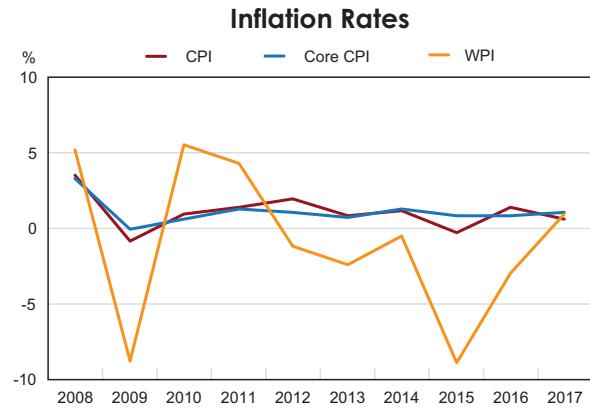


4. Prices

Taiwan's wholesale price index (WPI) rose by 0.90% in 2017, returning to positive territory for the first time since 2012. The increase in WPI inflation was largely driven by rising international oil prices amid a moderate recovery in the global economy. However, NT dollar appreciation against the US dollar led import and export prices in NT dollar terms to grow at a slower pace, which partly offset the WPI increase. Headline inflation, measured by the consumer price index (CPI), expanded mildly at an annual rate of 0.62% in 2017, down from a rise of 1.39% over 2016, mainly caused by fuel and gas price hikes and an increase in cigarette prices, though these were partly offset by reductions in vegetables and fruit prices owing to a higher base effect. The core CPI, which excludes fruit, vegetables, and energy, rose by 1.04%, 0.20 percentage points higher than the previous year.



Source: Price Statistics Monthly, DGBAS, Executive Yuan.

The core CPI, which excludes fruit, vegetables, and energy, rose by 1.04%, 0.20 percentage points higher than the previous year.

Moderate Increase in Wholesale Prices

Compared with a decline of 2.98% in 2016, the WPI climbed to 0.90% in 2017, the first yearly increase since 2012. The rise was mainly attributable to a pickup in international oil prices underpinned by the global economic recovery. In terms of monthly movements, the annual WPI inflation rate generally displayed a downtrend in the first half of the year and fell to an all-year low of -1.74% in June. Afterwards, it went up to 1.92% in September on account of the rebound in international raw material prices. Subsequently, the pace of the increase in the annual WPI inflation rate gradually abated and the rise was 0.31% in December.

Broken down by the three major components of the WPI, the annual rates of change in prices for imports and domestic sales excluding imports both increased moderately in 2017, reflecting a continued upturn in global oil prices in the second half of the year, whereas the annual growth rate of export prices stayed in negative territory.

Import prices, weighted at 33.41% of the WPI, rose by 7.41% in US dollar terms in 2017. As the NT dollar appreciated against the US dollar over 2017, which helped ease the pressure on imported inflation, the annual change in import prices narrowed to a 1.36% increase in NT dollar terms. Among

the components of import prices in terms of NT dollars, prices of raw materials rose by 3.40% and accounted for 2.52 percentage points in the import price increase, mainly driven by rising prices of mineral products and base metals. In contrast, prices of capital goods and consumer goods went down by 5.89% and 2.50% and subtracted 0.89 percentage points and 0.27 percentage points from the import price increase, respectively.

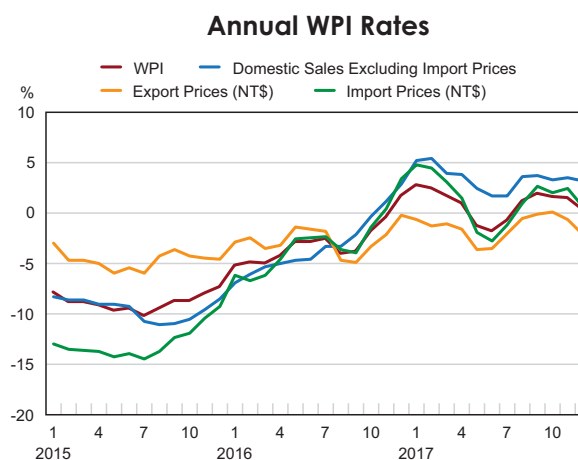
Export prices, weighted at 36.79% of the WPI, expanded by 4.47% in US dollar terms in 2017. As a result of the NT dollar appreciation against the US dollar, the annual change in export prices reversed to a 1.46% decrease in terms of the NT dollar, largely affected by lower prices for optical products as well as machinery and electrical equipment.

