

## Analysis of April 2018 inflation and TRAIN

### Key messages

1. The inflation rate in April 2018 reached 4.5 percent, bringing year-to-date inflation to 4.1 percent, up from 3.8 percent in March. TRAIN, as expected, contributed around 0.4 percentage points to inflation while other factors contributed the bigger share of around 1.1 percentage points (Table 1). The BSP expects the inflation path to moderate and stay within the full-year target by year-end.

Table 1. April 2018 inflation breakdown

Factor	Contribution to inflation
April inflation	4.5
Average inflation target /1	3.0
Excess over target	1.5
Due to better tobacco compliance	0.2
Due to TRAIN /2	0.4
Due to crude oil (beyond target)	0.2
Due to exchange rate (beyond target)	0.0
Due to other factors, notably profiteering	0.7

Notes:

1/ The original 2018 inflation target of 2 to 4 percent assumes crude oil price between 45 and 60 USD per barrel and exchange rate between 48 to 51 PHP to USD.

2/ DOF estimates TRAIN impact at 0.4 percentage points. NEDA estimate is 0.42, BSP is between 0.3 and 0.5, while DTI is 0.4. Note that 0.4 is lower than 0.7 originally estimated by DOF in June 2017 due to oil price increase in second half of 2017 resulting from higher crude price and peso depreciation.

2. While inflation is the second most pressing concern in Q1 2018 among Filipinos (Table 2, Pulse Asia Survey), it was consistently in the top two concerns since 2010 even when inflation was lower. This suggests a more structural approach in dealing with inflation, such as through rice tariffication and fast-tracking infrastructure to reduce cost.

**Table 2. Inflation was included 25 times in the top 3 concerns since 2010**

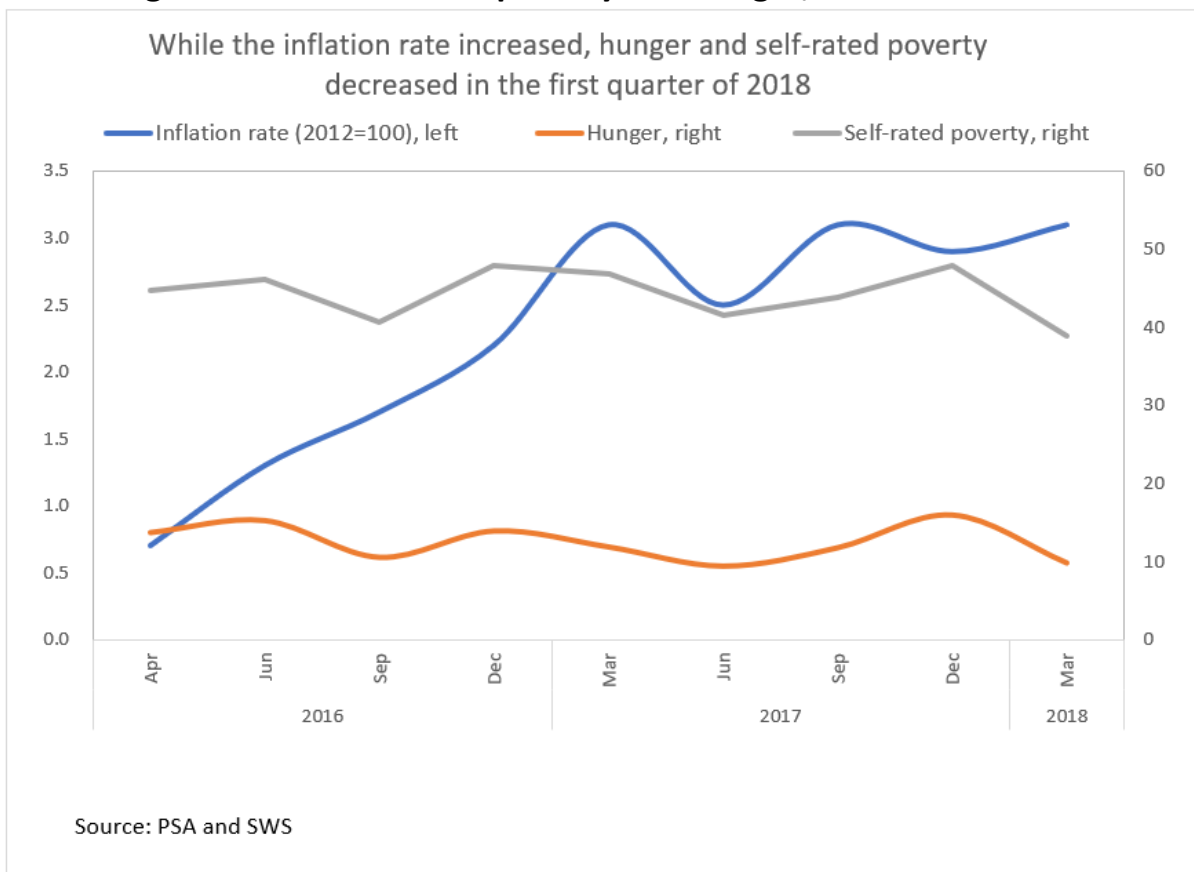
<b>Month</b>	<b>Percent</b>	<b>Rank</b>	<b>Inflation</b>
Mar-2010	53	1st	3.2
Oct-2010	49	1st	3.9
Mar-2011	53	1st	4.7
Nov-2011	56	1st	4.9
Mar-2012	68	1st	3.7
May-2012	54	1st	3.0
Sept-2012	56	1st	2.6
Jan-2013	54	2nd	2.7
Feb-2013	52	1st	2.7
Mar-2013	51	2nd	3.2
Jun-2013	61	1st	3.4
Sept-2013	48	1st	3.1
Mar-2014	50	1st	3.7
Jun-2014	52	1st	4.4
Sept -2014	50	1st	4.4
Nov -2014	52	1st	3.9
Mar-2015	46	1st	1.5
Jun-2015	47	1st	3.4
Sept-2015	46	2nd	1.2
Dec-2015	45	1st	2.4
Sept-2016	37	3rd	2.6
Dec-2016	34	2nd	2.3
Mar -2017	41	2nd	3.4
Sept-2017	50	1st	3.4
Mar-2018	45	2nd	4.8

