



# ***International Comparison of Manufacturing Performance*** ***- A Supplemental Analysis for Setting Ethiopia's Light Manufacturing Targets -***

***5<sup>th</sup> High Level Forum for the Phase II of Policy Dialogue of Industrial Development in Ethiopia***



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# What is light manufacturing?

## ■ General perception: these are definitely light manufacturing

- ✓ Garment and footwear
- ✓ Food
- ✓ Wood products and furniture



## ■ What about these? Light manufacturing or not?

- ✓ Textile? (often mixed with garment)
- ✓ Large scale process-oriented automated beverage?
- ✓ Agro-Processing? Food included? Edible oil? Bio fuel?
- ✓ Packaging? If it is made of paper, agro, plastic?
- ✓ Metalworking garage? (sometimes with wood)
- ✓ Paper: Pulp & paper? Paper packaging? Paper Craft?
- ✓ Non metal minerals? Jewellery?

# What is light manufacturing?

## ■ Various ideas; no concrete definition

Generally shared key features are:

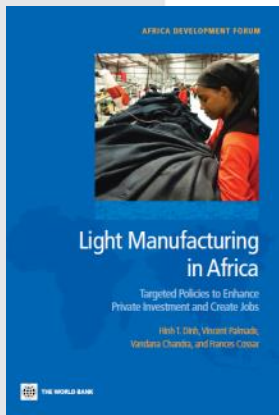
- ✓ Labour intensive
- ✓ Consumer product manufacturing
- ✓ Less capital intensive
- ✓ Less difficult to enter

But these features may not be clearly depicted if it is defined by sub-sector, for example:

- ✓ Food processing industry includes
  - Fish processing  $\leftrightarrow$  Automated large-scale milling
- ✓ Some other examples shown in the previous slide

# Various definitions of light manufacturing

- [Light Manufacturing in Africa \(The World Bank, 2012\)](#)
  - Covers 5 light manufacturing industries
    - = Basic, simple and labour intensive industries
    - 1. Agribusiness
    - 2. Leather goods
    - 3. Wood processing and wood products
    - 4. Simple metal products
    - 5. Apparel
  - Good sense of coverage but difficult to obtain data from statistics (WB report is based on extensive surveys)



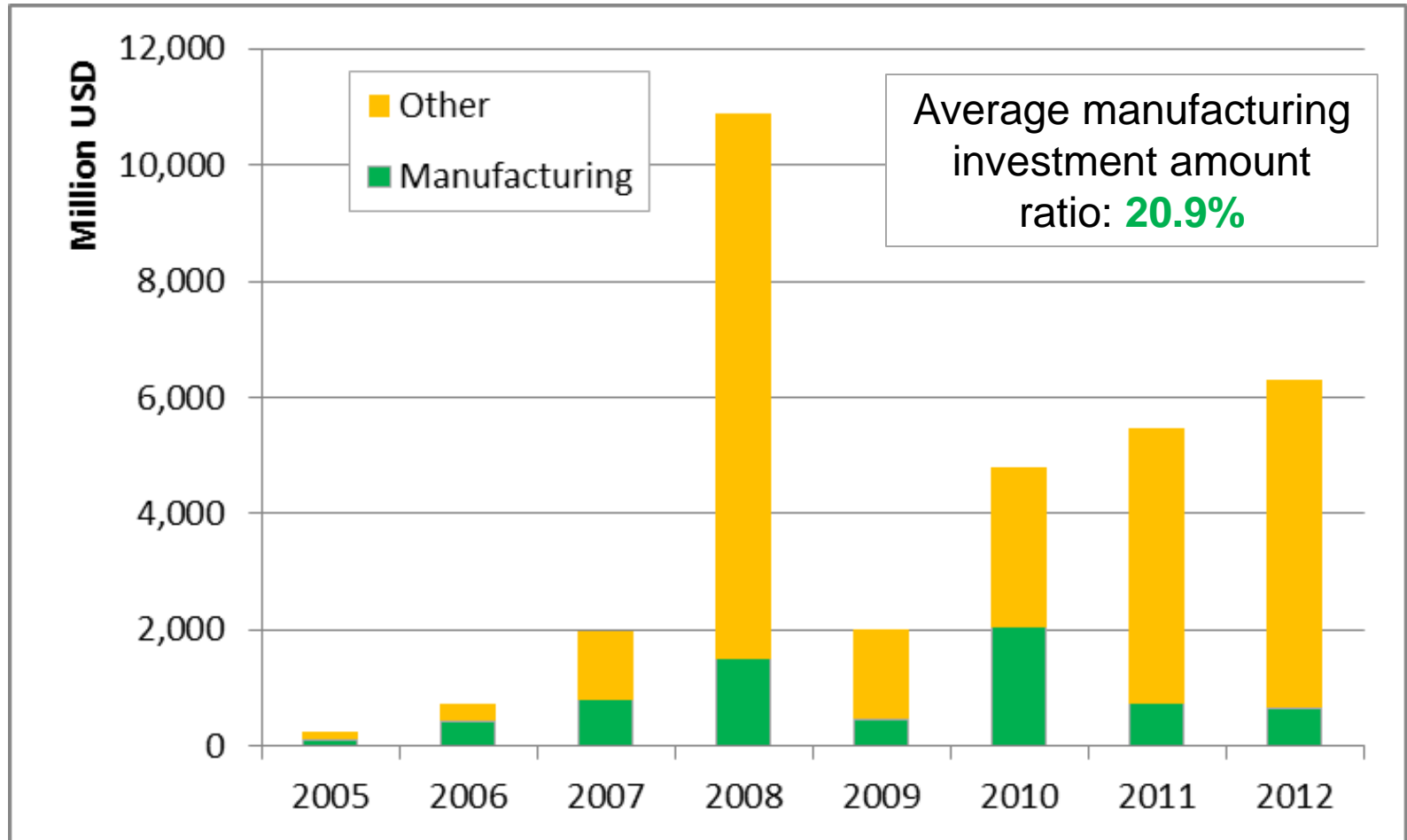
# Availability of light manufacturing FDI data

- Generally difficult to obtain abovementioned data
  - ✓ Difficult especially in Africa
  - ✓ Aggregated data of secondary industry is available
  - ✓ But sub-sector data is hard to find as public data
  - ✓ Sometimes available by asking IPAs in each country but it is not sustainable
- No common classification at the sub-sector level
  - ✓ So no common aggregating way as light manufacturing
- But capturing LM data is still meaningful
- This study tries some countries' data analysis
  - ✓ Zambia
  - ✓ Ghana
  - ✓ Cambodia
  - ✓ LDC aggregated data

