

# Final Special Lecture: Rethinking the System of Economics for the Future

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# Overview

- 1) A brief self-introduction
- 2) Purpose of Economics, again (my personal memory about Marx's Economics)
- 3) Methodology for empirical analysis in Economics or Social Sciences
- 4) Factors for comprehensive economics
- 5) Conclusion (tentative)

# References

My papers related to this topic (*Comparative Economic Development*)

- 1) Ichihashi, 2020, "A Note of Philosophical Thought on Poverty Reduction through Industrialization", *IDECK Discussion Paper Series*, Vol.10, No.1, pp.1-12. [A Note of Philosophical Thought on Poverty Reduction through Industrialization - 市橋 勝 - 著者一覧 - 広島大学 学術情報リポジトリ \(hiroshima-u.ac.jp\)](#)
- 2) Ichihashi, 2020, "Notes on the Historical Approach as a Methodology of Macroeconomics: A Critique to Contemporary Macroeconomics", *IDECK Discussion Paper Series*, Vol.9, No.3, pp.1-23. [Notes on the Historical Approach as a Methodology of Macroeconomics: A Critique to Contemporary Macroeconomics - 広島大学 学術情報リポジトリ \(hiroshima-u.ac.jp\)](#)
- 3) Ichihashi, 2016, "Notes on Comparative Economic Development", *IDECK DP2(Development Policy Discussion Paper) Series*, No.6-3, pp.1-67. [Notes on Comparative Economic Development \(repec.org\)](#)

## References 2

My papers in Japanese related to this topic (*new economics called “Lifeism Economics”*)

- 1) Ichihashi, 2010, "Thoughtful Reflections on the Stagnation of Japan's Economy and Society" (in Japanese), *Discussion Paper*, pp.1-9. [日本経済及び社会の低迷に関する思想的考察](#)
- 2) Ichihashi, 1998, "The Formation of Japan's Industrial Structure and Social Order" (in Japanese), *Discussion Paper*, pp.1-33. <https://home.hiroshima-u.ac.jp/ichi/paper3.pdf>
- 3) Ichihashi, 1996, "Inquiry into systematization of Contemporary Social Science" (in Japanese), *Memoirs of the Faculty of Integrated Arts and Sciences, Hiroshima University. II, Studies in social sciences*, vol.22, p. 39-91. [広島大学学術情報リポジトリ](#)
- 4) Ichihashi, 1994, "An Introduction to Lifeism Economics" (in Japanese), *Kochi Ronso of proceeding of the Faculty of Humanities and Social Sciences in Kochi University*, vole.49, pp.35-61. <https://home.hiroshima-u.ac.jp/ichi/Lifism1whole.pdf>

# 1. Brief self-introduction

- a) Born in Yubari city in Hokkaido, which used to be a coal mining town
- b) Shizuoka University for the undergrad, Kyoto University for the master's
- c) Faculty of Humanities in Kochi Prefecture (1990-1994)
- d) Faculty of Integrated Arts and Sciences in Hiroshima University: Interdisciplinary (1994-)
- e) Graduate School of International Development and Cooperation (IDEC) in HU: Interdisciplinary (2004-)
- f) My fields: Economic Development, Input-Output Analysis, Japanese Economy, Economic Anthropology, etc.

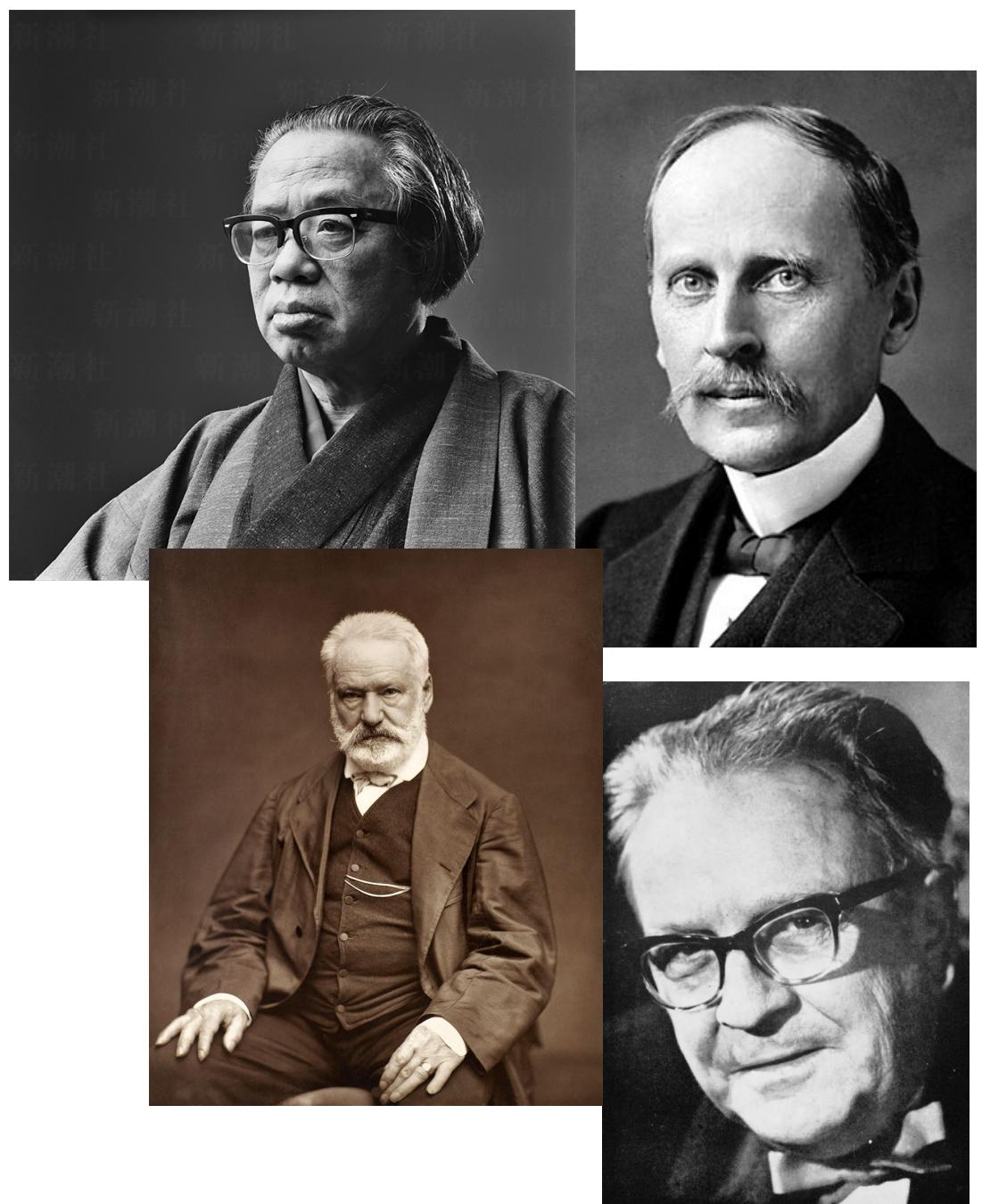
Orthodox Economics vs Heterodox Economics

