



Meeting of ICP the Technical Advisory Group

Approach for Housing Services in 2017 ICP for Asia and the Pacific

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Outline of Presentation

- TAG Recommendations
- Concerns in Asia Pacific region
- Housing approach in 2011 ICP
- Housing approaches in 2017 ICP
- Some insights into the data
- Way forward

TAG Recommendations

- “The **Technical Advisory Group recommended** that the regions use one or both of the methods utilized by Eurostat-OECD.” (*Alan Heston, Chapter 12 of the ICP Book*).
 - Rental approach
 - Quantity approach

Rental Approach (preferred)

- Direct estimation of PPPs from data on rents for a list of dwelling types
- Requires (i) representative rental markets (ii) actual average rents collected by a stratified types of dwellings is **representative** of the housing stock (rented + owner occupied (O-o)), and (iii) **reliable** GDP expenditures on housing services

TAG Recommendations

Quantity Approach

- Direct volume measures (indirect PPPs) for housing from the quantity approach are recommended when:
 - representative rental market is absent and actual rents are not representative for the O-o dwellings
 - rented dwellings are not evenly distributed across the country
 - requires **reliable GDP expenditures** on housing services
 - requires **accurate and comparable** measures of **quantity** and **quality** of housing for countries

Concerns in Asia and the Pacific Region

- Lack of representative/functional rental markets in many countries
- Share of rented dwellings in more than 2/3rd economies is below 20% (min 2.4% and max 51.5%)
- Rented dwellings are concentrated in capital city/big cities/urban centres – equating their rents representative of the rest is not a good assumption
- Different approaches used for estimate housing services for O-o dwellings in national accounts often based on weak data

Method for O-O Dwellings in National Accounts	Count	Countries
Both methods (rental equivalence and user cost)	8	BHU, CAM, FIJ, IND, MYA, PAK, PHI & THA
Rental equivalence method	4	BRU, INO, NEP & SRI
User cost method	4	MLD, MON, PRC & VIE
Others/not specified	6	HKG, MAL, SIN & TAP
Total	22	

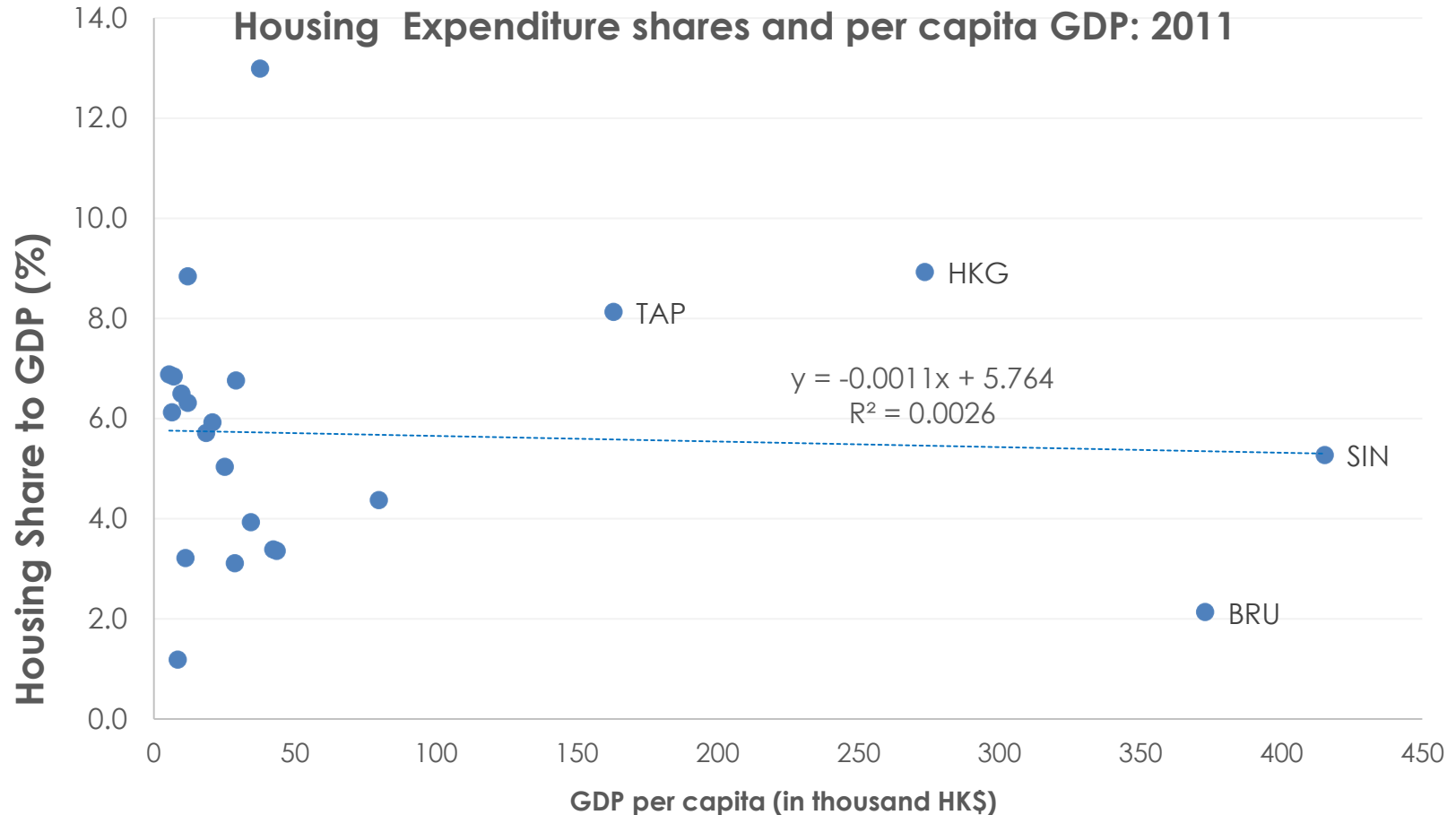
Concerns in Asia and the Pacific Region

- Variety of ways in which expenditures of O-o dwellings are estimated in national accounts in A-P economies poses a challenge in adopting a standard approach
- Even when the estimates are based on rental equivalence approach, the housing survey stratifications (if followed) may not be in accordance with the ICP dwelling types as economies generally use their own stratification/dwelling types
- Considering the problems of gathering reliable and comparable data, diversity in the economic development of the countries in the region, both approaches (rental and quantity) were attempted in 2011 and 2005 ICP