# Zambia: FDI Inflow

## Manufacturing investment amount

Smaller dominance than the case of Ethiopia

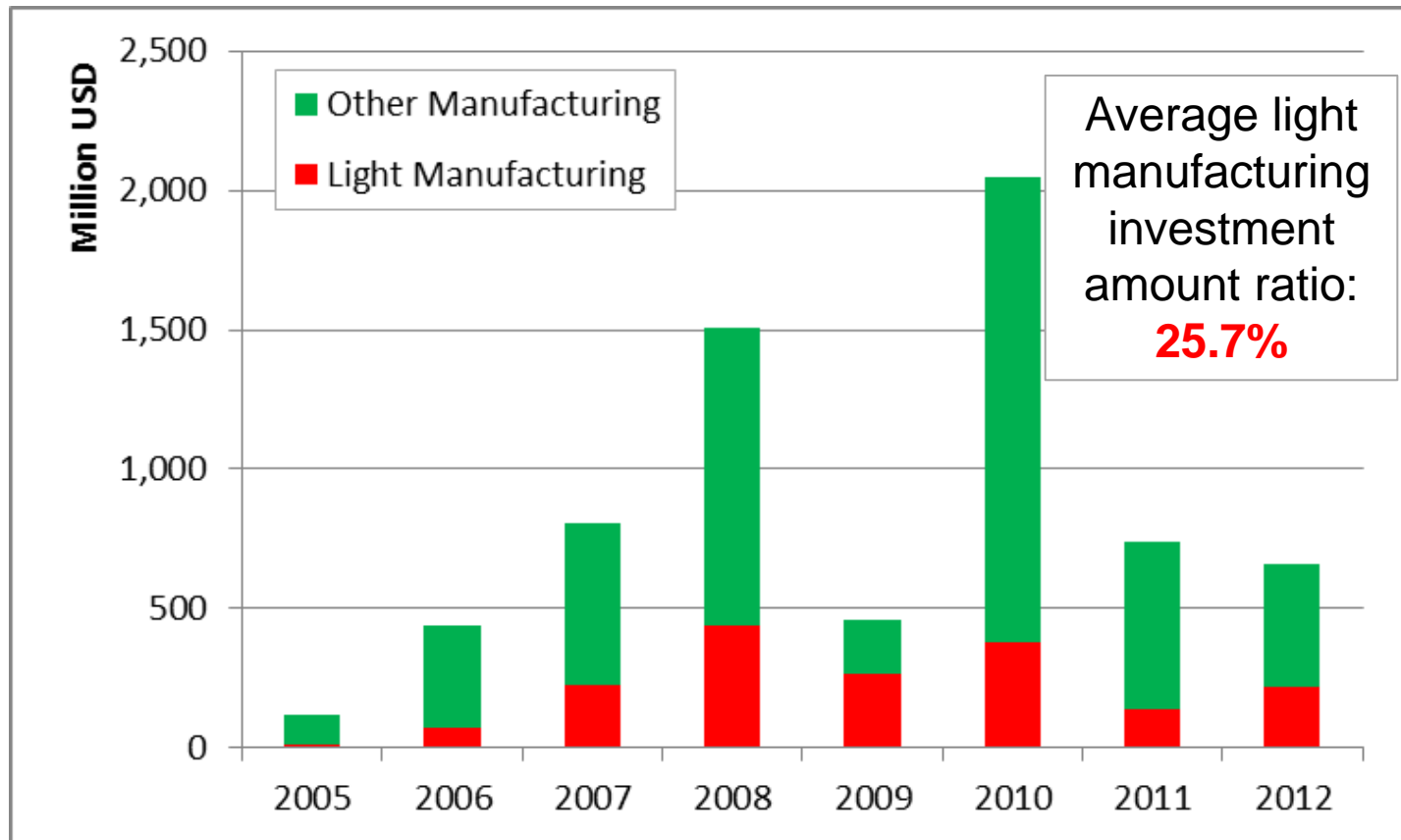


Source: calculated by author from Zambia Development Agency data on individual pledged investment projects

Note: Data in this slide is confidential.

# Zambia: FDI Inflow

**Light manufacturing investment amount**  
 Relatively larger ratio to all manufacturing than Ethiopia



Source: calculated by author from Zambia Development Agency data on individual pledged investment projects

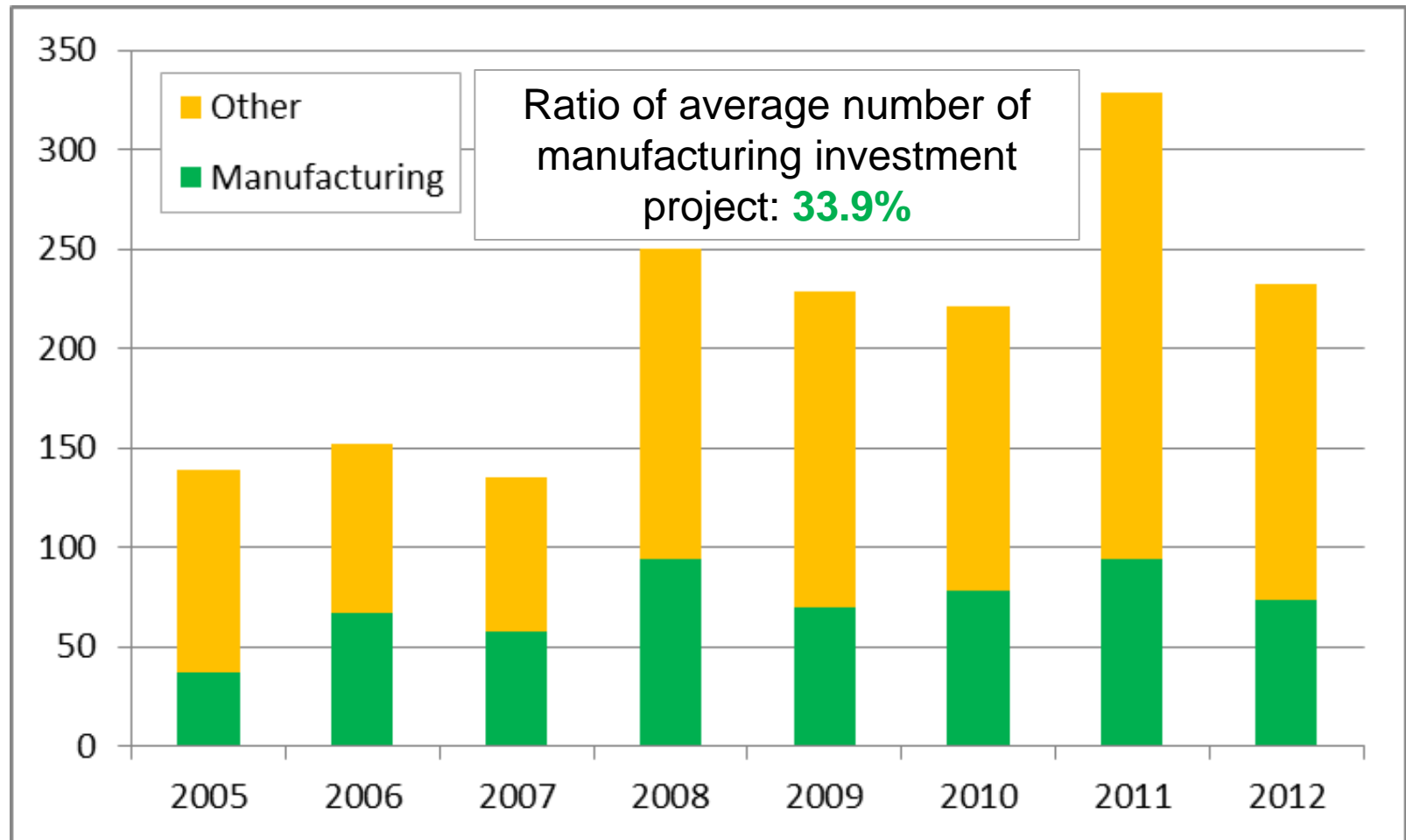
Note: Light manufacturing is defined as products of food, textile, leather, wood, furniture & jewellery. Classification of each investment is by the author in this analysis.