# Books & Authors

## Junior and Senior High School Age +

Matsumoto Seicho (a mystery writer);  
Romain Rolland, “*Jean-Christophe*”;  
Victor-Marie Hugo, “*Les Misérables*”;

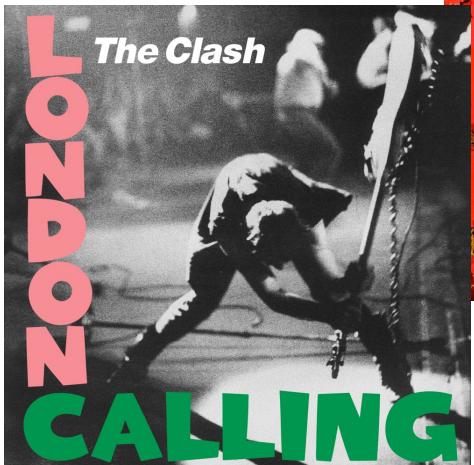
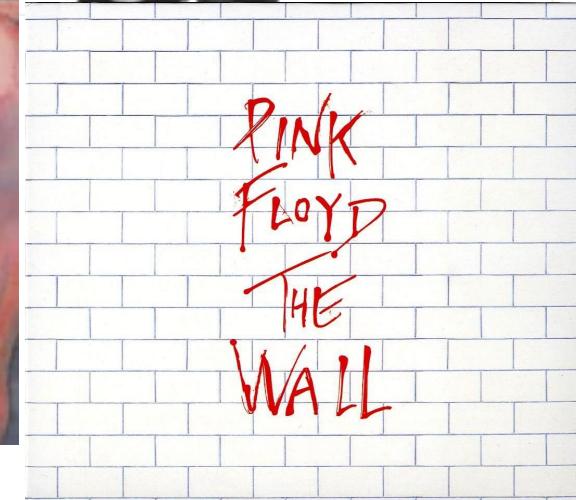
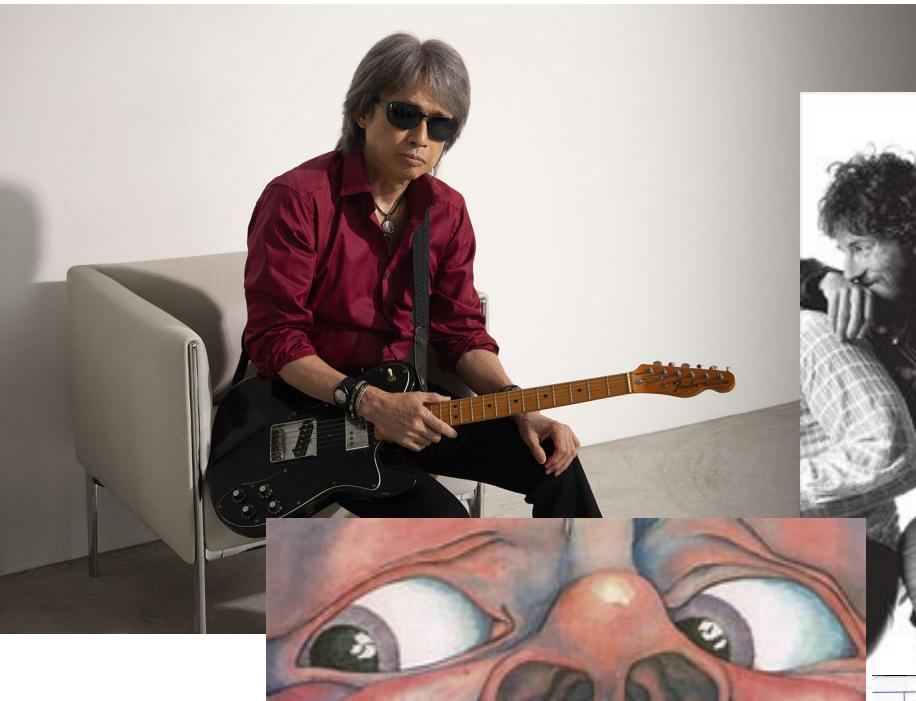
Raymond Thornton Chandler  
(a detective story writer);  
Oyabu Haruhiko (a hard-boiled writer)



(note) photos from Wikipedia

# Music & Musicians

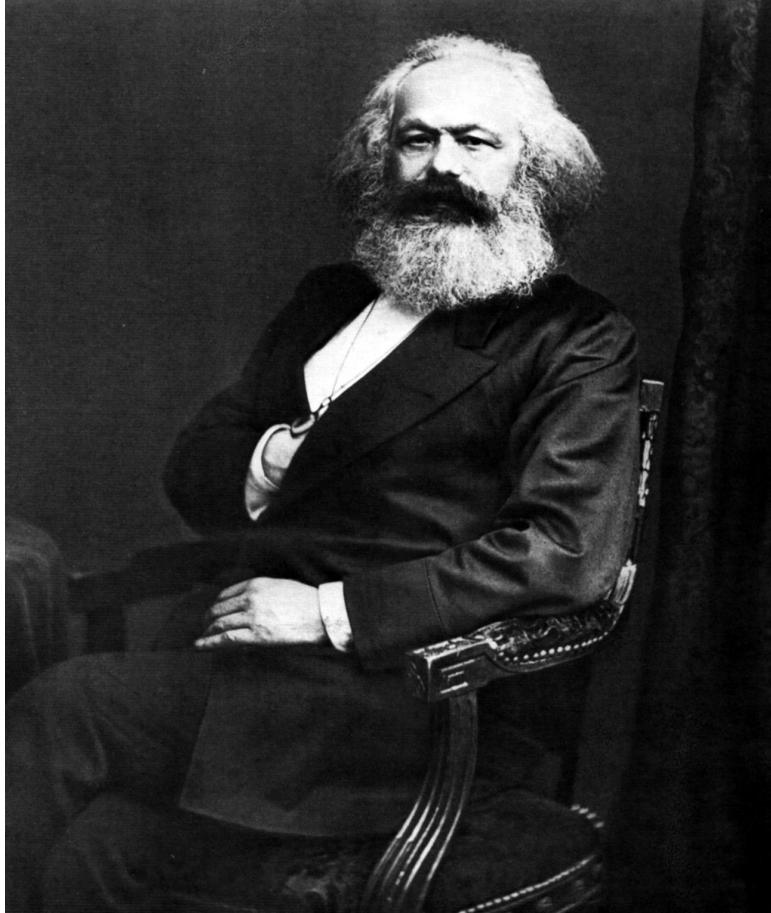
Hamada Shogo;  
Bruce Springsteen;  
King Crimson;  
Pink Floyd;  
The Clash, The Stranglers



(note) photos from the official sites

I found that the boy, Masaru, had grown up in an environment of very anti-authoritarian and socially critical thought!

