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I. Wages, Labor Productivity and Unit Labor Costs: International Comparisons

Haryo Aswicahyono

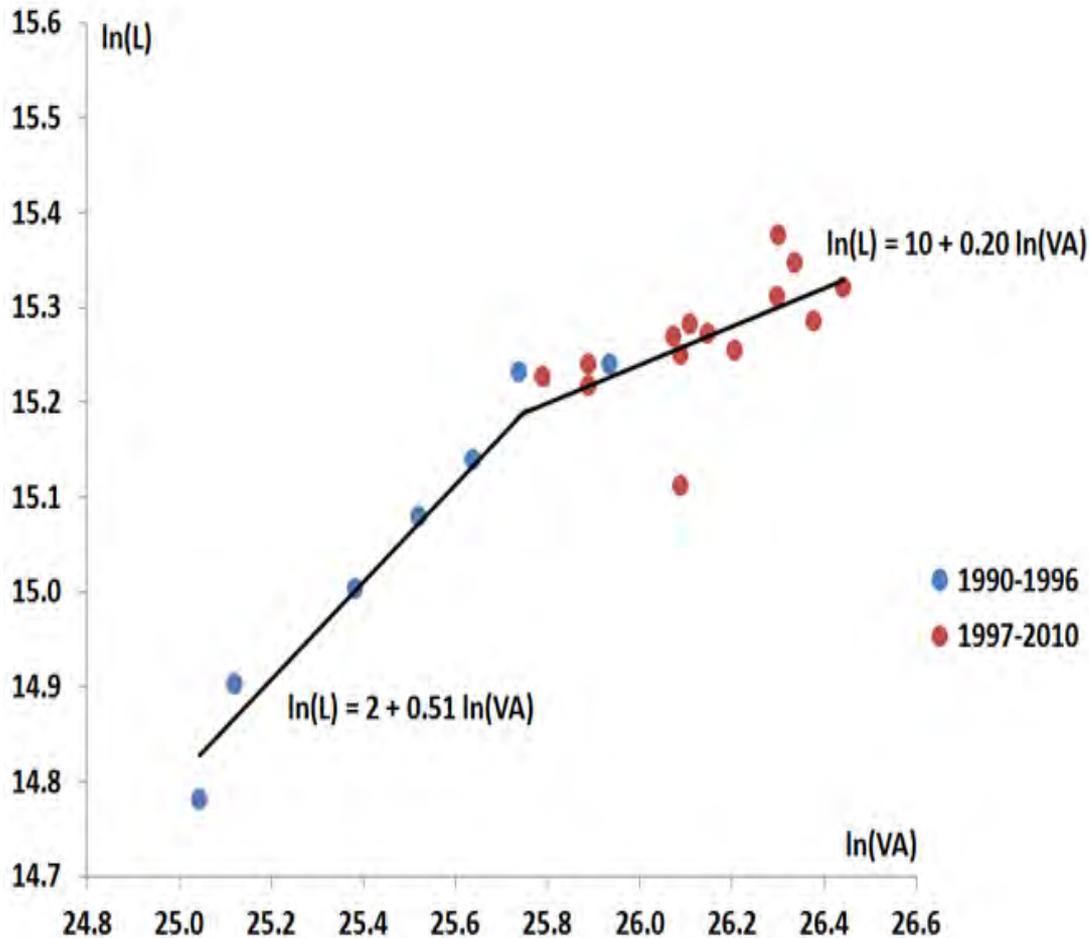
OUTLINE

- Indonesia's employment record in manufacturing in international perspective
 - Output and wage elasticities
- Unit labor costs and cost competitiveness in international perspective
- Caveats and Suggetions
 - Defining unit labor costs
 - Wage and productivity relationships

