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Angelo King Institute  
for Economic and Business Studies

## Monitoring the Philippine Economy Second Quarter Report for 2019

### Project of Angelo King Institute

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*Second quarter 2019 growth performance slowed to 5.5 percent from 6.2 percent the previous year.*

**The Philippine economy registers slowest growth in 17 quarters.** Second quarter growth was recorded at 5.5 percent, which was below the government's growth expectations of 6.0 to 7.0 percent. Slower household consumption, plunge in capital formation, continued government underspending, and lackluster performance of the industry sector contributed to the Q2 2019 growth deceleration in spite of improved trade deficit, accelerated service sector growth, and slight improvement in the agriculture sector. While inflation continued to ease this quarter, the drastic underspending caused by the carryover effect from the national budget delay and election ban remarkably contributed to the economic downturn. Moreover, adverse weather conditions, specifically the spillover effects from the El Niño episode, and policy uncertainties arising from internal and external economic factors remain as challenges the government has to actively address.

- **Major components of aggregate demand**
  - **Private consumption registered as the key driver of growth in the demand-side despite its decelerated growth.** Household Final Consumption Expenditure (HFCE) in the first quarter registered a growth of 5.6 percent year-on-year (y-o-y), which was significantly slower than 6.0 percent and 6.1 percent the previous year and quarter, respectively. The slowdown can be attributable to the water supply shortage prevalent in Metro Manila, which unfavorably affected consumer confidence. Nevertheless, while private consumption growth decelerated, it was able to contribute 3.7 percentage points to GDP growth in Q2 2019. The positive contribution was mainly due to the eased inflation. Consequently, the component, despite its slowed growth, served as a major growth driver for the quarter. According to the Philippine Statistics Authority (PSA)<sup>2</sup>, Food and non-alcoholic beverages, which consists the biggest share in HFCE with 41.3 percent, portrayed slower growth rate of 5.5 percent, relative to the 6.4 percent growth registered the previous year. Housing, water, electricity, gas and other fuels (5.8 percent from 8.5 percent, y-o-y), Furnishings, household equipment and routine household maintenance (4.7 percent from 5.8 percent, y-o-y), Communication (5.1 percent from 6.4 percent, y-o-y), Restaurants and hotels (5.4 percent from 5.8 percent, y-o-y), and miscellaneous goods and services (6.9 percent from 9.3 percent, y-o-y) posted decelerated growth rates. Meanwhile, Alcoholic beverages, Tobacco (-1.3 percent from -3.7 percent, y-o-y), Clothing and Footwear (3.4 percent from -2.4 percent, y-o-y), Health (4.7

<sup>1</sup> Report is based on latest available data as of August 14, 2019. For comments and questions, please email [mitzie.conchada@dlsu.edu.ph](mailto:mitzie.conchada@dlsu.edu.ph)

<sup>2</sup> <http://psa.gov.ph/nap-press-release/sector/Household%20Final%20Consumption>

percent from 1.1 percent, y-o-y), Transport (2.9 percent from 1.0 percent, y-o-y), Recreation and culture (6.8 percent from 4.8 percent, y-o-y), and Education (14.5 percent from 7.4 percent, y-o-y) posted accelerated growth rates.

