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'From the Thirty Years' Crisis to Multi-polarity: The Evolution of the Geopolitical  
Economy of the 21<sup>st</sup> Century World'

A Conference Paper

**'Contemporary significance of unequal exchange of labour'**

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**Introduction**

Dependency Theory and the theory of world-system, that developed during 1960s and 70s, explained expanding economic disparities between the North and the South as an inevitable consequence of unequal exchanges of labour (UEXL), which had continuously existed throughout both the colonial era and the post-colonial era under the Bretton Woods system. This view offered a theoretical basis for supporters of the so-called Third World.

However, it became thereafter exposed to severe criticism against its static nature of theory which is not able to explain the dynamics of newly emerging economies.

For sure, some developing economies, such as Asian NIEs: South Korea, Taiwan, Hong Kong and Singapore, and BRICs: Brazil, Russia, India and China, have performed a high growth rate. Most of these economies, however, involve vast economic disparities between urban and rural areas, which provide sources of cheap labour, making the international unequal exchange possible.

On the other hand, labour conditions for manual workers in developed countries have been simultaneously deteriorated due to the severe competition with industries of developing economies.

In case of Japan, poor conditions of labour spread broadly beyond manufacturing industries under the persistent deflationary pressure during 1990s to 2000s, while multinational manufacturing corporations increased direct investment to developing countries and gained vast profits including fruits of unequal exchanges.

Thus, international UEXL themselves have induced multilayered global structures of economic disparities across and within both developing and advanced economies.

Starting from re-examination of the theory of UEXL, we need to reconstruct the theory of UEXL into an effective tool to explain such internationally and domestically expanding disparities in the contemporary global economy. In this paper, I would like to work on such a topic by clarifying concrete mechanism of UEXL, taking examples from Japan-China

relationship in economic trade and direct investment.

## 1 The end of centre-periphery relation between Japan and China?

The theory of international unequal exchange of labour in dependency school was typically formulated by A. Emmanuel (1972). It distinguished 'a primary form of non-equivalence' and the second 'nonequivalence in strict sense' in international trade. The primary form refers to UEXL between advanced countries having industries with higher organic composition (C/V) and peripheral developing countries having industries with lower composition of capital in international division of labour. So long as capitalist competition equalizes the rate of profit even across countries just like within each country, cost price ( $c + v$ ) plus average profit ( $r$ ) would prevail the market prices as prices of production just as Marx (1894) showed. Prices of production redistribute surplus labour (M) from industries with lower composition of capital to industries with higher composition of capital, thus realize UEXL between industries even within each country.

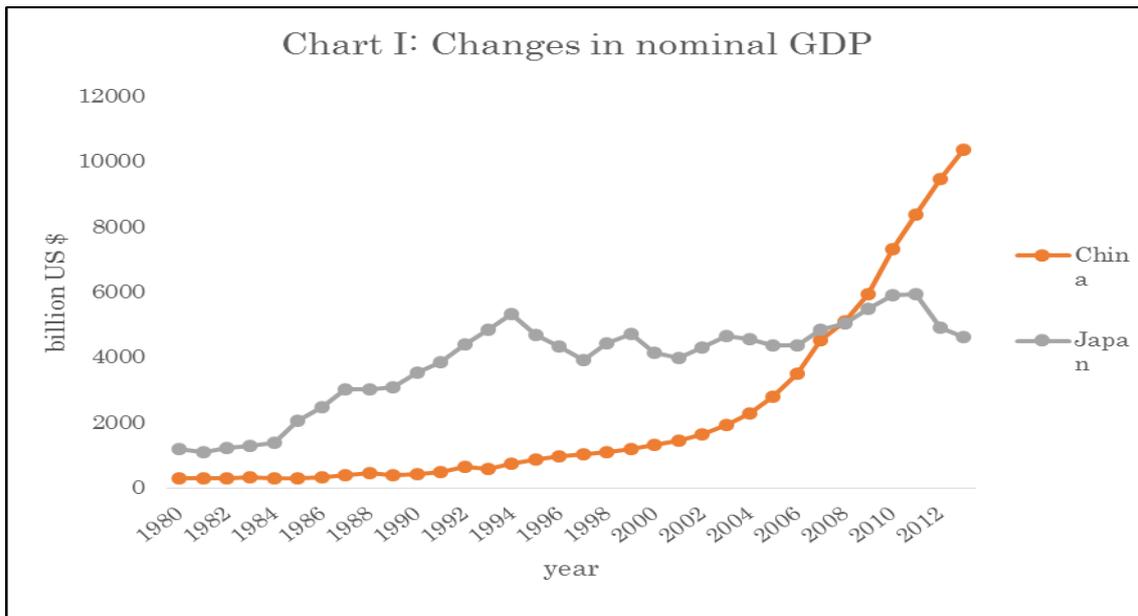
In this sense the primary form of non-equivalence is not specific function in international trade. In contrast the second form of 'nonequivalence in strict sense' is characteristic to international trade where, labour-power cannot move easily across borders, so as to keep the values of labour-power and the resultant rate of surplus value (M/V) would not easily equalized. In case the value of labour power in an advanced country (A) to produce 120 labour value is 100. In comparison, the value of labour power in developing country (B) is one fifth (20), and can produce the same amount of labour value: 120. Then the rate of surplus value in A is 20%, and that in B is 500%. This factor adds to UEXL between A and B in a larger scale than the primary form as a specific function in international trading.

