



PALESTINE MONETARY AUTHORITY

Inflation Report

First Quarter: 2017

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Research and Monetary Policy Department

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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 A. Shawwa". The signature is written in a cursive, flowing style.

Executive Summary

During 2017Q1, consumer prices in Palestine accelerated on annual basis to register a growth by 0.7 percent following the deflation in the previous quarter. Although Gaza Strip showed a slower pace, both Palestinian regions witnessed rise in prices, affected by the hikes in global commodity prices. In general, inflation in Palestine is largely imported and highly sensitive to world prices, particularly for food and fuel, and is usually well-below that for the MENA region.

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

Inflation forecasts show that consumer prices in Palestine are expected to grow by around 0.5 percent during 2017Q2, and to accelerate in coming quarters. Accordingly, the inflation rate for 2017 as a whole is expected to grow to 1.0 percent, compared with deflation by 0.2 percent in 2016. Forecasts depend on assumptions regarding the most likely future paths for (i) Palestine's most important trading partners' prices and exchange rates, (ii) prices in the international commodity markets, as predicted by the IMF and by foreign central banks, and (iii) domestic and seasonal factors.

Given that Palestine's inflation may deviate from the baseline scenario due to deviations in foreign prices and exchange rates, the forecast is supplemented with a risk analysis. Beside the baseline, the forecast considers four alternative scenarios based on a positive and negative one-standard deviation shock in Palestine's cost of imports and in world food prices. The expected effects on Palestine's alternative inflation outcomes indicate that a positive one-standard deviation shock in external conditions would increase Palestine's prices from 0.5 percent under the baseline scenario to an average of 0.9 percent during 2017Q2. On the other hand, a negative one-standard deviation shock would bring inflation down to 0.1 percent.

Financial developments indicate that the lending rates (on the USD and the NIS) inclined to decrease during 2016Q4. In contrast, the deposit rate on the three currencies circulating in Palestine have increased during the same quarter, resulting in narrower margin;

however, it remained noticeably higher than for its counterparts in the currency-issuing countries. During the quarter, the margin was about 4.6 percentage points on the USD, 4.2 percentage points on the JD, and 4.7 percentage points on the NIS.

Palestine Stock Exchange "PEX" experienced low liquidity levels in most 2017Q1 weeks; however, it rebounded at the end of quarter, closing at 539.9 points, and growing by 1.6 percent from the previous closing. This reflected varied sectoral performance; indices of insurance, banking, industry and services increased, while the investment index declined.

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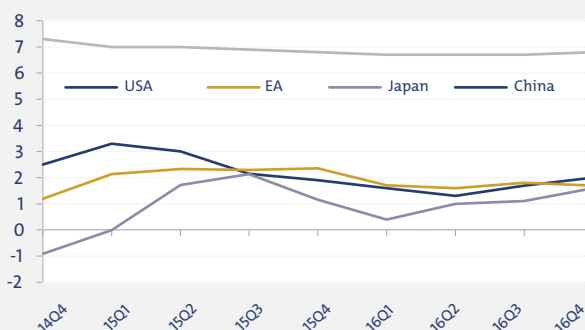
I. Recent Economic Developments

Real GDP

Disparities in economic performance among major economies persisted at the conclusion of 2016. The U.S. economy continued its march towards recovery and moving further ahead of other advanced economies. The improvement was marked by further contraction in U.S. monetary policy in 2016Q4. Similarly, Japan achieved its highest growth rates in two years, despite signs of continued vulnerability in economic fundamentals, foreboding the brevity of this acceleration and signaling a persistent fluctuation over the medium term. Contrarily, growth trends appeared more divergent in the Euro Area, as signs of recovery emerged in several member states, while fragility lingered in others, particularly those trapped in economic turmoil, such as Greece, or those approaching one, such as Italy. However, advanced economies as a whole, enjoyed a relatively superior performance than in the previous quarter.

Likewise, developing and emerging economies witnessed marked improvement despite discrepancies in growth trends among various economies in the group. Activity gradually gathered pace in China and Russia, while contraction eased in Brazil. In contrast, India, Malaysia and Indonesia lost momentum in line with slowing activity in various economies within the group. In this light, the International Monetary Fund^[1] maintained

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



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

a cautiously optimistic stance on the state of the global economy in the medium term, upgrading its 2017 forecasts by 10 basis points to 3.5 percent, while preserving 2018 forecasts at 3.6 percent.

The ongoing recovery in the U.S. augured positively on the global economy during 2016Q4, amid increased polarity in performance among other major economies. Economic improvement reflected a strong private consumption and renewed growth in investment, accompanied by relative deceleration in exports and government spending. As a result,

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

the U.S. economy grew by 2.0 percent in 2016Q4, compared with 1.7 percent in the previous quarter. The IMF maintained its forecasts for U.S. growth at 2.3 percent in 2017 and 2.5 percent in 2018.

Conversely, expansion in the Euro Area eased in light of weak performance in the periphery owing to fragile domestic demand, and despite improving activity in core economies benefiting from gradual buildup of private demand. EA grew by 1.7 percent in 2016Q4 compared to 1.8 percent in Q3. The IMF expects growth in the EA to stabilize at 1.7 percent in 2017 and at 1.6 percent 2018.

Japanese recovery, on the other hand, gained track in the last months of the year, reaching 1.6 percent, compared to 1.1 percent in 2016Q3. The expansion is led by improvements in private demand and exports, as opposed to falling government spending on consumption and investment. In light of these developments, IMF forecasts were upgraded by 40 basis points to 1.2 percent in 2017, and by 10 basis points to 0.6 percent in 2018.