## 2. Purpose of Economics, again (my personal memory about Marx's Economics)



## Karl Marx

(May 5, 1818 - March 14, 1883)

- ▶ Major Publications
  - "Drafts of Economics and Philosophy" (1844)
  - "German Ideology" (1845, co-authored with Engels)
  - "The Communist Manifesto" (1848, co-authored with Engels)
  - "Critique of Economics" (1859)
  - "Capital" (1 volume, 1867)



## Friedrich Engels

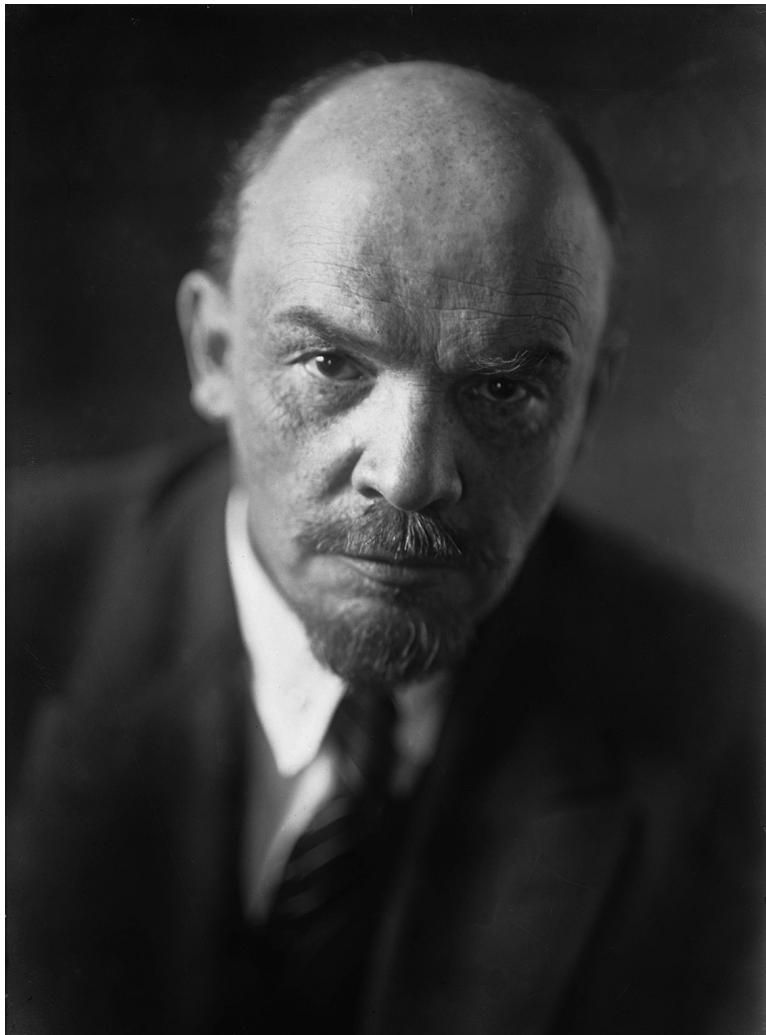
(November 28, 1820 - August 5, 1895)

### ► Major Publications

- "The State of the Working Class in England" (1845)
- "The Dialectic of Nature" "The Part played by Labour in the Transition from Ape to Man" (1876)
- "Socialism: Utopian and Scientific" (1880)
- "The Origin of the Family, Private Property, and the State" (1884)
- "Capital" (Vol. 2 and 3, 1894)

Source: Wikipedia "Friedrich Engels",

[https://commons.wikimedia.org/wiki/File:Friedrich\\_Engels\\_portrait\\_\(cropped\).jpg](https://commons.wikimedia.org/wiki/File:Friedrich_Engels_portrait_(cropped).jpg) (Ref. 2024-03-19).



## Vladimir Ilyich Lenin (April 22, 1870 – January 21, 1924)

### ► Major Publications

- "On the So-called Market Problem" (1893)**
- "The Development of Capitalism in Russia" (1899)**
- "Materialism and Empirical Criticism" (1909)**
- "On Imperialism" (1916)**
- "The Nation and the Revolution" (1917)**

## ► "On Imperialism" (1916)

Official name "Imperialism as the highest stage of capitalism"  
Lenin's report on the current state of capitalist society,  
especially the character of World War I

## ► Contents:

1. Production accumulation and monopoly
2. Banks and their new roles
3. Financial capital and financial oligarchy
4. Export of capital
5. The division of the world among capitalist groups

6. The division of the world between the great powers
7. As a special stage of capitalism imperialism
8. Parasitism and decay of capitalism
9. Criticism of imperialism
10. Historical position of imperialism

＜参考＞世界で最初の帝国主義批判者は?



## ► Kotoku Shusui

(November 5, 1871 - January 24, 1911),  
known as Anarchist in Japan

- "Monster Imperialism of the Twentieth Century" (1901)
- The world's first person who pointed out the appearance of imperialism!
- It is said that he planned the assassination of Emperor Meiji in 1910.  
"He was implicated in the treason case" (Kotoku case) and sentenced to death.  
However, this crime was fabricated by the police.  
It is considered a false accusation today.

Source: Wikipedia "Kotoku Shusui",

<https://commons.wikimedia.org/wiki/File:Modern-History-of-Women-20.png> (Ref. 2024-03-19).

### ► The problem of Marx and Engels' prospects

The Communist Manifesto (1848, Marx & Engels)

After putting out the slogan first, Marx analyzed the capitalist society thoroughly.

As analyzed in "Capital" (1867~1894), the capitalist system is much more robust and flexible than he expected.

It is not easy to "socialize capital".



They thought of the "dictatorship of the proletariat" (one-party dictatorship) too easily?

The concentration of political power should be treated very carefully.