Source: Pulse Asia

**3. Despite the moderate increase in inflation, both self-rated poverty and hunger index fell (Figure 1), suggesting that price increase are moderate and living standards are improving due to higher income (from better tax reform and cash transfers) and better jobs.**

- a. The portion of families who consider themselves poor decreased to a record low of 29 percent in the first quarter of 2018 from 35 percent in the same period last year, according to the Social Weather Stations (SWS).<sup>1</sup>
- b. The incidence of hunger among families also fell to 9.9 percent from 15.9 percent in December and 11.9 percent during the same period last year, even as inflation increased.

**Figure 1. SWS self-rated poverty and hunger, and inflation rate**



- c. In the coming months, living conditions are expected to improve further as more and better jobs are provided. The Philippines aims to create 1.7 million jobs by 2022 through the “Build, Build, Build” program, which currently consists of 75 projects worth USD 35.5 billion (around PHP 2 trillion).

<sup>1</sup> To see the full report, please see <https://www.sws.org.ph/swsmain/artcldisppage/?artcsyscode=ART-20180425175540>

- d. “Build, Build, Build,” partly funded by the tax reform, will address the infrastructure gap by building six airports, nine railways, three bus rapid transits, 32 roads and bridges, and four seaports that will help bring down the costs of production, improve rural incomes, encourage countryside investments, make the movement of goods and people more efficient, and create more and better jobs.

## Detailed analysis of April 2018 inflation and TRAIN

4. **April 2018 inflation was 4.5 percent, surpassing the 4 percent upper target of the BSP.**
  - a. April inflation is higher than the 4.3 percent inflation in March 2018.
  - b. As a result, year-to-date (YTD) inflation increased to 4.1 percent from 3.8 percent in March.
  - c. BSP notes, however, that inflation eased to 0.3 percent in April from 0.7 percent in March on a month-on-month (MOM) seasonally-adjusted basis. The BSP expects inflation to temper and settle to 3.9 percent in 2018 and decelerate further to the midpoint of the target range in 2019.<sup>2,3</sup>
  
5. **Just like in the previous months, April 2018 inflation was driven by higher corn, fish, tobacco, and personal transport prices, all of which grew by double digits (Tables 3 and 4).**
  - a. Corn inflation further accelerated due to a decline in corn stocks resulting from the Northeast monsoon in Luzon and typhoon *Caloy* in the Visayas.<sup>4</sup>
  - b. Fish prices remained elevated but price increase slowed down by 0.6 percentage points to 12.3 percent. This suggests a gradual price normalization amidst lower total fisheries yield last year due to bad weather.<sup>5</sup>
  - c. Increase in the cost of operating personal transport is mainly attributed to the adjustments in the domestic price of fuel due to higher international oil prices and the peso depreciation (PHP 9.10 or 22 percent of retail price), while additional excise tax on fuel contributed less at PHP 2.8, including additional VAT, or 7 percent of retail price).
  - d. In addition, electricity prices reflect the recent removal of VAT exemption for CDA-registered electric coops and the NGCP.
  - e. Over-all food inflation at 5.5 percent, slightly lower than the 5.7 percent recorded in the previous month, suggests some unwarranted price

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<sup>2</sup> <https://www.philstar.com/business/2018/04/01/1801587/bsp-sees-38-46-inflation-march>

<sup>3</sup> <http://www.bsp.gov.ph/publications/media.asp?id=4673>

<sup>4</sup> For further reading, please refer to: <http://newsinfo.inquirer.net/978413/breaking-news-weather-pagasa-tropical-storm-caloy-jelawat> and <https://www.philstar.com/headlines/2018/04/01/1801654/typhoon-caloy-intensifies-heads-north>

<sup>5</sup> <http://www.pna.gov.ph/articles/1023948>

adjustment as businesses overprovided for anticipated cost increases given undue expectations.