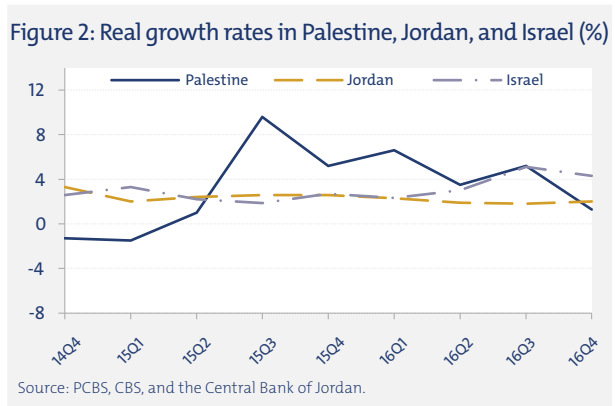
Signs of marginal improvement have also appeared in China, where growth surpassed expectations, amounting to 6.8 percent in 2016Q4, compared to a steady rate of 6.7 percent for several consecutive quarters. The slow progress seems to result exclusively from strong consumption demand, as industrial production, export, government spending and investment activity remained subdued. Nonetheless, the IMF downgraded expected growth from 6.7 to 6.6 percent, with further deceleration forecasted in 2018, at 6.2 percent.

In the meantime, the OPEC agreement to reduce oil production overshadowed the temporary pickup in activity in the MENA region, foreboding narrower growth horizons for oil exporters. The agreement came amid lingering political and economic turmoil in the region, which continues to limit its capacity to achieve adequate growth levels, particularly in countries like Iraq, Syria, Egypt, Libya and Yemen. In this light, IMF downgraded its growth forecasts for 2017 from 3.2 percent to 2.6 percent, while upheld previous forecasts for 2018, at 3.4 percent. 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 slowdown returned to the Israeli economy despite persistently high growth rates recorded in the past few quarters. Real GDP grew by 4.3 percent y-o-y, compared to 5.1 percent in the third quarter; a consequence of improvements in exports, private consumption, and government spending, coupled with a sizeable recovery in

investment growth, as opposed to slowing imports. The IMF downgraded its 2017 forecasts by 10 basis points to 2.9 percent, while simultaneously upgrading 2018 forecasts by the same amount to 3.0 percent.

The Jordanian economy gained momentum in 2016Q4, with GDP growth rising slightly from 1.9 to 2.0 percent, at the backdrop of recovery in construction and improved activity in manufacturing, trade and services. IMF forecasts were less optimistic, however, citing slowing activity, rising unemployment, prolonged refugee crises and consequent financial pressures in a context limited resources, as main inhibitors of growth in the medium term. As such, the Fund downgraded its growth expectations from 3.3 to 2.3 percent in 2017 and from 3.8 to 2.5 percent in 2018.



Locally, growth eased during 2016Q4, with real GDP in Palestine rising by 1.3 percent y-o-y, compared with 5.2 percent in the previous quarter, owing to sluggish activity in the WB (1.1 percent versus 3.9), and in GS (1.7 percent versus 9.7), where activity fluctuated amid continued Israeli siege and restrictions on the reconstruction process.

Generally, growth in 2016Q4 was inhibited by deteriorating performance in several economic activities, starting with a 0.6 percent fall in construction, compared to a growth of 8.6 percent in the previous quarter, in light of interrupted flow of construction materials to GS. This is in addition to a significant decline in trade activities (6.5 percent), particularly in the WB, owing to weak private demand, as opposed to a 2.0 percent growth in the previous quarter. Finally, value-added from agriculture contracted by almost a quarter y-o-y, mainly in the WB.

Growth also slowed in several sectors during the quarter, including manufacturing (from 8.4 to 7.0 percent), and services (from 6.5 to 1.8 percent). In contrast, improvement in other sectors helped offset some of the declines incurred during 2016Q4. Transport and storage accelerated to 21.8 percent, compared to 17.7 percent. Financial and insurance services grew by 12.7 percent, compared to 12.6 percent, and communications services resumed its growth with 1.0 percent, compared to a decline of 1.2 percent in the previous quarter.

Aggregate demand

Palestine's Gross Domestic Product during 2017Q1 amounted USD 1,997.3 million in 2004 prices, of which the West bank acquired around 76 percent. Both the West Bank and Gaza Strip recorded slight growth versus the corresponding quarter, while on q-o-q basis, GS achieved a slower growth and the WB incurred a negative one.

All aggregate demand's components have risen on y-o-y in the WB, except for the investment that shrunk by 5.4 percent. Both private and public consumption have slightly grown by 1.3 percent and 0.7 percent, respectively. Exports jumped by 20.5 percent, along with slower imports' growth (5.3 percent), pushing the trade deficit down by 2.9 percent. As a result, the WB's GDP grew by 1.1 percent on annual basis.

Meanwhile, GS achieved a y-o-y growth by 1.7 percent, owing to a higher public consumption (5.0 percent), and a flourishing investment that doubled by 1.5 times. However, other components deteriorated. Private consumption declined by 0.8 percent, and trade deficit notably widened by 12.1 percent in light of declined exports (by 20.2 percent) and increased imports (by 7.8 percent).

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

(USD million)

	West Bank			Gaza Strip		
	2015Q4	2016Q3	2016Q4	2015Q4	2016Q3	2016Q4
Private consumption	1,387.4	1,477.7	1,404.9	413.0	426.5	409.7
Government expenditure	350.1	319.8	352	222.2	206.8	233.2
Investment	435.8	358.6	412.3	12.0	29.8	30.7
Exports	355.3	386.7	428.1	23.3	18.1	18.6
Imports	1,014.3	993.4	1,068.0	175.8	183.8	189.6
GDP^[2]	1,488.6	1,533.9	1,505.3	483.9	489.2	492.0

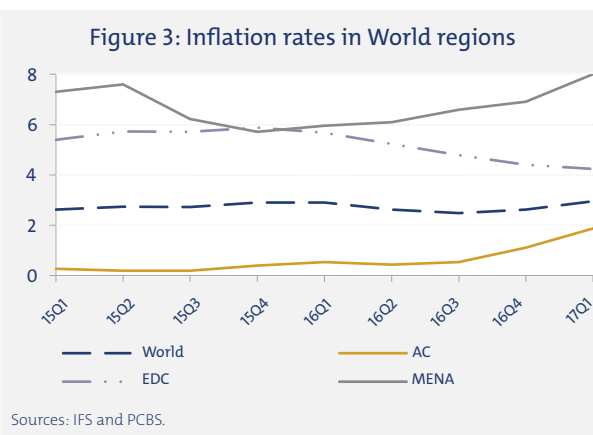
Source: PCBS.