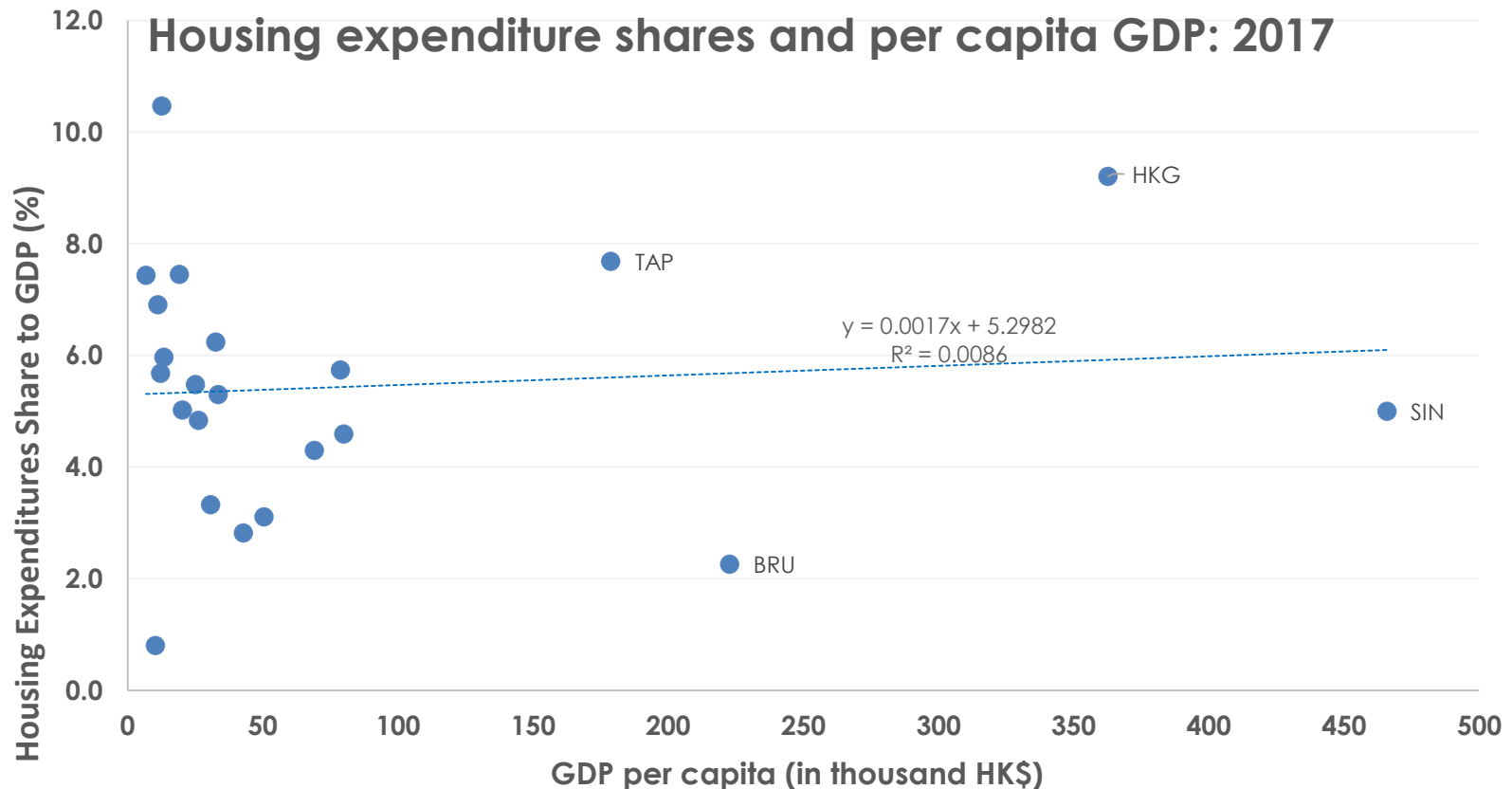
Concerns in Asia and the Pacific Region

- “Final expenditure on housing is an important component of GDP. Its share of GDP for economies participating in Eurostat and OECD comparisons is usually between 8 and 12 per cent and **tends to increase as GDP per capita rises.**” (*Chapter 6 of Eurostat-OECD Manual*)
- For AP economies there is no correlation between housing expenditure and per capita GDP
 - True for both ICP 2011 and 2017
 - Housing expenditure shares of some low-income economies range from around **1% to 11%** of GDP in 2017 (around 5-9% for high-income countries).
- The expenditure shares are often based on unreliable estimates of rental values of owner-occupiers dwellings.

Concerns in Asia and the Pacific Region



Concerns in Asia and the Pacific Region



Housing approaches in 2011 in Asia

Both rental and quantity approaches were attempted in 2011 ICP

Quantity approach

- Gaps in data and lack of comparability of quantity and quality measures
- Quality indicators (water, sanitation, electricity) not adequate to discern quality of housing in developing countries
- Implausible per capita volume measures

For Rental approach

- Varying rental survey coverage (representativeness issue)
- Rental data considered good and of reasonable quality for a few economies but on the whole not sufficient to calculate PPPs for rental
- Using this data to calculate PPPs would give a misleading picture of volume relatives

Housing approaches in 2011 in Asia

- Experts evaluated the simulated results of two approaches included a mixed approach but results not considered plausible.
- The results were also presented to the Regional Advisory Board.
- Recommended Reference Volume Approach - Relative volumes of housing services between economies are equal to the relative volume of household expenditures (excluding rents)
- Volume reference approach was based on assumed elasticity of 1 for housing on real consumption.

Approaches for 2017 ICP cycle

- Attempt both Rental and Quantity approaches again
- **For rental approach**
 - Improve survey coverage and representation of rent data
 - Rigorous data validation for better data quality from rent surveys
 - Hope on better estimates for housing expenditures in national accounts since 2011 ICP, as countries move to implementing 2008 SNA

Status of Rental Survey Coverage (1)

- 11 countries have provided data for both urban and rural and for 3 countries only urban is applicable
- Rents represent **national coverage**?

