

# 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", *IDEC 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", *IDEC 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", *IDEC 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.

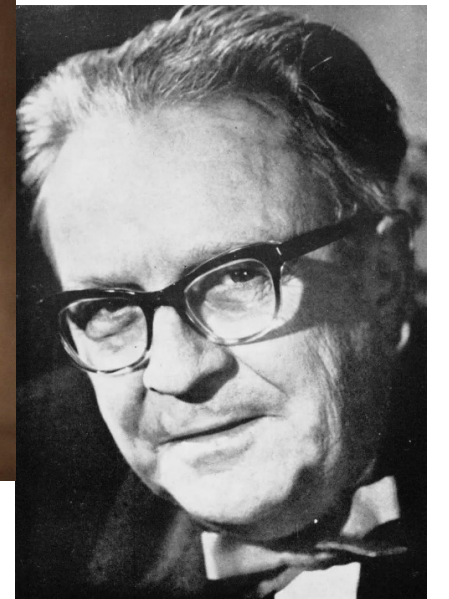
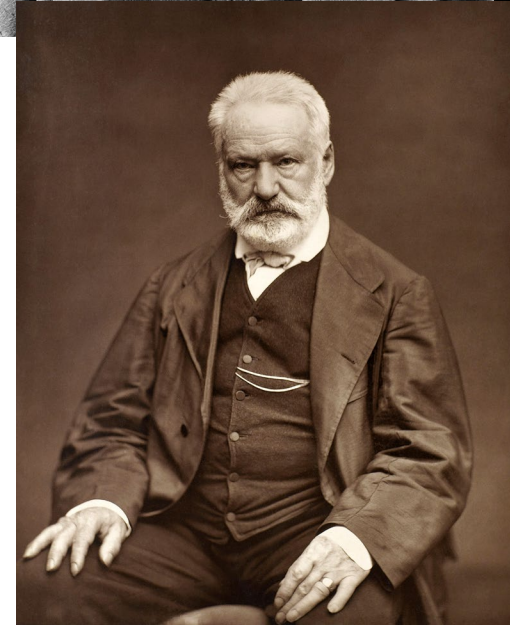
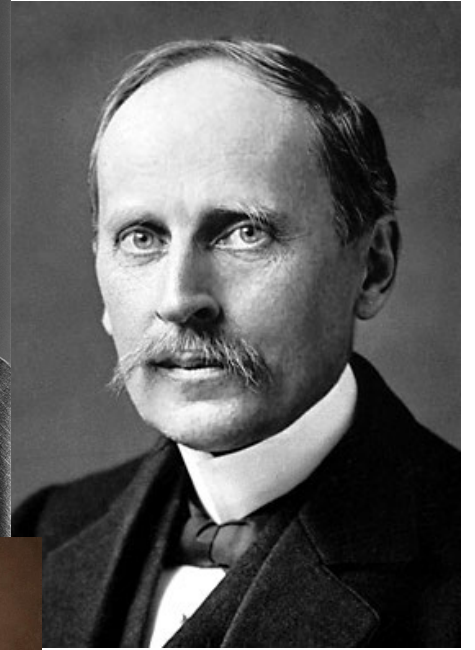
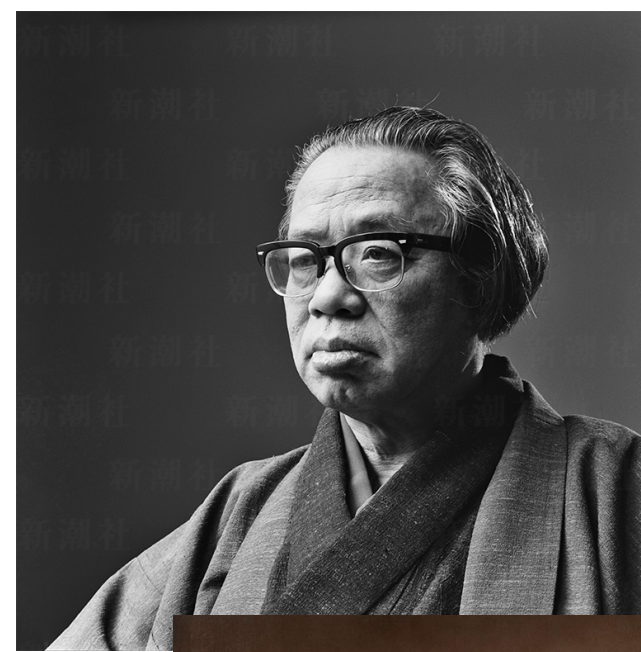
Orthodox Economics vs Heterodox Economics

