

行政院及所屬各機關出國報告
(出國類別：其他)

參加「2009 非基準年購買力平價國際
比較計畫」第 2 次區域性資料檢核會
議實錄

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摘 要

購買力平價(Purchasing Power Parity, PPP)統計之編製目的在於取代傳統匯率作為折算各國GDP之依據，改以考慮各國同質產品相對價格水準之購買力平價指標，衡量各國實質經濟規模。

國際比較計畫(International Comparison Program, ICP)至今共舉辦7個回合，前6回合囿於主辦單位為聯合國，我國雖多次表達參與意願，但因非聯合國會員國，始終被摒除在外。回顧2007年以前，雖有IMD、IMF及美國賓州大學等發布我國購買力平價、物價水準及實質GDP等指標，惟資料均係推估數值。第7回合ICP計畫改由世界銀行推動，亞太地區統籌單位為亞洲開發銀行，因我國為亞銀會員國，首度得以參加該2005年回合之購買力平價指標編製作業，亞銀與世銀並先後於2007年與2008年發布亞太地區與全球ICP估計結果。

為使各國將2005年回合之作業經驗延續至下一回合(以2011為基準年)，並提升統計資料精確度，亞銀乃邀請部分會員國參與「2009非基準年購買力平價國際比較計畫」，藉此將以2005年為基準的亞太地區之ICP國際比較統計結果，進一步更新為以2009年為基準年。由於我國在上一回合之表現深獲亞銀肯定，本次計畫亦在受邀之列。

本次召開之「2009非基準年購買力平價國際比較計畫第2次區域性資料檢核會議」，於98年8月31日至9月4日在菲律賓馬尼拉舉行。會中除簡介2009 PPP更新計畫之查編方法，亦因應各國無法一一取得機械設備類所需統計資料，亞銀另闢時段，專門討論該類別之資料收集及編製方式，會議最後則討論近期各項作業時程之規畫。

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壹、參加緣由

鑒於各國國內生產毛額(Gross Domestic Product, GDP)在進行國際比較時，通常以匯率作為換算依據，折算為同一貨幣單位方能比較，惟匯率係由外匯市場對外交易之外幣供需所決定，若用於一國總體經濟實力展現之 GDP 上，並非適當。經世界銀行(World Bank, WB)及 OECD 等國際機構客觀評估，咸認為以購買力平價(Purchasing Power Parity, PPP)衡量各國「實質」發展概況，具有不可取代的地位，因此聯合國自 1965 年起推動以 PPP 為基準的國際比較計畫(International Comparison Program, ICP)，迄今已完成 1970、1973、1975、1980、1985、1993、2005 等 7 個回合。

由於前6回合ICP計畫均以聯合國為統籌單位，過去我國雖曾多次嘗試參與，終因我國非聯合國會員國，自始被摒除在外，故2007年以前雖有IMD、IMF及美國賓州大學發布我國物價水準、實質支出及購買力平價等總體經濟指標，惟資料均係推估數值。2005年回合全球ICP改由聯合國授權世界銀行推動，涵蓋亞太地區、非洲、拉丁美洲、獨立國協、西亞及OECD/歐盟共計6個區域、146國參與，其中亞太地區由亞洲開發銀行(Asian Development Bank, ADB)負責協調與整合。由於我國為ADB會員，於2003年元月首度獲邀加入計畫，歷經查價規格訂定、實地查價、資料檢核等階段，費時4年餘，其中查價內容涵括家庭消費財、住宅、醫療、政府受僱人員報酬、機械設備及營建工程等各大GDP支出組成，共計789項查價項目，亞銀與世銀並分別於2007與2008年發布亞太地區及全球第7(2005年)回合統計結果¹。