- f. Slightly slower food inflation, albeit marginal, is still encouraging as it happened despite rising prices of international non-fuel commodities. Non-fuel commodity prices in the world market rose by 8.9 percent in April 2018 from 4.2 percent in 2017 and -6.3 percent in 2016.<sup>6</sup>
- g. Table 5 shows that half of the inflation rate is accounted for by the increase in the prices of fish (0.71 percentage points), operation of personal transport equipment (0.44), rice (0.42), electricity, gas and other fuels (0.35), and catering services (0.33).
- h. The price of rice is affected by higher farm gate price of palay. Farm gate prices accelerated to 10.6 percent in April from 9.2 percent in March.

**Table 3. Inflation of key food items**

Commodity group	2016 (Ave)	2017 (Ave)	Year on year (2018 vs 2017)				YTD Jan-Apr
			Jan	Feb	Mar	Apr	
Rice	1.7	1.0	1.0	2.8	3.6	4.3	2.9
Meat	1.5	-1.5	6.1	6.7	6.2	5.0	6.0
Fish	3.6	4.4	6.9	11.2	12.9	12.3	10.8
Corn	1.5	7.5	6.3	10.4	11.1	13.3	10.3
Fruit	7.9	5.8	2.9	6.2	7.1	6.7	5.7
Vegetables	8.4	4.4	0.3	2.6	6.0	6.7	3.8
<b>Inflation rates of selected fuel prices and exchange rate</b>							
Diesel price (Php per liter)	5.0	26.0	24.5	31.3	30.0	39.2	31.1
Crude oil (USD per barrel)	-19.5	28.9	19.6	15.8	23.3	30.5	22.2
Exchange rate (Php/ USD)	47.5	50.4	50.5	51.8	52.1	52.1	51.6
Note: Some figures may not exactly add up due to rounding							
Source: Philippine Statistics Authority (PSA)							

<sup>6</sup> <http://pubdocs.worldbank.org/en/561011486076393416/CMO-Historical-Data-Monthly.xlsx>

**Table 4. Top 10 drivers of inflation by inflation rate**

Commodities		2018				YTD
		Jan	Feb	Mar	Apr	
1	Tobacco	17.4	22.9	25.3	27.5	20.7
2	Operation of personal transport equipment	7.3	14.5	14.1	17.8	13.4
3	Corn	6.3	10.4	11.1	13.3	10.3
4	Fish	6.9	11.2	12.9	12.3	10.8
5	Non-alcoholic beverages	1.1	3.9	7.1	9.4	5.4
6	Vegetables	0.3	2.6	6.0	6.7	3.8
7	Meat	6.1	6.7	6.2	5.0	6.0
8	Electricity, gas, and other fuels	5.8	3.6	4.3	4.7	4.6
9	Rice	1.0	2.8	3.6	4.3	2.9
10	Catering services	2.0	2.2	3.7	4.1	3.0

Note: Some figures may not exactly add up due to rounding  
Source: Philippine Statistics Authority (PSA)

**Table 5. Top 10 largest contributors to inflation (in percentage points)**

Commodities		2018				YTD
		Jan	Feb	Mar	Apr	
1	Fish	0.7	0.7	0.7	0.7	0.6
2	Operation of Personal Transport Equipment	0.1	0.4	0.1	0.4	0.3
3	Rice	0.1	0.1	0.2	0.4	0.3
4	Electricity, Gas, and Other Fuels	0.5	0.1	0.4	0.3	0.3
5	Meat	0.4	0.2	0.4	0.3	0.4
6	Catering services	0.4	0.2	0.4	0.3	0.2
7	Actual rentals for housing	0.3	0.3	0.3	0.3	0.4
8	Non-alcoholic beverages	0.1	0.1	0.2	0.3	0.2
9	Tobacco	0.2	0.2	0.2	0.3	0.2
10	Vegetables	0.1	0.1	0.2	0.2	0.1

Note: Some figures may not exactly add up due to rounding  
Source: Philippine Statistics Authority (PSA)

- 6. Tobacco inflation remained high at 27.5 percent as compliance continues to improve (Table 4).<sup>7</sup>**
- Higher tobacco inflation is expected to persist until September 2018 since Mighty Corporation, now under Japan Tobacco International (JTI), is now paying the right taxes, and consequently passing this on to consumers.
- 7. In April 2018, private vehicle owners faced higher pump prices. The increase in fuel costs in April was largely due to higher global crude oil price and the peso's depreciation (Table 6).**
- Private vehicle owners paid 17.8 percent more in fuel and other operating costs. Much of it is attributable to the higher crude oil price as Dubai crude grew by 30.5 percent and the peso depreciated by 4.4 percent, resulting in a net impact of 36.2 percent.
  - According to the BSP, geopolitical tensions in the Middle East caused a sharp increase in international oil prices thereby spilling over to higher domestic petroleum prices for the month.<sup>8</sup>
  - Inflation rate for electricity, gas, and other fuels increased to 4.7 percent YOY and 1.7 percent MOM, suggesting some pass-through of higher excise tax and global crude oil prices on retail energy prices. This also reflects the recent removal of VAT exemption for CDA-registered electric coops and the NGCP.
  - Using the economy-wide input-output table, fuel as input to production of selected commodities is minimal at less than 3 percent (Table 7).