→ e.g. Stalin, Mao Zedong, Kim Il Sung

- ▶ Restrictions on individual freedom and democracy should also be carefully.  
→ the risk about restrictions on individual behavior pointed out by Hayek and Schumpeter
- ▶ The impossibility of a planned economy

### 3. Methodology for empirical analysis in Economics or Social Sciences

# Three Empirical Methods for Economics and Social Sciences

- 1) Statistical Methods or Applied Econometrics
- 2) Accounting methods
- 3) Historical methods

# Methodology 1: Statistical Methods or Applied Econometrics

- Multivariate regression

$$Y_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + \cdots + \beta_n X_{ni}$$

→ just **correlation**

→ cannot say anything about **causation!** (old style econometric mistake)

- Simple regression:

$\beta = \frac{\sum x_i y_i}{\sum x_i^2} = r \frac{S_y}{S_x}$ , where  $x_i$  and  $y_i$  are deviations from sample mean,  $r$  is correlation coefficient,  $S_x$  and  $S_y$  are standard deviation

\*Example of better approach: IV(Instrumental Variable) method

1<sup>st</sup> step  $X = f(Z)$ , 2<sup>nd</sup> step  $Y = f(\hat{X})$

The IV, Z, should be assigned as randomly as possible.

# Methodology 1: Statistical Methods or Applied Econometrics

For causation,

- Randomized Control Trials (RCT)

- $\underline{ATE} = E[Y_i(1)|T = 1] - E[Y_i(0)|T = 0]$

$$= E[Y_i(1)|T = 1] - E[Y_i(0)|T = 1] - (E[Y_i(0)|T = 0] - E[Y_i(0)|T = 1])$$
$$= ATT + \text{never taker's bias adjustment?})$$

, where  $Y(1)|T=1$  is outcome under treatment and  $Y(0)|T=0$  is outcome without treatment

But!  $\underline{\text{Simple Observation Comparison}} = E[Y_i(1)] - E[Y_i(0)]$

$$= E[Y_i(1)|T = 1] + E[Y_i(1)|T = 0] - E[Y_i(0)|T = 1] - E[Y_i(0)|T = 0]$$
$$= E[Y_i(1)|T = 1] + \text{always taker} - \text{never taker} - E[Y_i(0)|T = 0]$$
$$= E[Y_i(1)|T = 1] - E[Y_i(0)|T = 0] + \text{selection bias}$$
$$(ATE + \text{selection bias})$$

or

$$= E[Y_i(1)|T = 1] - E[Y_i(0)|T = 1] + E[Y_i(1)|T = 0] - E[Y_i(0)|T = 0]$$
$$= ATT + \text{always taker} - \text{complier}(ATT + \text{selection bias 2})$$

## Methodology 1: Statistical Methods or Applied Econometrics

\*Examples of Causal Inference Approaches like RCT & ATE:

IV(Instrumental Variable) Method,

Conjoint Analysis,

DID (Difference in Difference),

RDD (Regression Discontinuity Design),

Propensity Score Matching,

Synthesized Control Method, etc.

## Methodology 2 : Balance Equation or Accounting

- How about very small samples (a few!) or only one sample (like a historical event)?
- Accounting (Balance Equation, Market Clear Condition):
  - Accounting, Double Entry Book-Keeping
    - "The Father of Accounting and Bookkeeping": by **Luca Pacioli** (1447 -1517) Italian mathematician
  - SNA, GDP, BOP
  - Input-Output Table, SAM, CGE, etc.

## Methodology 2 : Balance Equation or Accounting

借方  
In  
Japanese

SAMPLE BALANCE SHEET			
<u>ASSETS</u>		<u>LIABILITIES &amp; EQUITY</u>	
<i>Current Assets</i>		<i>Liabilities</i>	
Checking Account	5,000	Accounts Payable	12,000
Savings Account	1,000	Line of Credit	20,000
Petty Cash	500	Payroll Liabilities	7,000
Accounts Receivable	22,000	<i>Total Current Liabilities:</i>	39,000
Inventory	15,000		
Prepaid Insurance	6,000		
<i>Total Current Assets:</i>	49,500		
<i>Noncurrent Assets</i>		<i>Noncurrent Liabilities</i>	
Accumulated Depreciation	-4,500	Long-term Debt (loan)	48,000
Computer	7,000	<i>Total Liabilities:</i>	87,000
Building	65,000		
Land	60,000		
<i>Total Noncurrent Assets:</i>	127,000		
<i>Total Assets:</i>	177,000	<i>Equity</i>	
		Owner's Capital	35,000
		Retained Earnings	55,000
		<i>Total Equity:</i>	90,000
		<i>Total Liabilities &amp; Equity:</i>	177,000

貸方  
In  
Japanese

[balance-sheet-example.png  
\(1080x1080\)  
\(patriotsoftware.com\)](https://patriotsoftware.com) 33

## Methodology 2 : Balance Equation or Accounting

- Macroeconomic Balance

“The principle of equivalent of three aspects” in Macro Economy:

$$Y = W + R + De + T - Sub = C + I + G + EX - IM$$

Even though these are flow data, they are presented in a balanced format.