- **Gross domestic capital formation performance plunged.** Domestic investment registered a negative growth of -8.5 percent from an impressive 20.0 percent growth the previous year. Investments in fixed capital contracted by 4.8 percent, negatively contributing to the component. This is the lowest drop since the 3.6 percent contraction displayed in Q4 2011. According to PSA<sup>3</sup>, the slowdown was hugely caused by the deceleration in Fixed Capital Investments in Construction (2.6 percent from 11.9 percent, y-o-y) and Durable Equipment (13.0 percent from 28.6 percent, y-o-y). Meanwhile, Breeding Stocks and Orchard Development maintained its growth at 3.6 percent and only Intellectual Property Products (28.7 percent from 26.7 percent, y-o-y) exhibited a faster growth.
- **Government continued underspending due to budget delays and election ban.** Government final consumption expenditure continued to weaken with a growth of 6.9 percent from 11.9 percent the previous year and 7.4 percent the previous quarter. According to National Economic Development Authority (NEDA)<sup>4</sup>, continuing effects from budget delays, coupled with *ban on public works and other spending leading up to the May 2019 elections* resulted in underspending during Q2 2019. This has triggered capital formation to plunge for two consecutive quarters, with public construction dropping to 27.2 percent. It is vital for the government to push forward and expedite the implementation of infrastructure projects under the *Build Build Build* program as *only 11 out of the 75 infrastructure flagship projects are in the construction phase*.
- **Trade deficit in goods improved due to increased exports and decreased imports.** At the end of June<sup>5</sup>, exports and imports were recorded at 6.01 billion USD (1.5 percent growth y-o-y) and 8.48 billion USD (-10.4 percent growth y-o-y), respectively. Second quarter displayed a trade deficit of 2.47 billion USD, narrower than the 3.55 billion USD deficit in June 2018. The increases in export sales of the seven of the top ten major export commodities, namely cathodes and section of cathodes of refined copper (41.7 percent), fresh bananas (24.4 percent), ignition wiring set and other wiring sets (17.6 percent), gold (10.1 percent), electronic products (4.3 percent), machinery and transport equipment (3.0 percent), and other mineral products (1.1 percent) significantly contributed to the expansion of exports. Meanwhile, the decreases in total imported goods of the nine of the top ten major import commodities, namely iron and steel (-40.3 percent), cereals and cereal preparations (-29.4 percent), industrial machinery and equipment (-20.7 percent), plastic in primary and non-primary forms (-16.4 percent), transport equipment (-12.6 percent), telecommunication equipment and electrical machinery (-12.2 percent), mineral fuels, lubricants and related materials (-7.0 percent), other food and live animals (-6.7 percent), and miscellaneous manufactured articles (-0.1 percent) notably contributed to the contraction in imports.

<sup>3</sup> <http://psa.gov.ph/nap-press-release/sector/Capital%20Formation>

<sup>4</sup> <http://www.neda.gov.ph/statement-of-socioeconomic-planning-secretary-ernesto-m-pernia-at-the-press-conference-on-the-performance-of-the-philippine-economy-for-q2-2019/>

<sup>5</sup> <https://psa.gov.ph/content/highlights-philippine-export-and-import-statistics-june-2019>

- **Major components of aggregate supply**

*In this report, we present results from an alternative to the “traditional” (TRAD) method of decomposing growth of GDP in constant prices into sector contributions. This alternative method is a “generalized” (GEN) growth decomposition that applies to GDP in constant prices (e.g., in the Philippines) and to GDP in chained prices (e.g., in Canada and the US). While TRAD recognizes only “quantity” growth as the source of a sector’s contribution to GDP growth, GEN posits that a sector’s contribution comes from “quantity” growth and from “real price” growth where this price is, by definition, the ratio of a sector’s deflator to the overall GDP deflator. The GDP deflator as the common denominator of the above ratio makes real GDP the numeraire and, thus, this ratio is the relative price or exchange value of the GDP of a sector in “GDP units,” i.e., the “real price” of a sector’s GDP. Therefore, a sector’s positive “quantity” growth contribution will be diminished if accompanied by a negative “real price” growth of the same sector that may even result in a negative net contribution by the sector to GDP growth. On the other hand, a sector’s positive “quantity” growth contribution will be enhanced if accompanied by a positive “real price” growth (see Table 3).<sup>6</sup>*

- **Services sector continued to lead supply-side growth performance.** Services sector posted the highest contribution to growth, with 4.17 percentage points from positive quantity and real price growth (see Table 3). The sector maintained its major share of 59.6 percent in GDP. Also, growth accelerated to 7.1 percent, compared to the previous quarter’s 6.8 percent and previous year’s 6.7 percent growth. Trade and Repair (8.5 percent from 6.0 percent, y-o-y), and Financial Intermediation (9.2 percent from 7.6 percent, y-o-y), and Other Services (7.8 percent from 6.8 percent, y-o-y) experienced faster growth in the sector. On the other hand, Transportation, Storage and Communication (5.5 percent from 6.0 percent, y-o-y), Real Estate, Renting and Business Activities (4.0 percent from 4.5 percent, y-o-y), and Public Administration and Defense (8.0 percent from 15.0 percent, y-o-y) experienced slower growth in the sector.
- **Industry sector growth showed lackluster performance in Q2 2019.** The industry sector registered a growth of 3.7 percent, significantly slower than the 4.8 percent and 6.5 percent the previous quarter and year, respectively. The sector contributed 1.26 percentage points to GDP growth (see Table 3) while maintaining a 33.4 percent share in GDP. The sub-components that contributed to the slowdown of the industry sector’s growth were: Manufacturing (4.0 percent from 5.7 percent, y-o-y) and Construction (-0.6 percent from 13.0 percent). Meanwhile, the sub-components that contributed to the offsetting of the industry growth were: Mining and Quarrying (15.0 percent from -5.4 percent, y-o-y), and Electricity, Gas and Water Supply (7.5 percent from 4.1 percent, y-o-y). The decline portrayed in the industry could be partly attributed to the ongoing global slowdown caused by the US-China trade war and the election ban on public works, such as construction activities.

