

Comments on “Towards Sustainable  
Industrialization and Inclusion”  
by Dr. Raul V. Fabella

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# The paper argues that

- Poverty reduction goes hand-in-hand with sustained growth and industrialization
- Sustained growth and industrialization hinge on quality growth
- Quality growth: Manufacturing (tradables) growth > Services (non-tradables) growth
- The Philippines exhibits *Development Progeria*

# The paper argues that

- ***Development Progeria*** is characterized by
  - Consumption-led growth
  - Non-traded goods (Services) sectors as engine of growth
  - Prone to real estate busts
  - Strong Peso bias
  - Dominance of portfolio foreign investment over FDIs
- **Results (until very recently):** slow growth, low investment rate, slow poverty reduction

# Manufacturing growth

- More inclusive
- More effective poverty-reducing alternative

The roadmaps revealed that a strong manufacturing industry will create more stable and decent jobs, encourage innovation, improve efficiency and quality, and enhance human resource development. Consistent with the goals of inclusive growth and guided by rigorous research and empirical data, the DTI-BOI formulated the Manufacturing Resurgence Program to restore and revitalize the manufacturing sector, which has been lagging behind its explosive services sector development. Specifically, its goal is to increase manufacturing's contribution to the economy to 30% of total value added (up from 22.8%) and generate 15% of the country's total employment by 2025 compared to the current 10% (DTI, 2016b).

*DTI Policy Brief No. 2017-01 (2017, p.2)*

# Manufacturing growth provides the best quality of employment

**Table 3b. Measures of quality of employment by sector, first-time workers only**

Sector	Median basic pay per day (PhP)*	Visible underemployment rate (%)	Workers in permanent status (%)
Agriculture	150	25.6	50.5
Manufacturing	351	2.9	52.8
Other industry	300	5.8	36.0
High-skill services	385	1.1	62.3
Other services	318	4.7	53.1
All sectors	300	7.8	51.4

*Source of raw data: October 2016 Labor Force Survey*

# Manufacturing is more accessible to less-skilled or less-educated workers.

**Table 3c. Distribution of workers by sector and by education (%), first time workers only**

Sector	HS UG	HS grad	Post-secondary undergrad	Post-secondary grad	College undergrad	College grad	Total	Total first-time workers
Agriculture	79.4	10.2	0.0	1.9	6.5	2.0	100.0	120,809
Manufacturing	22.2	43.0	1.5	6.7	10.5	16.1	100.0	82,183
Other Industry	56.1	25.8	0.0	2.5	8.8	6.8	100.0	73,388
High-skill services	2.2	4.6	0.4	8.4	5.5	78.9	100.0	30,045
Other Services	22.9	27.5	0.8	6.0	14.8	28.0	100.0	474,209
Average	33.9	25.4	0.7	5.2	12.2	22.7	100.0	780,634

*Source of raw data: October 2016 Labor Force Survey*

# Manufacturing is more accessible to workers from lower-income households.

**Table 4. Distribution of first-time workers (%) by sector and by household per capita income quintile**

Sector	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile	Total	Total first-time workers
Agriculture	54.1	23.3	15.2	6.7	0.7	100.0	123,919
Manufacturing	18.0	18.2	28.0	25.2	10.6	100.0	84,715
Other industry	26.0	24.5	26.7	17.1	5.8	100.0	73,238
High-skill services	6.3	7.7	10.5	25.0	50.5	100.0	48,837
Other services	14.3	21.5	21.9	21.0	21.3	100.0	527,442
Average	21.0	20.9	21.3	19.3	17.6	100.0	858,151

