# International Comparison Program



# **Annual Report**





2020

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# A year of completing the ICP 2017 cycle activities

This report provides a summary of International Comparison Program (ICP) activities during the year to May 2020. Much of the work focused on completing the **2017 cycle** of the ICP, which culminated in the release of the cycle's global results on May 19, 2020. This achievement was made possible by the work of the global ICP partnership encompassing the staff of national statistical offices within countries who have been at the forefront of data collection, the regional implementing agencies overseeing the six separate exercises across the world, the Global Office at the World Bank managing the global program, the ICP's governing bodies that steered the implementation of the cycle, and the donors who contributed to funding the 2017 cycle.

The 2017 ICP cycle covered 176 economies, producing purchasing power parities (PPPs) for 2017, along with estimates of PPP-based gross domestic product (GDP) and its major expenditure components and per capita terms. In addition to the results for the reference year 2017, the cycle's **outputs** included revised results for the previous ICP reference year 2011, as well as annual PPPs for years from 2012 to 2016.

At the same time, work on the 13 topics under the ICP **Research Agenda** was taken forward by active task forces and task teams, under the guidance of the ICP Technical Advisory Group (TAG), while **outreach and knowledge** activities were advanced through events, eLearning, blogs and analyses.

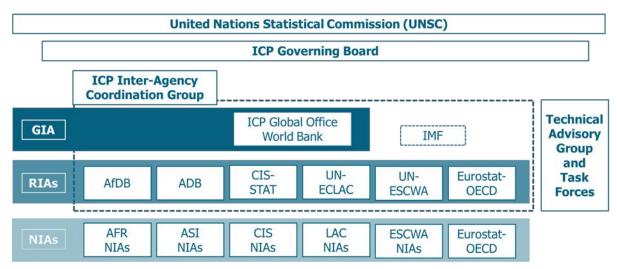
The **use** of PPPs and related indicators continues to grow with numerous references in the media, in academic reports and research papers, and in analyses by multilateral organizations and the development community. These cover a breadth of topics – the size of the economy, poverty and inequality, energy, the environment, health, education, labor, and trade and competitiveness amongst others.

This **report** covers ICP activities from end-April 2019 until end-May 2020 and is organized by the following sections:

- Governance and coordination
- Implementation of the ICP 2017 cycle
- Research activities
- Advocacy and knowledge
- Uses of Purchasing Power Parities
- Funding the ICP 2017 cycle
- Risks and mitigation measures
- Conclusion

#### Governance and coordination

The governance structure of the International Comparison Program (ICP) provides an overall framework for coordinating international, regional, and national efforts to produce reliable PPP estimates and related measures of real expenditures. The framework consists of the United Nations Statistical Commission (UNSC), the Governing Board, the Inter-Agency Coordination Group (IACG), the Technical Advisory Group (TAG) and its task forces, the ICP Global Office acting as the Global Implementing Agency, Regional Implementing Agencies, and National Implementing Agencies, each of which has distinct roles and responsibilities.



Global Implementing Agency (GIU) | Regional Implementing Agency (RIA) | National Implementing Agency (NIA)

The ICP Governance framework

Over the last year, the ICP Governance Bodies have met to discuss the progress of the program, and direct future work undertaken by the implementing agencies.

#### United Nations Statistical Commission

The UNSC is the ultimate stakeholder of the ICP, deciding the frequency and modality of the program. At its fifty-first session in March 2020 in New York, the Commission:

- Welcomed the <u>report</u> on the ICP and commended the work carried out to date to conclude the 2017 cycle;
- Took note of the imminent release of the results from the 2017 cycle and the plans to communicate and promote the use of the results in national policymaking, socioeconomic analyses and development agendas;
- Impressed upon ICP stakeholders the need to conduct the upcoming cycle activities in a timely manner;
- Reiterated the need for national, regional and global agencies to incorporate the ICP into their regular statistical work programs and to ensure its sustainability as a permanent program; and
- Urged national statistical systems and international development partners to make resources available for the next ICP cycle and future cycles of the program.

#### **ICP Governing Board**

The Governing Board's role is to set the policies that govern the production of regional and global purchasing power parities (PPPs); approve the methodology employed by the ICP; conduct outreach to policymakers to ensure the inclusion of the ICP in regular national statistical programs; and help with fund-raising efforts.



The fifth meeting of the Governing Board at the World Bank Headquarters in Washington, DC, in December 2019.

The Governing Board met twice over the last year, for its <u>fifth and sixth meetings</u>: it convened in Washington, DC on December 13, 2019, and again in New York on March 1, 2020, prior to the fifty-first session of the UNSC.

At its fifth meeting the Board:

- Took note of the overall progress in implementing the ICP 2017 cycle and ICP research agenda;
- Approved the <u>ICP Data Access and Archive Policy</u>;
- Approved the ICP Revision Policy; and
- Recommended that briefing materials highlighting the importance of the ICP program, the extensive contributions of countries, and uses of ICP results be shared with countries prior to the release of 2017 cycle results.

At its sixth meeting the Board:

- Took note of the overall progress in implementing the ICP 2017 cycle, and thanked the national, regional and global agencies for their efforts for completing the cycle and the donors for funding the cycle;
- Endorsed the release of the ICP 2017 cycle results per the ICP communication strategy, encompassing pre-release, release and post-release activities; and
- Reiterated the need for national, regional and global agencies to incorporate the ICP into their regular statistical work programs, to ensure its sustainability as a permanent program.

#### **Technical Advisory Group**

The TAG ensures the methodological soundness and overall quality of the PPP estimates; assures the transparency of the PPP estimation process; and supports the establishment of a permanent and more frequent ICP. A number of task forces and task teams have been created under the auspices of the TAG to take forward the ICP Research Agenda.

<u>Three ICP TAG meetings</u> (the group's third, fourth, and fifth meetings for the ICP 2017 cycle) were held over the past twelve months, on May 2019 in Paris, October 2019 and February 2020 in Washington, DC.

At its third meeting the TAG:

- Assessed the processes for producing ICP results in a qualified and timely manner; and
- Proposed a Computation Task Team to allow parallel computations of results for added quality assurance and transparency, as well as to ensure the reproducibility of the final results.