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# Zambia: FDI Inflow

Number of manufacturing investment project  
LM is more visible than comparing investment amount

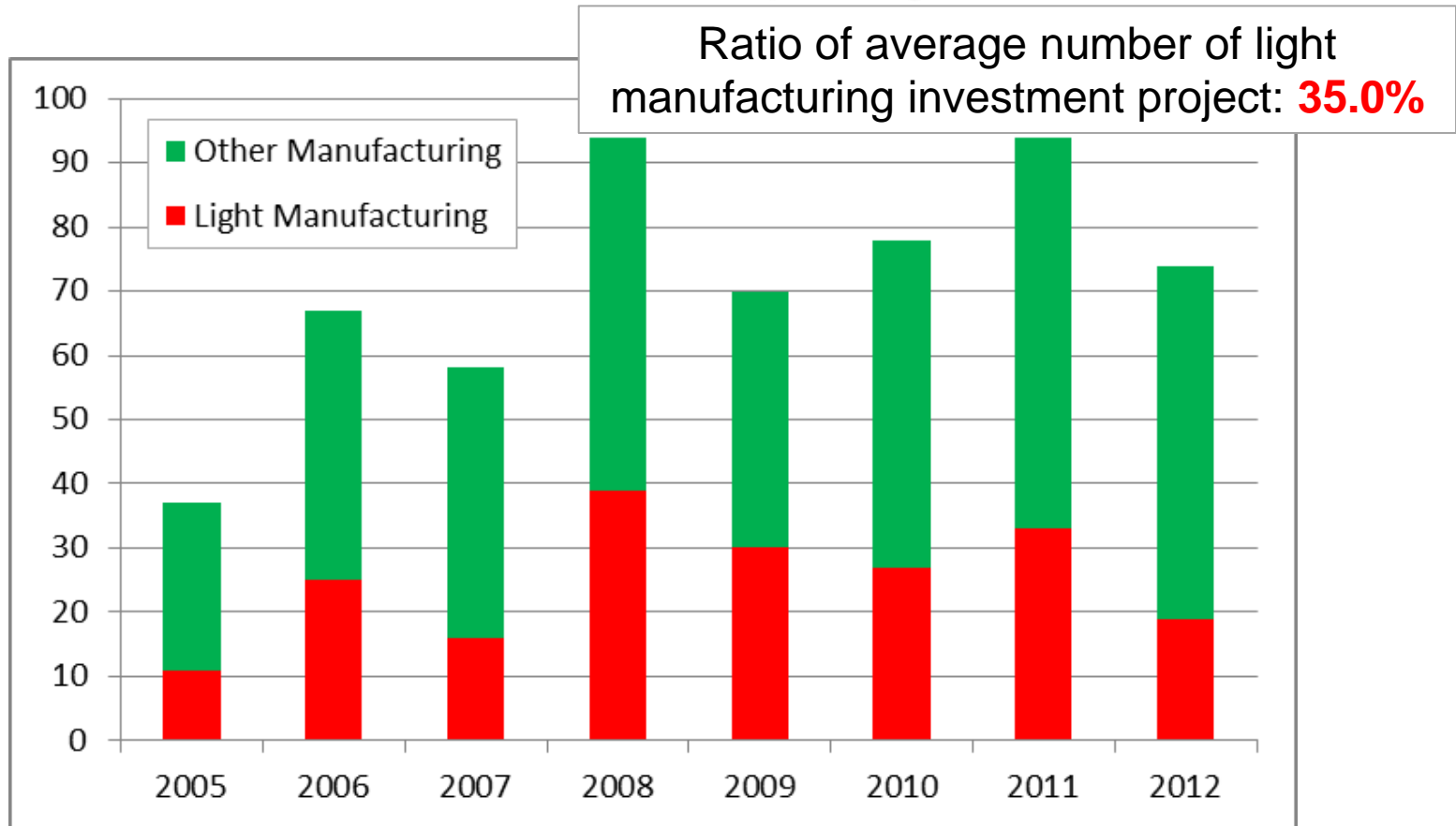


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# Zambia: FDI Inflow

Number of light manufacturing investment project  
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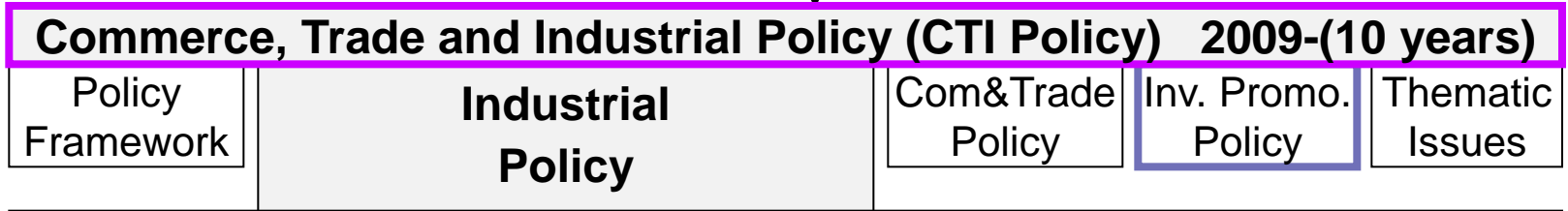
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# Zambia's industrial priority sector and vision

## 4 out of 6 are light manufacturing industries



**Vision: to develop a competitive, export-led manufacturing sector that contributes 20% of GDP by 2015**

6 out of 4 priority sectors = Light manufacturing

- Priority Sectors**
1. **Processed Foods** (60% of manufacturing GDP)
  2. **Textiles and Garments** (15% of manu.GDP)
  3. Engineering Products (14% of Non Trad. Exp)
  4. Gemstones (10% of NTE\*)
  5. **Leather and Leather Products** (3% of NTE)
  6. **Wood and Wood Products** (8% of manu.GDP)

MSMEs  
SME Dev Policy

Rural Industrialization (incl. OVOP)

**Industrial Strategy**  
*To be prepared as a vehicle to implement Industrial Policy*

(Source) Elaborated by Homma T. based on various documents and papers issued by the Government of Zambia, the Ministry of Commerce, Trade and Industry of Zambia and Zambia Development Agency Japan International Cooperation Agency  
 Note\*: NTE – Non Traditional Export



