



PALESTINE MONETARY AUTHORITY



Inflation Report

Fourth Quarter 2015

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Executive Summary

The inflation rate in Palestine accelerated during 2015Q4 to 1.5 percent, compared to around 0.9 percent in the preceding quarter and around 1.2 percent in the corresponding quarter of 2014. This acceleration was driven by higher prices in both the West Bank and Gaza Strip, particularly food prices. Unlike the previous quarters, the consumer price index was hardly affected by the reduction in global commodity prices during this quarter, which indicates the domination of domestic factors over the foreign ones. However, inflation in Palestine was much lower than that registered in the MENA region in 2015Q4, but exceeded that in Jordan and Israel. In general, analysis revealed that inflation in Palestine is largely imported and shows high sensitivity to world prices, particularly for food and fuel.

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

Inflation forecasts show that consumer prices in Palestine are expected to increase by around 2.3 percent during 2016Q1 on an annual basis, and to increase by 1.6 percent in 2016. Forecasts depend on assumptions concerning the most likely future paths for (i) prices and exchange rates in Palestine's most important trading partners; (ii) prices in the international food markets, as predicted by international organizations such as the IMF and 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 forecasts consider four alternative scenarios based on positive and negative one-standard deviation shock in each of Palestine's cost of imports and world food prices. The expected effects on Palestine's alternative inflation outcomes show that a positive one-standard deviation shock in external conditions may increase Palestine's inflation to nearly 2.7 percent on average during 2016. On the other hand, a negative one-standard deviation shock may bring inflation in Palestine down to 0.6 percent during the same period.

As for financial developments in Palestine, 2015Q3 data indicate that average lending rates

on the USD and the JD have increased compared to the previous quarter, while the rate on the NIS has declined. On the other hand, average deposit rates on the three currencies circulated in Palestine have declined in varying degrees. The margin between lending and deposit rates in Palestine remained relatively higher than its counterpart in the issuing countries. However, it declined on the NIS to 8.8 percentage point, whereas it increased on the JD and the USD to 7.3 and 5.8 percentage points, respectively, during 2015Q3.

The Palestinian stock market succeeded to avoid the consequences of political and security unrest during the fourth quarter. Moreover, it made progress in all sectors, which resulted in a growth of 9.9 percent in the stock market index (Al-Quds Index) compared with 2015Q3, reaching 532.7 points.

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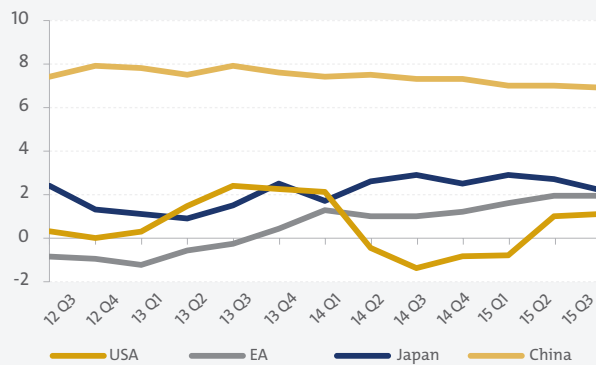
I. Recent Economic Developments

Real GDP

Several adverse developments in major economies' performance and international trade flows overshadowed global growth during 2015Q3, amid signs of slowing activity in both advanced economies and emerging and developing ones. The pessimistic outlook for several big global players forebodes the failure of stimulus packages to spur economic growth, and threatens a renewed financial crisis triggered in emerging markets this time, particularly following several crashes in Asian stock markets during the quarter. In light of the above, the International Monetary Fund maintained its growth expectations for the global economy^[1] at 3.1 percent in 2015, while downscaling 2016 forecasts by 20 basis points to about 3.4 percent.

A closer look at the world's major economies reveals a relative slowdown in activity within the U.S. market during the third quarter, despite initial signs of rising consumer confidence and improving labor market conditions. A stall in investment growth, weaker exports and slowing consumption, both public and private, have all weighed down on growth during 2015Q3, reaching 2.2 percent y-o-y, compared to 2.7 percent in the preceding quarter, and driving IMF growth forecasts down by 10 basis points to 2.5 percent in 2015. The IMF also lowered its 2016 forecasts by 20 basis points to 2.6 percent owing a dim global outlook and the negative influence of a strong U.S. dollar on exports.

Figure 1: Real growth rates in some main economies



Source: Different Sources^[2]

[1] International Monetary Fund, World Economic Outlook, January, 2016. Previous estimates were published in October, 2015.

[2] IFS database, BoEA, and <http://www.tradingeconomics.com>.

Similarly, no significant change to Euro Area growth patterns appeared during 2015Q3, as real GDP growth stabilizing at 1.9 percent for the second consecutive quarter on the back drop of subdued exports and slow recovery in domestic demand. Disparities in performance lingered through the monetary union, with the German, French, Spanish and Irish economies accelerating to reflect improving domestic demand and investments, all while other member economies stalled in varying degrees in light of weak exports and industrial production. Greece also suffered a contraction in real GDP during 2015Q3 concurrent with a renewed debt crisis and the subsequent halt in government spending, substantial capital outflows, and the eventual capital controls imposed by the Greek government on capital movement. As a result, the IMF maintained its growth forecasts at 1.5 percent for 2015, while upgrading 2016 forecasts by 10 basis points to 1.7 percent.

The Japanese economy, on the other hand, managed to avoid contraction with an unexpected growth in investment spending, despite initial estimates pointing to negative growth rates during the quarter. Real GDP grew by 1.1 percent y-o-y during 2015Q3, compared to 1.0 percent in 2015Q2, as external trade continued to benefit from a weaker yen. Be that as it may, a slowing Chinese economy and falling demand for Japanese exports paint an unfavorable outlook for industrial production and the export sector in the country over the medium run. As such, the IMF maintained 2015 growth forecasts at 0.6 percent, while downscaling 2016 forecasts by 10 basis points to 1.0 percent.

In the meantime, activity continued to slow in China in light of receding global trade and stalling industrial production. Growth in real GDP slowed to 6.9 percent during 2015Q3, compared to 7.0 percent in 2015Q2, amid mounting concerns of bursts in asset prices bubbles and uncertainty regarding the spillover of U.S. interest rate hikes on stock markets and capital flows to China. Despite these concerns, growth forecasts remained stable for 2015 and 2016 at 6.8 percent and 6.3 percent, respectively, according to the IMF.

