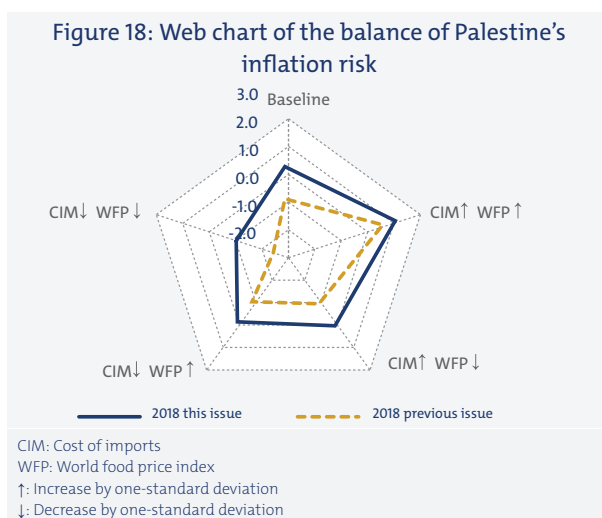
Scenario	Shock	Implied annual growth rate CIM		Implied annual growth rate WFP		Implied inflation forecast	
		2018	2019	2018	2019	2018	2019
1	Baseline	1.34	1.67	2.59	0.89	1.24	1.75
2	+1SD CIM +1SD WFP	3.66	5.42	16.72	23.93	2.18	4.30
3	+1SD CIM -1SD WFP	3.66	5.42	-10.13	-18.78	1.08	0.94
4	-1SD CIM +1SD WFP	-0.95	-1.98	16.72	23.93	0.91	1.74
5	-1SD CIM -1SD WFP	-0.95	-1.98	-10.13	-18.78	-0.16	-1.49

The results of these scenarios are displayed in table (5). They indicate that, given the assumptions, the average consumer prices growth forecasts during 2018 would narrowly

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

range between a deflation by 0.2 percent and an inflation by 2.2 percent with 1.2 percent as the central baseline outlook. In 2019, the average inflation forecasts are expected to range between -1.5 percent and 4.3 percent, with 1.8 percent as the central baseline outlook.

Figure (18) shows the current risk analysis of inflation in Palestine during 2018 compared with the risk analysis for the same year predicted in the previous report. The figure shows 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, 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, resulting in delays and/or disruptions in payment of government employees' salaries, which depresses demand and causes a fall in prices.

Figure (19) shows the fan chart of the balance of Palestine's inflation risk during 2018Q1–2019Q4. 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 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.

