

About the International Comparison Program

The International Comparison Program (ICP) is the largest worldwide data collection initiative, implemented under the guidance of the United Nations Statistical Commission (UNSC) with the objective of producing comparable price and volume measures of national accounts aggregates across the economies of the world. Along with purchasing power parities (PPPs), the ICP produces price level indexes (PLIs) and other comparable aggregates of gross domestic product (GDP) expenditure and its components.

More specifically, the PPPs are used to compute real measures of GDP, its main aggregates, and selected expenditure aggregates at level below the main aggregates. The main aggregates include individual consumption expenditure by households (ICEH) and nonprofit institutions serving households (NPISH), individual consumption expenditure by government (ICEG), collective consumption expenditure by government (CCEG), government final consumption expenditure (GFCE), gross capital formation (GCF), gross fixed capital formation (GFCF), changes in inventories, acquisitions less disposals of valuables, and balance of exports and imports. These measures allow more meaningful inter-economy comparisons, as they correct for distortions due to differences in the price levels between economies.

The International Comparison Program in Asia and the Pacific

The Asian Development Bank (ADB), through its Economic Research and Regional Cooperation Department, has been the regional implementing agency (RIA) of the ICP for Asia and the Pacific since the 2005 ICP round. ADB in its capacity as the RIA was responsible for coordinating with the 22 economies that participated in the 2017 ICP. These 22 economies are: Bangladesh; Bhutan; Brunei Darussalam; Cambodia; Fiji; Hong Kong, China; India; Indonesia; the Lao People's Democratic Republic; Malaysia; Maldives; Mongolia; Myanmar; Nepal; Pakistan; the People's Republic of China; the Philippines; Singapore; Sri Lanka; Taipei, China; Thailand; and Viet Nam. Macau, China was among the 23 participating economies in the 2011 ICP.

Concepts and Measures

Purchasing Power Parity	The amount of currency units required to purchase a common basket of goods and services in an economy that can be purchased with one unit of the reference currency in the reference economy.
Price Level Index	The ratio of PPP to exchange rate with respect to a common reference currency. PLI expresses the general price level in an economy as percentage of reference economy's price level and shows how the price levels of economies compare with each other. The PLI of the reference economy is 100. A PLI greater than 100 means that when the national average prices are converted at exchange rates, the resulting prices tend to be higher on average than prices in the reference economy.
Real Expenditure	Expenditure in the currency units of an economy converted to a common currency by dividing the expenditure by its corresponding PPP, and hence, valued at a uniform price level across economies.
Nominal Expenditure	Expenditure in the currency units of an economy converted to a common currency using the exchange rate of a reference economy without adjusting for the differences in prices of goods and services across economies.
Per Capita Expenditure	Total expenditure divided by the total population of a given economy. Per capita expenditure measures the standard of living in an economy. This can be expressed either in real or nominal terms.
Per Capita Relative Expenditure	Per capita expenditure that has been converted to the relative units of the reference economy by (i) dividing the per capita expenditure of a given economy by the per capita expenditure of the reference economy and (ii) multiplying by 100.
Transitivity	An important property of PPP whereby the direct PPP between any two economies yields the same result as an indirect comparison via any other economy.
Base Economy Invariance	The property under which the relativities between the PPPs, PLIs, and volume indexes of economies are not affected by the choice of reference economy or currency.
Economy Share to Asia and the Pacific	An economy's real or nominal expenditures for an aggregate, expressed as a percentage of the total real or nominal expenditure of all participating economies in Asia and the Pacific.
Shares of Nominal Expenditure	An aggregate's nominal expenditure as a percentage of the total nominal expenditure within the economy.

Data and Sources

This file contains one table for the 2011 ICP (revised) results. This table contains indicators on PPPs, PLIs, and GDP and its components such as ICEH and NPISH, ICEG, CCEG, GFCE, GCF, GFCF, changes in inventories, acquisitions less disposals of valuables, balance of exports and imports, and lower levels of national accounts aggregates. In addition to these, actual individual consumption by households (AICH), which is the aggregate of ICEH, NPISH, and ICEG, is also presented. The five components of AICH are (i) housing, water, electricity, gas and other fuels; (ii) health; (iii) recreation and culture; (iv) education; and (v) miscellaneous goods and services. In contrast, expenditures for the other AICH components of food and nonfood household consumption are incurred by households only. Results are also presented for another broad aggregate called "domestic absorption," which represents the domestic expenditures as aggregate of AICH, CCEG, GFCF, changes in inventories, and acquisitions less disposals of valuables.