**Table 6. Crude oil price and the PHP exchange rate**

	Levels								YOY growth			
	Jan 2017	Feb 2017	Mar 2017	April 2017	Jan 2018	Feb 2018	Mar 2018	April 2018	Jan 2018	Feb 2018	March 2018	April 2018
Dubai crude (USD per barrel)	53.4	54.17	50.90	52.45	63.83	62.72	62.74	68.43	19.6	15.8	23.3	30.5
PHP/USD	49.7	49.96	50.28	49.86	50.51	51.78	52.07	52.10	1.5	3.6	3.6	4.4
Indicative price per barrel of crude (PHP)	2,655	2,706	2,559	2,615	3,224	3,248	3,267	3,563	21.5	20.0	27.6	36.2

Sources: BSP, Indexmundi, and Reuters

<sup>7</sup> See the January and February 2018 inflation reports for more discussion.

<sup>8</sup> For further reference, see <http://bworldonline.com/bsp-sees-inflation-pickup-in-april/>.



**Table 7. Share of fuel as input to production**

<b>Selected commodities</b>	<b>Oil as a share of total inputs</b>	<b>Oil as a share of intermediate inputs</b>
Rice	0.6	2.2
Meat	0.6	1.4
Fish	0.7	2.1
Corn	0.6	2.0
Fruit	0.1	0.5
Vegetables	0.6	2.4

Note: Some figures may not exactly add up due to rounding  
Source: Philippine Statistics Authority (PSA)

**8. The price of other excisable products grew as expected (Table 8).**

- a. Prices of non-alcoholic drinks, including sweetened beverage, increased by 9.4 percent YOY, and 2.2 percent MOM. This is below the expected increase of 15.0 percent and 4.0 percent, respectively, possibly due to price absorption by firms, which partly reflects weakening demand for these products.
- b. On the other hand, alcoholic beverages inflation was 5.5 percent and broadly in line with the expected increase in the alcohol excise tax under the sin tax reform (4.5 percent).
- c. Since prices of excisable products are increasing as expected, with the exception of sweetened beverages, the only reason for inflation breaching the target is a combination of higher global crude oil price, the peso's depreciation, previous non-tax compliance, and potential profiteering or unwarranted price increase as explained earlier.

**Table 8. Expected price increases by commodity groups directly affected by TRAIN (percent)**

Commodity	2006 based CPI series		2012 based CPI series		Expected price increase due to TRAIN (YOY)
	Apr 18 (YOY)	Mar 18 to Apr 18 (MOM)	Apr 18 (YOY)	Mar 18 to Apr 18 (MOM)	
Non-alcoholic beverages	10.2	1.9	9.4	2.2	15.0
Tobacco	30.7	1.0	27.5	1.9	8.0
Electricity, gas, and other fuels	4.2	0.7	3.1	0.5	9.2
Transportation (private)	8.2	1.0	2.2	2.5	7.0
Transportation (public)	2.0	0.1	2.1	0.1	0.0

Sources: PSA and DOF staff estimates

Notes: The expected price increases for the various commodity groups assume the following: i) the average increase in excise for alcoholic beverages and tobacco, ii) the introduction of excise taxes for sweetened beverages (i.e., the average increase in the prices of a can of Coke and a can of Coke light), iii) the increase in the retail price of a liter of diesel due only to the oil excise, and iv) zero increase in the transportation costs attributable to the oil excise.

**9. Beginning 2018, inflation is revised to improve accuracy.**

- a. In line with international practice, starting February 2018, the consumer price index (CPI) series has been rebased from 2006 to 2012 in order to ensure that the prices in the basket of goods being measured stays relevant and representative.<sup>9</sup> This has been previously announced and planned. The rebasing has been going on since 2015.<sup>10</sup>
- b. Without regular rebasing, inflation tends to be overestimated due to the Laspeyres' effect (see Appendix 1 for details). For instance, under the 2006 series, which was used since 2009, April 2018 inflation would be 5.1 percent instead of the more accurate and representative 4.5 percent.

<sup>9</sup> To quote the PSA: "When the basket of the reference year no longer represents what is commonly purchased by the households, the CPI becomes irrelevant and tends to give wrong market signals. Hence, it is necessary to update the CPI using a base year that reflects the typical market basket of the time." In July of this year, the PSA will stop releasing the 2006 based series and will exclusively only release the 2012 series.

<sup>10</sup> For further reference, please see:

<http://www.bworldonline.com/content.php?section=Economy&title=psa-to-make-2012-new-base-year-for-gdp-cpi&id=102234>.