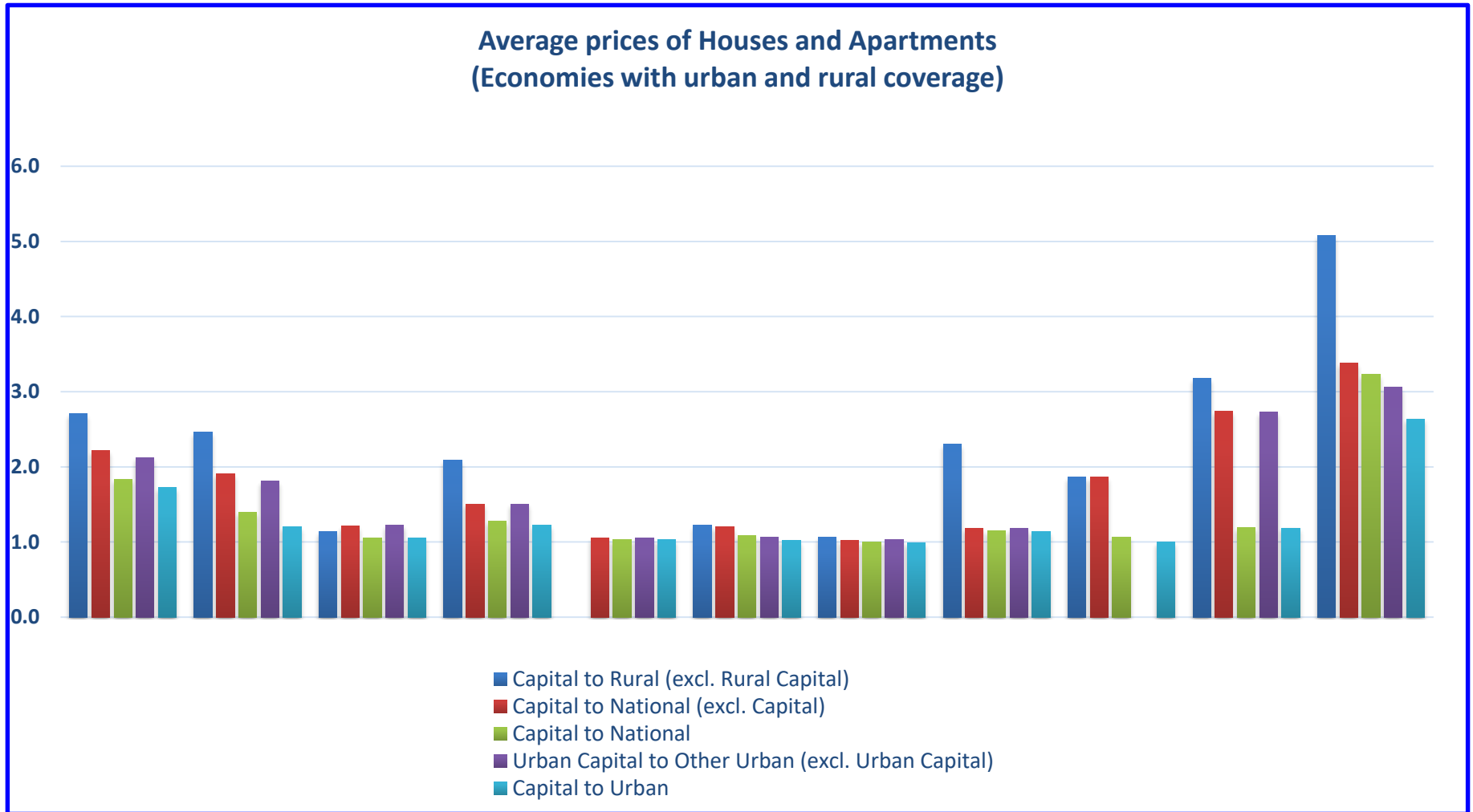
Country Name	Geographic Coverage	Capital	Urban	Rural
Hong Kong, China	National/Urban	✓	✓	NA
Brunei Darussalam	National/Urban	✓	✓	NA
Singapore	National/Urban	✓	✓	NA
Taipei,China	National	✓	✓	✓
Bangladesh	National	✓	✓	✓
Bhutan	National	✓	✓	✓
India	Urban/State Capitals	✓	✓	X
Maldives	Urban/Capital	✓	✓	X
Nepal	National/ Urban/ Metropolitan/ Others	✓	✓	X
Pakistan	Urban/Capital	✓	✓	X
Sri Lanka	National	✓	✓	✓

Status of Rental Survey Coverage (2)

Country Name	Geographic Coverage	Capital	Urban	Rural
Cambodia	Capital, Coverage urban areas in 5 provinces for housing rental	✓	✓	X
Myanmar	National	✓	✓	✓
Lao, P.D.R.	Capital	✓	X	X
Thailand	National	✓	✓	✓
Viet Nam	Ha Noi (capital city) and Ho Chi Minh City; suburbans of HN and HCM city	✓	✓	X
Fiji	National	✓	✓	✓
Indonesia	Urban/Capital/Cities	✓	✓	X
Malaysia	National	✓	✓	✓
Mongolia	National	✓	✓	✓
Philippines	Urban/Capital/Cities	✓	✓	✓
China, People's Republic of	National	✓	✓	✓

Rigorous intra- and inter-country validation of rents

- Validating rent ratios within each dwelling types, across dwelling types, and across location, and across countries



Approach for 2017 ICP cycle

- **For quantity approach**
 - Minimize data gaps for quantitative measures – dwellings, rooms, usable surface area
 - Collect data for both 2011 and 2017 to the extent feasible from a reliable source in the reference year
 - In the absence of data for reference year extrapolate from available data between 2010 to 2017 after assessing the reliability of the data source
 - Explore new housing quality indicators to **better capture quality** adjusted housing volumes
 - Data subject to rigorous validation (2 workshops and communications with the countries)