For instance, when A has exporting industries with capital composition  $80c + 20v$ , and trade with B having exporting industries with capital composition  $20c + 80v$  each with the different rate of surplus value such as above, under the equalized rate of profit between them ( $404/200=202\%$ ), the same prices of production 302 realize UEXL of 104 against 500. The dependency school used to argue that this sort of UEXL would continuously prevent peripheral countries within the world capitalist system from performing economic growth.

However, after the inflationary crisis at the beginning of the 1970s, the stable high economic growth of the advanced economies was largely lost and over. The prolonged downturn in advanced economies proceeded with unstable repetition of multiple crises including swells and bursts of bubbles, and promoted attempts of restructuring upon the ground of information technologies (IT). Simultaneously, globalization of multi-nationals requested realized more and more of neo-liberal deregulation and freer market especially

both in the financial business and labour market. Contrastingly some developing economies, such as Asian NIEs and BRICs: have remarkably performed a high growth rate, mostly receiving direct investment from advanced economies.

China for instance maintained yearly more than 8% real economic growth rate in the process of economic reform since 1978 continuously until recent years. Thus its size of GDP surpassed Japan in 2009 to make China the second economic power in the world, as we see in Chart 1 below.



[Source: IMF World Economic Outlook Database April 2015]

Does this change demonstrate that the theory of UEXL was false? Did China overcome its center-periphery relation with Japan and other advanced countries?

Apparently the dependency school and the theory of UEXL until the beginning of 1970s did not anticipate the big change in the world economies thereafter, and seemed to remain static in their perspective. In this sense, they were at least insufficient, and need to be followed up. However, there must be a problem still remain how to think of international UEXL between developing countries including China and advanced countries like Japan.

## 2 Continuing unequal exchange of labour between Japan and China

In Emmanuel's formulation, 'the primary form of nonequivalence' concerning the trade between industries with different composition of capital is distinguished from the second

from of ‘nonequivalence in strict sense’ relating to the international gap in value of labour power and the resultant divergent rate of surplus value. In retrospect, two forms of nonequivalence cannot be independent. When the value of labour power remains so low as one fifth or even one tenth and further less than in advanced countries, the industrial investment in developing countries tends to be concentrated more in labour intensive business fields and technologies under the international competitive pressure. In this regard, the much lower level of value of labour power must be rather fundamental to allocate international division of labour among different sorts of industrial fields to enforce both the primary and secondary forms of nonequivalence in trade.

From this point of view, a fundamental factor for the UEXL does not solved away even after the catching up process of Chinese economy, like many other similar developing countries. This factor also attracted direct investment from advanced countries like Japan in the process of neo-liberal globalization on the ground of IT so as to utilize cheaper labour more and more.

