PALESTINE MONETARY AUTHORITY

Inflation Report

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First Quarter 2015

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Executive Summary

The inflation rate in Palestine witnessed further slowdown in 2015Q1, compared to both the previous and corresponding quarters; it slowed down to its lowest level for the last few years. Inflation dropped to 0.6% in 2015Q1 compared with 1.3% in the previous quarter, and 2.2% in the corresponding quarter 2014. This slowdown was consistent with faltering inflation rates in most countries during 2015Q1, as world commodity prices, particularly food and oil, started to drop since September. However, inflation in Palestine was much lower than that registered in the MENA region in 2015Q1, but exceeded that in Jordan and Israel. Analysis revealed that inflation in Palestine is largely imported and shows high sensitivity to world prices, particularly food and fuel.

The approach followed in this report for inflation analysis and forecasting purposes depends on two 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% of exports and 70% of imports on average); (ii) world food prices, as food has the highest weight in the Palestinian consumer price index (35%).

Inflation forecasts show that consumer prices in Palestine are expected to increase by around 1.0% during 2015, on average. Moreover, prices are also expected to rise by around 0.9% during the second quarter of 2015 on a yearly basis. Forecasts depend on assumptions concerning the most likely future paths for (i) prices and exchange rates in Palestine's most important trading partners, and (ii) prices in the international food markets, as predicted by foreign international organizations such as the IMF and foreign central banks.

Given that Palestine's inflation may deviate from the baseline scenario, due to deviations in foreign prices and exchange rates, the forecast is supplemented with a risk analysis. Beside the baseline, the forecast takes into account four alternative scenarios based on positive and negative one-standard deviation shock in Palestine's cost of imports and 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 by 1.4 points to nearly 2.4% on average, during 2015. On the other hand, a negative one-standard deviation shock may bring inflation in Palestine down by 1.4 points to -0.4% during the same period.

As for financial developments in Palestine, 2014Q4 data indicate that average lending rates on the USD and the NIS have increased compared to the previous quarter, while the rate on the JD has declined during the same period. On the other hand, average deposit rates for the three currencies have increased 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 JD to 6.55 percentage point, whereas it increased on the NIS and the USD to 9.22 and 5.95 percentage points, respectively, during 2014Q4.

The performance of the Palestinian stock market index (Al-Quds Index) declined by around 7.2% during 2015Q1 compared with 2014Q4, and reached 474.9 points. This decline could be attributed to the deteriorating performance of service, investment, and insurance sectors' indices, despite the limited improvement in industry and banking sectors' indices.

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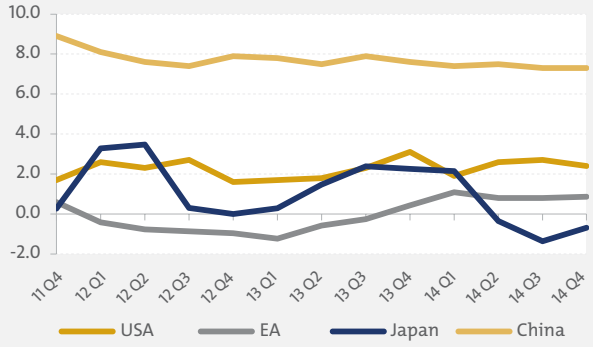
I. Recent Economic Developments

Real GDP

The fourth quarter of 2014 came to an end with increasing divergence in economic performance between main country groups, as while advanced economies (AC) have moved ahead in recovery, emerging and developing countries (EDC) seem to remain stuck in a circle of slowdown. No data are available about the global growth in 2014Q4, however signs of recovery in some major economies have spared the global economy a return into slowdown. For the whole 2014, the world economy has expanded by 3.4% but without any acceleration. Consequently, the IMF growth forecasts[1] for the global economy remained fairly stable, at 3.5% in 2015, and 3.8% in 2016.

A closer look at major economies in 2014Q4 shows that the United States economy (US) exceeded expectations with strong and continued recovery as private demand expanded, reflecting lower commodity prices and improvements in the labor market. As a result, the US economy grew by 2.4% in last quarter of 2014, compared with 2.7% in previous quarter. However, the IMF has revised down its expectations to US economy growth in 2015 and 2016 by 0.5 and 0.2 percentage points respectively, to around 3.1% in both years. Such cut came in light of expectations of negative effects of continued dollar appreciation on the trade balance.

Figure 1: Real growth rates in the World›s region



Source: http://www.tradingeconomics.com.

The Japanese economy, on the other hand, has entered in a recession after an economic contraction for the third consecutive quarter. However, the contraction narrowed to 0.7% in 2014Q4, compared to 1.4% in previous quarter. Domestic demand in Japan continued

[1] IMF, World Economic Outlook, April 2015. While previous forecasts were published in January 2015.

to moderate in response to the latest hike in consumption tax in April 2014, which led the government to postpone the implementation of the second stage of tax reforms. In light of this delay, the IMF revised upward its growth expectations for the Japanese economy in 2015 and 2016 by 0.4 percentage points to become 0.8% and 1.0%, respectively.

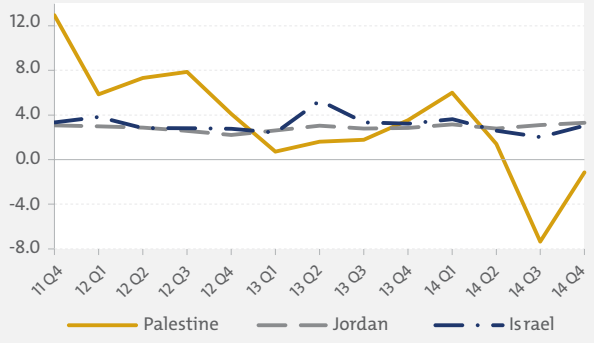
The Euro area's (EA) economy has slightly accelerated to 0.9% in 2014Q4 compared with 0.8% in the previous two quarters, supported mainly by the German economy which witnessed stronger private demand. These developments have led the IMF to revise upward its growth expectations for the EA's economy in 2015 and 2016 by 0.3 and 0.2 percentage points to 1.5% and 1.6%, respectively.