# 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

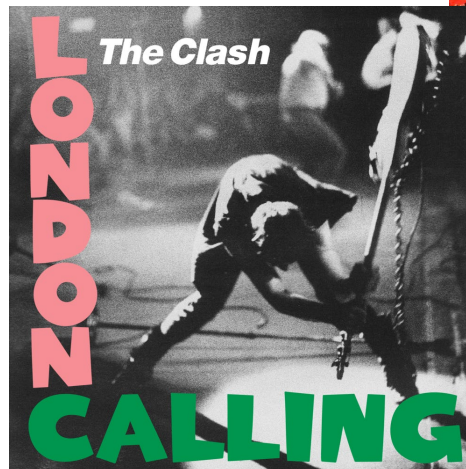
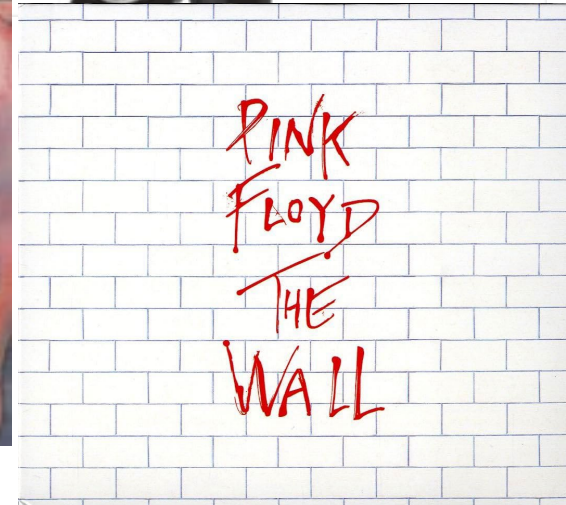
Hamada Shogo;

Bruce Springsteen;

King Crimson;

Pink Floyd;

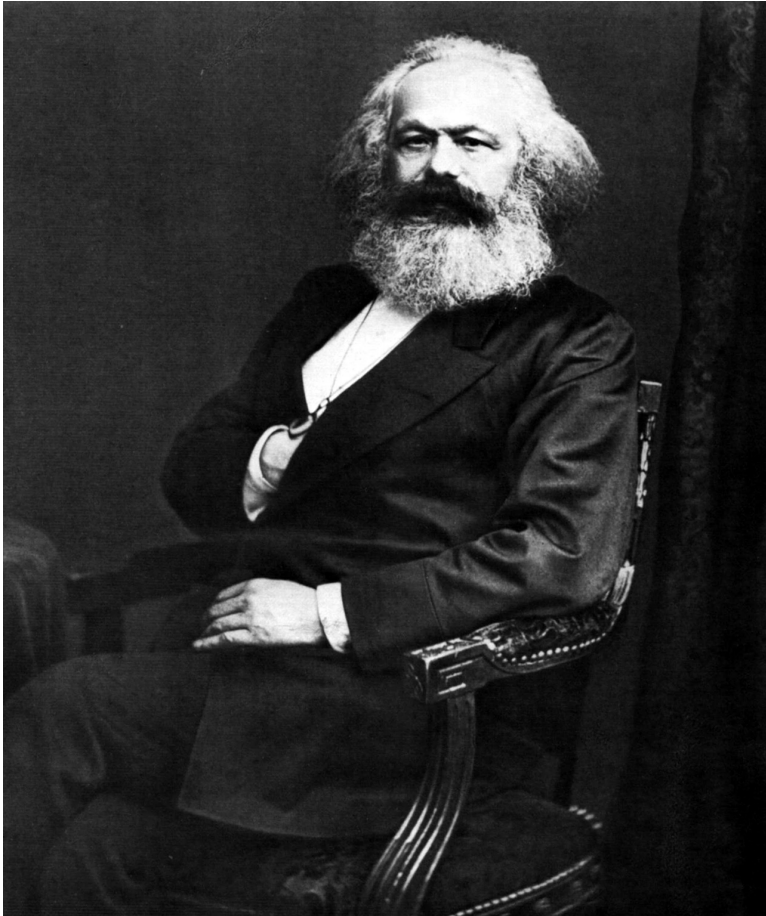
The Clash, The Stranglers



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)



