



# Input-Output Analysis

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## Session 1.3

# Basic Data for Input-Output Models

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## Business establishment production account

- Here is the typical account

Debit	Credit
Purchases from	Sales to
Industry 1	Industry 1
Industry 2	Industry 2
Wages and salaries paid	Sales to households
Profits	Government purchases
Other value added	Other final demand
<b>Total expenses &amp; profits</b>	<b>Total revenues</b>

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## Example

3 businesses : 1, 2, 3

Producing 2 commodities :

- Fabricated metals
- Steel

Value added components:

- Wages & salaries
- Profits
- Other value added

Final demand components:

- Sales to households
- Gov't purchases
- Other final demand

Debit		Credit	
Purchases from		Sales to	
Fabricated metal	0.5	Industry 1	0.5
Steel	0.5	Industry 2	0.5
Wages & salaries	1.0	Sales to households	2.0
Profits	1.0	Government purchases	1.0
Other value added	1.0	Other final demand	0
<b>Total expenses &amp; profits</b>	<b>4.0</b>	<b>Total revenues</b>	<b>4.0</b>

Debit		Credit	
Purchases from		Sales to	
Fabricated metal	0.5	Industry 1	0.5
Steel	2.0	Industry 2	1.5
Wages & salaries	2.0	Sales to households	2.0
Profits	1.0	Government purchases	1.0
Other value added	0.5	Other final demand	1.0
<b>Total expenses &amp; profits</b>	<b>6.0</b>	<b>Total revenues</b>	<b>6.0</b>

Debit		Credit	
Purchases from		Sales to	
Fabricated metal	2.0	Industry 1	3.0
Steel	4.0	Industry 2	4.0
Wages & salaries	2.0	Sales to households	0
Profits	1.0	Government purchases	2.0
Other value added	1.0	Other final demand	1.0
<b>Total expenses &amp; profits</b>	<b>10.0</b>	<b>Total revenues</b>	<b>10.0</b>

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## Input-output account

Need assumption of business' primary product

1 & 2

Fabricated Metal Products			
Debit		Credit	
Purchases from		Sales to	
Fabricated metal	1.0	Industry 1	1.0
Steel	3.0	Industry 2	2.0
Wages & salaries	3.0	Sales to households	4.0
Profits	2.0	Government purchases	2.0
Other value added	1.0	Other final demand	1.0
<b>Total expenses &amp; profits</b>	<b>10.0</b>	<b>Total revenues</b>	<b>10.0</b>

3

Steel Products			
Debit		Credit	
Purchases from		Sales to	
Fabricated metal	0.5	Industry 1	0.5
Steel	2.0	Industry 2	1.5
Wages & salaries	2.0	Sales to households	2.0
Profits	1.0	Government purchases	1.0
Other value added	0.5	Other final demand	1.0
<b>Total expenses &amp; profits</b>	<b>6.0</b>	<b>Total revenues</b>	<b>6.0</b>

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## Input-output transaction matrix

Industry	Intermediate Transactions		Final Demand			Total Sales
	Fab Metal	Steel	H'hold	Gov't	Other	
Fabricated Metal	1.0	2.0	4.0	2.0	1.0	10.0
Steel	3.0	4.0	0.0	2.0	1.0	10.0
Wages and salaries	3.0	2.0				
Profits	2.0	1.0				
Other	1.0	1.0				
<b>Total Expenses &amp; Profits</b>	<b>10.0</b>	<b>10.0</b>				<b>20.0</b>

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## Discussions

- There are 3 important issues from the above analysis
- Primary vs. secondary products  
We will handle this secondary product problem in another session
- How to record transactions  
Producer's vs. consumer's prices?  
How to record imports?

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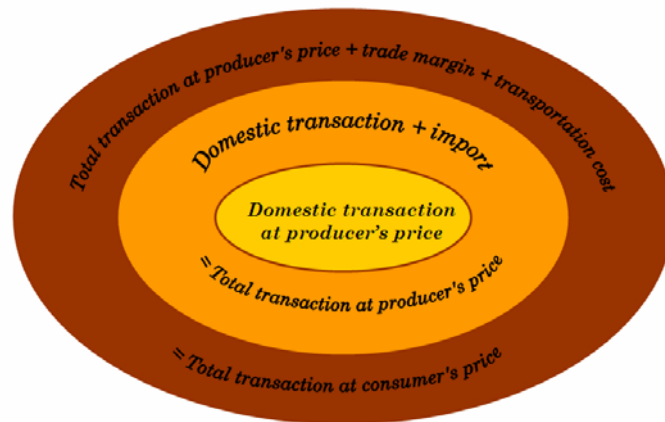
## Treating imports

- Imports can be used as inputs of production  
→ recorded as part of price or separately?
- Imports as consumptions  
→ in the final demand structure

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## How to record transactions?

- Three types of transaction matrix



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## Example

- Examples are taken from Indonesian input-output tables

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