In contrast, the Chinese economy slowed down again during 2014Q4 due to weak private demand, in addition to weak exports to advanced economies. The Chinese GDP grew by 7.3% for the second consecutive quarter, with expectations of further slowing down in coming years, to 6.8% and 6.3% in 2015 and 2016, respectively.

Many countries in the Middle East and North Africa (MENA) region continued to suffer from several political and economic problems, as in Iraq, Syria, Egypt, Libya, and Yemen. The economic and political uncertainty, in addition to negative spillovers of oil price falls to oil exporting countries, have both led the IMF to revise down its growth expectations for the MENA region to 2.8% in 2015, and to accelerate to 3.7% in 2016.

Looking at the region, both the Israeli and Jordanian economies accelerated in 2014Q4 on annual basis. The Jordanian economy grew by around 3.3%, compared to 3.1% during the previous quarter, while benefiting from falling global oil prices at the same period. The IMF expects the Jordanian economy to grow by 3.5% in 2015, with expectations of slowdown in 2016 to 3.3%.

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



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

Also, the Israeli economy grew by 3.0% in 2014Q4, compared to around 1.9% in 2014Q3, as exports relatively increased in light of the NIS depreciation. Also, IMF expects a growth of 3.7% and 4.5% in the Israeli economy in 2015 and 2016, respectively.

Locally, the Palestinian economy experienced a contraction for the second consecutive quarter during 2014Q4, where GDP declined by around 1.1% on annual basis, compared with a contraction of 7.4% in the previous quarter. However, the discrepancies between the WB and GS still exist; while the WB showed an accelerating growth, the Gazan economy deteriorated further under continued blockade and the delay in post-war reconstruction.

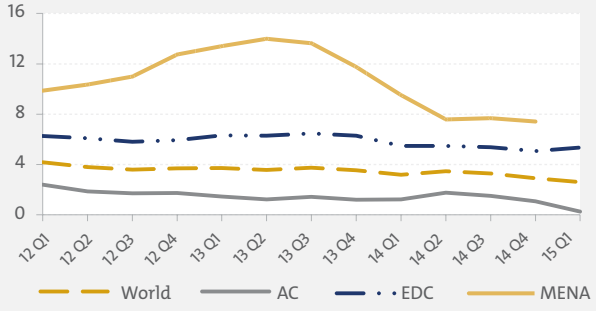
In the WB, annual basis growth sped up in 2014Q4 to around 4.9%, compared to 1.5% in the previous quarter. The main engine for this growth was in the services, transportation, and agriculture sectors that grew by 5.7%, 5.9%, and 6.5%, respectively. Furthermore, public administration services strengthened by 4.4%, and industrial activities improved by 1.3%. Nevertheless, both construction and trade activities have notably weakened by 4.2% and 2.4%, respectively.

However, economic activity in GS has shrunk for the second consecutive quarter by around 18.3% on annual basis, compared to a contraction of 31.8% in 2014Q3. The post war consequences have heavily affected the economy, along with Israel's disrupting the flow of needed building and reconstruction materials to the Strip. Consequently, construction activities shrunk by more than 77%, while the agriculture sector contracted by 31.0%. Similarly, activities of trade, industry, and services have declined by 27.4%, 27.2%, and 14.1%, respectively.

Inflation

Global prices have further declined in 2015Q1, bringing down inflation rates in most countries, in addition to deflation in some advanced countries. The global inflation rate declined in 2015Q1 to around 2.6%, compared to around 2.8% in the previous quarter (Figure 3).

Figure 3: Inflation rates in World regions



Sources: IFS and PCBS.

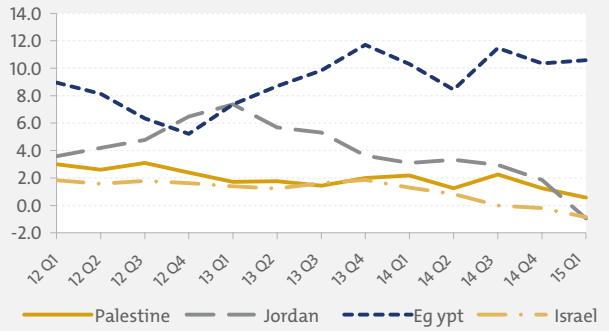
Looking at price movements by country groups, inflation appears to have notably declined in AC, while it marginally increased in EDC.

The AC suffered from deflationary pressures under weak private demand. And despite the expected benefits from lower global prices, it led to a deflation in both the US and Euro Area by 0.1% and 0.3% respectively. As a result, inflation in AC declined to low levels of 0.3% in 2015Q1.

In EDC, inflation rebounded during 2015Q1 to 5.4% compared with 5.1% in the previous quarter. It is worth mentioning that EDC have experienced persistent price hikes during the past few years, when inflation reached its peak in 2011, before it started to decline afterwards. In the MENA region, which registered one of the highest inflation rates in the world, inflation reached 7.4% during 2014Q4, as the most recent data indicate.