# Lessons/learning from Zambia

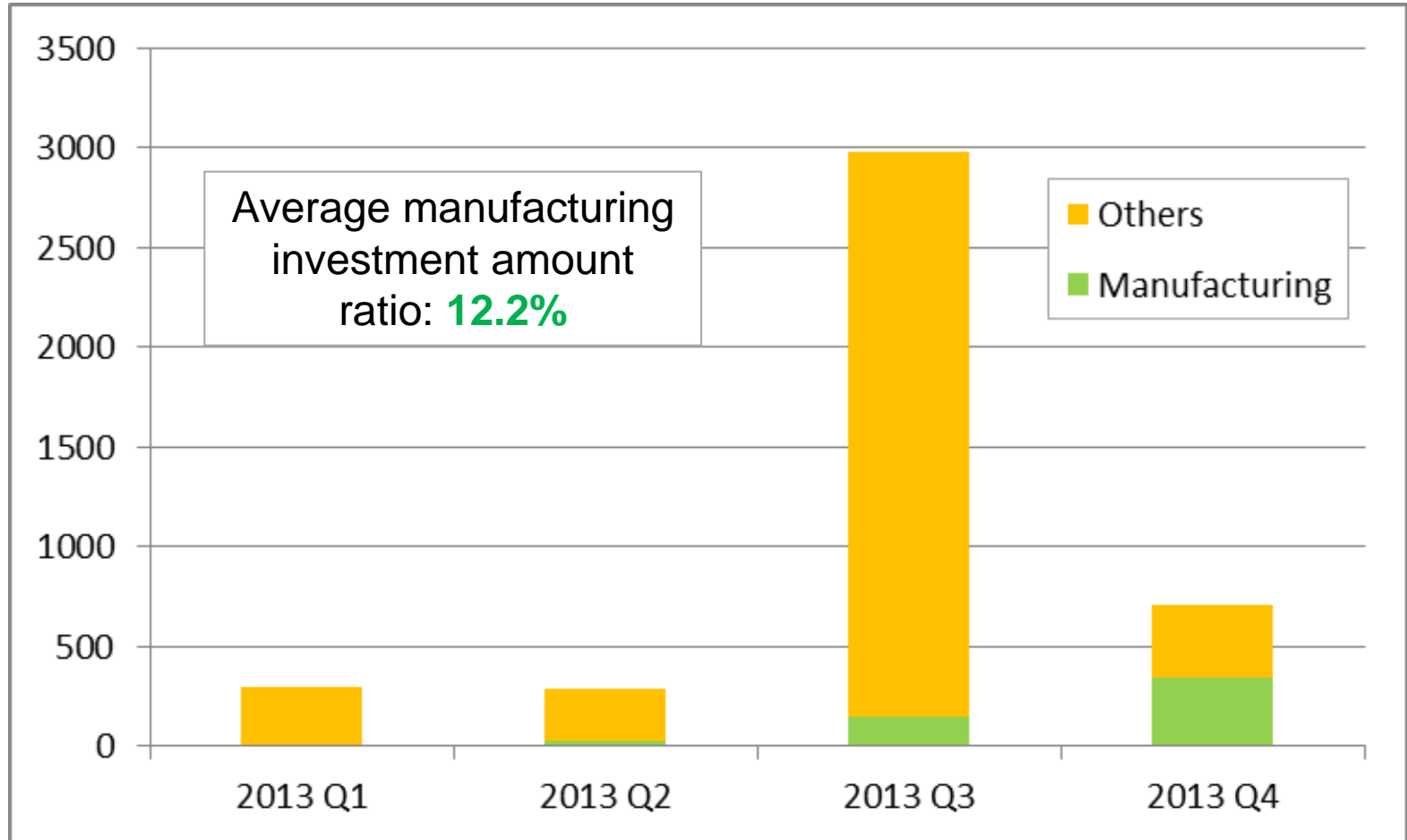
- Diversification of industrial structure is the core thinking
  - ✓ Exit from monoculture and over-dependency on minerals
  - ✓ National Dev. Plan focuses upstream / downstream manufacturing activities based on mining & agro-industry
  - ✓ 6 priority industries identified in its industrial policy
- LM is not necessarily focused but naturally prioritized
  - ✓ 4 out of 6 priority industries are light manufacturing
- FDI data shows...
  - ✓ FDI for manufacturing and LM is steadily grown but their shares are not necessarily expanding
  - ✓ Number of FDI project tells more than FDI amount
- Difficulty to obtain comparable FDI data
  - ✓ Needs extensive work for reliable analysis for distinguishing light manufacturing industries

# Ghana: FDI Inflow

## Manufacturing investment amount

Quarterly sectoral data is available and regularly updated

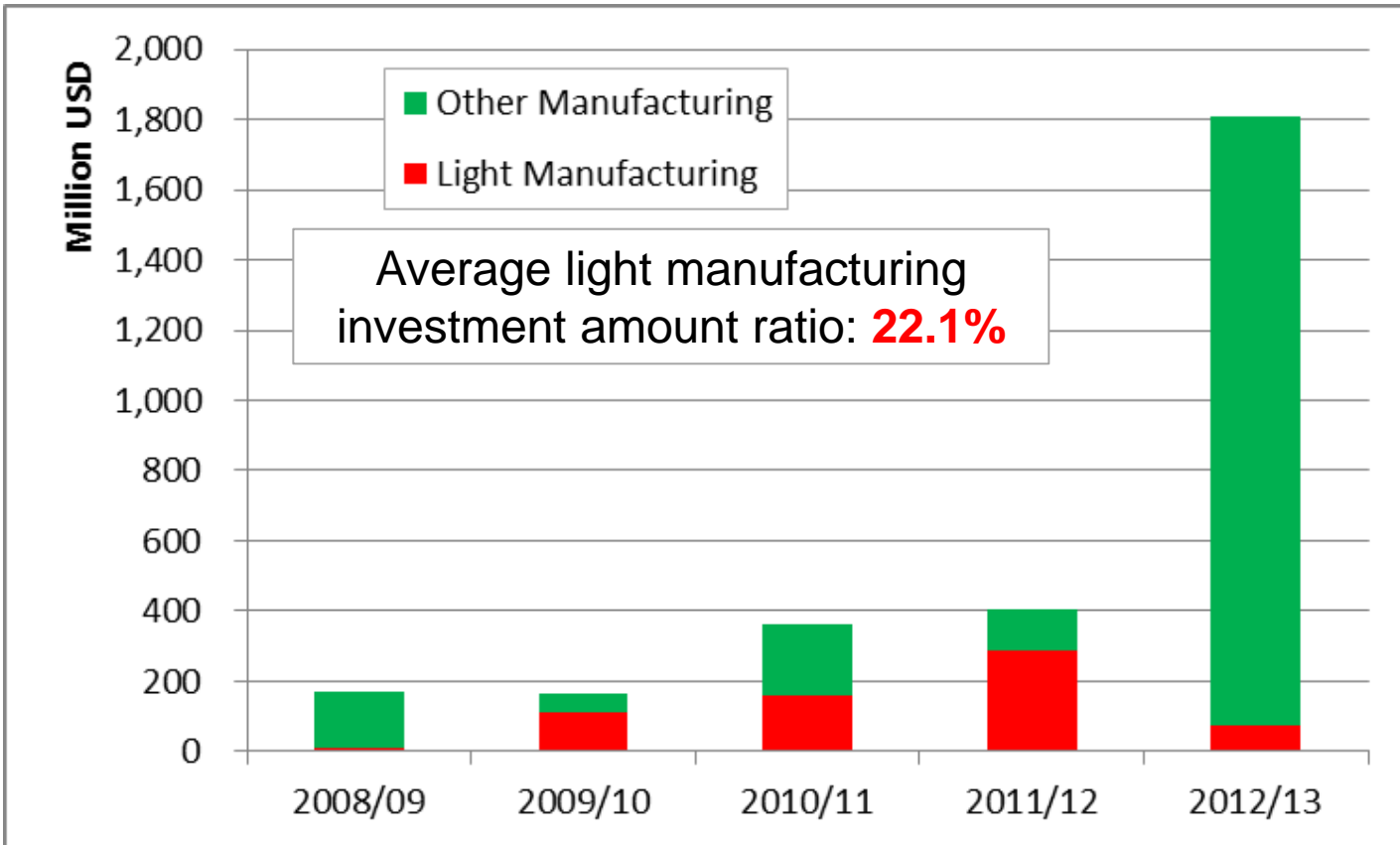
Million USD



Source: Quarterly Update by Ghana Investment Promotion Centre (GIPC) available from its website

# Ghana: FDI Inflow

Light manufacturing investment amount  
Similar ratio to all manufacturing with that of Ethiopia