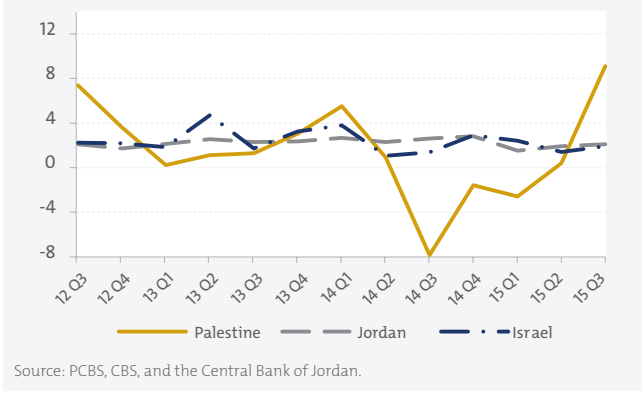
In a similar context, political and economic turmoil lingered within the MENA region, limiting its capacity to achieve adequate growth levels, particularly in countries like Iraq, Syria, Egypt, Libya and Yemen. Despite an upgraded growth outlook in 2015 (up by 20 basis points to 2.5 percent), the IMF lowered the region's expected growth to 3.6 percent in 2016 in light of absent political stability and the inevitably negative spillovers of sliding oil prices on exporting countries in the medium term.



Regionally, data showed higher consistency in economic performance among neighboring countries compared to previous quarters. Activity further accelerated in Jordan, with real GDP growing at 2.6 percent in 2015Q3, compared to 2.4 percent in the previous quarter, benefiting from improvements in services, transportation and agriculture, and despite a slowdown in manufacturing and construction activities. The IMF expects the Jordanian economy to close the year with a 2.9 percent growth in real GDP, and to expand to 3.7 percent in 2016, according to the latest estimates.

Similarly, the Israeli production resumed its acceleration in the third quarter after several quarters of subdued performance. The Israeli economy expanded by 2.4 percent, compared to 1.9 percent in 2015Q2, reflecting a relative improvement in consumer spending in the local market and falling imports during the quarter. Meanwhile, exports continued to fall, and government spending and investment fell short of levels needed to sustain the growth acceleration. Accordingly, the IMF raised its 2015 expectations from 2.5 percent to 3.0 percent, according to Article IV consultations concluding statement published in January. The statement expects the Israeli economy to expand by 2.5-3.0 percent in the medium run.

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



Domestically, real GDP jumped by 9.6 percent y-o-y in 2015Q3, compared to 0.9 percent in the preceding quarter. Such figure reflects a better performance than achieved during the war period in the corresponding quarter of 2014 for both the WB and GS. It is the case however, that both regions witnessed a contraction in real GDP q-o-q due to seasonal factors or subdued activity in several sectors compared to the previous quarters. Some short-term indicators revealed a decline during the quarter, for example; cement exports dropped, and unemployment increased^[3].

[3] Short-term indicators such as cement exports, electricity consumption, unemployment and others are used by PCBS in NA calculations.



The relative political stability prevailing through 2015Q3, normalized public spending following the recent financial crisis during 2015Q1, and a consistent flow of Palestinian labor to the Israeli market have all contributed to a better 2015Q3 for the WB, with GDP growing by 4.0 percent, compared to 3.2 percent in preceding quarter. A sectorial view shows that activity improved in the finance and insurance sector by 12.6 percent y-o-y, and by 9.1 percent in transportation and storage, 9.0 percent in communications, 4.6 percent in services, and 4.4 percent in trade. In contrast, construction activities contracted unexpectedly by 5.3 percent, adding to a 5.0 percent and 6.9 percent contraction in manufacturing and agriculture, respectively.

Meanwhile, annual comparison in GS points to leaps in production levels in light of resumed activity in the Strip after a near complete halt during the war. Value added quintupled in the construction sector during the third quarter, while growth in transportation and agriculture surpassed 100 percent. Trade and manufacturing grew by 94.9 percent and 74.5 percent, respectively, while financial and insurance activities expanded by 20.0 percent, followed by communications (19.0 percent) and services (6.6 percent). It is noteworthy, however, that despite what the aforementioned rates imply in terms of recovering activity, particularly after Israel allowed the flow of construction materials and reconstruction activities, GDP added values for several economic sectors in GS remained below their pre-war levels, including manufacturing, agriculture, trade and services.

Aggregate demand

Gross Domestic Product (GDP) in Palestine has grown during 2015Q3, reaching USD 1,921.9 million in 2004 prices, scoring a 9.6 percent growth on annual basis as most of GDP components have expanded (see table 1).

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

(USD million)

	2014		2015		
	Q3	Q4	Q1	Q2	Q3
Private consumption	1,886.6	1,734.0	1,703.0	1,746.3	1,665.7
Government expenditure	580.6	498.3	473.7	535.6	524.6
Investment	276.3	355.1	339.5	457.6	386.2
Exports	338.8	427.4	398.6	456.7	387.5
Imports	1,048.4	1,117.4	1,096.3	1,206.8	1,262.1
GDP	1,754.1	1,874.8	1,852.0	1,959.3	1,921.9

Source: PCBS.



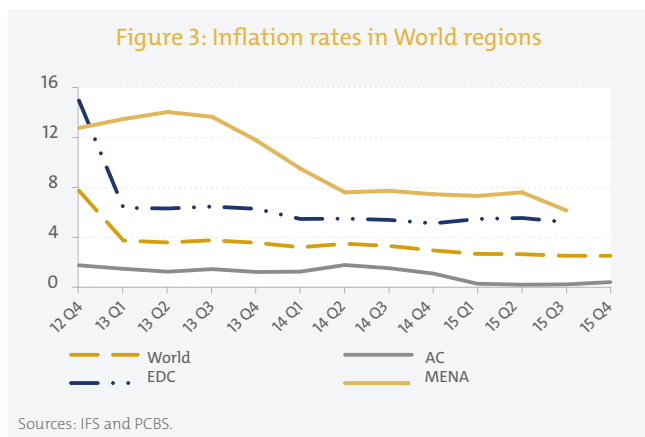
Private consumption has grown in both the WB and GS during 2015Q3, resulting in a y-o-y growth of 13.3 percent in total private consumption. Conversely, public consumption significantly declined in the WB, and to a lesser degree in GS, while total public consumption dropped by 9.6 percent. In sum, final consumption^[4] has grown by 7.3 percent reaching USD 2,411.2 million in 2004 prices.

Investment has witnessed an improvement in both regions; it moderately grew in the WB, while investment in buildings in GS remarkably increased during the quarter, accompanied by little withdrawal from inventory. In sum, investment in Palestine grew on y-o-y basis by 40 percent. Likewise, both trade components increased in the two regions, with a significant increase (14.4 percent) in exports, and an even larger increase (20.4 percent) in imports. As a result, the trade deficit grew again by 23.3 percent to USD 874.6 million.

Inflation

Global commodity prices witnessed a further drop during 2015Q4, which affected different countries' inflation rates in different ways. On one side, the declining prices stimulated higher consumption in some economies, which in turn led to higher inflation rates. However, that was not sufficient in some countries that suffered from the economic consequences of the financial crisis, and demand weakened furthermore; and thus inflation fell.