Data collection form: Designed to push the countries explore their data sources

Revised Housing Volume Data Collection Form: Part 1 – Quantity Indicators

Sample of housing volume data with sources from Census and Survey

HOUSING INDICATORS		LINKS TO SOURCES OF INFORMATION AND REFERENCES											REMARKS Additional background about the data and/or extrapolation method used (if any).		
reference year →		2008	2008	2010	2011	2012	2013	2014	2015	2016	2017				
name of census/survey →		CENSUS	CSES	CSES	DHS	CSES	CSES	CSES	INTER-CENSAL	CSES	DHS	CSES		CSES	CSES
URL links to census/survey →		LINK	LINK	LINK	LINK	LINK	LINK	LINK	LINK	LINK	LINK	LINK		LINK	LINK
PART 1: QUANTITY INDICATORS															
Q1	1. Number of dwelling units — in thousands	2'818	2'828	2'917	3'044	3'082	3'162	3'261	3'308	3'390	NA				
	1.1 Rented — in thousands	NA	156	179	212	202	196	196	169	173	NA				
	1.2 Owned — in thousands	NA	2'672	2'737	2'829	2'868	2'966	3'052	3'123	3'207	NA				
Q2	2. Number of households — in thousands														
Q3	3. Number of occupants — in thousands														
Q4	4. Number of rooms — in thousands	4'059	4'045	4'105	4'274	4'429	4'466	4'745	4'814	5'209	NA				
Q5	5. Useful floor space in m ² — in thousands m ²	NA	126'339	131'205	132'385	137'147	140'270	151'840	157'131	168'761	NA				
Q6	6. Population — in thousands	13'396	13'396	13'958	14'155	14'376	14'678	15'184	15'405	15'626	NA				

Notes:

NA Not available.

CSES 2008 used the population estimates from Census 2008.

Census 2008 does not collect info on floor space

Approaches for 2017 ICP cycle

- **Explore new quality indicators from country submission**
 - Piped water
 - Water accessible on premises
 - WC-toilet connected to sewer
 - WC-toilet connected to septic tank
 - International databases such as **WASH** database used for SDG monitoring (for gap filling)
 - Durability of materials of floor, walls, and roof
 - Urbanization to discern quality(?)

Status of Data Availability: 2011 or closest Year

Country Submissions

2011
 year
 earliest year available other than 2011
 data not available

Country Code	BAN	BHU	BRU	CAM	PRC	FIJ	HKG	IND	INO	LAO	MAL	MLD	MON	MYA	NEP	PAK	PHI	SIN	SRI	TAP	THA	VIE	%	Total	
Population						2013				2015	2012						2015		2012				100.0	22	
Number of households						2013			2013			2014		2014					2012					95.5	21
Number of dwelling units						2017				2013	2012	2014		2014			2015		2012					95.5	21
Number of dwelling units, Rented						2017				2015	2012	2014		2014					2012					90.9	20
Number of dwelling units, Owned						2017				2015	2012	2014		2014					2012					90.9	20
Number of occupants									2013	2015	2012	2014		2014			2015		2012					90.9	20
Number of rooms						2013				2015	2012	2014		2014	2013		2015		2012					95.5	21
Usable surface area in m²									2014	2015				2014					2012					63.6	14
with access to Electricity										2015	2012	2014		2014					2012					86.4	19
with no access to Electricity						2013				2015	2012	2014		2014					2012	2017				86.4	19
with Inside water					2017				2012	2017		2014		2014	2014									72.7	16
with water for exclusive use of household						2013						2014		2014	2014									31.8	7
with water piped into dwelling						2013				2017	2012	2014		2014	2014				2012					68.2	15
with water piped into yard/plot			2017			2013						2014	2012	2014	2014				2012					50.0	11
with Private toilets,					2017					2015		2014		2014										54.5	12
with toilets, inside the dwelling						2013				2017	2012	2014		2014	2016									45.5	10
with toilets, separate structure inside the yard/plot						2013								2014	2016									27.3	6
with toilets, exclusive use of household						2013				2017		2014	2013	2014	2014		2013		2012					59.1	13
with toilets, WC-type connected to sewer					2017	2013				2017	2017	2014	2013	2014			2013					2015		63.6	14
with toilets, WC-type connected to septic tank						2017			2015	2017	2017	2014	2013	2014			2013					2015		63.6	14
with durable floor materials					2017					2015		2014		2014			2013		2012					72.7	16
with less durable floor materials					2017	2017				2015		2014		2014			2013		2012					77.3	17
with durable wall materials					2017	2017				2015	2012	2014		2014					2012					86.4	19
with less durable wall materials					2017	2013				2015		2014		2014					2012					81.8	18
with durable roof materials					2017	2013				2015		2014		2014					2012					81.8	18
with less durable roof materials					2017	2017				2015		2014		2014					2012					81.8	18

