

Japanese Experience of Social Development - Economy, Infrastructure, and Peace: “Industrial Policy and Economic Growth”

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“Fools say they learn from experience; I prefer to learn from the experience of others.”

By Otto von Bismarck(1815 – 1898)

Four questions in the World History

- 1) British Colony and American System (since 17-18C)
- 2) China's decline (around 14C: Ming Dynasty)
- 3) Japanese Rapid Growth (19 and 20C)
 - Kuznets, Allen, etc
- 4) Why poor countries stay poor in even today

Today's Topic

Japanese Economic History since the late 19C (cf. [Rostow\(1961\)](#), Hegel's historical dialectical thought):

period I (1860s – 1910s): Meiji restoration to World War I,

period II (1910s - 1930s) : between World Wars or during the Great Depression

period III (1940s – 1950s) : WW II & just after

period IV (1960s – 1980s): rapid growth & bubble economy

period V (1990s - present); very long recession or falling down(?)

Production, Company numbers, Industry, International Trade, etc.

Including

- 1) Economic Development Stage Theory: “Flying Geese Pattern” or “Products Life Cycle” and “Petty=Clerk Law”
- 2) Agriculture and manufacturing or Services: “Return to Scale” and “Marginal Productivity”
- 3) Economic Policy for economic development: “Free Trade” vs “Protective Trade”

References (main)

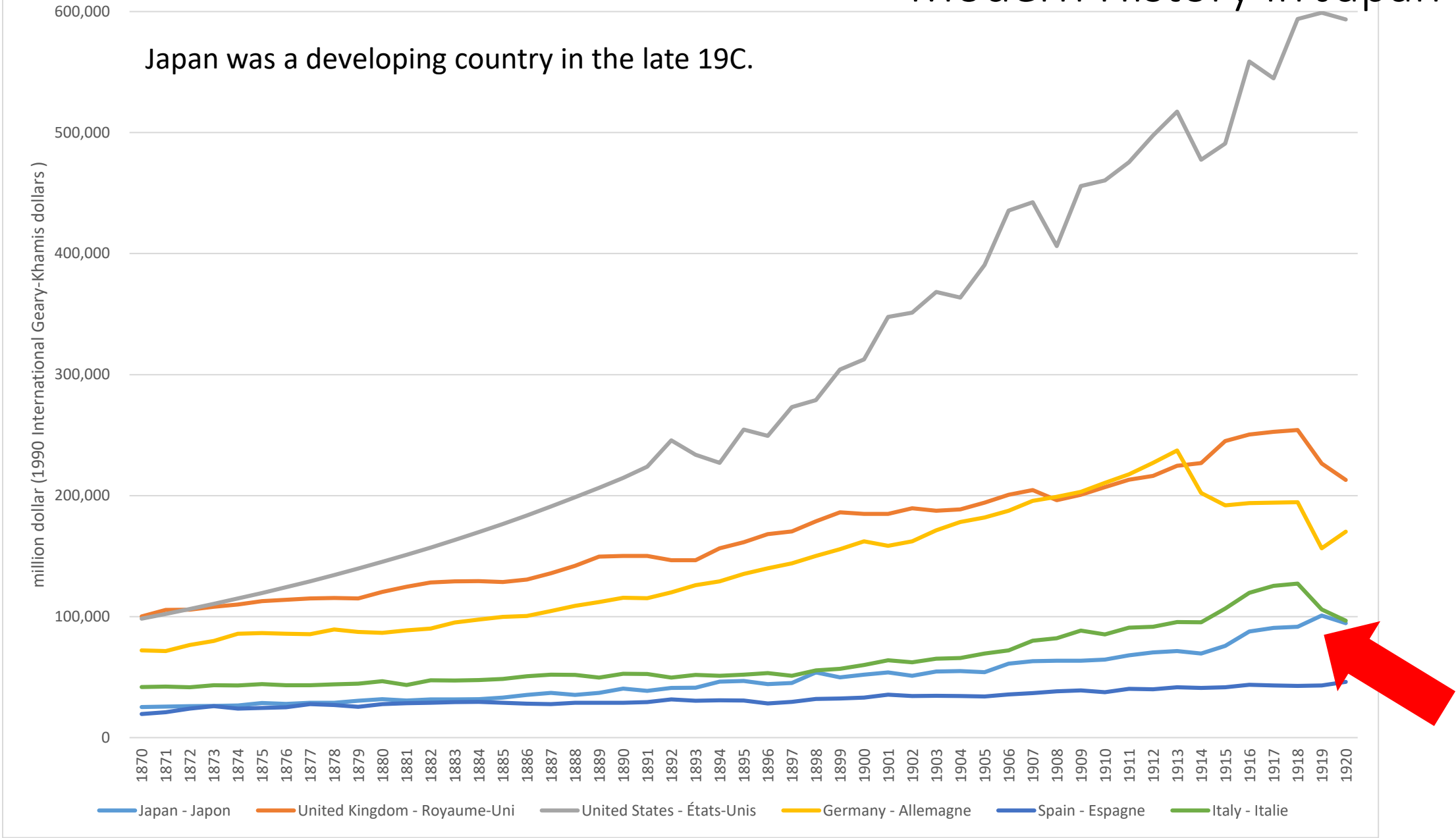
Main references

- 1) Reinert, Erik S., 2007, *How Rich Countries Got Rich ... and Why Poor Countries Stay Poor*, Constable.
- 2) Chang, Ha-Joon, 2002, *Kicking Away the Ladder: Development Strategy in Historical Perspective*, Anthem Press.
- 3) Reinert, E., Ghosh, J. and Kattel, R. ed., 2016, *Handbook of Alternative Theories of Economic Development*, Edward Elgar Publishing.

My papers related to today's topic

- 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 \(hiroshima-u.ac.jp\)](https://hiroshima-u.ac.jp/repec/idec/dp1001/ichihashi2020.pdf)
- 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 \(hiroshima-u.ac.jp\)](https://hiroshima-u.ac.jp/repec/idec/dp0903/ichihashi2020.pdf)
- 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 \(repec.org\)](https://repec.org/pubs/idec/dp2/dp2016063/ichihashi2016.pdf)

Japan was a developing country in the late 19C.

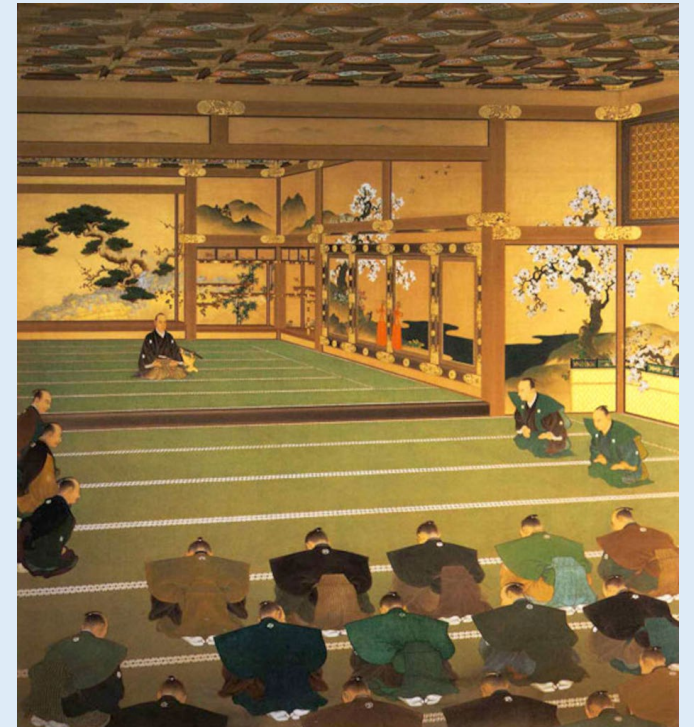


Modern History in Japan 1

Period I (1860s – 1910s)

- Meiji Restoration (Before and After 1868)

Meiji era started in October, 1868 after the Edo Shogunate Tokugawa made his administration return to the Meiji Emperor. (Modernization Japan)



Modern History in Japan 1

- Meiji Restoration (Before and After 1868)

Before this event, Japan had already signed the agreement with the United States of America:

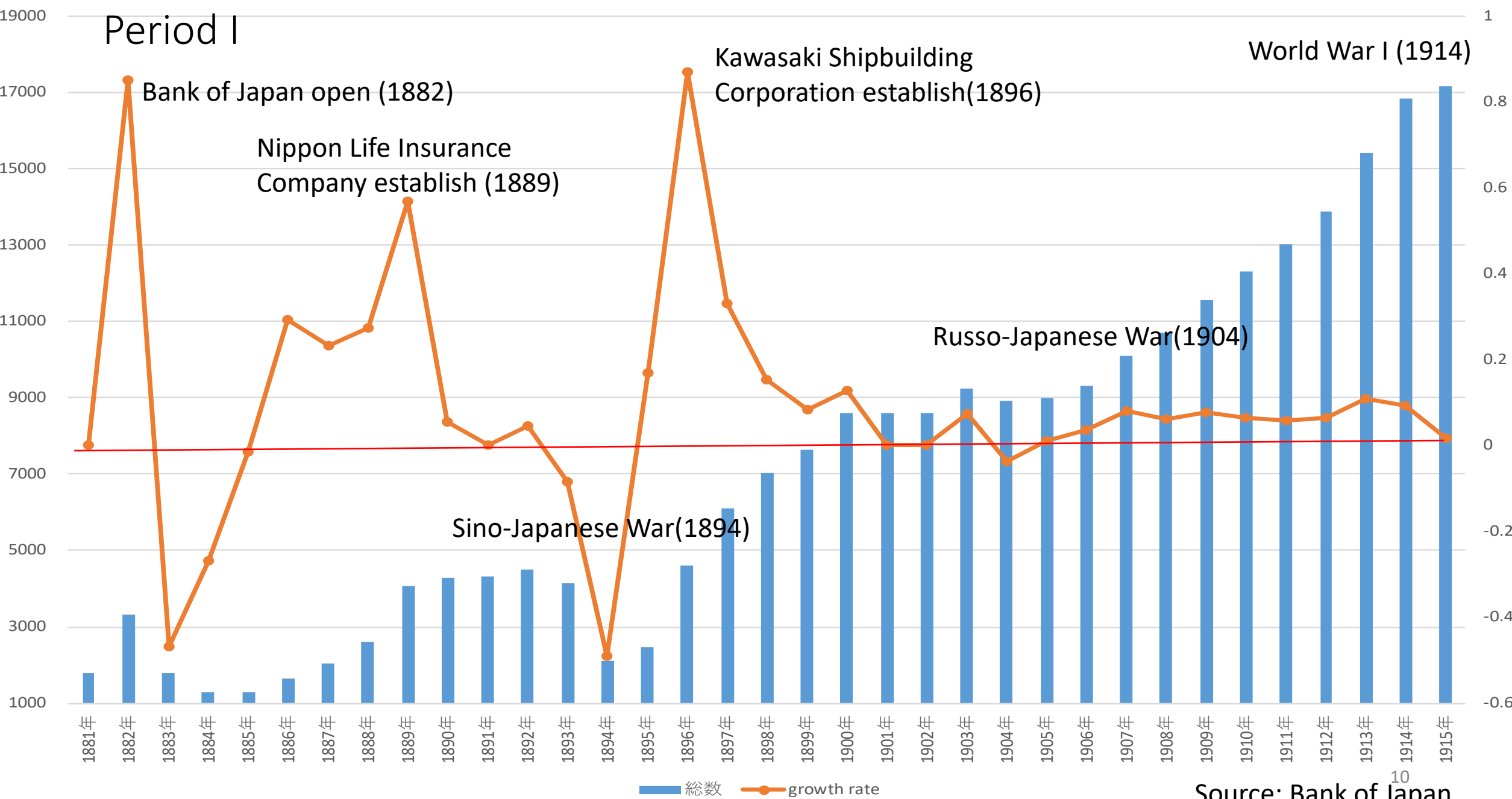
“Treaty of Amity and Commerce Between the United States and the Empire of Japan” (1858) → the first agreement of international trade for Japan

- But, no tariff autonomy for Japan (unequal treaty)
- Actual tariff rates :
 - e.g. averagely 20% (relatively high tariff) , but 5% for foods, building materials and fishery equipment (Ishii(1972))
- On the other hand, U.S.’s tariff rate:
averagely 38.3% in 1860s (**Taussig, F.W. (1923)**) (U.S. had been increasing its tariff rate almost every year!)

Modern History in Japan 1

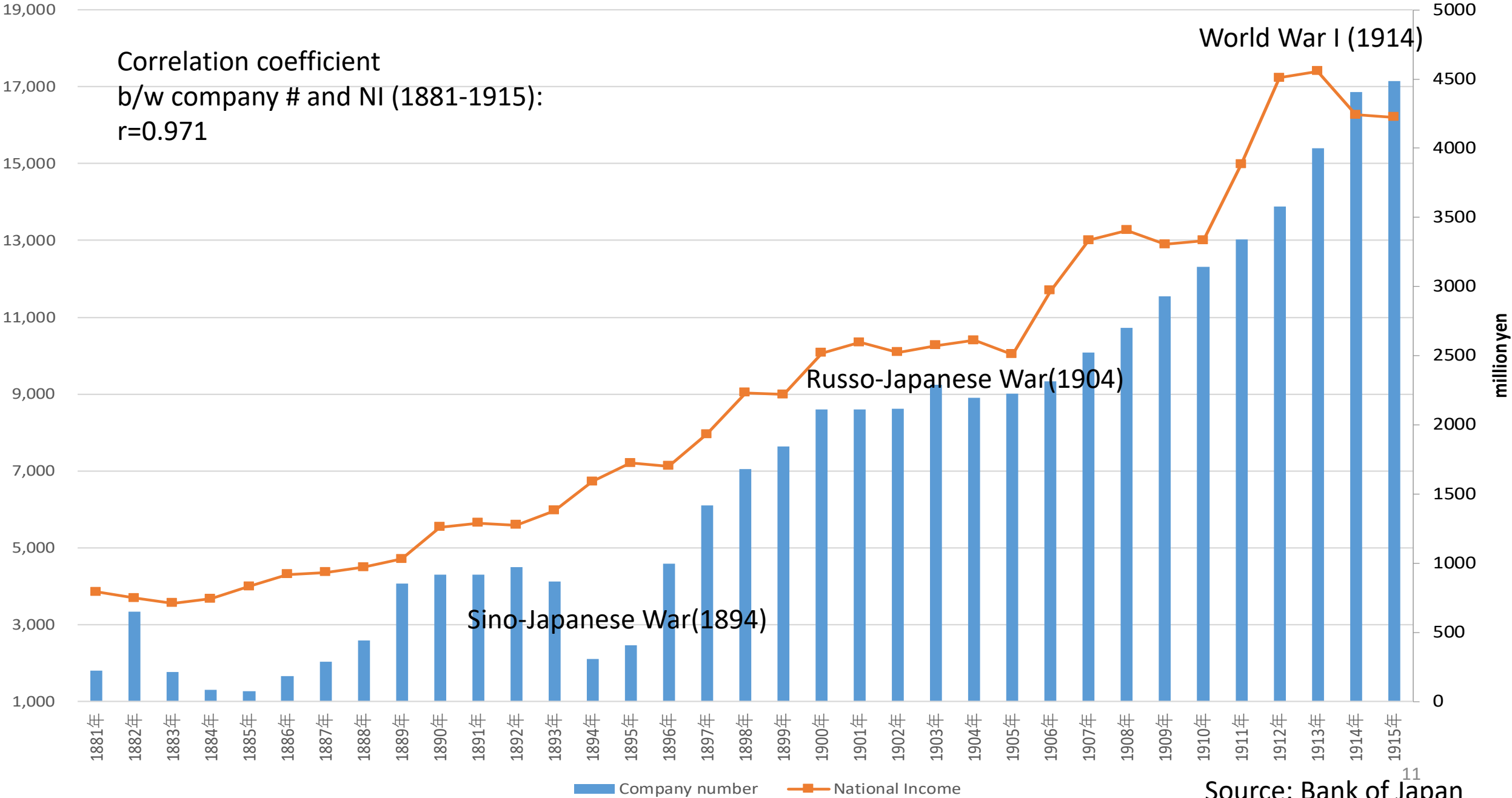
- Meiji Restoration (Before and After 1868)
 - a goal of meiji government: *Civilization!*
 - its slogan:
 - 1) national prosperity and defense (“Fukoku Kyohei”), and
 - 2) encouragement of new industry (“Shokusan Kogyo”)
- Central government leadership: Japanese bureaucratic system had been established and replaced with “Shogun system”.
- Industry Policy: led by government first and then privatization (public sector and market)
 - E.g. Establishing governmental factories (Mining of Silver, Copper and Coal, Iron Ore, Iron Mill(Yahata), Silk Mill(Tomioka), Cotton Spinning, Docs and so on) → Afterward, disposal to the private sector
- Rising of new enterprises as venture businesses by entrepreneurship (Free economic activities)

Period I



Company number and National Income (from 1881 to 1915), Japan

Correlation coefficient
b/w company # and NI (1881-1915):
 $r=0.971$



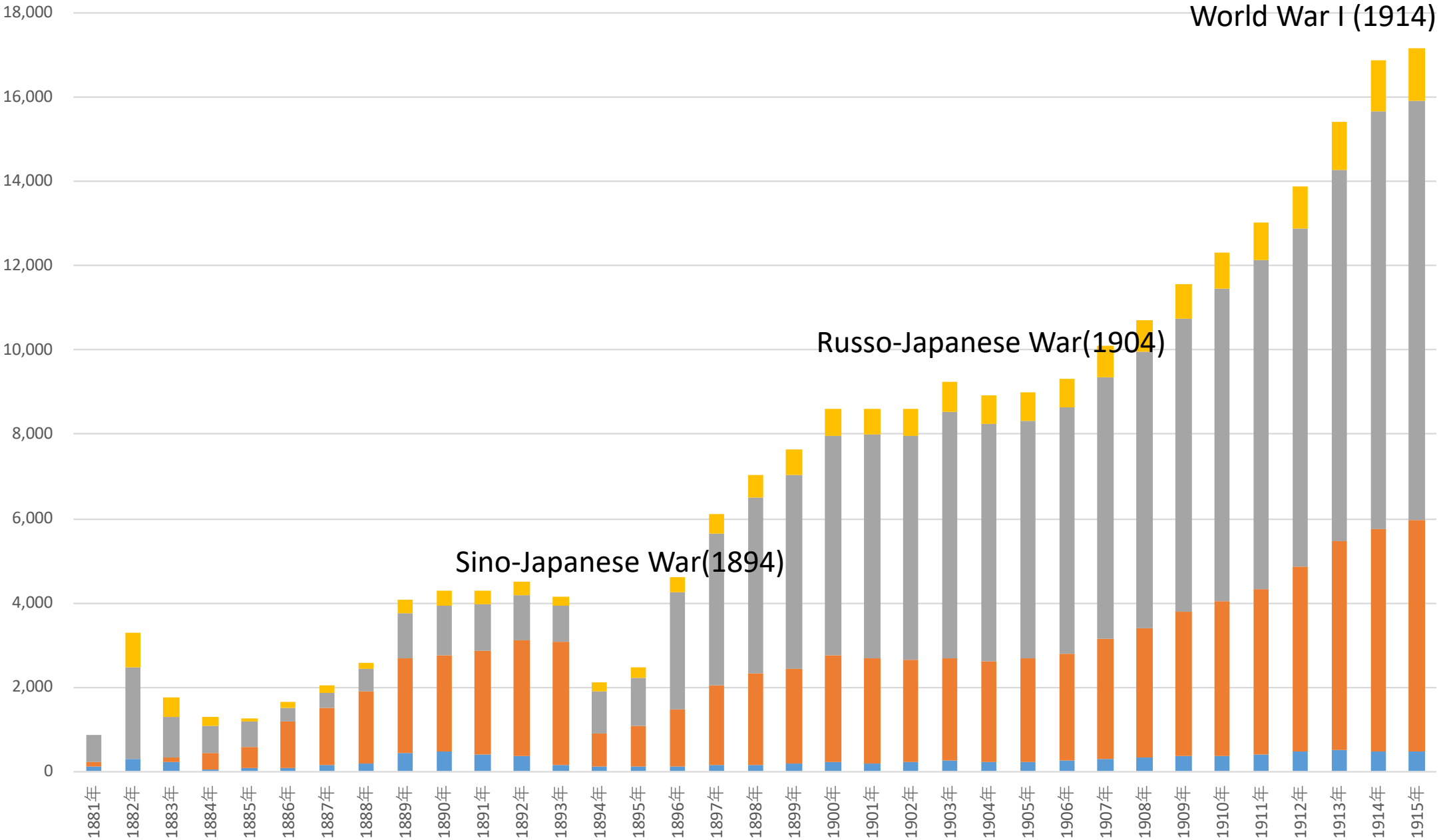
Company numbers in Japan :1881-1915

World War I (1914)

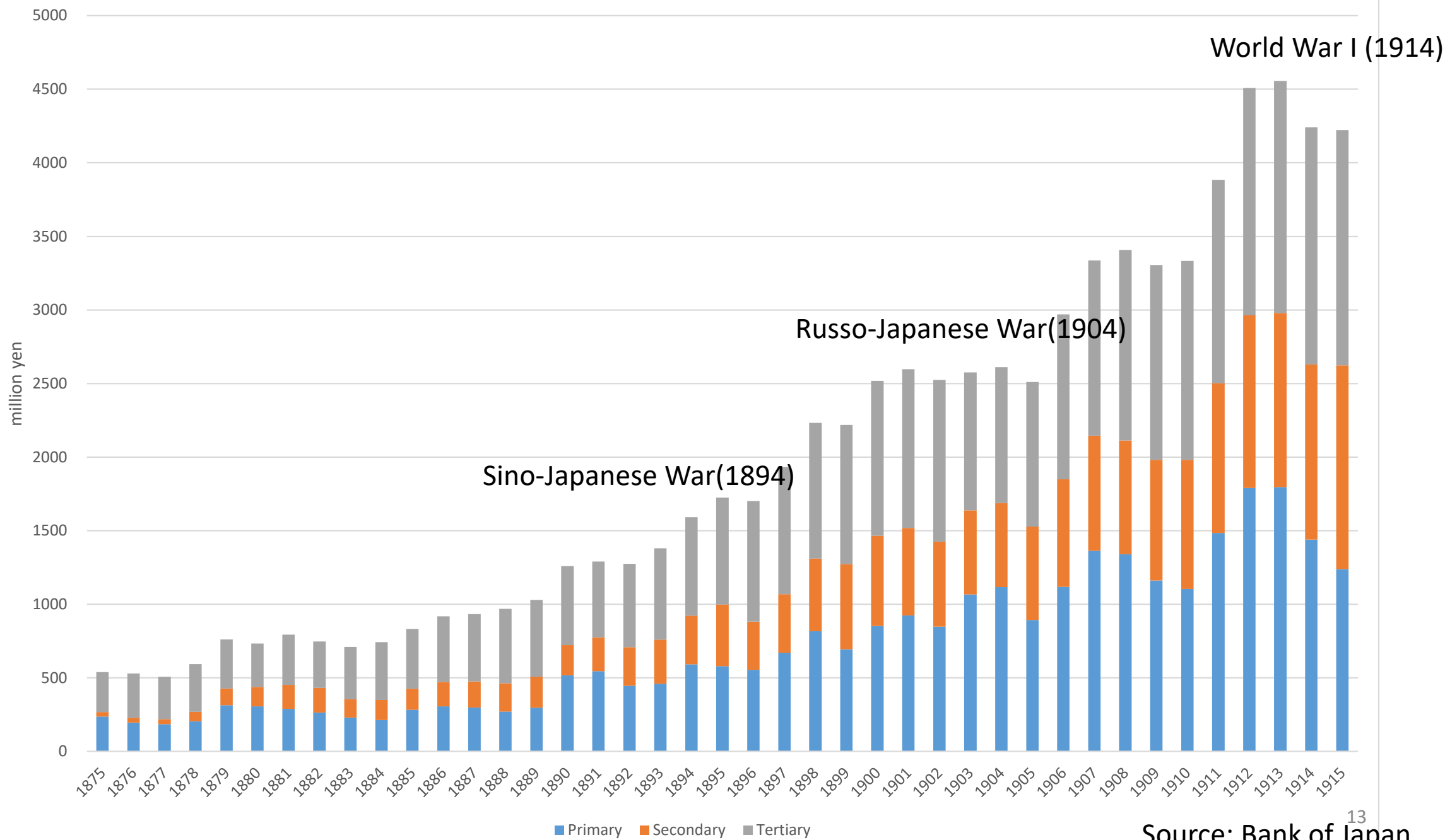
Russo-Japanese War(1904)

