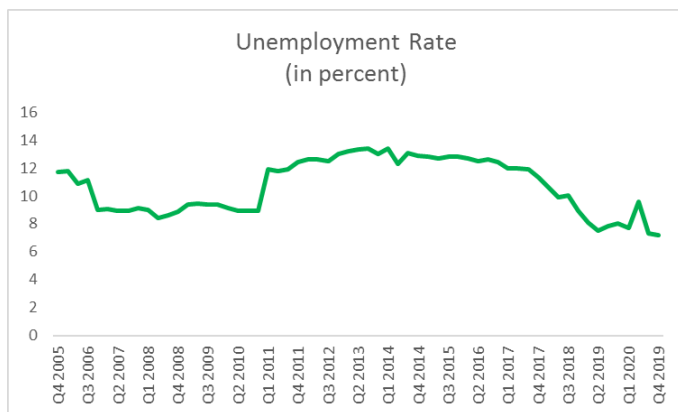# Macro-Note Series
"Unemployment Note"

2020 Q4 Unemployment Rate: Modest Decline Yet Very Positive Trends

February 15, 2021

CAPMAS announced unemployment figure for 2020 Q4… unemployment rate declined slightly to 7.2% in Q4, down from 7.3% during the previous quarter. The decline came on the back of easing the lockdown and the termination of the partial curfew measures taken by the government, according to CAPMAS.

Source: CAPMAS.

Unemployment rate is kept well below the historical average of 10.8%. Most of the improvement emerged from the decline witnessed in females' unemployment registering 16.8% during Q4 2020, compared to 22.7% during the corresponding quarter of the previous quarter. On another note, male unemployment also witnessed a decline but at a slower pace registering 5.1% during Q4, compared to 5.8% during Q3 and a record high of. Worth noting, this quarter pattern came as opposite to the previous quarter, in which the male unemployment improved at a higher rate than that of the females.

Importantly, number of employed increased to 27.8 million workers during Q4, up from 26.1 million workers during an earlier quarter. This leaves the total number of

unemployed at 2.16 million persons in Q4, compared to 2.06 million persons during Q3 2020.
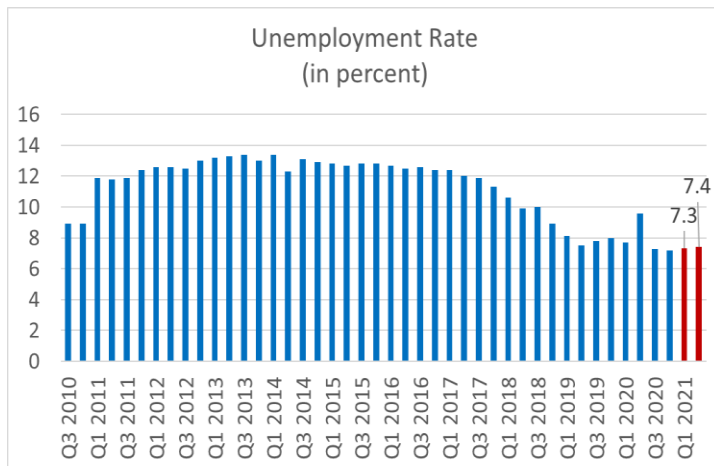

Source: CAPMAS.

The economic structure of the employed workers… participation rate in labor force increased steadily to converge to the historical levels to record 43.5% in Q4, compared to 41.1% in Q3. Agriculture sector had the lion share of 20.6% of the total employed who constituted about 5.7 million workers. Retail and wholesale sector ranked the second which contributed by 15.7% of the total employed, they accounted for 4.4 million workers. Afterwards, came construction and manufacturing sector, contributed by about 13.3% and 12.8%, respectively to the total employed.

