



Basic Statistics for Diplomats

Compilation of Consumer Price Index (CPI) in Malaysia

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BY:

MASLINA BINTI SAMSUDIN PRICE, INCOME AND EXPENDITURE STATISTICS DIVISION, **DEPARTMENT OF STATISTICS MALAYSIA**

















INTRODUCTION OF PRICE INDEX









Overview of Price Index in Malaysia







Price Index



CONSUMER PRICE INDEX (CPI)

■ Measures the average change in the cost of purchases by households over time for a basket of goods and services.



PRODUCER PRICE INDEX (PPI)

- Measures the average change in commodity prices charged by local producers in an industry.
- Measures the average change in price paid by importers for goods imported into Malaysia.
- Measures the average change in the price of services charged by local producers which is the service industry.



BUILDING CONSTRUCTION MATERIALS COST INDEX (BCI)

- Measure the average price change of selected building materials.
- ☐ The main purpose of IKB is to be used in calculating the implementation of price change conditions in government building work contracts (Variation of Price, VOP).



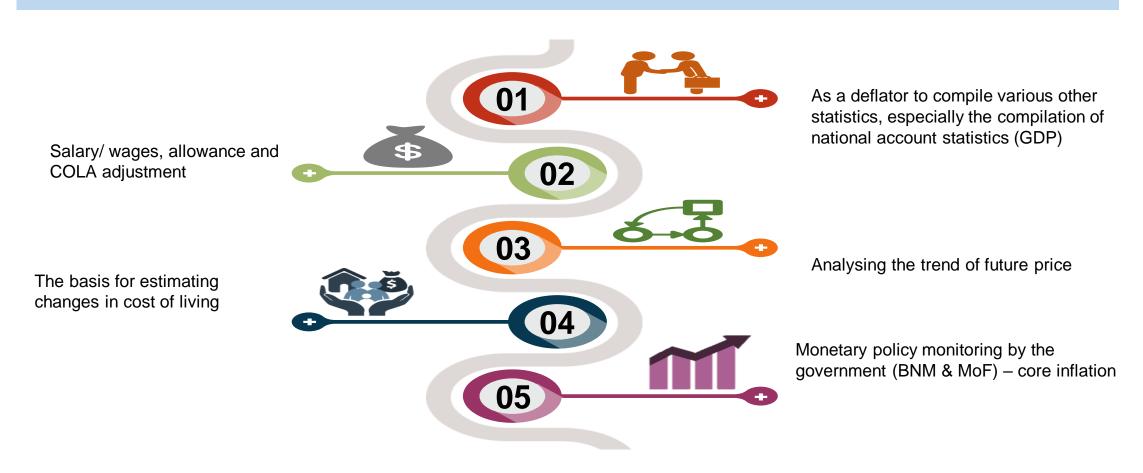
Overview of Price Index







Use of CPI



INTRODUCTION OF CPI







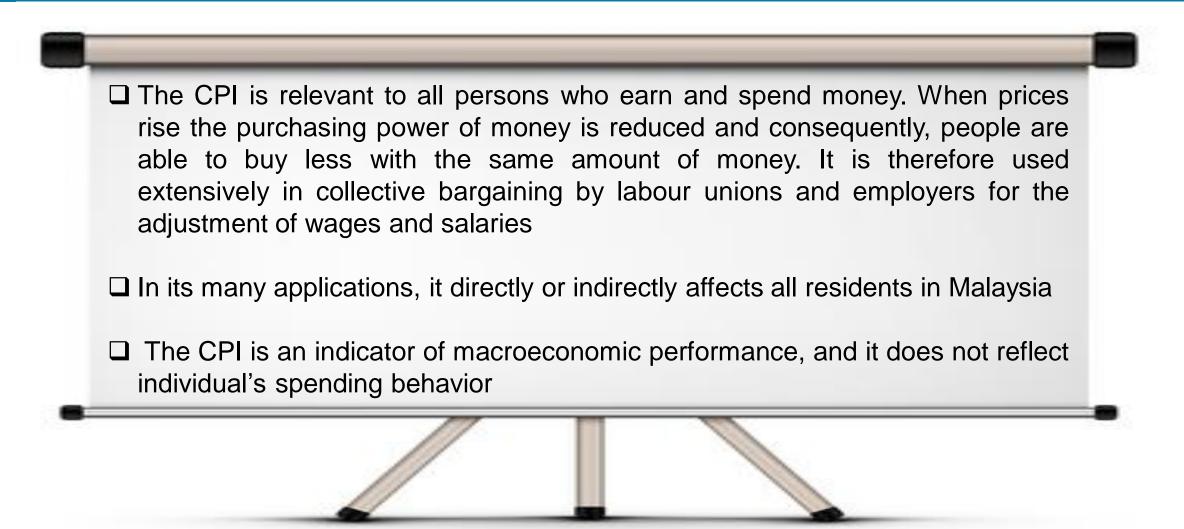


Introduction of CPI











Factors of Inflation







FACTORS OF INFLATION

Raw Materials Cost

Higher raw materials cost eg cost of animal feedstuffs as a result of higher commodities prices



Supply Disruptions

Supply disruptions due to weather and other factors example vegetables and seafood

Commodities Prices

Higher commodities prices example palm oil, crude oil and iron ores

MAIN CONCEPT & METHODOLOGY









Main Concepts









The Consumer Price Index measures changes in the general level of prices of consumer goods and services purchased by households.



"Basket" refers to goods and services used by households in Malaysia



The price used for CPI is the retail price or transaction price including all taxes imposed on goods and services

The CPI is compiled based on the 'Consumer Price Index Manual, Concepts and Methods', 2020 issued by the International Labor Organization (ILO), in line with international standards



Consumer Price Index (CPI) as the Main Indicator of Inflation







552 ITEMS OF CONSUMER PRICE INDEX

CATEGORIES OF GOODS & SERVICES

50.8% | 139_{items}

Services

39.4% | 296items

Perishable Items

5.4% | 53items

Durable Goods

4.4% | 64items Semi Durable items

MAIN GROUPS OF CPI AND WEIGHTAGE

Food & Non-Alcoholic Beverages



29.5%

Alcoholic Beverages & Tobacco







Clothing & Footwear

Housing, Water, Electricity, Gas & Other Fuels





Furnishings, Household **Equipment & Routine** Household Maintenance





Health



Transport



Communication



Recreation Services & Culture





Education

Restaurants & Hotels



Miscellaneous Goods & Services



- ✓ Weight indicates the importance of an item. The more important the item, the greater the weight given to it.
- **552 items** goods and services covered based on the *United* Nations Classification of Individual Consumption According to Purpose (COICOP)
- ✓ The source of the weight was obtained from the Household **Expenditure Survey**



Selection of Outlet









Prices for CPI 552 item used in the calculation are obtained from approximately 17,000 outlets in Peninsular Malaysia, 2,500 outlets in Sabah and 2,300 outlets in Sarawak.