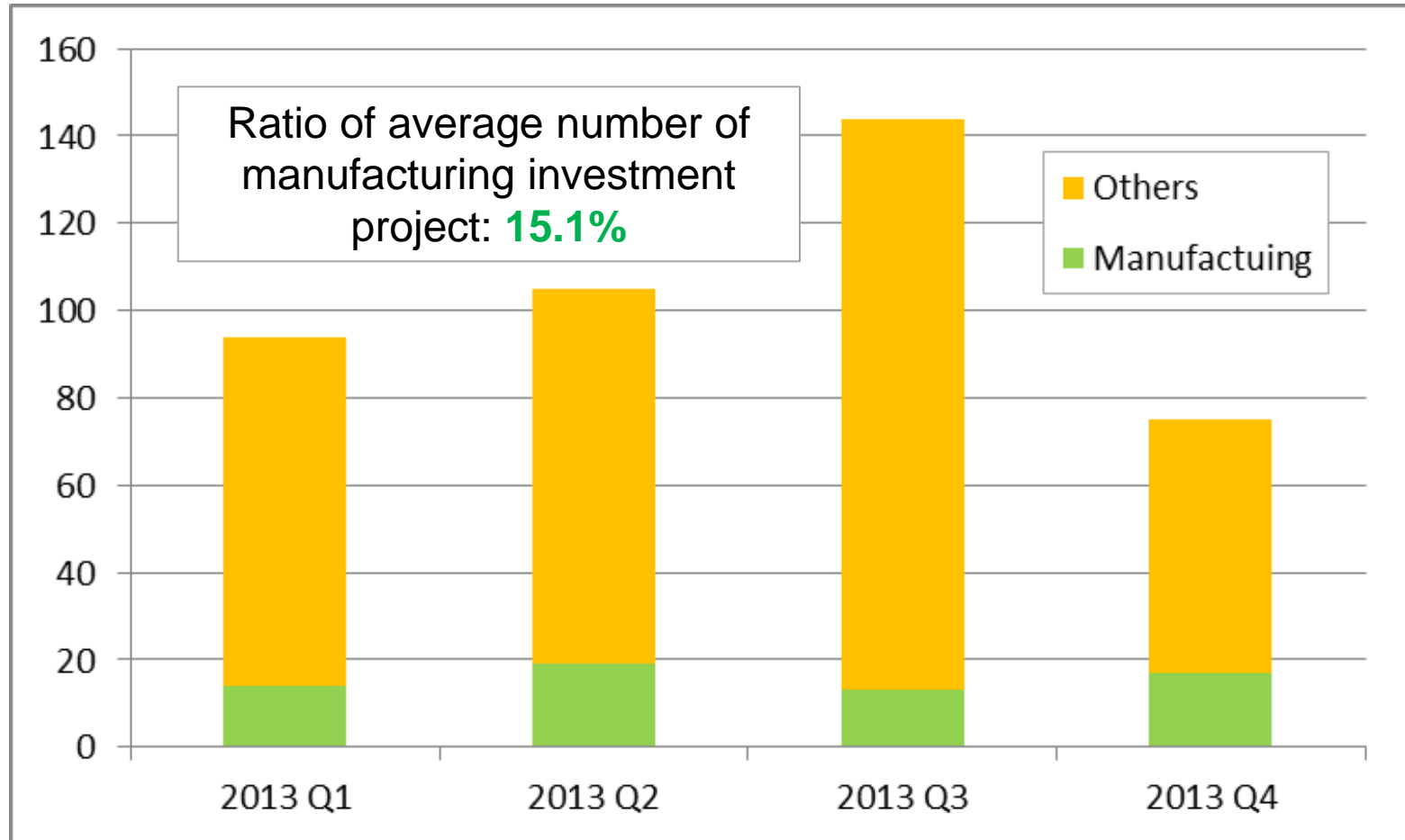
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Note: Light manufacturing is defined as products of food, textile, leather, wood, furniture & jewellery. Classification of each investment is by the author in this analysis.

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# Ghana: FDI Inflow

Number of manufacturing investment project  
 More diversified to other than manufacturing industries

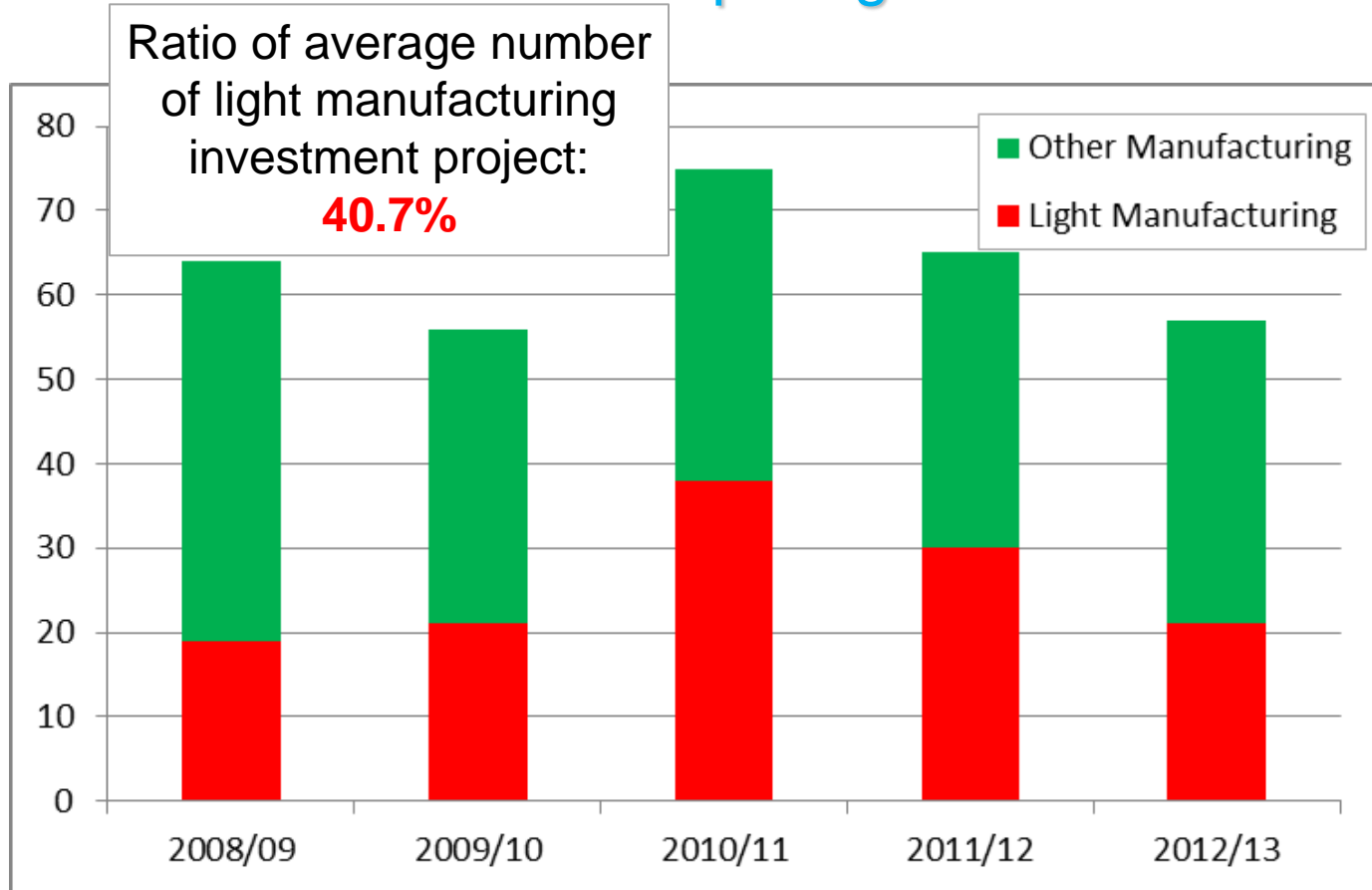


Source: Quarterly Update by Ghana Investment Promotion Centre (GIPC) available from its website