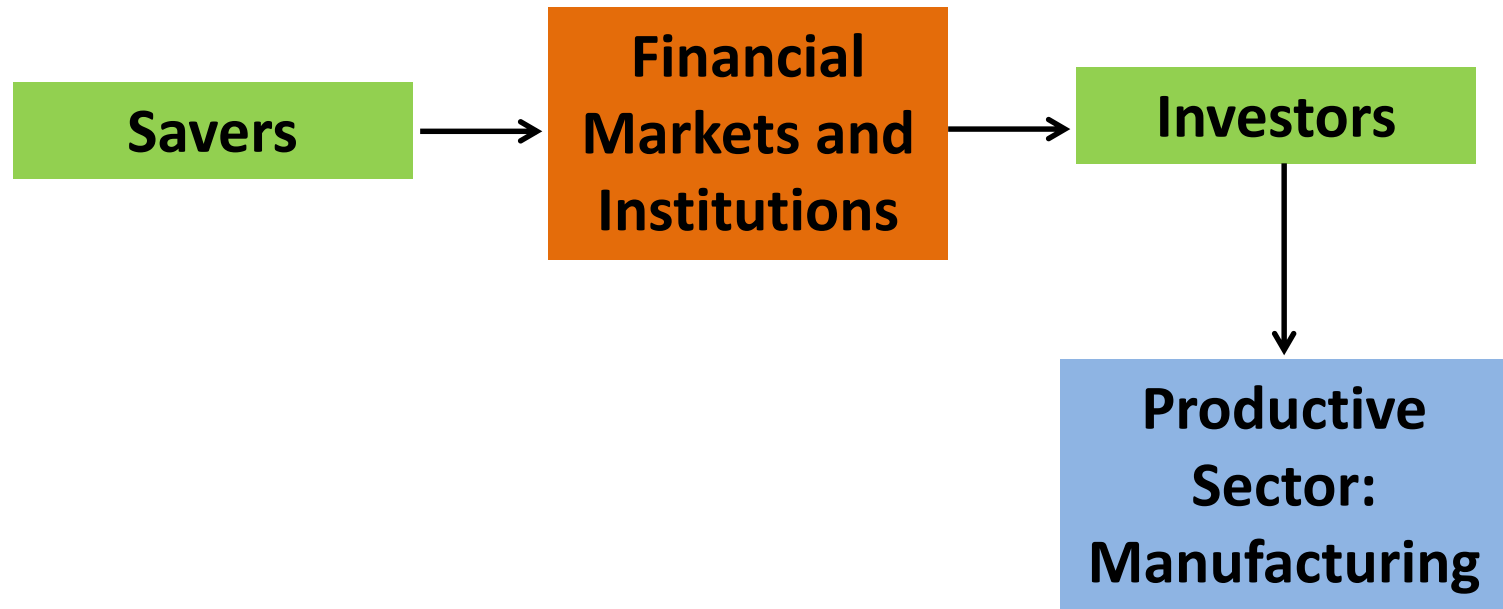
*Source of raw data: PSA-merged 2015 FIES and 2016 LFS*

# Necessary conditions

- Fast and sustainable manufacturing growth requires
  - **Sufficient level of financial development**
    - Critical financial scale
    - Well-functioning financial markets and institutions
  - **Good-quality and readily available inputs, primarily, electricity**
  - **Good positioning in the Global Manufacturing Value chain**