# Methodology 2 : Balance Equation or Accounting

## Input-Output Table Frame

### Output

	01	02	03	04	05	06	07	08	09	10	11	12	13	70	71	72	73	74	76	78	79	81	82	83	84	85	86	87	88	97		
	Agriculture,forestry and fishery	Mining	Manufacturing	Construction	Electric power,gas and water supply	Commerce	Finance and insurance	Real estate	Transport	Communication and broadcasting	Public administration	Services	Activities not elsewhere classified	Total of intermediate sectors	Consumption expenditure outside households (column)	Consumption expenditure (private)	Consumption expenditure of general government	Gross domestic fixed capital formation	Increase in stocks	Total domestic final demand	Total domestic demand	Exports total	Total Final demand	Total demand	(less) Imports	(less) Customs duties	(less) Commodity taxes on imported goods	(less) Total imports	Total of final demand sectors	Domestic production (outputs)		
01	Agriculture,forestry and fishery	1566738	63	8148291	63474	0	11343	0	181	2269	0	1728	1516338	0	11310425	67984	3821831	0	193424	189251	4272490	15582915	112607	4385097	15695522	-2553754	-46311	-207835	-2807900	1577197	12887622	
02	Mining	410	1501	13108162	380410	7618810	264	42	78	445	17	442	4412	1035	21116028	-5364	-6120	0	-6516	-1851	-19851	21096177	45075	25224	21141252	-18141519	0	-2151818	-20293337	-20268113	847915	
03	Manufacturing	2970525	69677	135599329	17291297	1931102	3049731	1029121	188412	7131711	2444626	1975673	30940560	270490	20289254	1639321	57442541	1621	39357660	1106	985527171	301449425	65612563	164169734	367061988	-57534868	-996040	-5721883	-64252791	99916943	302809197	
04	Construction	30170	2604	589394	37948	490238	2766	86761	722676	358400	170921	324300	609237	0	3699380	0	0	113839	7139399	6106	57137189	60836569	0	0	0	0	0	57137189	60836569			
05	Electric power,gas and water supply	126810	34241	61173	24210	1724135	67161	137	556762	81135	3748	6563	731722	27782	20506251	9440	8797595	-212400	0	0	8594635	29100898	81709	8676335	29182386	-3287	0	0	0	0	8673048	29179299
06	Commerce	843366	17469	13892564	3375890	518797	1031674	188269	100454	1480506	603888	391574	10085380	47205	32587127	1663548	48154709	10279	7396235	181619	57406390	89993517	5674864	63081254	95668381	-189500	0	0	0	0	62891754	95478881
07	Finance and insurance	81031	34285	1944933	762114	511390	1633952	1636045	6138221	1254226	279321	836596	2202316	13399	17327289	282	17774586	0	0	0	17774868	35102697	1744931	19519799	36847628	-1399404	0	0	0	0	18120395	35448224
08	Real estate	23450	7017	589820	276234	145251	2656385	541343	2408786	1060604	1156095	63536	2807765	147832	11884118	0	65914089	22007	2853657	0	68789753	80673871	46859	68836612	80720730	-1787	0	0	0	0	68834825	80718943
09	Transport	727074	176147	7942962	2669953	1041515	5132988	1263281	213181	6643436	1364670	1375475	591574	443793	34909649	416124	15055266	52490	830949	50411	16405240	51314889	7303895	23709135	5861784	-369366	0	0	0	0	20099769	55009418
10	Communication and broadcasting	48697	6828	1895842	536093	453514	3563858	2046480	276629	566315	8453606	1207264	9251428	354448	28703703	180634	13261541	36245	9377910	-27004	22829326	51533029	763147	23592473	52296176	-2314324	0	-7341	-2321665	21270808	49974511	
11	Public administration	0	0	0	0	0	0	0	0	0	0	0	0	1157289	1157289	0	1167743	37414003	0	0	38581746	39739035	0	0	0	0	0	38581746	39739035			
12	Services	276644	46661	9839292	5847382	2531680	8377238	4328081	2290233	6811438	9190525	4742630	24178171	297348	7877323	11083531	74222590	68199886	1792416	0	173298423	252055746	5378482	178676905	257434228	-7237785	0	-657	-7238442	171438463	250195786	
13	Activities not elsewhere classified	50609	10384	937178	848712	110774	649760	165379	139993	454627	132230	37193	1191459	0	4728298	0	10043	0	0	0	10043	4738341	5295	15338	4743636	-50648	0	0	-50648	-35310	4692988	
70	Total of intermediate sectors	6745524	406877	199239500	32331517	18094710	28751025	11506174	12835606	26668344	24170730	11591974	94477071	2760522	469579674	15055500	305616414	105529331	136932924	503254	563637423	1033217097	86769418	650406841	1119986515	-9309642	-1042351	-8089534	-102168127	548238714	1017813888	
71	Consumption expenditure outside households (row)	81621	37190	3653881	1245000	308849	2284242	1073242	313301	900015	930419	434274	3773905	19500	15055500																	
72	Compensation of employees	14693931	174033	454168	12642	5910	3723350	10620	41785	15584730	10500244	14323697	10143991	59433	265799218																	
73	Operating surplus	2810764	77159	14917995	1706960	130634	1481175	8985785	31773515	3207488	7226210	0	15521088	1564821	103905324																	
74	Depreciation of fixed capital (except custom duties and commodity taxes on	1997177	93280	29252565	2336988	6083953	8486201	2600383	27160967	6343117	5525133	13315220	27645991	230144	131071119																	
75	Customs duties and commodity taxes on	513516	59637	10524332	2246829	1011599	3974876	746737	3986729	2454817	1622477	73870	8350442	82141	35667962																	
76	Total of gross value added sectors	-754911	-261	-197544	-291997	-233438	-46988	-526120	-22980	-149093	-702	0	-101264	-23733	-3260409																	
77	Domestic production (gross inputs)	6142098	441038	103569697	2850502	11084589	66727856	23942050	6788337	28341074	25803781	28147061	155718715	1932366	548238714																	

Value Added

Final Demand

Input

## Methodology 3 : Historical Approach or Evaluation Process

- Historical approach or Evolutionary development (new factors generating)
  - Economic History
  - Development Stage
  - Irreversible Process

### Development Stage as a general expression

- 1) Pre-Growth or Developing: Public Policy → Social Infrastructure and Infant Industry Protection
- 2) High Growth: Market Competition, Free Trade, Investment
- 3) Mature : Deregulation & Free Trade, Income Redistribution, Reformation of Infrastructure (Social Welfare etc.)
  - e.g. USA: inequality or income gap
  - Japan: strong regulation, monopolistic situation

## Classical models of economic development as evolutionary explanation

- Variation of growth model

Akamatsu (1935): “Flying Geese pattern”, ([image1](#), [original image](#))

Petty=Clark (1941): “[Petty=Clark's Law](#)”,

Kuznets (1955): “[Inverse U-shape curve](#)”,

Rostow (1960): “[Take-off](#)”,

Vernon (1966): “Products Life Cycle”, etc.

# Points of “Flying Geese” or “Petty-Clerk “

## Productivity and Labor transformation

Productivity in agriculture/fishery/forestry by cooperation, irrigation and others  
→ labor movement from the primary sector to other sectors (the secondary or the tertiary) : **Labor intensive industries** (e.g. Agriculture → light industries)

→ Productivity in the 2<sup>nd</sup> and 3<sup>rd</sup> industries: **Capital intensive industries**  
(e.g. light industries → heavy industries)

→ **Knowledge intensive industries** (technology, science, idea, and so on.)  
(e.g. heavy industries → IT industries, intelligent services, etc.)

# Summary

## Characteristics of Social Sciences:

how we can depict/analyze the free behavior of human beings. It's impossible to predict individual movement with free will completely.

## Three methods:

Historical methods, Accounting methods, and Statistical methods seem to be useful so far.

## 4. Factors for comprehensive economics

# Point of view for comparative economic development

- 1) Time (History or Evolutionary Process: Developing Stage)
- 2) Space (Social Layers : main 5)
- 3) Social Structure or infrastructures (6 +)
- 4) Economic Development principles (main 5)

# Time (History or Evolutionary Process: Developing Stage)

“Time “ does not mean the mathematical integration!