Outlets are selected in each state and are deemed to be popular



97 Price Collection Centre (PCP) in Peninsular Malaysia, 21 in Sabah and 19 in Sarawak make a total of 137 PCP that covered urban and rural.



Prices should be collected from the same source every month for the purpose of consistency and price comparison.



This price collection is implemented every month for all items, while the price collection is done weekly & monthly for market items & perishable items such as fresh fish, fresh chicken and vegetables.

Outlet characteristics:

- Popular
- Highest sales value by category of outlet and location (urban & rural)
- Types of outlet

4 outlet categories:

- Market (Meat stalls, Chicken stalls, Fish stalls, Fruit stalls and Vegetable stalls)
- Hyper market / Supermarket / Grocery etc.
- Outlets in the Capital City (Hospitals, Postal services, Phone / internet services, TV network services etc.)
- Housing Rental

Outlet selection:

- Outlet selection by the type of outlet, volume of sales and location of urban and rural.
- By Item



Price Collection







- ☐ Data collection by states
 - biweekly collection for perishable goods
 - monthly collections for durables and semi-durable items
 - quarterly for rent
- ☐ Central Price Collection by HQ through online searches -
 - Government controlled items such as:
 - > Fuels prices (RON97,95 & Diesel)
 - Cigarettes prices
 - Electricity charges
 - Other items (airfares, gambling)





Methodology

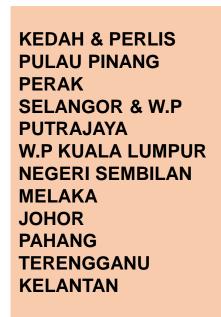
SARAWAK

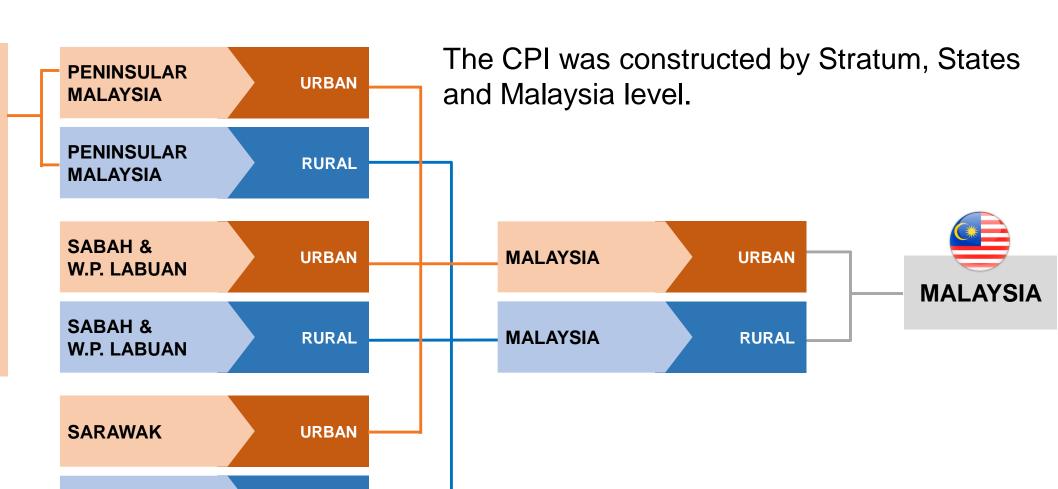
RURAL













Methodology







- Laspeyres Index
- Base Year 2010
- Basket of goods & services 2016

Laspeyre's formula is being used for the computation of Price Indices which is as follows:

Pn = Price of an item in the nth period

Po = Price of an item in the base period

Wi = Weight of the ith item in the base period

 Σ Wi = Total weight of all items

 \sum (Pn/Po) x Wi = Total of weighted price relatives

Inflation rate:

$$= \frac{\mathsf{CPI}_{\mathsf{t}} - \mathsf{CPI}_{\mathsf{t-1}}}{\mathsf{CPI}_{\mathsf{t-1}}} \times 100$$



Base year







The year	is used	as the	comparison year

- ☐ The year in which the economic situation is stable for the comparison purposes. The year did not experience extreme inflation and economic recession
- ☐ Depends on the implementation of Economic Census/Surveys
- ☐ The index for the base year is valued at 100.

$$2010 = 100$$

$$2005 = 100$$



Base year (cont'd)







Why base year is 2010?

- Indexes can be out-of-date or not reflect reality for two main reasons:
 - Weights no longer reflect actual spending patterns;
 - The presence of new products in the market that did not exist before.
- ☐ Through traditional methods, the index is updated through a process of "rebasing". This process involves revising the weights, adding new products in the data collection process and resetting the index to 100 in a new "base year"
- ☐ Currently, updating the weights and reference periods of the index at the same time (identical) is no longer considered important. In fact, some countries update the weights and items / products covered in the CPI each year, to ensure that the index always reflects the latest spending patterns.
- ☐ To avoid confusion, if the reference period is changed annually, then the reference period is kept the same, while the index with updated weights is linked to the old index through the index chaining.