- 10. The Department of Trade and Industry (DTI) and the Department of Energy (DOE) continue to closely monitor any unusual price increase in order to prevent profiteering.**
- a. Major oil firms are continuing to offer discounts to PUJs, helping ease transport cost of commuters.<sup>11</sup>
  - b. Once the market adjusts, we expect inflation to ease in the coming months and the average full year inflation to fall within the target set by the BSP.
- 11. April inflation outturn is within the BSP's expectation of 3.9 to 4.7 percent. The central bank expects the inflation path to moderate and settle within the target range.**
- a. BSP forecasts inflation to average 3.9 percent for the full year of 2018, within the 2 to 4 percent target.
  - b. In its latest meeting, the Monetary Board reiterated its commitment to price stability, and will continue to monitor threats to the inflation target and make immediate and appropriate action when necessary. The Monetary Board meeting will be on 10 May 2018.
  - c. Inflation targets can be adjusted for reasons such as i) volatility in the prices of agricultural products, ii) natural calamities, iii) volatility in oil prices of agricultural products, iv) significant changes in government policy that directly affect prices such as changes in tax structure.<sup>12</sup>

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<sup>11</sup> For further reading, please see <https://www.doe.gov.ph/press-releases/doe-petron-shell-and-phoenix-agree-provide-fuel-discounts-puvs> and <https://businessmirror.com.ph/doe-oil-firms-sign-agreement-on-fuel-price-discount-for-puvs/>.

<sup>12</sup> For further reading, please see

<http://www.bsp.gov.ph/downloads/Publications/FAQs/targeting.pdf>

[7] This section borrows heavily from the CPI technical notes of the PSA. For more details, please see: [https://psa.gov.ph/sites/default/files/attachments/itsd/cpi/2006-based%20CPI%20full%20report\\_revised%20as%20of%20sep%20%202011\\_31.pdf](https://psa.gov.ph/sites/default/files/attachments/itsd/cpi/2006-based%20CPI%20full%20report_revised%20as%20of%20sep%20%202011_31.pdf),

[http://web0.psa.gov.ph/sites/default/files/attachments/itsd/cpi/2012-based%20CPI%20Methodology\\_0.pdf](http://web0.psa.gov.ph/sites/default/files/attachments/itsd/cpi/2012-based%20CPI%20Methodology_0.pdf), and

<https://psa.gov.ph/system/files/attachments/itsd/cpi/METHODOLOGY%20IN%20REBASING%20THE%20CONSUMER%20PRICE%20INDEX%20TO%20BASE%20YEAR%202012%20AND%20ADOPTING%20THE%20CHAIN%20METHOD%20IN%20THE%202012-BASED%20CPI.pdf>.

- d. The interplay of these factors has affected the inflation rate recently. However, the target is set for the whole year, and the BSP remains ready to implement necessary monetary measures to actively keep inflation under control.