Apart from the formerly mentioned divergences, inflation rates in main economies persisted at low levels below targets, and didn't exceed in most of them the (1 percent) threshold during 2015Q4. In the U.S. for example, inflation slightly increased from 0.11 percent in



[4] Final consumption includes: private consumption (household consumption and non-profit institutions serving households "NPISH"), and public consumption.



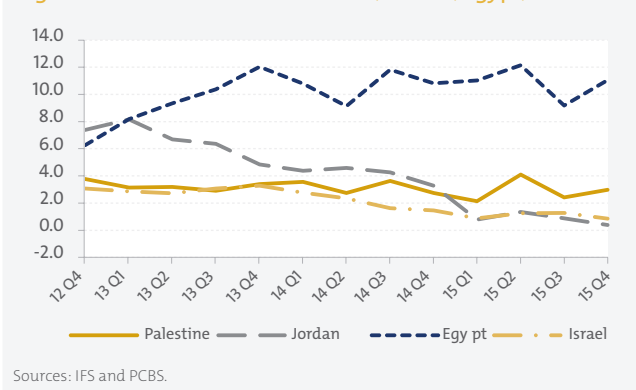
2015Q3 to 0.47 percent this quarter. Moreover, inflation in both the Euro Area and Japan marginally increased to less than 0.5 percent. In general, inflation in Advanced countries (AC) increased by only 19 basis points in 2015Q4, reaching 0.39 percent, due to a slight improvement in private consumption.

However, inflation in Emerging and Developing Countries (EDC) exceeds that in the AC. Although the data for EDC's group are not available for 2015Q4, preliminary indicators revealed a slight decline in inflation of main economies, particularly in China under persistent concerns of an unfolding economic crisis. It is worth mentioning that the EDC have experienced persistent price hikes during the past few years, when inflation had reached its peak in 2011, before it started to decline afterwards. In the MENA region, which experiences one of the highest inflation rates in the world, inflation reached 6.2 percent during 2015Q3, as the most recent data indicate.

In sum, between the slight increase in the AD and the slight decline in the EDC during the fourth quarter of 2015, the global inflation stabilized at 2.5 percent for the second consecutive quarter (see figure 3).

Likewise, inflation rates in Palestine and neighboring countries experienced different trends during 2015Q4. As figure (4) indicates, the movement of the inflation rate in Palestine during the quarter was conversely related to those in Israel and Jordan, while it was consistent with that in

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



Egypt. Inflation resumed its increase in Palestine from 0.9 percent in 2015Q3 to 1.5 percent this quarter due to a price rise in both the WB and GS. Likewise, inflation in Egypt notably increased from 8.5 percent to around 10.6 percent during the comparison period. Despite the price fluctuations, Egypt had the highest inflation rates among the neighboring countries which reflect the continuous political turmoil since 2011.

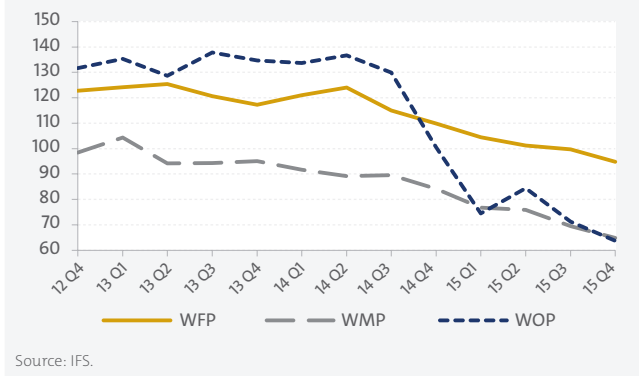


Meanwhile, Jordan and Israel continued to experience a deflation due to a continuous drop in imported commodity prices. Deflation in Jordan worsened to 1.4 percent compared to deflation of 0.85 percent in the previous quarter. In Israel, deflation reached 0.9 percent compared to 0.4 percent.

Global and local prices

Changes in global, regional, and local inflation rates during 2015Q4 were mainly due to fluctuations in commodity prices worldwide. Figure (5) shows a downward trend of global prices during the last few quarters, particularly world oil price (WOP), which declined by about

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



43.4 percent on annual basis, and by 13.5 percent compared to the previous quarter. Moreover, the WOP declined during 2015 by more than 47 percent. This continuous decline has driven WOP below its levels prior to the outbreak of the financial crisis. Currently, WOP is around one third the skyrocketing prices reached in 2008.

Despite weather-driven concerns that emerged in October, world food prices (WFP) continued their downward trend due to abundant supplies of food in the face of a timid world demand, accompanied with continued US dollar appreciation. As a result, the food price index declined by 16.1 percent on annual basis, and by about 5.9 percent compared to the previous quarter. During 2015, the food price index declined by around 17.1 percent. Likewise, world metal prices (WMP) dropped by around 28.1 percent, compared with the corresponding quarter of 2014, and by around 8.5 percent, compared with the previous quarter. Moreover, it declined by around one quarter from the 2014 levels.

Meanwhile, local prices witnessed several developments during 2015Q4, with some price categories showing consistent trends in both GS and the WB, while others showing opposing trends depending on the influence of external factors over domestic prices, especially oil prices.



Generally, most price categories in the WB grew on annual basis during 2015Q4. Food prices increased by 5.9 percent giving the weak agricultural season, while both textile and furniture prices grew by 4.0 percent each, and cultural goods and services prices increased by 4.5 percent. Additionally, the education price index noticeably increased (by 7.8 percent) on annual basis due to the rise in tuition fees during the previous quarter (consequently, education prices did not change compared to the previous quarter). Furthermore, the price indices of restaurants and cafes, medical care, and alcohol and tobacco have increased by 2.4 percent, 2.0 percent and 0.7 percent, respectively, during the comparison period.

In contrast, prices of housing services continued their downward trend that began two years ago, partially affected by the decline in oil prices, in addition to the oversupply of housing units, as some observers indicate. As a result, housing service prices declined by 9.5 percent on annual basis. Likewise, communication prices declined marginally (0.7 percent) and transportation prices declined by only 0.5 percent, despite the significant drop in world oil prices during the same period. In sum, the WB consumer price index increased by 2.1 percent on annual basis, and by 0.7 percent compared to the previous quarter. During 2015, the WB consumer price index grew by around 1.3 percent.