Even though the average wage of China has increased by 6 times from 5,348 yuan in 1995 to 32,244 yuan in 2009 in the process of economic growth (China Statistical Yearbook 2010 <http://www.spj.jst.go.jp/statistics/stats2010/index.html>), they are still about one tenth of Japanese wages in manufacturing industries in average, as we see in Table 1 below.

Table 1: Monthly wages in manufacturing in Shanghai, Shenzhen and Yokohama (2009)

	(US\$)				
	1.Shanghai	2.Shenzhen	3.Yokohama	1/3	2/3
General worker	249.4	204.1	3226.17	7.7%	6.3%
Engineer	609.7	485.9	4604.86	13.2%	10.6%
Manager	966.8	1158.2	6272.91	15.4%	18.5%

[Source: <http://www.jetro.go.jp/world/reports/2014/07001125.html>]

As a result, for the last two decades the primary article exported from China to Japan has not changed from clothing and accessories, which is a typical labour intensive industry, even though its percentage in the total export to Japan has decreased from 29.4% in 1995 to 17.1% in 2009 [<http://www.customs.go.jp/toukei/info/tsdl.htm>].

According to Sayaka Sano, who calculated and compared hours of labour inputs in variety of industries both in Japan and China based on the world input output industrial analysis, textile and clothes require 3,468 hours of labour time to earn 10 thousand dollars in China while they needed only 546 hours in Japan to earn the same amount of dollar in 2009 [Sano,

2015, pp.43-45]. The greater gap in wage rate than in labour productivity between Japan and China, in combination with general demand for the basic, not high-tech, clothes induced the greater dependence of Japanese market on imports of clothes. The current rate of import dependency in Japanese clothing market is about 70%, and more than 80% of imported clothes is occupied by the products of China.

Besides, Japanese import of electric equipment from China has also increased its weight in the market. Also production of such equipment as computers, audio and visual apparatus is not so labour intensive even in China, the gap in wages between Japan and China, rather than the gap in labour productivity, seems to have caused a shift of its production cite to China (see Table 1 and 2).

Table 2: 5 principal commodities imported from China to Japan in 2009

(1)nominal dollar amount, (2) hours of labour input in each article in Japan, (3) hours of labour input in China.

	(1) [billion yen]	(2) [hours]	(3) [hours]	(3)/(2)
Total import of Japan from China	11,436	-	-	-
1. Clothing and accessories	1,955	546	3,468	6.35
2. Computers and units	882	269	1,636	6.08
3. Audio and visual apparatus	663	267	1,476	5.52
4. Telephony, telegraphy	518	267	1,476	5.52
5. Textile fibers, their waste	395	546	3,468	6.35

[sources: <http://www.customs.go.jp/toukei/info/tsdl.htm> & Sano, 2015, pp.43-45]

In case Japan exports sophisticated semi-conductor and other high-tech parts and devises such as units of computers to China, and imports computers of same amounts of dollars in total from China, Japan can obtain 6 times of labour time. In case Japan exports the same units of electric equipment or transport equipment (motor vehicles) to China, and imports clothing and accessories, Japan can obtain about 12 times of labour time by UEXL.

In the year 2009, Japanese total import from Asian countries amounted to 22.9 trillion yen, which is 6.3% of 362.3 trillion yen of net domestic product of Japan. If this international trade brought us 6-12 times of labour time through unequal exchange, labour time amounting to 37.8-75.6% of Japanese domestic labour time (v+m) to produce value added for this year was additionally obtained from other Asian countries to support our economic life in Japan.

Thus we see that the UEXL still works in trade between China and Japan in a scale difficult to neglect, despite the fact that it did not prevent China and other Asian developing countries from performing strong economic growth anymore unlike the period before the 1970s. A whole series of dynamic crises and restructuring in the capitalist world system accompanied by economic liberalization in the global scale to terminate the stable high economic growth in advanced economies must have resulted in such a functional change in the roles of UEXL for promoting (rather than preventing) rapid economic growth of developing countries in Asia. Nevertheless, UEXL could not be eliminated and still continue to work substantially.

### **Backfire effects of UEXL to Japan**

Then, what are the contemporary consequences of UEXL in developed economies? Let us move to this topic, by focusing on the recent history of Japanese economy.