Classification of Items







- Selection of items are based on the concept of Probability Proportionate to Size (PPS). The code of the items are using the digit code item based on HES, consistent with Classification of Individual Consumption by Purpose (COICOP, UN)
- The Items in the CPI basket are categorized as follows:
 - 2 digit (Main Group)
 - 3 digit (Sub group)
 - 4 digit (Expenditure Class)
 - 6 & 7 digit (Specific Item)



Classification of Items (contd)







Example:	Seafood
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Main Group: 01 Food & Non Alcoholic Beverages

Sub Group: 013 Fish & Seafood

Expenditure Class: 0132 Fresh Seafood

Item Specification 013202 Crabs Sea Fresh, 1 kg

013203 Prawns

0132031 Prawns Sea-water(13-15cm) 1 kg

0132032 Prawns Sea-water(8- 12cm) 1 kg



The Importance Of Updating The Basket





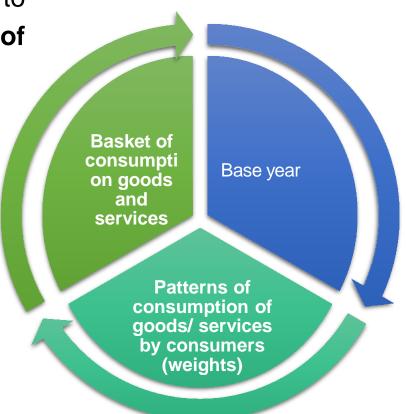


The updating of the CPI basket needs to be done to provide an overview of the current structure of Malaysian society's expenditure as a result of:

- Improvement of the living standards of the community;
- Changes in the lifestyle; and
- Changes in societal spending patterns.

The new structure is illustrated through:

- Items covered in the CPI basket; and
- Item weights / spending patterns.





Derivation of Weights







- The amount of money spent on each item in the CPI "basket" is compared to total household spending to obtain the relative importance or "weight" of the commodities in the "basket".
- The weights reflect the importance of each item consumed/ spent by households.
- The weights were obtained from Household Expenditure Survey (HES).
- HES provides the expenditure of households of different income groups.
- The weights were constructed at Malaysia, States and Stratum (Urban & Rural).
- The weights used in the calculation of CPI are periodically updated to better reflect the changes in consumer expenditure pattern.

Effective with release of data for January 2016, the Laspeyres chain index method is used in the calculation of the CPI. It employs the December 2015 = 100 reference base. The same method will be used in the calculation of the January 2018 CPI publication using the reference base December 2017 = 100.



Weights







MAIN CDOUD	2005 400	2010=100			
MAIN GROUP	2005=100	2010	2016	2018	
01 Food & Non-Alcoholic Beverages	31.4	30.3	30.2	29.5	
02 Alcoholic Beverages & Tobacco	1.9	2.2	2.9	2.4	
03 Clothing & Footwear	3.1	3.4	3.3	3.2	
04 Housing, Water, Electricity, Gas & Other Fuels	21.4	22.6	23.8	23.8	
05 Furnishings, Household Equipment & Routine Household Maintenance	4.3	4.1	3.8	4.1	
06 Health	1.4	1.3	1.7	1.9	
07 Transport	15.9	14.9	13.7	14.6	
08 Communication	5.1	5.7	5.2	4.8	
09 Recreation Services & Culture	4.6	4.6	4.9	4.8	
10 Education	1.9	1.4	1.1	1.3	
11 Restaurants & Hotels	3.0	3.2	2.9	2.9	
12 Miscellaneous Goods & Services	6.0	6.3	6.5	6.7	
TOTAL	100.0	100.0	100.0	100.0	

2005

Food - 31.4%

Non Food - 68.6%

2010

Food - 30.3%

Non Food - 69.7%

2016

Food - 30.2%

Non Food - 69.8%

2018

Food - 29.5%

Non Food - 70.5%



Weights of Selected Countries







Main Group	Malaysia	Singapore	South Korea	Thailand	Philippines	India	United Kingdom	Canada
Food & Non-Alcoholic Beverages	29.5	21.1	15.5	40.4	37.8	45.9	8.1	16.6
Alcoholic Beverages & Tobacco	2.4		1.7	1.4	2.2	2.4	3.4	2.8
Clothing & Footwear	3.2	2.1	4.9	2.2	3.1	6.5	5.8	5.8
Housing, Water, Electricity, Gas & Other Fuels	23.8	24.8	17.2		21.4	16.9	29.4	26.3
Furnishings, Household Equipment & Routine Household Maintenance	4.1	4.9	5.4	23.2	3.2		4.9	12.7
Health	1.9	6.6	8.7	5.7	2.9		2.1	4.9
Transport	14.6	17.1	10.6	22.7	9.0		12.6	20.0
Communication	4.8	4.1	4.8	22.7	3.4		2.1	
Recreation Services & Culture	4.8	7.9	5.8	4.5	1.0		12.1	44.0
Education	1.3	6.6	7.0	4.5	2.0	28.3	1.7	11.0
Restaurants & Hotels	2.9		13.1		9.6		10.1	
Miscellaneous Goods & Services	6.7	4.8	5.4	Included in Health (Medical and Personal Care)	4.5		7.7	Included in Health (Health and Personal Care)

INFLATION







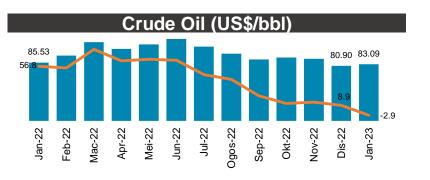


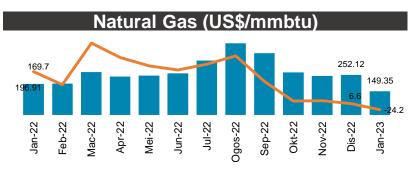
Price Changes of Global Selected Commodities

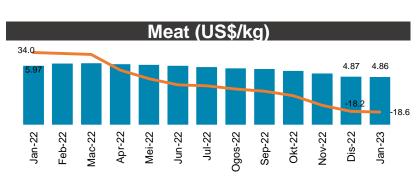


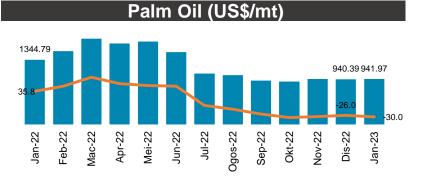


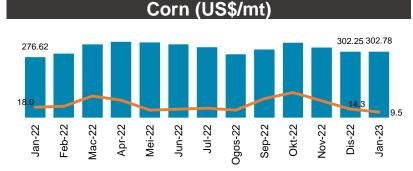


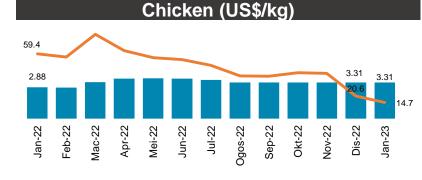


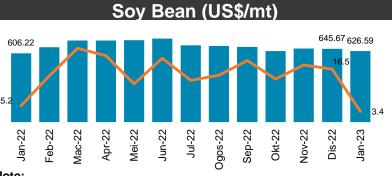


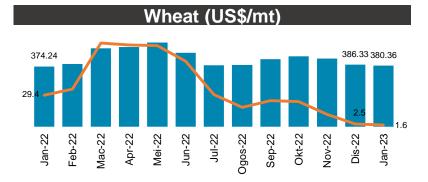


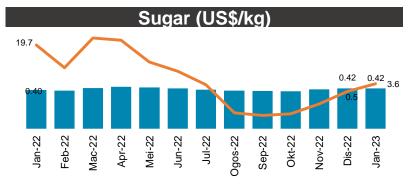












Note:

Bbl: Brazilian Butt Lift (barrel) (1bbl = 159 litres)

Mt: Million Tonne

Mmbtu: Metric Million British Thermal Unit



PPI Thailand

— CPI Thailand

Inflation for selected countries

PPI Philippines

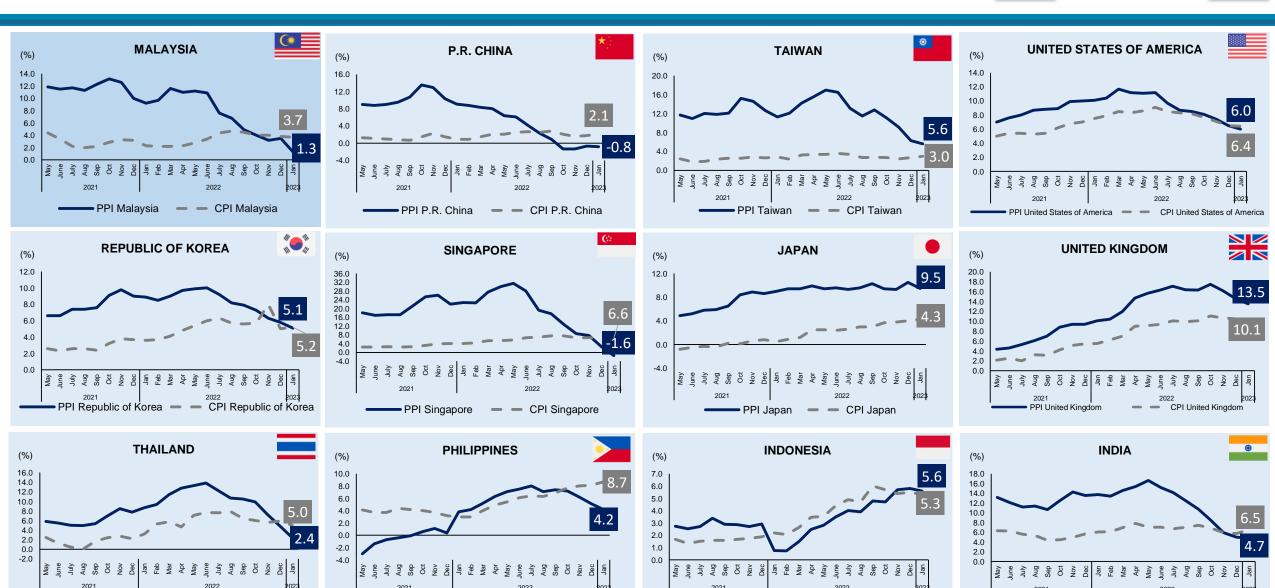
CPI Philippines





PPI India - CPI India





PPI Indonesia

— CPI Indonesia



Malaysia's Inflation Begins to Moderate in January 2023

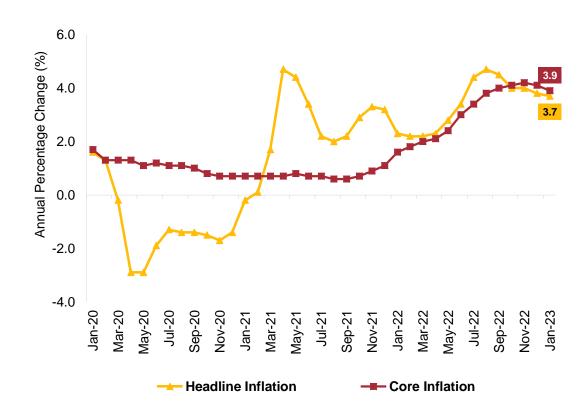






Malaysia's inflation in January 2023 eased to 3.7 per cent as compared to the same month of the previous year

Main Group (YoY%)	Weight	2021	2022	Aug 2022	Sept 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023
Consumer Price Index	100	2.5	3.3	4.7	4.5	4.0	4.0	3.8	3.7
Food & Beverages	29.5	1.7	5.8	7.2	6.8	7.1	7.3	6.8	6.7
Alcoholic Beverages & Tobacco	2.4	0.5	0.5	0.7	0.7	0.8	0.8	0.7	8.0
Clothing & Footwear	3.2	-0.4	0.1	0.3	0.4	0.4	0.4	0.4	0.5
Housing, Water, Electricity, Gas & Other Fuels	23.8	1.5	1.8	4.1	4.0	1.5	1.4	1.5	1.5
Furnishings, Household Equipment & Routine Household Maintenance	4.1	1.6	3.5	4.3	4.4	4.1	3.8	3.7	3.5
Health	1.9	0.4	0.7	0.9	1.0	1.0	1.4	1.3	1.6
Transport	14.6	11.0	4.7	5.2	5.3	5.2	5.0	4.9	4.0
Communication	4.8	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-1.4
Recreation Services & Culture	4.8	0.4	2.3	2.7	3.1	3.4	3.6	2.4	2.7
Education	1.3	0.2	1.1	1.2	1.3	1.4	1.5	1.4	1.3
Restaurants & Hotels	2.9	0.4	5.0	6.4	6.9	6.8	7.0	7.4	6.8
Miscellaneous Goods & Services	6.7	0.5	2.0	2.4	2.4	2.4	2.6	2.3	2.3



The Consumer Price Index January 2023 eased to 3.7% (December 2022: 3.8%) due to the increase in the Restaurans & Hotels group(6.8%) and Food & Beverages (6.7%).