…Unemployment, economic growth and inflation rate… Our forecast for GDP for the baseline scenario ranges between 3.1% to 3.5% for the next couple of years. As for the optimistic scenario, it is forecasted at 6.7% during FY2021/22. The IMF expects the GDP growth rate to reach 2.8% during FY 2020/21 and to jump to 6.4% during the FY 2021/22. The developments in forecasted economic
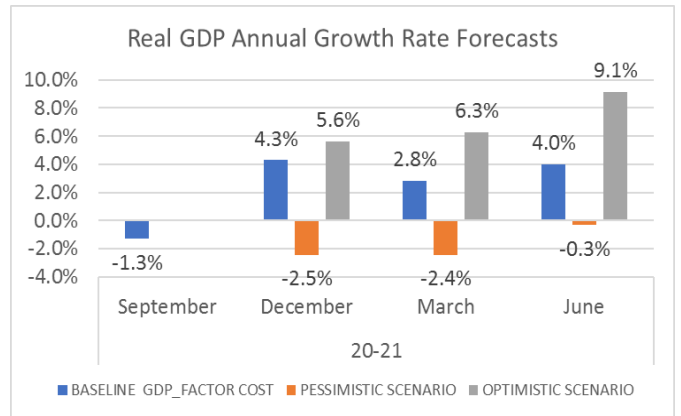
activity are mirrored on the labor market. As such, the forecasted unemployment rate come in line with these dynamics and is expected to reach on average about 7.3% and 7.4% for the for the next couple of quarters.

Real GDP Annual Growth Rate Forecasts

Source: MAP's Estimates and CAPMAS.
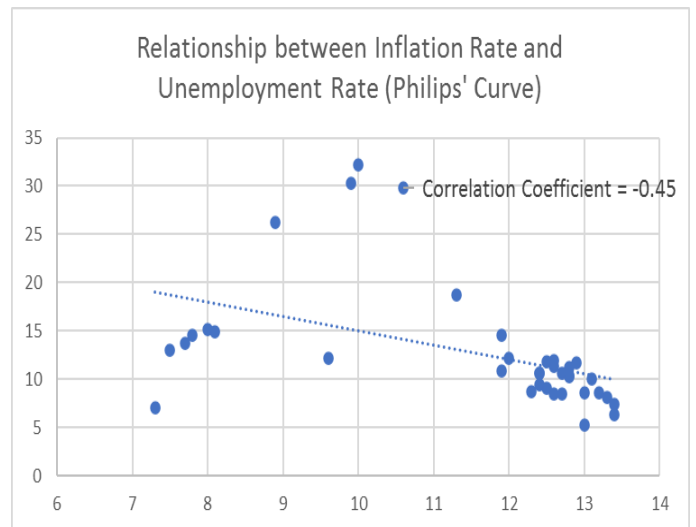

Unemployment Rate (in percent)

Source: MAP's Estimates and CAPMAS.

Furthermore, the association between the unemployment rate and the inflation rate is considered significantly high, estimated at -1.9 for headline inflation and -1.3 for the core inflation. The estimated coefficient implies that the higher unemployment rate by 1%, the lower inflation on average by a magnitude of 1.9% and 1.3% for headline and core inflation, respectively during the period FY 2005/06 through FY 2019/20.

Relationship between Inflation Rate and Unemployment Rate (Philips' Curve)

Correlation Coefficient = -0.45

Source: MAP's Estimates and CAPMAS.

The latest unemployment rate data revealed that there exists a negative relationship between inflation rate and unemployment rate with a correlation coefficient of -0.45. Noteworthy, the impact of unemployment appears after 1-year period, i.e. inflation rate responds to unemployment with a lag period of 1-year. The magnitude of the impact might appear stronger if the overshooting period of inflation is excluded.

Technical Annex: Macro Forecasts Summary

1. **Sectoral Real GDP: Factor Cost**

All values were calculated as the nominal values adjusted for inflation using the Headline CPI.

Three scenarios were calculated:

- Baseline scenario: the historical averages for the last 15 years were utilized in a univariate framework.
- Optimistic scenario: the simple average for the univariate analysis of six leading sectors, which are: Agriculture, manufacturing, construction, real estate, hotels & restaurants and telecommunication were implemented. These six sectors constitute about 57% of real GDP.
- Pessimistic scenario: based on a behavioral function of five proxies for three leading sectors (Suez Canal, transportation and extractions) which are affected primarily from geopolitical issues and the Global pandemic impact especially in the light of the second wave of COVID-19.

2. **Labor Market: Unemployment Rate and Number of Employed**

- Is based on a behavioral equation as a function in GDP (factor cost) and a step dummy to control for the administrative reforms taking place during the second half of FY 2018/19 and beyond.

3. **Inflation Forecasts: Headline and Core**
   - based on a behavioral equation as a function in GDP (factor cost), induced real money gaps and unemployment rate (Philips Curve), plus a step dummy.

4. **Exchange Rate Forecasts:**

- Baseline scenario is based on an ARIMA model (1,0,1). While both optimistic and pessimistic scenarios are based on a behavioral equation including inflation and GDP Growth rates.

Unemployment Rate Slightly Declined in 2020 Q4