由於下一回合全球 ICP 計畫將以 2011 年為基準年，為避免各國參與經驗隨時間流逝，且為使各國在下回合 ICP 啟動時，可快速準備就緒，亞銀乃於 2008 年 7 月來函邀請我國加入其獨資籌辦之「2009 非基準年購買力平價國際比較計畫」，希望將上回合所編製之 PPP 資料延續至僅有區域性計畫之 2009 基準年，以使各國經驗得以有效維持，並進一步提升參與國之統計知能。

¹ 亞銀於 2007 年 7 月發布亞太地區初步統計結果，同年 12 月進一步發布定案統計結果；全球統計結果則由世銀於 2008 年 2 月發布。

自 2008 年 12 月亞銀舉辦第 1 次非基準年 ICP 會議起，已歷經多次查價規格修訂(家庭消費財)、實地查價及相關統計資料收集(包含第 1-2 季家庭消費財、6 月營造類、2008 年政府受僱人員報酬及 2005 與 2008 年機械設備類)與資料檢核作業(多次書面資料往返與 2008 年 5 月第 1 次資料檢核會議)。

本(第 2)次區域性資料檢核會議舉辦目的在於邀集各國代表，共同檢視報價差異的合理性，並儘可能找出有疑義的物價資料，希望透過本次跨國討論，繼續提升基礎資料的品質。

貳、出席會議經過

亞銀於今(98)年 8 月 31 日至 9 月 4 日在泰國曼谷舉行「2009 非基準年購買力平價國際比較計畫區域性第 2 次資料檢核會議」，邀請亞銀會員國(或地區)²與會。會議主要目的為檢核各國第 1-2 季家庭消費財、6 月營造類物價資料、2008 年政府受僱人員報酬及 2005 與 2008 年機械設備類統計資料。

98 年 8 月 31 日上午，由亞銀經濟研究部(Economics and Research Department) Principal Statistician Mrs. Chellam Palanyandy 及世銀經濟學家 Mr. Yuri Dikhanov 致詞後，由各國代表一一自我介紹。

8 月 31 日下午，亞銀為使初次與會人員能盡快進入狀況，於正式討論前，先重點回顧 PPP 編製概念及方法，接著是各國針對變動較大的項目，重點式提出說明，並現場回應亞銀及各國代表所提問題，因資料規模龐大，討論議程到 9 月 2 日下午終於告一段落，在當日會議結束前，亞銀請各國就會議討論議題，再次檢視相關報價資料，若當場發現錯誤，則於會中予以修正。

9 月 3 日，先初步檢視修正後的家庭消費財估計結果，再進行政府受僱人員報酬、營造類及機械設備類報價資料；此外，機械設備類原擬利用統計資料推估 PPP 數值，然因所需資料無法完整取得，亞銀於會中無預警宣布，將回頭採用與 2005 年回合相同之實地查價作業，不再考慮利用統計資料推估的編算方法，會中包括我國、香港及新加坡等國雖均表示，立即啟動查價作業有其困難，並提出替代性建議方案，然因亞銀仍認為有查價之必要，只能盡力配合亞銀作業規畫。

9 月 4 日在簡要說明 GDP 資料規範(簡報資料詳附錄一)後，就到了整個會議的尾聲，亞銀除摘要本次會議的決議事項，亦就各項資料提交時程，逐一進行討論，會議最後，由亞銀 Mrs. Chellam 發表多項補充說明及結語。

²包括孟加拉、不丹、汶萊、柬埔寨、中國、斐濟、香港、印度、印尼、馬來西亞、馬爾地夫、蒙古、尼泊爾、巴基斯坦、菲律賓、新加坡、斯里蘭卡、我國、泰國、越南等 20 國。

參、研討重點

一、報價資料彙整

亞銀就家庭消費財報價資料，依已報價項數、每項產品的查價次數、變異係數較大的查報項數及最低/最高報價的價比，彙整各國報價結果。下表為以家庭消費財各國報價項數之彙總資料。