At its fourth meeting the TAG:

- Assessed the methodological consistency of the ICP 2017 cycle vis-à-vis the ICP 2011 cycle; and
- Analyzed the preliminary 2017 results, the revised 2011 results, and the consistency between reference years.

At its fifth meeting the TAG:

- Assessed the overall progress of the ICP 2017 cycle and preparations for the next cycle;
- Reviewed and endorsed the final 2017 results, the revised 2011 results, and the consistency between reference years; and
- Reviewed progress with the ICP research agenda and discussed future research priorities.

#### Inter-Agency Coordination Group

IACG is the coordinating body that collaborates on establishing timetables and work plans; develops common standards, methods, and protocols; and agrees on operational materials.

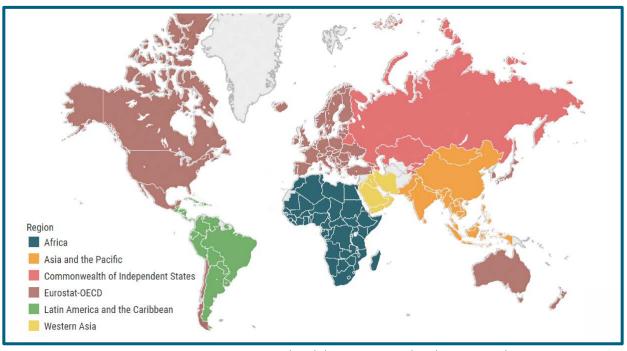
The <u>eighth meeting of the IACG</u> was held from October 23 to 25, 2019 in Washington, D.C. At this meeting, the Group:

- Discussed the status of global and regional activities and outstanding risks;
- Assessed the quality of the 2017 cycle results;
- Agreed upon the reference PPPs and PPP aggregates to be used in regional and global results; and
- Reviewed and discussed the draft global item lists for the next ICP cycle.

# Implementation of the ICP 2017 cycle

#### Country participation

The 2017 International Comparison Program (ICP) cycle encompassed 176 participating economies managed under six regional programs. The African Development Bank oversaw the work of the 50 economies in the region, with AFRISTAT coordinating 30 of those, and COMESA the remaining 20. Three economies within this region were also participating in the Western Asia exercise (Egypt, Arab Republic; Morocco; and Sudan). The Asian Development Bank coordinated the work of its 22 participating economies, while the Interstate Statistical Committee of the Commonwealth of Independent States oversaw its eight economies. The Economic Commission for Latin America and the Caribbean oversaw the work of its 36 economies, with support from CARICOM for the 23 Caribbean islands. The United Nations Economic and Social Commission for Western Asia coordinated the 12 economies in that region. Eurostat and OECD provided results for their joint total of 49 economies and assisted with the special participation of Georgia and Ukraine. Iran participated through a special exercise. To encourage and prepare for future participation, several countries also benefitted through ICP capacity building efforts. These included Eritrea, Libya, Somalia, South Sudan, Turkmenistan, Uzbekistan and Yemen. For Uzbekistan, partial experimental results were released for the reference year 2017.



176 economies across the globe participated in the 2017 cycle.

#### Table 1: Participating economies

#### Africa: 50 economies

Algeria; Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo, Rep.; Congo, Dem. Rep.; Côte d'Ivoire; Djibouti; Egypt, Arab Rep.\*; Equatorial Guinea; Ethiopia; Gabon; Gambia, The; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Morocco\*; Mozambique; Namibia; Niger; Nigeria; Rwanda; São Tomé and Principe; Senegal; Seychelles; Sierra Leone; South Africa; Sudan\*; Swaziland; Tanzania; Togo; Tunisia; Uganda; Zambia; Zimbabwe.

#### Asia: 22 economies

Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Fiji; Hong Kong; India; Indonesia; Lao People's Democratic Republic; Malaysia; Maldives; Mongolia; Myanmar; Nepal; Pakistan; Philippines; Singapore; Sri Lanka; Taiwan, Province of China; Thailand; Viet Nam.

#### Commonwealth of Independent States: 8 economies\*\*

Armenia; Azerbaijan; Belarus; Kazakhstan; Kyrgyzstan; Moldova; Russian Federation\*; Tajikistan.

#### Latin America & the Caribbean: 36 economies

Argentina; Bolivia; Brazil; Dominican Republic; Ecuador; El Salvador; Guyana; Haiti; Honduras; Nicaragua; Panama; Paraguay; Peru; Uruguay; Anguilla; Antigua and Barbuda; Aruba; Bahamas, The; Barbados; Belize; Bermuda; Bonaire; Cayman Islands; Curaçao; Dominica; Grenada; Jamaica; Montserrat; St. Kitts and Nevis; St. Lucia; St. Vincent and the Grenadines; Sint Maarten; Suriname; Trinidad and Tobago; Turks and Caicos Islands; Virgin Islands, British.

#### Western Asia: 12 economies

Bahrain; Egypt, Arab Rep. \*; Iraq; Jordan; Kuwait; Morocco\*; Oman; Qatar; Saudi Arabia; Sudan\*; United Arab Emirates; West Bank and Gaza.

#### Eurostat & OECD: 49 economies

Albania; Australia; Austria; Belgium; Bosnia and Herzegovina; Bulgaria; Canada; Chile; Colombia; Costa Rica; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Israel; Italy; Japan; Korea, Rep.; Latvia; Lithuania; Luxembourg; Macedonia, FYR; Malta; Mexico; Montenegro; Netherlands; New Zealand; Norway; Poland; Portugal; Romania; Russian Federation\*; Serbia; Slovakia; Slovenia; Spain; Sweden; Switzerland; Turkey; United Kingdom; United States.

#### Special participation: 3 economies

Iran; Georgia; Ukraine.

<sup>\*</sup> participating under two regions.

<sup>\*\*</sup> Uzbekistan participated in the cycle on experimental basis.