## 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.



### ▶ 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)

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

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

But! 
$$\begin{aligned} \text{Simple Observation Comparison} &= E[Y_i(1)] - E[Y_i(0)] \\ &= E[Y_i(1)|T = 1] + E[Y_i(1)|T = 0] - E[Y_i(0)|T = 1] - E[Y_i(0)|T = 0] \\ &= E[Y_i(1)|T = 1] + \text{always taker} - \text{never taker} - E[Y_i(0)|T = 0] \\ &= E[Y_i(1)|T = 1] - E[Y_i(0)|T = 0] + \text{selection bias} \\ &\quad (ATE + \text{selection bias}) \end{aligned}$$

or

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



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

貸方  
In  
Japanese

[balance-sheet-example.png](#)  
(1080×1080)  
([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

Input

2015 Japan IO table sector 13, transaction table, producers price

		01	02		03	04	05	06	07	08	09	10	11	12	13		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219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## 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.

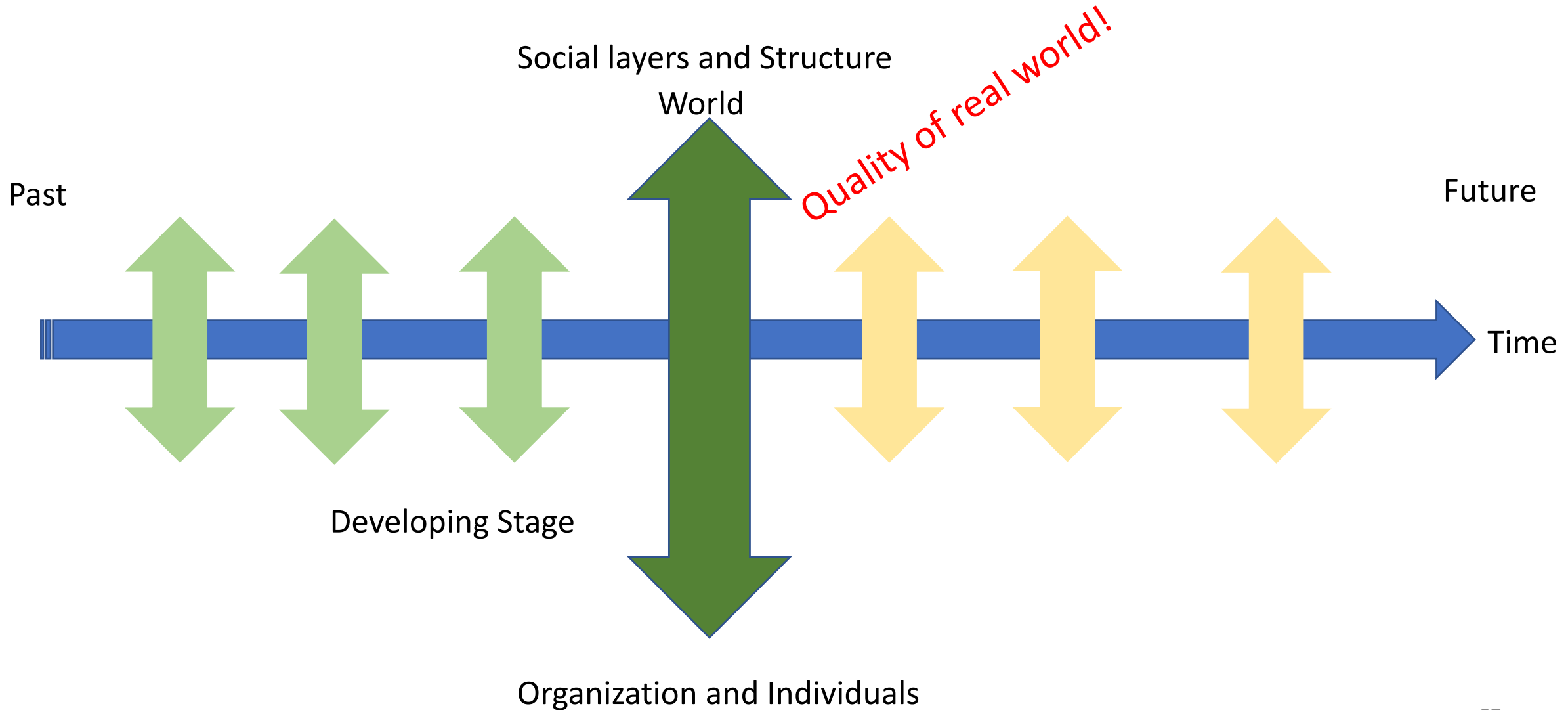
# Point of view for comparative economic development