The 2017 ICP results are compiled with Hong Kong, China as the reference economy and the Hong Kong dollar as the reference currency. The PPPs for the expenditures aggregates at all levels were derived using the Gini-Éltető-Köves-Szulc (GEKS) method. The real expenditure for each aggregate is derived by dividing the nominal expenditures estimated in local currency units by a PPP that is specific to that aggregate, so real expenditure for such an aggregate may not equal the total of its components' real expenditures within an economy. Some PPPs presented are reference PPPs. For the detailed list of reference PPPs, see Appendix 5 of the 2017 ICP Main Report for Asia and the Pacific. When an economy is not able to provide prices for any of the items for any category corresponding to the available GDP expenditures, the PPP for this category is estimated using gap-filling techniques based on country-product-dummy (CPD) by the RIA.

The 2011 revised results are based on revisions in the 2011 estimates of GDP, population, refinements in the methodology for estimating productivity adjustment factors, changes in some reference PPPs, and changes in ICP classification.

The results presented in the table are produced by the ICP RIA for Asia and the Pacific, based on data supplied by all the participating economies, and in accordance with the methodology recommended by the ICP Technical Advisory Group and approved by the Asia and the Pacific Regional Advisory Board. As such, these results are not produced by participating economies as part of the economies' official statistics.