With rising import costs of primary commodities, prices of domestic sales excluding imports, weighted at 29.8% of the WPI, moved up by 3.44% in 2017. In terms of the basic groups, prices of manufacturing products showed the largest increase at 4.90%, primarily attributable to higher cigarette prices reflecting the cigarette tax hike effective in June, along with rising prices of base metals. On the other hand, prices of agriculture, forestry, fishing, and animal husbandry products dropped by 4.80%, mostly influenced by falling prices of vegetables and fruit on account of a higher base effect resulting from unfavorable weather conditions in the previous year.

Mild Increase in Consumer Prices

The CPI rose by 0.62% in 2017, lower than the 1.39% increase in the previous year. From the beginning of this year, the annual CPI inflation rate trended downward and eased to 0.10% in April as a result of a slump in vegetables and fruit prices caused by favorable weather conditions. From May onwards, monthly movements of CPI inflation exhibited an uptrend and edged up to 0.96% in August, as prices of vegetables soared because of weather-related disruptions. Subsequently, the pace of CPI growth slackened and slowed to an all-year low of -0.33% in October, mainly dragged down by a marked drop in prices of vegetables and fruit owing to a higher base effect stemming from severe crop damage caused by typhoons in 2016. Afterwards, it moved up to 1.22% in December, as the base effect from last year's higher vegetable prices dissipated, and prices of cigarettes, fuel, and food away from home increased.

The core CPI inflation rate grew at an average pace of 1.04% year on year in 2017, indicating mild inflationary pressures. In the first two months of the year, the rate fluctuated on account of



Source: *Price Statistics Monthly*, DGBAS, Executive Yuan.

the seasonal factor of the Lunar New Year holidays. From March to September, monthly core CPI inflation rates hovered between 0.81% and 1.11%. Later, the core inflation rate stepped up and registered 1.57% in December, mainly influenced by higher cigarette prices.

Taiwan's CPI inflation recorded a mere 0.62% gain in 2017, the second lowest in eight years. The mild increase was largely attributed to the following factors:

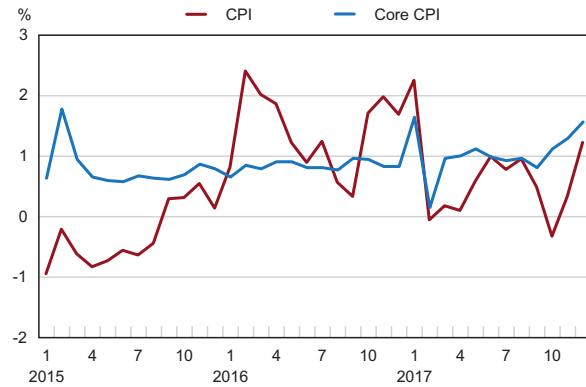
(1) A higher comparison base of vegetables and fruit prices

Compared with a spike in crop prices caused by severe coldness and typhoons in 2016, the absence of major crop damage amid relatively stable weather conditions this year resulted in falling prices of vegetables and fruit, subtracting 0.57 percentage points from CPI inflation, which largely offset the CPI increase.

(2) A stronger NT dollar mitigating imported inflationary pressures

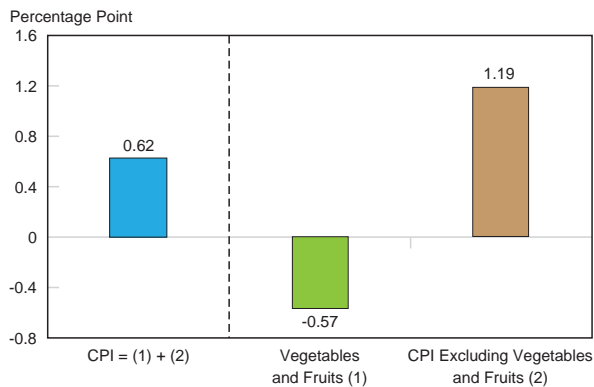
As the NT dollar appreciated by 6.17% against the US dollar over 2017, the annual change in import prices in NT dollar terms was 6.05 percentage points lower than that in US dollar terms. This difference is estimated to have dragged the CPI inflation rate down by 0.36 percentage points.