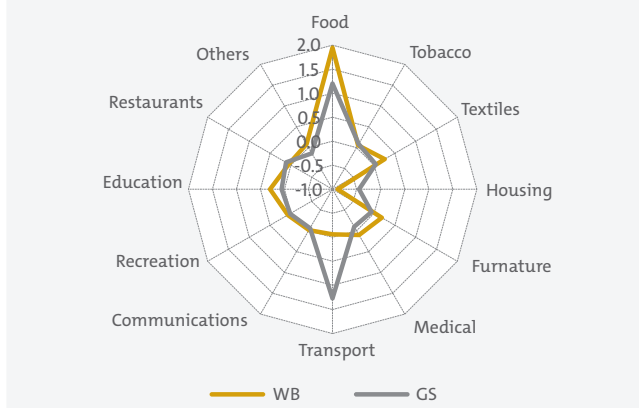
Furthermore, transportation prices in GS continued its increase under the fuel supply crisis, which started two years before, and prevented benefiting from the enormous decline in world oil prices during the same period. Hence, transportation prices rose substantially (17.0 percent) on annual basis. It is noteworthy that transportation prices in GS have increased by around 21 percent over the past two years. Tobacco prices also continued to increase, rising by 2.7 percent, affected by the continued blockade and the destruction of smuggling tunnels. Moreover, food prices resumed their increase, rising by 2.9 percent during 2015Q4, while the cafe and restaurant services prices increased by 7.0 percent, in addition to varying increases in the prices of education, cultural goods and services, and textile.

In contrast, housing services prices have remarkably declined (by 5.2 percent) in light of an increasing flow of building raw materials entering the Strip in recent months, which were devoted to reconstructing and building new housing units, raised the supply, and thus lowered the rent levels. Besides, prices of medical care and communication declined by 3.4 percent and 2.2 percent, respectively. In sum, CPI in GS during 2015Q4 grew by 2.0 percent on annual basis, and by 0.4 percent on a quarterly basis. In 2015, The CPI has fluctuated rapidly under the uncertain conditions during the year; however, it grew by 1.8 percent from 2014 levels.



Generally speaking, food prices contributed 1.9 percentage points to inflation in the WB during 2015Q4, (see figure 6). On the other hand, two factors contributed the most to the inflation rate in GS during the same period: transportation prices, which contributed 1.27 percentage points, and food prices, which contributed 1.2 percentage point. It is noteworthy that the inflation in the GS's CPI excluding housing services prices is equal to 2.4 percent.

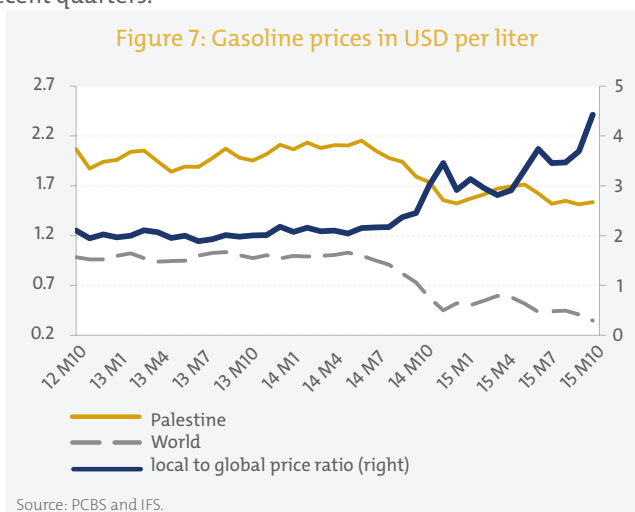
Figure 6: Web chart of the CPI components contribution to the inflation rate in Palestine



It is worth mentioning that inflation in the WB has, recently, become more sensitive to internal factors than external ones, particularly the decline in global commodity prices (mainly food and oil). In GS, however, price fluctuations are still the case, and they remain highly influenced by political and economic conditions, both internally and externally.

Regardless of different price determinants in the WB and GS, commodity prices in Palestine hit much higher levels than in the world market, as it became more evident that changes in global prices are not reflected immediately in local prices, which contributed in widening the price gap in recent quarters.

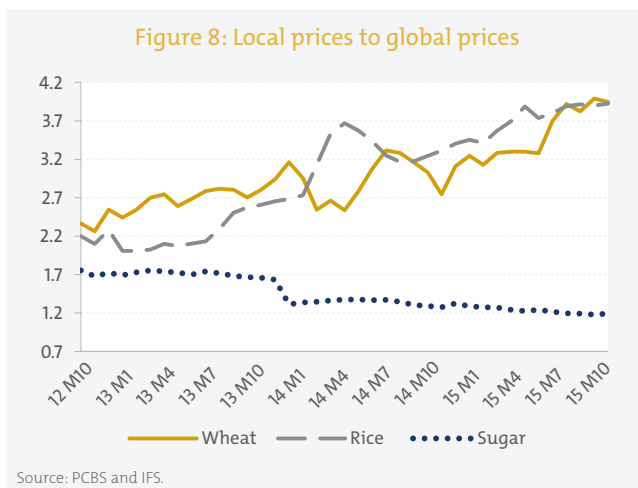
Tracking price movements during 2015Q4 reveals that global gasoline price dropped by more than 43 percent. Meanwhile, gasoline retail price in Palestine declined by only 16.0 percent during the same period (see figure 7). Likewise, global gasoline prices dropped on a quarterly basis (13.5



Source: PCBS and IFS.

percent), but local prices declined by only 5.3 percent. Consequently, gasoline price in Palestine in 2015Q4 rose to 3.8 times its level in the global market, compared to around 3.5 times the price in the previous quarter. It is noteworthy that the continuous decline in gasoline prices that started a year ago was accompanied with a high USD exchange rate against the NIS, and thus, the possible benefits for local consumers were limited. As a result, one liter of gasoline was about USD 1.5 (around NIS 6.0) in the local market, compared with USD 0.35 the global price during 2015Q4.

As is the case in gasoline prices, other commodity prices like for wheat, rice, and sugar remained much higher locally than their world levels. During 2015Q4, global prices of the three abovementioned commodities decreased globally and domestically. However, the price gap remained considerably wide. Both rice and wheat



prices in the local market were 3.9 times their levels in global markets, while the local prices of sugar became around 1.2 times the global prices during 2015Q4 (see figure 8). Several factors stand behind the discrepancy between world and local prices of these products. These include: the taxes imposed on imported products, their high cost of transportation and storage, and oligopolistic prices.

Also interesting are prices for some non-imported commodities, like fresh chicken and beef meat. Local prices of these commodities are not sensitive to global trends but still remained much higher than world prices due to their high cost of production. Besides, global prices of these commodities witnessed further decline in 2015Q4, meanwhile local prices either remained stable or marginally decreased, which resulted in widening the prices gap. For instance, fresh chicken meat prices in Palestine are now around 1.5 times the world price, and beef meat prices became more than 3.8 times the world prices during 2015Q4. Table (2) shows price developments for some selected commodities (imported and non-imported) in the local market during the current and previous quarters.