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<sup>6</sup> See the footnote to Table 3 for the source of the GDP growth contributions.

- Agriculture sector has been affected by the El Niño phenomenon.** The agriculture sector posted a sluggish growth of 0.6 percent, slower than the 0.7 percent the previous quarter but faster than the 0.3 percent the previous year. Agriculture and Forestry (0.1 percent from 0.3 percent, y-o-y) posted a slower growth while Fishing (3.1 percent from 0.4 percent, y-o-y) posted a faster growth. The sector was able to contribute only 0.04 percentage points (see Table 3) to GDP growth. The sluggish growth is attributable to the El Niño phenomenon, especially for the output of the water-sensitive crops, namely *palay* (declined by 5.5 percent) and corn (declined by 8.4 percent).

**Figure 1. Contributions to GDP growth (y-o-y, %) from Aggregate Supply**



Source: Author's calculations based on data in Table 3 below.

### ***Challenges facing the economy***

- **Peso-dollar exchange rate continues to appreciate<sup>7</sup>.** The peso strengthened by 0.57 percent to average ₱52.07/US\$1, on a quarter-on-quarter basis, from the previous average of ₱52.37/US\$1. The appreciation of the peso was mainly caused by the market sentiment improvements over the US-China trade negotiations and the generally dovish stance of the US Federal Reserve. Meanwhile, on a year-on-year basis, the peso appreciated by 0.70 percent from the previous average of ₱52.43/US\$1 in Q2 2018. Nevertheless, the sustained inflows of foreign exchange from remittances, foreign direct investments, BPO receipts, ample level of the country's GIR, and the country's robust economic growth are foreseen to provide support to the peso.
- **Unfavorable economic factors may serve as adversities to the Philippine economy.** Factors such as (a) weak El Niño, (b) water shortage, particularly in Metro Manila, (c) underspending of the national government, (d) policy uncertainty on investments (e) security risks, (f) higher-than-expected increases in global oil and food prices, (g) persistent trade tensions, and (h) increasing protectionism in advanced economies serve as hindrances to the Philippine economy.

### ***Other economic news***

- **Stock market decreases in PSEi<sup>8</sup>.** At the close of the second quarter, PSEi reported a quarter-on-quarter decline of 0.2 percent with an average index points of 7,882.95. The benchmark index traded at a fairly stable prices. Concerns over the moderation of global and domestic economic growth, lingering US-China trade tensions, and heightened geopolitical tensions were offset by the positive impact on the local bourse of Standard and Poor Global Ratings' upgrade of the country's sovereign rating, Fitch Rating's affirmation of the country's credit rating, and the BSP's easing monetary policy stance in the midst of a manageable inflation outlook.
- **Inflation falls to midpoint of the National Government target<sup>9</sup>.** Second quarter headline inflation further eased to of 3.0 percent, which is within the National Government's inflation target of 3.0 percent  $\pm$  1.0 percentage point. This is remarkably slower than the 3.8 percent in the previous quarter. As a result, the first half average inflation rate for the year is at 3.4 percent. Forecasts of 2019 to 2021 inflation are expected to decline further. Mean inflation forecasts are now at 2.9 percent, 3.2 percent, and 3.1 percent, respectively for 2019, 2020, and 2021. The aforementioned rates are expected to be manageable with the help of the continued implementation of non-monetary policy actions to increase domestic food supply and stabilize prices, such as the rice tariffication law, rice importations, and the mitigating measures set by the Department of Agriculture against El Niño, and easing global crude oil prices. On the other hand, key risks to inflation include adverse weather conditions such as weak El Niño, volatile global oil prices, higher domestic demand particularly in Q4 following the Christmas season, weaker peso against the US dollar, higher government spending on infrastructure, and the potential impact of African swine fever on local pork prices.