**Annex table 1. April 2018 CPI weights and inflation rates (2012 base year)**

	Inflation rates (percent)		
	Weight	PHL	
		YOY	Apr 2018 MOM
<b>ALL ITEMS</b>	<b>100.0</b>	<b>4.5</b>	<b>0.5</b>
<b>I. FOOD AND NON-ALCOHOLIC BEVERAGES</b>	<b>38.3</b>	<b>5.8</b>	<b>0.4</b>
<b>A. FOOD ITEMS</b>	<b>35.5</b>	<b>5.5</b>	<b>0.2</b>
Rice	9.6	4.3	0.7
Corn	0.6	13.3	1.0
Other cereals	3.3	2.2	0.2
Meat	6.2	5.0	0.2
Fish	5.7	12.3	0.9
Milk, Cheese and Eggs	3.1	2.0	0.1
Oils and Fats	0.8	3.6	0.4
Fruit	1.4	6.7	0.0
Vegetables	2.6	6.7	-1.0
Sugar, Jam, Honey, Chocolate and Confectionery	1.0	0.0	0.5
Food Products N.E.C.	1.1	3.4	0.1
<b>B. NON-ALCOHOLIC BEVERAGES</b>	<b>2.9</b>	<b>9.4</b>	<b>2.2</b>
<b>II. ALCOHOLIC BEVERAGES AND TOBACCO</b>	<b>1.6</b>	<b>20.0</b>	<b>1.3</b>
Alcoholic Beverages	0.7	5.5	0.2
Tobacco	0.9	27.5	1.9
<b>III. NON-FOOD ITEMS</b>	<b>60.1</b>	<b>3.1</b>	<b>0.5</b>
<b>A. CLOTHING AND FOOTWEAR</b>	<b>2.9</b>	<b>2.2</b>	<b>0.3</b>
Clothing	2.0	2.1	0.2
Footwear	0.9	2.1	0.3
<b>B. HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS</b>	<b>22.0</b>	<b>3.0</b>	<b>0.5</b>
Actual Rentals for Housing	12.9	2.3	0.1
Maintenance and Repair of the Dwelling	0.5	1.7	0.3
Water Supply and Miscellaneous Services Relating to the Dwelling	1.2	2.4	0.0
Electricity, Gas, and Other Fuels	7.4	4.7	1.7
<b>C. FURNISHINGS, HOUSEHOLD EQUIPMENT</b>	<b>2.9</b>	<b>2.8</b>	<b>0.3</b>
Furniture and Furnishings, Carpets and Other Floor Coverings	0.2	0.7	0.1
Household Textiles	0.1	1.4	0.3
Household Appliances	0.3	1.3	0.0
Glassware, Tableware, and Household Utensils	0.0	1.5	0.1
Tools and Equipment for House and Garden	0.0	2.8	0.3
Goods and Services for Routine Household Maintenance	2.3	3.2	0.3
<b>D. HEALTH</b>	<b>3.9</b>	<b>2.8</b>	<b>0.3</b>
Medical Products, Appliances and Equipment	2.0	1.7	0.2
Out-patient Services	0.6	2.9	0.3
Hospital Services	1.3	4.1	0.4
<b>E. TRANSPORT</b>	<b>8.1</b>	<b>4.9</b>	<b>0.8</b>
Operation of Personal Transport Equipment	2.5	17.8	2.5
Transport Services	4.8	0.5	0.1
<b>F. COMMUNICATION</b>	<b>2.9</b>	<b>0.3</b>	<b>0.0</b>
Postal Services	0.0	2.4	0.0
Telephone and Telefax Equipment	0.4	0.7	0.1
Telephone and Telefax Services	2.5	0.2	0.0
<b>G. RECREATION AND CULTURE</b>	<b>1.4</b>	<b>1.4</b>	<b>0.1</b>
Audio-visual, Photographic and Information Processing Equipment	0.7	0.6	0.0
Other Major Durables for Recreation and Culture	0.0	1.9	0.9
Other Recreational Items and Equipment, Gardens and Pets	0.1	1.7	0.3
Recreational and Cultural Services	0.2	0.8	0.0
Newspapers, Books and Stationery	0.4	3.0	0.2
<b>H. EDUCATION</b>	<b>3.3</b>	<b>1.9</b>	<b>0.0</b>
Pre-primary and Primary Education	0.7	1.7	0.0
Secondary Education	0.6	3.2	0.0
Tertiary Education	1.9	1.7	0.0
Education Not Definable by Level	0.0	0.6	0.0
<b>I. RESTAURANTS AND MISCELLANEOUS GOODS AND SERVICES</b>	<b>12.6</b>	<b>3.4</b>	<b>0.4</b>
Catering Services	8.1	4.1	0.4
Personal Care	3.8	2.2	0.3
Personal Effects N.E.C.	0.6	1.7	0.4

Note: Some figures may not exactly add up due to rounding

Source: Philippine Statistics Authority (PSA)