表 1、家庭消費財各國報價概況

單位：項

國家別	已報價項數	
	Q1	Q2
BAN 孟加拉	215	211
BHU 不丹	167	173
BRU 汶萊	192	174
CAM 柬埔寨	248	256
PRC 中國大陸	96	224
FIJ 斐濟	57	194
HKG 香港	221	222
IND 印度	186	219
INO 印尼	262	271
LAO 寮國	-	179
MAL 馬來西亞	245	253
MDV 馬爾地夫	163	167
MON 蒙古	223	231
NEP 尼泊爾	62	216
PAK 巴基斯坦	245	242
PHI 菲律賓	220	245
SIN 新加坡	206	215
SRI 斯里蘭卡	232	231
TAP 我國	234	235
THA 泰國	226	235
VIE 越南	248	262

二、PPP 編製概念及方法

回顧 PPP 編製概念及方法，有助於資料檢核作業順利進行。亞銀本次所說明的 PPP 編製概念及方法，家庭消費財、營造及政府受僱人員報酬由於已於先前的 ICP 會議提及，故在此省略不提。

(一)以 CPD 函數，說明「查價產品必須同質」的重要性

世銀經濟學家 Mr. Yuri Dikhanov，在會議期間，利用內建 CPD³ (country product dummy) 函數之 excel 檔案，舉出數種案例，用以說明當各國報價變動時，對 PPP 估計結果的影響。

估算 PPP 時，即使 a 國所有報價均未異動，仍可能受 b 國改變報價資料或未查報價格所影響，致亞太地區的 PPP 估計結果產生變動。Mr. Yuri 強調，各國查價產品必須符合「可比較 (comparable)」的原則，方能產生正確估計結果。

(二)機械設備類必須實地查價，才能完成 PPP 估計作業

2005 年回合 ICP 首度採用 SPD(Structured Product Descriptions)法，蒐集各國相同國際品牌、同規格之產品售價，原立意在於確保「可比較性」的查價精神，但卻導致估計結果接近匯率，招致外界質疑。此外，由於機械設備類實地查價所需之時間、人力及經費規模龐大，且極需專業知識佐助確認，亞銀本次會議前，原定改採不需查價的間接估計法，以統計資料銜接的方式，產生 2009 年機械設備類之 PPP 估計值。

不過，此項規劃卻因推估過程所需資料並非各國主要統計項目，致在完整性不足之情況下，亞銀於會中表示仍採上一回合方式，必須進行設備類實地查價作業。由於各國在上次資料檢核會議時，已將各項資料的可取得性，回報給亞銀，事隔 3 月，亞銀才告知各國必須配合查價，使得作業時間變得更為緊迫。

當這個無預警的消息一宣佈，各國與會代表均對這樣的發展感到十分意外。對此，我國立即與亞銀溝通，因各項統計調查均應事先核准報備，並需提

³ 根據聯合國歐洲經濟委員會(United Nations Economic Commission for Europe, UNECE)公布之 97 年 5 月會議資料，全球編製 2005 年回合 PPP 共採取 3 種估計方法，其中非洲、亞太及西亞採用 Country Product Dummy(CPD)法、南美採用 Extended Country Product Dummy(CPRD)法、OECD 則採用 EKS*法。前述估計方法之模型、基本假設及使用限制等相關說明，請參考 <http://www.unece.org/stats/documents/ece/ces/ge.22/2008/mtg1/zip.25.e.pdf>。

出預算規劃，此次事出突然，我國人力與經費恐無法配合，另建議亞銀參照我國公共費率查價方式，由亞銀統一向各大國際廠商詢價，此舉除不用處理各國未編列經費的問題外，由於廠商對各國產品售價及訂價策略知之甚詳，亦可大幅提升各國報價資料的可比較性。

除我國外，提出反對意見的還有香港與新加坡等多國。亞銀表示，非常期盼能得到各國的協助，使本回合 ICP 順利執行完畢，至於預算問題，則會提供為期一週的顧問諮詢費用，以協助查價作業順利進行。