Figure (4) compares the average annual inflation rate in Palestine with its neighboring countries (Jordan, Egypt, and Israel). It shows that the movement of inflation rates in Palestine is highly consistent with those in Israel and to a lower degree in Jordan and Egypt. The decline in major commodity prices in global markets in 2015Q1 has pulled inflation in Palestine and its neighboring countries down, but in varying degrees. Palestine's inflation rate declined to about 0.6% percent in 2015Q1, compared with 1.3% in the previous quarter. Moreover, Jordan and Israel have witnessed a deflation of 0.9% and 0.8%, respectively. It is worth mentioning that the Israeli economy has experienced a deflation in the previous quarter, while it is the first deflation in the Jordanian economy since the end of 2009. On the other hand, inflation in Egypt remained high within an unstable political environment, and it increased marginally to 10.6% compared with 10.4% in previous quarter.

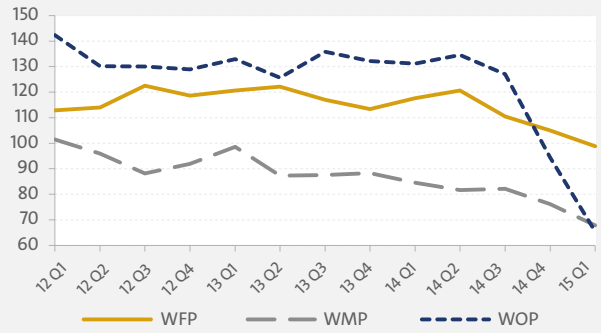
Figure 4: Inflation rates in Palestine, Jordan, Egypt, and Israel



Sources: IFS and PCBS.

Global and local prices

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



Source: IFS.

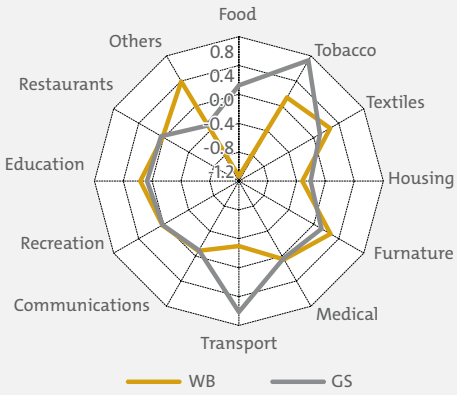
The change in global, regional, and local inflation rates is mainly due to the change in commodity prices worldwide. Figure (5) shows a downward trend of global prices during the last few quarters, particularly in 2015Q1, which experienced broad declines on both quarterly and annual bases. World oil price (WOP) witnessed an unprecedented decline, as it slipped by more than a quarter from its level in the previous quarter, and by around half on annual basis as a result of weak demand in main economies, accompanied with high levels of production and reserves. Changes in oil prices affect the world food price (WFP), which also declined by 5.8% in 2015Q1 from its level in the previous quarter, and declined by 16% from the corresponding quarter of 2014. Also, world metal price (WMP) has notably dropped by around 10.8% compared with the previous quarter, and by around 19.7% compared with the corresponding quarter of 2014.

Meanwhile, local prices witnessed several distinct developments during 2015Q1, yet the changes in the WB prices were largely different than in GS due to different price determinants. Price developments in the WB were highly sensitive to changes in global prices, while the blockade in GS remained the dominant factor.

The WB prices declined on both quarterly and annual bases by around 0.5%, mainly due to the drop in food and transportation prices, in addition to decrease in prices of communication and housing. Food prices have dropped by 3.4% on annual basis affected by global prices decline during the same period. In the same context, transportation prices have declined by 2.2% affected by the decline in oil prices, while prices of communication and housing also declined by 3.4% and 2.7%, respectively. On the other hand, prices of furniture, education, and tobacco increased by 4.5%, 4.3%, and 1.9%, respectively. But due to their small weight in the consumer basket, their effect on the general price index was limited.

However, the decline in global oil prices was not sufficient to offset the effect of the fuel supply crisis in Gaza, as transportation prices grew notably by 8.5%. Also, prices of tobacco have remarkably increased by 29.4% under the blockade and after the destruction of smuggling tunnels. In general, most commodities of consumer basket have increased in varying degrees, except for a decline in communication and housing prices by 3.1% and 2.3% respectively, in addition to a lesser decrease in prices of miscellaneous goods and services group. As a result, the Gazan CPI increased by 1.2% on annual basis during 2015Q1.

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



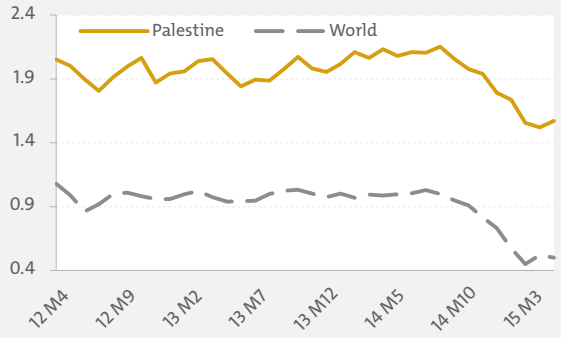
Generally speaking, the main driver of deflation in the WB prices during 2015Q1 was the decline of global food prices, as the food contribution to the WB inflation was -1.1 percentage points during the quarter (Figure 6). On the other hand, the main engine behind price jumps in GS during the same period were alcoholic beverages and tobacco prices, with a contribution of 0.7 percentage point to inflation, and the transportation prices, which contributed 0.6 percentage point.

It is worth mentioning that the recent developments in local prices reflect a major shift in price trends between the two regions. For example, the prices in the WB have witnessed continuous hikes during the past two years affected by the earlier jumps in global commodity prices. Meanwhile, prices in GS declined during the same period, due to cheap commodities that entered the Gazan market through smuggling tunnels.