#### Overall timetable and outputs

Collection of data via surveys and compilations for benchmark year 2017 took place over 2016, 2017 and 2018. National accounts expenditure data compilation started in the first quarter of 2017 and continued until the third quarter of 2019. Furthermore, given the large revisions in national accounts expenditures for some countries after the publication of ICP 2011 results, the ICP Technical Advisory Group (TAG) and the Governing Board agreed that revised results for reference year 2011, reflecting revisions in expenditure data, would be published together with the results for 2017. In addition, global annual PPPs bridging the reference years 2011 and 2017, and incorporating interim regional results where possible, were produced. The results for the ICP 2017 cycle, as outlined below, were published on May 19, 2020.

Table 2: Roadmap towards the publication of the ICP 2017 cycle results

Phase I		2019												2020				
		F	М	Α	М	J	J	Α	S	0	N	D	J	F	M	Α	M	
Data Submission																		
Data Validation																		
4th GB meeting																		
HHC Preliminary Calculation																		
7th IACG meeting																		
3rd TAG meeting																		
GB Virtual Approval																		
Dhana II						20	19						2020					
Phase II	J	F	М	Α	M	J	J	Α	S	0	N	D	J	F	M	Α	М	
Data Submission																		
Data Validation																		
GDP Preliminary Calculation																		
8th IACG Meeting																		
4th TAG Meeting																		
5th GB Meeting																		
Final Phase	2019											2020						
Final Phase		F	М	Α	M	J	J	Α	S	0	N	D	J	F	M	Α	М	
Final Regional PPPs																		
Final Global Calculation																		
5th TAG Meeting																		
6th GB Meeting																		
Report Finalization																		
Official Release																		

### Capacity building activities

Regional Implementing Agencies and the ICP Global Office conducted workshops and technical assistance missions to build statistical capacity of countries and regions. Over the year since May 1, 2019 these included:

- Nine regional or sub-regional workshops to collectively validate and finalize data and results, and prepare for surveys for the next ICP cycle; and
- An additional twenty technical assistance missions for statistical capacity building in the area of PPPs, price statistics and national accounts.

Tables 3 and 4 below provide details of these activities.



Attendees at ICP Asia and the Pacific's Regional Workshop in Bangkok, Thailand, in December 2019

Table 3: Regional and sub-regional workshops

Month	Venue	Purpose					
Asia and the	Asia and the Pacific						
August 2019	Thailand	ICP national coordinators/price statisticians reviewed the findings and recommendations of the Regional Advisory Board and the Regional Expert Group that reviewed preliminary regional results.					
December 2019	Thailand	ICP teams from 21 participating economies, together with ADB staff and an international expert on sampling, discussed preparatory activities for the 2020 cycle, covering a review of the 2020 item list, the sampling designs proposed by countries for the ICP 2020 cycle, the regional work program and administrative arrangements for the new cycle, and a review of the preliminary results of the ICP 2017 cycle.					
Commonwealth of Independent States							
May 2019	Kazakhstan	ICP teams from the CIS participating countries, as well as from Turkmenistan and Uzbekistan, and CIS-Stat staff discussed GDP disaggregation, collection of					

Month	Venue	Purpose
		price data, in particular for problematic consumer items, and the schedule for
		data submission for ICP 2017.
		ICP teams from the nine CIS countries participating in the next ICP cycle with
December	Russian	Turkmenistan as observer the list of goods and services to be priced in the next
2019	Federation	ICP cycle, including items from the global core list, the Eurostat-OECD list, and
		the CIS region-specific list.
Latin Ameri	ca and the C	aribbean
		A technical meeting on ICP special surveys and national accounts was jointly
		organized by UN-ECLAC and CARICOM. Representatives from Caribbean
June 2019	Guyana	countries were provided with technical assistance on the compilation of data
		on housing, education, construction, machinery and equipment, government
		compensation, and national accounts expenditures.
December	l Panama	Attendees validated prices collected in 2019 and discussed future steps for the
2019	Tanama	ICP program in LAC and the workplan for the next cycle.
Western As	ia	
		UN-ESCWA and participants from 11 countries discussed the 2011 to 2017
	Turkey	semi-final ICP results and the revision of national data based on findings from
		global validation. Presentations were made on new initiatives using innovative
September		technologies and on the different uses of PPPs. Participants discussed the
2019		development of price surveys for the next ICP cycle in the region. Hands-on
		sessions took place for the revision and development of the new household
		consumption item list. The regional machinery and equipment survey was also
		presented.
		Representatives from 11 countries discussed final validation of 2011 to 2017
December	Jordan	national accounts data and the treatment of outliers. Preliminary ICP results
2019		for 2011 to 2017 were reviewed with a focus on GDP, government
		compensation and gross fixed capital formation.
	Jordan	The final ICP 2017 results, ICP 2017 publication schedule, and the next ICP
		cycle in Western Asia were reviewed and discussed by attendees from 11
January		countries. The ICP planned surveys were presented and the timeline for data
2020		collection and submission was distributed. As Western Asia computes annual
		PPP estimates, the regional ICP team also conducted data validation and
		revision for the 2018 household and non-household consumption price data
		during the workshop.



Attendees at the CIS Regional meeting in Nur-Sultan, Kazakhstan, in May 2019.



Attendees at the Western Asia regional meeting in Istanbul, Turkey, in September 2019



Attendees at the Technical Meeting for the Caribbean in Georgetown, Guyana, in June 2019.