Inflation

Despite the worldwide rise in commodity prices during 2017Q1, inflation experienced disparate trends among economies depending on few idiosyncratic factors. But in general, advanced economies witnessed an accelerated inflation, while in the emerging and developing countries declined. As a result, global inflation rate picked up to its highest since summer 2014, registering 3.0 percent (figure 3).

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

The better economic performance and the remarkable hike in oil prices, have both fostered inflation rates in advanced economies, which in some cases to exceeded the target level (as in the United States). Inflation picked in the U.S. from 1.8 percent to 2.5 percent, and notably rose in Euro Area, from 0.7 percent to 1.8 percent.



Furthermore, preliminary data shows a trivial acceleration in Japan’s inflation, which however it remained at low levels, and it is not expected to exceed 0.4 percent during 2017Q1. In sum, advanced economies lifted their inflation to its highest level in 5 years, scoring 1.9 percent.

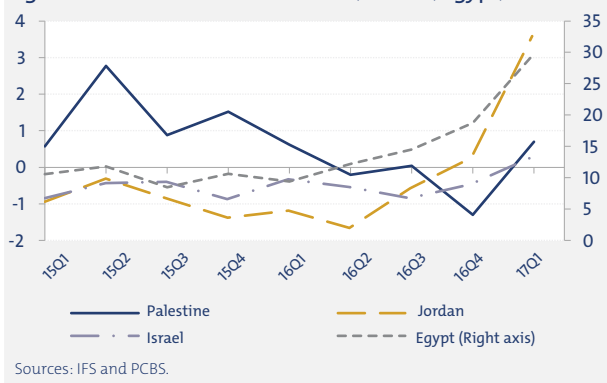
Conversely, economic slowdowns in emerging and developing countries, along with certain idiosyncratic factors have led inflation rates to gradually decline, reaching its lowest in years. In China, for example, the inflation fell from 2.2 percent to 1.4 percent in the wake of declining local food prices. Other main emerging economies (such as Brazil, India and Russia) have also experienced abated inflation rates, albeit at varying degrees. Accordingly, inflation in the emerging and developing countries dropped by 16 basis point down to 4.2 percent in 2017Q1.

In the Middle East and North Africa in particular, inflation is highly affected by various political and economic conditions in each country. But in general, there were signs of a gradual increasing inflation during the quarter in light of increasing oil prices. This was rapidly reflected in oil-importing countries’ inflation (such as Lebanon), and at a slower pace on oil-exporting countries (Algeria and Saudi Arabia). Consequently, inflation for the MENA is expected to surpass the threshold of 8.0 percent for the first time in around two and half years, as the preliminary data indicated.

In the same way, Palestine’s neighboring countries (Jordan, Israel and Egypt) which are considered as oil-importing countries, experienced rise in its inflation rates during the quarter, albeit at varying degrees.

After 28 months of consumer prices' contraction due to the abating oil prices, Israel finally managed to achieve an inflation (by 0.3 percent), albeit way below the target (1 percent- 3 percent). Meanwhile, inflation in Jordan rapidly accelerated since the beginning of 2017, achieving around 4.0 percent

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



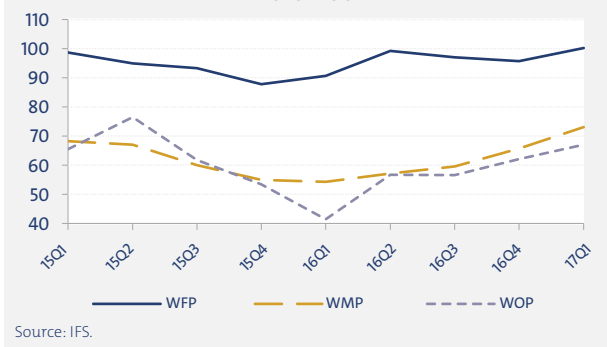
in January and February 2017, compared to 0.3 percent in 2016Q4 and to deflations in the former quarters. The inflation jumped as government persist in implementing IMF-supervised fiscal reforms which included lifting subsidy on some commodities and increasing some consumption taxes.

At the same time, inflation in Egypt continued to be the highest within among the MENA region, with signs of further hike during the quarter in light of many factors, mainly; the continuous depreciation in Egyptian pound and thus the increased cost of imports; and the rise in local commodity prices as the government lift the subsidies as part of reform program under the IMF supervision. Therefore, inflation rocketed to around 30.0 percent, compared to 19.0 percent in the previous quarter. Meanwhile in Palestine, consumer prices regained some momentum, growing by 0.7 percent compared to a deflation by 1.3 percent in the previous quarter, due to a moderate increase in the WB, and to lesser extent, in GS.

Global and local prices

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

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



World oil prices (WOP), for example, started to grow at the end of 2016, following OPEC's decision in October to trim supply by 1.2 million barrel per day in light of oversupply, and to support the abating prices. During 2017Q1, WOP notably picked up due to the gained momentum in oil-production cut among OPEC members, and concurrent with expectations about extending the production-cut period. Accordingly, WOP index jumped on quarterly and annual basis by 61.6 percent, reaching USD 53 per crude oil barrel, the highest in two years.