Status of Data Availability: 2017 or Latest Year

Country Submissions

2017
 year latest year available other than 2017
 data not available

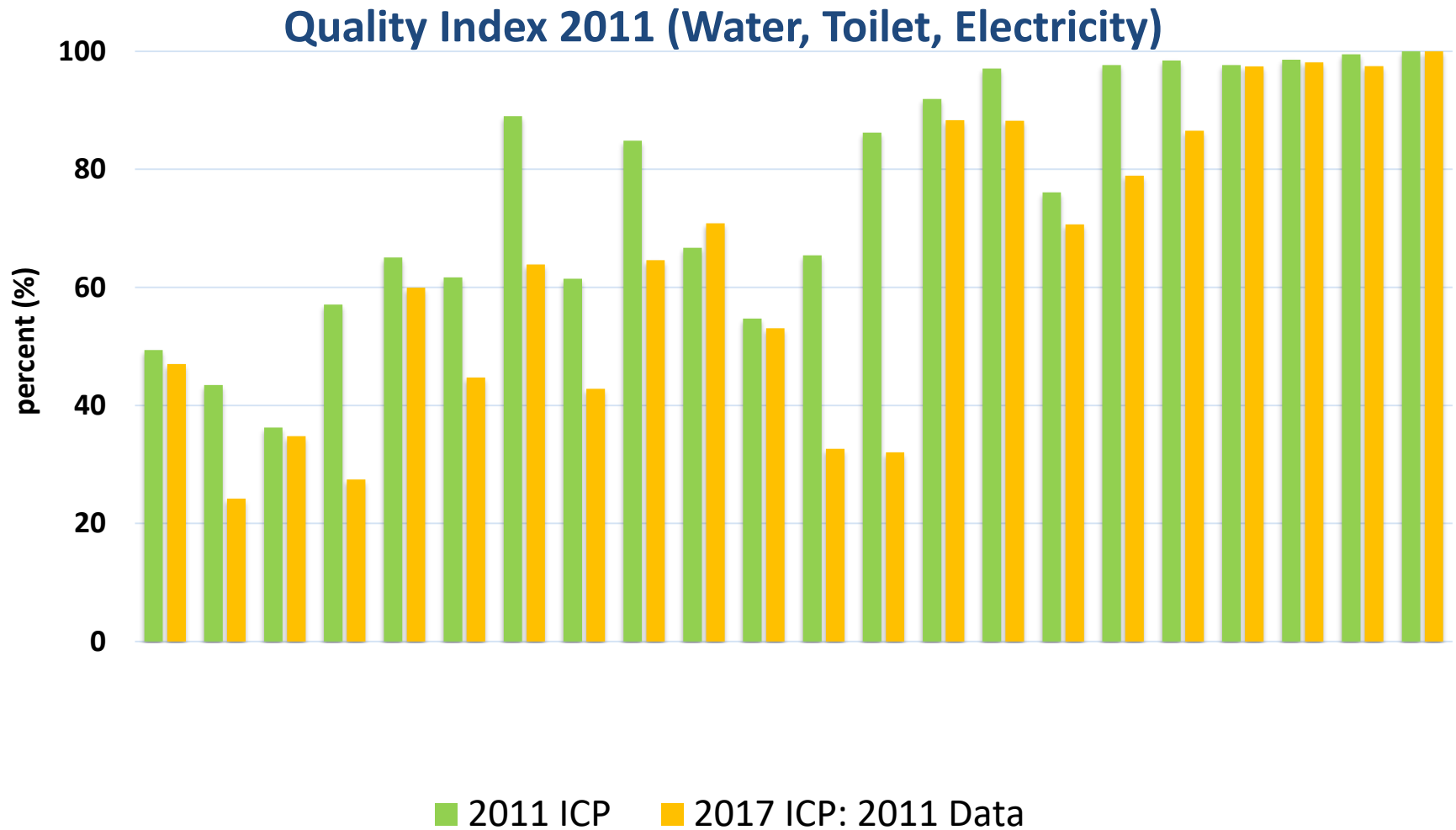
Country Code	BAN	BHU	BRU	CAM	PRC	FIJ	HKG	IND	INO	LAO	MAL	MLD	MON	MYA	NEP	PAK	PHI	SIN	SRI	TAP	THA	VIE	%	Total	
Population																		2015		2016				100.0	22
Number of households									2015	2016										2016				95.5	21
Number of dwelling units	2011																	2015		2016				95.5	21
Number of dwelling units, Rented	2011				2010															2016				95.5	21
Number of dwelling units, Owned	2011				2010															2016				95.5	21
Number of occupants	2011								2015									2015		2012				90.9	20
Number of rooms	2011																	2015		2016				95.5	21
Usable surface area in m²									2015											2016				63.6	14
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Explore new data sources: Quality Indicators –

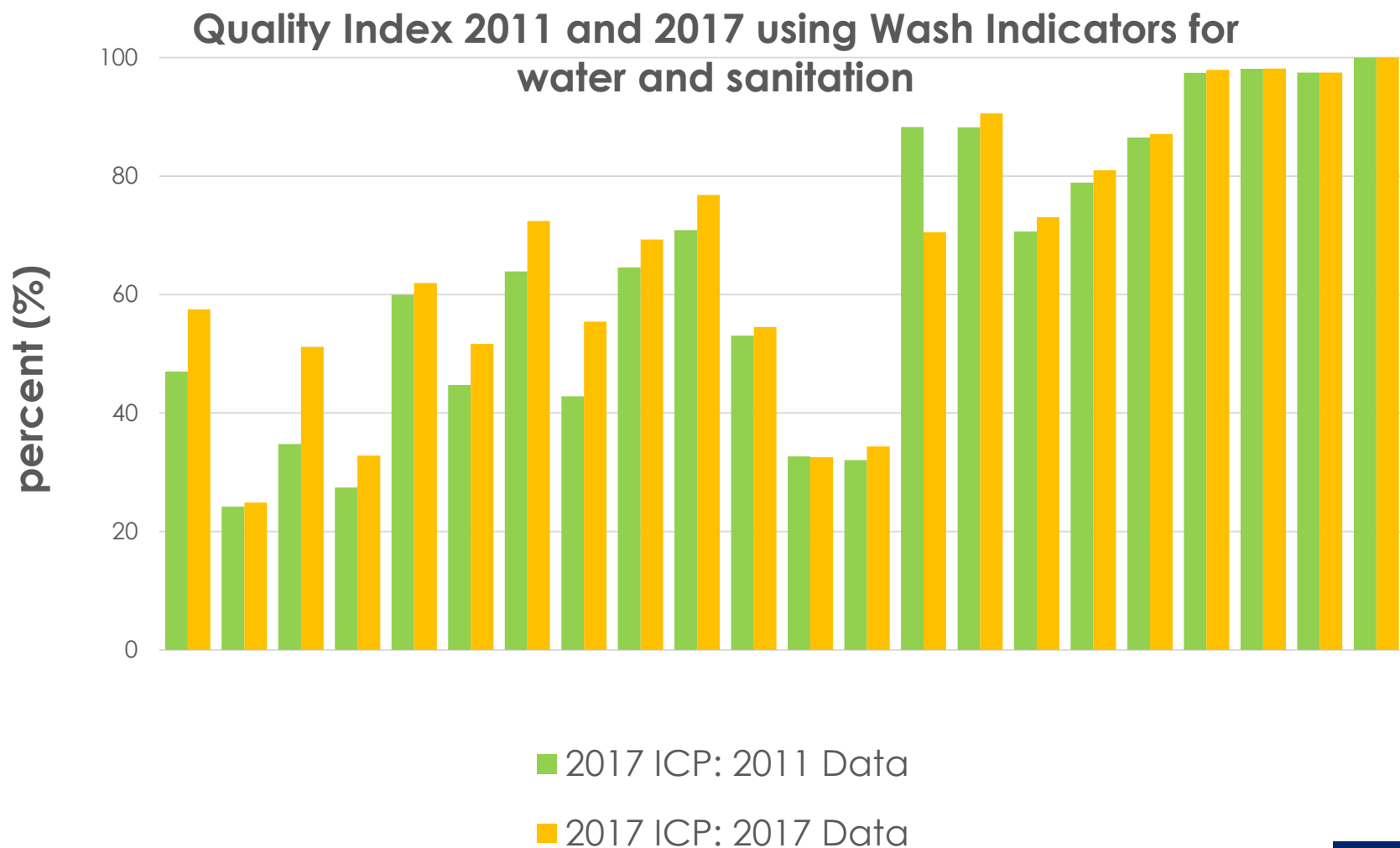
of countries with data on water and sanitation indicators in WASH database