I. The Employment Record

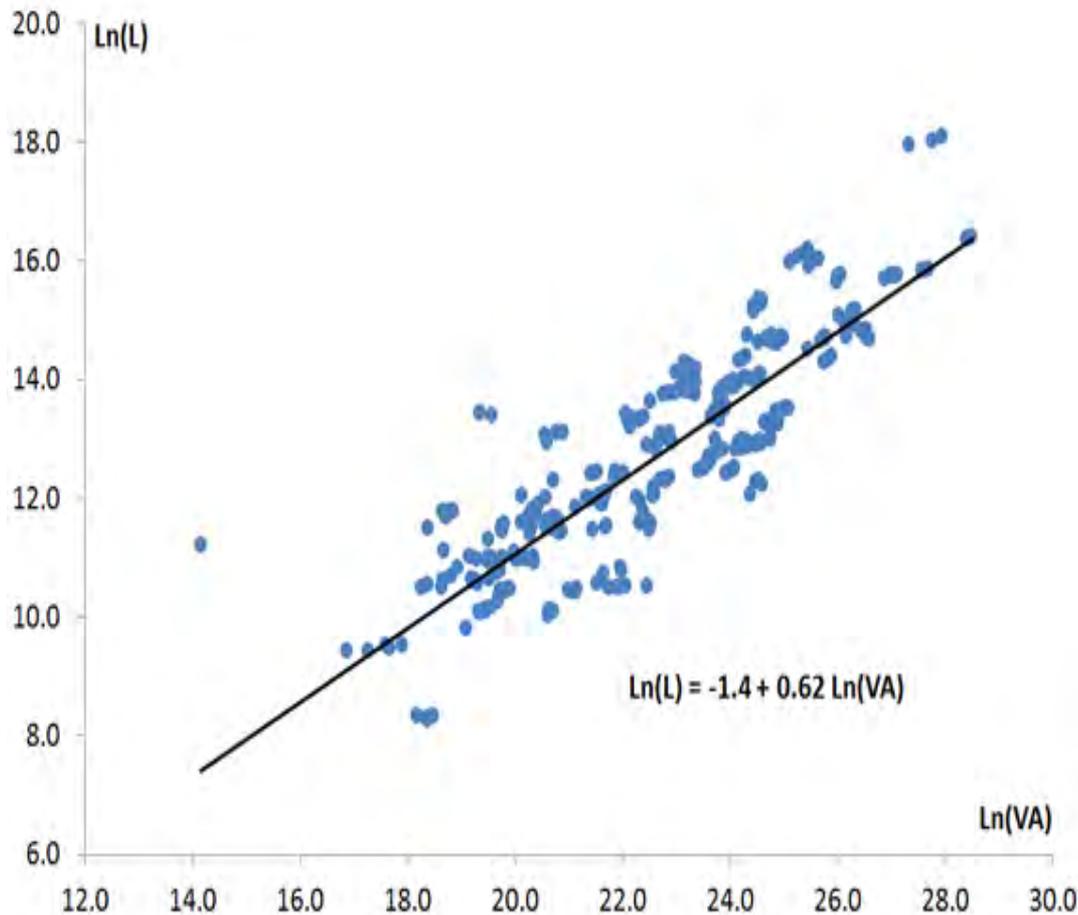
- Value added and Employment in Manufacturing: Historical data
- Value added and Employment in Manufacturing **Across Countries** , 2000-2009
- Wage-Employment and Output-Employment Elasticities

Value added and Employment in Manufacturing in Indonesia, 1990-2010



- the job absorption was quite responsive during 1990-1996,
- but since 1997 the growth of job creation was minimal, output still grew at around 5.5% per annum
- The output-employment elasticity drop from 0.5 to 0.2 during the two periods

Value added and Employment in **Manufacturing** Across Countries , 2000-2009



- During the period of 2000-2009, the output elasticities of employment from the international panel data was 0.62 while it was only 0.20 in Indonesia.

Wage-Employment and Output-Employment Elasticities, Indonesian 2006-2010 and International 2006-2009

	Indonesia	International
Labor cost	-0.138*** (0.004)	-0.198*** (0.016)
Output	0.137*** (0.003)	0.826*** (0.000)
Proxy-TFP	-0.020*** (0.003)	
Foreign ownership	0.086*** (0.018)	
Bonded zone	0.006** (0.003)	
Exporting?	0.060*** (0.006)	

- the previous two figures ignore the employment effect of a wage increases and are estimated for different time periods
- it is necessary to estimate the output and wage elasticities during comparable periods.
- The regression results show that the output elasticity of employment in manufacturing sectors in Indonesia (0.14) was significantly lower than the world average (0.83),
- the wage elasticities in Indonesia were (-0.14) only slightly below the international level (-0.2) over comparable time periods.

Source: See Figures 1 and 2.