由於亞銀於會前彙整各國提供之統計資料後，已確認「間接估計法」的確不可行，且本次請各國全面配合進行查價作業的態度相當堅定，在我國多次表達意見均無法改變其作法後，也只能盡力配合亞銀，回國重新調整相關作業時程；上一回合之機械設備類價格收集作業，係委由財團法人工業技術研究院辦理，本回合則由本處物價科全體同仁自行詢價。亞銀會後提供之初步核心產品清單(Core Product List)共計有 61 項查價項目，如表 2 所示。

表 2、機械設備類核心產品清單

Machinery and Equipment		
RETA 6482 Regional Core List		
	Codes	Item Description
1	150112101 1	AIR COMPRESSOR (Small)
1	150112101 3	AIR COMPRESSOR (Small)
2	150112112 1	AIR CONDITIONER (Room)
2	150112112 2	AIR CONDITIONER (Room)
3	150114120 1	ANESTHESIA UNIT
4	150113135 2	BLOW MOLDING MACHINE FOR 50 Liters
5	150114101 1	BUSINESS COPIER
6	150121107 1	CAB CHASSIS (5 Tonnes)
7	150121101 1	COMMERCIAL VEHICLE (28 Passengers)
8	150113110 1	CRAWLER DOZER (Large)
9	150113114 1	CRAWLER LOADER (Medium Track)
10	150114122 1	CT SCANNER
11	150114106 1	DESKTOP COMPUTER - COMPAQ
11	150114106 2	DESKTOP COMPUTER - COMPAQ
12	150121103 1	DIESEL MINIBUS (15 Passengers)
13	150121104 1	DIESEL MINIBUS (21 Passengers)
14	150114103 1	DIGITAL PROJECTOR
15	150113117 1	DUMPER (over 30 tonnes)
15	150113117 2	DUMPER (over 30 tonnes)
16	150114115 1	ELECTRIC MOTOR (AC Current)
17	150113120 1	HYDRAULIC EXCAVATOR (Compact)
17	150113120 2	HYDRAULIC EXCAVATOR (Compact)
18	150113119 1	HYDRAULIC EXCAVATOR (Large)
19	150113121 1	HYDRAULIC EXCAVATOR (Mini)
20	150114123 1	INFANT INCUBATOR
21	150113137 2	INJECTION MOLDING MACHINE FOR 50 Tonnes
21	150113137 3	INJECTION MOLDING MACHINE FOR 50 Tonnes
22	150114109 1	INKJET PRINTER
23	150114108 1	LAPTOP COMPUTER
24	150114110 1	LASER PRINTER
25	150112105 1	LIGHT INDUSTRIAL DIESEL ENGINE
26	150113303 3	MIG (METAL INERT GAS) WELDER (Arc Welder)
27	150113131 1	MINCING MACHINE (0.5 KW POWER)
27	150113131 3	MINCING MACHINE (0.5 KW POWER)
28	150113132 2	MINCING MACHINE (1 KW POWER)
29	150113122 1	MOTOR GRADER
29	150113122 2	MOTOR GRADER
29	150113122 3	MOTOR GRADER
30	150114126 1	MRI (MAGNETIC RESONANCE IMAGE)
31	150114111 1	MULTIFUNCTION PRINTER
32	150114105 1	PAPER SHREDDER
32	150114105 2	PAPER SHREDDER
33	150114127 1	PATIENT MONITOR
34	150114112 1	PDA (PERSONAL DIGITAL ASSISTANT)
35	150121110 1	PICKUP TRUCK
36	150113304 1	POWER CIRCULAR SAW
36	150113304 2	POWER CIRCULAR SAW
37	150112114 1	ROUGH TERRAIN CRANE
38	150113307 2	ROUTER
39	150113308 1	SANDER (Hand/Palm)
40	150114113 1	SCANNER
41	150114119 1	SECURITY CAMERA
42	150113123 1	SKID STEERLOADER
43	150113133 1	SPIRAL DOUGH MIXER (For 50 kg)
44	150113302 1	UTILITY TRACTOR
45	150121111 1	VAN TRUCK
46	150112109 2	WATER PUMP (Centrifugal)
47	150112110 1	WATER PUMP (Jet)
47	150112110 2	WATER PUMP (Jet)
47	150112110 3	WATER PUMP (Jet)
48	150113130 1	WHEEL LOADER (Small)
	Total	61