Indicator	Africa		Asia and the Pacific		CIS		LAC		Western Asia		Eurostat-OECD		All ICP Countries	
	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015	2011	2015
Water Supply														
1. Safely managed	6	6	8	8	6	6	5	5	5	5	32	32	59	59
2. Accessible on premises	34	34	21	21	7	7	21	20	10	10	33	33	121	120
3. Available when needed	13	13	6	6	4	4	16	15	6	6	6	6	48	47
4. Free from contamination	6	6	8	8	6	6	5	5	5	5	32	32	59	59
5. Piped	34	34	21	21	7	7	21	20	9	8	33	32	120	117
6. Non-piped	34	34	21	21	7	7	21	20	9	8	33	32	120	117
Sanitation														
1. Safely managed	8	8	4	4	1	1	9	9	11	11	44	44	73	73
2. Excreta treated and disposed of in situ	8	8	4	4	1	1	9	9	11	11	44	44	73	73
3. Excreta emptied and treated offsite	8	8	4	4	1	1	9	9	11	11	44	44	73	73
4. Wastewater treated offsite	13	13	5	5	3	3	29	29	13	13	45	45	104	104
5. Latrines and other	54	54	20	20	8	8	37	36	14	14	47	47	175	174
6. Septic tanks	54	54	20	20	8	8	38	37	14	14	47	47	175	174
7. Sewer connections	54	54	20	20	8	8	38	37	14	14	47	47	175	174

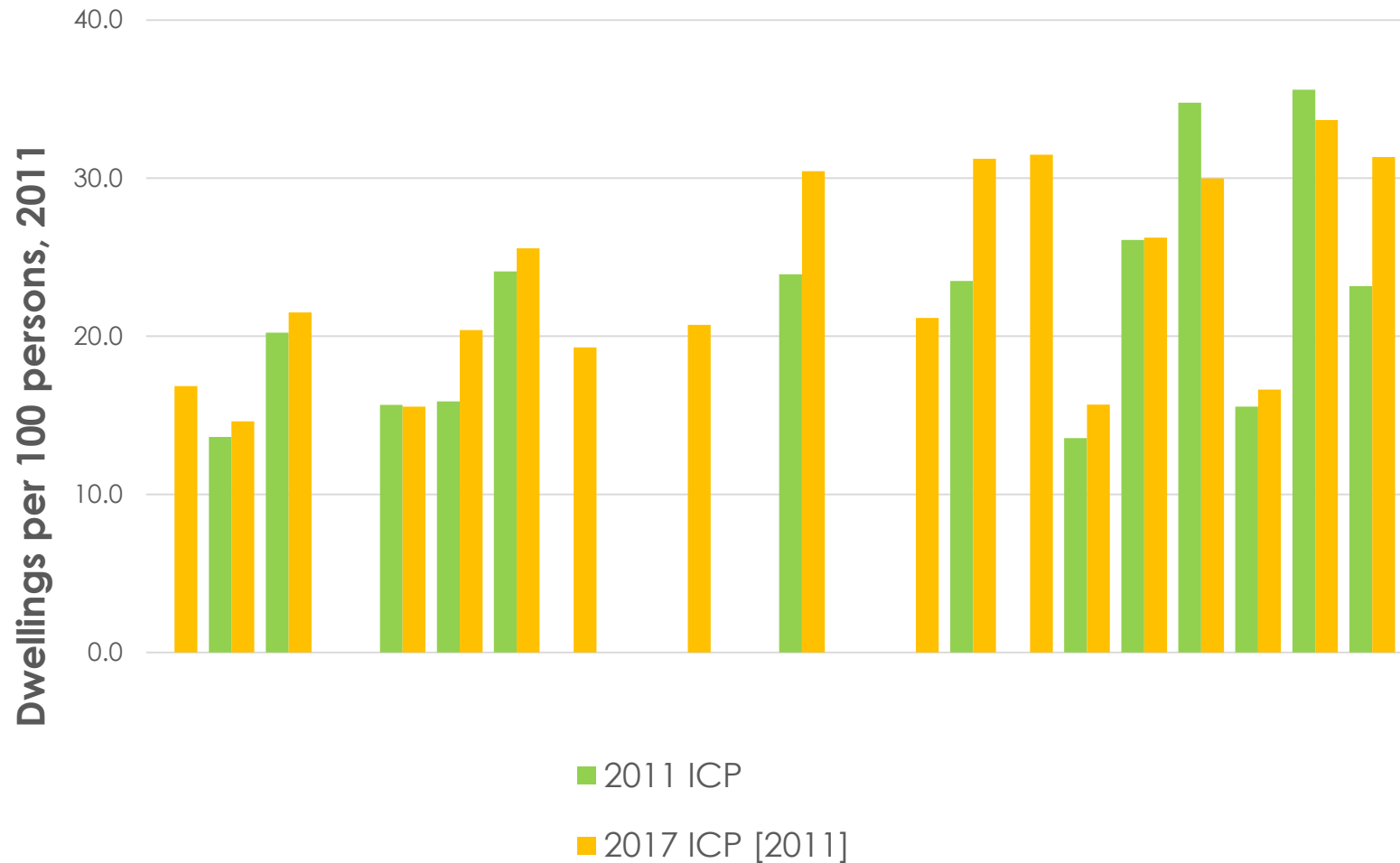
Quality Index 2011 - 2011 ICP (MDG indicators based for water and sanitation) Vs new indicators from WASH Database, in ascending order of per capita GDP