**Annex table 2. April 2018 CPI weights and inflation rates (2006 base year)**

	Inflation rates (percent)		
	Weight	PHL	
		YOY	Apr 2018 MOM
<b>ALL ITEMS</b>	<b>100.0</b>	<b>5.1</b>	<b>0.5</b>
<b>I. FOOD AND NON-ALCOHOLIC BEVERAGES</b>	<b>39.0</b>	<b>5.7</b>	<b>0.5</b>
<b>A. FOOD ITEMS</b>	<b>36.3</b>	<b>5.4</b>	<b>0.4</b>
Rice	8.9	3.7	0.6
Corn	0.7	12.7	1.1
Other cereals	2.8	2.2	0.2
Meat	7.0	5.1	0.3
Fish	5.8	11.7	1.1
Milk, Cheese and Eggs	3.3	1.8	0.1
Oils and Fats	0.7	3.2	0.3
Fruit	1.7	8.3	-0.3
Vegetables	3.2	4.6	-0.9
Sugar, Jam, Honey, Chocolate and Confectionery	1.1	-0.9	0.8
Food Products N.E.C.	1.1	3.0	-0.1
<b>B. NON-ALCOHOLIC BEVERAGES</b>	<b>2.7</b>	<b>10.2</b>	<b>1.9</b>
<b>II. ALCOHOLIC BEVERAGES AND TOBACCO</b>	<b>2.0</b>	<b>20.8</b>	<b>0.8</b>
Alcoholic Beverages	1.0	6.3	0.4
Tobacco	1.0	30.7	1.0
<b>III. NON-FOOD ITEMS</b>	<b>59.0</b>	<b>3.9</b>	<b>0.5</b>
<b>A. CLOTHING AND FOOTWEAR</b>	<b>3.0</b>	<b>2.2</b>	<b>0.3</b>
Clothing	2.2	2.2	0.3
Footwear	0.8	2.1	0.1
<b>B. HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS</b>	<b>22.5</b>	<b>4.2</b>	<b>0.7</b>
Actual Rentals for Housing	13.8	2.9	0.4
Maintenance and Repair of the Dwelling	0.6	2.6	0.3
Water Supply and Miscellaneous Services Relating to the Dwelling	1.0	2.4	0.0
Electricity, Gas, and Other Fuels	7.1	7.0	1.4
<b>C. FURNISHINGS, HOUSEHOLD EQUIPMENT</b>	<b>3.2</b>	<b>2.7</b>	<b>0.1</b>
Furniture and Furnishings, Carpets and Other Floor Coverings	0.2	2.2	0.2
Household Textiles	0.1	1.2	0.1
Household Appliances	0.5	1.1	0.0
Glassware, Tableware, and Household Utensils	0.2	1.6	0.2
Tools and Equipment for House and Garden	0.1	1.6	0.2
Goods and Services for Routine Household Maintenance	2.1	3.2	0.2
<b>D. HEALTH</b>	<b>3.0</b>	<b>2.8</b>	<b>0.3</b>
Medical Products, Appliances and Equipment	1.5	1.8	0.2
Out-patient Services	0.8	3.9	0.2
Hospital Services	0.6	3.1	0.3
<b>E. TRANSPORT</b>	<b>7.8</b>	<b>3.5</b>	<b>0.4</b>
Operation of Personal Transport Equipment	1.9	8.2	1.0
Transport Services	5.9	2.0	0.1
<b>F. COMMUNICATION</b>	<b>2.3</b>	<b>0.4</b>	<b>0.1</b>
Postal Services	0.0	9.8	0.0
Telephone and Telefax Equipment	0.5	0.0	0.0
Telephone and Telefax Services	1.7	0.3	0.1
<b>G. RECREATION AND CULTURE</b>	<b>1.9</b>	<b>1.6</b>	<b>0.1</b>
Audio-visual, Photographic and Information Processing Equipment	1.0	0.4	0.0
Other Major Durables for Recreation and Culture	0.0	3.3	0.0
Other Recreational Items and Equipment, Gardens and Pets	0.2	1.3	0.2
Recreational and Cultural Services	0.3	3.9	0.0
Newspapers, Books and Stationery	0.5	1.7	0.1
<b>H. EDUCATION</b>	<b>3.4</b>	<b>2.2</b>	<b>0.0</b>
Pre-primary and Primary Education	1.0	3.2	0.0
Secondary Education	1.2	2.2	0.0
Tertiary Education	1.2	1.5	0.0
Education Not Definable by Level	0.0	1.3	0.0
<b>I. RESTAURANTS AND MISCELLANEOUS GOODS AND SERVICES</b>	<b>12.0</b>	<b>5.7</b>	<b>0.7</b>
Catering Services	8.0	7.5	1.0
Personal Care	3.7	1.9	0.1
Personal Effects N.E.C.	0.4	2.3	0.4

Note: Some figures may not exactly add up due to rounding

Source: Philippine Statistics Authority (PSA)

## Appendix 1. Rebasing the CPI from 2006 to 2012 based series

### Rationale of regular rebasing<sup>13</sup>

The consumer price index (CPI) measures how the prices of goods and services purchased by a typical household (usually called a market basket) change over time. As consumer taste, behavior, trends, and technology evolve over time, a market basket loses accuracy the farther it is from the reference or base year. Given this, the CPI needs to be regularly rebased to ensure that it adequately represents the typical basket relevant to the current economic situation.

Using an updated market basket ensures that measures derived using the CPI, such as inflation, accurately reflect the consumption pattern of a typical Filipino household. To illustrate, the changes in the contents of the consumption baskets from 2006 to 2012 show that as a share of total expenditure in the household, there were decreases in the relative weights for food, alcohol, and tobacco. Meanwhile, the weights for health, transport, communication, and restaurants all increased, reflecting the changes in spending patterns and the increasing incomes of all households.

**Appendix table 1. Comparison of the 2012 and 2006 basket weights**

	2006	2012	Diff
<b>ALL ITEMS</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>
<b>I. FOOD AND NON-ALCOHOLIC BEVERAGES</b>	<b>39.0</b>	<b>38.3</b>	<b>-0.6</b>
A. FOOD ITEMS	36.3	35.5	-0.8
B. NON-ALCOHOLIC BEVERAGES	2.7	2.9	0.2
<b>II. ALCOHOLIC BEVERAGES AND TOBACCO</b>	<b>2.0</b>	<b>1.6</b>	<b>-0.4</b>
<b>III. NON-FOOD ITEMS</b>	<b>59.0</b>	<b>60.1</b>	<b>1.1</b>
A. CLOTHING AND FOOTWEAR	3.0	2.9	0.0
B. HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS	22.5	22.0	-0.4
C. FURNISHINGS, HOUSEHOLD EQUIPMENT	3.2	2.9	-0.3
D. HEALTH	3.0	3.9	0.9
E. TRANSPORT	7.8	8.1	0.2
F. COMMUNICATION	2.3	2.9	0.7
G. RECREATION AND CULTURE	1.9	1.4	-0.5
H. EDUCATION	3.4	3.3	-0.1
I. RESTAURANTS AND MISCELLANEOUS GOODS AND SERVICES	12.0	12.6	0.6