三、GDP 資料規範

GDP 為國內生產單位在一定期間生產的總成果，生產結果經分配而構成所得，所得再用於消費、投資等最終需求，故 GDP 可自生產面(production)、支出面(expenditure)或所得面(income)進行統計。

以生產面作為跨國比較基礎，所面臨的最大困難在於 double deflation，要確實取得 Intermediate Consumption 與 Gross Output 所需資料，實務上有其困難；而因各類所得支出無法拆解出一定的價格與數量關係，且貧窮分析、貿易財等經濟研究及政策分析，已普遍以支出面作為比較標的，ICP 因而決定採用 1993 SNA 分類標準，及以支出面作為跨國比較的基礎。

因部分國家仍採 68 SNA 標準來編製 GDP，為使各國比較基礎趨於一致，亞銀說明重要分類標準及涵蓋範圍⁴。各國 GDP 數值須包含下列重要項目：

- 自產自用的農畜產品(Crops and livestock for own consumption)；
- 自建自用的住宅(Dwellings built for own occupancy)；
- 非法活動(illegal activities)，如毒品、槍械交易等；
- 非正式或未經登記廠商所提供的產品或服務(Goods and services sold by informal or unregistered producers)，如路邊攤販賣的衣服、飲料等；
- 軟體研發及礦物勘探；
- 非營利機構(NPISHs, Non-profit institutions serving households)的支出；
- 所有政府支出；
- 對外貿易必須包含 shuttle trade 和走私(smuggling)；
- 以及其他無法取得實際資料時，所進行之必要推估。

GDP 有 7 種主要支出組成，分別為 Individual consumption expenditure by households；Individual consumption expenditure by NPISHs；Individual consumption expenditure by government；Collective consumption expenditure by government；Gross fixed capital formation；Change in inventories & acquisitions less disposals of valuables；Balance of exports and imports。2009 回合將這 7 大組成再往下拆解成 26 個 Categories、61 個 Groups、126 個 Classes 及 155 個 Basic Headings(詳表 2)。

⁴ 簡報內容詳附錄一。

表 3、GDP 組成及分類概況

單位：個數

Main Aggregates	Categories	Groups	Classes	Basic Headings
11.00 Individual consumption expenditure by households	13	43	90	110
12.00 Individual consumption expenditure by NPISHs	1	1	1	1
13.00 Individual consumption expenditure by government	5	7	16	21
14.00 Collective consumption expenditure by government	1	1	5	5
15.00 Gross fixed capital formation	3	6	11	12
16.00 Change in inventories and acquisitions less disposals of valuables	2	2	2	4
17.00 Balance of exports and imports	1	1	1	2
GDP	26	61	126	155

肆、結論

ICP 計畫自 1960 年代首次推行至今已逾 40 年，惟在編製過程上仍有諸多實務上的限制。由於各國產業型態及經濟發展程度存在極大差異，實難於資料收集及編製作業中，同時兼顧代表性與可比較性。

以第 6(1993 年)回合為例，該回合以代表性為主，致各國 PPP 差異，是源自物價水準或是產品品質不同所影響，並無法精確釐析，使編製結果受到外界質疑。第 7(2005 年)回合亦在無法兼顧的情況下，改採可比較性作為跨國比較原則，以機械設備類為例，各國最後可共同查價之項目僅剩國際領導品牌，惟由於國際品牌定價策略一致，致該類別各國查價結果所換算出之 PPP 幾乎等於匯率，完全無法反映各國之代表性。