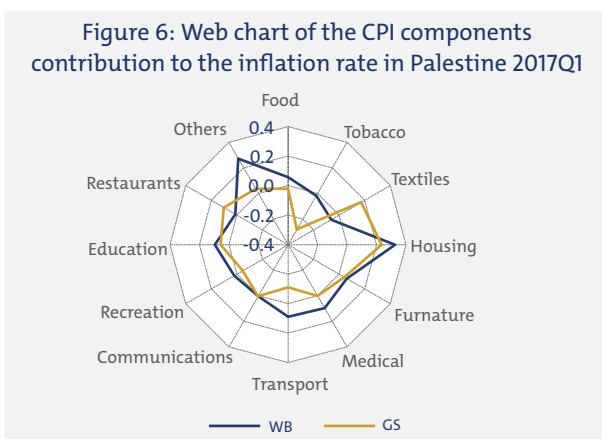
Likewise, world metal prices (WMP) have grown during the quarter supported by higher demand from China in a wake of higher government consumption and better investment in infrastructure and real estate. Consequently, WMP index picked up by 11.3 percent and 34.6 percent on quarterly and annual basis, respectively. Meanwhile, world food prices (WFP) increased in January and February due to the rises in wheat and corn prices, however, the index declined again in March in light of actual and projected oversupply. Consequently, WFP grew from the previous and the corresponding levels by 5.0 percent and 11.0 percent, respectively.

Locally, prices witnessed disparate trends among commodity categories during 2017Q1, which led to slight inflation rates in the two regions of Palestine, and resulted in overall inflation by 0.7 percent. As inflation in Palestine is mainly imported, the depreciation of the USD, the Jordanian dinar and the Egyptian pound against the Israeli shekel have led to lower cost of imports, and hence low inflation rates, however, it remained higher than that in 2016Q4, which registered a deflation.

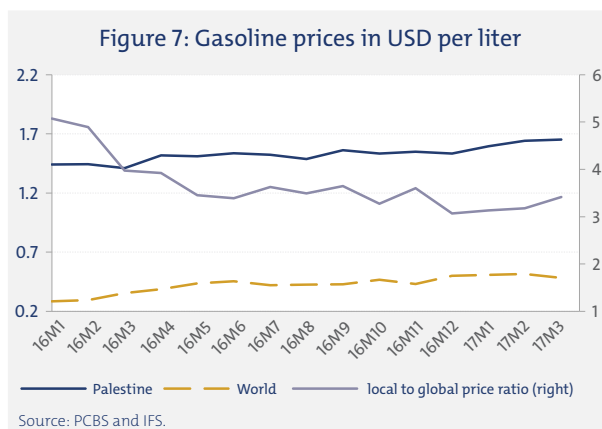
In the WB, consumer prices grew by 0.8 percent from the corresponding level owing to increasing price indices of most commodity categories. Nonetheless, these increases were marginal for the highly-weighted commodities (food and transportation). Food price index rose by merely 0.2 percent, while transportation price index increased by only 0.7 percent due to the exchange rate effect on the oil imported commodity. Furthermore, some other commodities notably grew. The housing price index, for example, increased by 3.9 percent due to rising electricity prices, in addition to increasing oil prices. This followed by rises in price indices of; education, medical service and miscellaneous goods by 2.3 percent, 2.0 percent and 2.6 percent, respectively. Also price indices of furniture and cultural goods grew by 1.3 percent each, while restaurant and café services, and communication have slightly increased by 0.5 percent each. In contrast, the price declines were trivial; alcohol and tobacco index fell by 0.2 percent, and textile index dropped by 0.1 percent.

Meanwhile in GS, price indices experienced dissimilar trends, however the movements among the high-weighted commodities were minor; food index marginally fell, by 0.1 percent; while miscellaneous goods index rose by 0.3 percent. Furthermore, indices of restaurant and café services, housing, textile and education services have all increased by; 5.9 percent, 2.9 percent, 2.8 percent and 1.6 percent, respectively, while the rises in indices of furniture, communications and medical services did not exceed 1.0 percent each. Conversely, the high volatile alcohol and tobacco price index dropped by 8.3 percent, followed by declines in cultural goods and transportation indices, by 2.0 percent and 1.3 percent, respectively.

It is worth to mention the hike in electricity price by 5.0 percent in early February followed its raise by the Israeli supplier. This hike concurrent with higher fuel prices were the main contributor to the inflation in the WB and GS through increasing housing price index (figure 6). Overall, it contributed by 0.33 percentage point (or 34 percent) to inflation in the WB, and by 0.23 percentage point in GS (or more than 100 percent).



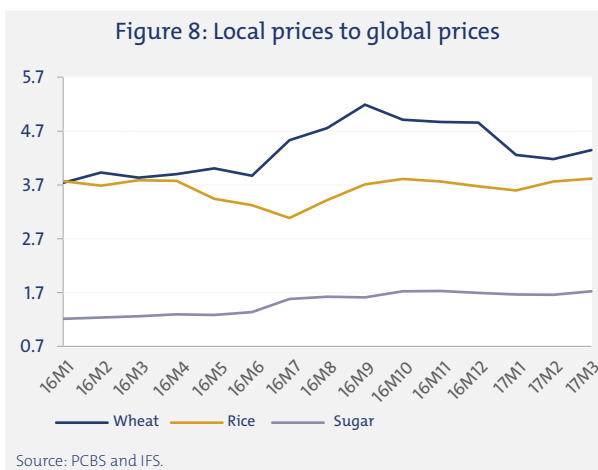
Regardless of different price determinants in the WB and GS, commodity prices in Palestine exceeded those in the world market, usually because the local prices increase almost as much as the global ones, but declined substantially lesser in case of global prices drop. It is worth mentioning that the



movements among global prices are not reflected immediately in local prices, and usually take more time to adjust. During 2017Q1, movements of local commodity prices ranged between increases and declines, not always following the global prices.