It’s different from the “Dynamics” of the economic model.

“Time”, here, means Historical time, which may include unexpected events like the COVID-19 pandemic, the Russian invasion of Ukraine, the genocide in Gaza, the kidnapping of Venezuela’s president, and the threat of the U.S. to annex Greenland...

[example 1](#)

[example 2](#)

However, we have to be careful with “Historicism”.

e.g. *The Poverty of Historicism* (Karl Popper (1957))

We cannot predict our future society exactly in general because there is no historical inevitability.

Historical analysis is useful and important but prediction of historical inevitability/necessity is impossible.

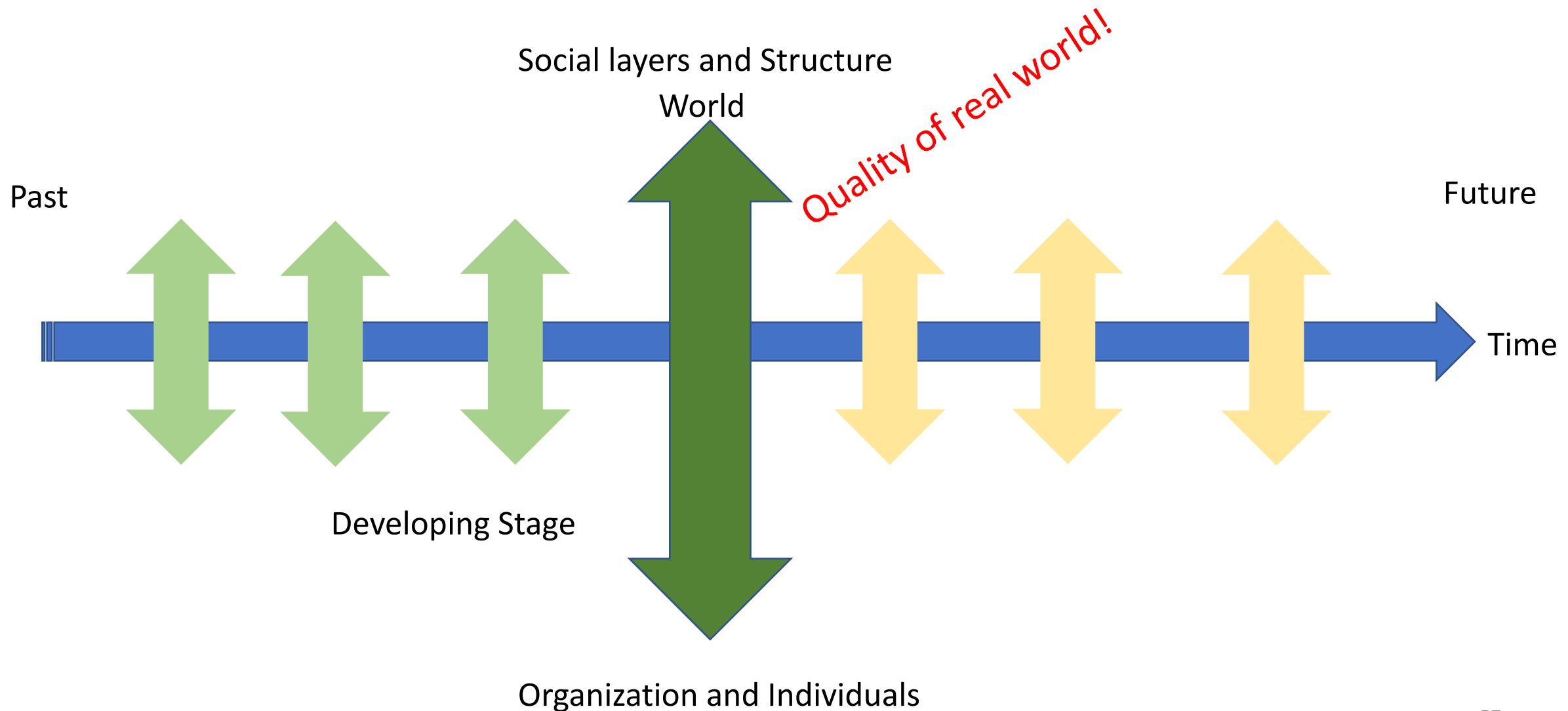
# Point of view for comparative economic development

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# Spatial Layers or Social Layers : different activities in multi level

- 1) Global / International Trade (e.g. Ricardo, F. List)
  - (1) Nation State's Strategic Behavior
  - (2) Protectionism (Tariff and Subsidies) and Free Trade
- 2) Domestic (Nation State) / interregional
  - (1) Competitive Situation
  - (2) Mobility
  - (3) Safety Net
- 3) Regional, or Urban vs Rural (e.g. Krugman, M. Porter)
  - (1) Regional Cooperation in general,
  - (2) Employment and Investment in Urban Area, Agglomeration, Geography
  - (3) Subsidies in Rural Agriculture
- 4) Organizations (*gesellschaft and gemeinschaft*) (e.g. C. Barnard, H. Simon, J.K.Arrow)
  - (1) Companies (work place) and communities (local communities, university & school, etc)
  - (2) Large size firms (monopolistic or oligopolistic) vs Small and Medium size firms
  - (3) Competition and cooperation, Skill-up, knowledge intensity and technology
- 5) Class and Fields (*for Individuals*)  
Q1-Q4 classes (Q2-3:middle classes), Each special field

