

Development of Hybrid tables in Australia

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Outline of presentation

- Brief introduction to Hybrid accounts
- ABS Hybrid accounts
 - Hybrid supply table
 - Hybrid use table
 - Household final consumption expenditure
 - Industry gross value added
- Brief discussion on asset valuation

Introduction to Hybrid accounts

- ‘Hybrid’ – Combination of different types of measurement in the same account.
- Share same concepts, structure and classification.
- SNA Identity: $IVA = Output - Intermediate Consumption$
- Starting point is the System of National Accounts (SNA08) table:
 - Production (supply table)
 - Consumption (use table)
 - Products along rows (CPC)
 - Industries along columns ([ISIC Rev 4.](#))
- Focus on two key industries:
 - ISIC 36 Water supply
 - ISIC 37 Sewerage services

Introduction to Hybrid accounts – Products & Industries

International Standard Industry Classification – (ISIC) Central Product Classification (CPC)

- ISIC 36 Water collection, treatment & supply:
 - CPC 1800 Natural Water

- ISIC 37 Sewerage services:
 - CPC 9411 Sewerage & treatment services
 - CPC 9412 Septic tank emptying & cleaning services

Supply side – Water supply, sewerage and drainage services industry

Products +	Output of industries (by ANZSIC06 categories)									Imports	Taxes less subsidies on products	Trade and transport margins	Total supply at purchases price
	Agri., Forestry, Fishing	Mining	Manufacturing	Electricity	Water supply, drainage sewerage &	Total (D)	Construction	All other Industries	Total outputs at basic prices				
1. Total output and supply (Revenue - in monetary units - \$ million)	61,941	190,244	395,783	37,414	15,403	58,728	296,471	1,430,605	2,433,772	276,818	83,340	0	2,793,930
<i>of which</i>													
Water Supply, Sewerage & Drainage services	0	0	0	5	11439	11444	0	0	11444	0	14	0	11458
1.a. Natural water Supply	0	0	0	5	6,398	6,403	0	0	6,403	0	13	0	6416
1.b. Sewerage & Drainage services	0	0	0	0	5,041	5,041	0	0	5,041	0	1	0	5042

Input data

National Accounts data

Revenue from sales of water and sewerage & drainage services - Financial statements from annual reports of water and sewerage, drainage service suppliers