2009 非基準年 PPP 國際比較計畫之舉辦目的，除將 2005 年回合經驗與架構延續至 2009 非基準年，以便順利推動 2011 年回合全球性 ICP 外，也希望改善部分 2005 年回合遭遇之資料檢核及編製困難，但事實上，以此次機械設備類為例，原欲以次級統計資料估算亞太各國之 PPP，因各國統計資料無法完整取得，只好回頭採用 2005 年回合之實地查價方式。

我國為配合亞銀作業規畫，本回合在未增加任何人力及縣市查價負荷的情況下，家庭消費財、營建工程及機械設備等類之詢價業務皆由本處物價科同仁分工進行，工作負擔雖沈重，惟其中機械設備類，基於上一回合之計畫委託單位(工業技術研究院)紮實的作業與良好的合作默契下，仍協助提供原本受查廠商基本資料，俾供同仁藉此與廠商連繫，取得市場行情相關資訊，使查價作業得以順利進行。

GDP Expenditures Requirements for the 2009 PPP Updating

Chellam Palanyandy, ADB

RETA 6482 - Second Data Review Workshop
31 August – 4 September 2009
Bangkok, Thailand



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Outline of the Presentation

- National accounts statistics
 - national accounts and the 2009 PPP updating
 - main expenditure aggregates
 - valuation
- Expenditure classification
 - general framework
 - basic headings



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National Accounts and the 2009 PPP updating



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1993 System of National Accounts

- GDP is the starting point of the ICP
- ICP comparisons are made from the expenditure side (& not from the production or income side)
 - Inherent usefulness of such comparisons to economic research and policy analysis
 - studies of poverty; tradeables vs non-tradeables; etc
 - Difficulties of organizing comparisons from the production side
 - Double deflation requires data on both intermediate consumption and gross output
 - Values of income aggregates cannot be divided into meaningful price and volume measures



The 2009 updates will be based on the 1993 SNA

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1993 System of National Accounts

- The identity underlying an expenditure aggregate is
 - Price x Volume = Value
 - Price and volume comparisons can be made by:
 - Either observing volumes directly and estimating prices
- The 2009 updates will be based on the 1993 SNA



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Key requirements (1)

- GDP must cover:
- Crops and livestock for own consumption
 - Significant illegal activities
 - Goods and services sold by informal or unregistered producers
 - Eg. food and drinks sold by vendors, etc
 - All government expenditures
 - Eg. Military expenditures, state of local government expenditures



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Key requirements (2)

- Dwellings built for own occupancy
- Software and mineral exploration (as capital formation)
- Significant NPISHs
 - religious, international funded organizations/NGOs
- Foreign trade, including shuttle trade and smuggling

1993 System of National Accounts

- But some approximations are inevitable. For example:
 - Non-profit institutions not distinguished
 - No estimates for valuables, patented entities
 - No work in progress for agriculture
 - FISIM not allocated to users
 - No estimates for illegal activities

Main expenditure aggregates

Expenditure on GDP

There are 7 main expenditure aggregates:

- Individual consumption expenditure by households
- Individual consumption expenditure by NPISHs
- Individual consumption expenditure by government
- Collective consumption expenditure by government
- Gross fixed capital formation
- Change in inventories & acquisitions less disposals of valuables
- Balance of exports and imports
 - Further divided into
 - 26 Categories
 - 61 Groups
 - 126 Classes
 - 155 Basic Headings

Individual consumption expenditure by households

- Actual expenditures:
 - food, clothing, transport, rent, services
- Imputed expenditures:
 - rents of owner-occupiers
 - food and other goods for own consumption
 - goods and services provided as income in kind
 - FISIM (if allocated to consumers)

Individual consumption expenditure by NPISHs

- Non-Profit Institutions Serving Households (NPISH) are mainly funded by households - either residents or foreign households.
- Examples:
 - religious organizations (mosques, temples, churches, schools, clinics, hospitals)
 - trade unions
 - political parties in multi-party states
 - UNICEF, OXFAM, Red Crescent