Despite differences in the two regions, commodity prices in Palestine hit much higher levels than in the world market. Moreover, the recent reduction in global prices has contributed to widening the gap between prices in the local and global markets. Tracking price movements during 2015Q1 reveals that the drop in global gasoline prices was about 50.1%, compared with the corresponding quarter of 2014. Meanwhile, retail price of gasoline

in Palestine declined by around a quarter during the same period. Consequently, the gasoline price in Palestine has become 3.2 times those in global market, compared to around 2.6 times the price in the previous quarter.

Figure 7: Gasoline prices in USD per liter

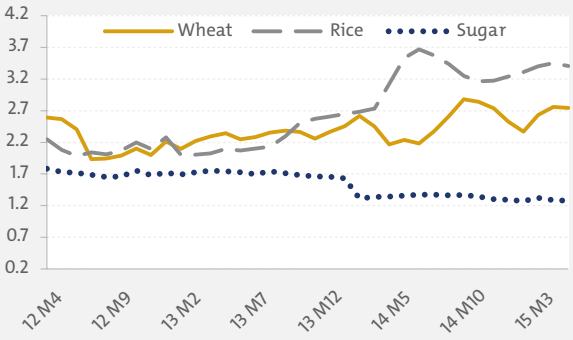


Source: PCBS and IFS.

However, it is important to note that the decline in local gasoline prices reported above are mainly measured in USD, yet the decline measured in NIS during the same period was limited due to the USD appreciation. Consequently, the gain in purchasing power to the local consumer was weaker. The decline of oil prices in local currency (NIS) was about 17% during the 2015Q1, and one liter of gasoline decreased to NIS 6.1 (around USD 1.6), compared with NIS 7.4 (around USD 2.1) during the corresponding quarter of 2014.

As it is the case in gasoline prices, other commodity prices like for wheat, rice, and sugar are much higher than world prices. During 2015Q1, global prices of the three mentioned commodities have decreased in varying degrees. Meanwhile, the decrease in prices of wheat and sugar locally was much lower in comparison, as opposed to an increase in local rice prices during the same period. In general, the gap between global and local prices widened during 2015Q1 (Figure 8). Rice prices in the local market became 3.4 times its price in global markets. Also, the local prices of wheat and sugar became around 2.7 and 1.3 times the global ones, respectively during 2015Q1.

Figure 8: Local prices to global prices



Source: PCBS and IFS.

It is worth noting that there are several factors which stand behind the discrepancy between the world and local prices of these products. Among those are: taxes imposed on these products, the high cost of transportation and storage, in addition to price oligopoly.

Also important are some non-imported commodities like fresh chicken and beef meat. Local prices of these commodities are not sensitive to global trends but are still much higher than world prices due to the high cost of production. Fresh chicken meat prices in Palestine were around 1.5 times the world price and beef meat prices were more than 2.6 times the world prices during 2015Q1. Table 1 shows the price developments for some selected commodities (imported and non-imported) in local market during the current and previous quarters.

Table 1: Prices of selected commodities in Palestine NIS per unit[2]

	2014				2015
	Q1	Q2	Q3	Q4	Q1
Rice	109.6	127.4	125.4	130.6	137.0
Wheat	149.6	151.5	153.6	150.5	153.0
Bread	3.8	3.9	3.9	3.8	3.8
Beef meat	47.7	47.4	48.0	47.8	49.1
Chicken meat	16.7	15.4	16.4	15.4	14.6
Powder Milk (Nido)	95.3	94.8	96.7	94.8	96.1
Yogurt (local)	4.8	4.7	5.0	5.0	5.0
Chicken Eggs	17.8	15.1	17.1	17.5	19.0
Tomatoes	3.1	2.4	4.2	3.7	2.4
Sugar	141.2	146.4	146.2	143.4	141.6
Gas	73.0	69.6	71.0	68.9	65.0
Diesel	6.7	6.6	6.6	6.4	5.6
Gasoline 95	7.4	7.3	7.3	7.0	6.1

Source: PCBS

[2] 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.

Aggregate demand

Gross domestic product in Palestine has dropped to USD 1,878.6 million in 2014Q4, declining by around 1.1% on annual basis as a result of the decrease in investment, accompanied with widening trade deficit (see table 2). Investment has decreased by around 19.2% as the investment in building in GS deteriorated sharply. On the other hand, the improvement in export levels in both the WB and GS was not sufficient to compensate for the trade deficit which expanded by 14.2%, reaching USD 720.5 million. Exports grew by more than 20%, while imports increased by around 16.4% in the same period.

Conversely, consumption has notably accelerated, particularly in GS, as normal life after the war has gradually returned to the Strip. Private consumption grew by 5.6% on annual basis, reaching USD 1,676.9 million, while public consumption grew by 6.8% as current expenditures expanded.

Table 2: Aggregate demand at constant prices (2004=100)

(USD million)

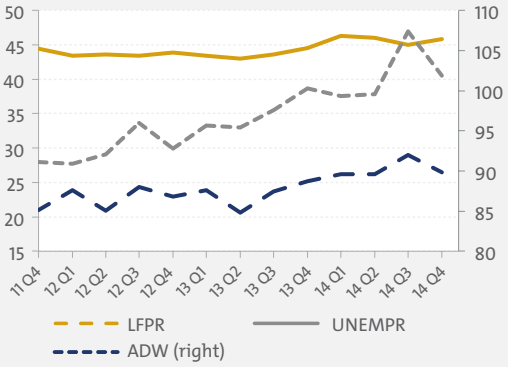
	2013	2014			
	Q4	Q1	Q2	Q3	Q4
Private consumption	1,588.0	1,601.3	1,684.3	1,612.9	1,676.9
Government expenditure	468.3	444.9	510.9	583.1	500.3
Investment	423.8	352.6	397.0	271.1	342.6
Exports	363.8	344.6	359.1	346.2	437.1
Imports	1,001.6	1,020.1	1,137.9	1,092.9	1,165.6
GDP	1,900.4	1,877.2	1,934.9	1,758.3	1,878.6

.Source: PCBS

It is also worth noting that GDP components are usually affected by price fluctuations; the decrease in commodity prices generates higher private and public demand. Moreover, the decline in prices of intermediate goods would positively affect both trade and investment. Consequently, GDP components are expected to benefit from the recent declines in oil and food prices. However, such gain depends on the period and magnitude of this decline, in addition to the components' sensitivity to the decline in specific commodity prices.