Sino-Japanese War(1894)

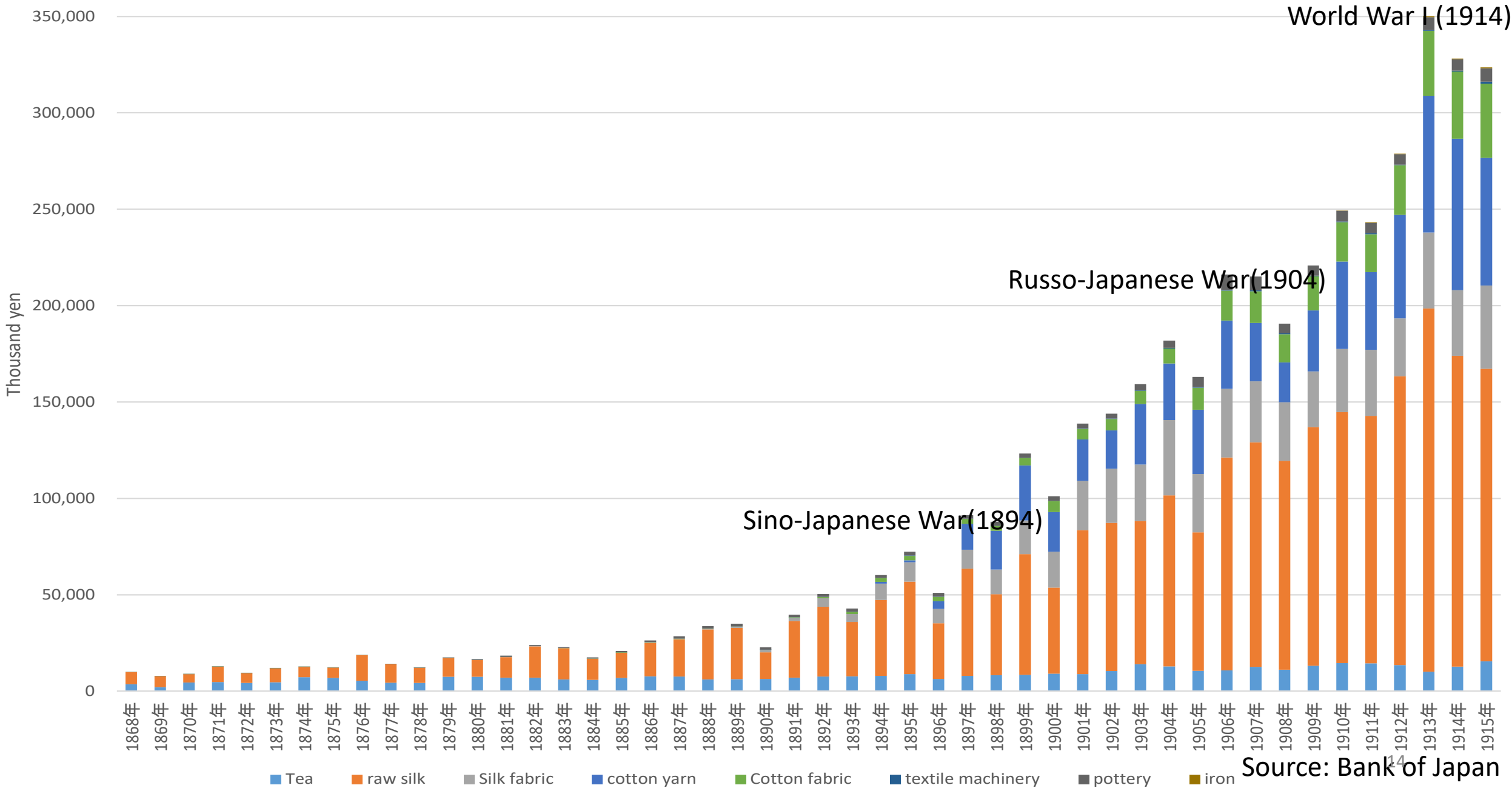
Source: Bank of Japan



Transition of National Income (1875-1915), Japan

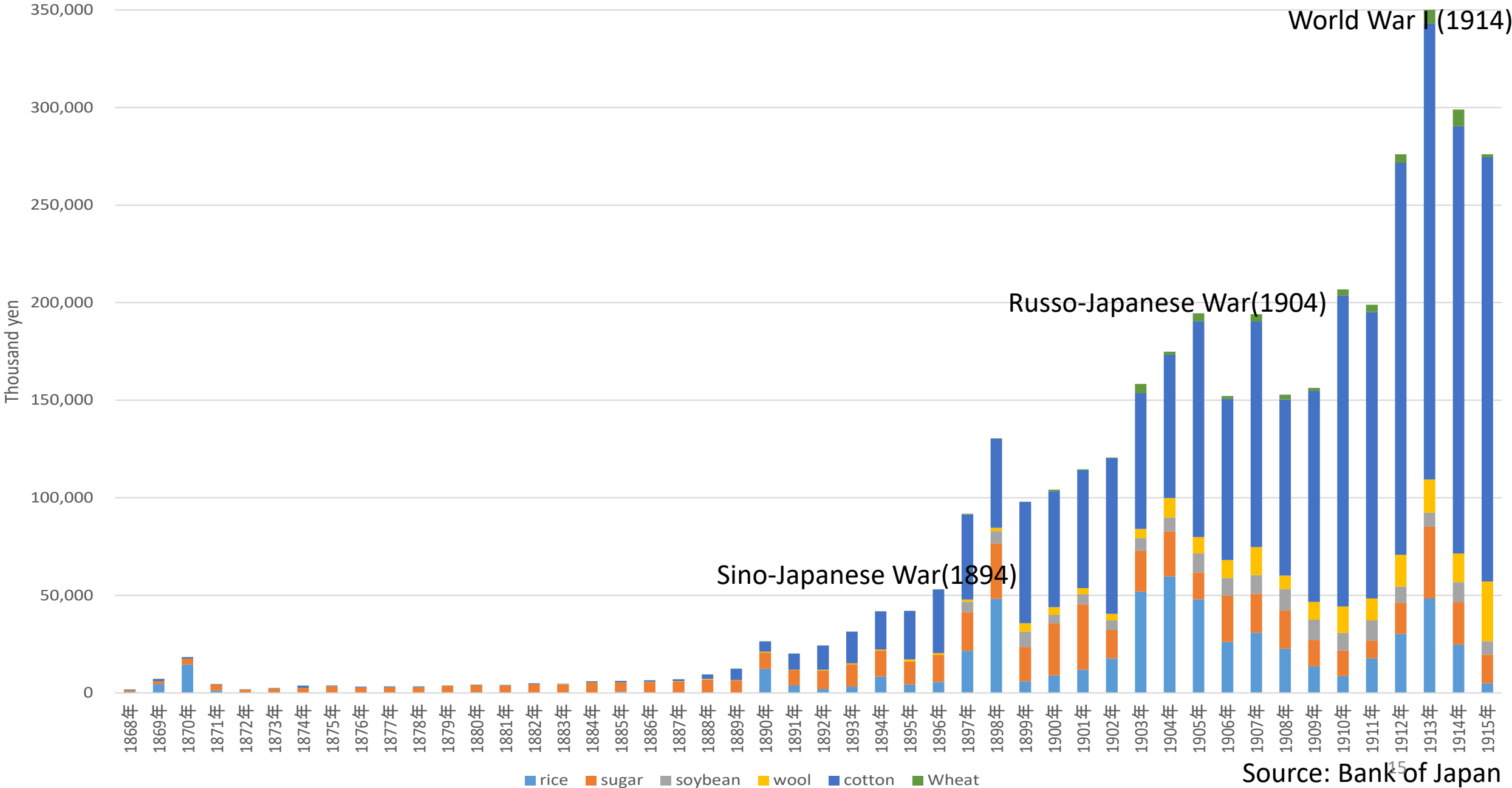


Main Exports from Japan (1868-1915)



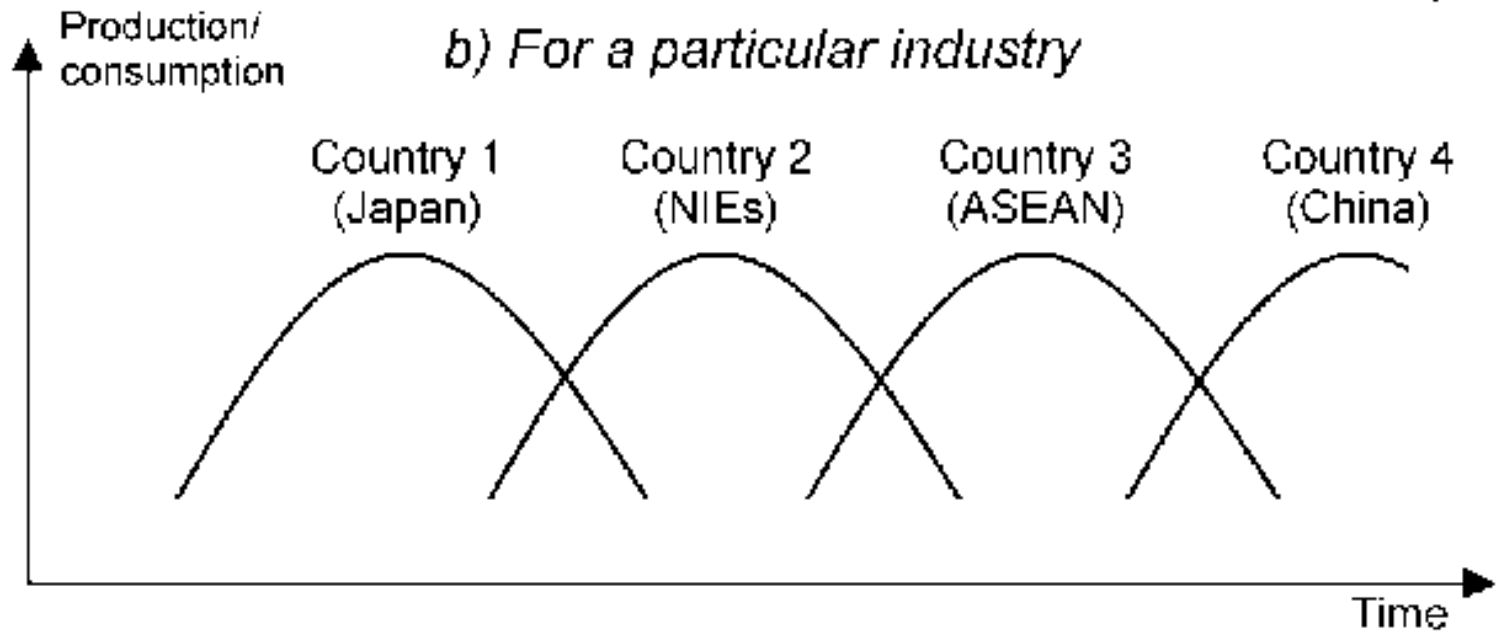
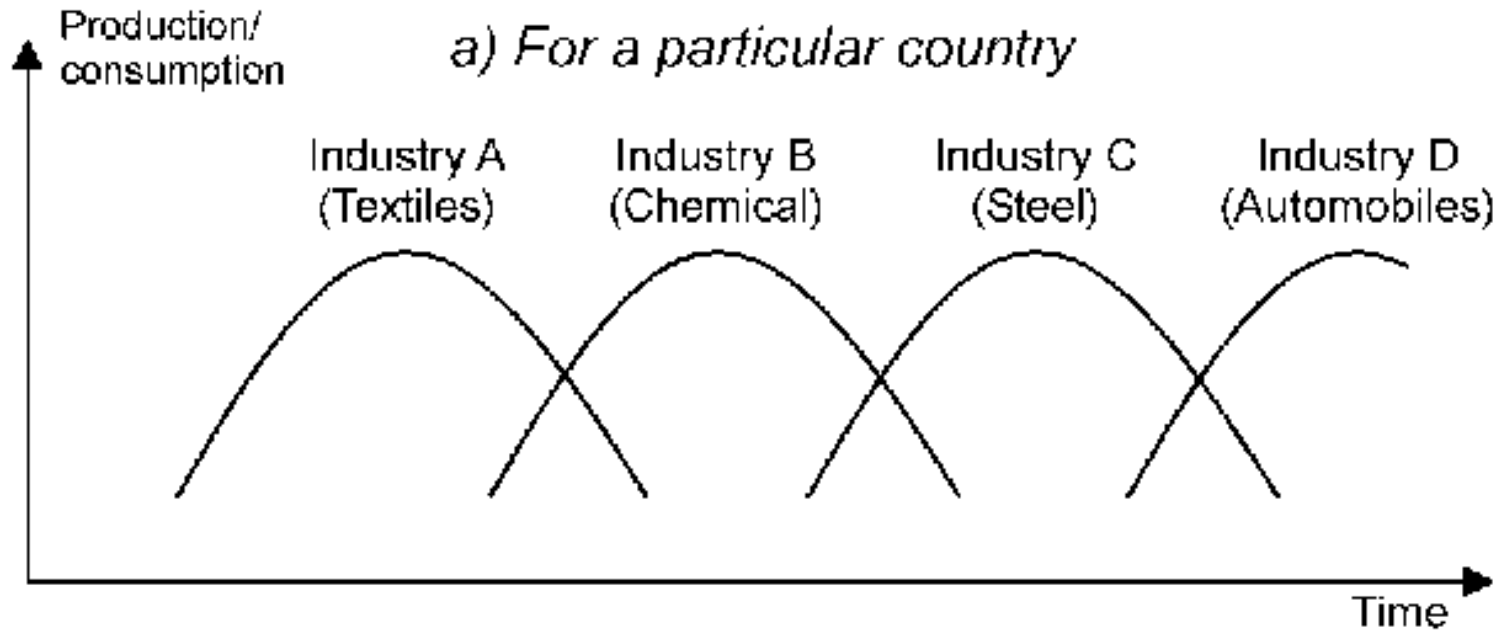
Source: Bank of Japan

Main Imports in Japan (1868-1915)



Classical models of economic development as evolutionary explanation

Akamatsu (1935): “Flying Geese pattern”,
Petty=Clerk (1941): “Petty=Clerk’s Law”,
Vernon (1966): “Products Life Cycle”,



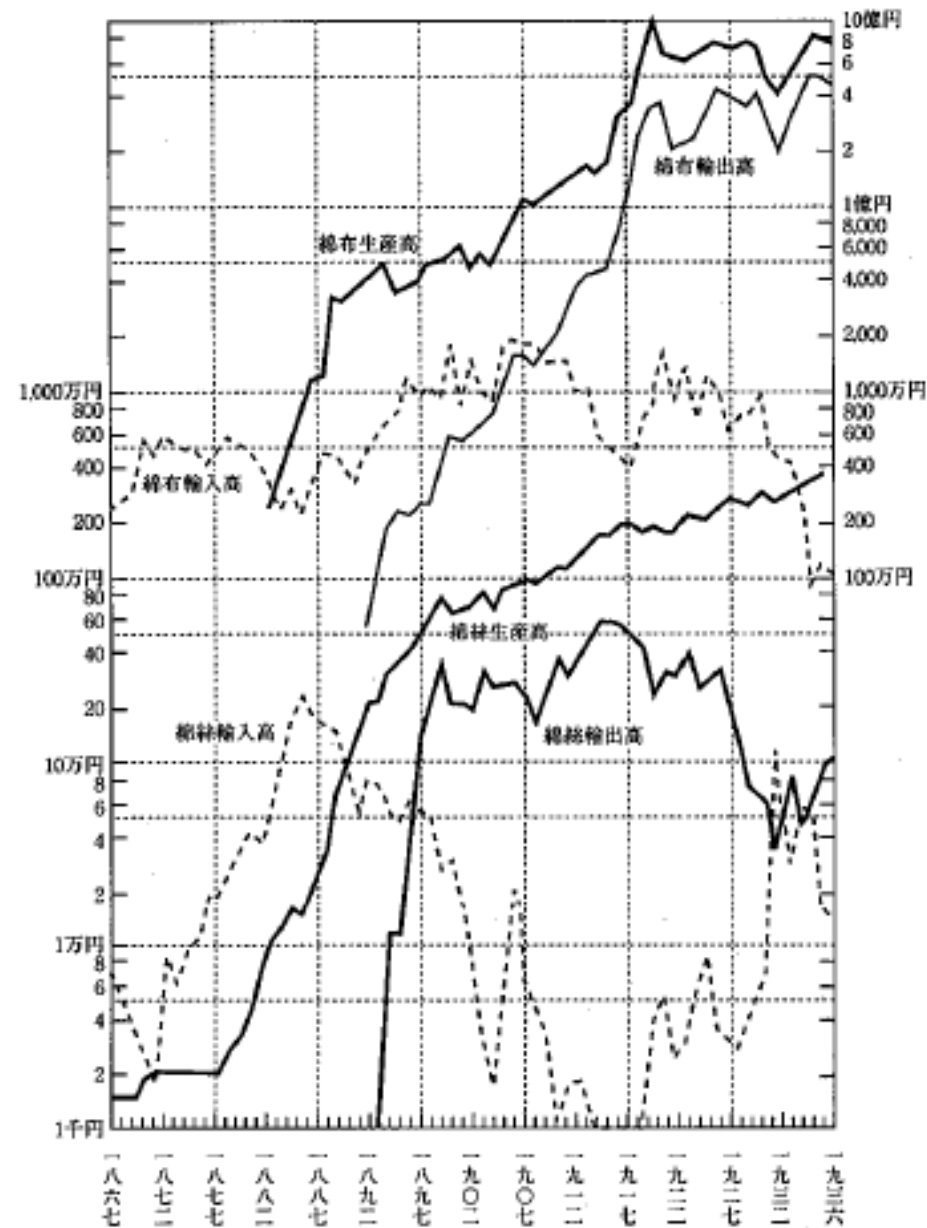
60 Years of Asian Industrialisation commenced with Japan in the 1950s and will conclude with Myanmar



Source : <https://www.semanticscholar.org/paper/The-Changing-Interpretation-of-the-Flying-Geese-of-Schr%C3%B6ppel-Mariko/80b7621939b907c20668fa45c9d3ea46de8910c6>

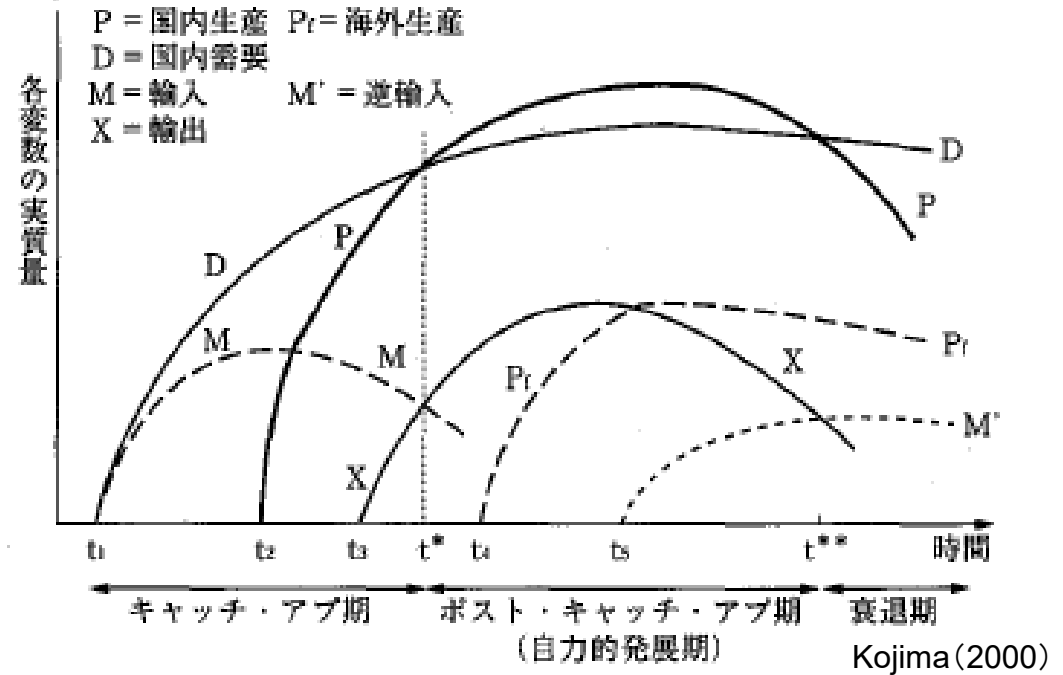
<https://econfix.wordpress.com/2017/07/28/chinas-investment-in-africa-and-the-flying-geese-paradigm/>

図1 我国綿業発展の雁行形態



出所：赤松要「吾国経済発展の綜合弁証法」名古屋高商・商業経済論叢 第15巻上冊（1937. 7），p. 200。
赤松要「経済新秩序の形成原理」理想社，1945，p. 303。

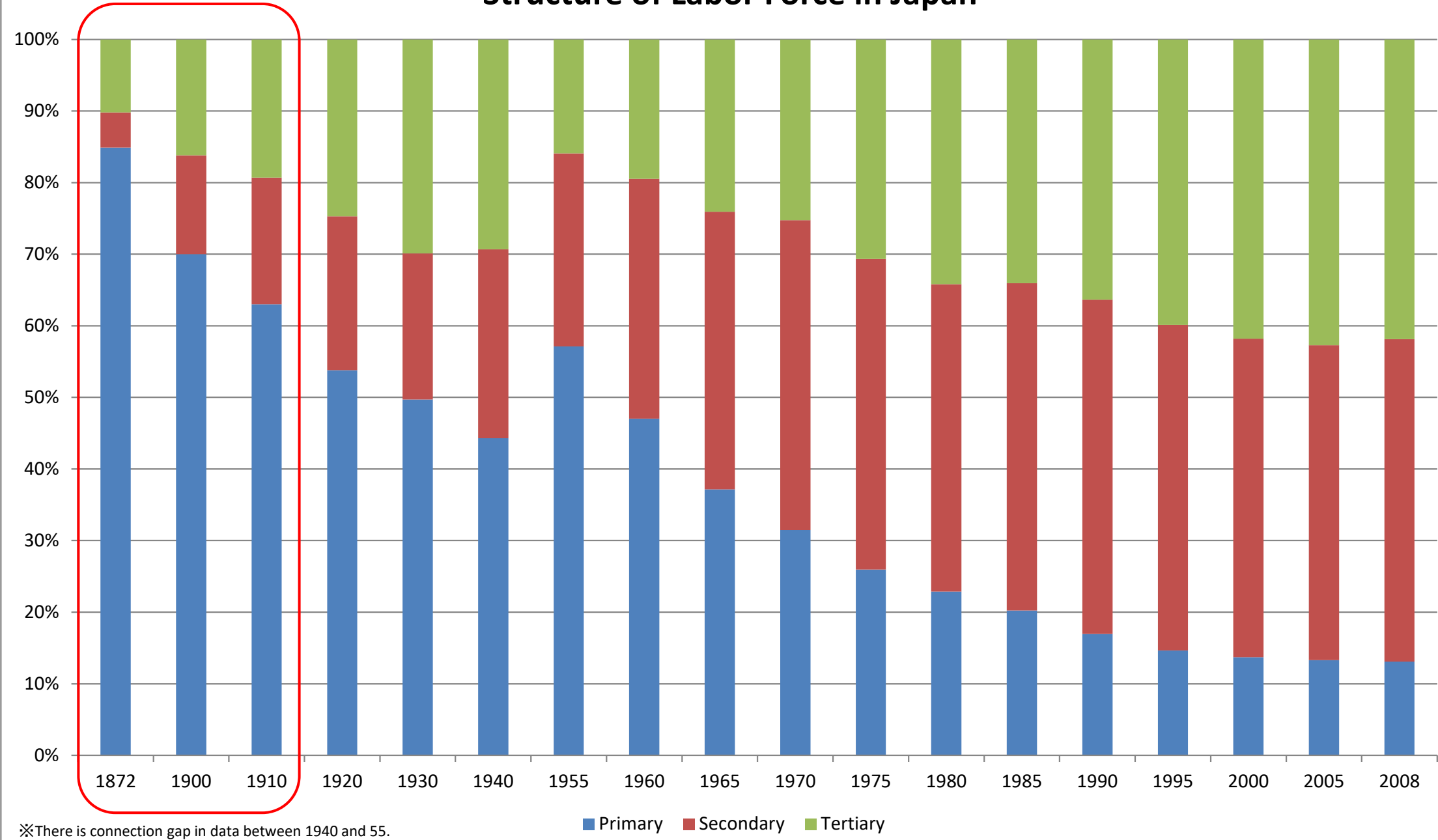
図2 雁行基本型



Kojima (2000)



Structure of Labor Force in Japan



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 2nd and 3rd 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, ect.)