- 1) Time (History or Evolutionary Process: Developing Stage)
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- 3) Social Structure or infrastructures (6 +)
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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

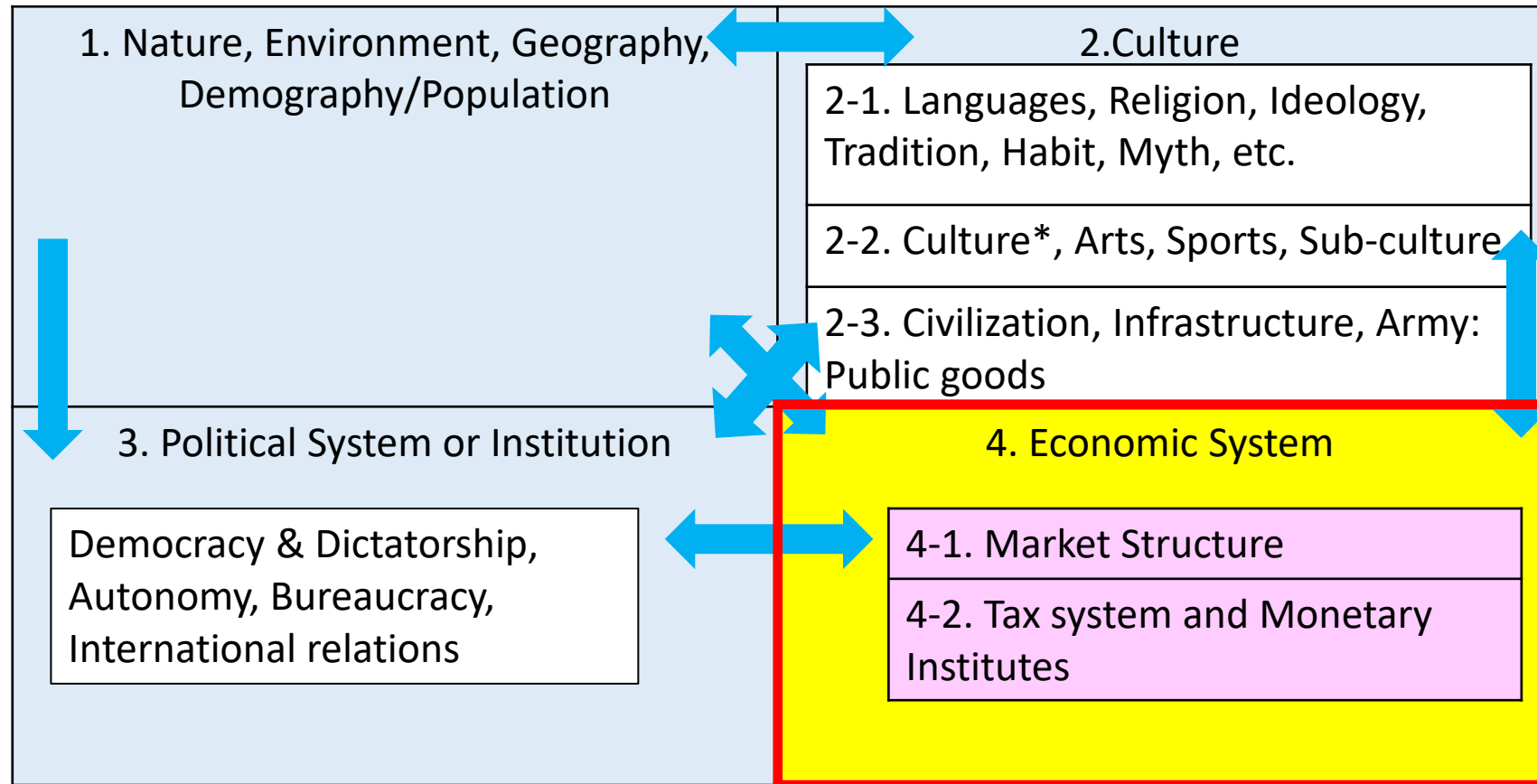


# Point of view for comparative economic development

- 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

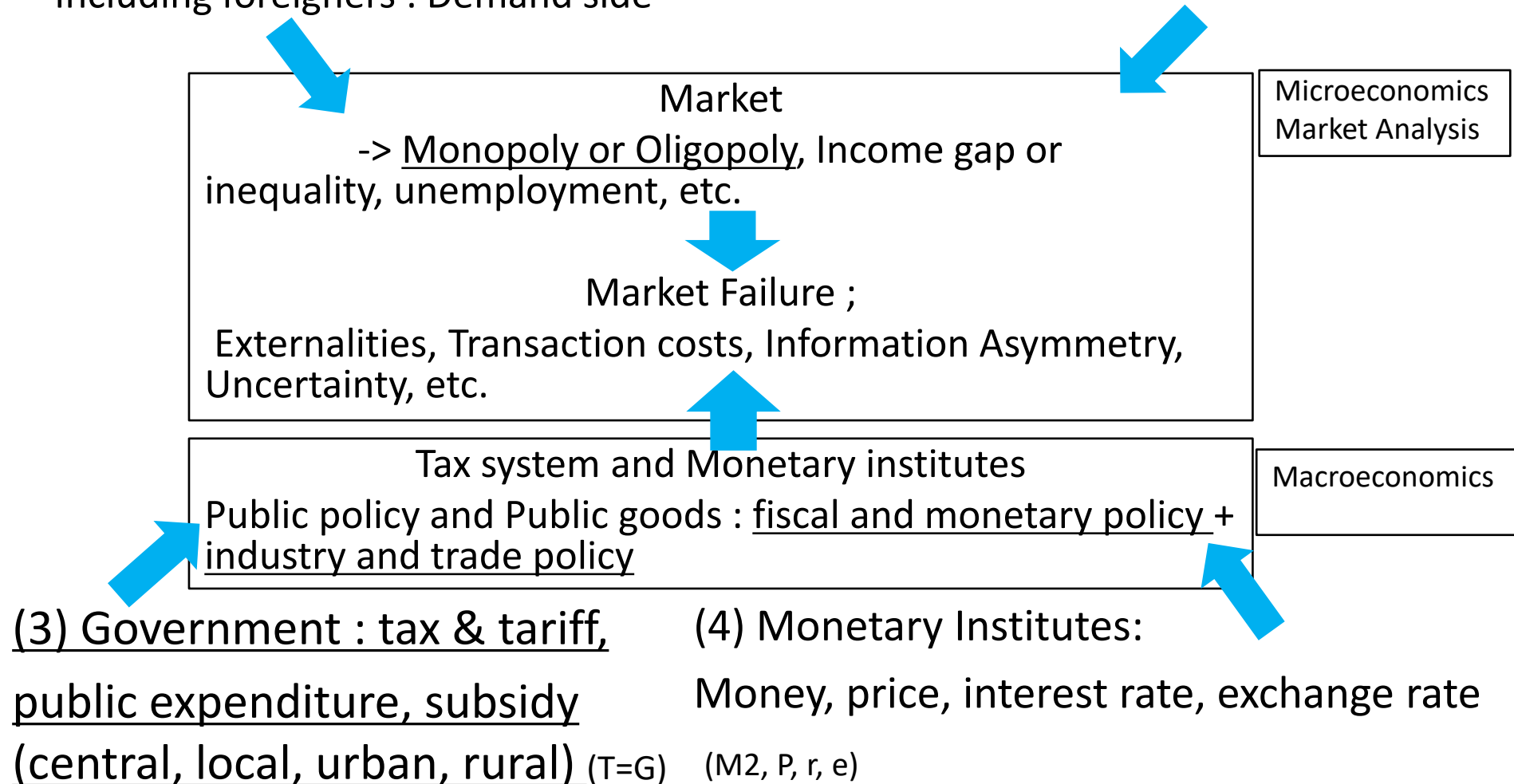
## Generating Market or Individualizing Market;