Labor force and wages

Figure 9: Labor force main indicators in Palestine



Source: PCBS.

Labor force participation rate in Palestine rebounded during 2014Q4 and reached 45.8% compared with 45.0% in the previous quarter, and 44.5% in the corresponding quarter of 2013[3]. In contrast, the unemployment rate has slightly declined in the same period to 26.5%, compared to 29% in the previous quarter. It is noteworthy that unemployment in 2014Q3 reached its highest level since 2003 as a result of the Israeli attack on GS.

Regionally, unemployment rate hit 47.4% in GS during 2014Q3 before it declined in the subsequent quarter to 42.8%. In the WB, it reached 19.2% and then declined to 17.4% during the same comparative period.

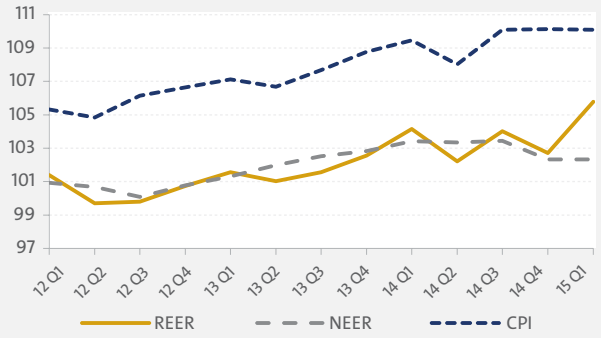
During 2014Q4, nominal wages have increased for workers in both the WB, and Israel and settlements to NIS 91.4 and NIS 194.2, respectively, while it declined for workers in GS to NIS 66.1. As a result, the nominal wage in Palestine has declined to NIS 101.9 during 2014Q4, compared with NIS 107.4 in the previous quarter, but increased compared with the corresponding quarter of 2013 when it reached NIS 100.3. However, one should not consider wage changes in isolation from changes in prices; the increase in prices by more than the increase in nominal wages leads to a decline in real wages and in the purchasing power. During 2014Q4, the rise in prices by 1.3% on annual basis led to further erosion in real wages. This erosion in came as a result of the decline in real wages of Gazan workers by 8.4%, despite the slight increase in real wages in the WB.

[3] The total number of persons aged 15 years and over in Palestine reached 2,777,400 in 2014Q4.

Exchange rates

Figure (10) shows the nominal and real effective exchange rates (NEER and REER) in Palestine[4]. 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, and the appreciation of the REER indicates that Palestine lost competitiveness versus its trading partners[5].

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



Source: PMA and PCBS.

Data show that the NEER has decreased again by 1.1% during 2015Q1, compared with 2014Q1, which indicates that the NIS depreciated against Palestine trading partners' currencies. Conversely, the REER increased further by 1.6% during the comparison period, which indicates that Palestine lost some competitiveness versus its trading partners. It is worth mentioning that Palestinian foreign trade is substantially affected by restrictions and other obstacles imposed by the Israeli occupation, and its effects on trade is much stronger than the effect of changes in NEER and REER.

[4] 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.

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

II. Recent Financial Developments

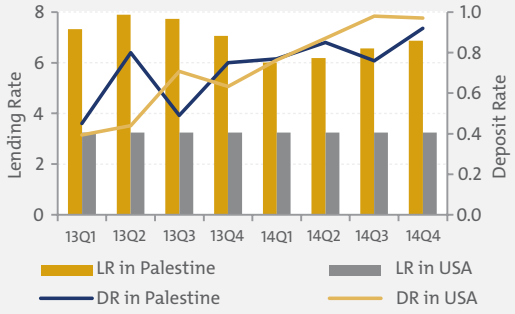
Interest Rates

The lending and deposit rates in Palestine frequently move over time according to changes in economic and political conditions. However, tracking these moves reveals that deposit rates in Palestine, except for the NIS, are lower than the rates in the issuing countries. On the other hand, lending rates on these currencies in Palestine, except for the JD, are more than double their counterparts in the countries of origin.

Average lending and deposit rates have witnessed various developments during the fourth quarter of 2014. The average lending rate on the USD and the NIS has increased, whereas it declined on the JD. On the other hand, the average deposit rates on the three currencies have declined in varying degrees.

The average lending rate on the USD in Palestine has increased to reach 6.87% during 2014Q4, compared with 6.57% during the previous quarter. IMF data indicate that the lending rate on the USD in the US was relatively stable at 3.25% during the same period.

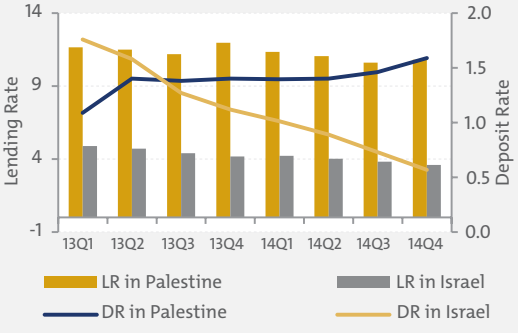
Figure 11: Lending and deposit rates of the USD



Source: PMA and IFS.