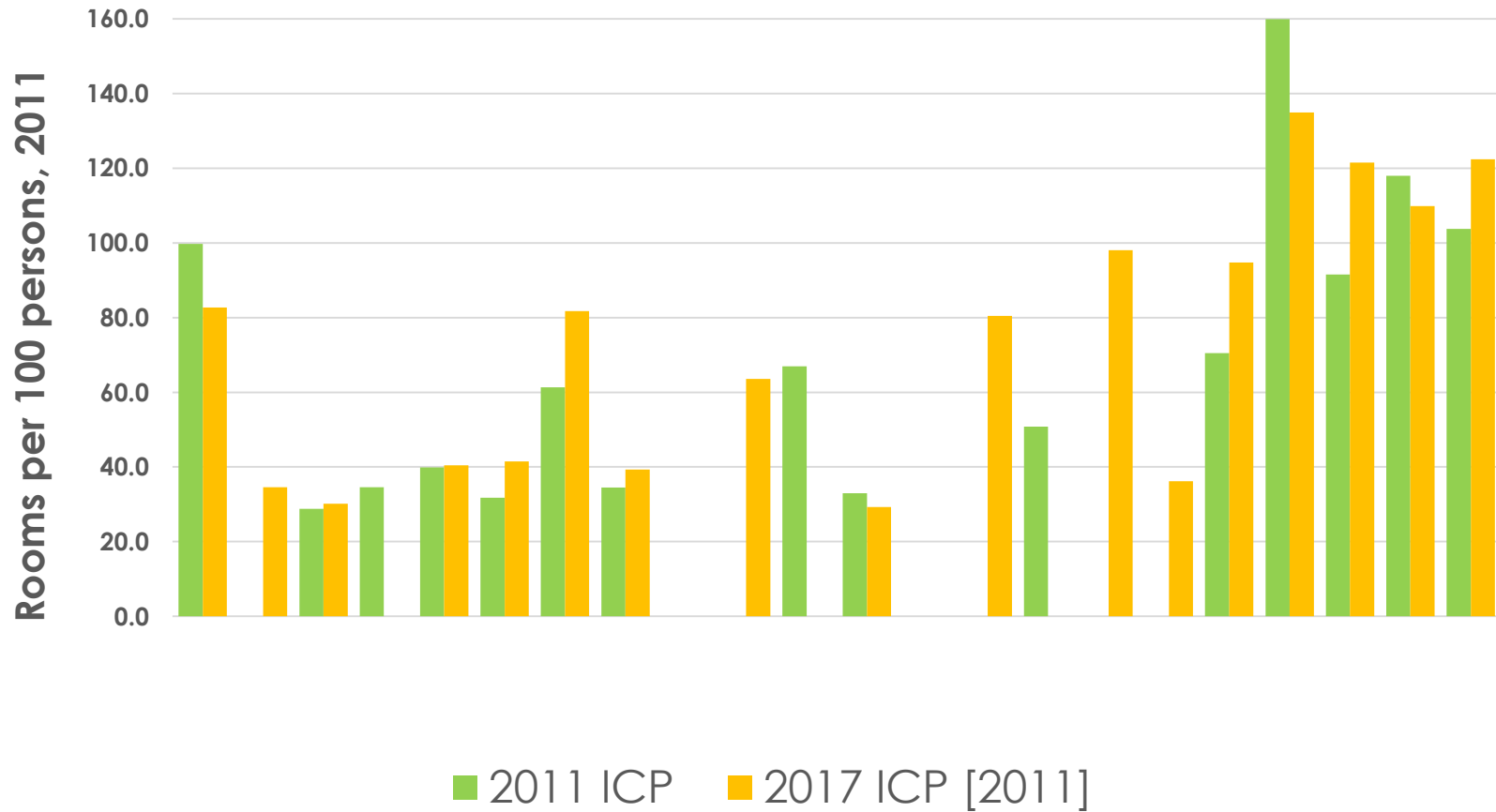
Quality Index 2011 and 2017 - using new indicators from WASH Database, in ascending order of per capita GDP



Dwellings per 100 persons, 2011 - 2011 ICP data vs 2017 ICP data] in ascending order of per capita GDP