# Ghana: FDI Inflow

## Number of light manufacturing investment project

More visible than comparing investment amount



Source: calculated by author from Ghana Investment Promotion Centre data on individual pledged investment projects

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# Lessons/learning from Ghana

## ■ Diversification and transformation

- ✓ Ghana Shared Growth & Development Agenda(GSGDA): manufacturing growth should contribute to transformation
- ✓ Diversification is going on towards various industries including manufacturing, construction and services
- ✓ Light manufacturing is not necessarily focused

## ■ Data availability and customer-oriented investment services

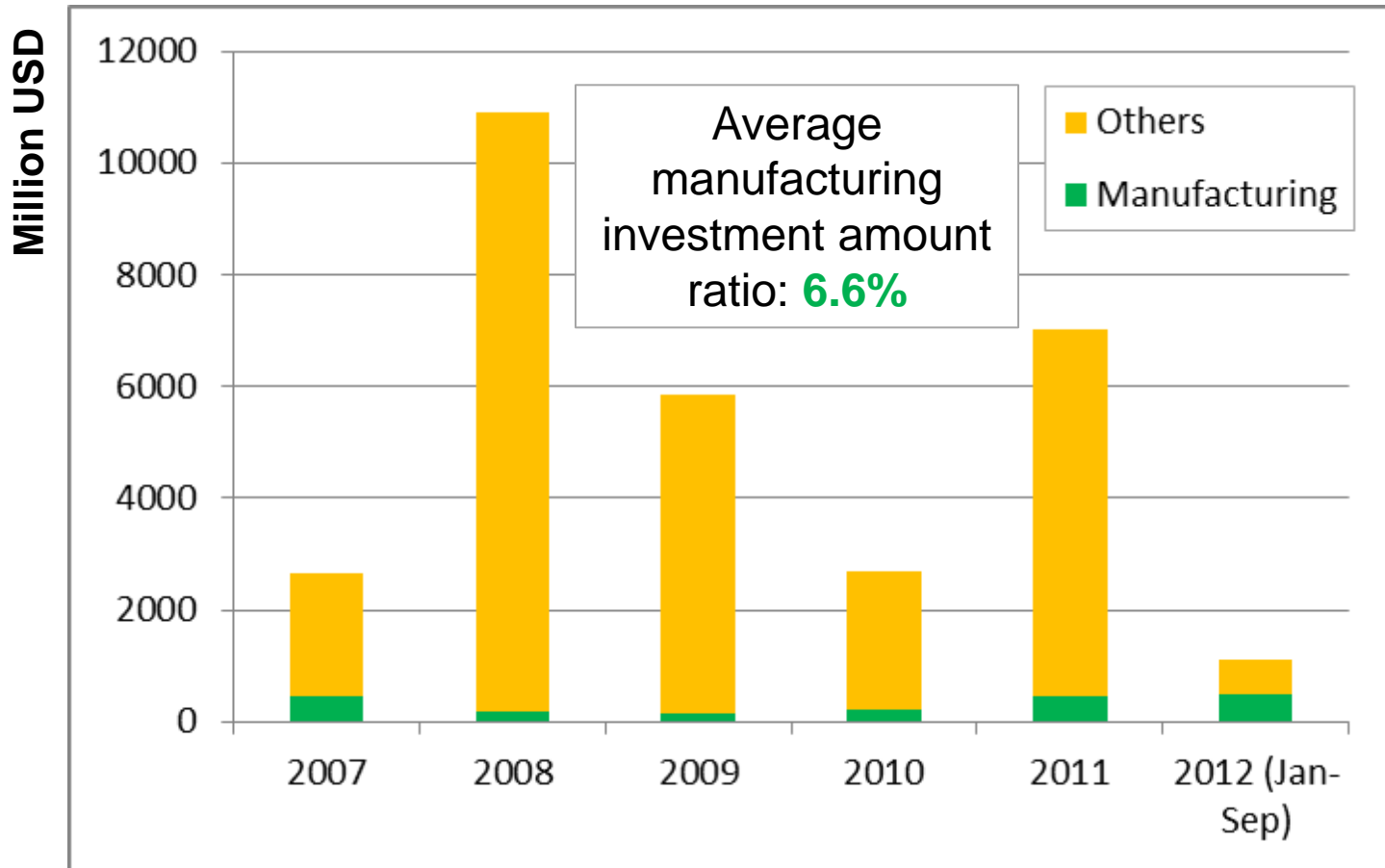
- ✓ Quarterly investment data with sectoral performance are promptly updated on website
- ✓ This kind of customer-oriented attitude creates perception of one of the most reform-oriented African countries, as often referred to by Doing Business reports
- ✓ However, light manufacturing data is difficult to capture unless using individual investment project data



# Cambodia: FDI Inflow

## Manufacturing investment amount

Far smaller dominance than the case of Ethiopia



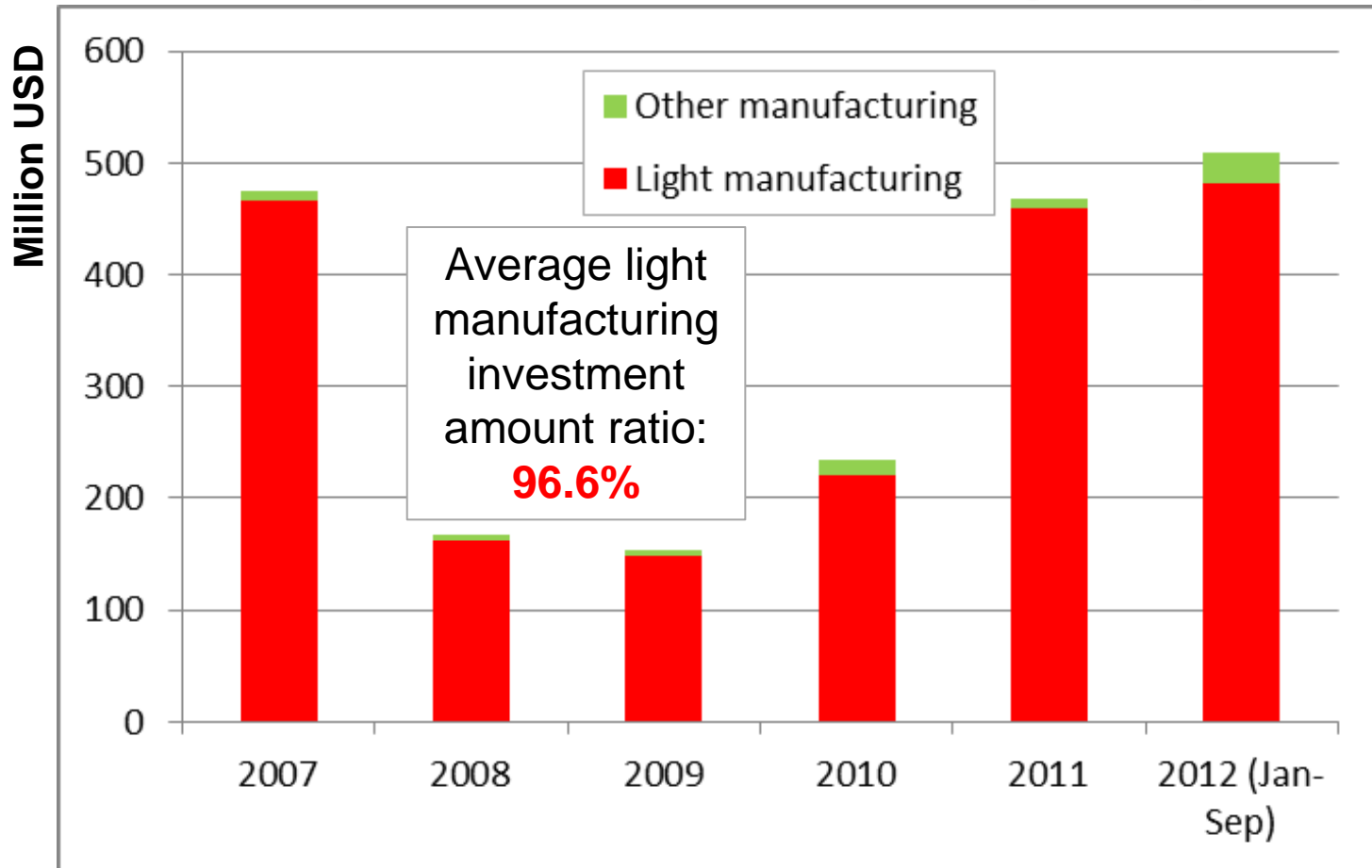
Source: Calculated by author from the data on approved Qualified Investment Project (QIP) by Cambodia Investment Board (CIB) - Council for the Development of Cambodia (CDC)