At the same time, the average lending rate on the NIS in Palestine has increased for the first time since 2013Q4 to 10.81%, compared with 10.61% in the previous quarter. In contrast, the lending rate in Israel decreased during the same period as Bank

Figure 12: Lending and deposit rates of the NIS

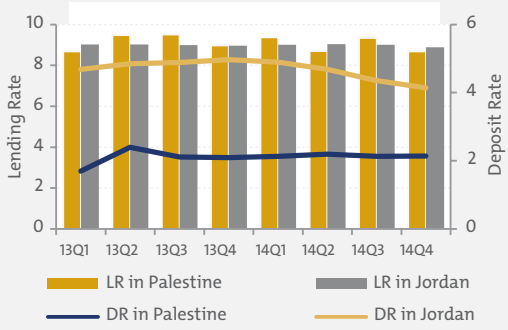


Source: PMA and IFS.

of Israel maintained its key interest rate stable at very low levels. As a result, the margin between deposit rate in Palestine and Israel has widened to more than a triple. It is worth mentioning that the high lending rate on NIS in Palestine is partially due to the intensive use of the NIS in daily transactions, which increases demand, in addition to the high cost of transferring the NIS between banks operating in Palestine and Israeli corresponding banks due to some obstacles.

Conversely, the average lending rate on the JD loans in both Palestine and Jordan have declined during 2014Q4 to 8.69% and 8.89%, compared to 9.35% and 9.01% in the previous quarter, respectively. It is worth to mention that credit facilities of JD currency in Palestine is the lowest compared to other credit facilities, and formed about 12% of the total in 2014Q4.

Figure 13: Lending and deposit rates of JD



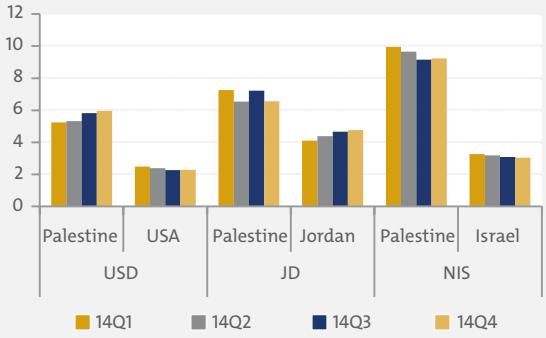
Source: PMA and IFS.

As for the average deposit rates in Palestine during 2014Q4, they have increased for the three currencies circulated in Palestine to varying degrees. The average deposit rates have increased for the USD from 0.76% in 2014Q3 to 0.92%, and increased from 1.46% to 1.59% on the NIS. The increase on the JD, however, was limited (from 2.13% to 2.14%) during the comparison period. On the contrary, deposit rates in issuing countries have declined under expansionary monetary policies (low interest rates), particularly in the US and Israel. Accordingly, average deposit rates have decreased from 0.73% to 0.57% for the NIS in Israel, and from 4.35% to 4.14% for the JD in Jordan. Meanwhile, the USD deposit rate in the US[6] decreased marginally by 0.01 percentage point to 0.97% in 2014Q4.

[6] 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.

Figure 14 shows that the margins between the average lending and deposit rates are remarkably higher and more volatile in Palestine than its counterpart in the issuing countries. During 2014Q4, this margin was about triple the margin in Israel, and double the margin in the US. Also, it remained about 1.4 the margin in Jordan, despite its decline.

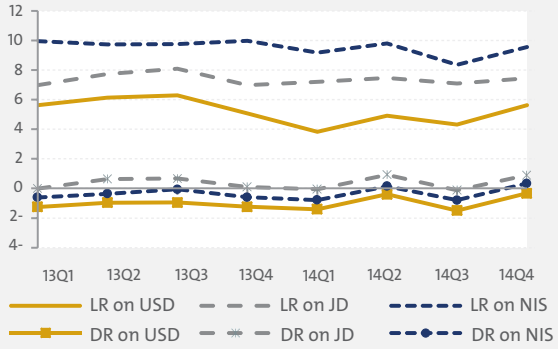
Figure 14: Margins between lending and deposit rates in Palestine compared with issuing countries



Source: PMA and IFS.

As for real interest rates[7], data indicate that the real deposit rate in Palestine was still low during 2014Q4; it reached an average of 0.34% on the NIS, 0.89% on the JD, and -0.33% on the USD. On the other hand, the average real lending rate in Palestine reached about 9.56% on the NIS, 7.44% on the JD, and 5.62% on the USD during the same period.

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



Source: PMA and PCBS.

[7] Fisher's equation; (1+real interest rate) = (1+real interest rate)* (1+ expected inflation rate).

One can notice the following developments in the average real rates during 2014Q4:

- Average real deposit rates on the JD and the NIS have improved to a positive value, which implies that the real value or the purchasing power of deposits in these currencies has increased. Although the average real deposit rate for the USD has improved, it is still negative, which implies that the real value or the purchasing power of the USD deposits in Palestine has deteriorated during 2014Q4.
- The average real lending rates have increased during 2014Q4 for all currencies circulating in Palestine. This implies that the real value of banks' credit facilities is growing further.

Stock market

The Palestinian stock market "Palestine Exchange" witnessed a worsening performance during 2015Q1, compared with previous quarter. The performance of the main companies trading in the market, particularly services companies, fell behind that achieved a quarter before. Many companies distributed dividends earnings at the end of the quarter, resulting in a decline in stocks prices, particularly the PALTEL stock. As a result, services sector index decreased sharply by 11.9% on a quarterly basis. Moreover, indices of investment and insurance sectors declined by 5.7% and 1%, respectively. However, the increase in indices of industry and banking sectors were limited and did not exceed 0.6% and 1%, respectively during the same period. These developments resulted in a decline in Al-Quds index by 7.2% compared with the previous quarter, reaching 474.9 points as shown in Table 3.