Table 4: Technical assistance missions

Month	Venue	Purpose
Africa	•	
November 2019	Mauritania	A mission by the AfDB to the National Office of Statistics in Mauritania was conducted to assist the ICP team in Mauritania in reviewing and validating data for ICP 2017 and to fix issues of the changing of the local currency unit on prices and national accounts data for ICP result calculations.
December 2019	Togo	A special workshop for fragile states aimed at training participants on the breakdown of GDP expenditures into 155 basic headings reviewed the household consumption main list and requirements for data collection and validation of prices.
January 2020	Sudan	A national workshop organized by AfDB for Sudanese CPI and ICP Staff trained 26 price and national accounts staff on price data collection and validation requirements, as well as on the GDP and basic headings classification structure. It also addressed issues related to country participation in both the Africa and Western Asia comparisons.
February 2020	Tunisia	Attendees of the mission to Tunis discussed the program's framework and methodology, item lists, the survey schedule ICP tools, data submission modalities, and the institutional arrangements for dual participation.
February 2020	Egypt	A national workshop organized by AfDB for Egyptian CPI and ICP Staff trained 16 price and national accounts staff on price data collection and validation requirements, as well as on the GDP and basic headings classification structure. It also addressed issues related to country participation in both the Africa and Western Asia comparisons.
March 2020	Tunisia	A mission by AfDB to the national statistical office in Tunis took place to review ICP/CPI integration and build statistical capacity.
March 2020	Côte d'Ivoire	A mission by AfDB to the national statistical office in Abidjan reviewed the impact of lockdown on the CPI and discussed preparation for the upcoming ICP cycle.
Asia and th	e Pacific	
June 2019	Philippines	A 5-day experts' group meeting attended by staff from the ADB, the ICP Global Office staff, and independent advisors focused on resolving issues on the estimation of household expenditures; machinery and equipment and construction prices and estimates of price levels and real per capita consumption for these major components of gross fixed capital formation; and housing and consumption of dwelling services. The ICP Global Office staff provided technical assistance to regional experts on the listed topics.
July 2019	Lao	A technical evaluation and review meeting with the Lao Statistics Bureau (LSB) conducted bilateral discussions with the sectoral LSB-ICP team members and addressed all price data concerns including the required GDP weights for PPP computation.
July 2019	Thailand	A mission to Bangkok was conducted to address issues related to the finalization of data and improving its comparability for further estimation of PPPs, reviewing issues of some items with high variations, temporal inconsistency between benchmarks, and issues with national CPIs.
August 2019	Philippines	A videoconference with BPS-Statistics Indonesia was conducted to resolve (i) remaining data issues for household prices, (ii) high price variations for

Month	Venue	Purpose
		some items under machinery and equipment and construction; and, (iii) significant difference in GDP structure compared with previous benchmark exercise.
August 2019	Thailand	The 2nd Expert Group Meeting for the 2017 cycle for the region with the ICP Global Office staff and independent advisors made the final recommendations on the methodologies to be used for computation of the 2017 PPPs for the region. The ICP Global Office staff provided technical assistance to regional experts on the listed topics.
Commonwe	ealth of Inde	pendent States
July 2019	Russian Federation	CIS-Stat staff met with experts from the National Statistical Office of Uzbekistan and discussed experimental collection of prices and calculation of PPPs for consumer goods and services, guiding principles in the organization of price surveys, calculation methods of annual average prices, and experimental disaggregation of GDP by basic headings for 2017 data.
October 2019	Uzbekistan	Technical assistance mission to support Uzbekistan's experimental participation in the ICP was organized by CIS-Stat. A specialist from Belstat also participated as an expert in this meeting. Intensive discussions centered on prices and GDP classification with a particular focus on aspects of registration and price surveys for individual goods, principles of organizing the collection of prices for representative products for ICP 2017, and analyzing the disaggregation of GDP for 2017.
Latin Ameri	ca and the C	aribbean
May 2019	Guatemala	A session was organized by UN-ECLAC on ICP national accounts data and requirements during the Annual National Accounts Seminar for Latin America and the Caribbean 2019.
Western As	ia	
May 2019	UAE	The regional ICP team met with the ICP team of the United Arab Emirates' Federal Competitiveness and Statistics Authority (FCSA) to conduct a comprehensive revision and validation of the 2017 price data. The group also reviewed the requirements for the ICP, the resulting indicators and their uses, and the progress of the 2017 ICP activities in Western Asia. Also, the meeting reviewed the previously computed sub-national PPPs for the country.
January 2020	Bahrain	The regional ICP team at UN-ESCWA are looking at applying technology and big data sources to the collection of price statistics. A national training workshop was conducted for Bahrain's national statistical office and hands on sessions were conducted for web scraping of reliable online outlets for fast evolving technology items in the household consumption price surveys.
February 2020	Jordan	A training course focusing on price statistics and integration of the ICP with national CPIs for new members in the national ICP teams as well as country representatives from new countries joining the next ICP cycle was held. It provided training on ICP requirements, surveys and validation, in addition to PPP uses and computation. The training course also highlighted the integration between ICP and CPI.

Month	Venue	Purpose
February 2020	Kuwait	The regional ICP team at UN-ESCWA conducted a national training workshop for Kuwait's national statistical office on the development of price statistics using technology and big data. During the workshop, the regional team demonstrated the use of web scraping for price data collection for fast evolving technology items in the household consumption survey and conducted hands-on training sessions providing participants with the opportunity to scrape prices from major online outlets.
Africa and \	<b>Nestern Asia</b>	dual participation
December 2019	Turkey	A workshop for countries participating in both the Africa and Western Asia exercises was attended by participants from Egypt, Morocco, Sudan and Morocco and by staff from AfDB and UN-ESCWA. Attendees discussed and compared data from both exercises, and each country provided a final dataset common to both regions. A training session on the ICP toolkit for data entry and validation also took place and plans for the forthcoming cycle and collaboration between the two regions were discussed.

#### Communication and dissemination of ICP 2017 cycle results

The International Comparison Program (ICP) 2017 cycle results were released in May 19, 2020. Following the ICP <u>communication strategy</u> the release of the results comprised various communication assets and other resources, including:

- ICP 2017 Report including an analysis of the main economic findings: <u>Purchasing Power Parities</u> and the Size of World Economies: Results from the 2017 International Comparison Program
- Detailed tables of results: Detailed tables of results
- Full database: ICP 2017 database in the World Bank's DataBank
- Highlights of main findings: Global and regional highlights
- Press releases: English | Arabic | Chinese | French | Japanese | Portuguese | Russian | Spanish
- Blog: New results from the International Comparison Program shed light on the size of the global economy
- Factsheets: Factsheets on the ICP program and its methodology
- Frequently asked questions (FAQs): <u>Web version</u> | <u>Summary version (PDF)</u> | <u>Full version (PDF)</u>

In addition, the <u>ICP website</u> was updated for the release of the 2017 cycle results to provide the user with access to comprehensive ICP material and data.

