



# *Theory of Social Accounting*

## Part 4

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## *Introduction*

- *An Introduction to Social Accounting Matrices*
- *Structure of a SAM*
- *Macro-SAM and National Accounts Matrix*
- *The Production Boundary and Price System*
- *Interpreting the Information in a Social Accounting Matrix*
- **Inter-Industry Tables and SAMs**
  - Inter-Industry Tables
  - Input-Output and Supply and Use Tables
- **Satellite accounts**

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*Inter-Industry Tables and SAMs*



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*Inter-Industry Tables*

- Data (in SNA) are collected as SUT
  - Consistent definitions
- SUT
  - Supply table
    - Valued at Basic prices
    - Components of Purchaser prices
  - Use Table
    - Valued at Purchaser prices
- IOT
  - IOT are derived tables from SUT
  - IOT
    - Basic prices



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*Supply and Use Tables*



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*Supply Table*

		1
		<b>Commodities</b>
1	<b>Margins</b>	Marketing Margins
2	<b>Activities</b>	Production
6	<b>Government</b>	Commodity Taxes
8	<b>Rest of World</b>	Imports of Goods & Services
9	<b>Totals</b>	Commodity Supply

Often presented as the transpose of this presentation



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## Use Table

			2	4	6	7	8	9
		Margins	Activities	Households	Government	Capital	Rest of World	Account Total
1	Commodities	Marketing Margins	Intermediate Inputs	Household Consumption	Government Expenditure	Investment Expenditure	Exports of Goods & Services	Commodity Demand
3	Factors		Remuneration of Factors					
6	Government		Production Taxes					
9	Totals		Cost of Production					

  
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## Input-Output Tables

  
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## *Deriving IOTs*

- Steps to follow for an IOT at *basic* prices
  - Decompose the (Combined) Use table at purchaser prices
    - one matrix for each commodity tax instrument and
    - one matrix for each trade and transport margin.
    - Subtracting these matrices produces a 'Use' matrix valued in *basic* prices.
  - Define the dimensions of the IOT
    - commodity by commodity IOT
    - activity by activity IOT.
  - Define the technologies used to produce secondary products
    - commodity technology assumption (CTA)
    - industry technology assumption (ITA)
    - hybrid technology assumption
    - ....
  - Linear transformation of the derived matrices

  
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## *IOT and CGE*

### *Price driven models and the derivation of prices*

- Tax Instruments
  - commodity specific tax rates
  - each tax instrument should be separately identified
  - GST may be applied *ad valorem*
  - Excise tax may be applied on the quantity
- Margin Instruments
  - commodity specific margins
  - each margin instrument should be separately identified.

  
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*Satellite accounts*



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*Satellite Accounts*

- matrices of data (often quantities) linked, by theory, in a meaningful way to sub matrices of TVs in a SAM
  - People:
    - demographics
    - factor quantities
    - health
    - education
  - Environment:
    - water
    - emissions
    - land use
  - Other:
    - tourism
    - nutritional content of foods
    - unpaid household activities



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## Satellite accounts

			Agriculture	Manufacturing	Energy	Urban	Rural
1	Commodities		Margins	Intermediate Inputs	0	Household Consumption	
2	Activities		Production	0	0	0	
3	Factors	Skilled labour	0	Wages	0	0	
		Unskilled Labour	0	Wages	0	0	
		Capital	0	Profit'	0	0	
		Land	0	Rent	0	0	
4	Households	Urban	0	0	Inter Household Transfers		
		Rural		0	Inter Household Transfers		
	Enterprises		0	0			
	Government		Commodity Taxes	Production Taxes	Income Tax & payments to Govt		
5	Savings		0	0	Household Savings		
6	Rest of World		Imports G& S	0	Remittances to RoW		
<b>Totals</b>				Cost of Production		Household Expenditure	

Agriculture	Manufacturing	Energy
<b>Factor Quantities</b>		
Skilled labour		
Unskilled Labour		
Capital		
Land		
<b>Emmissions</b>		
CO2		
NO2		
<b>Energy Use</b>		
Coal		
Oil & Gas		

Urban	Rural
<b>Population</b>	
Adults	
Children	
Adult equivalents	
Dependent adults	
Age profile	
<b>Education</b>	
None	
Primary	
Secondary	
Tertiary	

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## Theory of Social Accounting Part 4

The End

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