Individual consumption expenditure by government

- Most expenditures on *housing, health, recreation and culture, education and social protection* are individual.
- Two kinds:
 - production of services by government for the benefit of individual households
 - purchase of goods and services by government from other producers which are then passed on to households, either free or at low cost (health and education only)

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ADB

Collective consumption expenditure by government

- Mainly fall under the COFOG headings of *general public services, defense, public order and safety, economic affairs and environment protection*
- Only one kind - the production of services by government. Collective consumption does not involve the purchase of goods and services for delivery to households.

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Gross fixed capital formation (GFCF)

- Goods that are expected to be used in production for several years
- GFCF is always measured net of sales:
 - sales for scrap, sales to abattoirs, exports of second-hand assets
- 1993 SNA includes expenditures on software and on mineral exploration in GFCF

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ADB

Change in inventories

- Work in progress - construction, ships
- Stocks of raw materials, finished goods, goods for resale, goods stored by government as strategic reserves, such as food and fuel.
- Estimates may not be comprehensive but should cover important items such as food and fuel stocks, stocks of mining companies, large retailers.

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ADB

Actual final consumption

- 2009 PPP updates will compare actual final consumption between countries
- Actual final consumption consists of:
 - actual individual consumption of households
 - actual individual consumption of government
 - actual individual consumption of NPISH

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ADB

But expenditure weights will refer to final consumption expenditure

- Participating countries will need to supply weights for final consumption expenditure (both household and government).
- Conversion to actual final consumption will be done by ADB.
- Participating countries will need to distinguish between individual and collective consumption expenditures of government.

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ADB

Valuation

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ADB

Valuation - general rule

- General rule is to use the prices at which sales of goods and services are transacted - "purchasers" (or "market") prices.
- These prices may be reduced by discounts or rebates:
 - bargaining, sales, bulk purchases
- Note that price data for the PPP updating must also reflect discounts or rebates.

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ADB

Valuation - imputed rents

- Imputed rents of owner occupiers
 - use rents actually paid for similar kinds of dwellings, in similar locations and with similar facilities
 - if not possible, rents are valued at cost - consumption of fixed capital, return on capital, regular maintenance, and insurance

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ADB

Valuation – Consumption of Own-produced goods

- Goods produced for own consumption (crops, livestock)
 - Prices in local markets for livestock, vegetables, fruits

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ADB

Valuation – Income –in-kind

- Goods and services provided as income in kind.
 - at purchasers' prices if the employer has purchased the goods or services and at producers' prices if they have been produced by the enterprise itself.

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ADB

Valuation - NPISH

- Individual consumption expenditure of NPISH
 - Valued at cost of production - compensation of employees, intermediate consumption, consumption of fixed capital, taxes less subsidies on production *minus* any payments received from households for services provided.

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ADB

Valuation – Individual consumption expenditure by Government

- Goods and services purchased by government from other producers which are then passed on to households:
 - purchasers' prices
- Production of goods and services by government itself
 - at the costs of production (see valuation of NPISH)

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ADB

Valuation – Collective consumption expenditure by Government

- Valued at cost i.e as sum of compensation of employees, intermediate inputs, consumption of fixed capital, taxes on production (eg.business license) less subsidies minus payments paid by household for services and goods provided
 - at the costs of production (see valuation of NPISH)

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ADB

Valuation - GFCF

- GFCF is valued at purchasers' prices but note that these should include not only the cost of transport but also the cost of installation and any fees or taxes for transfer of ownership.
- Own-account production of fixed capital assets is valued at basic prices which are equal to producer price or, if not available, at the cost of production.

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ADB

Valuation - Change in Inventories

- The change in inventories must reflect only the physical change - not holding gains or losses due to changes in prices during the year.
- The physical quantities of inventories at the beginning and end of the year are usually valued using the average prices over the year or, failing that, mid-year prices.