Note: Manufacturing is defined as the sector classified under "industries" except for energy, mining and others. Light manufacturing is defined as the sub-sector of food, garment, shoes and wood.



# Cambodia: FDI Inflow

**Light manufacturing investment amount**  
 Almost all the amount of manufacturing FDI goes to LM



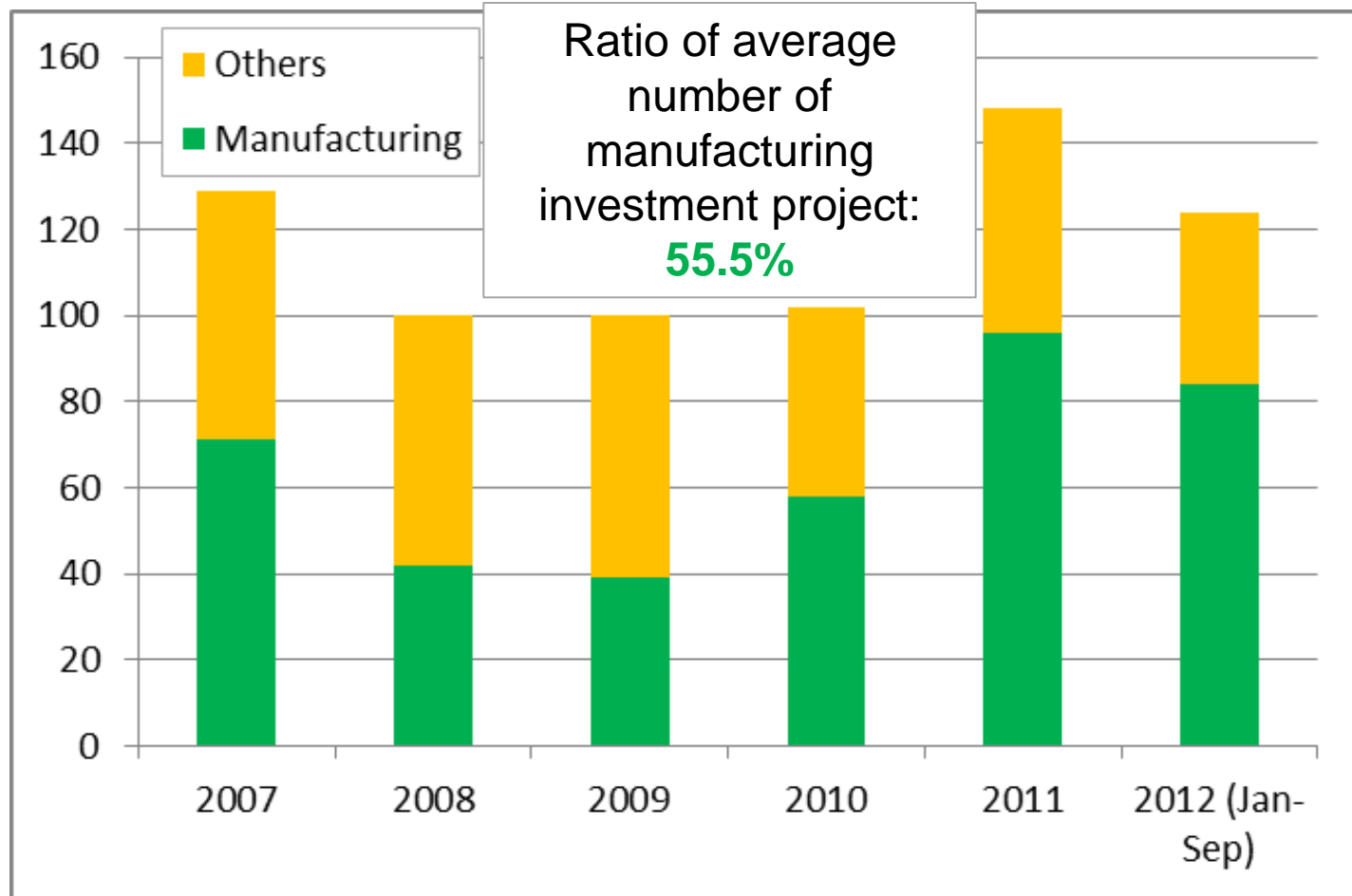
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# Cambodia: FDI Inflow

## Number of manufacturing investment project

Manufacturing is majority; very different with amount comparison



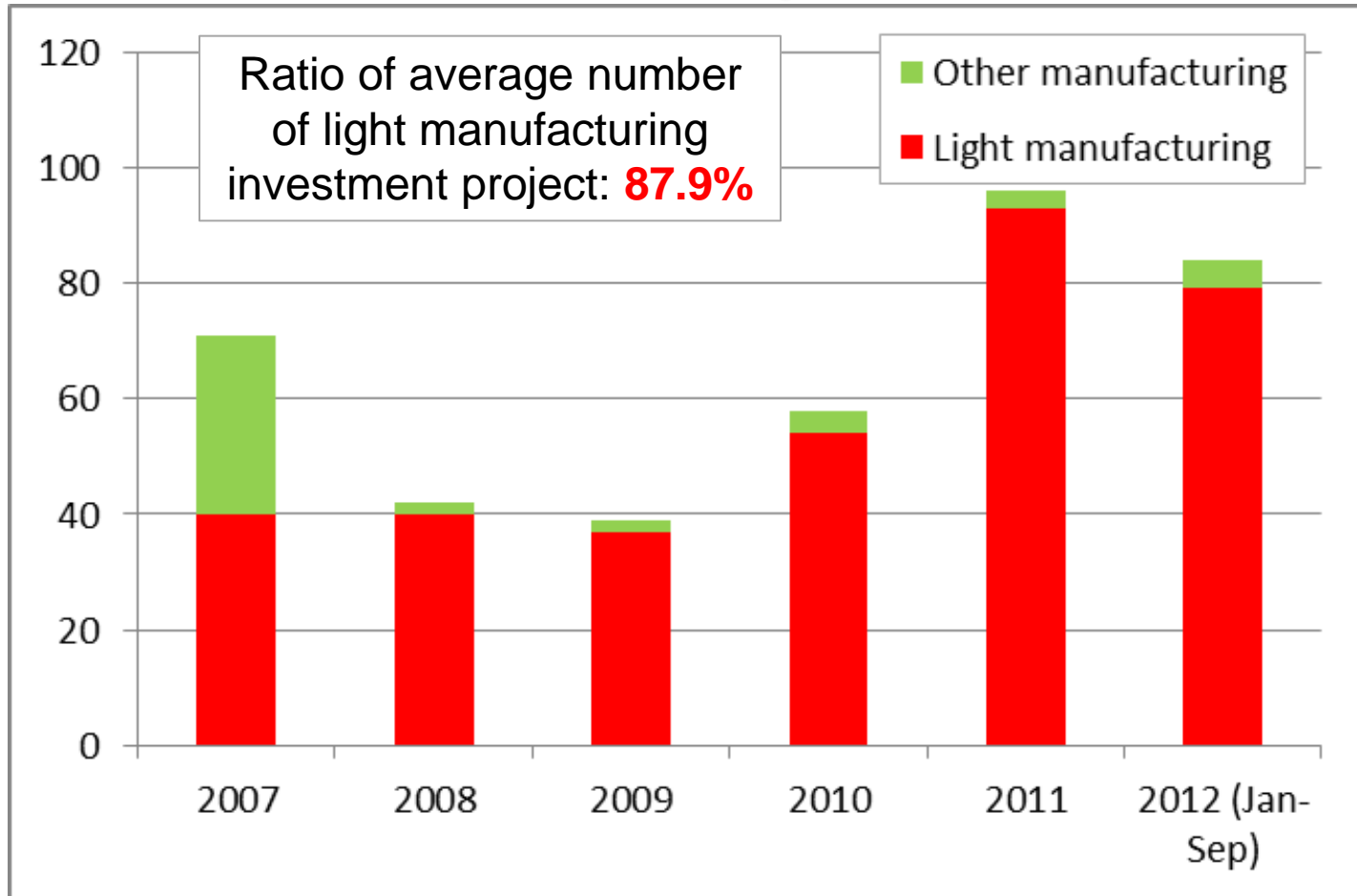
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Note: Manufacturing is defined as the sector classified under "industries" except for energy, mining and others. Light manufacturing is defined as the sub-sector of food, garment, shoes and wood.