### Market Structure: 4 agents

(1) Consumers (Households, Labors)

Including foreigners : Demand side

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

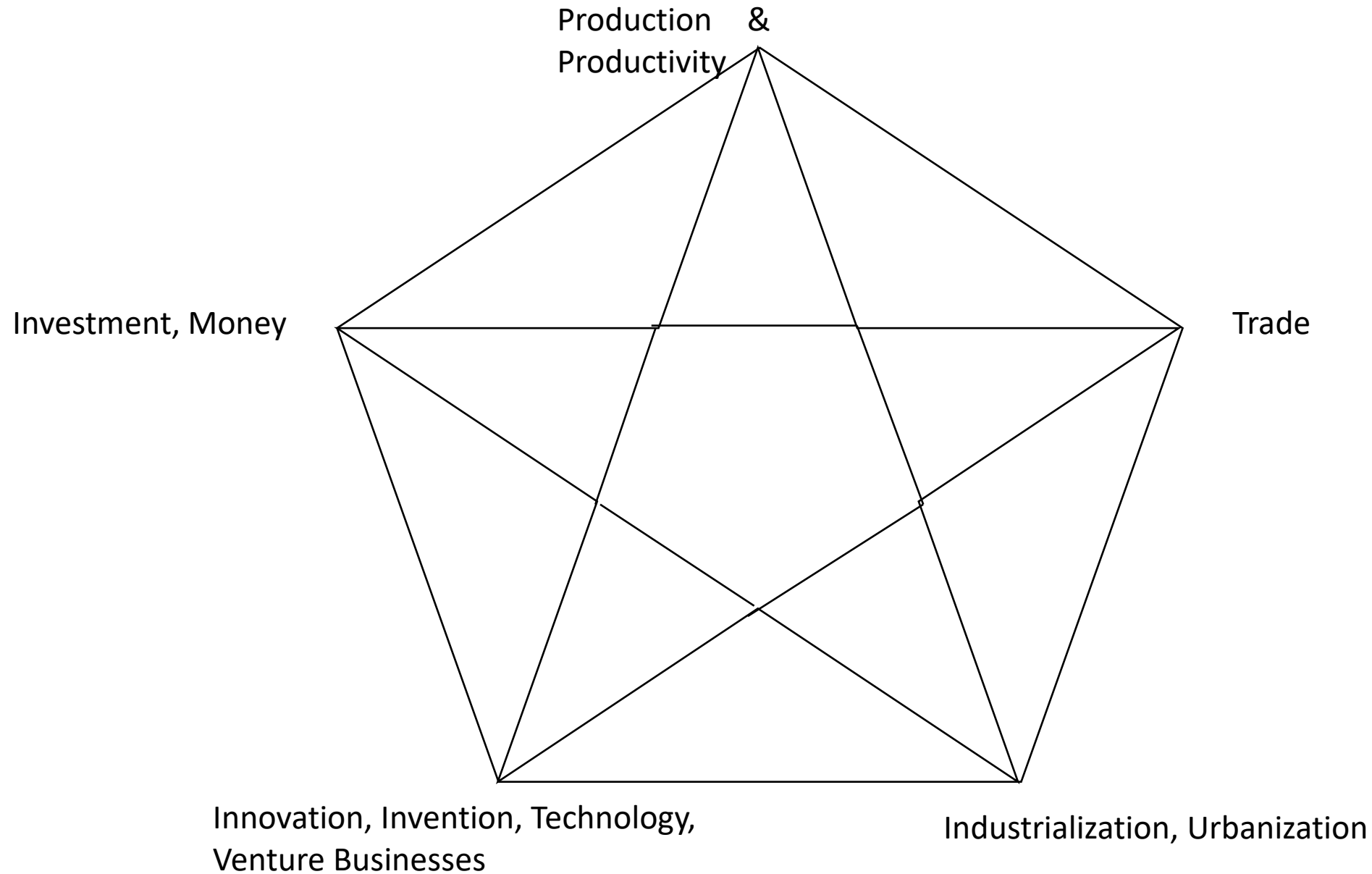


# Point of view for comparative economic development

- 1) Time (History or Evolutionary Process: Developing Stage)
- 2) Space (Social Layers : main 5)
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# 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 Baghot, Lombard Street (1873)

J. M. Keynes, The Island of Stone Money (1915)

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!