In the long downswing of Japanese economy through the repetitive crises and restructuring after the middle of 1970s, Japanese capitalism used to show exceptional strength among advanced economies until the end of 1980s. Although its annual average growth rate fell to 4.2% in 1974-90 from 9.1% in the previous period of high economic growth, the rate was 1-2% higher than most of other advanced economies. Japanese manufacturing industry still maintained international competitive power and could increase absolute number of employment until 1992.

Despite of rapid industrialization in other Asian countries, Japanese economy seemed able to escape industrial hollowing out exceptionally among advanced economies. At this period Japanese industrial corporations utilized developing Asian countries as a sort of subcontractors to supply parts of their final products in order to intensify their exporting competitive power in the world market.

Combined with an elevated exchange rate of dollar as a result Reaganomics, this caused a severe trade friction between the USA and Japan. Resultantly Japanese government was induced to expand domestic demand by fiscal and monetary policies in accordance with the Plaza agreement in 1985, and positively caused the huge swell of speculative bubble toward the end of 1980s, on the one hand. On the other, Japanese industrial corporations shifted more and more their factories to produce final products to Asian countries to enable round about export to the USA and other advanced economies.

In the lost twenty years after the collapse of huge bubble in 1990, when the annual average growth rate of Japanese economy declined to 0.9%, or nearly zero, in 1991-2011, Japanese industrial corporations could no longer expect much on the growth of domestic market.

They intensified multi-nationalization more and more by increasing overseas direct investment. As we see in Table 3 below, the composition of Japanese exporting market shifted away from the USA to China and other Asia. The share of the USA in total Japanese export declined from 33% in 1990 to 16% in 2009, while the shares of China and Asia increased from 2% and 31% to 19% and 54% in the same period.

Table 3: Export of Japan

	1990	share in export to the world 1990	2009	share in export to the world 2009
	(ten billion US)	(%)	(ten billion US)	(%)
world	4146	100%	5417	100%
US	1356	33%	873	16%
Asia	1288	31%	2934	54%
China	88	2%	1024	19%

[source: Trade Statistics of Japan

[http://www.customs.go.jp/toukei/suii/html/time\\_latest.htm](http://www.customs.go.jp/toukei/suii/html/time_latest.htm)]

This big change in Japanese export to increase the share of China and other Asian countries was clearly promoted by increasing Japan's direct investment in these countries as illustrated in Table 4 below. Starting from exporting to their own branch factories there, Japanese industrial corporations increased export of more and more of sophisticated parts, manufacturing machines, and high graded materials, but not final products to China and

other Asian countries, from where finished final products became exported to the USA and other advanced countries including Japan.

Table 4: International Direct Investment of Japan

(million \$)

	1998	2009
to Asia	7,814	20,636
to China	1,301	6,899

[source: Direct Investment Statistics of Japan

<http://www.jetro.go.jp/world/japan/stats/fdi.html>

Thus the basic structure of so-called Pacific Rim triangle appeared. In this triangle, the developing Asian countries tended to make trade deficit against Japan (by importing more of parts and machines), as their export grew by making trade surplus in relation with the USA and other advanced countries in the Pacific Rim.

In the meanwhile, in the global and domestic market of the final manufacturing products, Japanese industrial corporations could not maintain their previous competitiveness against China and other Asian countries in producing wider range of manufactured products, not just labour intensive products like clothes, based upon cheap labour. Heavy pressure for competitive prices enforced cost down in Japanese manufacturing industries broadly including enterprises to produce sophisticated electric equipment like notebook computers, as shown in heavily rapid decline of their prices in the market (see Table 5).

Table 5: Consumer Price Index of Notebook Computer in Japan (2000-2009)

year	price index
2000	

2001	-38
2002	-27.4
2003	-29.1
2004	-28.5
2005	-28.5
2006	-21.7
2007	-26.7
2008	-38.7
2009	-48.3

[source: Statistics Japan  
<http://www.e-stat.go.jp/SG1/estat/List.do?bid=000001033700&cycode=0>]

So long as Japanese manufacturing corporations have been suffered from more or less similar deflationary competitive pressure from other Asian countries like China both in domestic and world market, they cannot easily improve their labour productivity in terms of

nominal (monetary) earning by certain amount of labour input in proportion with labour productivity in real (physical) terms. As we see in Table 6 below, during 1995 and 2009 in China increases in labour productivity in real terms brought about more or not much less increases in nominal (monetary) increased output. Whereas in Japan, increases in labour productivity in real terms could not bring about similar increases in nominal (monetary) output, but even below one half of real terms (as in case of Japanese electrical machinery production).