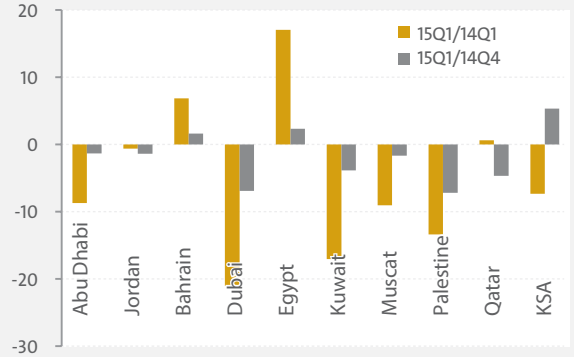
Table 3: Palestine stock exchange index (Al-Quds index)

	2014				2015
	Q4	Q1	Q2	Q3	Q4
Banking	122.7	117.5	119.2	119.7	119.8
Industry	69.3	66.9	68.4	67.7	68.1
Insurance	46.2	44.9	45.7	46.8	46.3
Investment	30.5	26.7	28.2	25.5	24.1
Service	50.6	47.3	47.3	49.2	43.3
Al-Quds	548.4	502.8	511.1	511.8	474.9

Source: www.pex.ps

The performance of stock markets in some selected Arab countries has deteriorated during 2015Q1 compared with the previous and corresponding quarters, affected by political turmoil in the Gulf region. This deterioration is more evident on annual basis; Dubai stock market has witnessed the sharpest decline as its index decreased by 21%, followed by the drop in the Kuwaiti index by 17%. Moreover, the decline in the indices of Muscat, Abu Dhabi, and Saudi Arabia stock markets were about 9.0%, 8.7%, and 7.3%, respectively. It is good to note that most of these markets have witnessed remarkable gains during February, before they began to deteriorate at the back drop of the political instability formerly mentioned.

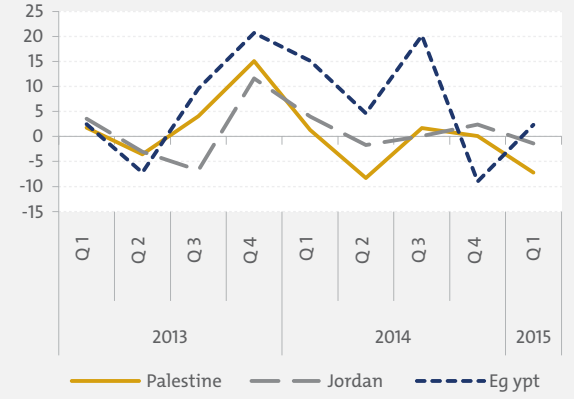
Figure 16: Stock markets performance, some selected Arab markets



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

The relation between Palestinian stock market and the financial markets in the region was quite different this quarter. The previously tested relation revealed that the Palestinian stock market is significantly affected by both Amman and Egypt stock markets. However, the Palestinian stock market seemed to be less affected by these markets this quarter (Figure 17), which implies that the local financial market is still relatively isolated from the factors influencing the region markets.

Figure 17: Stock markets performance in Palestine, Jordan, and Egypt during 2012Q2 – 2014Q4



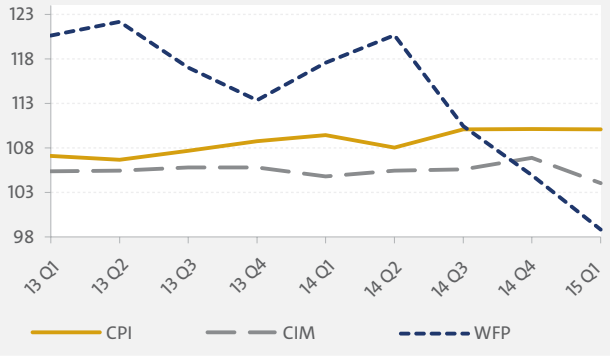
Source: http://www.ase.com.jo, http://www.egx.com.eg.

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 is related to the high weight food occupies in the CPI basket in Palestine[8].

Figure 18: CPI, CIM, and WFP



Given the existence of a co-integrating vector between these variables 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 this long-run relationship are corrected over time 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 approach (FMOLS) of Phillips and Hansen (1990).

Baseline inflation forecast

The objective is to use the basic inflation model to generate a quantitative CPI outlook for the current and next years on a quarterly basis, that is over the period 2015Q2 till 2016Q4. 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

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

scenario for the CIM was derived from the VECM. Thus CIM is assumed to increase by 1.1% in 2015 and by around 1.5% in 2016.

The most recent forecasts of the IMF estimate that food prices will decline in 2015 compared with 2014 and will continue, with a weaker pace, declining in 2016. Accordingly, world food prices will decline by around 15.4% in 2015, and by around 2.5% in 2016.

The estimation of inflation will be done according to the three mentioned estimation techniques[9], 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.
2014*	0.35-	4.14-	1.73	1.73	1.73	1.73
15Q1*	0.74-	15.95-	0.57	0.57	0.57	0.57
15Q2	1.52	19.85-	0.88	0.98	0.96	0.94
15Q3	1.88	14.35-	1.02	1.00	0.96	0.99
15Q4	1.52	10.62-	1.52	1.64	1.59	1.58
2015	1.05	15.36-	1.00	1.05	1.02	1.02
16Q1	1.54	3.57-	1.58	1.53	1.47	1.53
16Q2	1.33	2.80-	1.24	1.85	1.80	1.63
16Q3	1.41	2.01-	1.14	0.94	1.00	1.02
16Q4	1.54	1.68-	1.19	1.19	1.26	1.22
2016	1.46	2.53-	1.29	1.38	1.38	1.35

* 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 specific uncertainty, we will take the simple average of the three models. Accordingly, inflation forecast for 2015Q2 as compared to 2014Q2 is 0.9% on average. Also, we expect the inflation rate to slip in 2015 to 1.0% on average as compared to 2014, but it will grow again to 1.4% on average in 2016.