II. Wages, Labor Productivity, and Unit Labor Costs

- Wage comparison is only part of the story, whether it is international or historical
- To measure the true costs of labor, we should take into account labor productivity
- Unit labour costs (ULCs) represent a direct link between productivity and the cost of labour used in generating output.
 - A rise in labour costs higher than the rise in labour productivity may be a threat to an economy's cost competitiveness (OECD)
- It is also called “wage inflation” the amount of money needed to pay your staff to make one unit of output, one widget (Economists)

- Unit labour costs (ULC) measure the average cost of labour per unit of output and are calculated as the ratio of total labour costs to real output. (OECD Definition)

- W = Nominal wages
- VA = Real Value added
- L = Number of Labour

Countries that regularly measures ULC

- OECD:

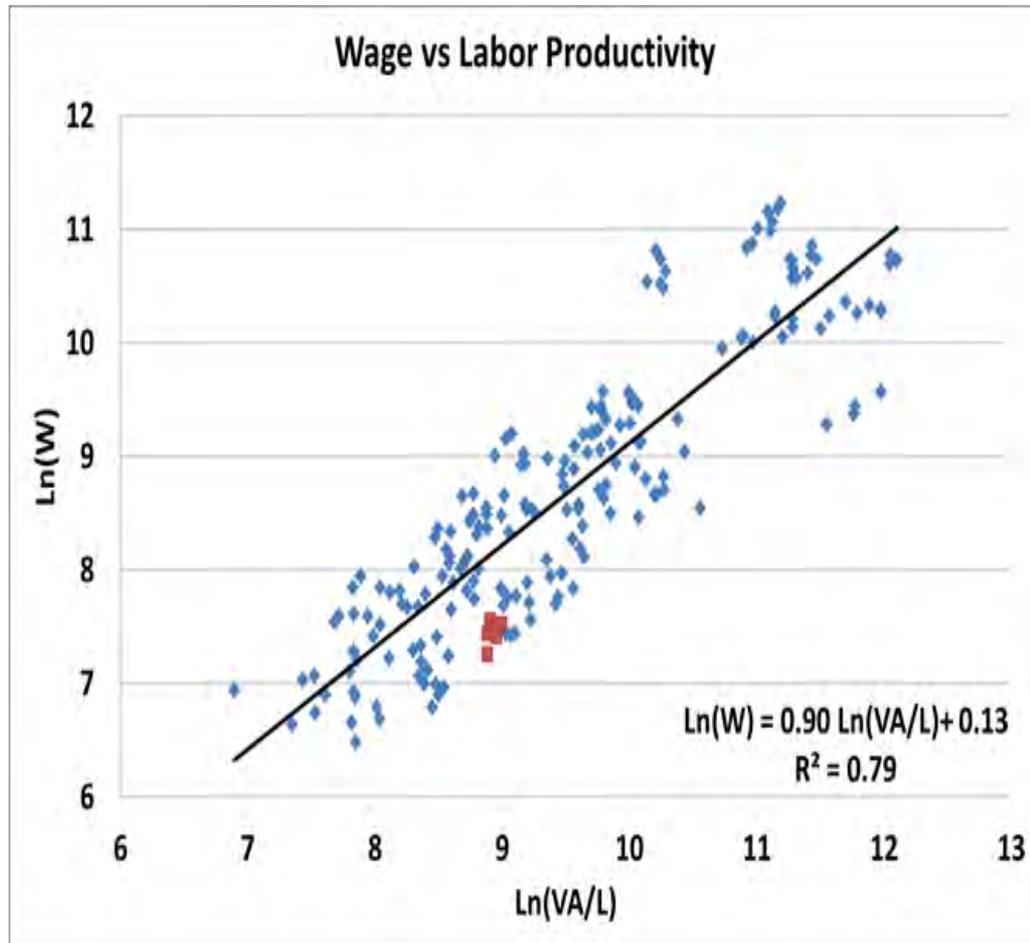
http://stats.oecd.org/Index.aspx?DatasetCode=ULC_ANN