# Image : Time and Space for Society

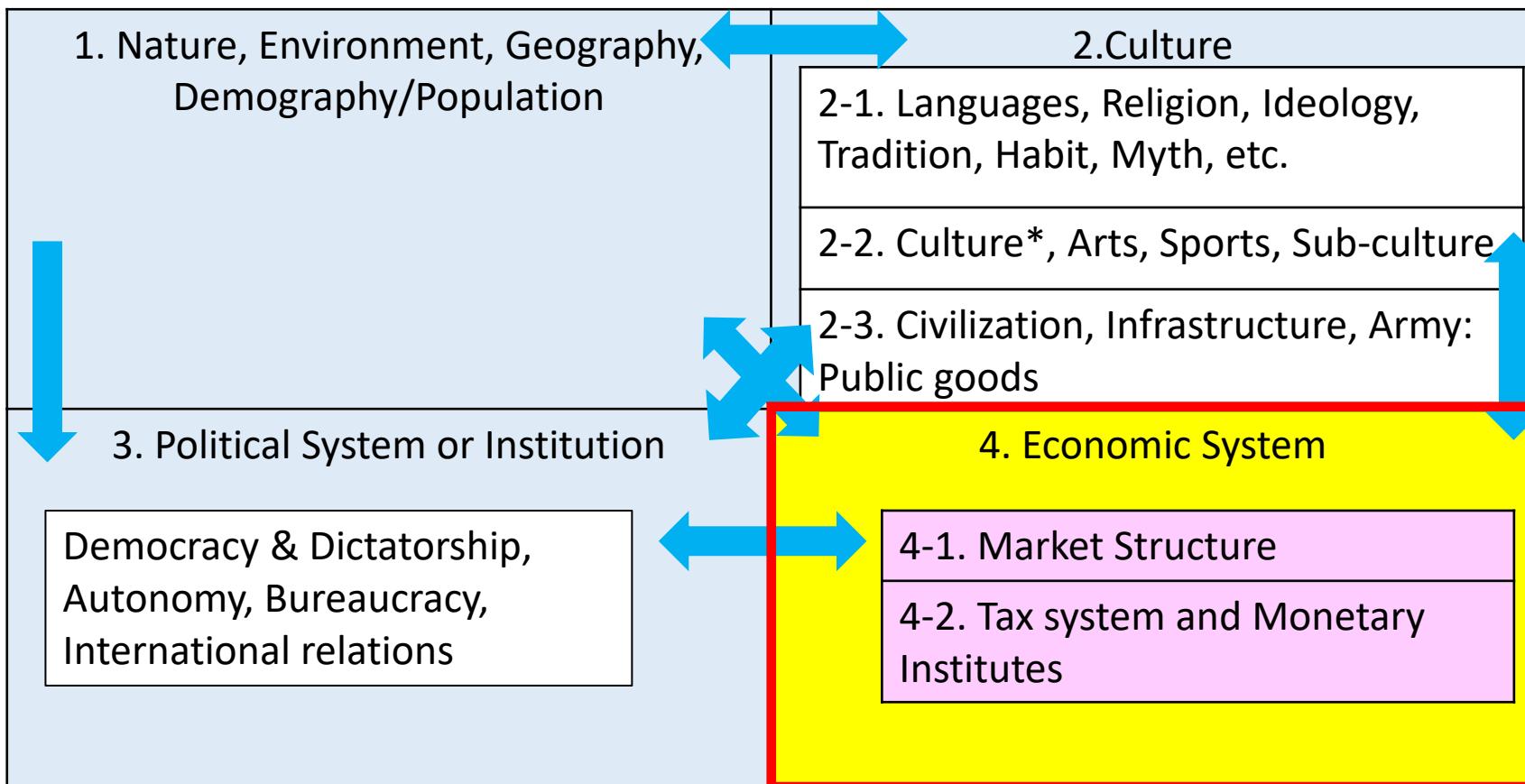


# Point of view for comparative economic development

- 1) Time (History or Evolutionary Process: Developing Stage)
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# 6 Infrastructures for a society : social fundamental power

## I. Non-Economic System and II. Economic System



\*Culture includes Literacy and Education, Science, Medical Care and so on.

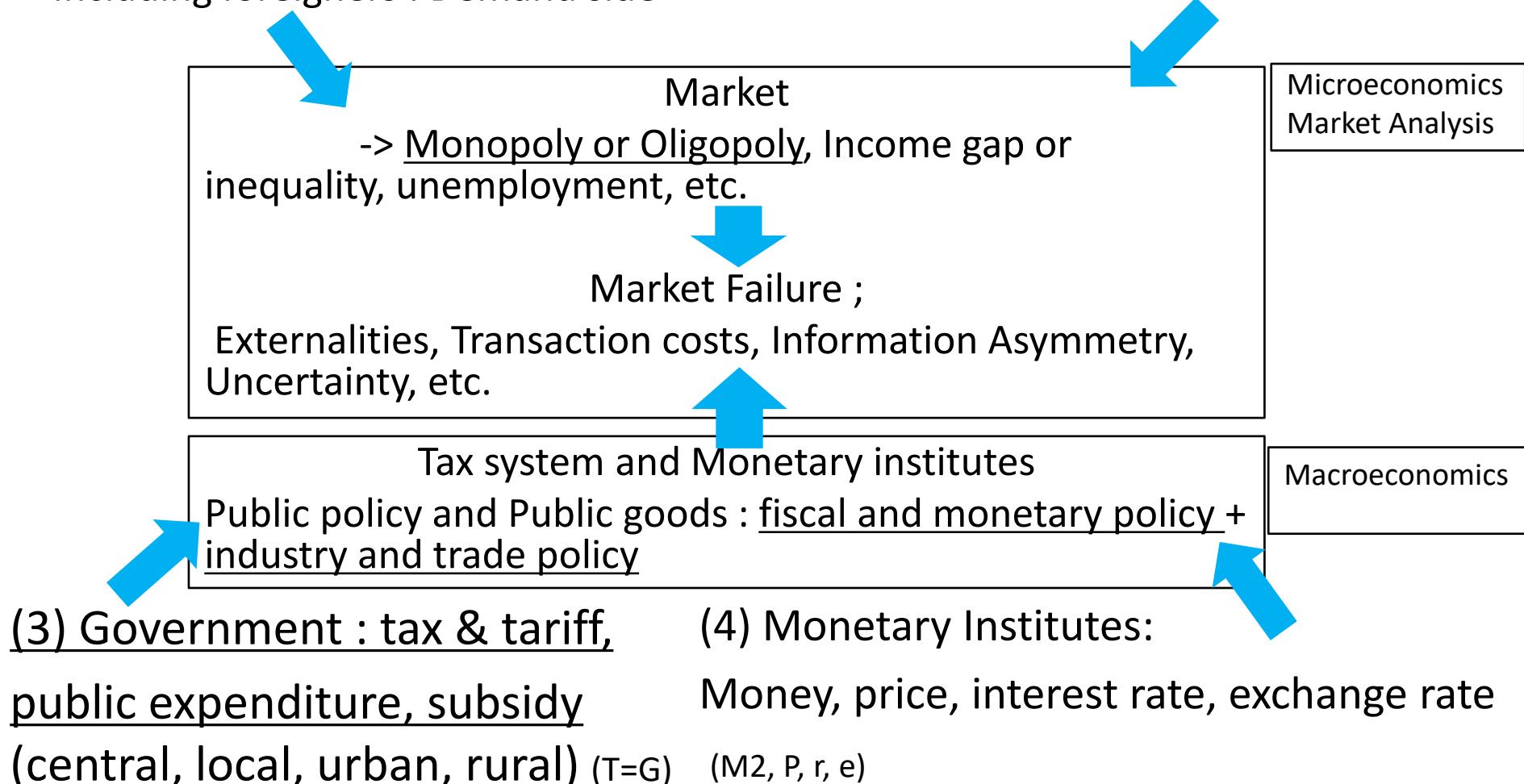
# Economic System : Market; Tax system and Monetary Institutes