Table 2: Prices of selected commodities in Palestine NIS per unit ^[5]

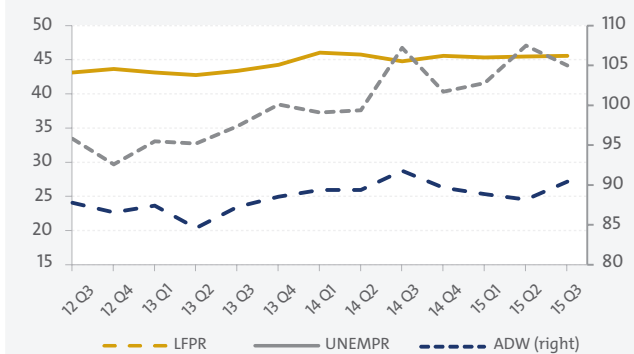
	2014	2015			
	Q4	Q1	Q2	Q3	Q4
Rice	130.6	137.0	137.3	136.7	136.7
Wheat	150.5	153.0	150.3	148.8	149.0
Bread	3.8	3.8	3.9	3.8	3.8
Beef meat	47.8	49.1	53.3	58.7	59.3
Chicken meat	15.4	14.6	16.9	17.2	17.2
Powder Milk (Nido)	94.8	96.1	96.3	96.4	96.4
Yogurt (local)	5.0	5.0	5.1	5.1	5.1
Chicken Eggs	17.5	19.0	15.8	13.9	13.9
Tomatoes	3.7	2.4	2.9	3.1	3.3
Sugar	143.4	141.6	135.6	132.8	132.5
Gas	68.9	65.0	63.7	57.1	56.9
Diesel	6.4	5.6	5.8	5.5	5.4
Gasoline 95	7.0	6.1	6.4	6.2	6.1

Source: PCBS

Labor force and wages

Labor force participation rate^[6] in Palestine slightly increased during 2015Q3, reaching 45.8 percent compared with 45.7 percent in the previous quarter, and 45.0 percent in the corresponding quarter of 2014. This improvement accompanied an increase in employment, particularly in GS where labor market conditions improved gradually after the Israeli war ended. Hence, the unemployment rate in Gaza declined from 47.4 percent during the war, to around 42.7

Figure 9: Labor force main indicators in Palestine



Source: PCBS.

[5] 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.

[6] The total number of persons aged 15 years and over in Palestine reached 2,847,600 in 2015Q3.



percent in 2015Q3 (figure 9). Meanwhile, a moderate rise in the number of employees in the WB resulted in a slight decline in unemployment to about 17.7 percent, compared to 19.2 percent during the comparison period. It is noteworthy that around half of the labor force increment in the WB came from the increasing number of Palestinian workers in Israel and settlements^[7], which reached their highest levels since the establishment of the PA (113.2 thousand worker), surpassing their former record in 1999.

Furthermore, nominal wages have witnessed distinct developments during 2015Q3. Data revealed a huge decline in Gazans' nominal daily wage (by 9.3 percent y-o-y), which is attributed to the former jump in wages during the last war. Wages returned to pre-war levels shortly afterwards to gradually resume growth in the following quarters; during 2015Q3, Gazans' average daily wage grew by 2.6 percent compared to the previous quarter. In terms of annual comparison, the daily wage in the WB improved by 1.9 percent y-o-y, while the daily wages of workers in Israel and settlements remarkably increased by 5.8 percent. It is noteworthy that the growth in wages of workers in Israel and settlements exceeds that in WB wages, which in turn has further widened the wage gap. In 2015Q3, wages of workers in Israel and settlements were about 2.2 times those of WB workers, and reached around NIS 200.1 a day.

Palestinian participation in the Israeli labor market has a significant impact on both average wages and price levels in Palestine. The relatively higher daily wages of workers in Israel and settlements put pressure on local wages to rise, while the increased disposable income created more demand for local goods and services without tangible expansion in output. These pressures ultimately lead to undesirable inflation in local prices.

The reciprocal impact between prices and wages also implies that when inflation exceeds the rise in the average nominal wage, purchasing power of real wages decline. During 2015Q3, the inflation of 1.6 percent in the WB undermined the growth in nominal wages, and hence the purchasing power remained stable at its previous level. Also, the increase in the purchasing power of workers in Israel and the settlements fell to 4.2 percent during the same period. However, under near-zero inflation in GS, the decline in real wages was almost the same as the decline in nominal wages (9.3 percent). It is also worth noting that a considerable jump (by 9.3 percent) in the USD and the JD exchange rates during 2015Q3 have added to the real wage of workers paid in these currencies.

[7] The Palestinian workers in Israel and settlements are exclusively from the WB, while the Israeli labor market remains completely shut to GS workers since the unilateral withdrawal, which was carried out by the Israeli side from Gaza in 2005.

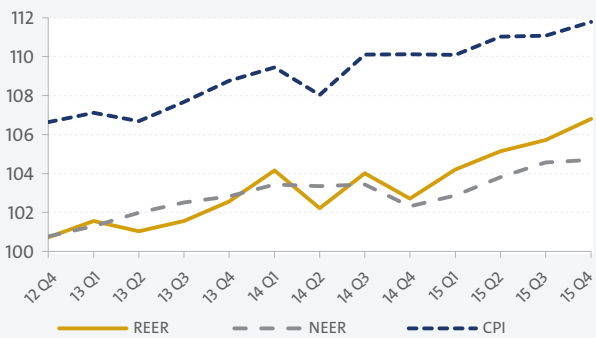


Exchange rates

Figure (10) shows the nominal and real effective exchange rates (NEER and REER) in Palestine^[8]. 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^[9].

Data show that the NEER has appreciated by 2.3 percent during 2015Q4, compared with 2014Q4, which indicates that the NIS appreciated against Palestine trading partners' currencies. Likewise, the REER appreciated further by 4.0 percent during the comparison period, which indicates that Palestine lost some competitiveness against its trading partners. It is worth mentioning that Palestinian foreign trade is substantially affected by the Israeli imposed restrictions and other obstacles, and these effects were much stronger than those due to changes in NEER and REER.

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



Source: PMA and PCBS.

[8] 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.

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

II. Recent Financial Developments

Interest Rates

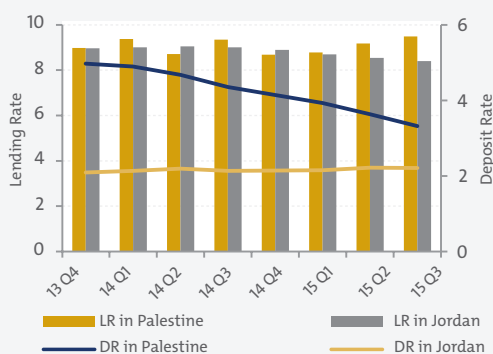
Lending and deposit rates in Palestine usually move over time according to changes in economic and political conditions. However, tracking these movements during previous quarters reveals that lending rates on the three currencies circulating in Palestine are higher than their counterparts in the countries of origin. On the other hand, deposits are higher than their counterparts in the countries of origin for the NIS and USD, but are consistently lower for the JD in Palestine.

Average lending and deposit rates have witnessed various developments during the third quarter of 2015. The average lending rate on the USD and on the JD has increased during the quarter, while it declined on the NIS. On the other hand, the average deposit rate on the three currencies declined during the quarter, but at varying degrees.