The global prices of gasoline, a vital commodity for Palestinians, jumped during the first quarter by 62 percent over their level in the corresponding quarter. However, local gasoline prices grew by only 14 percent due to the USD depreciation against the NIS. Consequently, a liter of gasoline becomes USD 1.6 (around NIS 6.1) in the local market, compared with USD 0.5 in the global market.

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



narrowed compared to the previous periods due to either lesser increases in local prices (as for wheat and rice), or wide declines (as for sugar). As a result, both wheat and rice prices in the local market amounted to 4.2 and 3.7 times their price in global markets, while local prices of sugar were around 1.7 times global prices (see Figure 8).

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 1.6 times the world price, while beef meat prices were around three times world prices as for 2017Q1. 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]

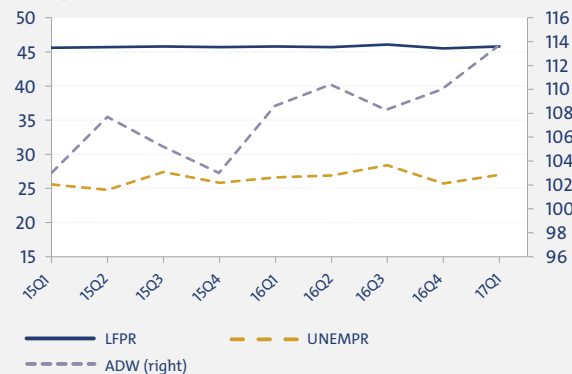
	2016				2017
	Q1	Q2	Q3	Q4	Q1
Rice	134.6	134.3	134.7	131.1	129.0
Wheat	146.2	143.0	141.1	137.5	137.5
Bread	3.7	3.7	3.7	3.7	3.6
Beef meat	54.3	53.2	53.2	49.6	45.1
Chicken meat	15.2	13.7	14.5	13.7	15.1
Powder Milk (Nido)	95.9	95.9	94.4	93.4	91.1
Yogurt (local)	5.1	4.9	5.0	4.9	4.6
Chicken Eggs	13.0	11.3	13.8	15.0	15.4
Tomatoes	3.3	2.5	3.9	2.7	3.2
Sugar	126.7	130.9	147.0	149.7	143.1
Gas	57.4	57.2	58.1	58.9	64.4
Diesel	4.9	5.2	5.3	5.4	5.6
Gasoline 95	5.6	5.8	5.8	5.9	6.1

Source: PCBS

Labor force and wages

The number of labor market entrants accelerated during 2017Q1, and the increment from the corresponding quarter amounted to 42,200 persons. However, the participation rate stood close to the corresponding level at 45.8 percent^[4]. The labor market failed to create sufficient new jobs in order to meet the new entrants, causing a higher unemployment rate (27.0 percent). The capability for creating new jobs proved to be higher in GS than in the WB this quarter. Gazan market generated 7 thousand jobs to meet 11 thousand new entrants, leading to relatively stabilized unemployment rate (41.1 percent). Meanwhile, the number of new entrants in the WB reached its highest in two years (31 thousand person), but the market lost more than 7 thousand existing jobs rather than creating new

Figure 9: Labor force main indicators in Palestine



Source: PCBS.

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

[4] The number of individuals in working age (15 years and above) in Palestine reached 2,988,800 persons during 2017Q1.

opportunities. Under these circumstances, the unemployment rate would have possibly jumped to 22 percent, but the absorption of additional 25 thousand workers by the Israeli market had mitigated unemployment, pushing the rate up by only 0.8 percentage points to 18.8 percent.

It is worth mentioning the growing number of the WB's workers in Israel and settlements^[5], reaching its highest in years, at 139 thousand workers (about 14 percent of the total workers from the WB). Given the sizeable wage differential between Israeli and the WB labor markets, the significant number of Palestinian workers in Israel substantially influence 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 2017Q1, the WB average daily wage increased y-o-y by 1.7 percent, reaching NIS 101.5. Conversely, it declined for Gazans by 5.0 percent to NIS 58.7. Meanwhile, a worker's average daily wage in Israel and the Settlements has grown by 3.3 percent, reaching NIS 219.5, or 2.2 times the wage in the WB.

The reciprocal relation between prices and wages implies that when inflation exceeds the rise in the average nominal wage, the purchasing power of real wages decline, and vice versa. During 2017Q1, the WB's inflation was lower than the nominal wage growth, and hence the real wage grew slightly, by 0.7 percent. Meanwhile, inflation in GS led to more deterioration in real wages by 5.2 percent. Moreover, workers paid in USD and JD experienced 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 9.3 percent for Gazans.

Effective exchange rates

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

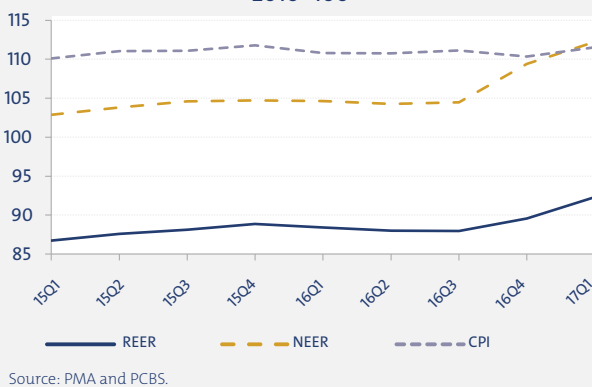
[5] Gazan workers were banned from entering the Israeli market directly after the unilateral Israeli withdrawal from Gaza Strip in 2005.

[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.

Data show that the NEER has appreciated by 2.6 percent during 2017Q1 compared with the previous quarter, which reflects the NIS strength and indicates its appreciation against Palestine trading partners' currencies. This comes as the bilateral exchange rate of the NIS against currencies of; the US, China, Jordan, Turkey and

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



Egypt, have all depreciated during the same period. Meanwhile, the REER appreciated by 3.0 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.