## Generating Market or Individualizing Market;

### Market Structure: 4 agents

(1) Consumers (Households, Labors)  
Including foreigners : Demand side

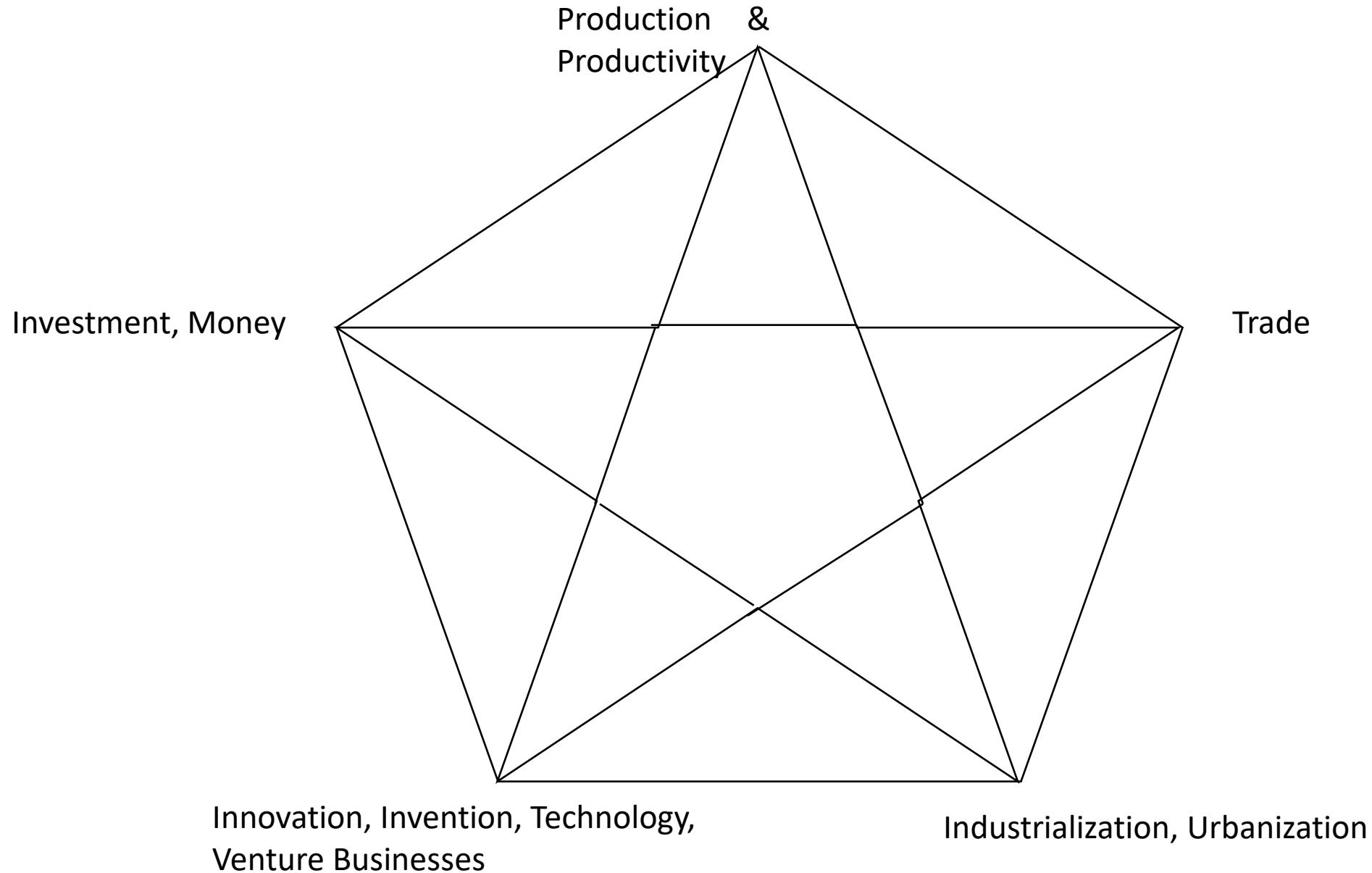
(2) Firms, Investors including  
foreign companies: Supply side



# Point of view for comparative economic development

- 1) Time (History or Evolutionary Process: Developing Stage)
- 2) Space (Social Layers : main 5)
- 3) Social Structure or infrastructures (6 +)
- 4) Economic Development principles (main 5)

# Economic Development : 5 main principles



## Economic Development :5 main principles

### Principles of Economic Development: (I, EX-IM)

(1) Domestic/International or Global Trade → **Comparative Advantage Theory** (demand side: uncertainty)

(2) Production & Productivity or Efficiency (Division of Labor and Property Right) (supply side)

(3) **Investment & Finance**, Concentration of Capital -> financing technique, Banking, International Finance (demand side: uncertainty)

(4) Changes of Industry Structure, Specialization = **Industrialization** (→ Income gap or inequality ) & Agglomeration/Urbanization (supply side)

(5) Innovation, **Venture business**, Technological change, management, Science & Research (demand side: uncertainty)

# Problem left

## Money Control:

Capitalism → concentration of money and securities (liquidities)

As mentioned above, Industrialization, Innovation, Invention, Technological Change, New Knowledge, etc are essential for economic development → Industrialism.

However, Unrestricted monetary flow seems to cause of economic instability or fluctuation. Huge impact of money transaction to real economy → So, speculation should be regulated.

### References:

- Walter Bagehot, *Lombard Street* (1873)
- J. M. Keynes, *The Economic Consequences of the Peace* (1919)
- Milton Friedman, *The Island of Stone Money* (1991)
- Felix Martin, *Money* (2014)

## Summary :

Why have I been into the interdisciplinary field for a long time?

→ The economy is an open system

The key point of economic development is what your country produces/creates!

Production (goods & services), not trade and money per se!

What kind of goods/services?

What kind of industry? Manufacturing?

Decreasing return/marginal productivity such as agriculture and monoculture causes poverty.

(Of course, agriculture is essential for human being though!)

Economics should be a comprehensive arts and sciences!

“There is no royal road to learning” by Karl Marx  
「学問に王道なし」

Thank you for your attendance!

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See you again!