Expenditure Categories	
Gross domestic product (GDP)	Actual individual consumption by households (AICH) at purchasers' prices <i>plus</i> collective consumption expenditure by government (CCEG) at purchasers' prices <i>plus</i> gross capital formation (GCF) at purchasers' prices <i>plus</i> the free on board (FOB) value of exports of goods and services <i>less</i> the FOB value of imports of goods and services.
Actual individual consumption by households (AICH)	The total value of the individual consumption expenditures by households (ICEH), nonprofit institutions serving households (NPISH), and individual consumption expenditure by government (ICEG) at purchasers' prices.
Food and non-alcoholic beverages	Household expenditure on food products and non-alcoholic beverages purchased for consumption at home. It excludes expenditures on food products and non-alcoholic beverages sold for immediate consumption away from home by hotels, restaurants, cafés, bars, kiosks, street vendors, automatic vending machines, and other vendors; cooked dishes prepared by restaurants for consumption off their premises; cooked dishes prepared by catering contractors, whether collected by the customer or delivered to the customer's home; and products sold specifically as pet foods.
Food	Household expenditure on food products purchased for consumption at home. It excludes food products sold for immediate consumption away from the home by hotels, restaurants, cafés, bars, kiosks, street vendors, automatic vending machines, etc.; cooked dishes prepared by restaurants for consumption off their premises; cooked dishes prepared by catering contractors, whether collected by the customer or delivered to the customer's home; and products sold specifically as pet food.
Bread and cereals	Household expenditure on rice; other cereals, flour, and other cereal products; bread; other bakery products; and pasta products and couscous, purchased for consumption at home.
Meat	Household expenditure on fresh, chilled, frozen, preserved or processed animals and poultry meat purchased for consumption as food at home. It also includes animals and poultry purchased live for consumption as food.
Fish and seafood	Household expenditure on fresh, chilled, frozen, preserved or processed fish and seafood purchased for consumption as food at home. It also includes fish and seafood (such as crustaceans, molluscs and other shellfish, sea snails, land crabs, land snails and frogs) purchased live for consumption as food.
Milk, cheese and eggs	Household expenditure on fresh or preserved milk, other milk products such as soya milk, cheese and curd; and egg including egg-based products purchased for consumption as food at home.
Oils and fats	Household expenditure on butter, margarine and other vegetable fats such as peanut butter; and other edible oils and fats purchased for consumption as food at home.
Fruit	Household expenditure on fresh, chilled, frozen, preserved or processed fruit and fruit-based products purchased for consumption as food at home.
Vegetables	Household expenditure on fresh, chilled, frozen, preserved or processed vegetable and vegetable-based products purchased for consumption as food at home.
Sugar, jam, honey, chocolate and confectionery	Household expenditure on sugar and artificial sugar substitutes; jams, marmalades and honey; and chocolate, confectionery and ice cream purchased for consumption at home.
Food products n.e.c.	Household expenditure on sauces and condiments; salt, spices and culinary herbs; baby food; ready-made meals when the price only covers the cost of the product; and other food products not elsewhere classified purchased for consumption at home.
Non-alcoholic beverages	Household expenditure on non-alcoholic beverages purchased for consumption at home. It excludes non-alcoholic beverages sold for immediate consumption away from home by hotels, restaurants, cafés, bars, kiosks, street vendors, automatic vending machines, and other vendors.
Alcoholic beverages, tobacco and narcotics	Household expenditure on alcoholic beverages purchased for consumption at home. It includes low or non-alcoholic beverages that are generally alcoholic such as non-alcoholic beer, and excludes alcoholic beverages sold for immediate consumption away from the home by hotels, restaurants, cafés, bars, kiosks, street vendors, automatic vending machines, and other vendors; and household expenditure on tobacco (which covers all purchases of tobacco, including purchases of tobacco in cafés, bars, restaurants, and service stations).
Alcoholic beverages	Household expenditure on alcoholic beverages purchased for consumption at home. It includes low or non-alcoholic beverages which are generally alcoholic such as non-alcoholic beer, and excludes alcoholic beverages sold for immediate consumption away from the home by hotels, restaurants, cafés, bars, kiosks, street vendors, automatic vending machines, and other vendors.
Tobacco and narcotics	Household expenditure on tobacco, including purchases of tobacco in cafés, bars, restaurants, service stations; and narcotics.
Clothing and footwear	Household expenditure on clothing materials; other articles of clothing and clothing accessories; garments for men, women, children, and infants; cleaning, repair, and hire of clothing; all footwear for men, women, children, and infants; and repair and hire of footwear.
Housing, water, electricity, gas and other fuels	Household expenditure on actual and imputed rentals for housing; maintenance and repair of the dwelling; water supply and miscellaneous services related to the dwelling; and electricity, gas, and other fuels <i>plus</i> expenditure by NPISH on housing <i>plus</i> ICEG on housing services provided to individuals.
Furnishings, household equipment and routine household maintenance	Household expenditure on furniture and furnishings; carpets and other floor coverings; repair of furniture, furnishings and floor coverings; household textiles; household appliances; glassware, tableware, and household utensils; tools and equipment for house and garden; and goods and services for routine household maintenance.
Health	Household expenditure on pharmaceuticals; medical products, appliances, and equipment; outpatient services; and hospital services <i>plus</i> expenditure of NPISH on health <i>plus</i> ICEG on health benefits and reimbursements, and the production of health services.
Transportation	Household expenditure on purchase of vehicles, operation of personal transport equipment, and transport services.