26



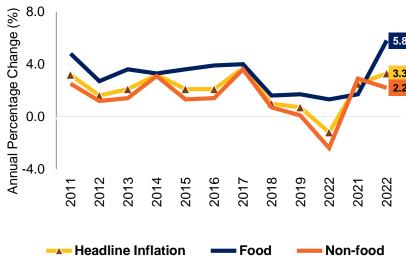
Inflation by Food and Non-Food Components







Malaysia's Inflation



- •The slower increase in the Food & Beverages group of 6.7 per cent as compared to the previous month (6.8%).
- •All sub-groups for Food & Beverages recorded increases ranging from 0.7% to 8.3%. The Meat subgroup showed the highest increase of 8.3 per cent in January 2023. This was followed by Milk, cheese & eggs (7.0%) and Rice, bread & other cereals (6.7%).

Food & Beverages inflation in January increased by 6.7 per cent in January 2023 with 80.5 per cent of items recorded an increase

.8	Subgroup	Weight (%)	Jan22	Feb22	Mar22	Apr22	May22	June22	Jul22	Aug22	Sept22	Oct22	Nov22	Dec22	Jan23
.3	Food & Beverages	29.5	3.6	3.7	4.0	4.1	5.2	6.1	6.9	7.2	6.8	7.1	7.3	6.8	6.7
.2	Food at home	16.9	4.1	4.1	4.3	4.1	5.5	6.1	6.4	6.4	5.7	5.8	5.8	4.9	5.1
- 1	Rice bread & other cereals	3.5	1.9	2.1	2.2	2.7	3.4	4.2	5.5	6.2	6.8	7.3	7.5	7.0	6.7
	Meat	2.5	7.8	9.0	7.6	6.2	9.5	11.9	12.0	9.9	6.6	7.3	8.2	7.8	8.3
	Fish & seafood	4.0	4.2	3.6	4.1	3.8	4.3	4.3	4.2	3.7	3.3	3.4	3.5	2.9	3.2
	Milk, cheese & eggs	1.5	4.7	5.1	7.0	7.2	8.0	7.9	9.1	9.4	8.8	8.8	8.9	7.1	7.0
	Oils & fats	0.6	4.6	4.1	3.4	3.5	3.7	3.3	4.6	4.0	3.8	2.6	1.6	1.0	0.7
	Fruits	1.2	1.5	1.8	1.5	2.3	2.8	3.5	3.9	4.1	5.2	5.5	4.1	4.0	4.4
	Vegetables	2.1	5.0	4.3	5.1	4.5	8.1	8.0	7.1	8.9	6.3	4.8	3.6	0.9	1.0
	Sugar, jam, honey, chocolate & confectionery	0.6	1.9	2.1	2.0	2.2	2.5	2.8	3.0	3.3	3.3	3.5	3.6	4.1	3.4
	Food products n.e.c	1.0	2.8	2.8	3.0	3.5	4.4	5.4	6.4	7.4	7.9	8.3	8.7	8.9	9.1
	Food away from home	11.5	3.1	3.6	4.0	4.4	5.1	6.6	7.8	8.4	8.7	9.3	9.6	9.6	9.3
	Non-food	70.5	1.7	1.5	1.3	1.4	1.7	2.1	3.2	3.4	3.3	2.4	2.4	2.2	2.1

DISSEMINATION







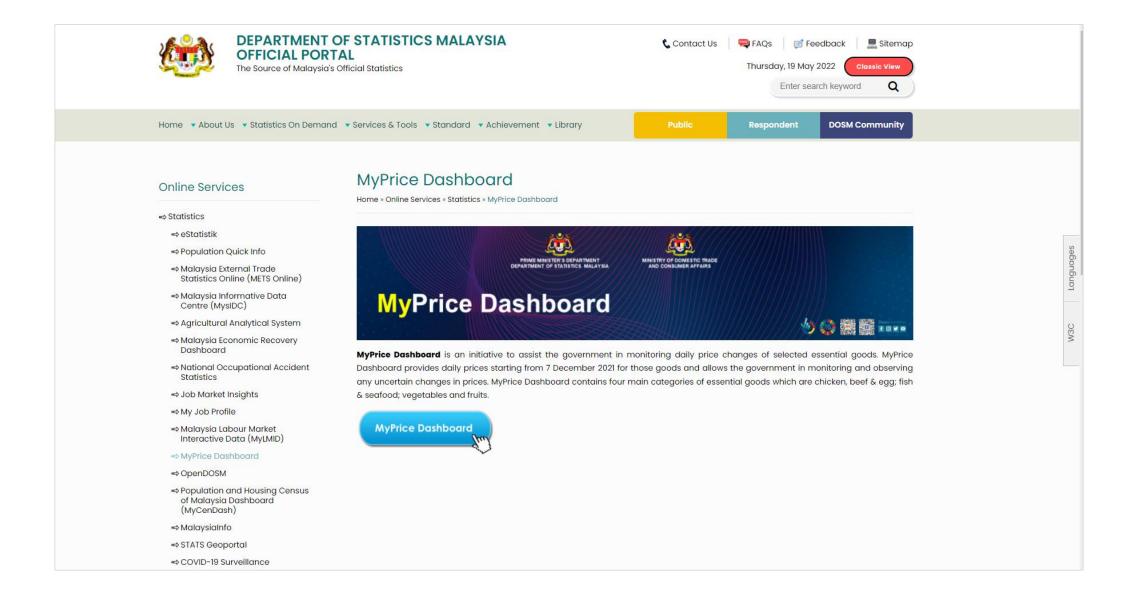


MyPrice Dashboard











MyPrice Dashboard (cont'd)







Main page of MyPrice Dashboard





items

MyPrice Dashboard (cont'd)

TIMUN (1KG) TOMATO (1KG)