# Role of Financial Markets and Institutions



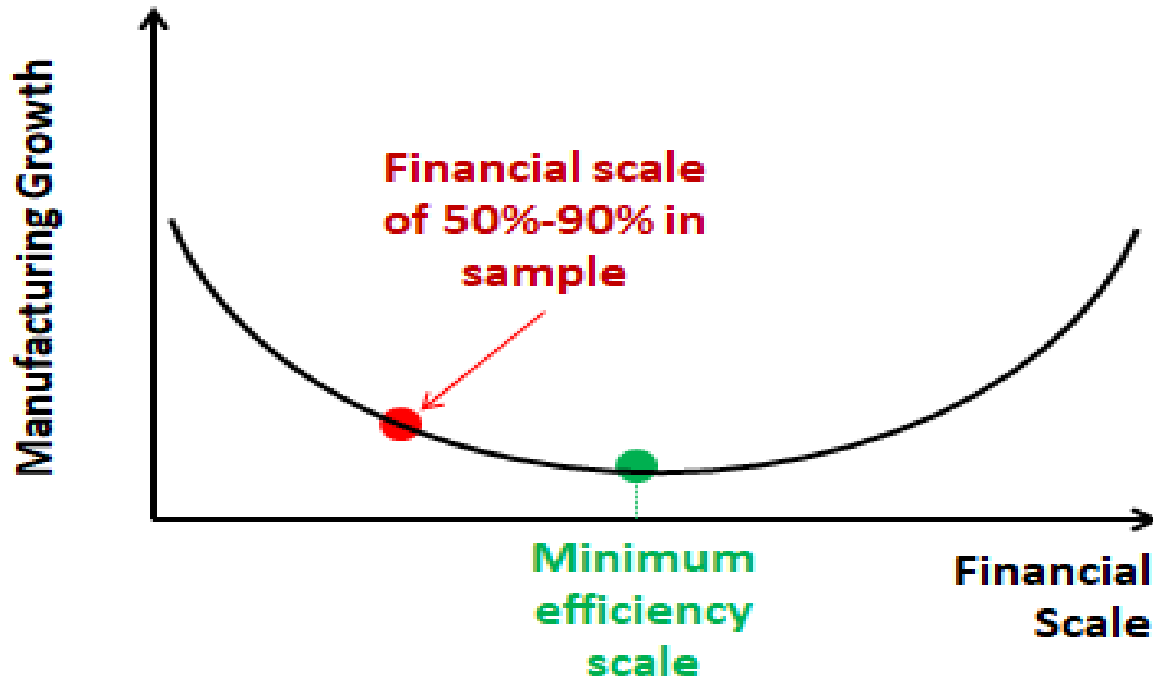
# “Too Little” Finance

$$y_{it} = \alpha FD_{it} + \beta FD_{it}^2 + \gamma X_{it} + \delta Z_{it} + \eta_i + \varepsilon_{it}$$

- Estimation technique: System-GMM
- Sample: 77 developing economies, 1984-2013 (*WDI*)

	<b>Domestic credit</b>	<b>Private credit</b>	<b>Bank credit</b>	<b>Broad money</b>
Coefficient	-0.08 [0.01]***	-0.05 [0.02]***	-0.07 [0.03]**	-0.10 [0.02]***
Coefficient of squared term	0.0008 [0.0001]***	0.0003 [0.0001]**	0.0005 [0.0002]**	0.0004 [0.0001]***
<b>Total marginal effects</b>	<b>-0.02</b>	<b>-0.04</b>	<b>-0.05</b>	<b>-0.08</b>

# “Too Little” Finance



	Domestic credit	Private credit	Bank credit	Broad money
Critical values	67.11	95.90	77.67	100.50
<b>Median</b>	<b>35.33</b>	<b>21.37</b>	<b>20.44</b>	<b>33.74</b>
75th percentile	58.17	36.97	35.65	53.67
90th percentile	97.50	68.04	61.47	92.97
95th percentile	134.68	92.62	85.39	131.74

# “Too Little” Finance

## Financial development indicators, 1995-2016

		1995-1999	2000-2004	2005-2009	2010-2014	2015-2016
<b>Domestic credit (% GDP)</b>	LIC	23.4	23.4	23.0	24.2	24.2
	<b>Philippines</b>	<b>64.9</b>	<b>65.4</b>	<b>63.0</b>	<b>58.3</b>	<b>56.6</b>
	MIC	60.1	62.8	65.4	67.8	70.3
	HIC	191.2	192.6	189.4	187.8	185.2
<b>Private credit (% GDP)</b>	LIC	13.1	13.1	13.2	13.7	13.7
	<b>Philippines</b>	<b>45.0</b>	<b>44.8</b>	<b>42.5</b>	<b>38.2</b>	<b>36.2</b>
	MIC	52.5	52.9	52.4	51.8	52.0
	HIC	3443.2	2622.4	2126.0	2123.4	148.3
<b>Bank credit (% GDP)</b>	LIC	11.6	11.6	11.7	12.3	12.5
	<b>Philippines</b>	<b>45.0</b>	<b>44.8</b>	<b>42.5</b>	<b>38.2</b>	<b>36.2</b>
	MIC	50.0	50.6	50.2	49.8	50.0
	HIC	91.9	92.2	89.6	86.9	84.7
<b>Broad money (% GDP)</b>	LIC	23.2	23.0	23.7	25.5	26.7
	<b>Philippines</b>	<b>56.9</b>	<b>58.0</b>	<b>58.5</b>	<b>58.0</b>	<b>58.3</b>
	MIC	60.1	62.8	65.4	67.8	70.3
	HIC	107.9	109.2	108.5	108.6	108.4
<b>Value of stocks traded (% GDP)</b>	LIC					
	<b>Philippines</b>	<b>22.6</b>	<b>20.5</b>	<b>15.1</b>	<b>10.7</b>	<b>8.4</b>
	MIC	16.7	19.9	19.9	18.6	19.2
	HIC	68.8	94.4	109.5	115.4	116.0