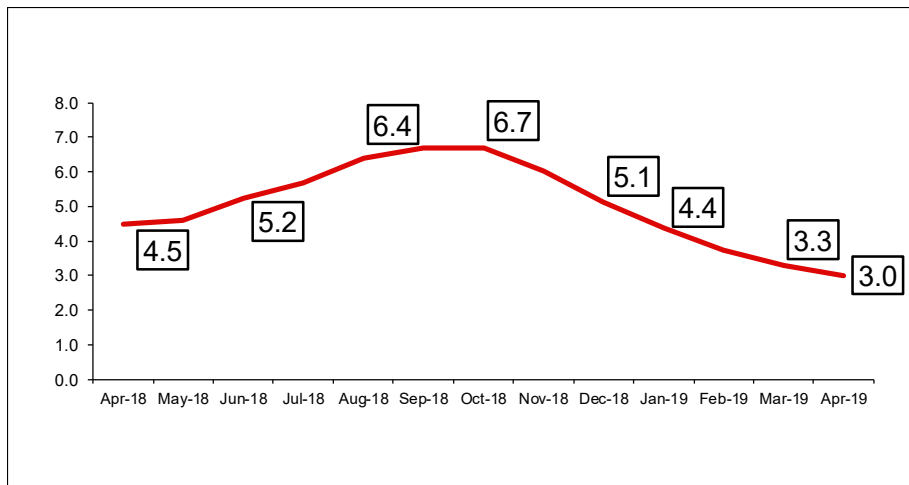
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<sup>7</sup> [http://www.bsp.gov.ph/downloads/Publications/2019/IR2qtr\\_2019.pdf](http://www.bsp.gov.ph/downloads/Publications/2019/IR2qtr_2019.pdf)

<sup>8</sup> [http://www.bsp.gov.ph/downloads/Publications/2019/IR2qtr\\_2019.pdf](http://www.bsp.gov.ph/downloads/Publications/2019/IR2qtr_2019.pdf)

<sup>9</sup> [http://www.bsp.gov.ph/downloads/Publications/2019/IR2qtr\\_2019.pdf](http://www.bsp.gov.ph/downloads/Publications/2019/IR2qtr_2019.pdf)

**Figure 2. Consumer price index (y-o-y, %)**



Source: Graph prepared by author based on Philippine Statistics Authority data.

- Consumer outlook remained negative for the quarter<sup>10</sup>.** Overall confidence index (CI) exhibited a marginal decline to -1.3 percent from -0.5 percent the previous quarter. This indicates that the pessimists continued to outnumber the optimists. According to the nationwide survey, the slightly weakened sentiment was due to (a) expectations of higher prices of goods, particularly oil prices, (b) concerns over poor health and high medical expenses, and (c) concerns over the ongoing water crisis. Meanwhile, the negative sentiments were counterbalanced by the upbeat expectations on (a) improvement in peace and order, (b) good governance, (c) additional income, (d) availability of more jobs and (e) additional working family members. While consumer sentiment is largely unchanged for Q2 2019, it is expected that CI for the next quarter and year ahead would be less favorable due to households' concerns about higher prices of goods and expectations on the increase in educational expenses with the upcoming start of the new school year 2019-2020.
- Business outlook improved for two consecutive quarters<sup>11</sup>.** Overall confidence index (CI) increased to 40.5 percent from 35.2 percent the previous quarter. The more optimistic sentiment was due to (a) usual rise in demand during summer, given the foreseen uptick in the number of local and foreign tourists, (b) election-related spending cumulating to the May 2019 elections, (c) sustained increase in orders and projects resulting to higher production volume, (d) business and new product line expansion, and (e) continued roll-out of government infrastructure and development projects with the approval of the 2019 national budget. Furthermore, the easing of inflation in 2019 favored business outlook. However, business outlook for the quarter ahead seems less positive, given the expectations of interruption of business activities during the rainy season and stiffer competition.