Modern History in Japan 2

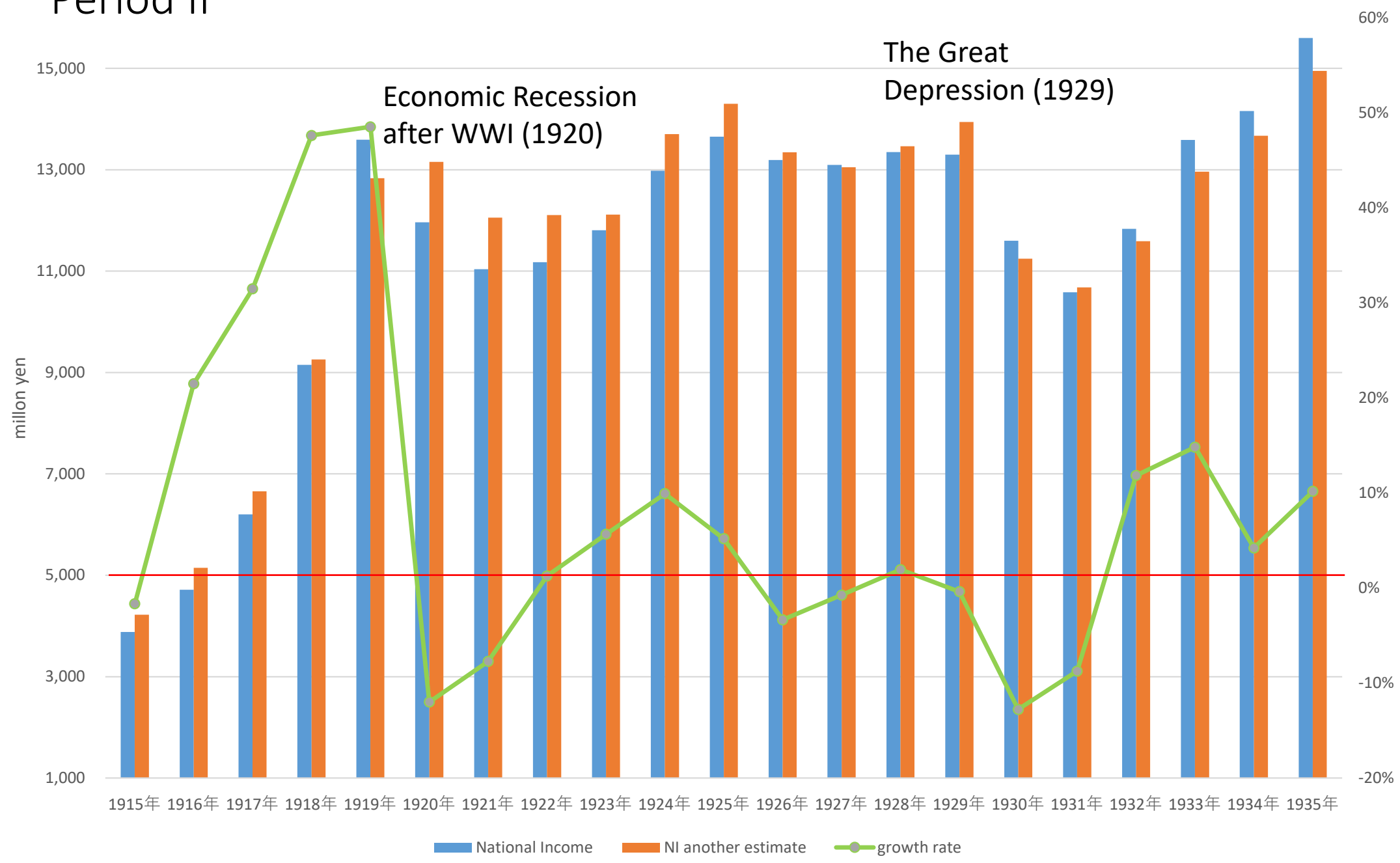
Period II (1910s - 1930s)

- World War I (Jul. 1914 to Nov. 1918)
- Between World Wars or during the Great Depression
 - ➔ Relatively steadily grown



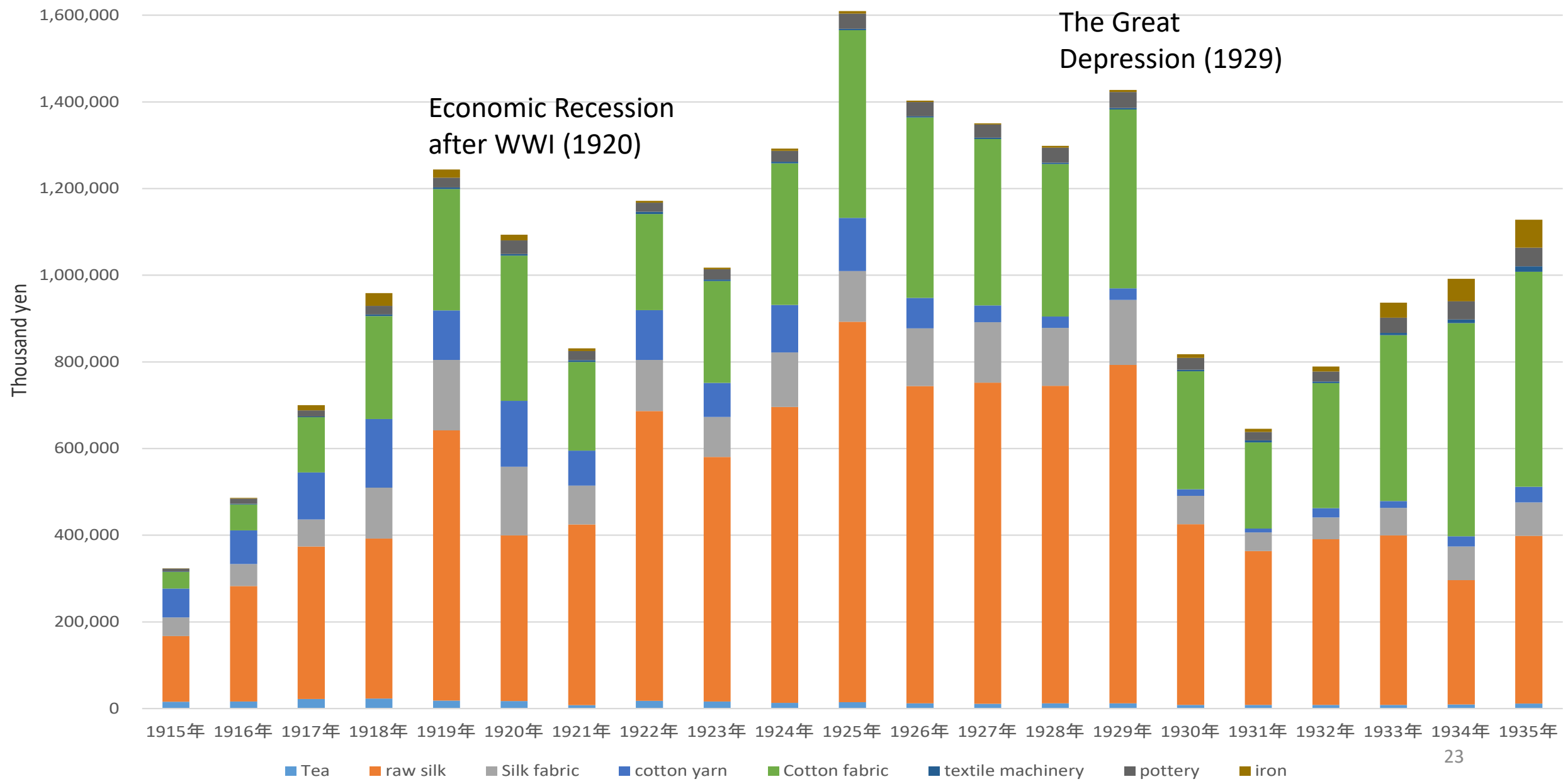
Period II

National income in Japan (1915 - 1935)

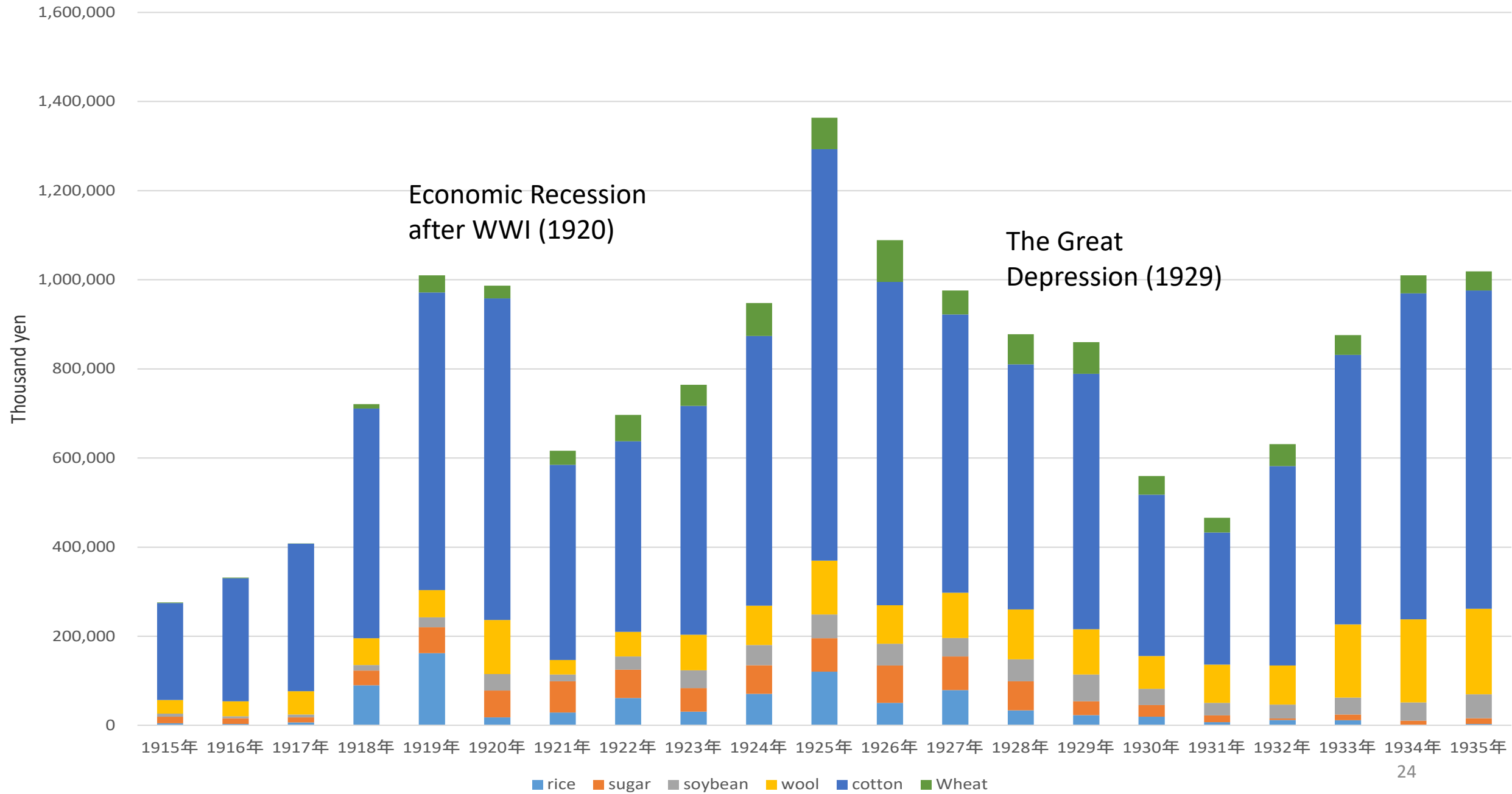


National Income NI another estimate growth rate

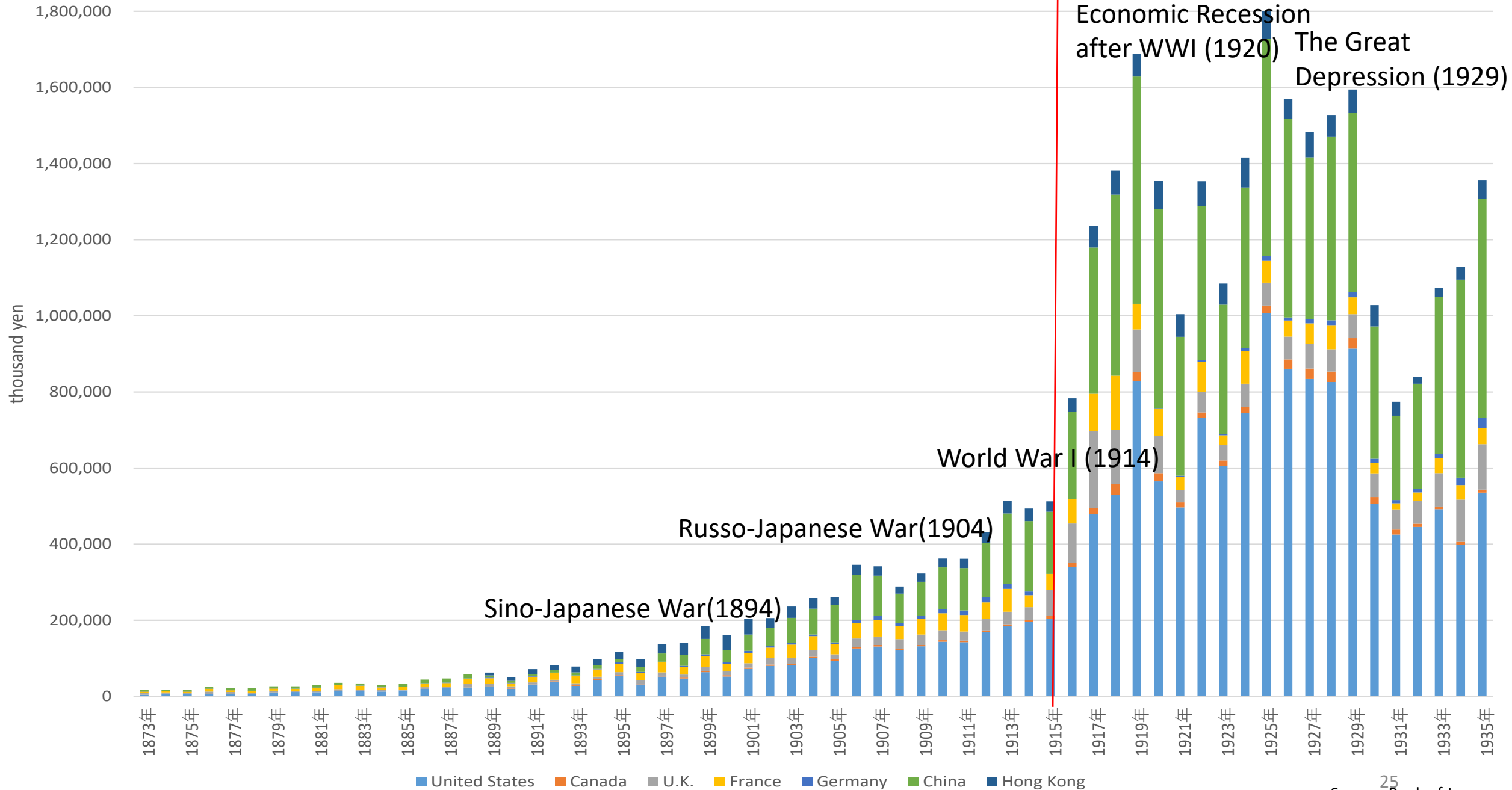
Main Exports from Japan (1915-35)



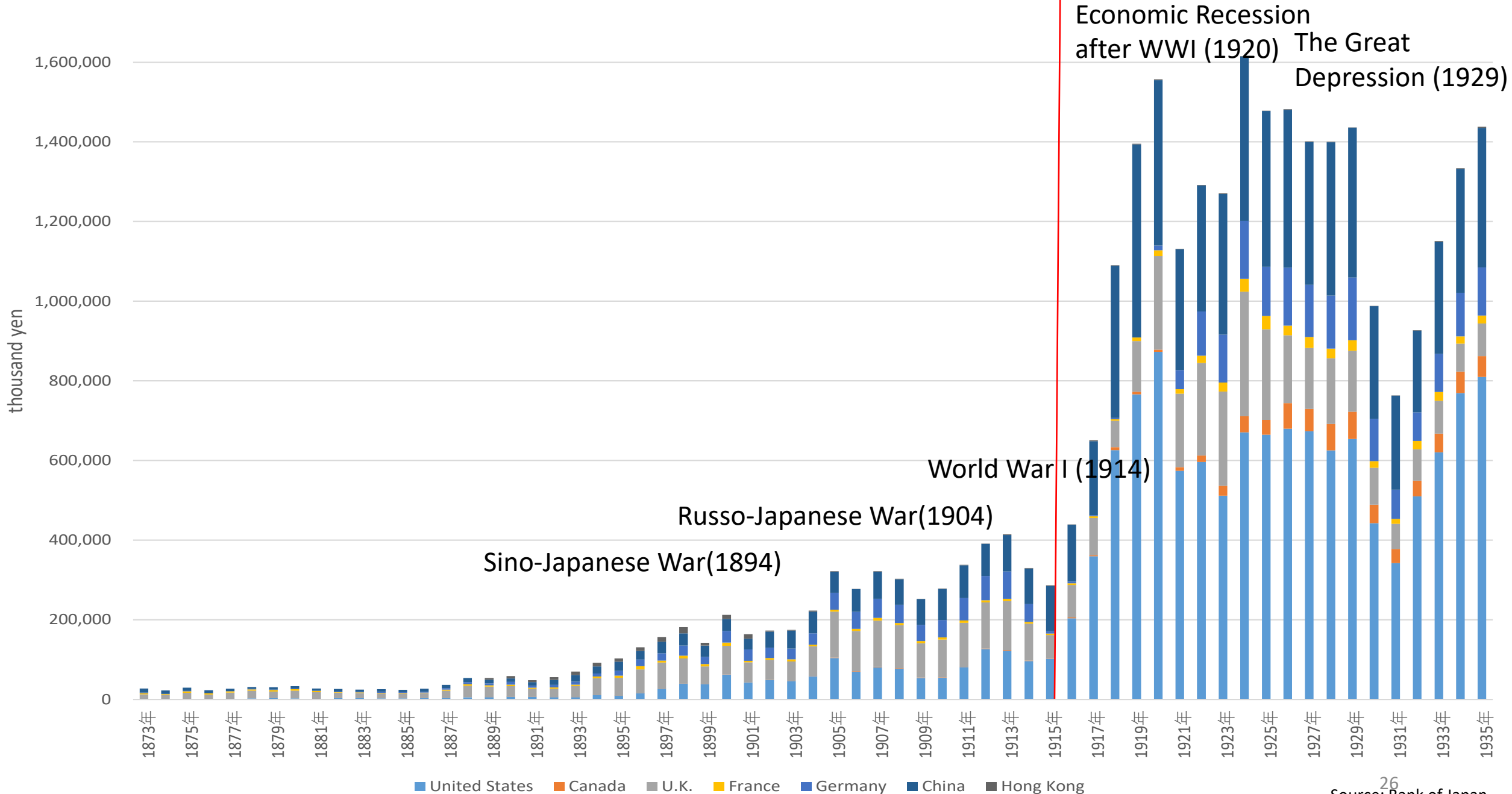
Main Imports in Japan (1915-35)



Destinations of Japan's Exports (1873-1935)



Imports from other countries(1873-1935)



Price index

WPI (1868=100)

Economic Recession
after WWI (1920)

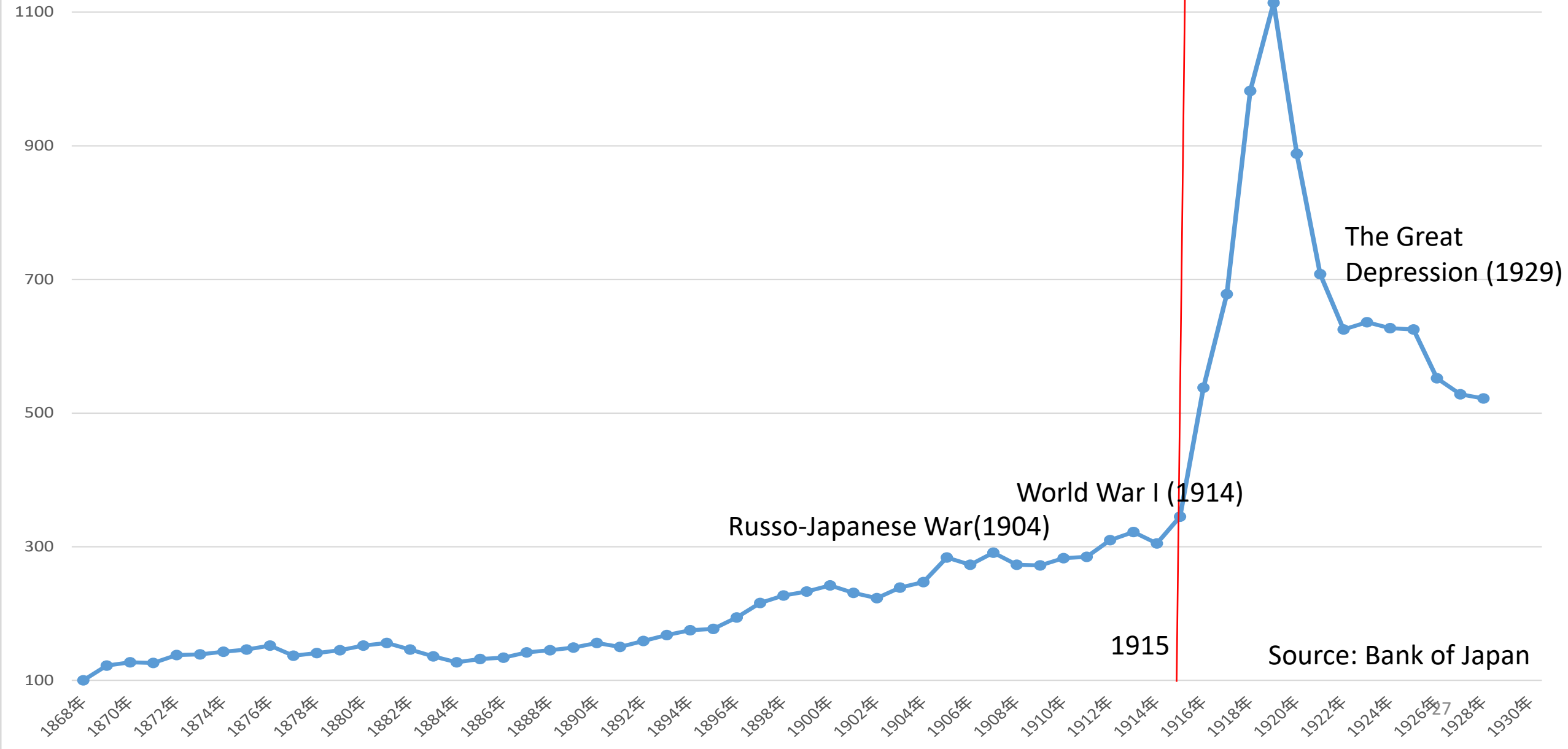
The Great
Depression (1929)

World War I (1914)

Russo-Japanese War(1904)

1915

Source: Bank of Japan



Modern History in Japan 3

Period III (1940s – 1950s)

- The End of World War II (Before and After 1945)
- 1945-1950
 - GHQ (General Headquarters)
 - Marshall Plan and Morgenthau Plan
 - Korean War(1950-53)
- 1950-1960s
 - Industry Policy: Priority production system (coal)



3 big reforms for economic democracy directed by GHQ

- 1) Dissolution of monopolistic capital called “Zaibatsu Kaitai” (from 1945 to 1952)
 - ➔ Mitsui, Mitsubishi, Sumitomo and Yasuda
 - ➔ Anti Monopoly Act (1947) (https://www.jftc.go.jp/en/legislation_gls/AMA.pdf)
- 2) Reform of farm lands (from 1945 to 1950)
 - ➔ landowners sold their lands to tenant farmers via public sector
 - ➔ tenant lands reduced less than 11% in 1950
- 3) Reform of labor: permission for trade union movement (from 1946 to 1949)
 - ➔ Three labor laws (Labor Relations Adjustment Act(1946), Labor Standards Act(1947), Trade Union Act (1949))