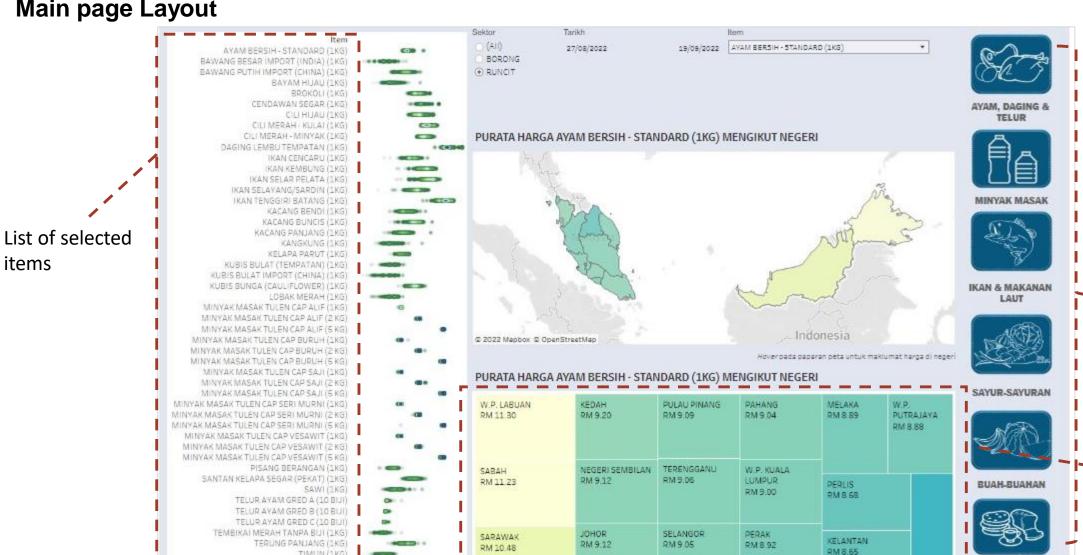
UBI KENTANG IMPORT HOLLAND (1KG) UDANG PUTIH/VANNAMEI (2KG)







Main page Layout



Category

Average price of selected items by states



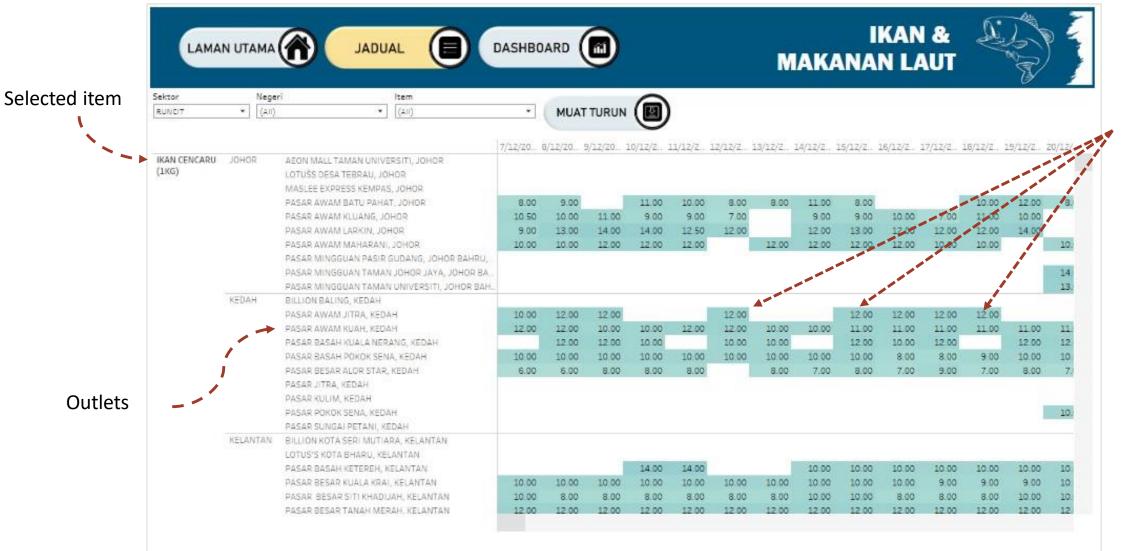
MyPrice Dashboard (cont'd)







Table layout



Daily prices



Average,

minimum and

maximum price

Selected item

MyPrice Dashboard (cont'd)







Weekly and

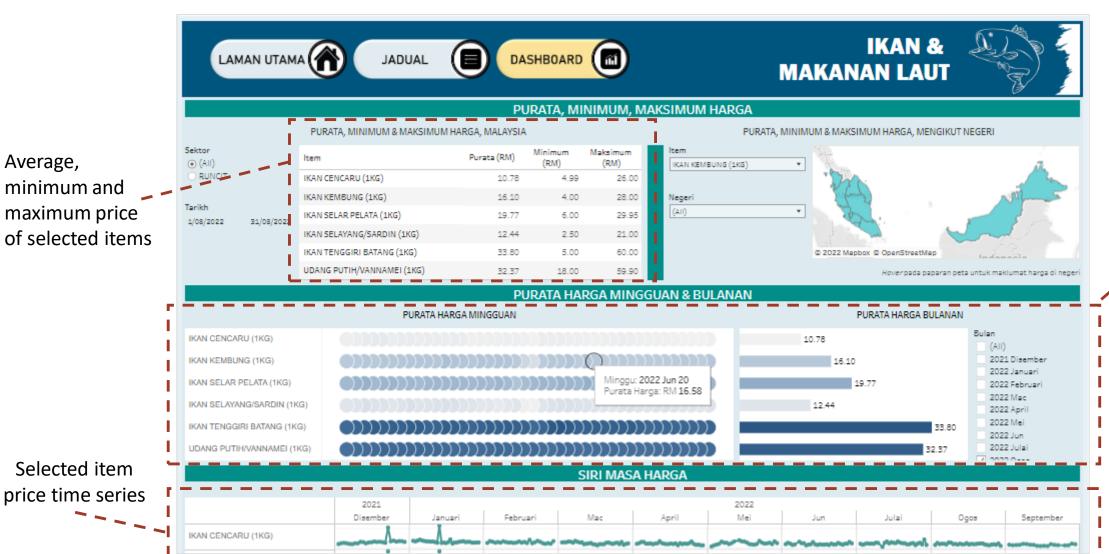
monthly

average prices

of selected

items

Dashboard Layout





CPI Calculator







	Malaysia CPI Inflati	ion Calculo	ator	
	In Malaysia, basket of goods an	nd services tha	at costing	
RM:	Select Month:		Select Year:	
100.00	March	~	1980	~
RM:	Would cos	st	Select Year:	
320.54	January	~	2023	~
	M100.00 in March 1980 would cost			