<sup>10</sup> [http://www.bsp.gov.ph/downloads/Publications/2019/CES\\_2qtr2019.pdf](http://www.bsp.gov.ph/downloads/Publications/2019/CES_2qtr2019.pdf)

<sup>11</sup> [http://www.bsp.gov.ph/downloads/Publications/2019/BES\\_2qtr2019.pdf](http://www.bsp.gov.ph/downloads/Publications/2019/BES_2qtr2019.pdf)

- **The Philippine economy should rebound on its second half of 2019 to reach targets** <sup>12</sup>. For Q2 2019, the Philippines registered a gloomy growth of 5.5 percent, which was the lowest growth registered in 17 quarters since the 5.1 percent growth in Q1 2015. As a result, the Philippine economy has to grow by an average of at least 6.4 percent in the second half of the year to achieve the low-end of the full-year growth target of 6.0 percent to 7.0 percent growth. To rebound, it is vital for the government to expedite the implementation of infrastructure projects in fulfillment of the *Build Build Build* program. Moreover, among others, prioritization of the TRABAHO Bill, Foreign Investment Act, Public Service Act, and Retail Trade Liberalization Act, as well as the passage of a revised Security of Tenure bill are essential to boost the country's economic growth.

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<sup>12</sup> <http://www.neda.gov.ph/statement-of-socioeconomic-planning-secretary-ernesto-m-pernia-at-the-press-conference-on-the-performance-of-the-philippine-economy-for-q2-2019/>



**Table 1. Philippine Economic Indicators**

| <b>Philippines Economic Data</b>                |               |               |               |               |               |               |               |               |               |               |               |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Monthly Leading Indicators</b>               | <b>Sep-18</b> | <b>Oct-18</b> | <b>Nov-18</b> | <b>Dec-18</b> | <b>Jan-19</b> | <b>Feb-19</b> | <b>Mar-19</b> | <b>Apr-19</b> | <b>May-19</b> | <b>Jun-19</b> | <b>Jul-19</b> |
| Industrial Production (y-o-y, %)                | 1.6           | 3.2           | 2.3           | -8.6          | -3.9          | -10.0         | -9.3          | -14.0         | -9.9          | -10.5         | ...           |
| Consumer Price Index (y-o-y, %)                 | 6.7           | 6.7           | 6.0           | 5.1           | 4.4           | 3.7           | 3.3           | 3.0           | 3.2           | 2.7           | 2.4           |
| Exports (y-o-y, %)                              | 1.1           | 6.7           | 1.0           | -12.2         | -6.7          | -0.1          | -1.8          | 1.0           | 1.0           | 1.5           | ...           |
| Imports (y-o-y, %)                              | 30.2          | 26.2          | 9.6           | -4.9          | 3.6           | 2.6           | 7.8           | -1.9          | -5.2          | -10.4         | ...           |
| Trade Balance, US\$ million                     | -4,024        | -4,415        | -4,074        | -4,170        | -3,920        | -2,744        | -3,100        | -3,469        | -3,298        | -2,473        | ...           |
| Total Reserves (less gold), US\$ billion        | 67.4          | 66.9          | 67.9          | 71.0          | 74.1          | 74.4          | 75.4          | 75.8          | 77.0          | 76.9          | 77.2          |
| Policy Rate                                     | 4.5           | 4.5           | 4.75          | 4.75          | 4.75          | 4.75          | 4.75          | 4.75          | 4.5           | 4.5           | ...           |
| Fiscal Balance (million pesos)                  | -96,247       | -59,865       | -39,118       | -81,042       | 44,537        | -76,373       | -58,409       | 86,872        | 2,564         | ...           | ...           |
| <b>Quarterly/Annual Economic Indicators</b>     | <b>2016</b>   | <b>1Q2017</b> | <b>2Q2017</b> | <b>3Q2017</b> | <b>4Q2017</b> | <b>1Q2018</b> | <b>2Q2018</b> | <b>3Q2018</b> | <b>4Q2018</b> | <b>1Q2019</b> | <b>2Q2019</b> |
| Real GDP (y-o-y, %)                             | 6.9           | 6.4           | 6.6           | 7.2           | 6.6           | 6.5           | 6.2           | 6.0           | 6.3           | 5.6           | 5.5           |
| - Private Consumption                           | 7.0           | 5.9           | 6.0           | 5.4           | 6.2           | 5.6           | 6.0           | 5.3           | 5.3           | 6.1           | 5.6           |
| - Government Consumption                        | 8.4           | -0.6          | 6.8           | 7.6           | 11.4          | 13.6          | 11.9          | 14.3          | 12.6          | 7.4           | 6.9           |
| - Gross Capital Fixed Formation                 | 23.7          | 12.2          | 7.1           | 9.0           | 9.1           | 10.3          | 20.0          | 19.6          | 4.9           | 8.0           | -8.5          |
| Current Account (% of GDP)                      | -0.4          | -1.2          | -0.1          | 0.7           | -3.8          | -0.4          | -4.2          | -2.1          | -2.6          | -1.5          | ...           |
| Financial Account ( US\$ million)               | 175           | 328           | -945          | 442           | -2,033        | -816          | -1,627        | -1,621        | -3,768        | -4,711        | ...           |
| - Net Direct Investments, US\$ million          | -5,883        | -1,480        | -1,868        | -2,117        | -2,646        | -1,025        | -2,672        | -1,360        | -797          | -1,074        | ...           |
| - Net Portfolio Investments, US\$ million       | 1,480         | 3,258         | -129          | 875           | -114          | 1,612         | 1,021         | -500          | -1,275        | -1,795        | ...           |
| Overall BOP position (US\$, million)            | -1,038        | -994          | 289           | -662          | 505           | -1,227        | -2,030        | -1,879        | 2,830         | 3,797         | ...           |
| Unemployment rate                               | 5.1           | 6.6           | 5.6           | 5.7           | 5             | 5.3           | 5.4           | 5.1           | 5.1           | 5.2           | ...           |
| <b>Others</b>                                   | <b>Jul-18</b> | <b>Aug-18</b> | <b>Sep-18</b> | <b>Oct-18</b> | <b>Nov-18</b> | <b>Dec-18</b> | <b>Jan-19</b> | <b>Feb-19</b> | <b>Mar-19</b> | <b>Apr-19</b> | <b>May-19</b> |
| Overseas Filipinos' Remittances (US\$, million) | 2,401         | 2,476         | 2,237         | 2,474         | 2,326         | 2,849         | 2,484         | 2,301         | 2,514         | 2,441         | 2,609         |
| ... = not available                             |               |               |               |               |               |               |               |               |               |               |               |