The average lending rate on the JD in Palestine witnessed another significant jump during 2015Q3 reaching 9.49 percent, compared to 9.18 percent in 2015Q2, despite a fall in the same rate in Jordan by 14 basis points to 8.40 percent. It is worth noting that the JD is the least circulated currency

in the Palestinian market and is rarely used in daily transactions. Credit share in this currency is also the lowest, reaching 13.4 percent of total credit in 2015Q3.

Figure 11: Lending and deposit rates of JD

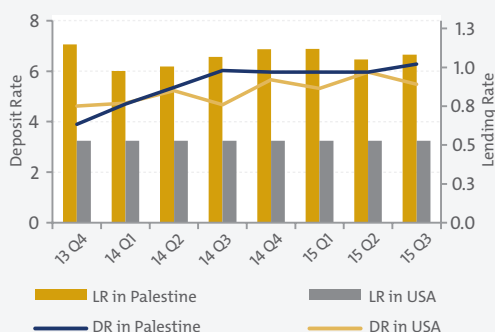


Source: PMA and IFS.



Similarly, the average USD lending rate returned to increase to 6.65 percent in 2015Q3, compared with 6.46 percent during 2015Q2. However, IMF data indicate that the lending rate on the USD in the US remained relatively stable at 3.25 percent during the same period.

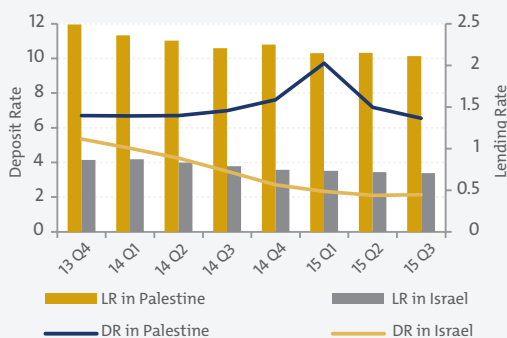
Figure 12: Lending and deposit rates of the USD



Source: PMA and IFS.

On the other hand, the average lending rate on the NIS in Palestine has decreased by 19 basis point reaching 10.15 percent during 2015Q3, concurrent with a year-long decline in the same rate in Israel reaching 3.41 percent this quarter compared to 3.46 percent in the previous quarter, as Bank of Israel maintained the unprecedented low interest rate (0.1 percent).

Figure 13: Lending and deposit rates of the NIS



Source: PMA and IFS.

It is worth mentioning that the high lending rate on the NIS in Palestine is mainly due to the intensive use of the NIS in daily transactions, which increases demand for the NIS. This is evident in the fact that the NIS lending rate in Palestine is consistently the highest among circulating currencies.

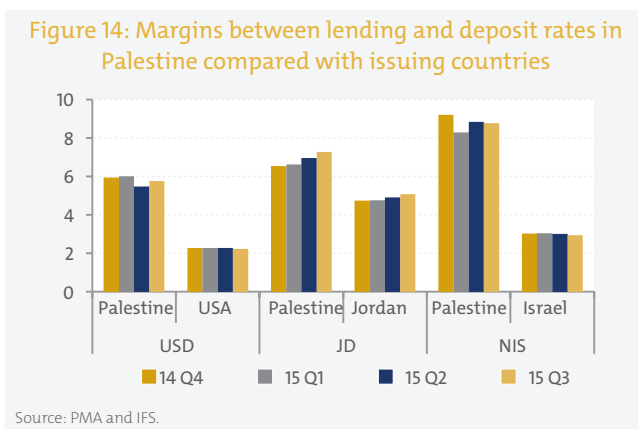
Movements in average deposit rates on currencies circulating in Palestine showed consistent trends during 2015Q3, but with different size. The average deposit rate on the JD declined marginally by 1 basis point reaching 2.21 percent during 2015Q3, concurrent with the continued decline in Jordan during the same period, from 3.63 percent to 3.32 percent.



Similarly, the average USD deposit rate fell by 8 basis points in Palestine reaching 0.89 percent, while it increased in the U.S. to the highest level since years, exceeding the threshold of 1 percent for the first time in 4 years, reaching 1.02 percent^[10].

Additionally, the average deposit rate on the NIS continued to decline reaching 1.37 percent during 2015Q3, compared to 1.5 percent in 2015Q2; however the decline in Israel in the same period remained marginal, 1 basis point reaching 0.45 percent. It is worth noting that NIS deposit rates are historically lower in Palestine than in Israel, yet the repetitive lowering of key interest rates by the Bank of Israel (BoI) during the past two years has reversed this trend since then. This points to a general tendency for rates to remain low within the three issuing countries, due to vulnerable economic conditions and accommodative monetary policy, especially in the U.S. and Israel.

Consequently, the margins between the average lending and deposit rates continue to be remarkably higher in Palestine than in the issuing countries, with a rising for the JD and the USD, and slightly falling for the NIS during 2015Q3 (see figure 14). The margin on the USD in Palestine amounted to 2.6



times that in the U.S., while the margin on JD amounted to 1.4 times that in Jordan. In comparison, the margin on the NIS is the highest; almost three times the margin in Israel during 2015Q3.

As for real interest rates^[11], data indicate that the real deposit rates in Palestine returned to rise during 2015Q3, in light of a relative low inflation (less than 1 percent). The average real deposit rate increased by 0.01 percent for the USD; 1.33 percent for the JD; and 0.49 percent for the NIS.

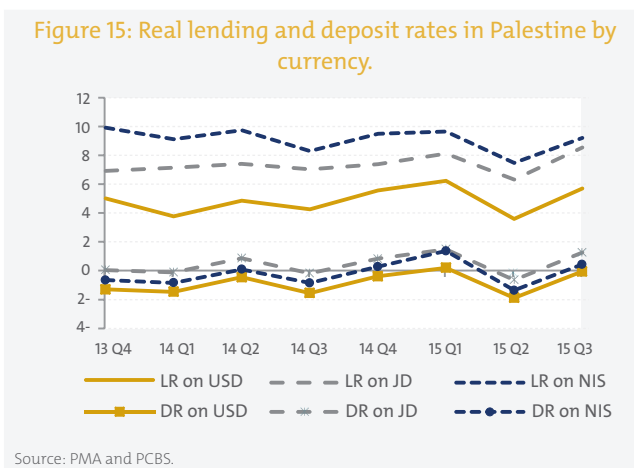
[10] Interest rates on government securities and government bonds in the short-term were used as a proxy for the deposit rate in the U.S.

[11] Fisher's equation: $(1 + \text{nominal interest rate}) = (1 + \text{real interest rate}) * (1 + \text{expected inflation rate})$.



At the same time, the drop in inflation rates in Palestine led to a rise in the average real lending rates to 5.77 percent, 8.61 percent and 9.27 percent on the USD, JD and the NIS, respectively.