#### Research activities

#### ICP Research agenda

Progress on the International Comparison Program (ICP) <u>Research Agenda</u> over the past year helped to guide and strengthen the program's methodology and advanced its use of innovation and technologies. The ICP research agenda focuses on the thirteen key topics listed below:

- Compilation of PPP Time Series and the Rolling Survey Approach
- Purchasing power parities (PPPs) and Real Expenditures for Dwelling Services
- Productivity Adjustment for Government and Construction Labor
- Fine Tuning Global Linking Procedures
- Quality and Reliability of PPPs
- Uses of PPPs for National and International Policy Making
- Consumer price index (CPI)-ICP Synergies and Sub-National PPPs
- PPPs for Exports and Imports
- PPPs for Construction
- PPPs for Health and Education
- ICP PPPs and Global Poverty Measurement
- Exploring Innovations in Technology and Data Sources for PPPs
- Accounting for Product Quality Differences in PPP Measurement

#### Together these topics meet the following six objectives:

- building consistent PPP time series
- improving PPP reliability and quality
- addressing difficult to measure areas, such as housing
- strengthening alignment between PPPs and national statistical programs
- advocating wider uses and applications of PPPs
- exploring innovations in technology and new sources

To date, four distinct <u>task forces</u> and two <u>task teams</u> under the auspices of the ICP Technical Advisory Group (TAG) have convened to address 10 out of the 13 areas above, and are comprised of global experts and staff from regional agencies and the ICP Global Office. Work developed within these task forces and task teams have played an important role in assessing and ensuring the quality and soundness of the methods underlying the 2017 and revised 2011 ICP results. Furthermore, the Task Force for Country Operational Guidelines and Procedures is finalizing two forward-looking guides to help inform and guide country practices for integrating CPI and PPP production processes and generating subnational PPPs.

Initial reviews are being carried out by the ICP Global Office to assess whether online price data could be used to estimate PPPs or supplement certain areas of the ICP PPP production process. Similar work has been carried out at the regional level in Western Asia. Both analyses will help lay the groundwork for the future work of the Task Force for Exploring Innovations in Technology and Data Sources for PPPs. Groundwork has also been initiated on the topic of PPPs for Exports and Imports.

On PPPs and Poverty Measurement, the work has started to assess the impact of the revised 2011 and 2017 PPPs on the World Bank international poverty and global poverty counts. Finally, extending the use

and application of PPPs is being examined though an investigation of PPPs in wealth accounting within the context of the World Bank's The Changing Wealth of the Nations initiative.

#### Task Force on PPP Compilation and Computation

The fourth meeting of the <u>Task Force on PPP Compilation and Computation</u> was held in May 2019 at the OECD Headquarters in Paris, France. This was the first of three joint meetings with the ICP TAG to brief them on the Task Force's progress and solicit their input on technical matters. The additional sessions took place during the October 2019 and February 2020 ICP TAG meetings held at the World Bank in Washington, DC.

Key highlights of the Task Force's final outputs and progress to date include:

- Developed a new method to estimate annual PPPs for years in between global ICP reference years;
- Set-up mechanisms to validate procedures and ensure the quality of underlying inputs data used in PPP calculations (See: TaskTeam on Data Quality Assurance for the PPP Time Series); and
- Set up a PPP production scheme to improve the overall data management and calculation process
  of ICP results, with a focus on efficiency, replicability and transparency of the underlying methods
  and procedures (See: <a href="PPP Computation TaskTeam">PPP Computation TaskTeam</a>).

#### Task Force on Housing

The fourth meeting of the <u>Task Force on Housing</u> was held in May 2019 at the OECD Headquarters in Paris, France. This was the first of three joint meetings with the ICP TAG to brief them on the Task Force's progress and solicit their input on technical matters. The additional sessions took place during the October 2019 and February 2020 ICP TAG meetings held at the World Bankin Washington, DC.

Key highlights of the Task Force's final outputs and progress to date include:

- Explored various approaches for linking regional housing data at the global level to improve the robustness of the results; and
- Agreed to further investigate approaches to estimate most reliable global and regional housing estimated based on the research conducted.

#### Task Force on Country Operational Guidelines and Procedures

The fourth meeting of the <u>Task Force on Country Operational Guidelines and Procedures</u> was held in May 2019 at the OECD Headquarters in Paris, France. This was the first of three joint meetings with the ICP TAG to brief them on the Task Force's progress and solicit their input on technical matters. The additional sessions took place during the October 2019 and February 2020 ICP TAG meetings held at the World Bank in Washington, DC.

Key highlights of the Task Force's final outputs and progress to date include:

- Prepared a forward-looking guide to inform the organization of ICP surveys and regional timetables to enable the implementation of a rolling price survey approach in subsequent ICP cycles;
- Prepared a guide for CPI-PPP integration to inform and guide country practices for integrating CPI and PPP production processes; and

 Prepared a guide on sub-national PPPs in response to recommendations from the United Nations Statistician Commission (UNSC) and demand from countries. The guide will help inform and guide country practices to produce subnational PPPs.

#### Task Force on PPPs and Poverty Measurement

The Task Force on PPPs and Poverty Measurement, comprised of staff from the ICP Global Office and World Bank's poverty unit, met on several occasions to share knowledge and to carry out preliminary assessments of the impact of the 2017 and revised 2011 PPPs for household consumption on the World Bank international poverty and global poverty counts. As of May 2020, the World Bank's international poverty line and its global poverty estimates are in process of being revised to account for revisions to the 2011 ICP PPPs (see related blog).

# Advocacy and knowledge

#### World Bank Econothon

The World Bank held a 24 hour "Econothon" on July 24-25, 2019, which gave a global audience the chance to listen to the Bank's experts discuss the economics behind international development. Nada Hamadeh, Program Manager for the International Comparison Program (ICP), sat down with interviewer Nate Rawlings to talk about the importance of prices and PPPs in understanding the global economy, measuring global poverty, and helping direct the development agenda. Her interview with Nate can be viewed in this video.