II. Recent Financial Developments

Interest Rates

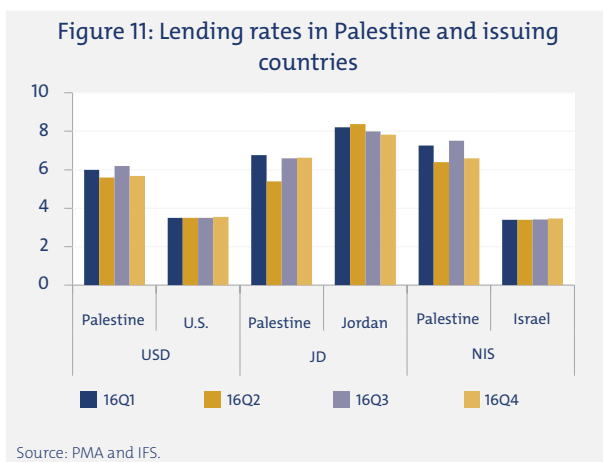
This section deals with the development in the lending and deposits interest rates of the three currencies circulated in Palestine; the USD, the JD and the NIS. Those rates in Palestine frequently move over time according to several factors: the level of cash in the banks operating in Palestine; interbank 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.

During 2016Q4, central banks in the U.S. and Jordan have both raised their official interest rates by 25 basis points, bringing these rates to 0.75 percent for the former and 1.75 percent

for the latter. According to the theory, raising benchmark interest rate lead to higher lending and deposit rates; however, as the benchmarks' change took place at the end of the quarter, the expected effect on rates was subdued in both countries. Meanwhile, Bank of Israel maintained the two years-unprecedented low interest rate at 0.1 percent.

In sum, lending rates have slightly increased on the USD in the U.S. (from 3.5 percent to 3.55 percent) and on the NIS in Israel (from 3.42 percent to 3.46 percent), while they declined on the JD in Jordan (from 7.99 percent to 7.83 percent). It is worth noting that the movement of the three lending rates in Palestine proved to be opposite to its trend in issuing

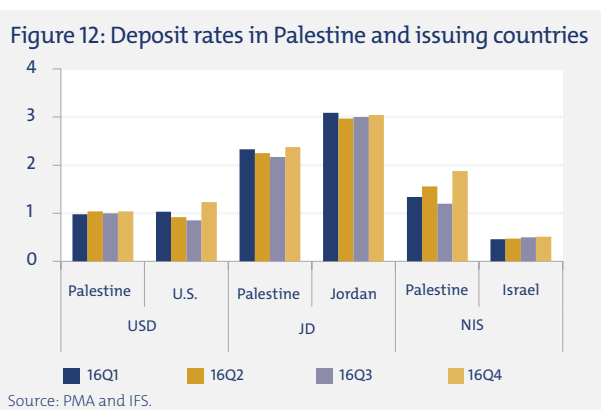


countries, and tended to generally decline over the quarter. This indicates the dominance of domestic factors on interest rates; excess cash in the banks; or/and lower estimated risks in extending credit; or/and interbank competition. As a result, local lending rate on the USD and the NIS declined by 44 basis points and 90 basis points, to 5.67 percent on the USD and 6.6 on the NIS. Conversely, the increase in the average lending rate on the JD was marginal, from 6.60 percent to 6.62 percent.

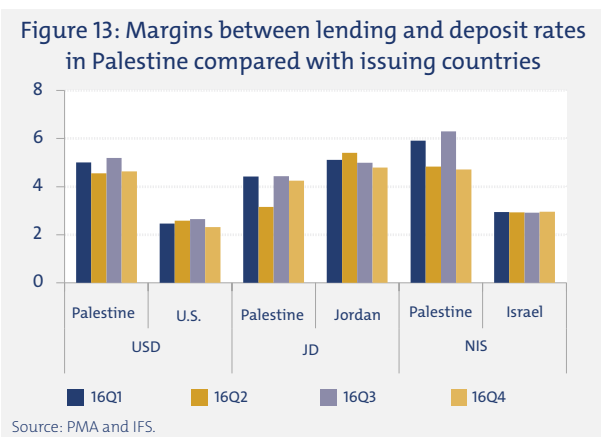
Accordingly, loans extended for the public sector and the private sector have grown during 2016Q4. Government consumption have also increased, but the private consumption declined in both the WB and GS. Moreover, overall investment grew during the quarter.

These developments were concurrent with rise in the average deposit rates for the three currencies. The highest hike was on the NIS, as its lending rate picked up from 1.20 percent to 1.88 percent, followed by an increase on the JD from 2.17 percent to 2.38 percent. However, the increase was minor on the USD by only 4 basis points to 1.04 percent. At the same time, average deposit rates rose also in the issuing countries; notably in the

U.S. (from 0.85 percent to 1.23 percent)^[8]; and slightly in both Jordan (from 3.0 percent to 3.04 percent) and in Israel (from 0.5 percent to 0.51 percent). It is also interesting that despite of deposit rate hike, the time-deposits of the private sector relatively stabilized at around USD 2,725.5 million, in addition to its decline for the public sector to about USD 205.6 million.



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 range between 4.2 percentage point and 4.7 percentage point. At the same time, it is significantly lower in the issuing countries (see Figure 13). For example, it is around 2.3 percentage point in the U.S. and about 2.9 percentage point in Israel. The high domestic margin reflects high risks within a politically and economically unstable environment.