Output data

Data coherence

Australian Industry – Water supply & sewerage services



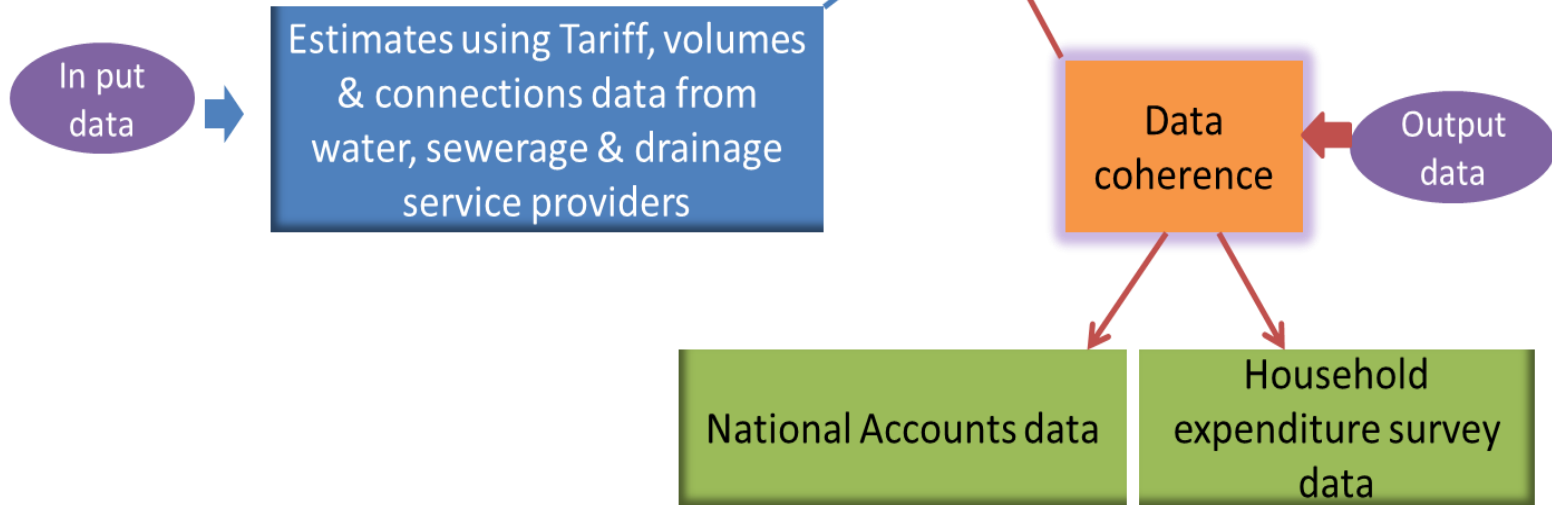
Monetary supply and use tables

Supply side - Revenue

- No survey data available
- Revenue from sales of water and related services based on
 - Water supplier's annual financial reports
 - Performance reports by state water authorities
 - Various other information sources by state departments
- About 80% of water suppliers had their financial reports made publicly available
- Majority of those who did not disclose their financial reports were the rural distributed water suppliers (irrigation trusts and co-operatives)
- For those did not disclose revenue information, estimates were performed based on various other information
- Data confrontation – Australian Industry, Water & Sewerage Services

Use side – Household final consumption expenditure on water, sewerage and drainage services

	Intermediate consumption/use by industries (by ANZSIC06)									Actual Final use/consumption				Capital formation	Change in inventories	Exports	Total uses at purchaser's price
	Agriculture, Forestry, Fishing	Mining	Manufacturing	Electricity generation	Water supply, Drainage & sewerage services	Total D	Construction	All other Industries	Total industries	Households		Government	Total final consumption				
										Final consumption expenditure	Social transfers in kind from gov						
1. Total intermediate consumption and use (Monetary units - \$million)	34,202	75,664	284,739	23,165	9,115	33,405	206,369	626,149	1,260,528	670,753	33,517	187,455	891,725	357,607	-371	284,441	2,793,930
<i>Of which</i>																	
<i>Water supply, sewerage & drainage Services</i>	409	174	698	76	931	1017	138	2559	4995	5882	456	126	6464			0	11,459
1.a. Natural water	406	153	490	70	927	1004	65	1164	3282	2626	448	60	3134			0	6,416
1.b. Sewerage services	3	21	208	6	4	13	73	1395	1713	3256	8	66	3330			0	5,043



Use side - Expenditure

- Intermediate consumption expenditure data coming from:
 - Agriculture Commodity Survey
 - Energy, Water & Environment Survey
 - Electricity Generators Survey

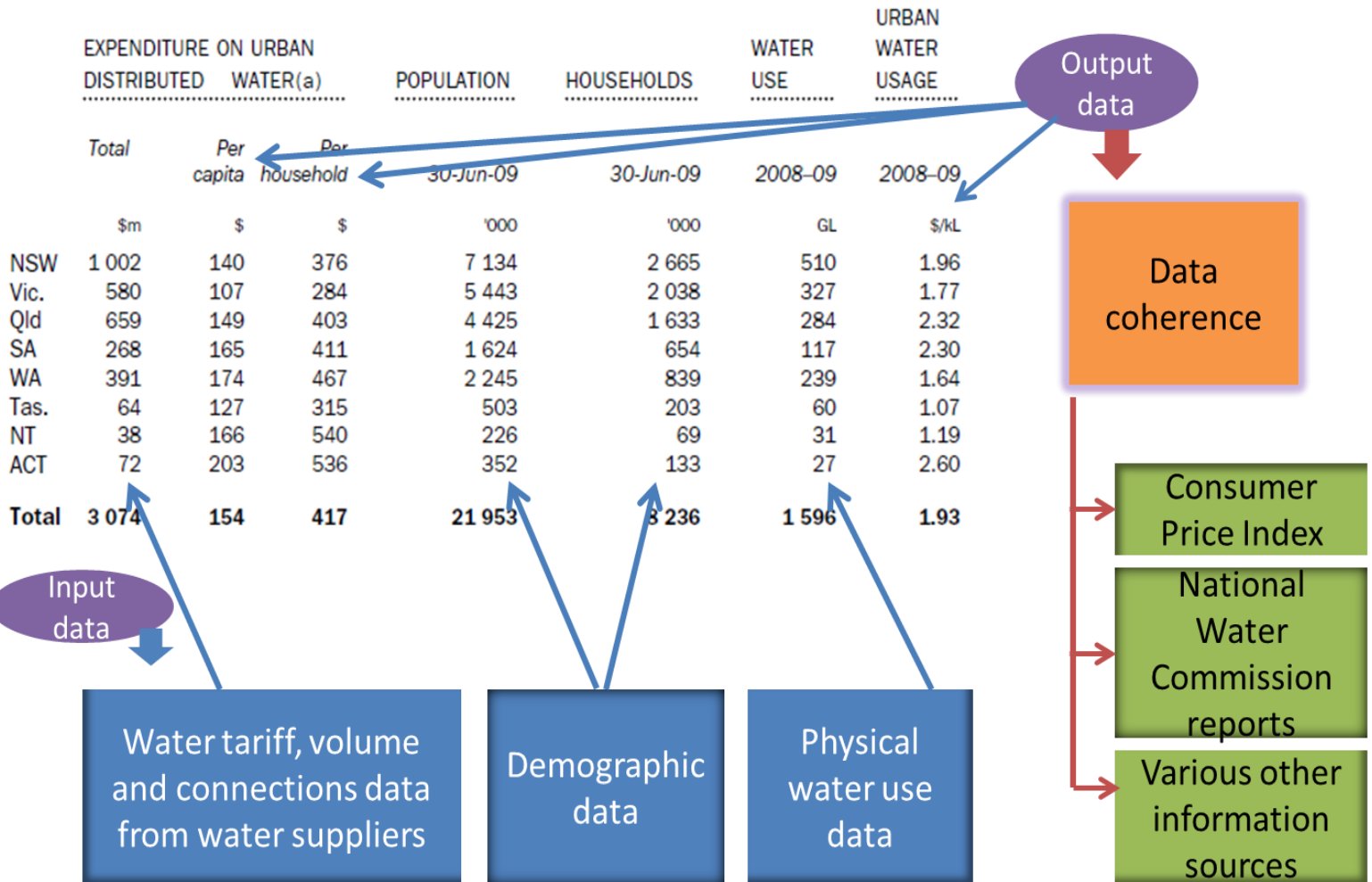
- Final consumption expenditure by households estimates:
 - Tariff data
 - Volumes used/discharged
 - Number of residential connections