[9] VECM, ARDL, and the FMOLS.

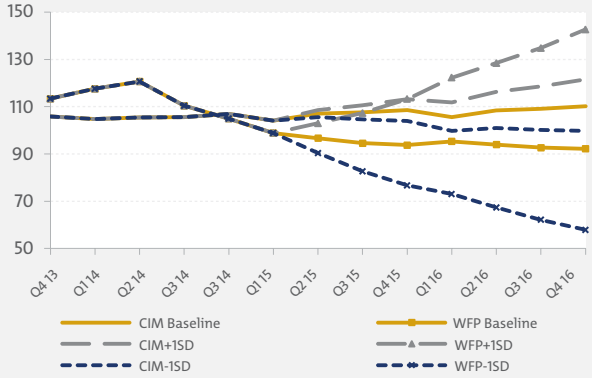
IV. The Balance of Inflation Risk

Apart from the abovementioned risks of model uncertainty, the CPI outlook also crucially depends on the assumptions concerning the course of the exogenous variables used in the model forecast, which exclusively refer to external conditions as implied by foreign inflation trends, bilateral exchange rates of the NIS and the world food market prices.

We evaluate the risks for the CPI outlook stemming from potential shocks in these external conditions, by setting up 4 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[10], 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.

Figure 19: Scenario assumptions for CIM and WFP



The results of these scenarios are mentioned in table (5). They indicate that, given the assumptions, the average inflation forecasts during 2015 range between -0.4% and 2.4% with 1.0% as the central baseline outlook. In 2016, the average inflation forecasts are expected to range between -4.5% and 7.4% with 1.4% as the central baseline outlook.

[10] 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

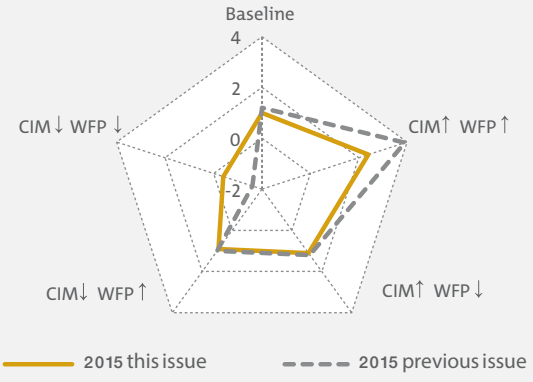
(Percentage point)

Scenario	Shock	Implied annual growth rate CIM		Implied annual growth rate WFP		Implied inflation forecast	
		2015	2016	2015	2016	2015	2016
1	Baseline	1.1	1.5	15.4-	2.5-	1.0	1.4
2	+1SD CIM +1SD WFP	3.2	7.3	6.9-	25.1	2.4	7.4
3	+1SD CIM -1SD WFP	3.2	7.3	23.2-	25.3-	1.1	0.4
4	-1SD CIM +1SD WFP	1.1-	4.2-	6.9-	25.1	0.9	2.1
5	-1SD CIM -1SD WFP	1.1-	4.2-	23.2-	25.3-	0.4-	4.5-

* Actual data.

Figure (20) shows the risk analysis of inflation in Palestine during 2015 compared with the risk analysis predicted in the previous issue for 2015. As can be seen from the figure, scenarios 3 and 4 give close results to the baseline forecast. Scenarios 2 and 5 entail upside and downside outliers respectively. The figure shows that the risk declined compared with our risk analysis presented in the previous issue.

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



CIM: Cost of imports
WFP: World food price index
↑: Increase by one-standard deviation
↓: Decrease by one-standard deviation

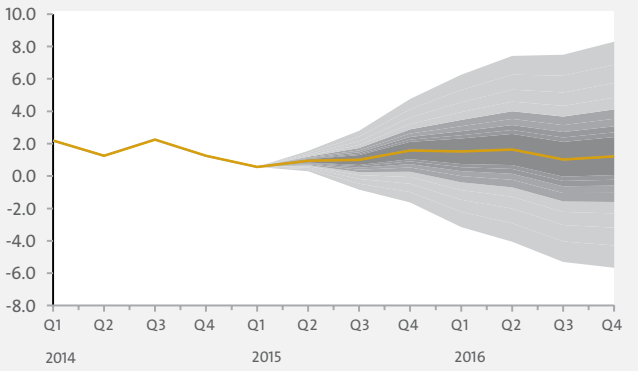
The upside risk to the inflation forecast is clearly related to a higher expected risk in world food prices, combined with a higher inflation in Palestine's main trading partners compared to what is assumed in the baseline. Conversely, inflation in Palestine may turn out to be considerably lower than 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 itself, which are independent of shocks oc-

curring in the rest of the world. An example of such shocks was the last Israeli attack on Gaza Strip, which led to further rises in prices. Another example is that Israel continues to withhold clearance revenues and therefore delays and/or disrupts payment of government employees' salaries, which affects demand on the downside, and may cause a fall in prices.

Figure (21) shows the fan chart of the balance of Palestine's inflation risk during 2015Q2 – 2016Q4. This fan chart contains the quarterly profile of the baseline inflation forecast mentioned above. The risk parameters start from a standard deviation equal to 0.3 for the first quarter of 2015, which is based on the inflation volatility observed during the most recent years. It then rises up to 4.0 for the fourth quarter of 2016, reflecting the fact that uncertainty rises with the forecasting horizon.

Figure 21: Balance of Palestine inflation risk during 2015Q2 – 2016Q4



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.