Modern History in Japan 2

“The **Marshall Plan** (officially the European Recovery Program, ERP) was an American initiative passed in 1948 to aid Western Europe, in which the United States gave over \$12 billion in economic assistance to help rebuild Western European economies after the end of World War II. Replacing the previous Morgenthau Plan, it operated for four years beginning on April 3, 1948. The goals of the United States were to rebuild war-torn regions, remove trade barriers, modernize industry, improve European prosperity, and prevent the spread of Communism.” (Source: Wikipedia , underline by author)

“The **Morgenthau Plan** by the Allied occupation of Germany following World War II was a proposal to eliminate Germany's ability to wage war by eliminating its arms industry, and the removal or destruction of other key industries basic to military strength. This included the removal or destruction of all industrial plants and equipment in the Ruhr.” (Source:Wikipedia, underline by author)

Theory of Production Function: Reason to try to introduce the Morgenthau Plan

Homogenous production function: linear, concave, and convex → return to scale and marginal productivity

e.g. Cobb–Douglas production function

e.g. Agriculture, manufacturing and IT services

Basic difference between manufacturing and agriculture

- Manufacturing and Information/Knowledge oriented services (in mainly city areas):

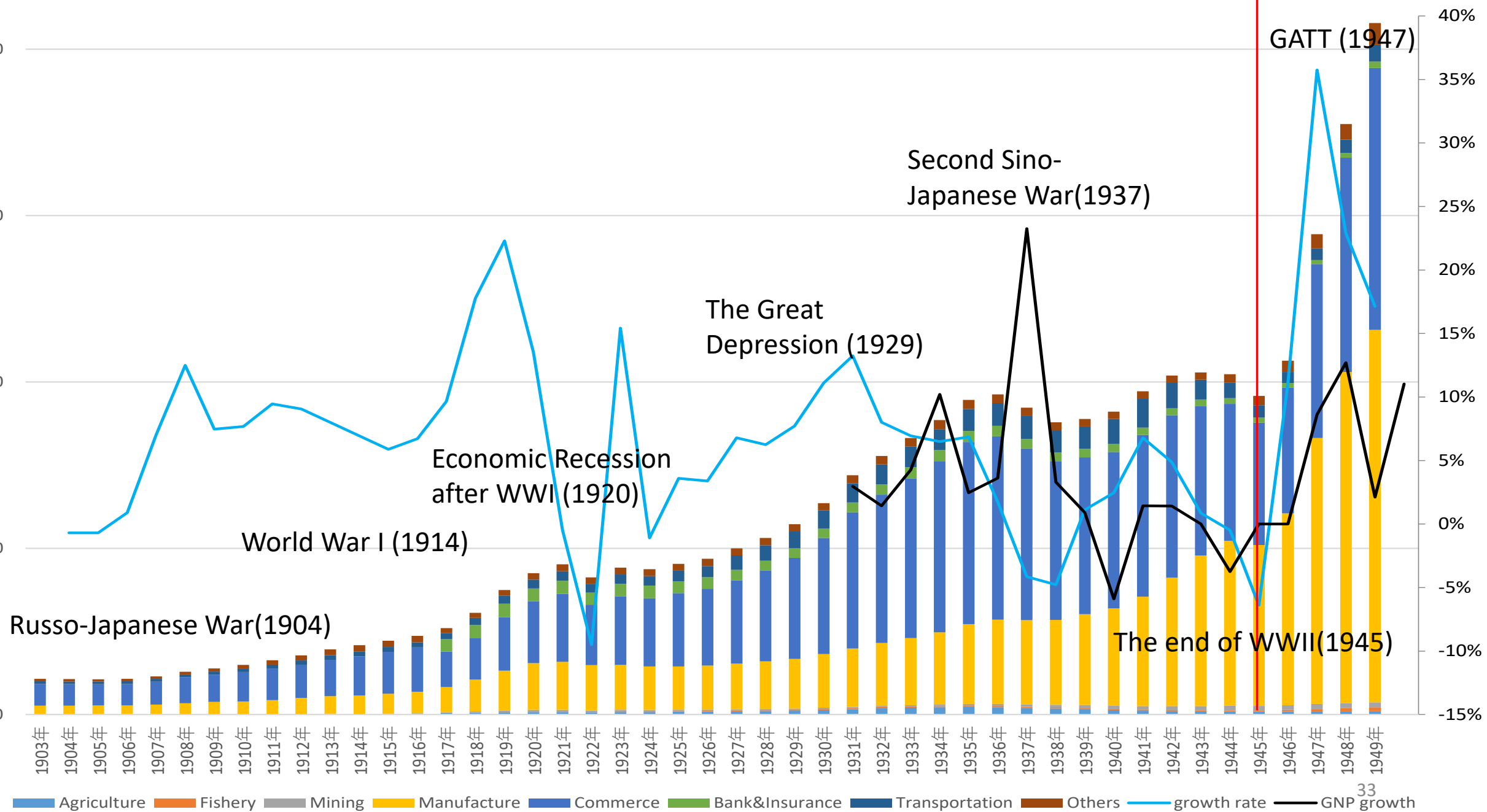
Increasing return to scale or decreasing marginal costs

- Agriculture and raw material industry (in mainly rural areas):

Decreasing return to scale or increasing marginal costs

Compositon of firms in Japan (1903-1949)

Source: Bank of Japan



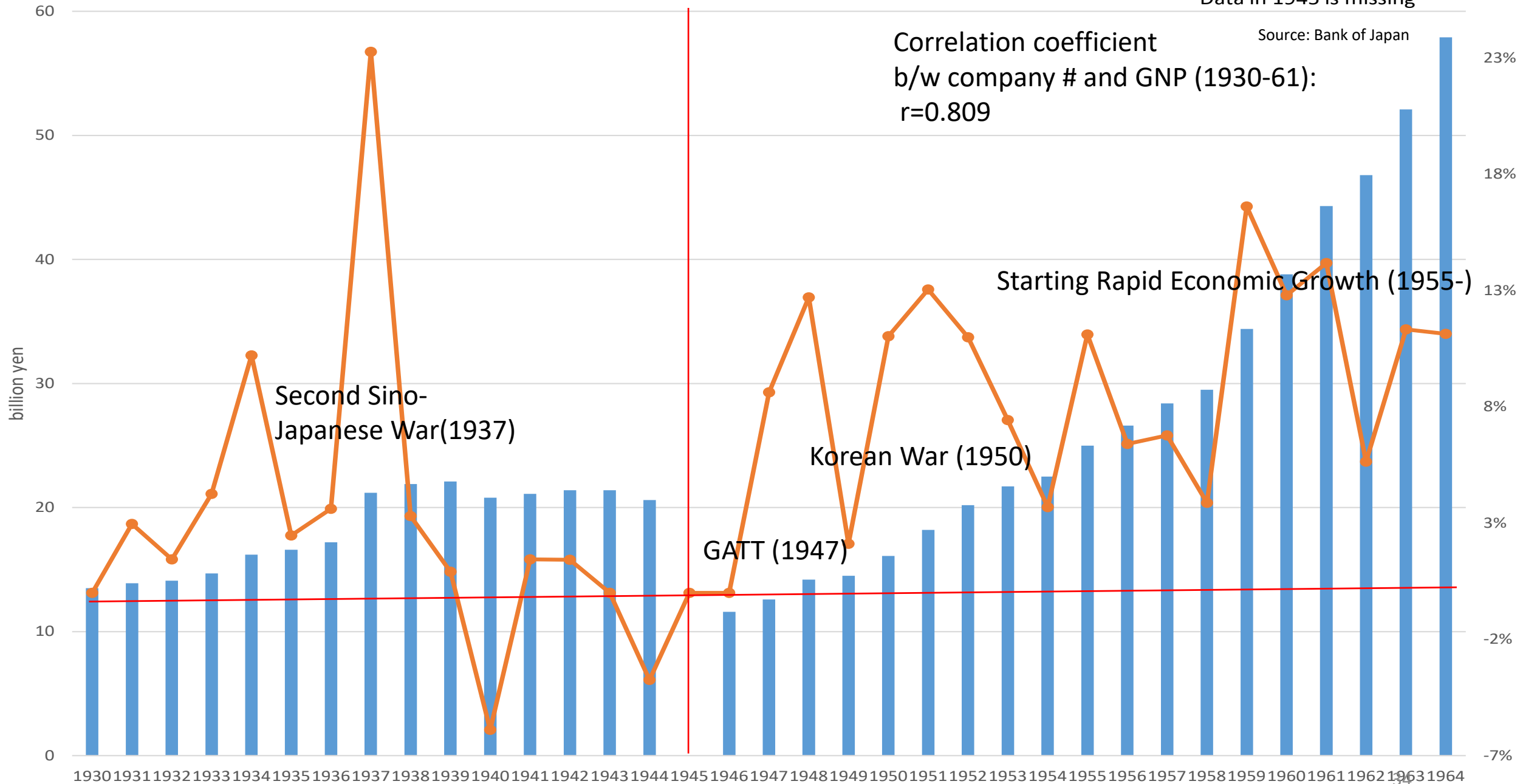
GNP(real) and its growth rate in Japan 1930-1964

*1934~1936 Base Prices

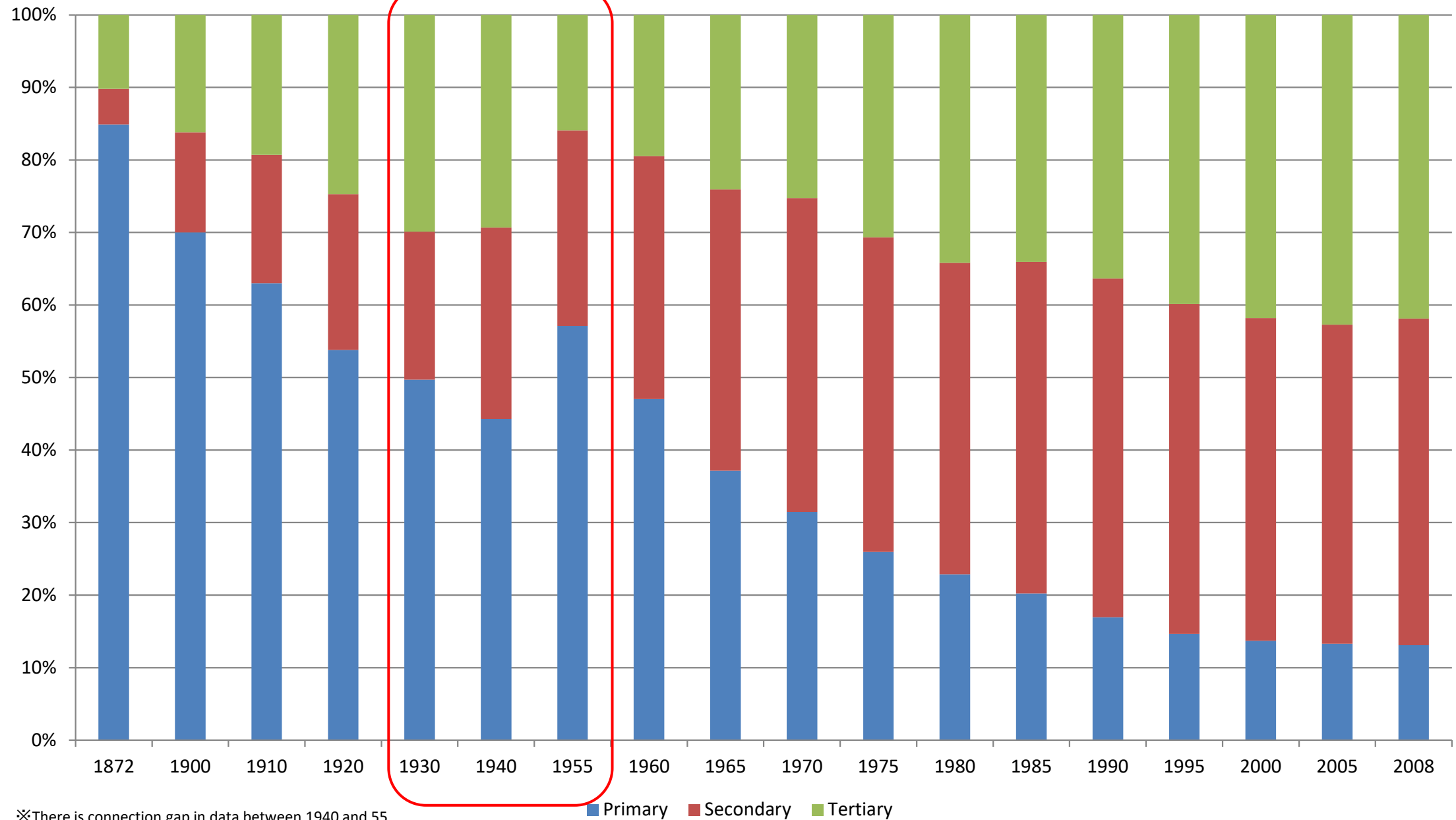
**Data in 1945 is missing

Source: Bank of Japan

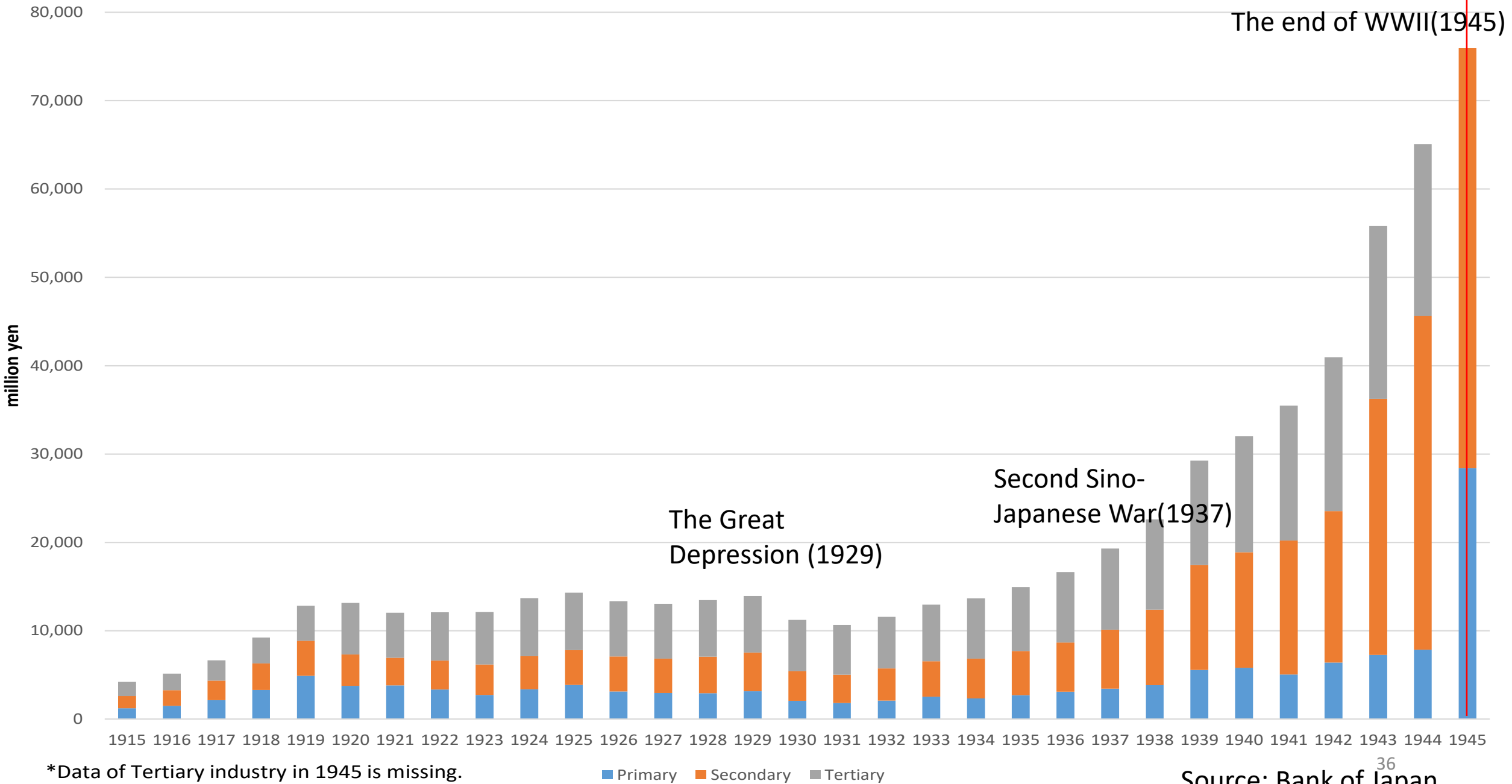
Correlation coefficient
b/w company # and GNP (1930-61):
 $r=0.809$



Structure of Labor Force in Japan

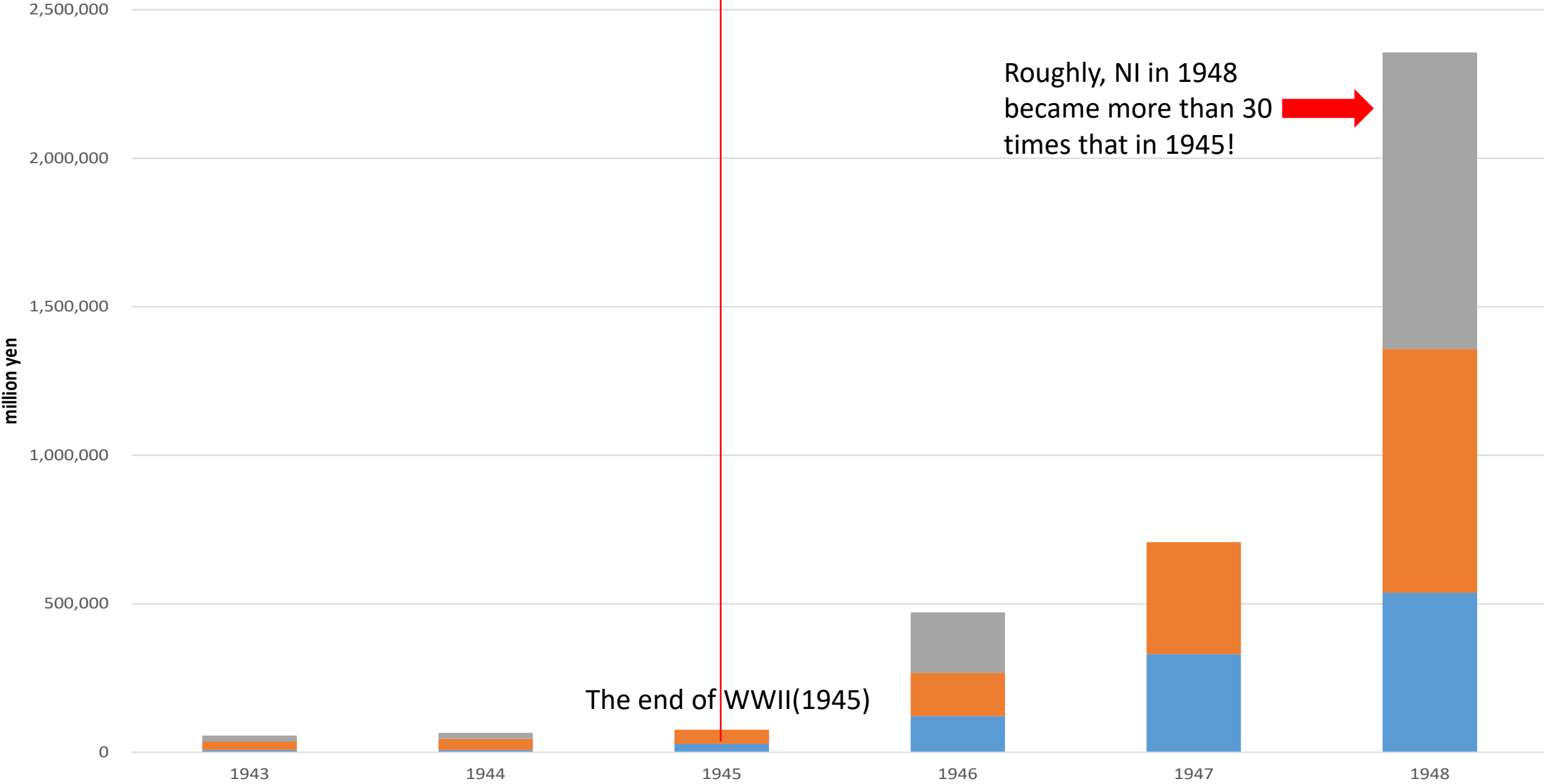


Transition of National Income (1915-1945), Japan



*Data of Tertiary industry in 1945 is missing.

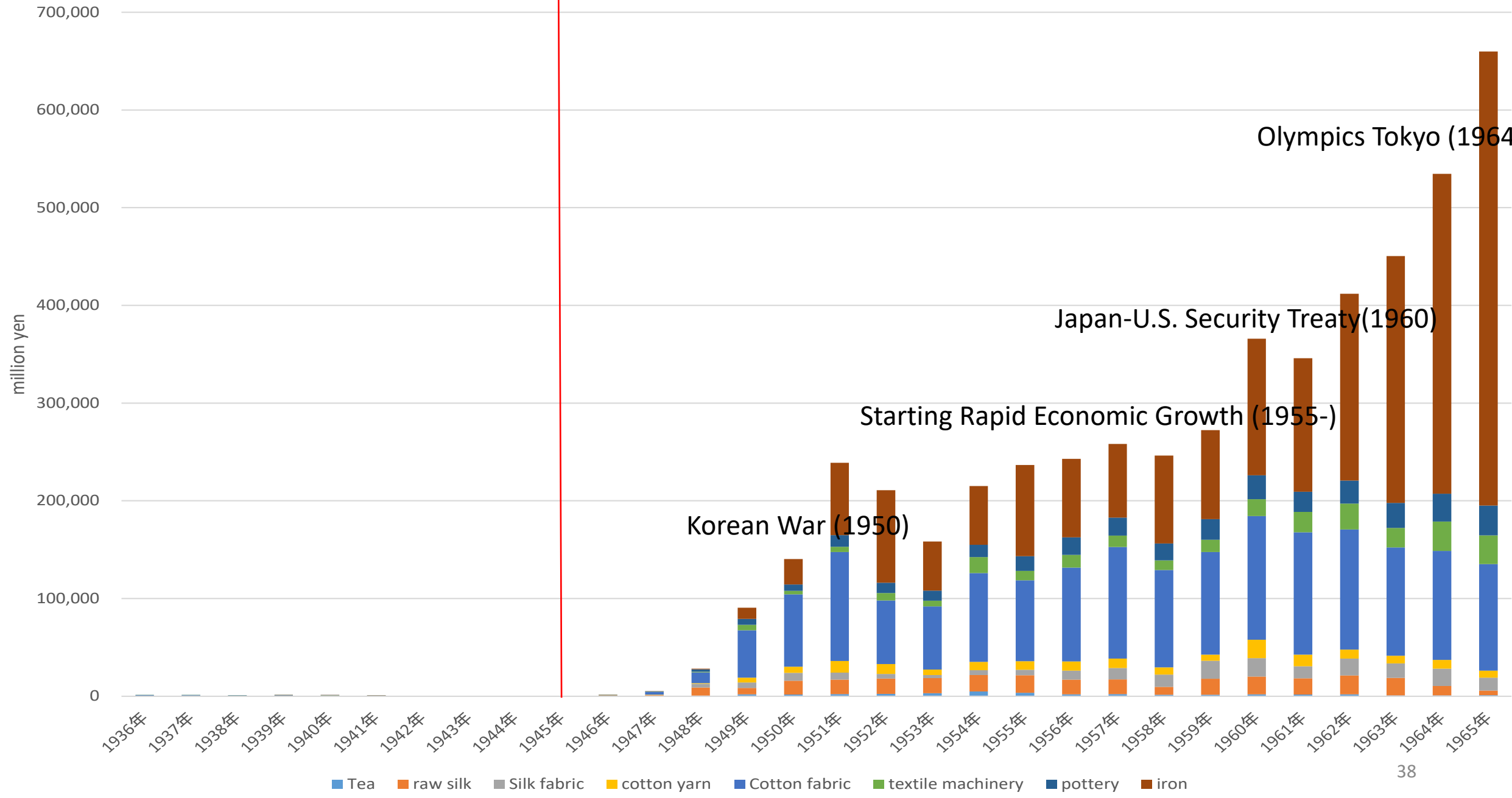
Transition of National Income (1943-1948)