Expenditure Categories	
Purchase of vehicles	Household expenditure on purchase of new and second-hand motor cars; motor cycles of all types, scooters and powered bicycles; bicycles and tricycles of all types; and animal-drawn vehicles, which include animals required to draw the vehicles and related equipment such as yokes, collars, harnesses, bridles, and reins.
Transport services	Household expenditure on purchases of transport services classified by mode of transport; cost of meals, snacks, drinks, refreshments or accommodation services must be included if covered by the fare and not separately priced. It includes school transport services but excludes ambulance services and package holidays.
Communication	Household expenditure on postal services, telephone and telefax equipment, and telephone and telefax services.
Recreation and culture	Household expenditure on audiovisual, photographic, and information processing equipment; other major durables for recreation and culture; other recreational items and equipment; gardens and pets; recreational and cultural services; newspapers, books, and stationery; and package holidays <i>plus</i> expenditure by NPISH on recreation and culture <i>plus</i> ICEG on recreation and culture.
Education	Household expenditure on pre-primary, primary, secondary, post-secondary, and tertiary education <i>plus</i> expenditure of NPISH on education <i>plus</i> ICEG on education benefits and reimbursements and the production of education services.
Restaurants and hotels	Household expenditure on food products and beverages sold for immediate consumption away from the home by hotels, restaurants, cafés, bars, kiosks, street vendors, automatic vending machines, and other vendors (including cooked dishes prepared by restaurants for consumption off their premises and cooked dishes prepared by catering contractors, whether collected by the customer or delivered to the customer's home) and household expenditure on accommodation services provided by hotels and similar establishments.
Miscellaneous goods and services	Household expenditure on personal care, personal effects, social protection, insurance, and financial and other services <i>plus</i> expenditure by NPISH on social protection and other services <i>plus</i> ICEG on social protection.
Net purchases abroad	Purchases by residential households in the rest of the world (as tourists, people traveling on business, and government officials, crews, border and seasonal workers, diplomatic and military personal stationed abroad) <i>less</i> purchases by nonresidential households in the economic territory of the country (as tourists, people traveling on business, and government officials, crews, border and seasonal workers, diplomatic and military personal stationed abroad). Zero expenditure values for 'Net purchases abroad' may imply that this expenditure category is allocated under other GDP expenditure components based on the best judgments of the implementing agencies of the participating economies.
Individual consumption expenditure by government (ICEG)	The total value of actual and imputed final consumption expenditures incurred by government on individual goods and services. These include expenditures incurred by the government considered to be individual services such as housing, health, recreation and culture, education, and social protection.
Collective consumption expenditure by government (CCEG)	The final consumption expenditure of government on collective services or the service provided by the government simultaneously to all members of the community.
Gross capital formation (GCF)	The total value of expenditure on gross fixed capital formation (GFCF), changes in inventories, and acquisitions less disposals of valuables.
Gross fixed capital formation (GFCF)	The total value of acquisitions less disposals of fixed assets by resident institutional units during the accounting period <i>plus</i> the additions to the value of nonproduced assets realized by the productive activity of resident institutional units.
Machinery and equipment	Capital expenditure on fabricated metal products, electrical and optical equipment, general-purpose machinery, special-purpose machinery, and transport equipment.
Construction	Capital expenditure on the construction of new structures and renovation of existing structures. Structures include residential buildings, nonresidential buildings, and civil engineering works.
Other products	Capital expenditure on furniture and other manufactured goods; computer software that a producer expects to use in production for more than one year; plantation, orchard, and vineyard development; change in stocks including breeding stock, draught animals, dairy cattle, and animals raised for wool clippings; land improvement, including dams and dikes that are part of flood control and irrigation projects; mineral exploration; acquisition of entertainment, literary, or artistic originals; and other intangible fixed assets such as research and development, weapons and ammunition; and ownership transfer costs on nonproduced assets, including ownership transfer costs relating to land.
Changes in inventories	The value of physical change in inventories of raw materials, supplies and finished goods held by producers; inventories of goods acquired for resale by wholesalers and retailers; inventories of all goods stored by government; work-in-progress in manufacturing, construction and service industries; work-in-progress on cultivated assets (e.g., the natural growth prior to harvest of agricultural crops, vineyards, orchards, plantations and timber tracts and the natural growth in livestock raised for slaughter).
Acquisitions less disposals of valuables	Acquisitions of valuables (produced assets, such as nonmonetary gold, precious stones, antiques, paintings, sculptures and other art objects, that are not used primarily for production or consumption but purchased and held as stores of value) <i>less</i> disposals of valuables.
Balance of exports and imports	The FOB value of exports of goods and services <i>less</i> the FOB value of imports of goods and services.
Individual consumption expenditure by households (ICEH)	The total value of actual and imputed final consumption expenditures incurred by households and NPISH for goods and services consumed by the households on housing, health, recreation and culture, education, and social protection and other services. It also includes expenditures on individual goods and services sold at prices that are not economically significant.
Individual consumption expenditure by households (ICEH) without housing	ICEH and NPISH, without actual and imputed rentals for housing and excluding expenditure by NPISH on housing.
Government final consumption expenditure (GFCE)	The total value of actual and imputed final consumption expenditures incurred by government on individual goods and services and final consumption expenditure of government on collective services.
Domestic absorption	AICH at purchasers' prices <i>plus</i> CCEG at purchasers' prices <i>plus</i> GFCF at purchasers' prices <i>plus</i> changes in inventories, and acquisitions less disposals of valuables.