Source: Bangko Sentral ng Pilipinas, Philippine Statistics Authority, Asian Development Bank.





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Table 2. Level of Philippine GDP, 2018Q2 – 2019Q2

|   | Nominal GDP             |                  | Real GDP                 |                  |
|---|-------------------------|------------------|--------------------------|------------------|
|   | (million current pesos) |                  | (million constant pesos) |                  |
|   | 2018Q2                  | 2019Q2           | 2018Q2                   | 2019Q2           |
| <b>Agriculture</b>  | <b>369,294</b>          | <b>353,581</b>   | <b>174,527</b>           | <b>175,497</b>   |
| Agriculture and Forestry                                    | 321,243                 | 300,830          | 147,785                  | 147,926          |
| Fishing   | 48,050                  | 52,751           | 26,742                   | 27,571           |
| <b>Industry</b>   | <b>1,311,456</b>        | <b>1,361,500</b> | <b>799,205</b>           | <b>828,910</b>   |
| Mining and Quarrying  | 39,002                  | 40,612           | 28,649                   | 32,944           |
| Manufacturing   | 734,999                 | 754,830          | 526,215                  | 547,022          |
| Construction  | 376,017                 | 385,934          | 169,740                  | 168,737          |
| Electricity Gas and Water Supply                            | 161,437                 | 180,124          | 74,601                   | 80,208           |
| <b>Services</b>   | <b>2,659,999</b>        | <b>2,911,914</b> | <b>1,381,028</b>         | <b>1,479,208</b> |
| Transport Communication and Storage                         | 279,451                 | 296,366          | 180,028                  | 189,861          |
| Trade and Repair of Motor Vehicles Motorcycles Personal     | 787,453                 | 869,700          | 375,662                  | 407,410          |
| Financial Intermediation                                    | 388,325                 | 436,508          | 181,934                  | 198,600          |
| Real Estate Renting & Bus. Actvt                            | 550,119                 | 585,984          | 273,268                  | 284,165          |
| Public Administration & Defense: Compulsory Social Security | 207,545                 | 232,810          | 110,586                  | 119,397          |
| Other Services  | 447,106                 | 490,545          | 259,549                  | 279,775          |
| <b>Sum = GDP</b>  | <b>4,340,749</b>        | <b>4,626,995</b> | <b>2,354,760</b>         | <b>2,483,615</b> |