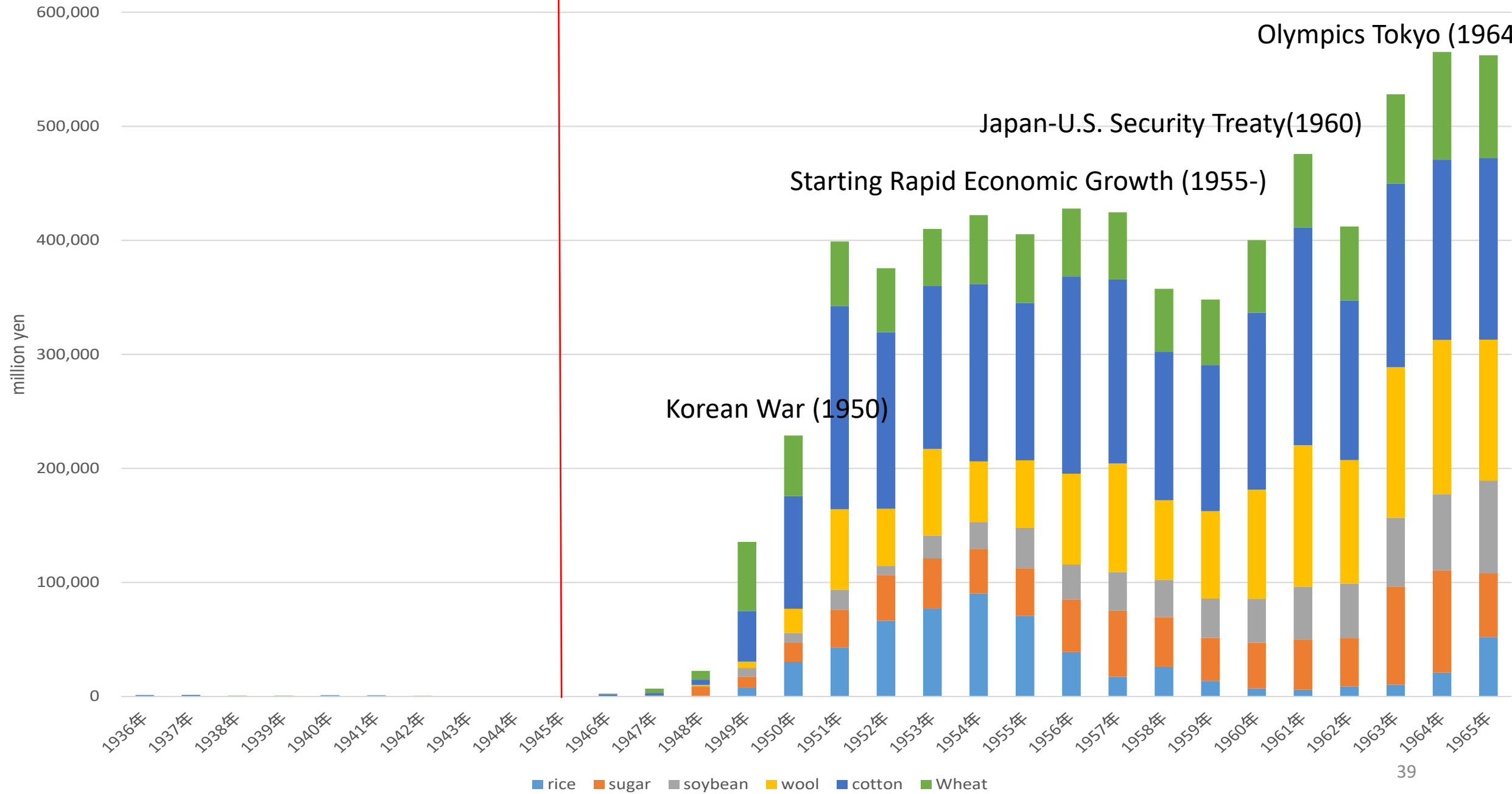
*Data in 1945 and 47 is missing.

Primary Secondary Tertiary

Main Exports from Japan (1936-65)

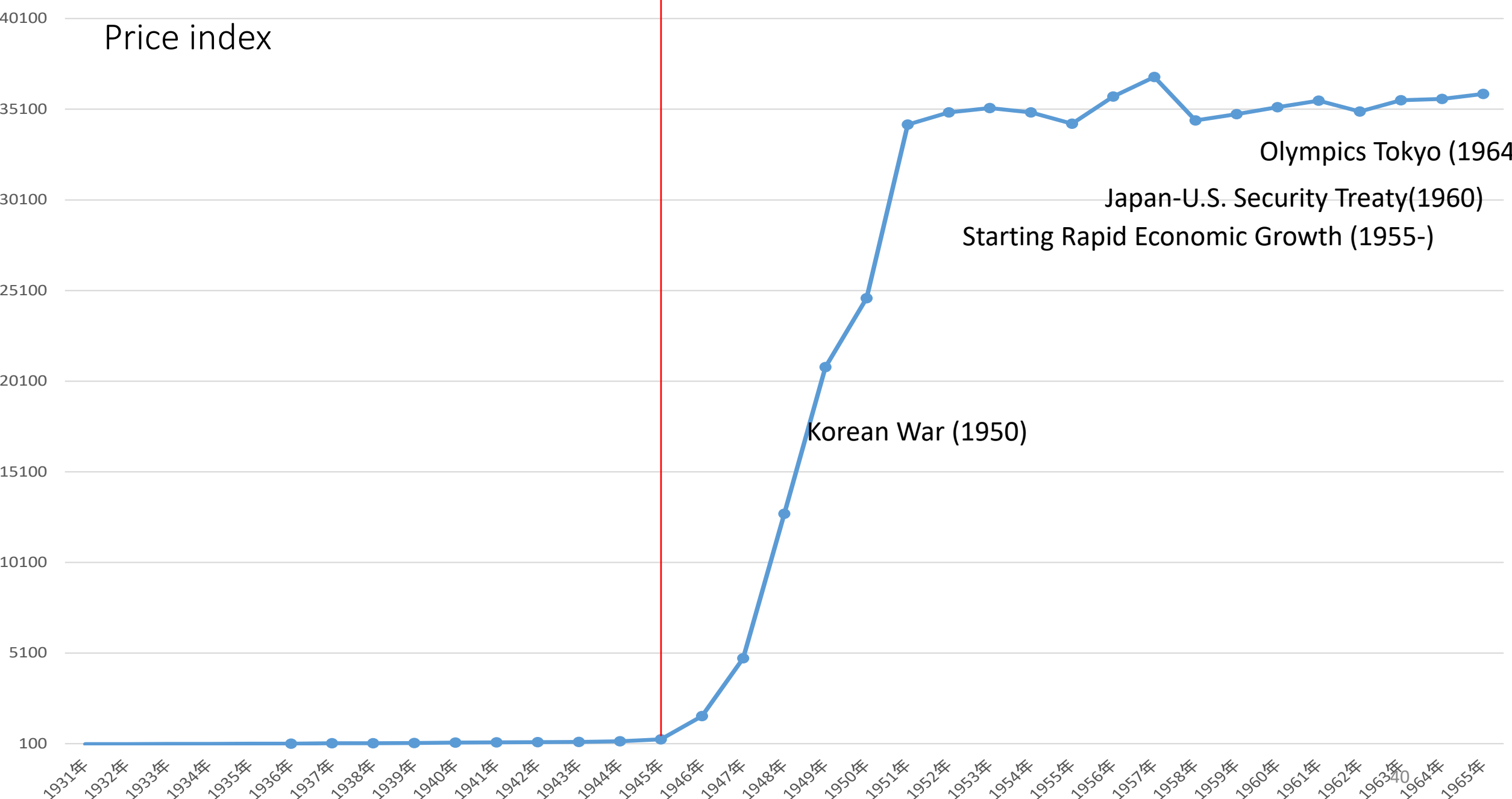


Main Imports in Japan (1936-65)

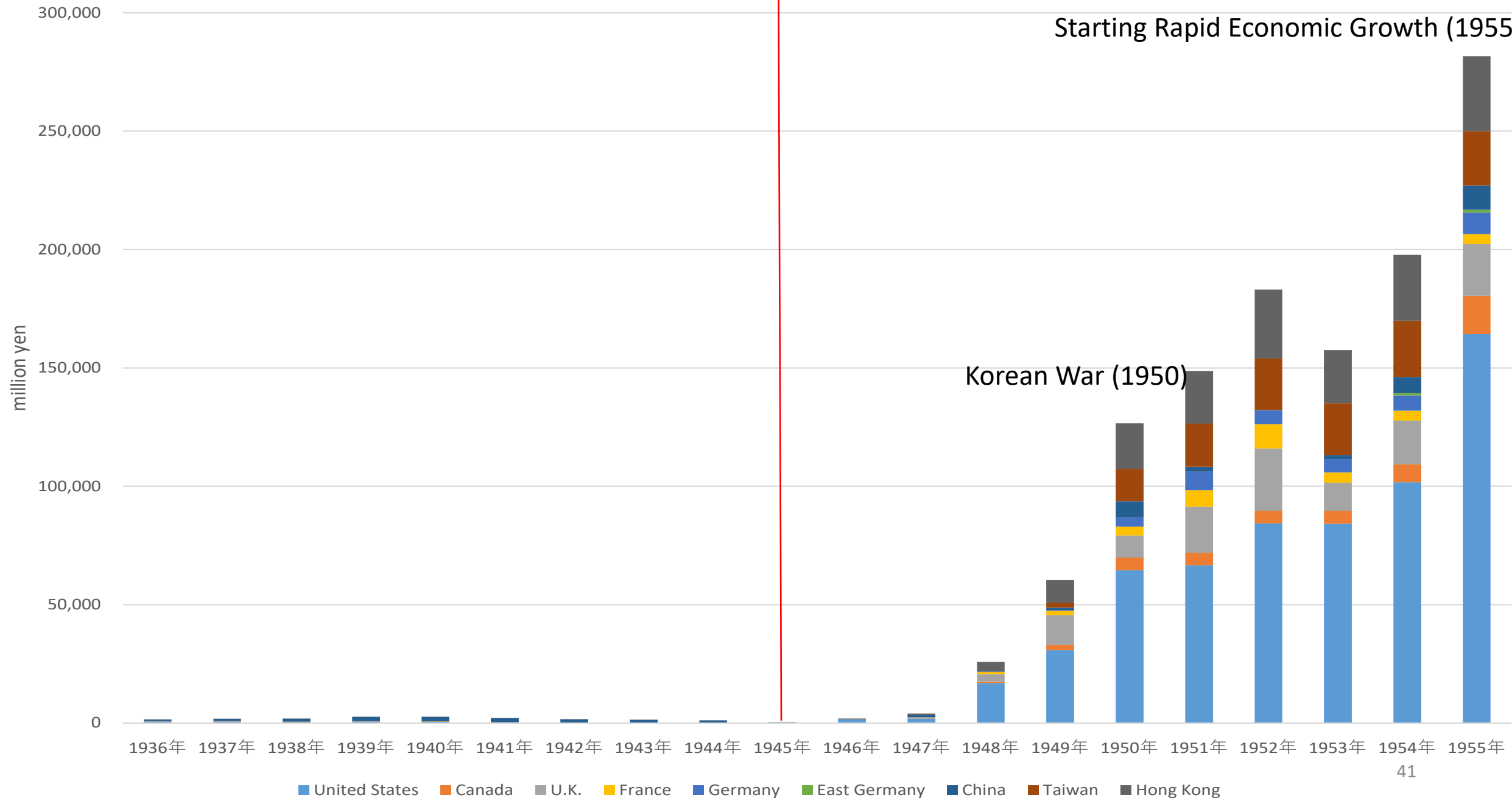


WPI (1934~36 Average=100)

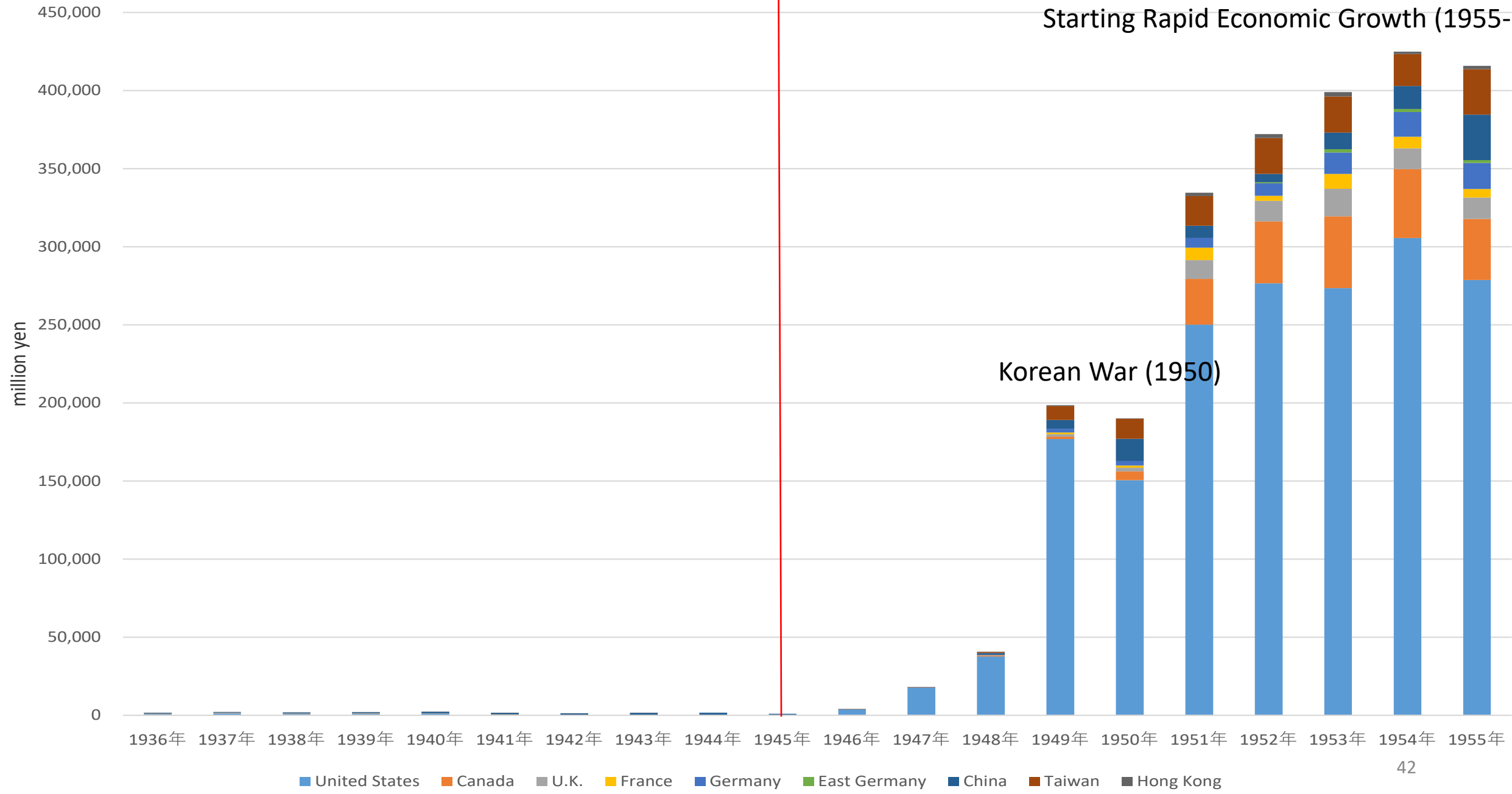
Price index



Destinations of Japan's Exports (1936-55)

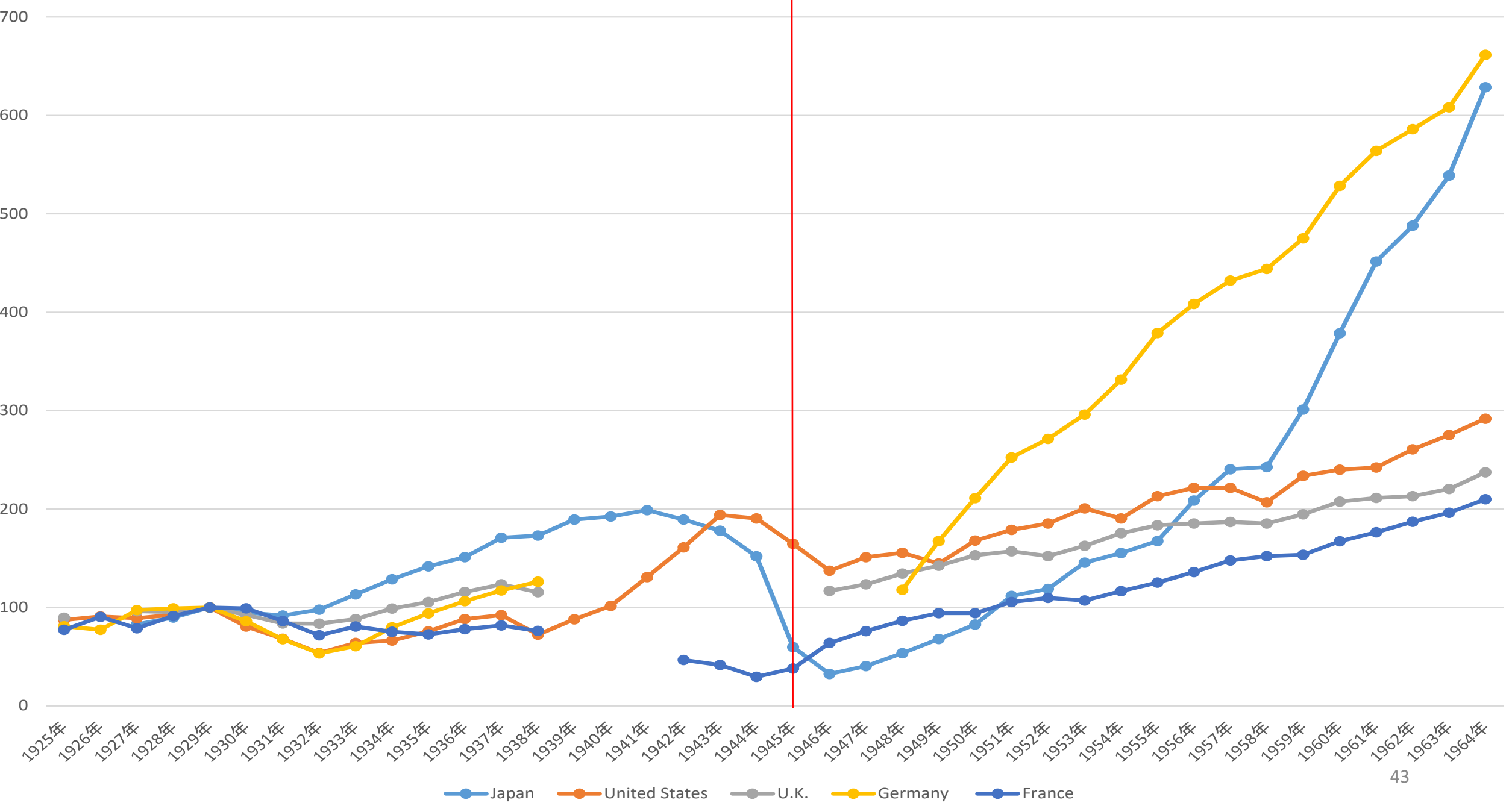


Imports from other countries (1936-1955)



Industrial Production Index(1925-64: 1929=100)

Source: Bank of Japan



Growth rate comparison

Growth rate of GNP from late 19th century to mid 20th century (annual rate)

period	Japan	period	United States	period	U. K	period	Germany	period	France	period	Italy
...		...		1870—79/1860—69	3. 21	1871—80/1861—70	2. 62	1871—80/1861—70	-2. 72	1871—80/1861—70	0. 94
...		...		1875—84/1865—74	2. 74	1876—85/1866—75	2. 32			1876—85/1866—75	0. 78
...		1879—88/1869—78	6. 52	1880—89/1870—79	2. 99	1881—90/1871—80	2. 22	1881—90/1891—1900	-2. 21	1881—90/1871—80	0. 61
...		1884—93/1874—83	4. 47	1885—94/1875—84	3. 26	1886—95/1876—85	2. 57		...	1886—95/1876—85	0. 65
...		1889—98/1879—88	3. 3	1890—99/1880—89	3. 05	1891—1900/1881—90	3. 09		...	1891—1900/1881—90	0. 84
1895—99/1885—89	4. 92	1894—1903/1884—93	3. 79	1895—1904/1885—94	2. 63	1896—1905/1886—95	3. 12		...	1896—1905/1886—95	1. 55
1900—04/1890—94	4. 41	1899—1908/1889—98	4. 52	1900—09/1890—99	1. 53		...			1901—10/1891—1900	2. 51
1905—09/1895—99	2. 67	1904—13/1894—1903	4. 11	1905—14/1895—1904	0. 53	1901—13/1891—1900	2. 73	1901—10/1891—1900	1. 81	1906—15/1896—1905	2. 56
1910—14/1900—04	3. 49	1909—18/1899—1908	2. 93		...		...			1915—/1896—1905	2. 18
1915—19/1905—09	4. 07	1914—23/1904—13	2. 36		...		...				...
1920—24/1910—14	3. 71	1919—28/1909—18	3. 35		...		...	1920—28/1901—10	2. 69		...
1925—29/1915—19	5. 2	1924—33/1914—23	2. 69		...		...			1921—1939	2. 29
1930—34/1920—24	5. 97	1929—38/1919—28	0. 43	1930—38/1921—29	2. 4	1934—38/1928	10. 48	1929—38/1920—28	1. 58		...
1935—39/1925—29	5. 1	1934—43/1924—33	1. 24		...		...	1934—43/1924—33	-2. 08		...
1941—/1930—34	4. 18	1939—48/1929—38	3. 61		...		...	1939—48/1929—38	-3. 55		...
...		1944—53/1934—43	4. 29		...		...	1944—53/1934—43	0. 61		...
...		1948—57/1939—48	4. 25		...		...			1946—1965	6. 61
1952—58	6. 76			1952—58	2. 5	1952—58	6. 9			1952—1958	5. 69
1953—60	9. 1	1950—60	3. 3	1950—60	2. 8	1950—60	7. 9	1950—60	4. 5	1951—60	5. 6
1960—63	10. 8	1960—63	3. 8	1960—63	2. 4	1950—63	4. 3	1960—93	5. 1	1960—63	6. 5

“Flying Geese” in Japan (from late 19 C. to post WWII)

Japan’s production or trade pattern

Main exports: tea → raw silk → cotton yarn, cotton fabric → iron

Main imports: cotton, wool

Agricultural goods (raw materials) → Manufacturing goods:

“decreasing return to scale” → “increasing return to scale”

Key concepts:

production function (linear, concave, convex) and marginal cost (or marginal productivity)

“Market and Government” in Japan

Under the developing stage, a combination of protectionism and the free market should be effective.

Tax policy (tariff) as “infant industry protection”(Friedrich List, 1789-1846)

➔ No immediate “Free Trade”

Public spending as creating “effective demand” (J.M. Keynes, *The General Theory of Employment, Interest and Money* (1936), Chap.3)

➔ No immediate “*laisser-faire*”

Market situation

Increase in company number, venture businesses, innovation, and invention

➔ industrialization or specialization

e.g. Asahi Kasei, Fujibo, Teijin,etc

Average Tariff Rates on Manufactured Products for Selected Developed
Countries in Their Early Stages of Development
(weighted average; in percentages of value)

	1820 ²	1875 ²	1913	1925	1931	1950
Austria ³	R	15–20	18	16	24	18
Belgium ⁴	6–8	9–10	9	15	14	11
Denmark	25–35	15–20	14	10	n.a.	3
France	R	12–15	20	21	30	18
Germany ⁵	8–12	4–6	13	20	21	26
Italy ⁶	n.a.	8–10	18	22	46	25
Japan	R	5	30	n.a.	n.a.	n.a.
Netherlands ⁴	6–8	3–5	4	6	n.a.	11
Russia	R	15–20	84	R	R	R
Spain	R	15–20	41	41	63	n.a.
Sweden	R	3–5	20	16	21	9
Switzerland	8–12	4–6	9	14	19	n.a.
United Kingdom	45–55	0	0	5	n.a.	23
United States	35–45	40–50	44	37	48	14

Source: Bairoch 1993, p. 40, table 3.3.

Notes:

R = Numerous and important restrictions on manufactured imports existed and therefore average tariff rates are not meaningful.

1. World Bank (1991, p. 97, Box table 5.2) provides a similar table, partly drawing on Bairoch's own studies that form the basis of the above table. However, the World Bank figures, although in most cases very similar to Bairoch's figures, are **unweighted** averages, which are obviously less preferable to the **weighted** average figures that Bairoch provides.