- US: <http://www.bls.gov/lpc/>

As a deflator for Real Effective Exchange Rate

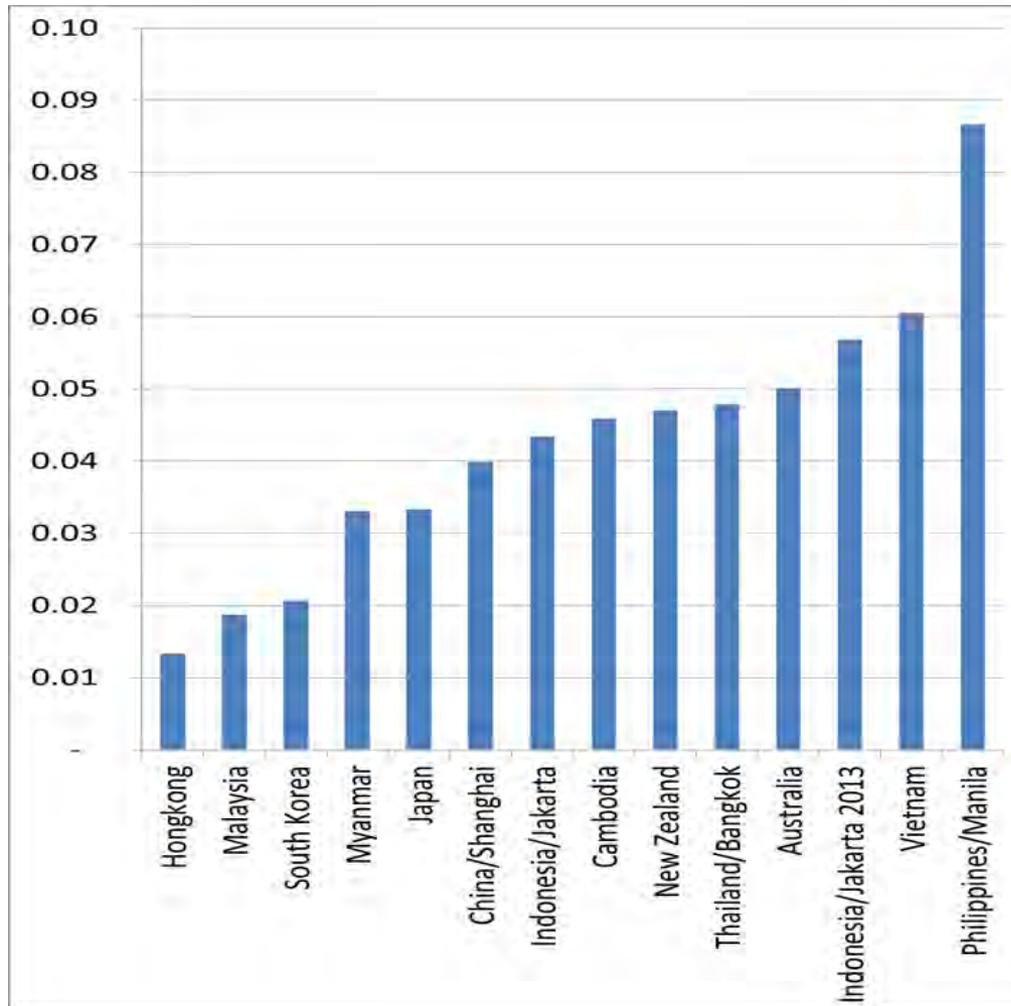
- The real effective exchange rate (REER) is one of the indicators that can provide good information about the competitiveness of a country.
- Alternative deflators for REER
 - Consumer Price Indices
 - GDP deflator
 - Unit Labor Costs (Wage Inflation)

Wage and productivity of the manufacturing sector across countries, 2006-2009



- There was a positive relationship between productivity and nominal wages for the period 2006-2009, as expected by theory.
- In general, the graphs reveal that Indonesian manufacturing wages, in particular, were slightly below international average for the same level of productivity (as shown by the red square dot in the figure).
- This suggests that Indonesia was quite competitive during this period.

Comparison of Unit Labor Costs for selected countries, 2012-2013



- There are no rigorous, consistent and regular measures of ULC for Indonesia
- The figures shows ULC in major cities in the region based on minimum wage 2012-2013
- In 2012 Jakarta is slightly less competitive than Bangkok and more competitive than Shanghai
- Significant increase in minimum wage may erode Indonesia's competitiveness in term of labor costs

Example of ULC at a plant level

Perbandingan Produktivitas per orang / jam / pasang , dibandingkan dengan upah minimum adalah sbb :

	<u>upah minimum</u>	
	<u>2012</u>	<u>2013</u>
* Indonesia 0,8	-- 176 USD	242 USD
* Vietnam 1,0	-- 119 USD	140 USD (naik 17%)
* China 1,1	-- 205 USD	235 USD (asumsi naik 15%)

(daerah sepatu export/Qingyuan)

- Indonesia is the lowest in term of productivity (0.8)
- But the highest in term of wage in 2013 (242 USD)

III. Caveat and Suggestions

- ULCs should not be interpreted as a comprehensive measure of competitiveness, but as a reflection of cost competitiveness.
- Unit labour cost measures deal exclusively with the cost of labour, which though important, should also be considered in relation to changes in the cost of capital (OECD)

Caveat and Suggestions

- Currently the determination of minimum wage ignores labor productivity
- There are no rigorous, comprehensive, regular measures of ULC in Indonesia, let alone International comparisons of ULC
- It is necessary and timely for Indonesia to start to gather consistent statistics to calculate ULC so that the (minimum) wage can be set rationally