Table 6: Changes in hours of labour input to earn 10 thousand US \$ by selling principal commodities in Japan and China

commodity	Japan				
	1995	2009			
	(1)	nominal	real value(3)*4	(1)/(2)	(1)/(3)

		value(2)*3			
	(hours)	(hours)	(hours)		
cloths, textile fabers	624	546	527	114%	118%
machinery *1	294	269	201	109%	146%
electrical machinery *2	293	267	126	110%	233%
	China				
	1995	2009			
	(1)	nominal value(2)*3	real value(3)*4	(1)/(2)	(1)/(3)
	(hours)	(hours)	(hours)		
cloths, textile fabers	12504	3468	4120	361%	303%
machinery *1	8522	1636	1758	521%	485%
electrical machinery *2	7196	1476	1402	488%	513%

\*1: including computers and units

\*2 including audio&visual apparatus and telephony, telegraphy

\*3 hours of labour time to earn 10 thousand US \$ in nominal term by selling the

commodities

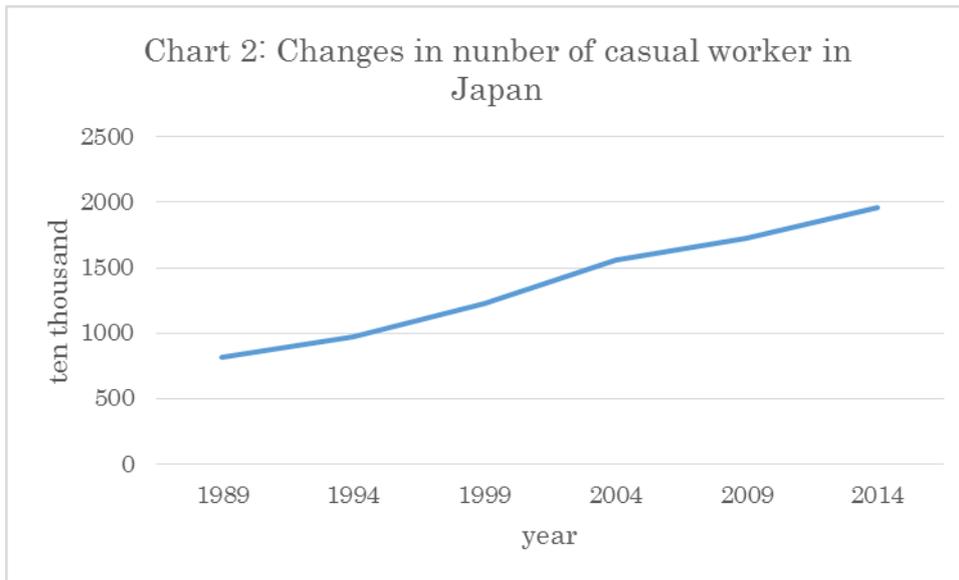
\*4 calculated by deflating the commodity price by classified price index based on 1995

price

[Source: Sano, 2015, pp.43-45]