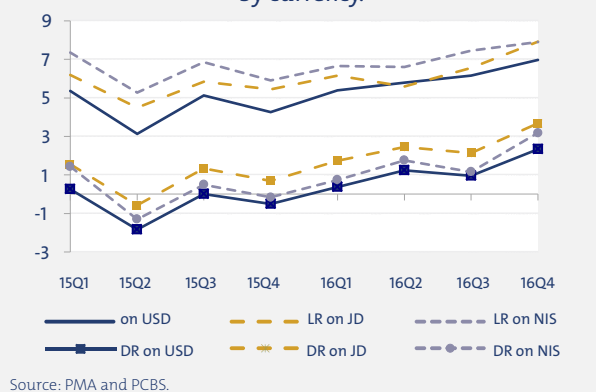


It is important to stress that the real interest rate equals the nominal interest rate minus the inflation. As the inflation rate exceeds the nominal deposit rate, an individual's willingness to keep money as bank deposits will decline as it entails lower real value and

[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.

declining purchasing power, and vice versa. During 2016Q4, deflation (negative inflation) led to a higher real deposit rate for the three currencies, (reaching to 2.3 percent on the USD, 3.7 percent on the JD and 3.2 percent on the NIS). Moreover, deflation also implies higher real values of credit facilities, pushing real lending rate up to 7.0 percent on the USD, and 7.9 percent on both the JD, and the NIS (figure 14).

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



Source: PMA and PCBS.

Stock market

The performance of Palestine Stock Exchange “PEX” during 2017Q1 was highly affected by the weak and slow liquidity levels. This has materialized during January in particular, along with the increased anticipation intensity coinciding with the approaching end of the legal annual disclosure period. However, liquidity levels slightly accelerated in February, following executing several transactions on some stocks, including blue chips, and concurrent with a momentum in annual financial disclosure. Liquidity levels improved in the quarter’s last week, just before the board of directors of leading companies make their decisions regarding dividends distributions. Accordingly, Al-Quds index declined in January but rebounded after that, closing at its 2017 highest (538.9 points), growing by 1.6 percent from the previous quarter closing (table 3).

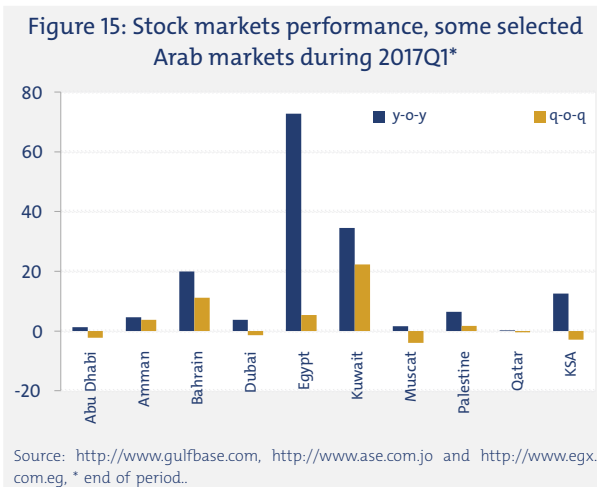
Table 3: Palestine stock exchange index (Al-Quds index)*

	2016				2017
	Q1	Q2	Q3	Q4	Q1
Banking	136.1	132.4	136.7	144.4	153.0
Industry	70.6	72.2	75.3	78.2	78.3
Insurance	54.8	60.1	62.4	67.1	68.2
Investment	23.8	25.2	26.1	26.3	25.0
Service	45.4	44.4	45.3	45.0	45.1
Al-Quds	506.3	503.8	518.6	530.2	538.9

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

This came amid varied trends of sectoral indices. The index of investment declined by 4.9 percent, while the indices of banking and insurance have notably grown by 6.0 percent and 1.6 percent, respectively; and indices of service and industry slightly rose by less than 0.1 percent, each.

Regionally, the Gulf stock markets recorded some gains during the same quarter due to oil price increase. However, as the production's curb was scheduled to end at late March, oil prices declined again, pushing most stock markets' indices to fall. As a result, stock markets of Oman, Saudi Arabia, Abu Dhabi, Dubai and Qatar closed in the red zone, declining by 4.0 percent, 2.9 percent, 2.3 percent, 1.4 percent and 0.4 percent, respectively.



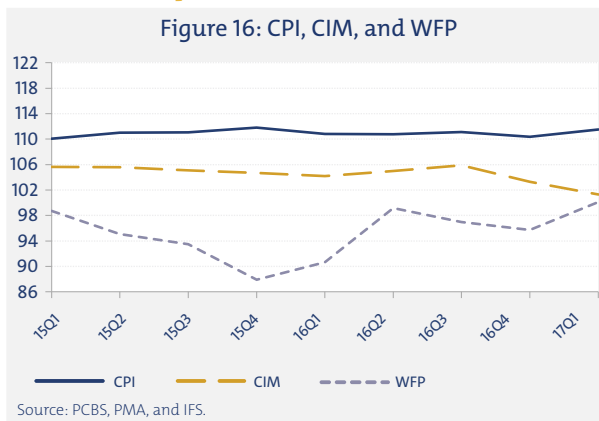
Furthermore, indices of Kuwait and Bahrain stock market fell in the quarter's last week, but remained above the previous quarter's closing by 22.3 percent and 11.1 percent, respectively. Nonetheless, all the above-mentioned markets registered better indices compared to corresponding closing (figure 15).

Conversely, the neighboring countries (Jordan and Egypt) registered gains, compared to both the previous and the corresponding levels. Amman Stock Exchange index grew by 3.7 percent q-o-q and 4.6 percent y-o-y as investors' confidence in leading stocks have recovered during the quarter. At the same time, the Egyptian Exchange continued to rebound owing to the three-year reform program under the IMF supervision, followed by a stabilized Egyptian pound and expected improvement in tourism as Russia announced resumption flights to Egypt after 16 months of suspension. Accordingly, its index grew by 5.3 percent and 72.7 percent from the previous and the corresponding periods, respectively.

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^[9].