2. These are very approximate rates, and give range of average rates, not extremes.

3. Austria–Hungary before 1925.

4. In 1820, Belgium was united with the Netherlands.

5. The 1820 figure is for Prussia only.

6. Before 1911, Japan was obliged to keep low tariff rates (up to 5%) through a series of 'unequal treaties' with the European countries and the USA. The World Bank table cited in note 1 above gives Japan's **unweighted** average tariff rate for **all goods** (not just manufactured goods) for the years 1925, 1930, 1950 as 13%, 19%, 4%.

Source: Ha-Joon Chang
(2003), p.17, Table 2.1

Modern History in Japan 4

Period IV (1960s – 1980s)

- 1) High growth period (1955-1970)
- 2) From Oil Crisis to Bubble Economy
- 1960s-1973, 1978 to 1990

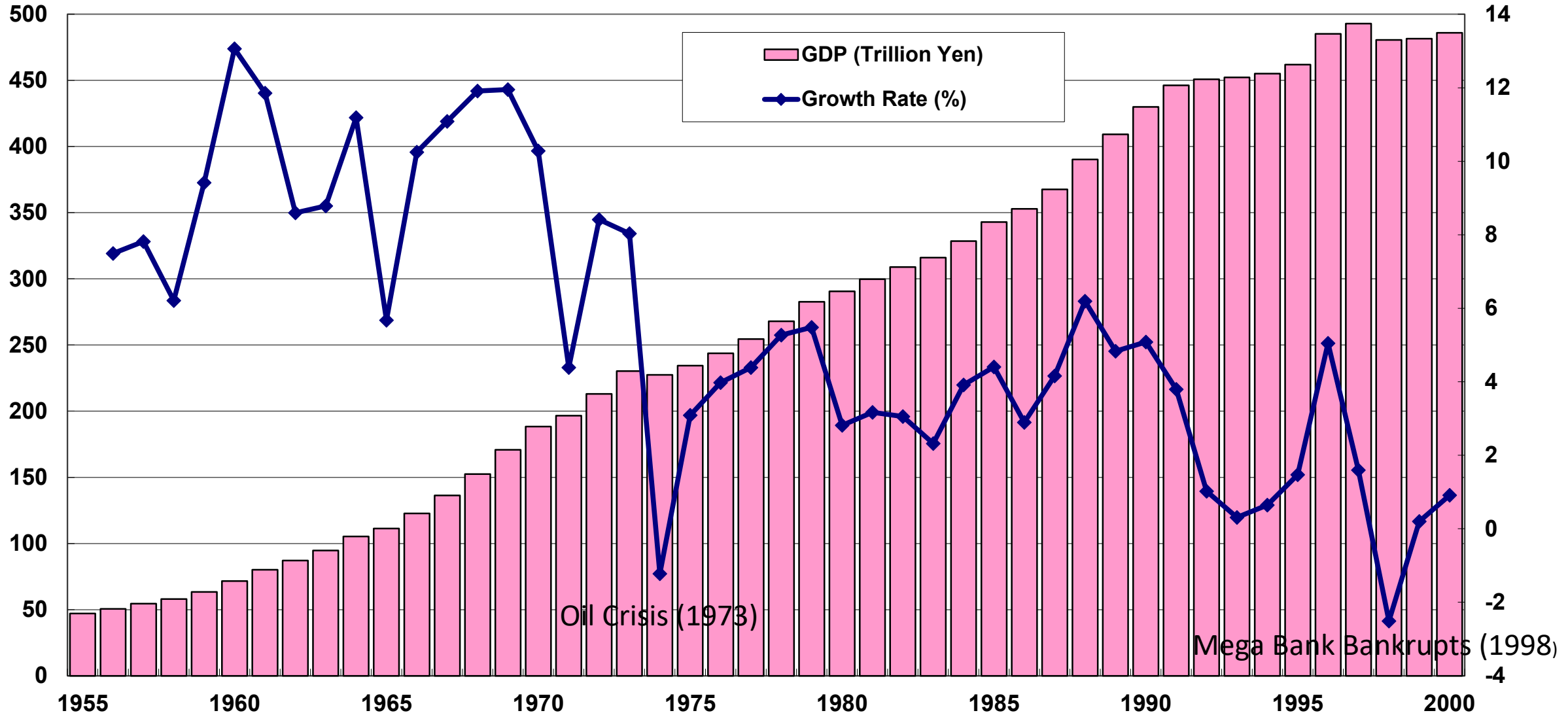
Continuing rapid growth

1st Oil Crisis (1973) : Hyperinflation

2nd Oil Crisis(1978): Rationalization



Real GDP and Its Growth in Japan (1955-2000)



1. 1955-70: high growth period

2. 1970-85: adjustment period after oil crisis

3. 1985-90: “bubble economy” period

4. 1990-2000: long recession after bubble

Source: Cabinet Office, Japan.

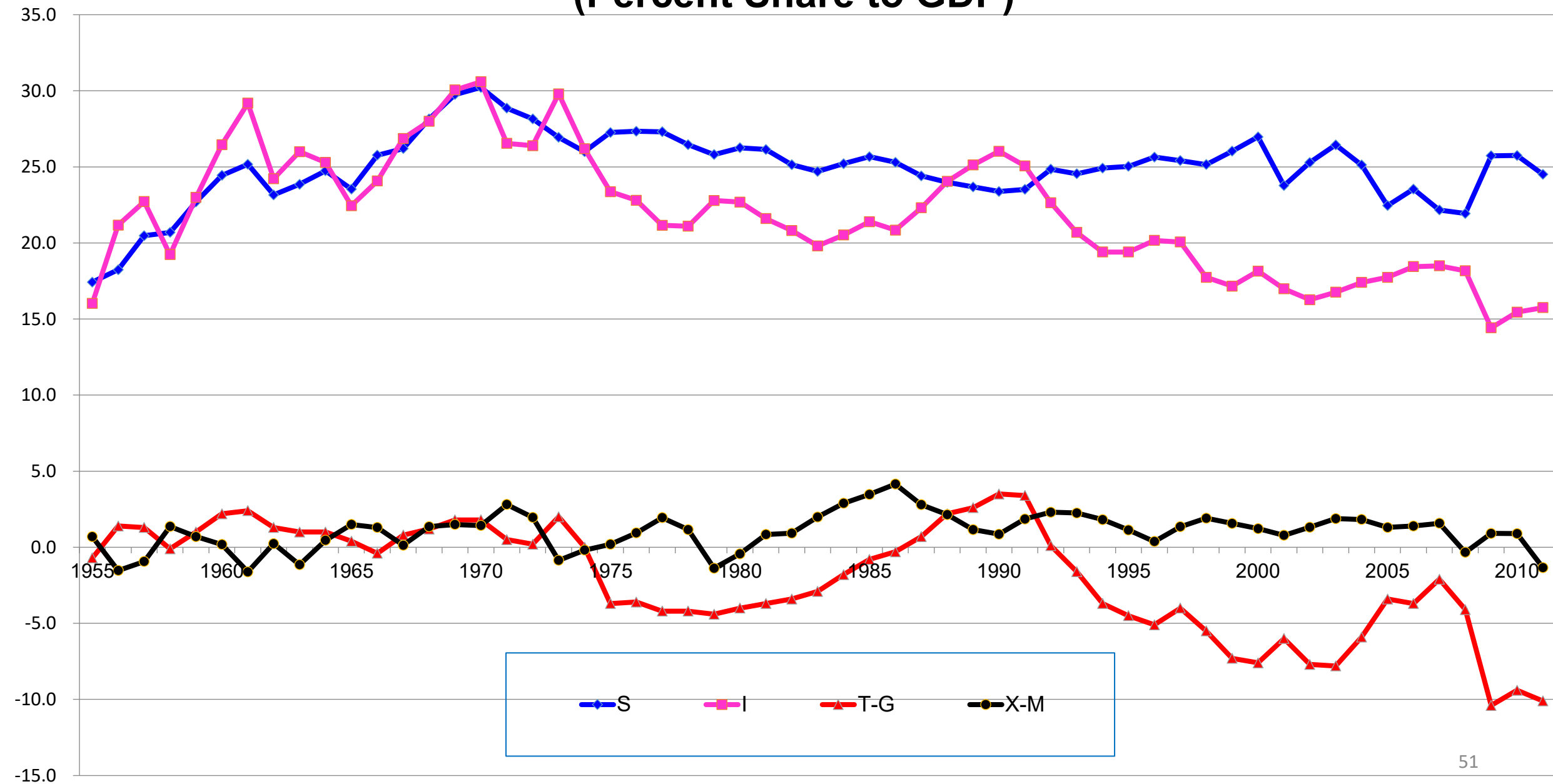
exchange rate and saving rate until 1970 and after

Keeping the fixed exchange rate of “\$1=\360” (1949 – 1971)

□	1970	1991	1998
□① High saving rate	30%	25%	25%
□② High investment rate	30%	25%	18%

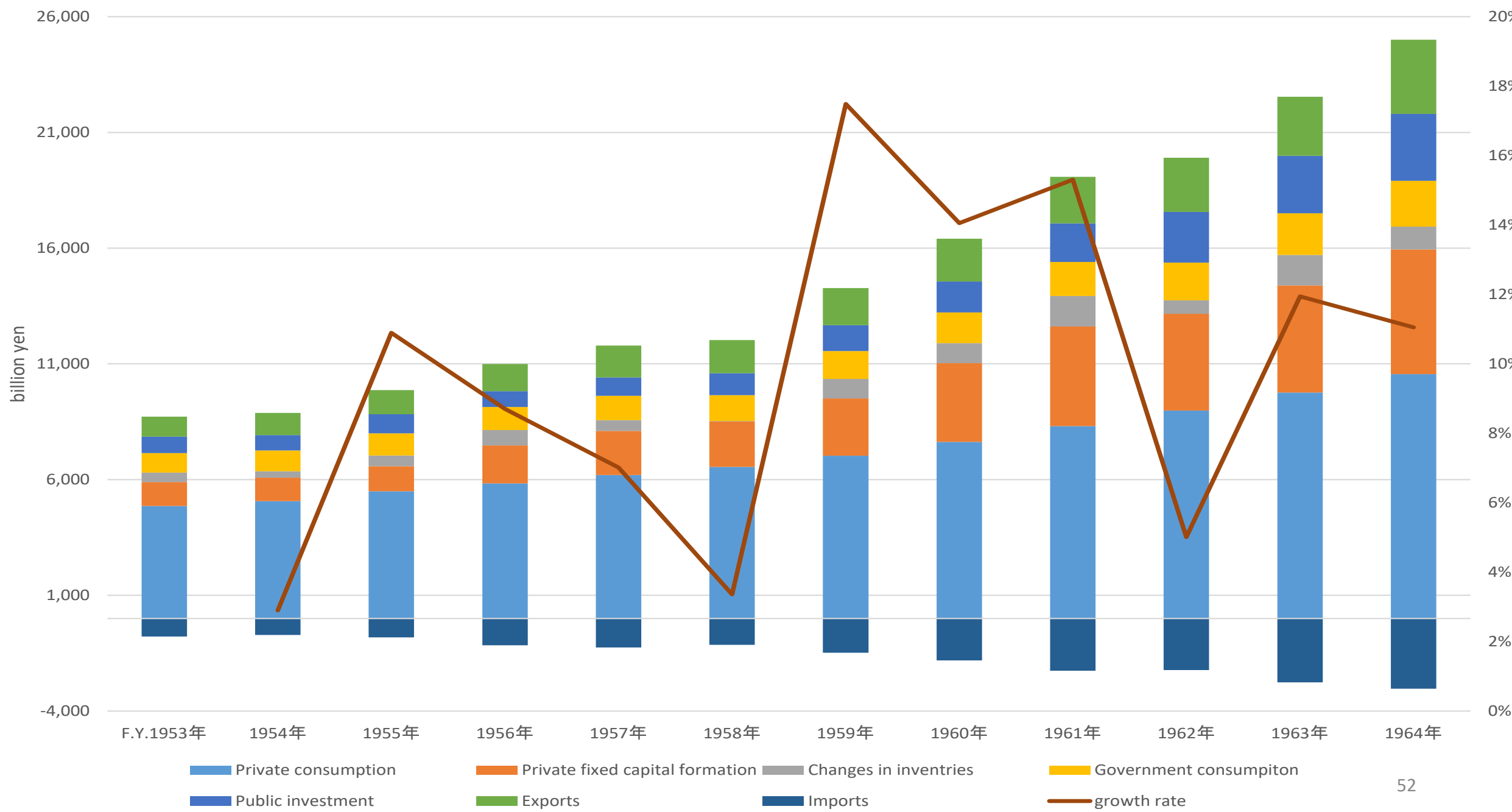
Investment and Saving Balance (1955-2010)

(Percent Share to GDP)



real GNP of Japan and its components 1953-64 (constant price 1960)

Source: Bank of Japan

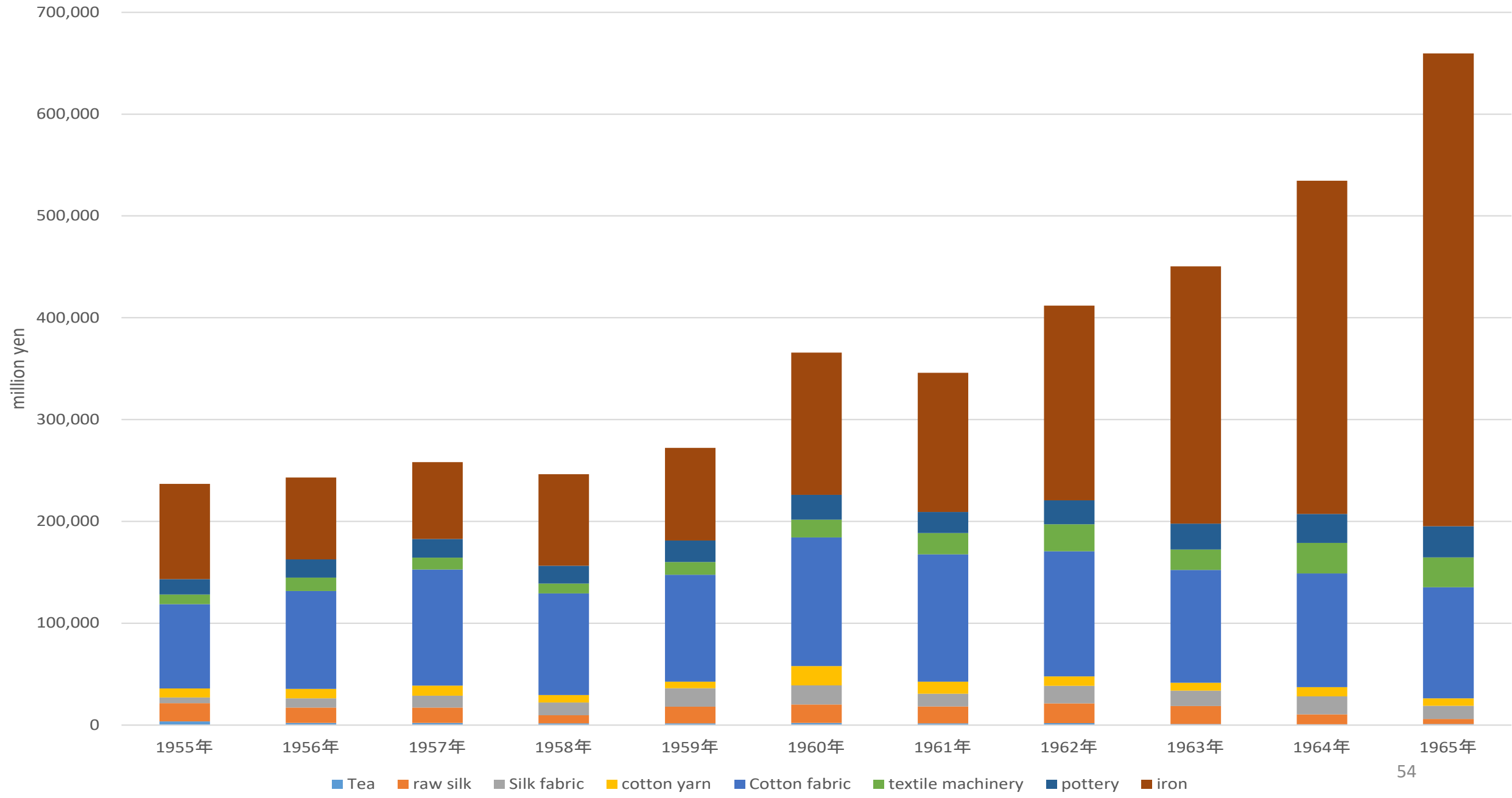


GDP growth of selected economies

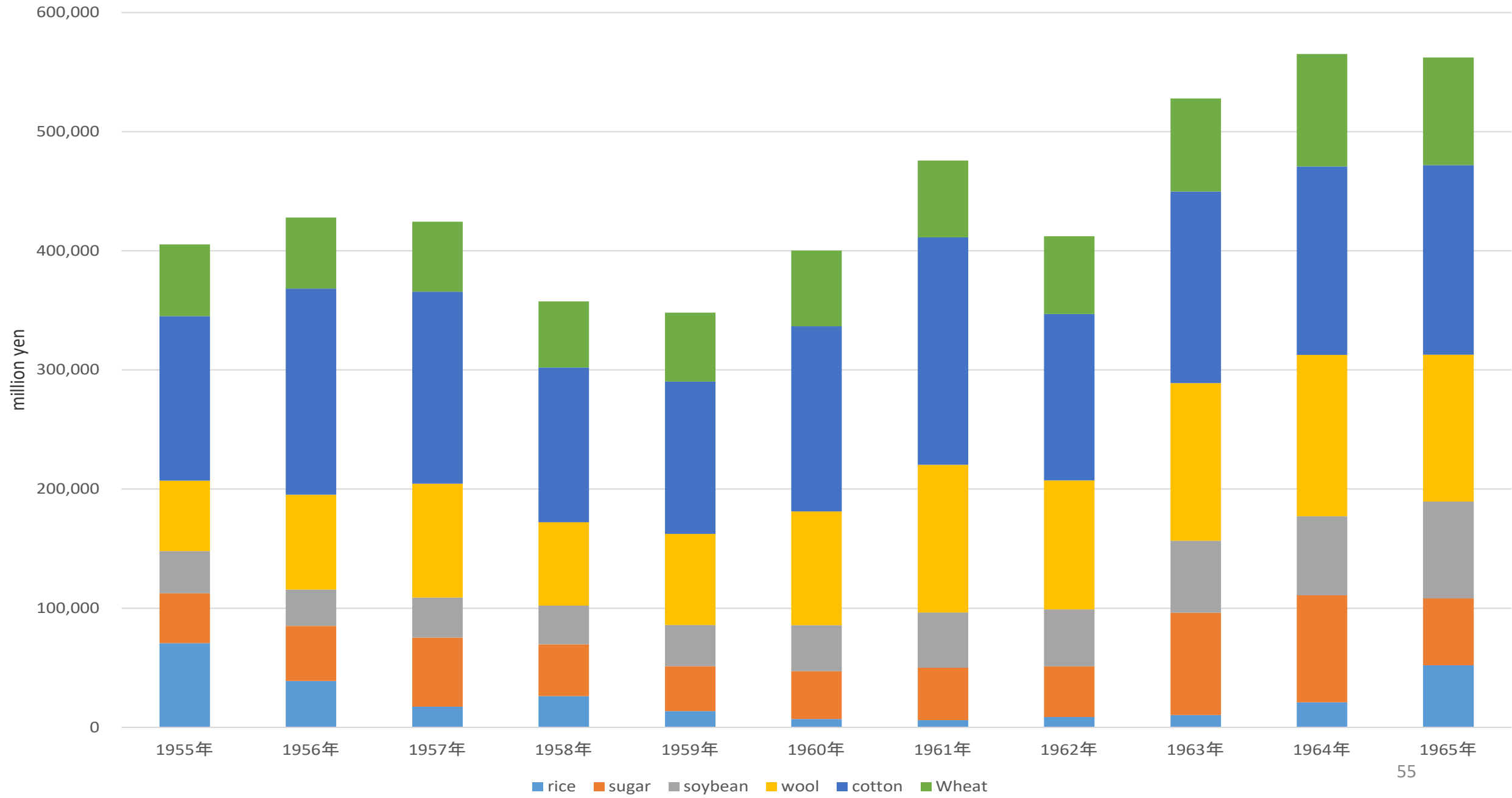
	Japan	USA	Germany	Korea	Thai	China
1955-70	9.7	3.6	4.5	6.8	7.2	6.7
1970-80	4.5	3.2	2.7	7.5	6.8	7.4
1980-90	4.4	3.1	1.9	8.6	7.2	9.8
1990-00	1.5	3.2	2.2	6.7	5.3	10.0
2000-10	0.6	1.7	0.9	4.4	4.1	10.3

The speed of Japan's economic growth was very fast. The growth rate of the Japan's GDP until 1990 was higher than that of the United States and of Germany.