2017 International Comparison Program for Asia and the Pacific

Macau, China; 2011 (Revised)

Expenditure Category	Purchasing Power Parities (HK\$ = 1.00)	Real Expenditure		Per Capita Real Expenditure		Nominal Expenditure		Per Capita Nominal Expenditure		Nominal Expenditure Shares, (%)	PLIs		Expenditure (billion LCU)
		(HK\$ billion)	Economy Shares to AP, (%)	HK\$	Index (AP = 100)	(HK\$ billion)	Economy Shares to AP, (%)	HK\$	Index (AP = 100)		(HKG = 100)	(AP = 100)	
Gross Domestic Product	0.85	346.9	0.24	627,887	1,550	285.7	0.28	517,164	1,832	100.00	82	118	294.35
Actual Individual Consumption by Households ^a	0.91	77.0	0.10	139,419	625	68.1	0.13	123,254	867	23.83	88	139	70.15
Food and non-alcoholic beverages	1.03	5.0	0.03	8,963	178	4.9	0.04	8,951	271	1.73	100	152	5.09
Food	1.03	4.7	0.03	8,530	175	4.7	0.04	8,530	268	1.65	100	154	4.85
Bread and cereals	1.13	0.7	0.02	1,312	119	0.8	0.03	1,439	182	0.28	110	152	0.82
Meat	1.02	1.1	0.05	2,015	305	1.1	0.06	1,999	416	0.39	99	136	1.14
Fish and seafood	0.97	1.1	0.06	1,910	374	1.0	0.09	1,799	554	0.35	94	148	1.02
Milk, cheese and eggs	1.02	0.3	0.01	599	90	0.3	0.02	592	149	0.11	99	166	0.34
Oils and fats	1.23	0.1	0.01	185	89	0.1	0.02	220	133	0.04	119	148	0.13
Fruit	1.10	0.5	0.03	898	200	0.5	0.05	957	312	0.19	107	156	0.54
Vegetables	0.93	0.6	0.02	1,026	117	0.5	0.03	928	221	0.18	90	189	0.53
Sugar, jam, honey, chocolate and confectionery	1.02	0.1	0.02	232	127	0.1	0.03	228	212	0.04	99	167	0.13
Food products n.e.c.	0.93	0.2	0.02	410	158	0.2	0.03	368	201	0.07	90	128	0.21
Non-alcoholic beverages	1.01	0.2	0.04	430	263	0.2	0.05	421	334	0.08	98	127	0.24
Alcoholic beverages, tobacco and narcotics	0.67	0.5	0.03	986	202	0.4	0.03	642	184	0.12	65	91	0.37
Alcoholic beverages	0.91	0.1	0.05	237	296	0.1	0.03	210	192	0.04	88	65	0.12
Tobacco and narcotics	0.44	0.6	0.02	1,013	156	0.2	0.03	433	180	0.08	43	116	0.25
Clothing and footwear	1.33	2.9	0.09	5,282	574	3.8	0.13	6,831	846	1.32	129	147	3.89
Housing, water, electricity, gas and other fuels ^a	0.75	13.1	0.09	23,684	560	9.6	0.13	17,302	869	3.35	73	155	9.85
Furnishings, household equipment and routine household maintenance	1.19	1.1	0.04	1,930	255	1.2	0.06	2,229	362	0.43	116	142	1.27
Health ^a	0.79	6.1	0.05	11,021	321	4.6	0.09	8,405	571	1.63	76	178	4.78
Transportation	0.89	6.2	0.09	11,188	583	5.3	0.12	9,614	762	1.86	86	131	5.47
Purchase of vehicles	1.14	2.5	0.18	4,567	1,162	2.8	0.21	5,071	1,337	0.98	111	115	2.89
Transport services	0.99	0.9	0.03	1,596	205	0.8	0.05	1,531	347	0.30	96	170	0.87
Communication	1.19	1.5	0.10	2,691	617	1.7	0.11	3,110	699	0.60	116	113	1.77
Recreation and culture ^a	1.13	5.8	0.21	10,411	1,358	6.3	0.26	11,394	1,695	2.20	109	125	6.48
Education ^a	0.61	7.9	0.08	14,356	526	4.7	0.11	8,522	686	1.65	59	130	4.85
Restaurants and hotels	0.98	12.1	0.32	21,979	2,065	11.6	0.45	20,995	2,899	4.06	96	140	11.95