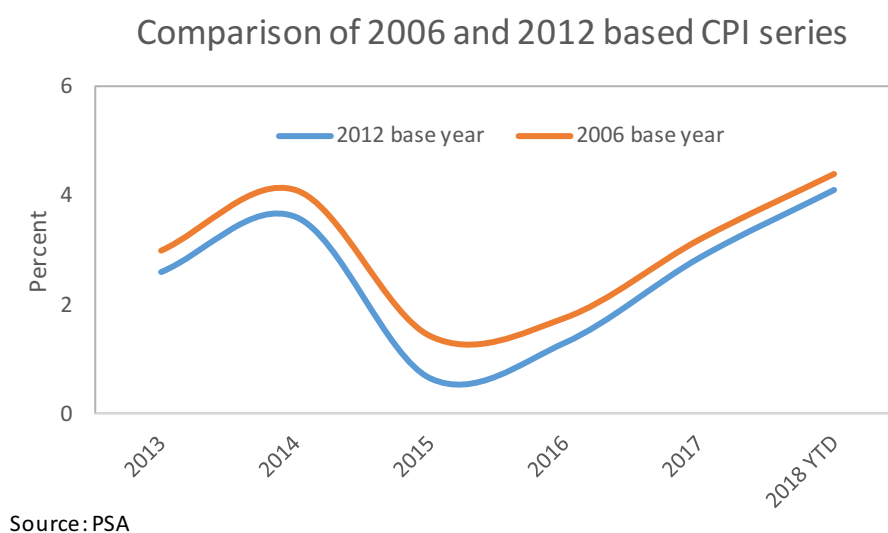
Source: PSA

<sup>13</sup> This section borrows heavily from the CPI technical notes of the PSA. For more details, please see: [https://psa.gov.ph/sites/default/files/attachments/itsd/cpi/2006-based%20CPI%20full%20report\\_revised%20as%20of%20sep%20%202011\\_31.pdf](https://psa.gov.ph/sites/default/files/attachments/itsd/cpi/2006-based%20CPI%20full%20report_revised%20as%20of%20sep%20%202011_31.pdf), [http://web0.psa.gov.ph/sites/default/files/attachments/itsd/cpi/2012-based%20CPI%20Methodology\\_0.pdf](http://web0.psa.gov.ph/sites/default/files/attachments/itsd/cpi/2012-based%20CPI%20Methodology_0.pdf), and <https://psa.gov.ph/system/files/attachments/itsd/cpi/METHODOLOGY%20IN%20REBASING%20THE%20CONSUMER%20PRICE%20INDEX%20TO%20BASE%20YEAR%202012%20AND%20ADOPTING%20THE%20CHAIN%20METHOD%20IN%20THE%202012-BASED%20CPI.pdf>

## The Laspeyres effect

Until the CPI is rebased, the quantities in the basket of goods used is fixed based on household consumption in the base year. However, the expenditure pattern of consumers changes overtime. Households typically react to price changes by buying more goods or services that have become relatively cheaper to replace those that have become relatively more expensive (i.e., the substitution effect). As the CPI base is fixed, inflation, which is computed based on the change in CPI, tends to be overestimated the farther it is from the base year. This is called the Laspeyres effect.<sup>14</sup> Historical data supports this. Inflation rates using the 2006 based CPI are higher than those using the more recent 2012 based CPI.

### Appendix figure 1. The 2006 series had higher inflation than the 2012 series.



## The rebasing is on schedule

In February 2015, the PSA announced the plan to rebase the CPI from 2006 to 2012.<sup>15</sup> This was much earlier than the comprehensive tax reform proposal. PSA chose 2012 as the next base year as it was the latest year with available results from the Family Income and Expenditure Survey (FIES) at that time.

<sup>14</sup> For further reading, please see:

[https://www.statssa.gov.za/cpi/documents/Note\\_on\\_CPI\\_Laspeyres,\\_Paasche\\_and\\_Fischer\\_indices\\_2013.pdf](https://www.statssa.gov.za/cpi/documents/Note_on_CPI_Laspeyres,_Paasche_and_Fischer_indices_2013.pdf)

<sup>15</sup> For more details, please see:

<http://www.bworldonline.com/content.php?section=Economy&title=psa-to-make-2012-new-base-year-for-gdp-cpi&id=102234>. See also PSA Board Resolution No. 1, Series of 2017-146.



Economists from the private sector and the academe laud the initiative to rebase the CPI regularly. Dennis Mapa, Dean of the UP School of Statistics, said that

“[Rebasing the national accounts] may lead to a slower pace of growth or faster, but what is most important is that it’ll give us a clearer assessment of the economy. If growth slows and CPI accelerates then at least we would be aware. On the flip side, rebasing may show us that we had been underestimating growth and overestimating inflation trends.”

However, the rebasing was delayed. In January 2017, the PSA announced that the rebasing would instead be completed by end-2017.<sup>16</sup> This revised schedule puts it in line with the release this February 2018. Moving forward, the PSA plans to rebase the series every 6 years.

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<sup>16</sup> For more details, please see:

<http://www.bworldonline.com/content.php?section=Economy&title=change-in-cpi-base-year-to-be-implemented-by-year&8217s-end---psa&id=138791>