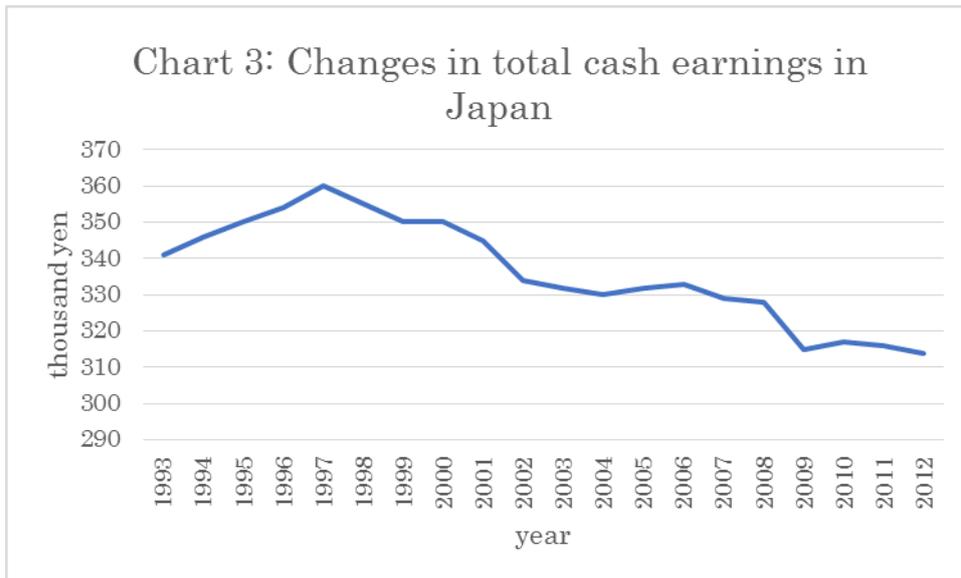
Under heavy competitive pressure from developing Asia including China, the globalization of Japanese capitalism tended to economize costs especially wages, by fully utilizing IT automation systems. 'Rationalization of costs' has been performed either in the form of direct investment abroad so as to reduce domestic employment or reduction of wage costs in domestic workplaces. Thus, Japanese workers suffered from correlated two problems as follows.

Firstly, various types of irregular (casual) employment such as part-time workers, dispatched workers, short-term contract workers, mostly with cheap wage rates and without fringe benefit for regular workers increased more and more (see Chart 2 below). This tendency initially spread from many of female workers but became penetrated also into male workers. In 2010, over one half of female workers, and more than 20% of male workers in Japan became in casual forms of employment. With this tendency the so-called Japanese style of company organization with life-long employment, company-based trade unions, and seniority escalation system of wages is largely destructed. Trade unions, which used to organize regular workers in main, were weakened and lost power to negotiate for a rise of wages or to fight against dismissals of workers. As a result a new type of poverty such as in the case of working poors attracts now social concern also in Japan.



[source: Ministry of Health, Labour and Welfare  
<http://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000046231.html>]

Secondly, the total annual earning (wages and bonus) of Japanese workers in average (including the effect of increased number of casual workers) became stagnant in the 1980s and then actually declined since the 1990s as we see Chart 3 below. The severe competition with industrial production in other Asian countries with cheaper wages enforced to depress down Japanese workers' income (wages plus bonus). This tendency induced an increased participation of female workers in market labour so as to support households in combination with the effect of IT automation systems in factories and offices. As Marx noticed, division of value of labour power into plural members of household helped in this context to reduce individual value of labour power.



\*including both ordinary workers and part-time workers

[source: *White paper on labor and the economy 2013*  
[http://www.mhlw.go.jp/wp/hakusyo/roudou/13/dl/13-1-3\\_02.pdf](http://www.mhlw.go.jp/wp/hakusyo/roudou/13/dl/13-1-3_02.pdf)]

## Conclusion

The original version of UEXL in the dependency school used to assume relatively stable economic growth and the resultant improvement for workers in advanced countries as a functional effect of UEXL, so long as only capital, but not labourers, can easily move across borders. In the whole process of globalization since the 1970s, multi-nationalization of capitals with direct investment has much promoted, while international immigration of workers was not yet so easy from developing countries. Yet the international function of UEXL which also expanded as growth of international trade between rapidly industrializing developing countries and advanced countries was much expanded. However, the function of UEXL has much changed and does no longer guarantee the atable economic life for the advanced countries.

As we have seen, by utilizing external cheap labour abroad through direct investment and UEXL more and more, Japanese economy simultaneously internalized structurally unstable, cheaper job conditions for more and more of workers beginning from women. Japanese economic order turned into a more divergent, unequal and exploitative social system for many workers, from a relatively egalitarian system until the beginning of the 1970s. Thus we are facing a common international issue how to overcome such an undesirable economic tendency of capitalist world both in developed and develop@ping

countries together.

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