Source: Philippine Statistics Authority



**Table 3. Industry Contributions to Philippine GDP Growth, 2018Q2 – 2019Q2**

|   | <b>TRAD</b>       | <b>GEAD</b> |              | <b>GEAD</b>        |
|---|-------------------|-------------|--------------|--------------------|
|   | <b>GDP Growth</b> |             |              | <b>GDP Growth</b>  |
|   | <b>PGE*</b>       | <b>PGE*</b> | <b>PCE*</b>  | <b>PGE* + PCE*</b> |
|   | (percent)         | (percent)   | (percent)    | (percent)          |
|   |                   | (1)         | (2)          | (1)+(2)            |
| <b>GDP Growth</b>   | <b>5.47</b>       | <b>5.47</b> | <b>0.00</b>  | <b>5.47</b>        |
| <b>Industry Growth Contribution</b>                         |                   |             |              |                    |
| <b>Agriculture</b>  | <b>0.04</b>       | <b>0.04</b> | <b>1.52</b>  | <b>1.56</b>        |
| Agriculture and Forestry                                    | 0.01              | 0.01        | 1.52         | 1.53               |
| Fishing   | 0.04              | 0.04        | 0.00         | 0.03               |
| <b>Industry</b>   | <b>1.26</b>       | <b>1.26</b> | <b>-3.34</b> | <b>-2.07</b>       |
| Mining and Quarrying  | 0.18              | 0.18        | -0.45        | -0.27              |
| Manufacturing   | 0.88              | 0.88        | -5.37        | -4.49              |
| Construction  | -0.04             | -0.04       | 1.97         | 1.93               |
| Electricity Gas and Water Supply                            | 0.24              | 0.24        | 0.52         | 0.75               |
| <b>Services</b>   | <b>4.17</b>       | <b>4.17</b> | <b>1.82</b>  | <b>5.98</b>        |
| Transport Communication and Storage                         | 0.42              | 0.42        | -1.27        | -0.86              |
| Trade and Repair of Motor Vehicles Motorcycles Personal     | 1.35              | 1.35        | 1.83         | 3.18               |
| Financial Intermediation                                    | 0.71              | 0.71        | 1.00         | 1.71               |
| Real Estate Renting & Bus. Actvt                            | 0.46              | 0.46        | 1.30         | 1.76               |
| Public Administration & Defense: Compulsory Social Security | 0.37              | 0.37        | -0.03        | 0.35               |
| Other Services  | 0.86              | 0.86        | -1.02        | -0.16              |

Source: DLSU-AKI Philippine Economic Monitor calculations by applying the data in Table 2 to a "generalized exactly additive decomposition" (GEAD) of GDP growth into pure growth effect (PGE\*) and price change effect (PCE\*) as an alternative to the "traditional" (TRAD) GDP growth decomposition that recognizes PGE\* but not PCE\*. PGE\* is the result of real GDP or "quantity" growth holding relative price (real price) constant and PCE\* is the result of "real price" growth holding quantity constant. PCE\* measures the change in value of an industry's output when outputs of all industries are converted to the same unit of measure, in terms of the economy's "GDP basket." The GEAD formulas for PGE\* and PCE\* and the TRAD formula (which equals PGE\*) are given, respectively, by equations (39), (40), and (46) in Dumagan, Jesus C. (2018), "Modifying the 'Generalized Exactly Additive Decomposition' of Growth of GDP and Aggregate Labor Productivity in Practice for Consistency with Theory," Working Paper Series No. 2018-07-053, Angelo King Institute for Economic and Business Studies, De La Salle University, Manila. The paper by Dumagan, Jesus C. (2013), "A Generalized Exactly Additive Decomposition of Aggregate Labor Productivity Growth," Review of Income and Wealth, 59 (Issue 1): 157-168 decomposed growth of aggregate labor productivity (ALP), which is the ratio of GDP to total labor employment. Thus, by removing the labor variable, the decomposition of ALP growth becomes a decomposition of GDP growth into the modified PGE\* and PCE\* formulas which were implemented in this Table 3.