Figure (15) illustrates recent developments on average real interest rates during 2015Q3, including:



- Average real deposit rates on the three currencies circulating in Palestine have reverted to the positive territory compared with 2015Q2, which implies that the real value or the purchasing power of deposits in these currencies has increased.
- The average real lending rates increased and remained positive for all currencies circulating in Palestine, implying that the real value of banks' credits has increased during the quarter.

Stock market

During 2015Q4, the Palestinian stock market "Palestine Exchange" succeeded to evade the consequences of political and security unrest which started in October 2015, and rather continued to improve since then. Observers attributed that to the lack of liquidity, circulation, and trading volume as a result of the decline in the number of speculators versus a rise in long-term investment; for the latter were less affected by the political instability given the nature of long-term investments' goals, their expected return, and the length of their investment horizon.

Besides, the series of financial disclosures (for the first three quarters) revealed that most companies achieved profits during the period, particularly the leading companies. As a result, confidence prevailed among investors, pulling Al-Quds index to grow remarkably by 9.9 percent from its previous level, reaching 532.7 point (see table 3). The increase in the banking sector's index contributed the most to the increase in Al-Quds index, which notably grew by 15.2 percent as all listed banks and financial institutions achieved significant profits during the period. This was followed by an increase in the indices of industry, insurance, investment, and services sectors by 8.8, 8.4, 8.1, and 5.9 percent, respectively.



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

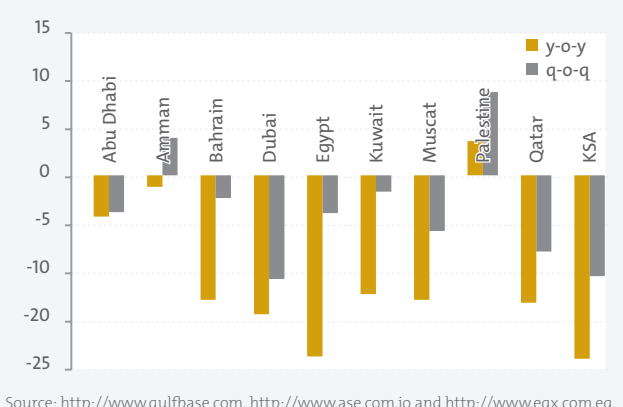
	2014	2015			
	Q4	Q1	Q2	Q3	Q4
Banking	119.7	119.8	119.6	124.6	143.6
Industry	67.7	68.1	66.2	64.2	69.9
Insurance	46.8	46.3	44.6	45.3	49.1
Investment	25.5	24.1	22.8	22.2	24.0
Service	49.2	43.3	44.9	45.7	48.4
Al-Quds	511.8	474.9	478.4	484.7	532.7

Source: www.pex.ps

The performance of some selected Arab countries' stock markets experienced significant losses due to a decline in investors' confidence as oil prices continued to decline. Moreover, concerns about the new global economic crisis, especially in China, have spread during the quarter.

Those concerns led to huge losses, and thus indices of Arab stock markets, particularly of Gulf States, have deteriorated sharply on both annual and quarterly bases. The biggest losses were in Saudi Arabia and the Dubai stock markets. The index of Saudi Arabia stock market dropped severely by 12.0 percent,

Figure 16: Stock markets performance, some selected Arab markets

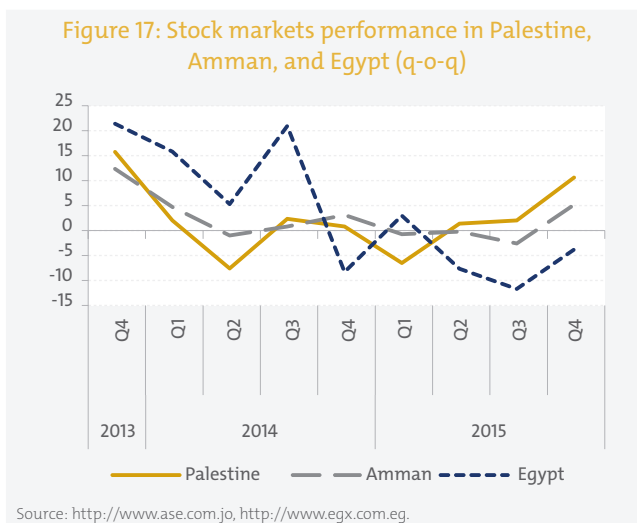


Source: <http://www.gulfbase.com>, <http://www.ase.com.jo> and <http://www.egx.com.eg>.

compared to the previous quarter and by 21.8 percent on annual basis. Also, the decline in the Dubai stock market's index reached about 12.3 percent compared to the previous quarter, while they decreased by around 21.5 percent on annual basis. Moreover, Egypt, Qatar, Bahrain, Kuwait and Oman have all registered significant losses (see figure 16), while the Abu Dhabi stock market witnessed the smallest loss among Gulf States. However, the Jordan stock market progressed in 2015Q4 compared to the previous quarter, but declined compared to 2014Q4.



As to the relation between the Palestinian stock market and the stock markets in the region, data revealed that the Palestinian stock market was significantly affected mainly by the Jordanian stock market, and to a lesser extent, by the Egyptian stock market (see figure 17). The effects of other Arab stock markets were tested and



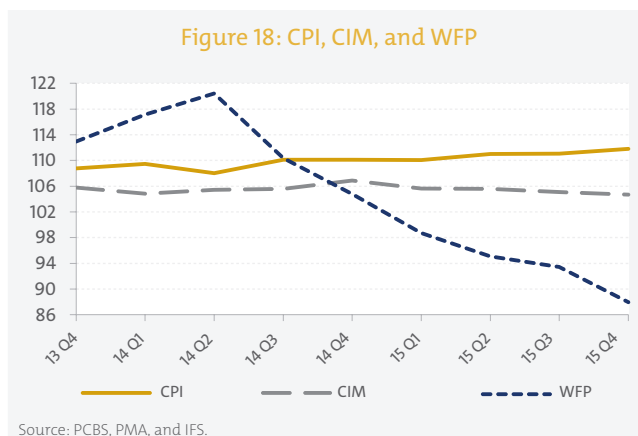
shown to be virtually insignificant. This implies that the local stock market continues to be relatively shielded from the influence of factors affecting the region’s stock markets.



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 high weight food occupies in the CPI basket in Palestine^[12].



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.

In this respect, long-run 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 2016Q1-2017Q4. To that end, a baseline scenario for the exogenous variables, CIM and WFP, is needed. The CIM is basically the denominator of the REER index calculated by the PMA. The baseline scenario for the CIM was derived from the VECM. Thus, CIM is assumed to increase by 2.0 percent in 2016 and by around 2.1 percent in 2017.

[12] 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 food prices will decline in 2016 compared with 2015 but will resume its increase in 2017, albeit at a slower pace. Accordingly, we assume that the world food prices will decline by around 5.6 percent in 2016, and will increase by around 1.2 percent in 2017.