Main Exports from Japan (1955-65)



Main Imports in Japan (1955-65)



- **industrial rationalization had become a big source of cost reduction for Japanese economy.**

Rationalization in Investments

	Cost Reduction	New Technology
Pig iron	4%	Pre treatment of iron ore
Steel	10%	Oxygen steel production
Steel Board	27%	Continuous press
Steel Pipe	30%	Fretze-Moon process and seamless
Oil Refine	15%	New method
Rayon	25%	Continuous production
Ammonium Sulfate	21%	Urea joint-production

Products and Trade (1970-80)

Total Output			
	1970	1975	1980
1 Construction	39,138,412	48,991,272	55,257,356
2 Commerce	31,117,476	40,323,584	51,517,792
3 Transportation	23,402,556	25,743,458	29,891,240
4 Iron	21,912,800	24,151,832	28,945,333
5 Food products	20,193,964	23,621,026	26,954,116

Exports			
	1970	1975	1980
1 Transportation equipments	897,427	2,402,765	6,120,559
2 Electric machinery	1,004,176	1,835,881	5,104,496
3 Transport	2,631,656	4,096,645	4,432,123
4 General machinaery	1,039,115	2,070,934	4,002,537
5 Iron	1,756,139	3,354,499	3,331,587

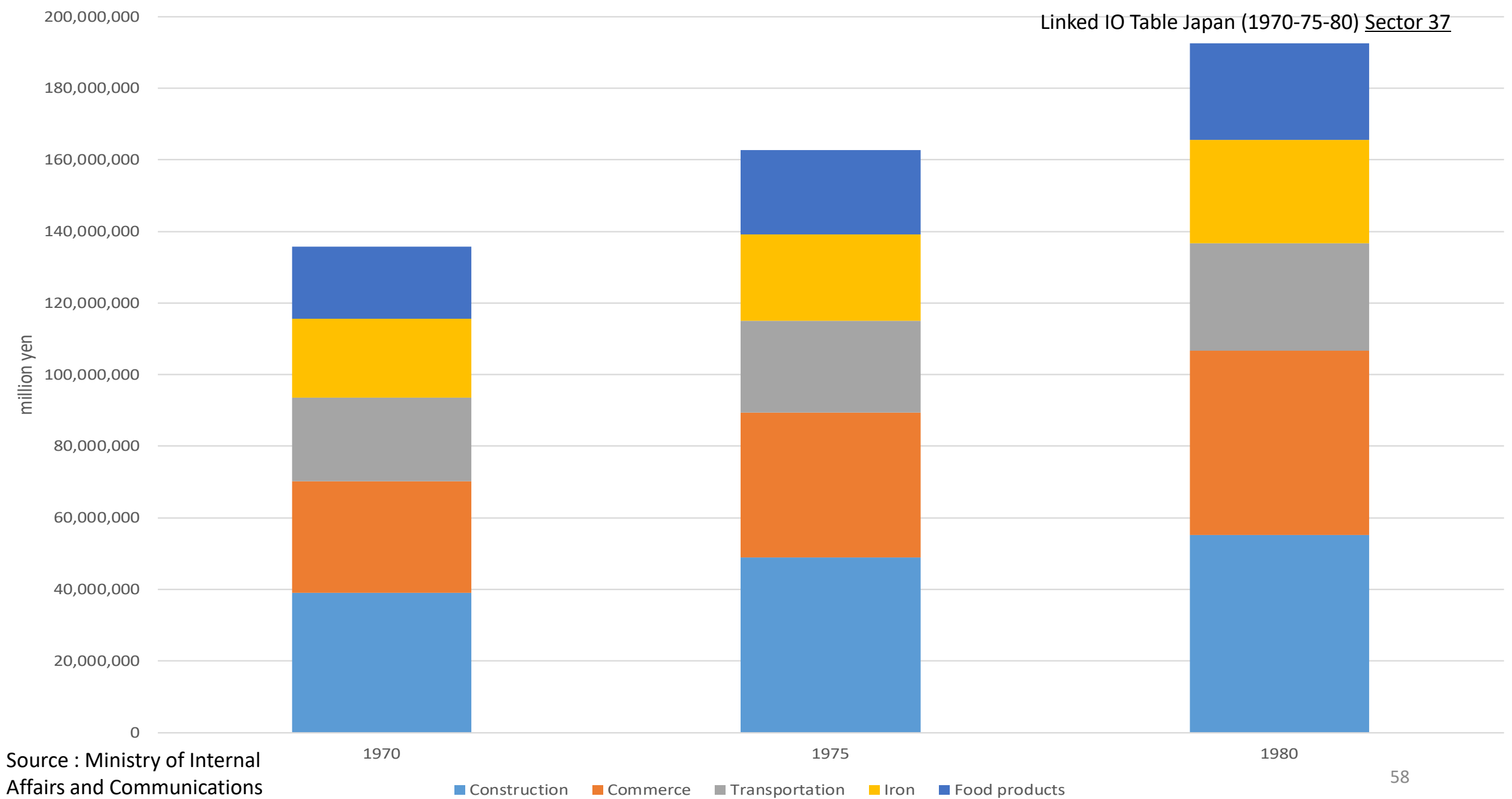
Imports			
	1970	1975	1980
1 Mining	-12,220,387	-15,267,899	-16,401,547
2 Agriculture, fishery and forest	-3,445,282	-3,603,573	-4,109,622
3 Transport	-1,430,970	-2,628,870	-2,931,171
4 Food products	-1,425,086	-1,708,641	-2,372,308
5 Petroleum and coal	-1,631,686	-1,657,916	-2,220,423

constant price 1980
unit:million yen

Source : Ministry of Internal
Affairs and Communications

Top 5 total output in Japan (1970-80) : constant price 1980

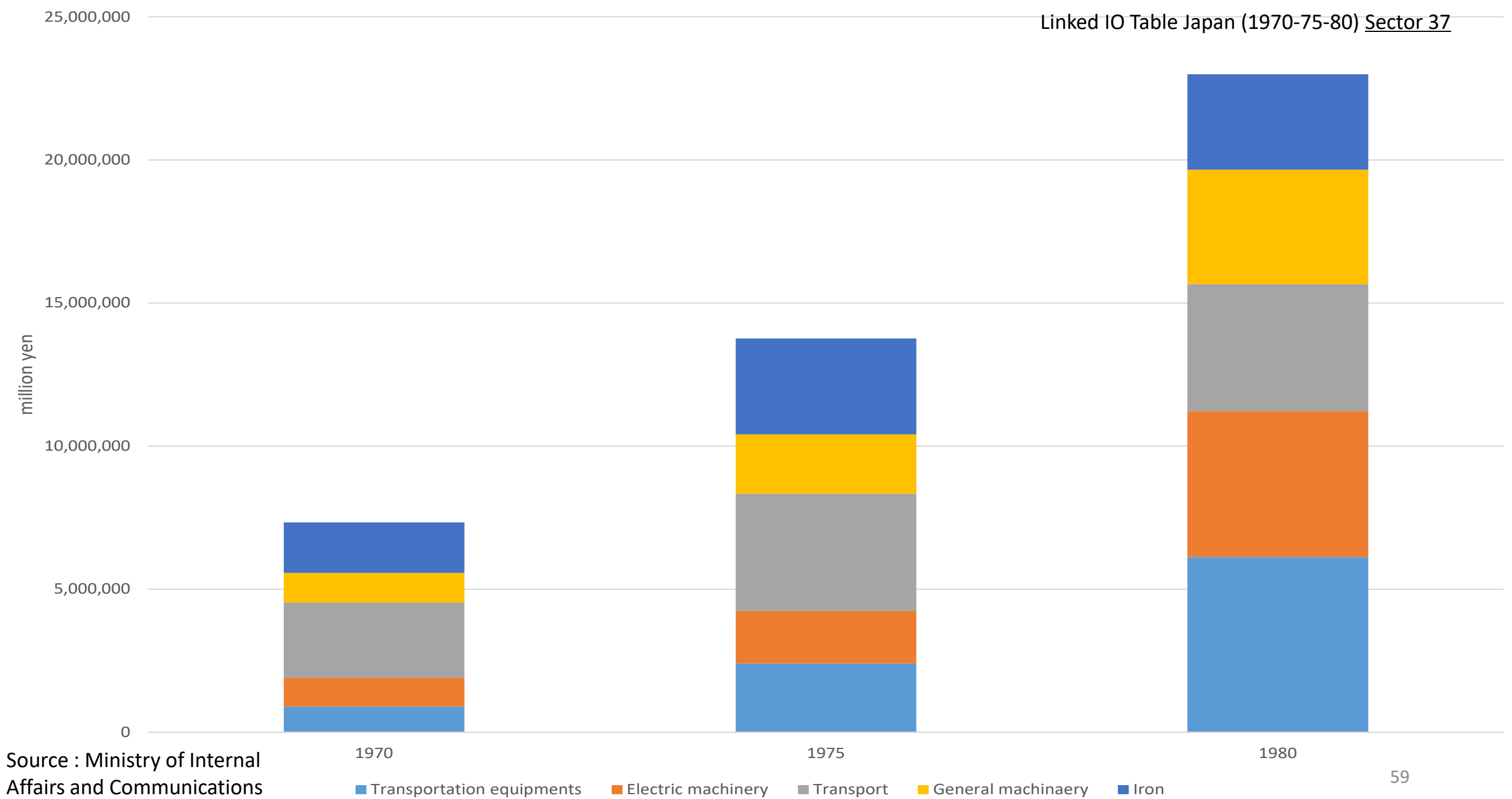
Linked IO Table Japan (1970-75-80) Sector 37



Source : Ministry of Internal Affairs and Communications

Top 5 exports in Japan (1970-80)

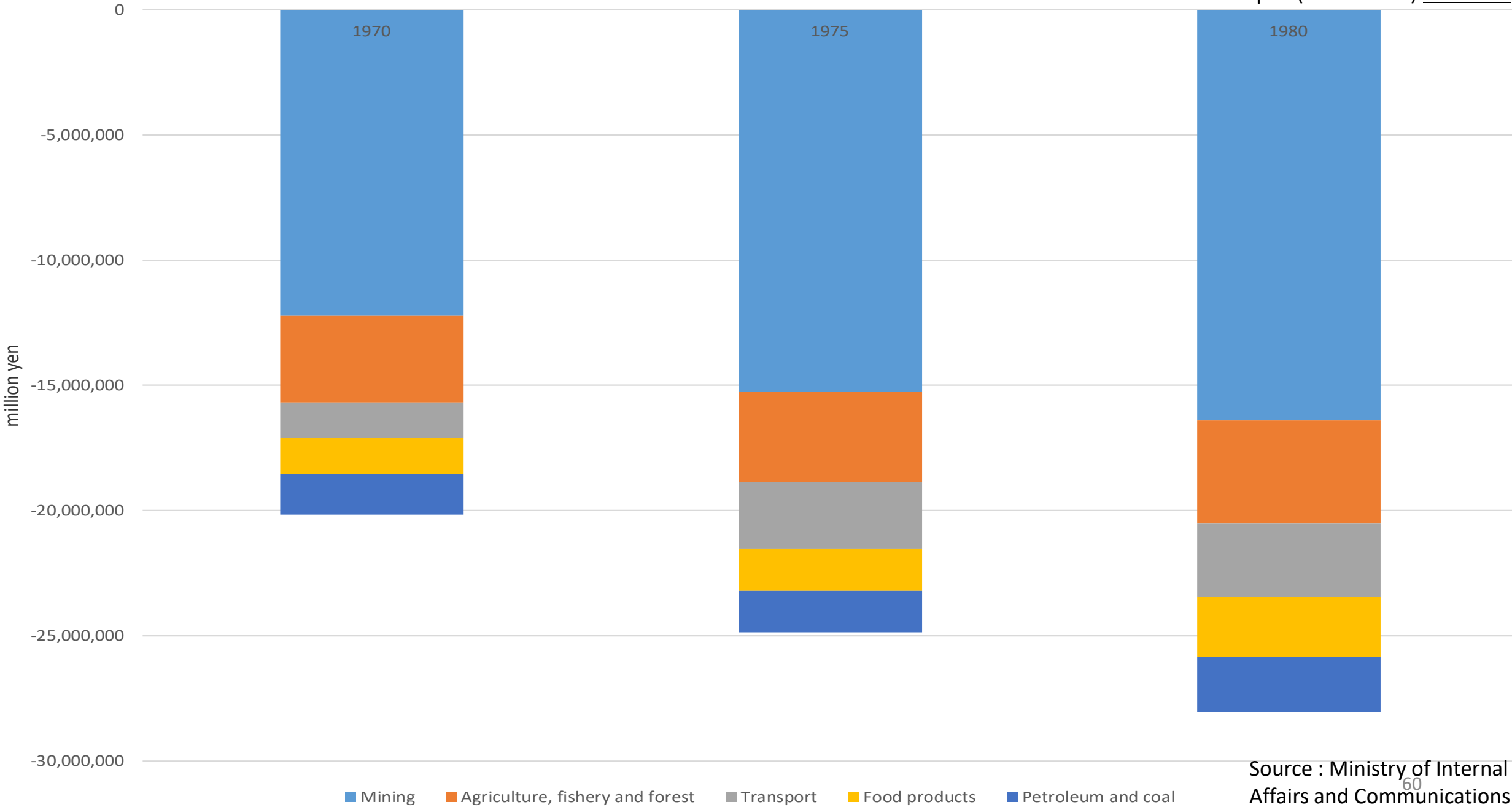
Linked IO Table Japan (1970-75-80) [Sector 37](#)



Source : Ministry of Internal Affairs and Communications

Top 5 imports in Japan (1970-80): constant price 1980

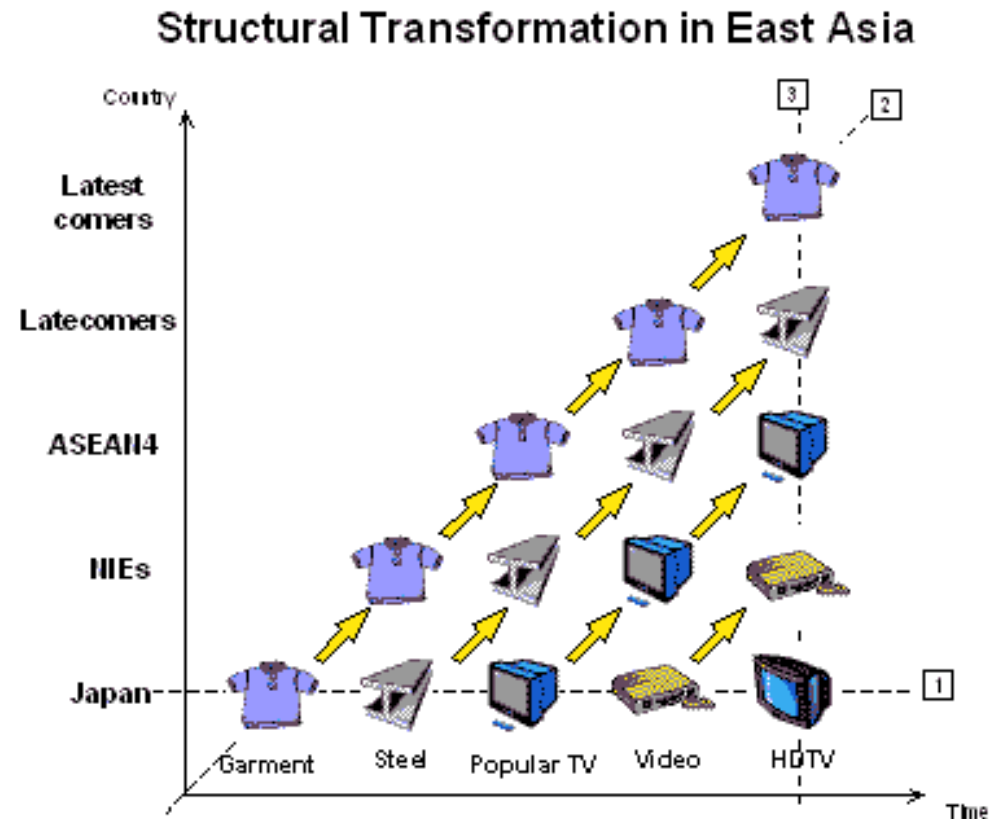
Linked IO Table Japan (1970-75-80) [Sector 37](#)



“Flying Geese” in Japan (after WWII)

Japan's production or trade pattern

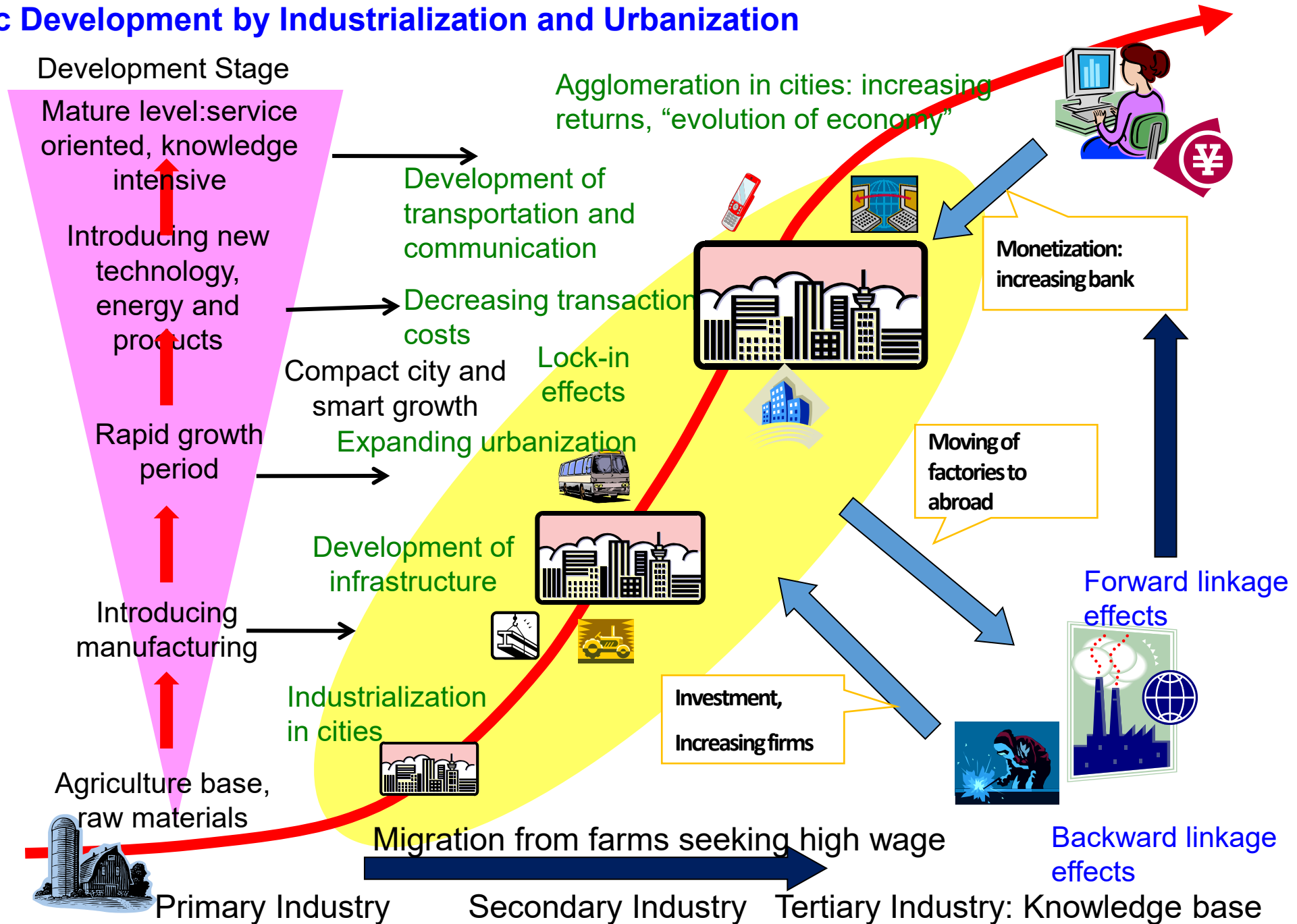
Light industry such as garment → Heavy industry such as iron steel, petrochemistry → Assembling industry such as vehicle and electric equipment



Source: Okita (1985)

<http://www.grips.ac.jp/forum/module/prsp/FGeese.htm>

Economic Development by Industrialization and Urbanization



Modern History in Japan 5:

long recession periods

Period V (1990s - present): falling down or fading away(?)

Since mid 1990s

- loan workout (1992-2002):
Total amount of non-performing loans or bad debt was estimated as 94 trillion yen (about 9,000 million US dollars) or more.
- Asian currency crisis (1997), raising the consumer tax from 3% to 5% in April, 1997
- Bankrupt of megabanks in Japan (1998):
The Nippon Credit Bank, Ltd and The Long-Term Credit Bank of Japan
- administrative reform and central government reform (1996-2001), privatization of Ministry of Posts and Telecommunications (2001-03)
- September 11 attacks and War in Afghanistan (2001 to 2021)
- Subprime loan and its impact on Japan's trade (2008-09)
- Great East Japan Earthquake (2011)
- The COVID-19 pandemic (2020)

More than two decades since 2000

Failure of structural reform?

e.g. Agriculture, Bank, Communication, Medical, Education, Construction, etc

“Bubble Economy” and its collapse in Japan

1) Bubble Economy period (1985-1990)

Plaza Agreement (1985) → Appreciation of Japanese Yen (\JPN)