Annual CPI Rates



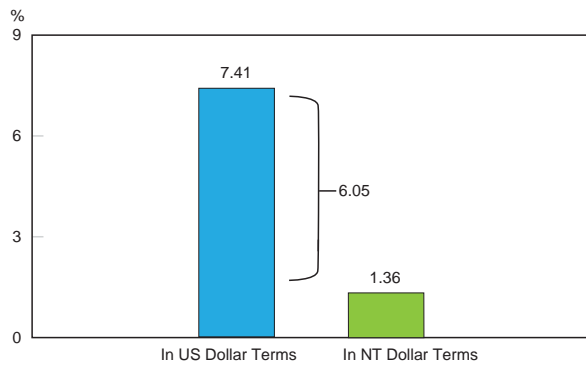
Source: Price Statistics Monthly, DGBAS, Executive Yuan.

Contribution to CPI Inflation Rate in 2017



Source: Price Statistics Monthly, DGBAS, Executive Yuan.

Annual Rates of Change in Import Prices in 2017



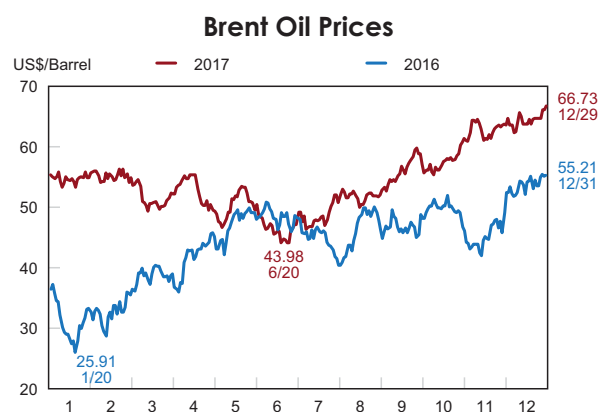
Source: Price Statistics Monthly, DGBAS, Executive Yuan.

The main factors contributing to the rise of CPI inflation in 2017 were as follows:

- (1) From the beginning of 2017, international petroleum prices moved downward and fell to a yearly low in mid-June, primarily induced by surging oil production in the US, Libya, and Nigeria. In subsequent months, global oil prices rebounded and peaked at the year end resulting from intensified geopolitical tensions in the Middle East, the extension of an oil output-cut agreement among OPEC members and non-OPEC oil producers, and supply-side disruptions in some oil-producing countries. Compared with 2016, the average Brent oil price rose by 23.76%. As a result, higher imported costs of petroleum and natural gas pushed up domestic oil and gas prices, which climbed by 9.36% and 9.92% and accounted for 0.23 and 0.07 percentage points in the CPI increase, respectively.
- (2) The rise in wages and higher raw food prices drove up prices of food away from home by 1.99%, contributing 0.21 percentage points to CPI inflation.
- (3) Residential rent prices continued to increase at a mild pace and advanced by 0.92%, accounting for 0.17 percentage points to CPI inflation.
- (4) The tax on cigarettes was substantially raised by NT\$20 per pack starting on June 20, leading prices of tobacco and betel nuts to surge by 8.09%, contributing 0.10 percentage points to CPI inflation.
- (5) A shortage of domestic aquaculture supply caused by extremely warm temperatures, combined with developing countries' rising demand for deep-sea fisheries, sent prices of fish and seafood 4.84% higher, accounting for 0.09 percentage points in CPI inflation.

The main factors contributing to downward pressure on the CPI in 2017 were as follows:

- (1) Reflecting a higher base effect and favorable weather conditions in the year, prices of vegetables and fruit declined by 14.51% and 3.23% in 2017, and accounted for -0.47 and -0.10 percentage points in CPI inflation, respectively.
- (2) Since a lingering effect of the reduction in electricity prices effective in April 2016 continued into March 2017, electricity prices moved down by 2.44%, subtracting 0.05 percentage points from CPI inflation.
- (3) As fees for internet and cell phones adjusted downward, communication fees fell by 1.48%, deducting 0.05 percentage points from the CPI inflation rate.



Source: Thomson Reuters Datastream.

Percentage Changes in the Major Components of the CPI in 2017

Item	Annual Rate of Change (%)	Contribution to CPI Inflation Rate (Percentage Point)
CPI	0.62	0.62
Fuels & Lubricants	9.36	0.23
Food away from Home	1.99	0.21
Residential Rent	0.92	0.17
Tobacco & Betel Nuts	8.09	0.10
Fish & Seafood	4.84	0.09
Gas	9.92	0.07
Medical Care Services	2.23	0.06
Meat	2.31	0.05
Education & Entertainment Services	0.43	0.05
Total		1.03
Vegetables	-14.51	-0.47
Fruits	-3.23	-0.10
Electricity	-2.44	-0.05
Communication Fees	-1.48	-0.05
Total		-0.67
Others		0.26

Source: *Price Statistics Monthly*, DGBAS, Executive Yuan.