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ADB

Valuation - Exports and Imports

- Exports of goods and services
 - Free-on-board (f.o.b.) prices
- Imports of goods and services
 - Cost, insurance, freight (c.i.f.) prices

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ADB

Expenditure Classification

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ADB

The Expenditure Classification

- The Expenditure Classification for the 2009 PPP updating is based on four international classifications:
 - COICOP for household expenditure
 - COPNI for NPISH
 - COFOG for government
 - CPA/CPC for gross fixed capital formation

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Broken down into

- GDP is broken into 7 main aggregates
- Further divided into
 - 26 Categories
 - 61 Groups
 - 126 Classes
 - 155 Basic Headings

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Structure of the Classification

Main Aggregates	Categories	Groups	Classes	Basic Headings
11.00 Individual consumption expenditure by households	13	43	90	110
12.00 Individual consumption expenditure by NPISHs	1	1	1	1
13.00 Individual consumption expenditure by government	5	7	16	21
14.00 Collective consumption expenditure by government	1	1	5	5
15.00 Gross fixed capital formation	3	6	11	12
16.00 Change in inventories and acquisitions less disposals of valuables	2	2	2	4
17.00 Balance of exports and imports	1	1	1	2
GDP	26	61	126	155

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Examples of basic headings: Food

Code		Level
11.00.000.0	INDIVIDUAL CONSUMPTION EXPENDITURE BY HOUSEHOLDS	Main aggregate
11.01.00.0	FOOD AND NON-ALCOHOLIC BEVERAGES	Category
11.01.10.0	FOOD	Group
11.01.11.0	Bread and cereals	Class
11.01.11.1	Rice	Basic heading
11.01.11.2	Other cereals, flour and other cereal products	Basic heading
11.01.11.3	Bread	Basic heading
11.01.11.4	Other bakery products	Basic heading
11.01.11.5	Pasta products	Basic heading

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Examples of category, group, class, BH

15.00.00.0	GROSS FIXED CAPITAL FORMATION	Main aggregate
15.01.00.0	MACHINERY AND EQUIPMENT	Category
15.01.10.0	METAL PRODUCTS AND EQUIPMENT	Group
15.01.13.0	Special purpose machinery	Class
15.01.13.1	Agricultural and forestry machinery	Basic heading
15.01.13.2	Machine tools	Basic heading
15.01.13.3	Machinery for metallurgy, mining and construction	Basic heading
15.01.13.4	Machinery for food, beverage and tobacco processing	Basic heading
15.01.13.5	Machinery for textile, apparel and leather production	Basic heading
15.01.13.6	Other special purpose machinery	Basic heading

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Examples of basic headings: Government

13.00.00.0	INDIVIDUAL CONSUMPTION EXPENDITURE BY GOVERNMENT	Main aggregate
13.02.00.0	HEALTH	Category
13.02.10.0	HEALTH BENEFITS AND REIMBURSEMENTS	Group
13.02.11.0	Medical products, appliances and equipment	Class
13.02.11.1	Pharmaceutical products	Basic heading
13.02.11.2	Other medical products	Basic heading
13.02.20.0	PRODUCTION OF HEALTH SERVICES	Group
13.02.21.0	Compensation of employees	Class
13.02.21.1	Physicians	Basic heading
13.02.21.2	Nurses and other medical staff	Basic heading
13.02.22.0	Intermediate consumption	Class
13.02.22.1	Pharmaceutical products	Basic heading
13.02.22.2	Other medical goods	Basic heading
13.02.23.0	Gross operating surplus	Class
13.02.23.1	Gross operating surplus	Basic heading
13.02.24.0	Net taxes on production	Class
13.02.24.1	Net taxes on production	Basic heading
13.02.25.0	Receipts from sales	Class
13.02.25.1	Receipts from sales	Basic heading

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Thank you!