Inflation will be forecasted according to the above-mentioned three estimation techniques^[13], 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.
2015*	-0.41	-17.12	1.43	1.43	1.43	1.43
16Q1	0.65	-6.29	1.91	2.44	2.42	2.25
16Q2	1.35	-6.38	1.64	1.35	1.30	1.43
16Q3	2.21	-7.98	2.08	1.17	1.11	1.45
16Q4	3.78	-1.63	1.51	1.41	1.34	1.42
2016	1.99	-5.64	1.78	1.59	1.54	1.64
17Q1	3.27	-2.59	1.91	1.59	1.52	1.67
17Q2	2.49	0.90	2.22	1.65	1.59	1.82
17Q3	1.76	4.77	1.90	1.78	1.72	1.80
17Q4	0.88	2.08	1.74	1.70	1.64	1.70
2017	2.10	1.21	1.94	1.68	1.62	1.75

* Actual data.

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 inflation forecast for 2016Q1 will be 2.3 percent, as compared to 2015Q1. Also, we expect the average inflation rate to rise to 1.6 percent in 2016, and to continue increasing to 1.8 percent in 2017 (see table 4).

[13] VECM, ARDL, and the FMOLS.

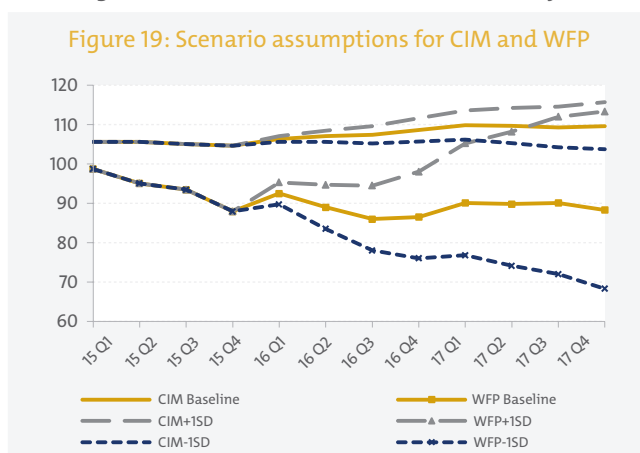


IV. The Balance of Inflation Risk

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 variables' forecasts; these exclusively refer to external conditions reflecting foreign inflation trends, NIS bilateral exchange rates, and world food market prices.

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

These results demonstrate that taking a one- Standard Deviation (1SD) shock may not fully reflect the implied risk. Because of the existence of excess kurtosis^[14], the probability distributions are leptokurtic, implying that the occurrence of extreme shocks has a probability that is higher than one would expect on basis of a normal distribution (see figure 19).



The results of these scenarios are mentioned in table (5). They indicate that, given the assumptions, the average inflation forecasts during 2016 range between 0.6 percent and 2.7 percent, with 1.6 percent as the central baseline outlook. In 2017, the average inflation forecasts are expected to range between -0.7 percent and 4.2 percent, with 1.8 percent as the central baseline outlook.

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



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

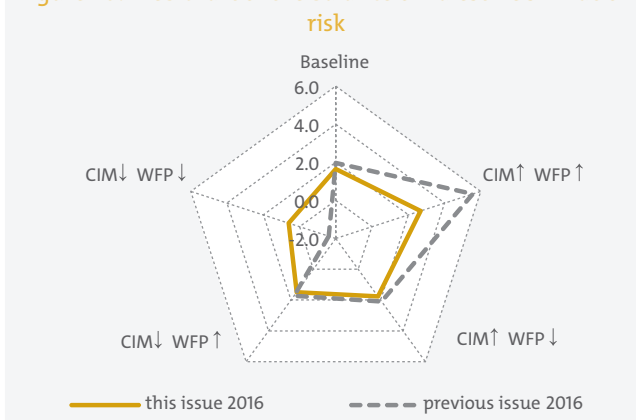
(Percentage point)

Scenario	Shock	Implied annual growth rate CIM		Implied annual growth rate WFP		Implied inflation forecast	
		2016	2017	2016	2017	2016	2017
1	Baseline	1.99	2.1	-5.64	1.21	1.64	1.75
2	+1SD CIM +1SD WFP	3.74	4.90	1.96	14.69	2.68	4.22
3	+1SD CIM -1SD WFP	3.74	4.90	-12.77	-11.04	1.76	1.91
4	-1SD CIM +1SD WFP	0.27	-0.65	1.96	14.69	1.50	1.94
5	-1SD CIM -1SD WFP	0.27	-0.65	-12.77	-11.04	0.59	-0.71

* Actual data.

Figure (20) shows the current risk analysis of inflation in Palestine during 2016 compared with the risk analysis in 2016 predicted in the previous report (volume 16). 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 shows that the risk declined compared with the risk predicted in the previous issue.

Figure 20: Web chart of the balance of Palestine's inflation risk



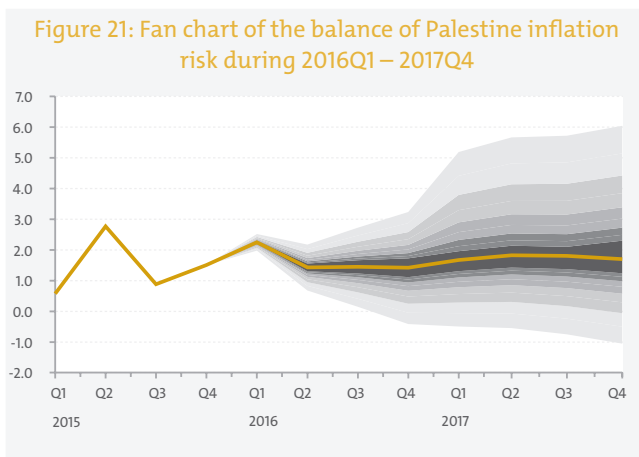
The upside risk to the inflation forecast is clearly related to a higher expected risk in world food prices, combined with a higher inflation in Palestine's main trading partners, compared to what is assumed in the baseline. Conversely, inflation in Palestine may turn out to be considerably lower than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

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Apart from model uncertainty and uncertainty related to external conditions, the inflation outlook for Palestine also hinges on potential specific shocks that may perturb the economic and political conditions in Palestine itself, which are independent of shocks occurring in the rest of the world. An example of such shocks was the clearance revenues Israel withheld during 2015Q1, and therefor delayed and/or disrupted payment of government employees' salaries, which depressed demand and caused a fall in prices.

Figure (21) shows the fan chart of the balance of Palestine's inflation risk during 2016Q1–2017Q4. This chart contains the quarterly profile of the baseline inflation forecast mentioned above. The risk parameters start from a standard deviation equal to 0.2 for the 2016Q1, which is based on the inflation



volatility observed during the most recent years. It then rises up to 1.3 for the 2017Q4, reflecting the fact that uncertainty rises with the forecasting horizon.

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 the 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.