- Final consumption expenditure by General government:
 - Total GFCE from National Accounts
 - Social transfers in kind data from the Public Finance (NOTE: National Accounts GFCE includes social transfers in kind, therefore social transfers are deducted from the GFCE here)

- Data confrontation
 - Volumes data
 - National Accounts data
 - Various other information available

Household expenditure on water

3.4 HOUSEHOLD EXPENDITURE ON URBAN DISTRIBUTED WATER, by state—2008–09



Industry gross value added for water using industries

Input
data

3.5 INDUSTRY GROSS VALUE ADDED FOR WATER USING INDUSTRIES—2008–09

National Accounts
data

Physical water use
data

	Industry gross value added(a)	Water consumption	Industry gross value added per GL of water consumed
	\$m	GL	\$m/GL
Agriculture, forestry and fishing			
Agriculture	23 297	6 996	3
Aquaculture, forestry, fishing	4 442	163	27
Total Agriculture, forestry & fishing	27 739	7 158	4
Mining			
Coal mining	45 114	98	462
Oil & gas extraction	21 797	37	585
Other mining(b)	40 885	327	125
Exploration & mining support services	6 784	46	148
Total mining	114 580	508	226
Manufacturing			
Food, beverages & tobacco	22 240	290	77
Textile, clothing & footwear	2 902	12	238
Wood & paper products	7 180	96	75
Printing, publishing & record media	4 682	6	849
Petroleum, coal, chemical & associated products	20 523	72	283
Non-metallic, mineral products	5 768	31	184
Metal products	23 765	158	151
Machinery & equipment	21 164	11	1 951
Other manufacturing (includes furniture)	2 820	1	2 600
Total manufacturing	111 044	677	164
Electricity & gas	16 097	328	49
Water supply, sewerage & drainage	6 288	2 396	3
All other industries	897 496	1 265	709
Total	1 173 244	12 333	95

Output
data

Implementing SEEA-W style tables

- 2008-09 Use table based on SEEA-W (monetary only) with different presentation for practical publishing reasons.
- 2009-10 Monetary Account will include SEEA-W style supply and use tables.
- Hybrid tables will follow the SEEA-W hybrid table style once the SEEA-W revisions are finalised.
- Asset tables not published at this time.
- Chapter 5 of SEEA-W discusses the measurement principles of water as a natural resource asset.
- Valuation of the infrastructure assets relating to the provision of the services will be considered relevant in valuing water flows.

Implementing SEEA-W tables – Further research

Asset valuation problems

- No survey/statistical data available
- Administrative data do not have the same quality as statistical data
- Water price heavily regulated by jurisdictions
- Conceptual difference between Financial accounting (AASBs) and National Accounts (SNA).

Implementing SEEA-W tables – Further research

Heavily regulated water pricing scheme

• Pricing Principles

- Water suppliers only allowed to recover current cost of running the business
- One component of determining the water price is based on the value of the assets
- The government wants water price as low as possible while recovering capital investment
- Higher asset values will drive up the water price; however, too low water price will fail to cover the maintenance cost for the long term

Thank you – Questions?

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