#### PPP session at the IARIW conference

The International Association for Research in Income and Wealth (IARIW), in partnership with the <u>Higher School of Economics University</u>, organized the conference "Experiences and Challenges in Measuring Income and Wealth in Eastern Europe and CIS Countries" in Moscow on September 17-18, 2019. Interstate Statistical Committee of the Commonwealth of Independent States (CIS-STAT) organized the plenary session on PPPs with a goal of initiating dialogues with the users. In addition to the IARIW conference, CIS-STAT also arranged a webinar on ICP and purchasing power parities (PPPs) on April 28, 2020.

#### Release of the ICP 2017 results

The ICP 2017 results, revised 2011 results and annual PPPs for years between reference years were released on May 19, 2020. The release included the publication of the ICP 2017 Report, global and regional highlights, a press release translated into eight languages, a post on World Bank's Data Blog, a updated set of factsheets and frequently asked questions, and an update of the ICP website and its knowledge material. The data were also immediately made available on the World Bank's DataBank. The global release was followed by publications and release announcements by the Regional Implementation Agencies.

#### PPP eLearning course

The PPP eLearning course <u>"Fundamentals of Purchasing Power Parities"</u> continues to expand its enrollment since being officially released in March 2018 and more than 756 participants have accessed it to date to learn about PPP concepts, data requirements, methodology, calculations, and uses. This interactive course serves policymakers, international organizations, researchers, students and the general public who wish to enhance their knowledge of PPPs. Feedback has been positive, with respondents to a survey scoring the course 6.21 out of a possible 7 in terms of satisfaction, delivery and other metrics. The course is delivered through the World Bank's online Open Learning Campus, a web-based destination for development learning. The course has also been used widely in regional and national workshops to train government officials. The course will be updated to reflect the release of the ICP 2017 cycle results.

#### ICP Highlights newsletter

The ICP Global Office quarterly newsletter, "ICP Highlights", continued to provide information covering ICP governance, capacity-building and outreach activities, as well as information on the latest uses of ICP

and PPP data. A recently introduced country spotlights series highlights the work of country teams – recently featuring India, the United Arab Emirates, Finland and Uganda, with ICP staff explaining their work processes, challenges faced and the innovations that help build their statistical capacity.

#### ICP website

The <u>ICP website</u> was updated in May 2020, following the release of the ICP 2017 results, and provides users with easy access to comprehensive material on the ICP and its data. The website is organized as follows:

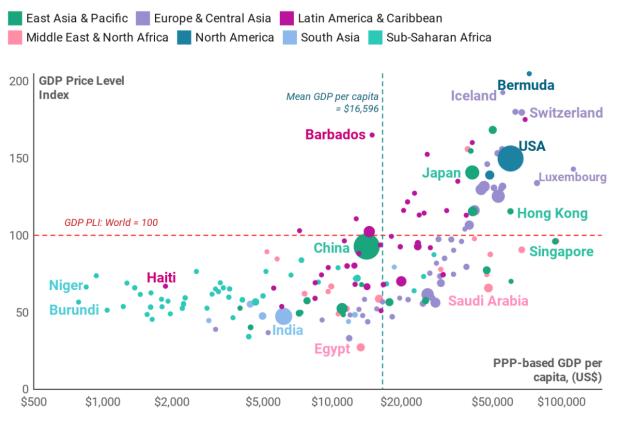
- A headline carousel is continuously updated with the latest uses of PPPs, whether in blogs, reports or academic analysis;
- The <u>overview</u> briefly describes the objectives of the ICP, and provides links to the 2017 results, ICP database, global and regional highlights, the global press release in eight languages, the ICP factsheets and frequently asked questions;
- The <u>data</u> page links to all sources from which users may access the 2017, 2011 and 2005 ICP results, as well as the ICP Data Access and Archiving policy, ICP Revision policy and ICP Quality Assurance Framework;
- The uses and applications of ICP data, previously under the overview section, were expanded and organized into a new PPP uses page;
- The chronology of the program is provided under the <u>history</u> page;
- The governance of the program is provided under the <u>governance</u> page with links to meeting documents and minutes;
- The <u>regions</u> page lists the participants of the regional programs with links to the respective implementing agencies.
- The procedures, concepts and frameworks used for collating and calculating the ICP results are linked through the <u>methodology</u> page.
- The ICP Research Agenda and respective task forces are covered in the research page.
- Additionally, visitors to the website can also access knowledge resources, <u>videos</u>, the <u>ICP newsletter</u> and outreach media and events.

#### **ICP** blog series

The new <u>ICP blog series</u> explores ideas and issues under the ICP umbrella – including innovations in price and data collection, discussions on purpose and methodology, as well the use of PPPs in the growing world of development data. Other recent blogs on ICP and PPPs include entries titled "<u>Retail food prices at purchasing power parity exchange rates: A first look at aggregate ICP 2017 data"</u>, "<u>How do the revised 2011 PPPs and new 2017 PPPs affect the World Bank's global poverty estimates? A first look</u>" and "<u>Which Comes First – the Chicken, the Egg, or the Demand for Poultry Products? Engels Law and the Design of Jobs Strategies in Low-Income Countries (LICs)".</u>

Authors from across the globe, whether ICP practitioners or researchers making use of ICP data, are encouraged to submit relevant blogs for consideration to <a href="mailto:icp@worldbank.org">icp@worldbank.org</a>.





Bubble size for each economy shows its relative PPP-based GDP. Source: ICP 2017

The blog "New results from the International Comparison Program shed light on the size of the global economy" was published in May 2020.

# **Uses of Purchasing Power Parities**

#### Overview

Purchasing power parities (PPPs) and underlying International Comparison Program (ICP) data are utilized for a plethora of analyses at the global, regional and national levels and cover many themes under the economic, environmental and social development umbrellas. Cross-country and temporal studies employ PPPs for consistent, robust and meaningful data outputs, used not only by the development community and researchers, but by policymakers, the media and the wider public. The ICP Global Office has produced a variety of leaflets, videos and blogs explaining these different measures of economy, which are widely distributed though World Bank channels and linked from the ICP website.