Source of raw data: World Development Indicators (as of March 1, 2018)

## Two-Step GMM Results

*Dependent variable: Manufacturing value added growth*

	1997-2016		1992-2016
	1	2	3
Manufacturing growth (-1)	-0.07 [0.067]	0.142 [0.137]	0.023 [0.121]
<b>CO2 Emissions</b>	<b>0.13</b> <b>[0.039]***</b>	<b>0.192</b> <b>[0.061]***</b>	<b>0.139</b> <b>[0.052]**</b>
<b>Electricity Price</b>	<b>-0.325</b> <b>[0.072]***</b>	<b>-0.221</b> <b>[0.125]*</b>	<b>-0.322</b> <b>[0.121]**</b>
K formation (% GDP)	0.207 [0.028]***	0.176 [0.055]***	0.221 [0.048]***
Services growth (-1)	0.015 [0.114]	-0.41 [0.138]***	-0.075 [0.172]
Real exchange rate (RER)	0.155 [0.164]	0.368 [0.149]**	0.204 [0.152]
Manufacturing tariff rate	0.035 [0.018]*	0.028 [0.031]	0.029 [0.048]
Log of real GNI per capita	-0.031 [0.136]	-0.081 [0.227]	-0.401 [0.273]
ICRG		0.093 [0.040]**	
Period dummies	Yes	Yes	Yes
Regional dummies	No	Yes	No
Observations	137	137	157
Number of countries	42	42	42
Number of instruments	40	41	40
AR(2) test (p-value)	0.576	0.244	0.659
Hansen test (p-value)	0.625	0.38	0.783

Standard errors in brackets. \* significant at 10%; \*\* at 5%; \*\*\* at 1%

# Positioning in the Global Manufacturing Value Chain

Table 1. General Infrastructure Rankings in ASEAN

Categories (Ranks out of 140)	Philippines	China	Indonesia	Malaysia	Thailand	Vietnam
Infrastructure (2nd Pillar Rank)	90	39	62	24	44	76
Overall (transport, comm., energy)	106	51	81	16	71	99
Roads	97	42	80	15	51	93
Railroads	84	16	43	13	78	48
Ports	103	50	82	16	52	76
Air Transport	98	51	66	21	38	75
Availability of Airline Seats	27	2	15	22	14	30
Electricity Supply	89	53	86	36	56	87
Mobile Phone Subscriptions	76	107	49	24	31	28
Fixed Telephone Lines	108	63	80	73	88	100

Source: World Economic Forum (2016a); includes all nine areas related to infrastructure (index numbers 2.01-2.09)

# Income inequality and financial development

## Income inequality and financial development

	Coeff.	Std. dev.	t	p-value	[95% CI]	
Gini coefficient (-1)	0.38	0.02	23.56	0	0.35	0.41
<b>Manufacturing value added (% GDP)</b>	<b>-1.16</b>	<b>0.07</b>	<b>-16.59</b>	<b>0.00</b>	<b>-1.30</b>	<b>-1.02</b>
Services value added (% GDP)	0.40	0.06	7.09	0.00	0.29	0.51
Manufacturing value added-squared	0.04	0.00	19.20	0.00	0.03	0.04
Services value added-squared	0.00	0.00	-0.53	0.60	0.00	0.00
Access to electricity	0.34	0.03	12.50	0.00	0.28	0.39
Access to electricity-squared	0.00	0.00	-9.01	0.00	0.00	0.00
Real GDP growth	0.55	0.05	10.32	0.00	0.45	0.66
Real GDP growth-squared	-0.03	0.00	-7.59	0.00	-0.04	-0.02
Developing economy dummy	4.18	0.69	6.02	0.00	2.80	5.55
Trade openness	0.00	0.00	-0.31	0.75	-0.01	0.01
<b>Financial development index</b>	<b>-3.82</b>	<b>1.18</b>	<b>-3.23</b>	<b>0.00</b>	<b>-6.16</b>	<b>-1.48</b>
Remittances (% GDP)	-0.18	0.02	-8.01	0.00	-0.22	-0.13
Regional dummies	Yes					
Period dummies	Yes					
No. of obs.: 312; no. of countries: 118; no. of instruments: 107						
Arellano-Bond AR(2) p-value: 0.94; Hansen test p-value: 0.72						