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 2017Q2-2018Q4. To that end, a baseline scenario for the exogenous variables, CIM and WFP, is needed. The CIM is basically the denominator of the REER index calculated by the PMA. The baseline scenario for the CIM was derived from the VECM. Thus, under the low inflation rate in Israel, CIM is calculated to decline by 1.3 percent in 2017, and to increase by around 3.7 percent in 2018.

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

The most recent IMF forecasts indicate that the world food prices will increase in 2017 but will relatively stabilize 2018. Accordingly, we calculate that the world food prices will rise by around 4.2 percent in 2017, and slightly by 0.1 percent in 2018.

Inflation will be forecasted according to the above-mentioned three estimation techniques^[10], combined with the common baseline growth rates for the CIM, and the WFP, as explained in Table (4).

As is well known, the use of econometrically estimated models to forecast future inflation is subject to model and coefficient uncertainty. To reduce this uncertainty, we will take the simple average of the three models. Accordingly the average annual inflation forecast for 2017Q2 will be 0.5 percent, and we expect inflation to increase gradually in upcoming quarters, ending the year 2017 as a whole by 1.0 percent inflation (Table 4).

Table 4: Inflation outlook of the three models

	Assumptions		Inflation Forecasts			
	CIM	WFP	VECM	ARDL	FMOLS	Aveg.
2016*	-0.12	1.93	-0.22	-0.22	-0.22	-0.22
17Q1*	-2.77	10.52	0.67	0.67	0.67	0.67
17Q2	-3.11	-1.91	0.57	0.46	0.45	0.50
17Q3	-1.51	0.23	0.62	0.67	0.64	0.64
17Q4	2.27	1.47	1.97	2.35	2.27	2.20
2017	-1.29	1.67	0.95	1.03	1.00	1.00
18Q1	4.78	-0.16	1.64	1.53	1.44	1.53
18Q2	4.96	-0.14	1.88	2.09	1.17	1.71
18Q3	2.91	-0.06	1.67	1.74	2.27	1.89
18Q4	2.10	0.00	1.31	1.30	1.71	1.44
2018	3.67	-0.09	1.62	1.66	1.65	1.64

* 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.

[10] 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^[11], 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).

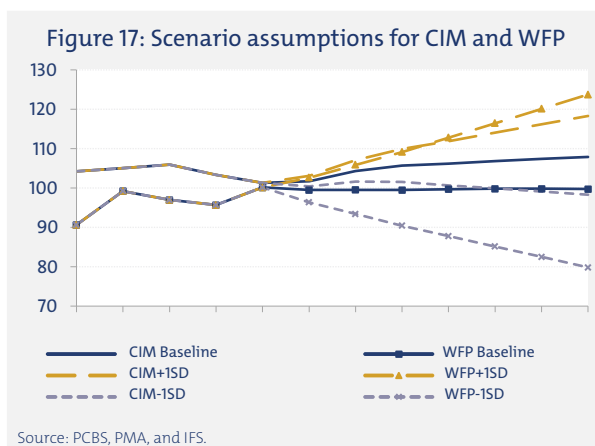


Table 5: Baseline and risk analysis of the CPI in Palestine for 2017 and 2018

(Percentage point)

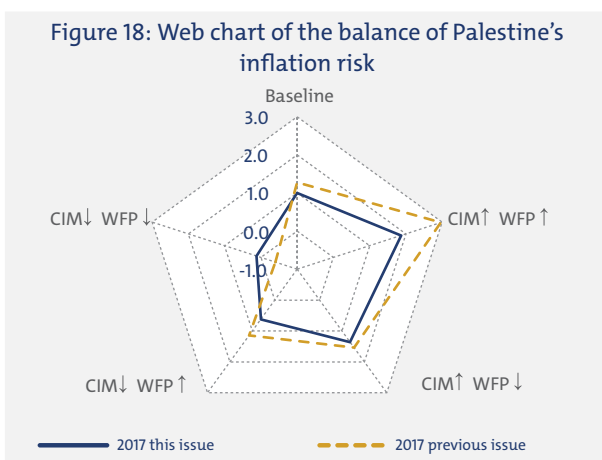
Scenario	Shock	Implied annual growth rate CIM		Implied annual growth rate WFP		Implied inflation forecast	
		2017	2018	2017	2018	2017	2018
1	Baseline	-1.29	3.67	4.23	0.11	1.00	1.64
2	+1SD CIM +1SD WFP	0.71	9.26	9.24	13.25	1.87	4.80
3	+1SD CIM -1SD WFP	0.71	9.26	-0.57	-11.86	1.36	2.20
4	-1SD CIM +1SD WFP	-3.26	-1.71	9.24	13.25	0.62	1.04
5	-1SD CIM -1SD WFP	-3.26	-1.71	-0.57	-11.86	0.12	-1.46

* Actual data.

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

The results of these scenarios are displayed in Table (5). They indicate that, given the assumptions, the average inflation forecasts during 2017 would range between 0.1 percent and 1.9 percent, with 1.0 percent as the central baseline outlook. In 2018, the average inflation forecasts are expected to range between -1.5 percent and 4.8 percent, with 1.6 percent as the central baseline outlook.

Figure (18) shows the current risk analysis of inflation in Palestine during 2017 compared with the risk analysis for the same year predicted in the previous report. The figure 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 2017Q2–2018Q4. The chart contains the quarterly profile of the baseline inflation forecast mentioned above based on the inflation volatility observed during the most recent years. It should be mentioned that the range of the potential outcomes is fairly broad,

reflecting the uncertainty of the forecast which is the consequence of all risk factors mentioned above, including the country- specific ones. It should also be mentioned that the most likely outcomes for the predicted inflation are situated in the darkest shaded regions of the chart. The weaker the shading in the chart, the smaller the perceived probabilities of these potential outcomes.

Figure 19: Fan chart of the balance of Palestine inflation risk during 2017Q2 – 2018Q4