PPPs are used to compare the size of national economies using **gross domestic product (GDP) in PPP terms**. **GDP per capita in PPP terms** is also used widely, often correlated against other indicators and variables to explain spatial and temporal changes. The World Bank's indicators **GDP per person employed** and **Gross National Income per capita**, measured in PPP terms, are similarly used.

**International poverty lines are expressed using PPPs**, and reflect the income necessary for, or cost of consuming, the minimum daily nutritional, clothing and shelter needs locally. The lowest of these, \$1.90 a day (2011 PPPs) is based upon the national poverty lines of low-income countries, and those living below this line (the "poverty headcount") are considered to be the "extreme poor". Other international poverty lines are based on incomes and consumption levels in lower-middle (\$3.20) and upper-middle income countries (\$5.50). These poverty lines, and their associated poverty headcounts, form the basis of much research.

Various analyses **convert other monetary values into PPP dollars** to enable cross-border comparisons. For example, the value of unpaid care work, minimum wages, government spending on education, the cost of violence, and potential savings through reduced child mortality and better nutrition. Notably, mean per capita consumption or income for both the poorest 40 percent of society and the general population is measured using PPPs to monitor progress towards SDG 10.1 which promotes more equitable prosperity over time.

The 2030 Agenda for Sustainable Developmentuses PPPs in official indicators within its targets and goals, and other non-official indicators use PPPs to dive into these areas further. Sustainable Development Goal (SDG) 1 (No Poverty), SDG 2 (Zero Hunger), SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth), and SDG 10 (Reduced Inequality) all draw on indicators reliant on PPPs for cross country comparisons.

The **ICP website** provides a frequently updated archive of <u>reports and papers</u>, <u>articles</u> and <u>blogs</u> utilizing PPPs as well PPP related conferences and seminars and outreach events.

#### Institutional uses

The World Bank's twin goals of ending poverty and boosting shared prosperity rely on PPPs to monitor progress. The World Bank Group now incorporates PPPs into its <u>dynamic formula</u> for computing the shareholding rights of the International Bank for Reconstruction and Development member countries.

Moreover, the IMF uses PPPs in its country quota formula, and the European Union uses them in the allocation of the European structural and investment funds.

#### Selected recent highlights

In March 2019, the <u>World Bank hosted a debate</u> on the use of international poverty lines between Sanjay Reddy, Associate Professor at The New School for Social Research, and Francisco Ferreira, of the World Bank's Development Research Group. The discussion focused on the appropriateness of PPPs collected across low, middle and high-income countries for poverty assessment, and the effect of methodology changes in the ICP in previous years.

In April 2019, UNESCO published "<u>The UN World Water Development Report 2019</u>: <u>Leaving No One Behind</u>", which uses PPPs to access rural poverty and for income comparisons across different regional economies.

In May 2019, the World Bank published a paper titled "<u>How Much Does Reducing Inequality Matter for Global Poverty?</u>". The authors quantify the interdependence between poverty and inequality goals and find that reducing inequality has a larger impact on global poverty than increasing growth.

In June 2019, the African Development Bank published the "<u>African Economic Outlook</u>" which uses real PPPs to compare the African economies across different indicators, such as the employment and value added measured in PPP adjusted GDP per capita.

In July 2019, the United Nations Development Programme and Oxford Poverty and Human Development Initiative, released the "<u>Global Multidimensional Poverty Index 2019</u>" which has been used since 2010 as a tool for measuring progress towards the Sustainable Development Goals.

In August 2019, the World Bank published a paper by V. Ramachandran titled "<u>Productivity, Jobs, and Growth in Africa</u>". In the paper the author investigates why productivity growth has not risen as much in Africa, as it did in comparable countries in other regions of the world, such as Southeast Asia. Among the possible factors, are the high living and labor costs, which sustain a high-cost business climate.

In September 2019, at the IARIW-HSE Conference, A. Kosraev presented a paper titled "PPP-Based Stratification of CIS-EU/OECD Economies". The author notes that while the CIS-EU/OECD economies are very heterogeneous, by stratifying those economies into more homogeneous subgroups, similar trends are observed which can be useful for drafting economic policies.

In October 2019, the World Bank published "<u>The World Bank Annual Report 2019: Ending Poverty, Investing in Opportunity</u>" in which the extreme poverty rate is used throughout the report as one of the Sustainable Development Goals.

In November 2019, a paper titled "Affordability of the EAT-Lancet reference diet: a global analysis" was published on The Lancet Global Health journal. In this paper the authors use ICP food prices to identify the most affordable foods to meet EAT-Lancet targets and found that the most affordable EAT-Lancet diets costs a global median of US\$2·84 per day, exceeding the household per capita income of 1.58 billion people.

In December 2019, the World Bank released a working paper by E. W. Miningou on "Quality Education and the Efficiency of Public Expenditure". The author investigates the efficiency of public sector spending in education in a cross-country analysis, using the PPP adjusted expenditure on education. The results show a positive effect of public spending in schooling quality, although efficiency greatly varies across countries.

In January 2020 the World Bank published the report "<u>Global Economic Prospects Slow Growth, Policy Challenges</u>", a forecast of the global economy for 2020, making use of PPPs to access the economic weight of different countries and regions.

Also, in January 2020, the International Labor Organization published the report "World Employment and Social Outlook: Trends 2020" providing an overview of global and regional trends in employment, unemployment, labor force participation and productivity, using PPPs to make comparisons of income inequality within and between countries.

In February 2020, the World Bank published the book "Convergence: Five Critical Steps toward Integrating Lagging and Leading Areas in the Middle East and North Africa" making use of PPPs to analyze the spatial inequity in institutional inefficiencies across MENA countries.