https://www.dosm.gov.my/cpi_calc/



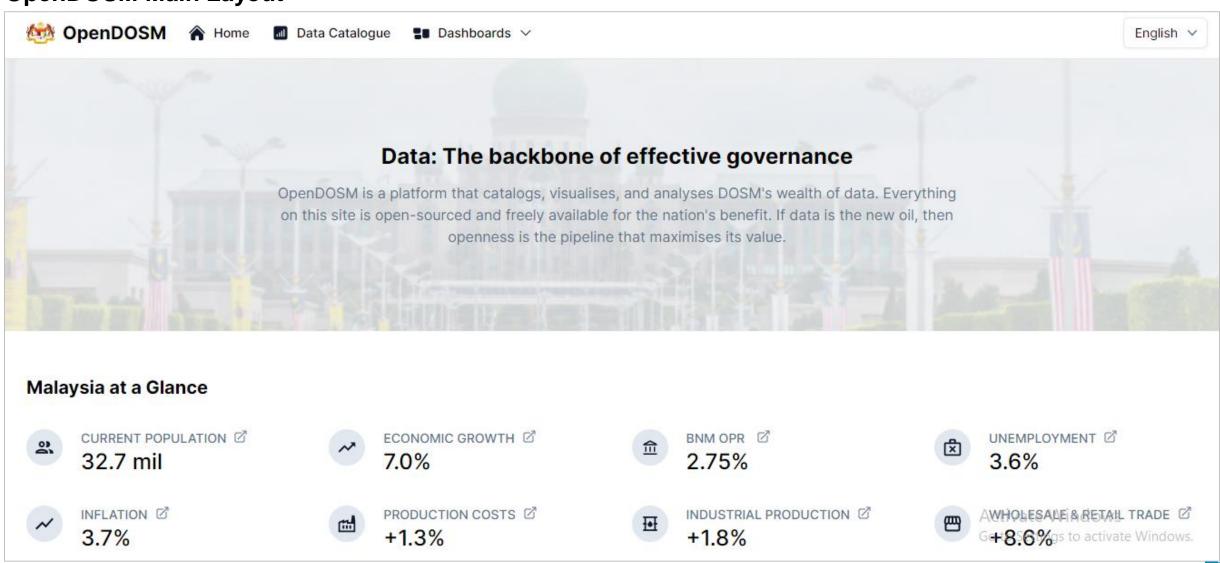
OpenDOSM







OpenDOSM Main Layout



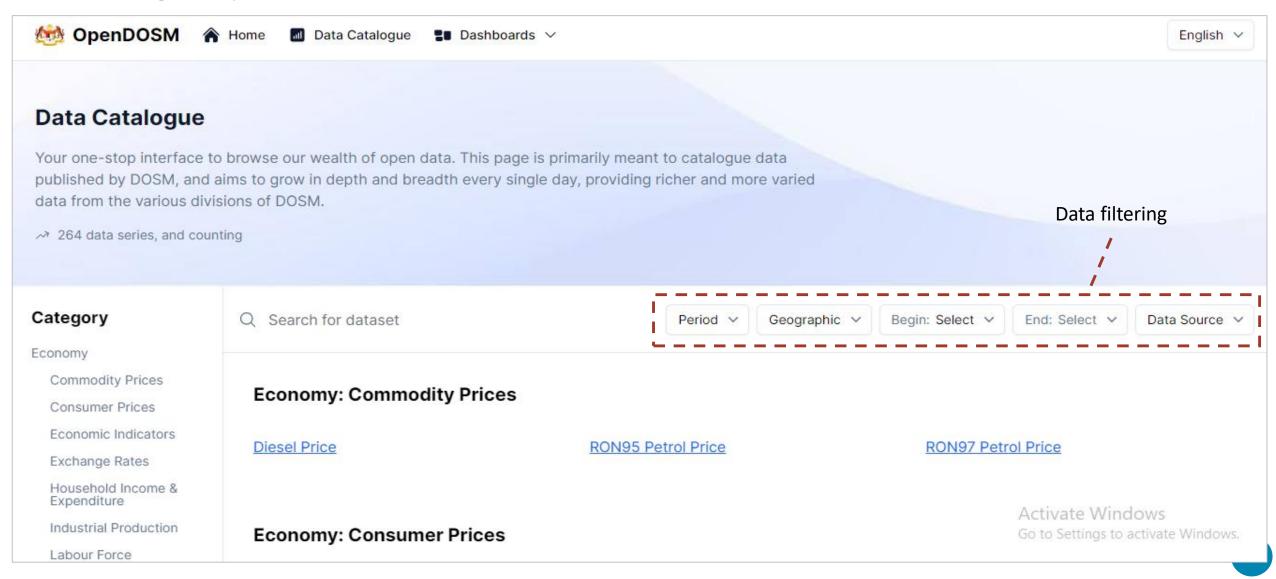








Data Catalogue Layout



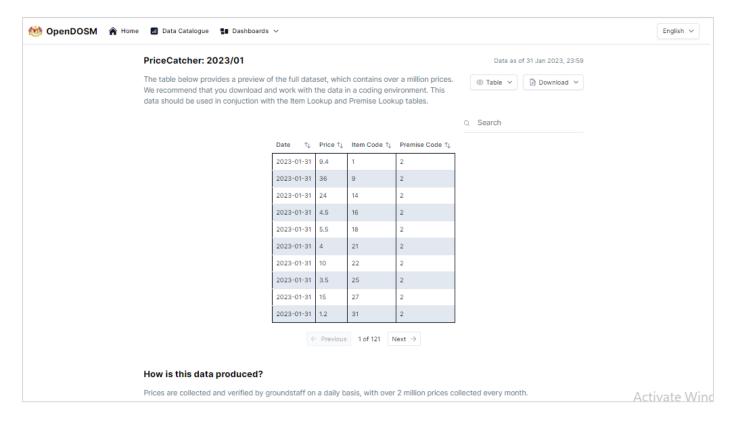


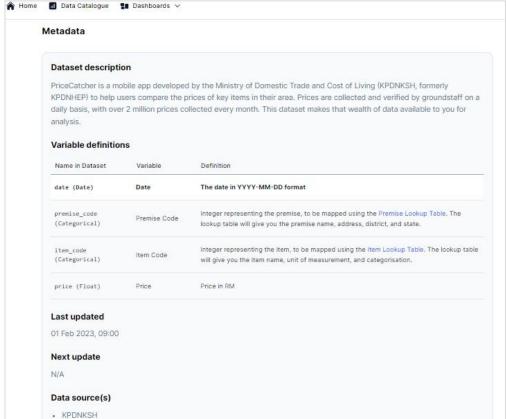






Data Catalogue Layout – Price Catcher





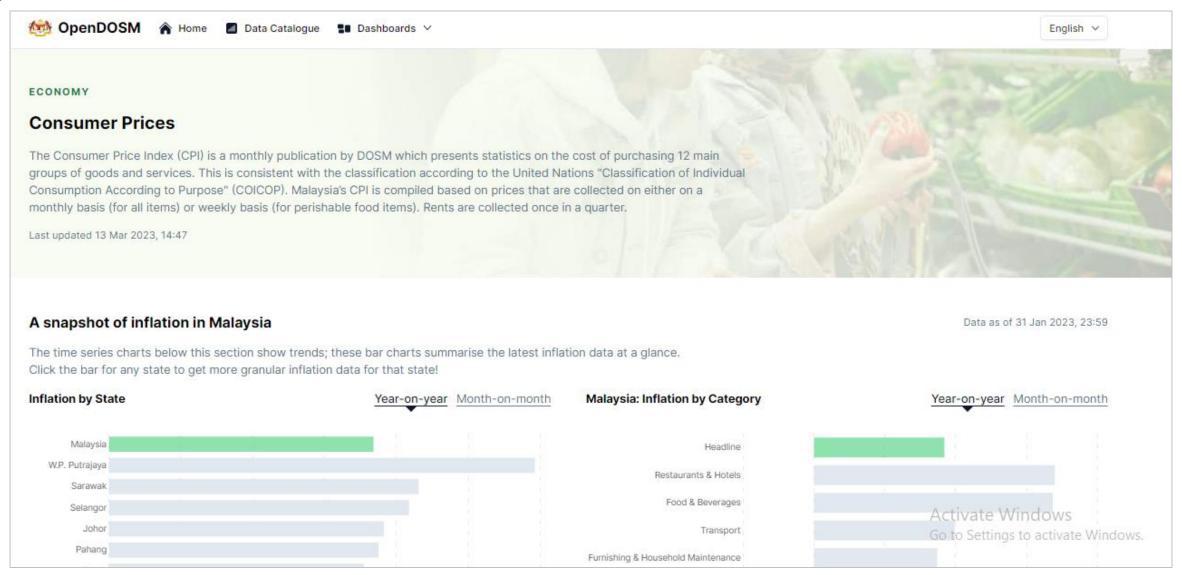








OpenDOSM Dashboard



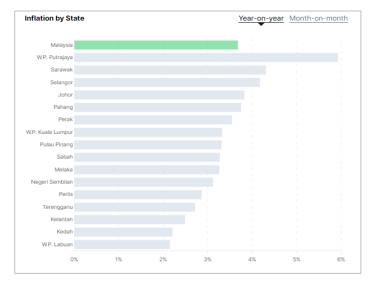


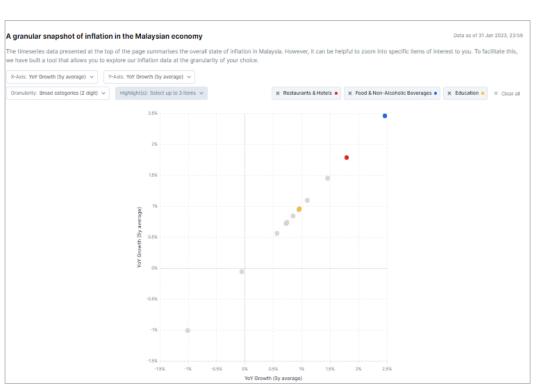


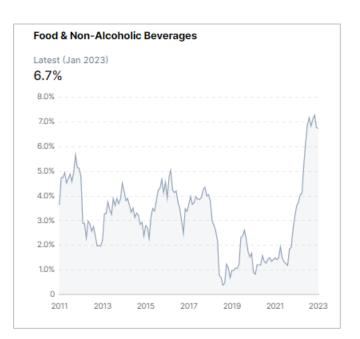




Dashboard Layout







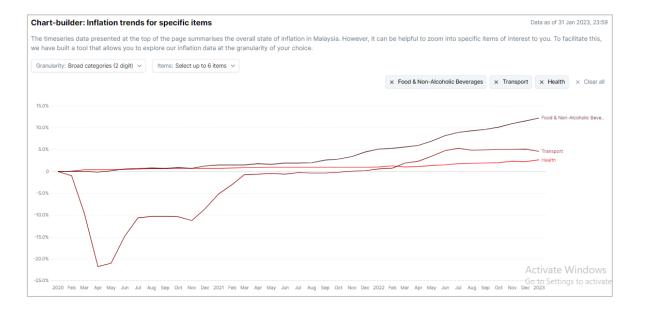


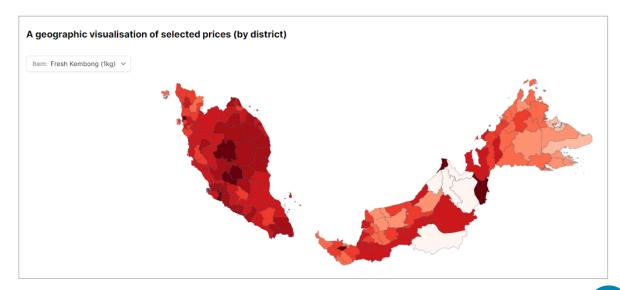






Dashboard Layout





"STATISTICS BLOOM IN HARMONY"

Doesn't matter far or near Strength in numbers we don't live in fear

Birds of feather flock together Statistics our form of adour We, will always live it up

So let us live in solidarity
And in the world arena we'll
succeed
It is statistics that will come to be
The reason we will bloom in
harmony

Everybody undivided Data's where our hearts reside in There will always be a bind Just like fire that ignites
That's how brightly lit our dreams are
We'll reach higher than the stars

Sending love to one another Leaving no one in a slumber We will stand with unity

Mustering our courage while Embracing our disparities We'll achieve our victory

One dream with unity
One love with harmony



STATISTICS BLOOM IN HARMONY" VIDEO

https://bit.ly/StatisticsBloomInHarmony

THANK YOU















www.DOSM.gov.my