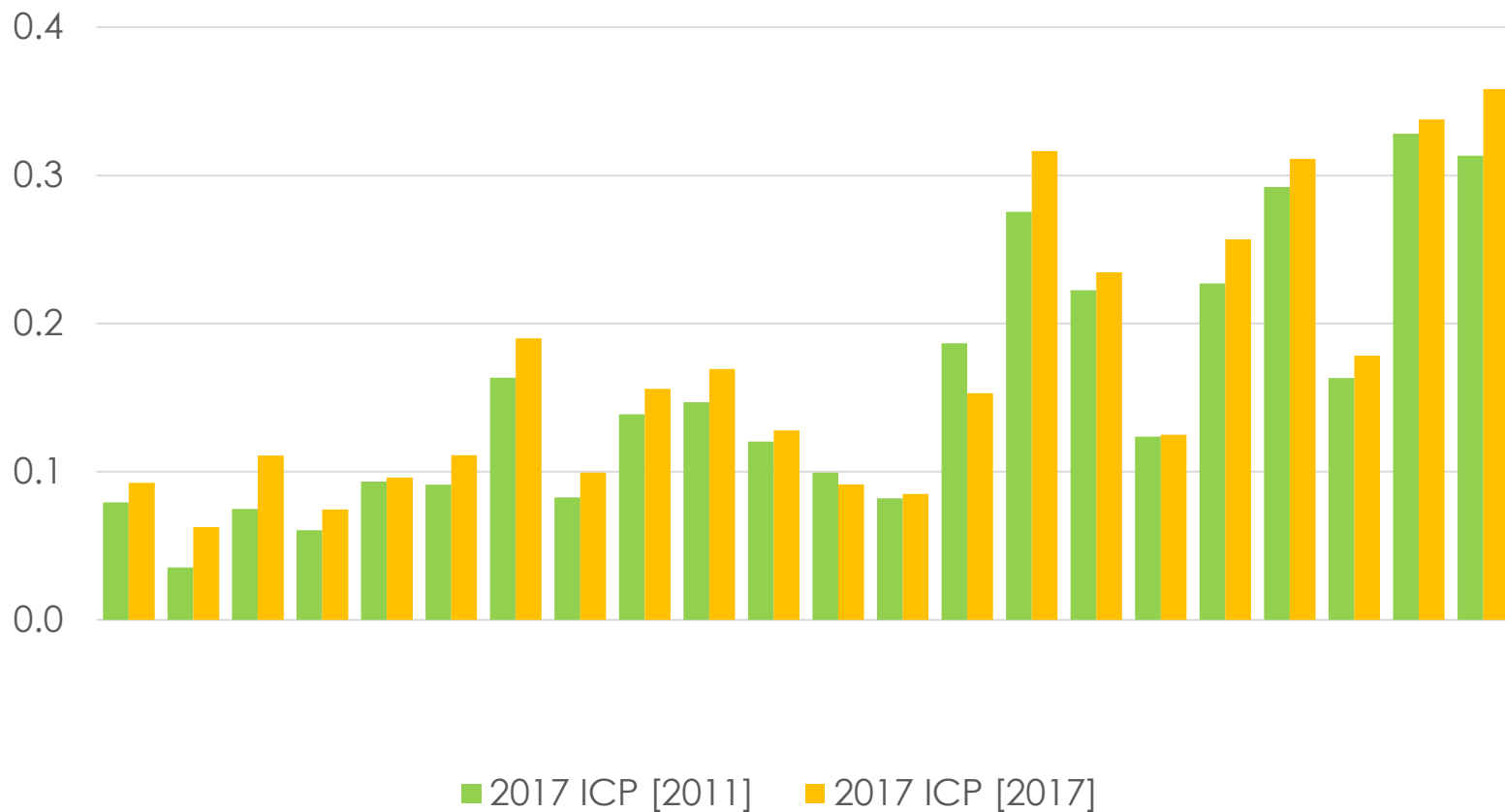


Rooms per 100 persons, 2011 - 2011 ICP data vs 2017 ICP data] in ascending order of per capita GDP



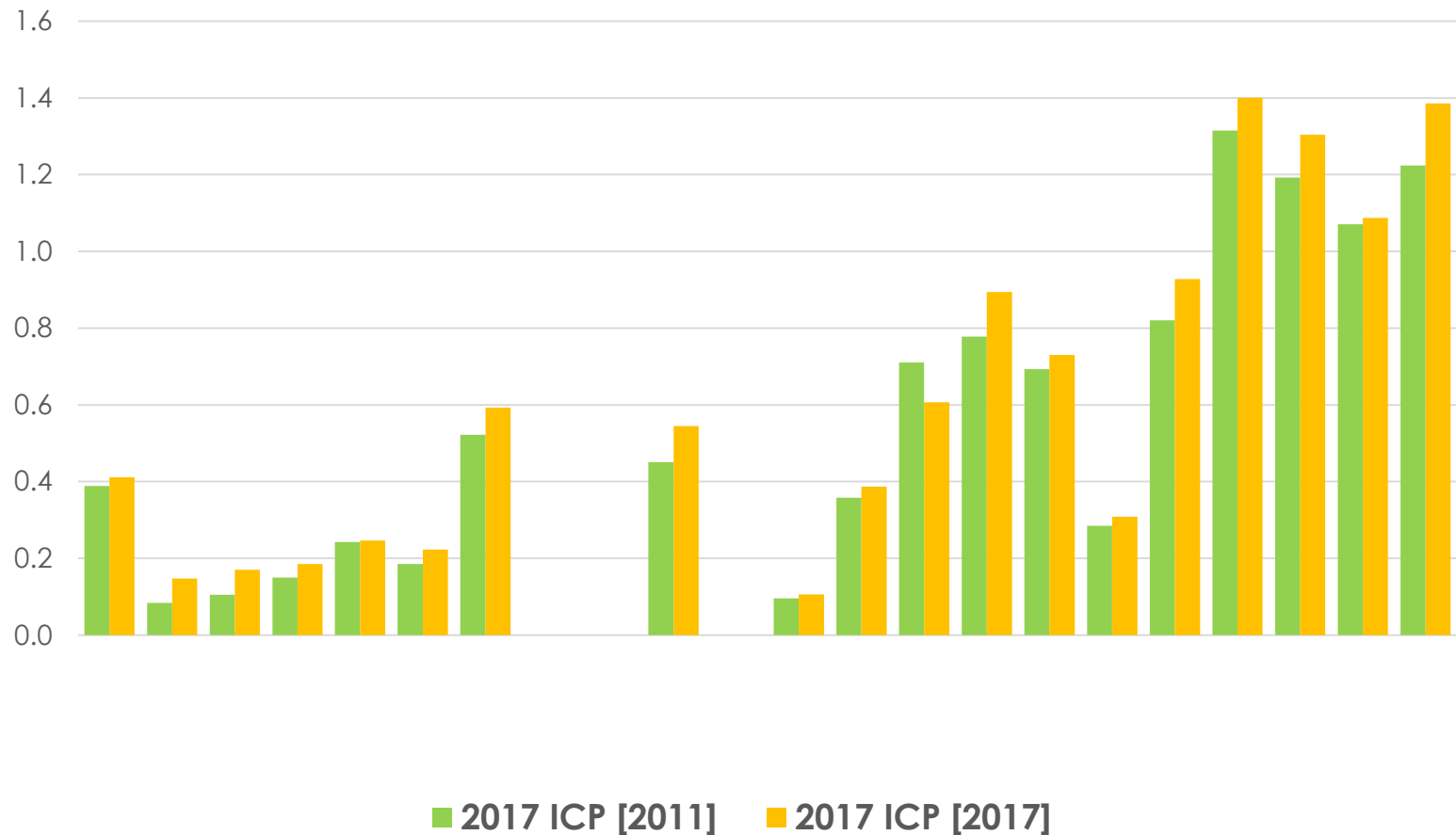
Quality Adjusted - Dwellings

Quality Adjusted Dwellings per capita
in ascending order or per capita GDP



Quality Adjusted - Rooms

Quality Adjusted Rooms per capita
in ascending order or per capita GDP



Way Forward – Improve data

- Filling of data gaps for quantity and quality measures as much as possible from country data sources
- Validation of data continues for both rents and quantity
 - Adherence to ICP definitions and concepts in the indicators
 - logical analyses from ratios of volume data within and across years,
 - rooms per dwelling, households per dwelling
 - Dwellings/rooms/usable surface per person
 - Outliers (usable surface area)
- For rents also logical checks of rents within and across dwelling types and across capital city and other regions is continuing
- Validation of GDP expenditures shares continues – which is crucial input to calculations

Way Forward –Expert Group Meeting

- Hold a experts group meeting mid-June 2019 to discuss data and results from various approaches to housing PPPs
- For quantity approach – (i) review comparisons of the 2017 quantity and quality indicators across economies (ii) review housing expenditures shares and per capita shares in GDP
- Combination of rental and quantity approach:
 - Using actual rentals PPPs for actual rentals and quantity approach for imputed rentals (?)
 - If there are economies which have good quality rental statistics AND good expenditure shares, can we estimate their PPPs directly? (This is line with EU-OECD practice to give priority to direct PPP estimation provided these two conditions are met).

Thank You.