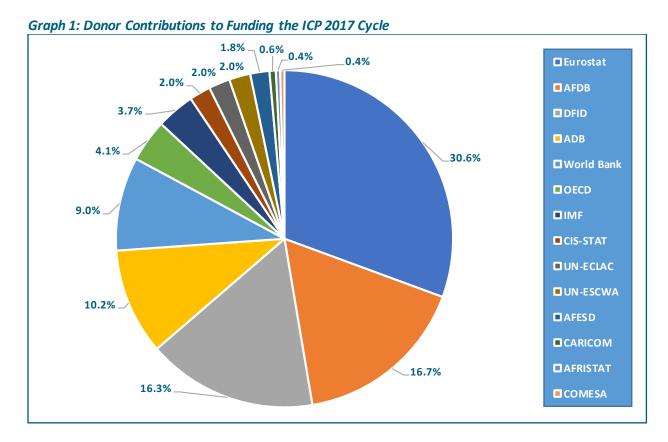
Between March and April 2020 the World Bank released several economic updates focusing on the state of regional economies: <u>"The Economy in the Time of Covid-19"</u>, <u>"Europe and Central Asia Economic Update, Spring 2020: Fighting COVID-19"</u>, "<u>Middle East and North Africa Economic Update, April 2020: How Transparency Can Help the Middle East and North Africa"</u>, and <u>"World Bank East Asia and Pacific Economic Update, April 2020: East Asia and Pacific in the Time of COVID-19"</u>. All these reports used the global poverty rate and GDP adjusted by PPPs in their analysis.

The World Bank's report "The Effect of New PPP Estimates on Global Poverty: A First Look", published in May 2020, provides an initial assessment of the impact on the World Bank's global poverty estimates of the revised 2011 and new 2017 PPPs. The analysis found that revised 2011 PPPs slightly increase poverty in South Asia and Sub-Saharan Africa, causing the extreme poverty headcount ratio for the world to rise by 0.3 percentage points. The 2017 PPPs have the opposite effect: extreme poverty decreases in Sub-Saharan Africa, reducing the global poverty estimate slightly by 0.6 percentage points to 9.4 percent in 2015.

# Funding and resources

# Funding the ICP 2017 cycle

The total cost of the International Comparison Program (ICP) 2017 cycle was 24.5 million USD. A partnership of global, regional and sub-regional donors and implementing agencies contributed to funding the ICP 2017 cycle. Donor and agency contributions are presented in Graph 1 below.



# Risks and mitigation measures

#### ICP 2017 cycle risks

The 2017 International Comparison Program (ICP) cycle faced many challenges and risks from its onset, including country participation, timeliness, quality and funding risks. These risks were successfully mitigated through various measures undertaken by the Governing Board, the Technical Advisory Group (TAG) and the Inter-Agency Coordination Group (IACG). The measures included: (a) continuous advocacy to ensure country participation; (b) improved processes to assess and improve the quality of ICP data and metadata; (c) measures to ensure replicability and transparency of ICP result production; and (d) efforts to secure the needed funding. These efforts culminated in the successful release of ICP 2017 results on May 19, 2020.

#### Next ICP cycle risks

The next ICP cycle was planned for reference year 2020. However, the impact of the Covid-19 pandemic on ICP activities led the TAG to advise, and the ICP Governing Board to conclude, in April 2020, that the reference year be postponed by one year as a mitigation measure. This decision was taken with the assumption that normal statistical activities would resume in 2021, and recognizes the caveat of a reduced timeliness in the next ICP results and increased gap between reference years. The range of specific impacts reported by national and regional implementing agencies include:

- Price data collection many traditional retail outlets are closed or are restricted in what they are able to sell, while field data collectors for both consumer price indexes (CPI) and the ICP household consumption surveys are limited in their movements. This is impacting the ability to locate a representative sample of items across outlets and locations and record representative prices during this period. While many high-income countries are able to collect prices via non-field methods, such as through scanner data or web scraping, most countries are facing difficulties in data collection activities. Other surveys are also affected, with some suppliers of investment goods closed for business, and rental surveys not proceeding as planned.
- Price data representativity large fluctuations in the supply and demand of goods and services over the pandemic period have led to price fluctuations for a wide range of goods and services, such as personal care goods, food and beverages, travel services, and restaurants and hotels. Hence, price variations within 2020, as well as between 2020 and the previous ICP 2017 reference year, are expected to be greater than within and between previous ICP reference years. Many countries consider the CPI a statistical priority and, where ICP activities are closely integrated with CPI activities, countries are optimistic for an on-going ICP data collection. Nevertheless, both the CPI and ICP data collection will be impacted by the issues outlined above.
- Expenditure data national accounts expenditure structures are expected to change in 2020. Delays in statistical surveys during the pandemic will affect how quickly and consistently national accounts can reflect changes in expenditure structures in 2020. Countries cannot rely on expenditure structures from previous years to estimate the detailed expenditure data needed for the ICP 2020, as the expenditures structure for 2020 may deviate significantly from previous years.
- Governance and management the ICP governance and management processes will also be

impacted this year, as they rely on frequent interaction between stakeholders, the dissemination of complex methodology to practitioners, and the collective validation of data collected by participating countries. These processes will need to adapt to new modalities in 2020. The governance processes have in the past relied on frequent physical meetings of the governance bodies, and this can be replaced by virtual communication methods. The provision of technical assistance to countries and the collective validation of datasets will be more challenging, as regions are postponing and cancelling various regional workshops and technical assistance missions this year.

#### Sustainability risks

Looking forward, the sustainability of ICP as a permanent program still faces a number of risks. Some countries face unstable geopolitical situations that impede their participation. Although these risks are difficult to mitigate, global and regional implementing agencies are committed to building capacity in fragile countries and those experiencing conflict, and they continuously encourage these countries to participate in capacity-building activities. Some countries also face administrative and funding hurdles, limited statistical capacity and competing demands. Securing sustainable funding for the permanent program remains a challenge; thus, it is imperative to connect with national policymakers and to incorporate ICP into regular work programs at national, regional and global levels.

# Conclusion

The International Comparison Program (ICP) 2017 cycle was successfully concluded in 2020 with the release of the results in May 2020. The results offer an analysis of the global economy prior to the emergence of COVID-19. The ICP 2017 report, and the data and indicators underlying it, will serve as a baseline to measure and understand the consequences of the pandemic on communities around the world. The future ICP cycles will be crucial in assessing the world economy post-pandemic and tracking progress to recovery.