Miscellaneous goods and services ^a	1.06	6.7	0.10	12,137	646	6.9	0.14	12,492	909	2.42	103	141	7.11
Net purchases abroad	1.03	7.1	-4.36	12,765	-28,122	7.1	-4.36	12,765	-28,122	2.47	100	100	7.27
Individual Consumption Expenditure by Government	0.78	10.5	0.09	18,957	559	7.9	0.12	14,367	755	2.78	76	135	8.18
Collective Consumption Expenditure by Government	0.94	13.6	0.13	24,643	866	12.4	0.19	22,442	1,217	4.34	91	140	12.77
Gross Capital Formation	0.93	43.9	0.08	79,459	529	39.5	0.10	71,494	617	13.82	90	117	40.69
Gross fixed capital formation	0.92	40.0	0.08	72,324	516	35.6	0.09	64,523	597	12.48	89	116	36.72
Machinery and equipment	0.90	7.9	0.07	14,330	455	6.9	0.06	12,547	399	2.43	88	88	7.14
Construction	0.80	34.9	0.09	63,182	553	27.1	0.12	49,026	744	9.48	78	134	27.90
Other products	0.90	1.9	0.05	3,373	312	1.6	0.04	2,951	275	0.57	87	88	1.68
Changes in inventories	1.00	4.0	0.13	7,214	815	3.9	0.16	6,971	1,033	1.35	97	127	3.97
Acquisitions less disposals of valuables	1.03	-	-	-	-	-	-	-	-	-	100	100	-
Balance of Exports and Imports	1.03	165.7	8.18	299,974	52,771	165.7	8.18	299,974	52,771	58.00	100	100	170.73
Individual Consumption Expenditure by Households ^b	0.91	67.8	0.10	122,664	635	60.2	0.14	108,886	884	21.05	89	139	61.97
Individual Consumption Expenditure by Households without Housing ^b	0.95	56.9	0.10	103,027	623	52.6	0.13	95,146	858	18.40	92	138	54.15
Government Final Consumption Expenditure	0.87	24.1	0.11	43,569	714	20.3	0.15	36,809	982	7.12	84	137	20.95
Domestic Absorption	0.92	134.1	0.09	242,793	599	120.0	0.12	217,190	785	42.00	89	131	123.61

Reference Data

Exchange rate (LCU/HK\$)	1.03
Total Population (in million)	0.55
Population Share to AP (%)	0.02

- = magnitude equals zero; AP = Asia and the Pacific; HK\$ = Hong Kong dollar; HKG = Hong Kong, China; LCU = local currency units; n.e.c. = not elsewhere classified; PLI = price level index.

Notes: Each real aggregate value is derived by using a purchasing power parity that is specific to that aggregate, so real aggregates may not sum up to the total of their real components for an economy. Nominal expenditure aggregates are the best possible estimates provided by the participating economies, using most recent available data sources, and some of these aggregates may be different from the published expenditure estimates by the economies.

^a Includes individual consumption expenditure by households, nonprofit institutions serving households, and government.

^b Includes expenditure by nonprofit institutions serving households.

Sources: Asian Development Bank estimates. Data for expenditure at local currency units and mid-year population estimates were supplied by the participating economies for the International Comparison Program. For exchange rates: International Monetary Fund. International Financial Statistics. <http://data.imf.org/> (accessed 17 September 2019).