# Cambodia: FDI Inflow

## Number of light manufacturing investment project Most of manufacturing FDI flow into LM



Source: Calculated by author from the data on approved Qualified Investment Project (QIP) by Cambodia Investment Board (CIB) - Council for the Development of Cambodia (CDC)

Note: Manufacturing is defined as the sector classified under "industries" except for energy, mining and others. Light manufacturing is defined as the sub-sector of food, garment, shoes and wood.



# Lessons/learning from Cambodia

- High concentration on light manufacturing esp. garment
  - ✓ Labour-intensive, Low labour cost (USD 80 but high pressure on raising)
  - ✓ Typical feature: “CMT (Cut-Make-Trim)” garment/footwear
- Becoming a part of global supply chain (GSC)
  - ✓ “Thailand+1 approach”: horizontal division of labour at manufacturing process level
- Quality investment
  - ✓ Foot-rooting, employment creation, responsible inv.
  - ✓ Japanese investment is welcomed as Quality Investment
- Investment climate
  - ✓ Open investment policy, high focus on SEZs
- Data availability
  - ✓ Relatively available and open to public

# Industry breakdown of greenfield FDI projects in LDCs, cumulative 2003–2010

Sector/industry	Value (\$ million)	Share in total (%)	Number	Share in total (%)
<b>Total sectors</b>	<b>263,416</b>	<b>100.0</b>	<b>1,472</b>	<b>100.0</b>
<b>Primary</b>	<b>144,545</b>	<b>54.9</b>	<b>232</b>	<b>15.8</b>
Minerals	2,982	1.1	39	2.6
Coal, oil and natural gas	132,660	50.4	157	10.7
Alternative/renewable energy	8,903	3.4	36	2.4
<b>Manufacturing</b>	<b>74,415</b>	<b>28.3</b>	<b>583</b>	<b>39.6</b>
Food, beverages and tobacco	5,328	2.0	137	9.3
Textiles	1,180	0.4	36	2.4
Wood and wood products	3,006	1.1	14	1.0
Chemicals and chemical products	4,304	1.6	34	2.3
Rubber and plastic products	801	0.3	19	1.3
Non-metallic minerals	4,734	1.8	43	2.9
Metals	51,189	19.4	179	12.2
Machinery and equipment	503	0.2	25	1.7
Electrical and electronic equipment	331	0.1	19	1.3
Medical devices	24	0.0	2	0.1
Motor vehicles and other transport equipment	2,674	1.0	60	4.1
Consumer products	342	0.1	15	1.0
<b>Services</b>	<b>44,455</b>	<b>16.9</b>	<b>657</b>	<b>44.6</b>
Hotels and tourism	5,191	2.0	49	3.3
Transport, storage and communications	19,151	7.3	162	11.0
Financial services	3,091	1.2	299	20.3
Business activities	16,709	6.3	129	8.8
Space and defence	30	0.0	2	0.1
Healthcare	231	0.1	14	1.0
Leisure and entertainment	52	0.0	2	0.1

Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets ([www.fDimarkets.com](http://www.fDimarkets.com))

Note: Data for value of greenfield FDI projects refer to estimated amounts of capital investment

# Industry breakdown of greenfield FDI projects in LDCs, cumulative 2003–2010

LDC average seems to be more manufacturing and LM oriented than Ethiopia in last decade

■ Selected data from the previous slide

Sector/industry	Value (\$ million)	Share (%)	Number	Share (%)
<b>Total sectors</b>	<b>263,416</b>	<b>100.0</b>	<b>1,472</b>	<b>100.0</b>
<b>Manufacturing</b>	<b>74,415</b>	<b>28.3</b>	<b>583</b>	<b>39.6</b>
Light manufacturing (Share in total)	9,514	3.6	187	12.7
Light manufacturing (Share in manufacturing)	9,514	12.8	187	32.1

Source: UNCTAD, based on information from the Financial Times Ltd, fDi Markets (www.fDimarkets.com)

Note: Data for value of greenfield FDI projects refer to estimated amounts of capital investment



(By the way, just for reference)

## Bangladesh's "light engineering" industry

### ■ What is "light engineering industry"?

- ✓ Key features are similar to LM: Labour-intensive, less capital etc.
- ✓ But it is essentially metal and engineering industry, which provides with smaller items
- ✓ Considered as "mother of all other sectors"

### ■ It is unique to Bangladesh

- ✓ Higher attention on light engineering
- ✓ It is more often heard than "light manufacturing" (although Bangladesh is considered as one of the world leading light manufacturing bases, especially garment)
- ✓ Private sector driven: Light Engineering Product Business Promotion Council (LEPBPC)

# Implications for Ethiopia (1)

- Need for consensus on what Ethiopia expects from light manufacturing → then, establish own definition of LM
  - ✓ Large scale FDI-based LM? and/or potential domestic LM industry base, involving MSEs?
  - ✓ Employment? Then the size of factory matters?
  - ✓ Ease of entry? Then the level of technology matters?
  - ✓ Effective use of available local resources?
  - ✓ Sub-sector oriented? Garment, footwear, leather ... ?
  - ✓ Diversified towards upstream and downstream?

# Implications for Ethiopia (2)

- Necessity for obtaining reliable LM FDI data
  - ✓ Difficulty on classification: for simplicity and comparability, it should be finally accumulated according to ISIC/SITC
  - ✓ Not only FDI amount but number of FDI project may work
- Learning from other countries' experience
  - ✓ Both Asia and other African countries
- Needs to be reflected in GTP2
  - ✓ Development of appropriate and manageable indicators
  - ✓ Consideration of policy options: investment incentives, support through Kaizen, CPA, hand holding etc.

# ***Amesegenalew***

## ***Thank you***



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