Japanese government adopted a low-interest policy to encourage investment

→ Stock price and land price rapidly increased

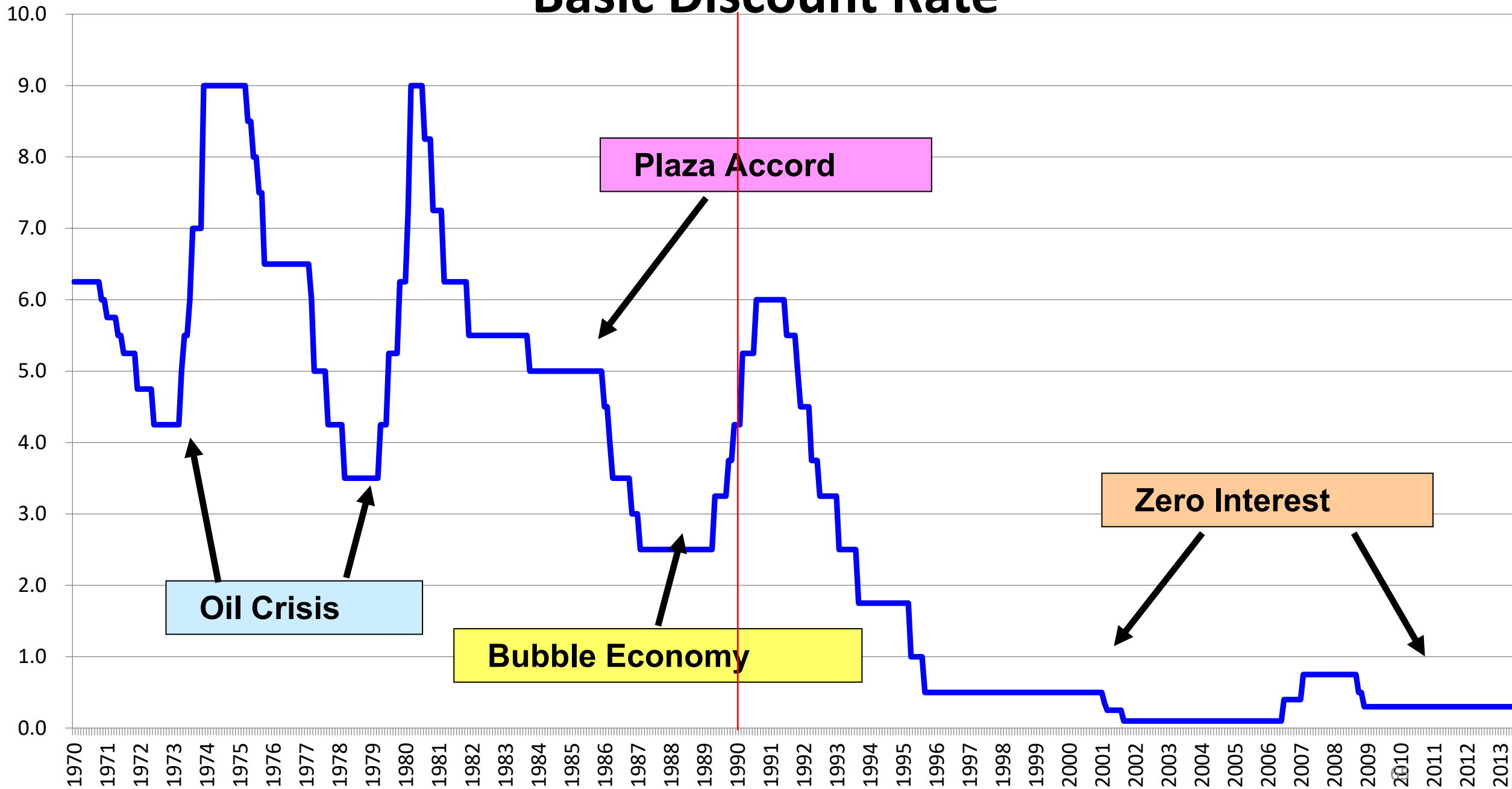
2) Burst of the bubble economy

- 1990-94

Stock price crash since 1990

total amount control for land transactions (“Soryo Kisei”) in 1990

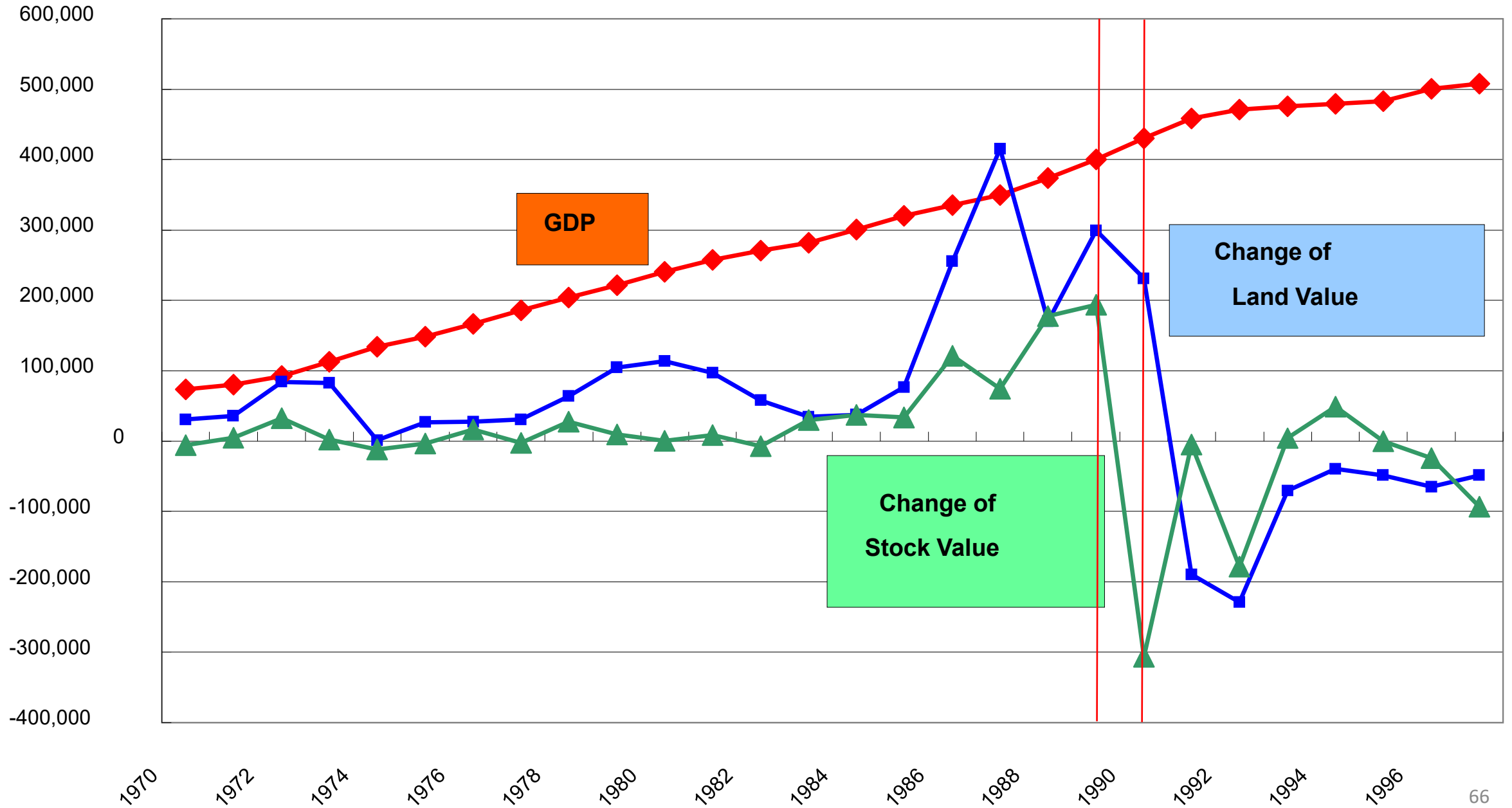
Basic Discount Rate



Billion Yen

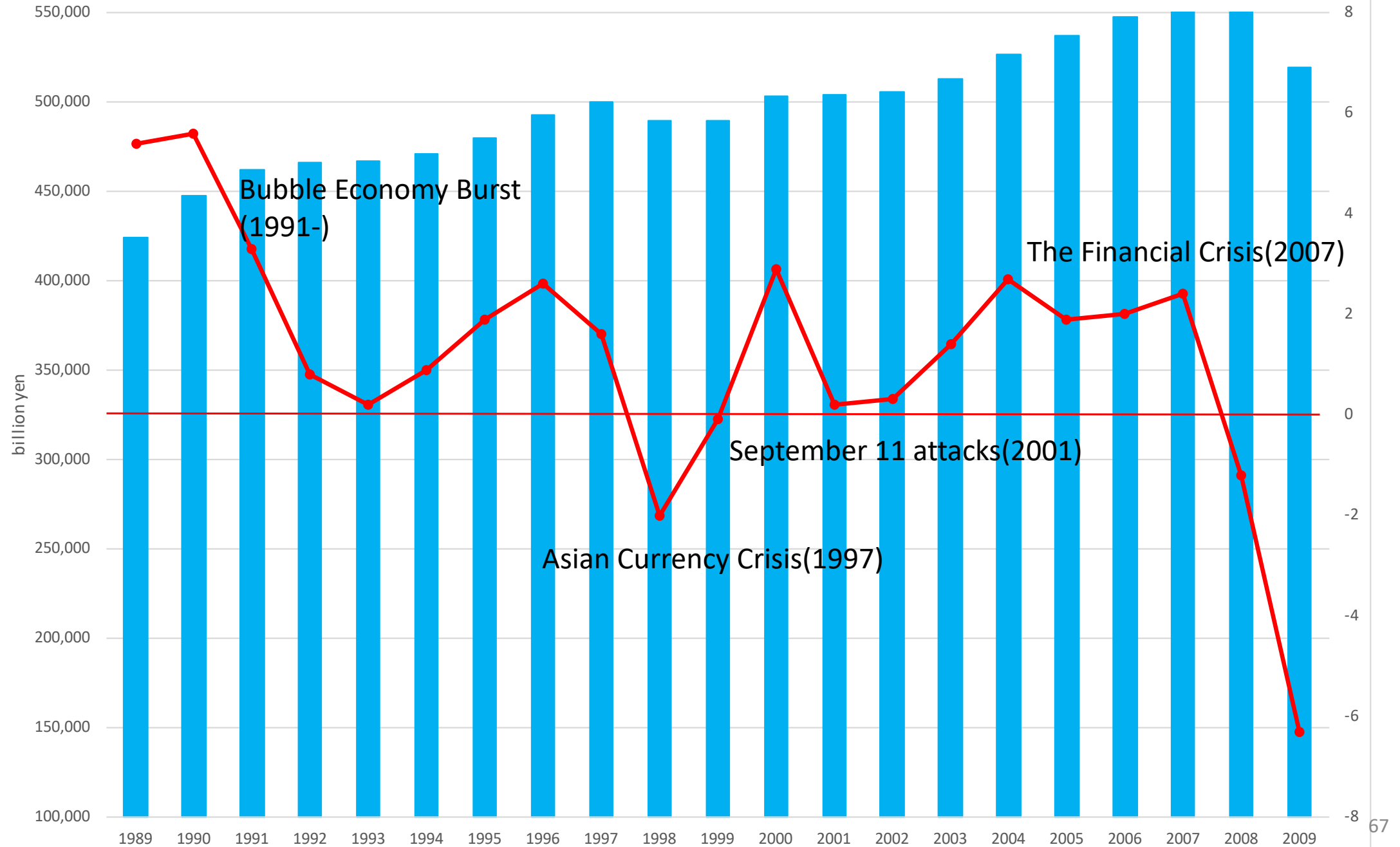
Loss of Bubble Economy

Source: Ichihashi (1998) and others

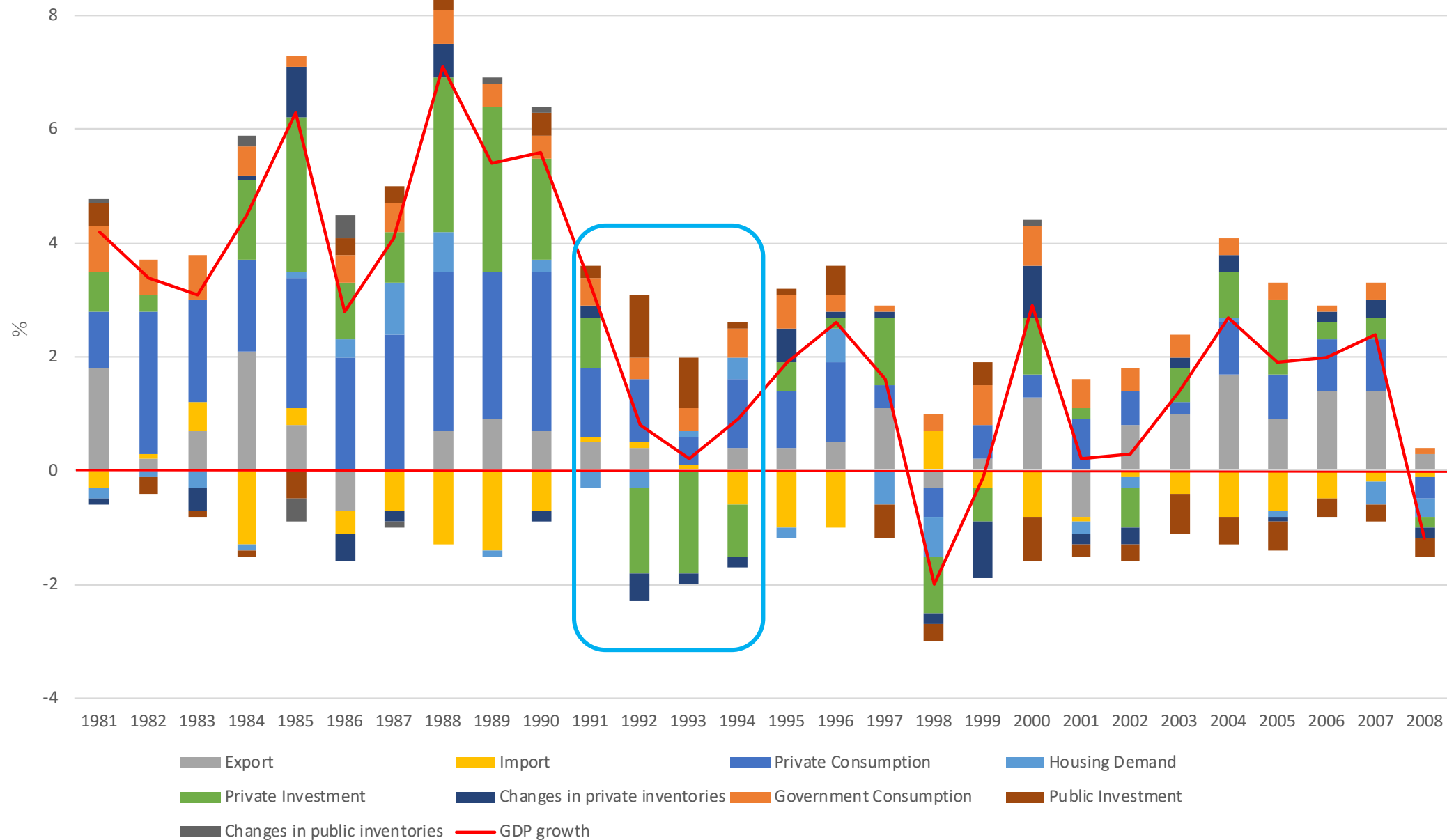


GDP (real) and its growth rate in Japan 1989-2009

Source: Japan Cabinet Office

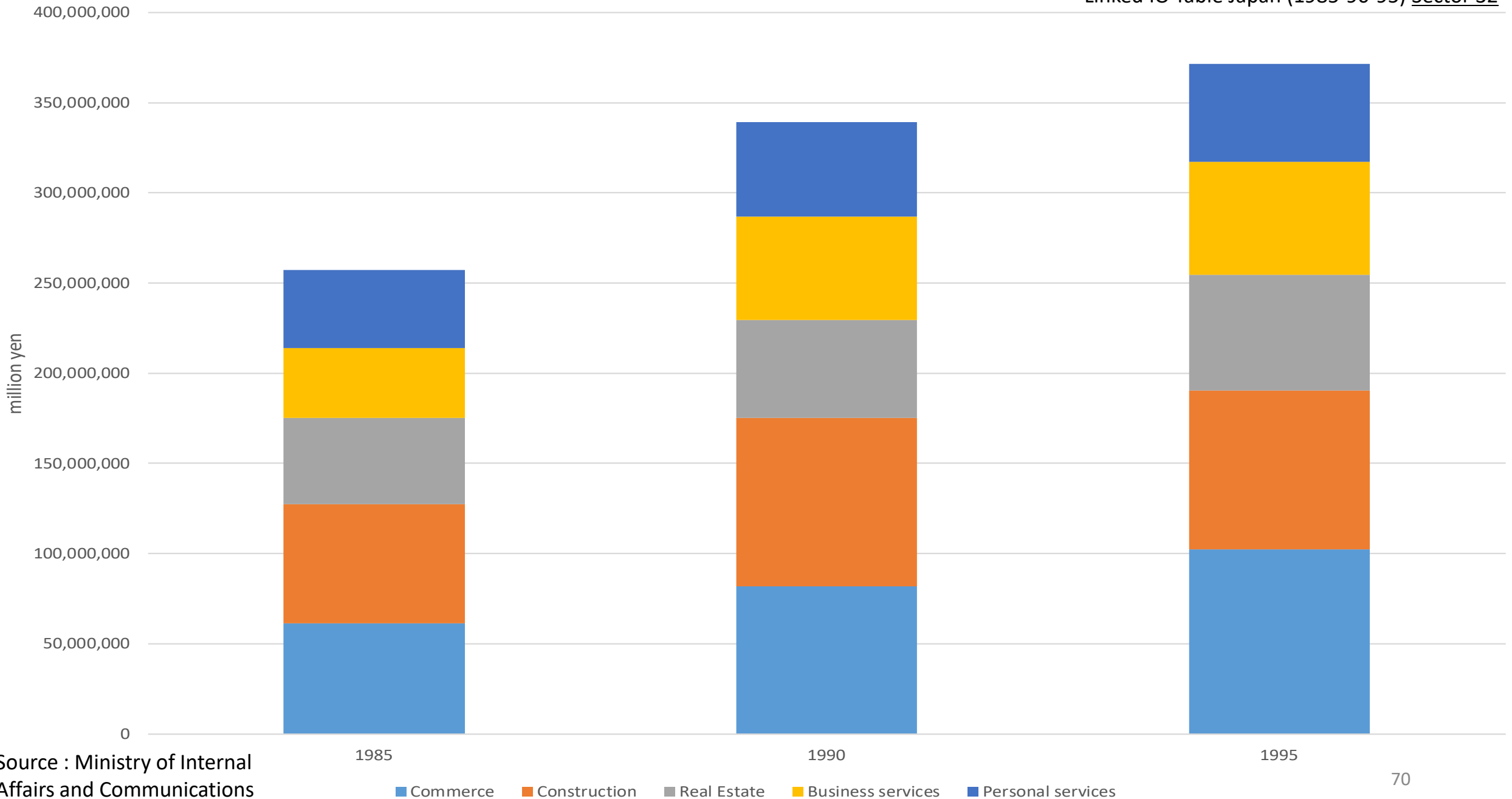


Degree of contribution of each expenditure components in Japan 1981-2008



Top 5 Total Output in Japan (1985-95) : constant price 1995

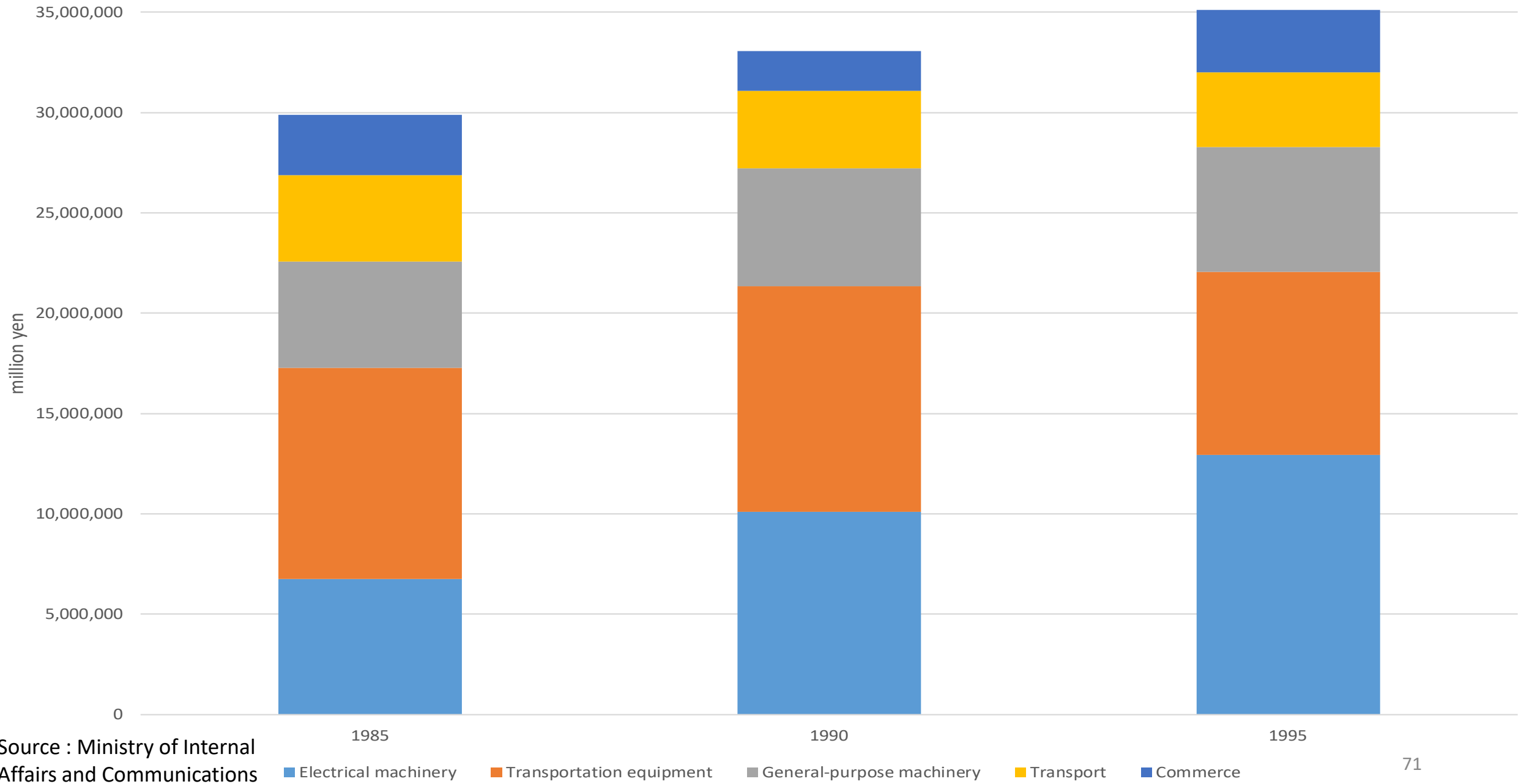
Linked IO Table Japan (1985-90-95) Sector 32



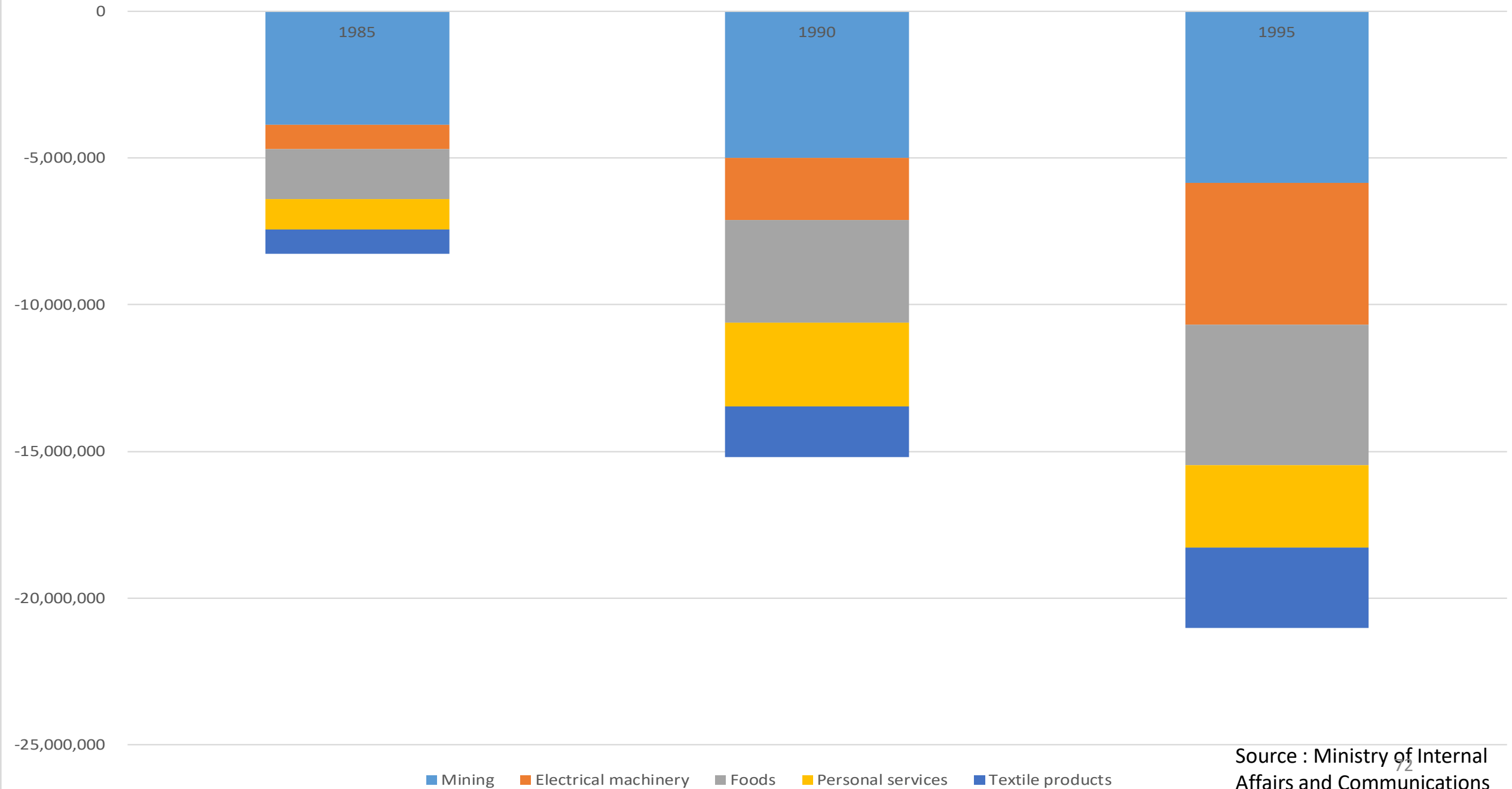
Source : Ministry of Internal Affairs and Communications

Top 5 exports in Japan (1985-95) : constant price 1995

Linked IO Table Japan (1985-90-95) [Sector 32](#)



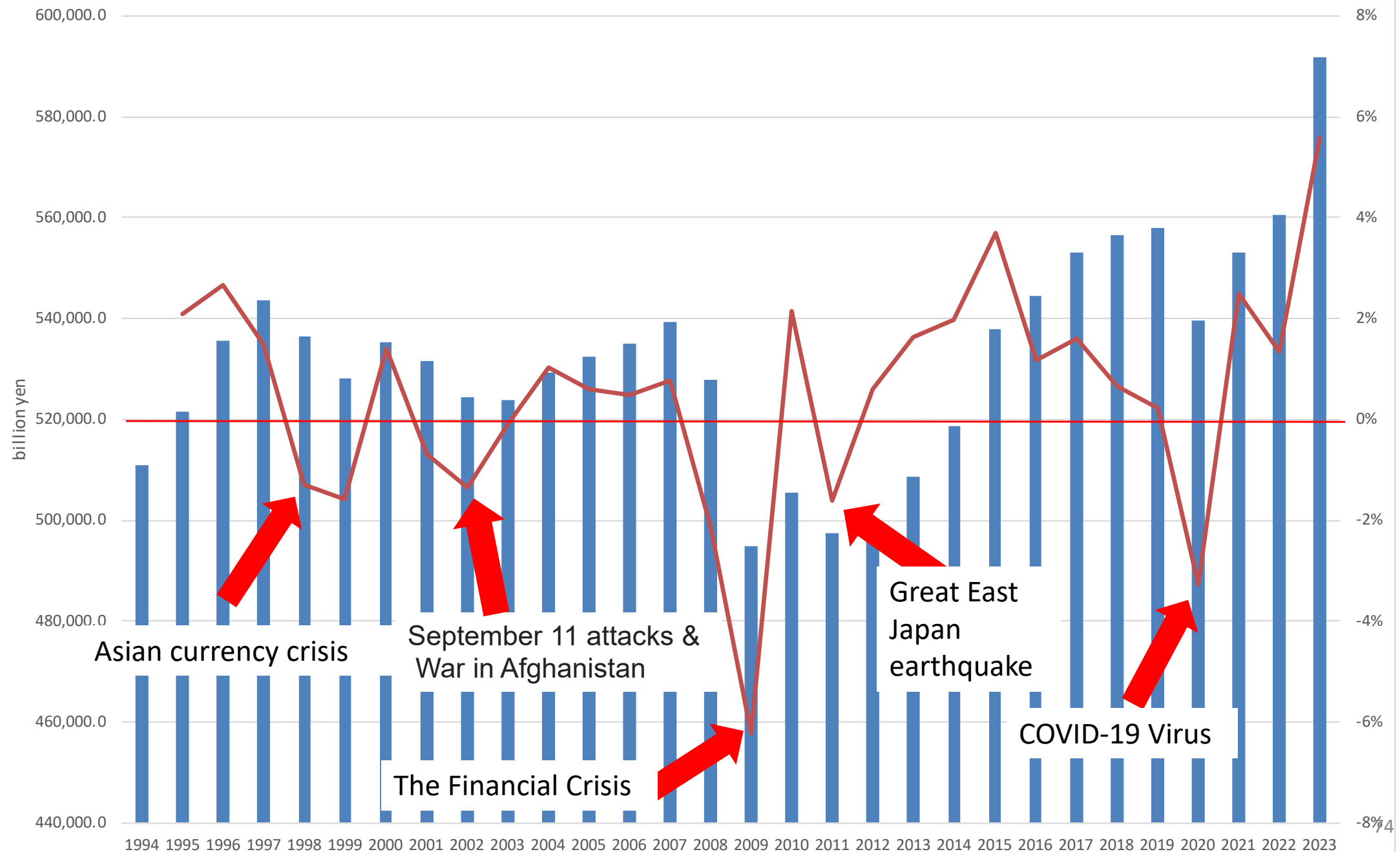
Top 5 imports in Japan (1985-95): constant price 1995 Linked IO Table Japan (1985-90-95) [Sector 32](#)



Since 2000

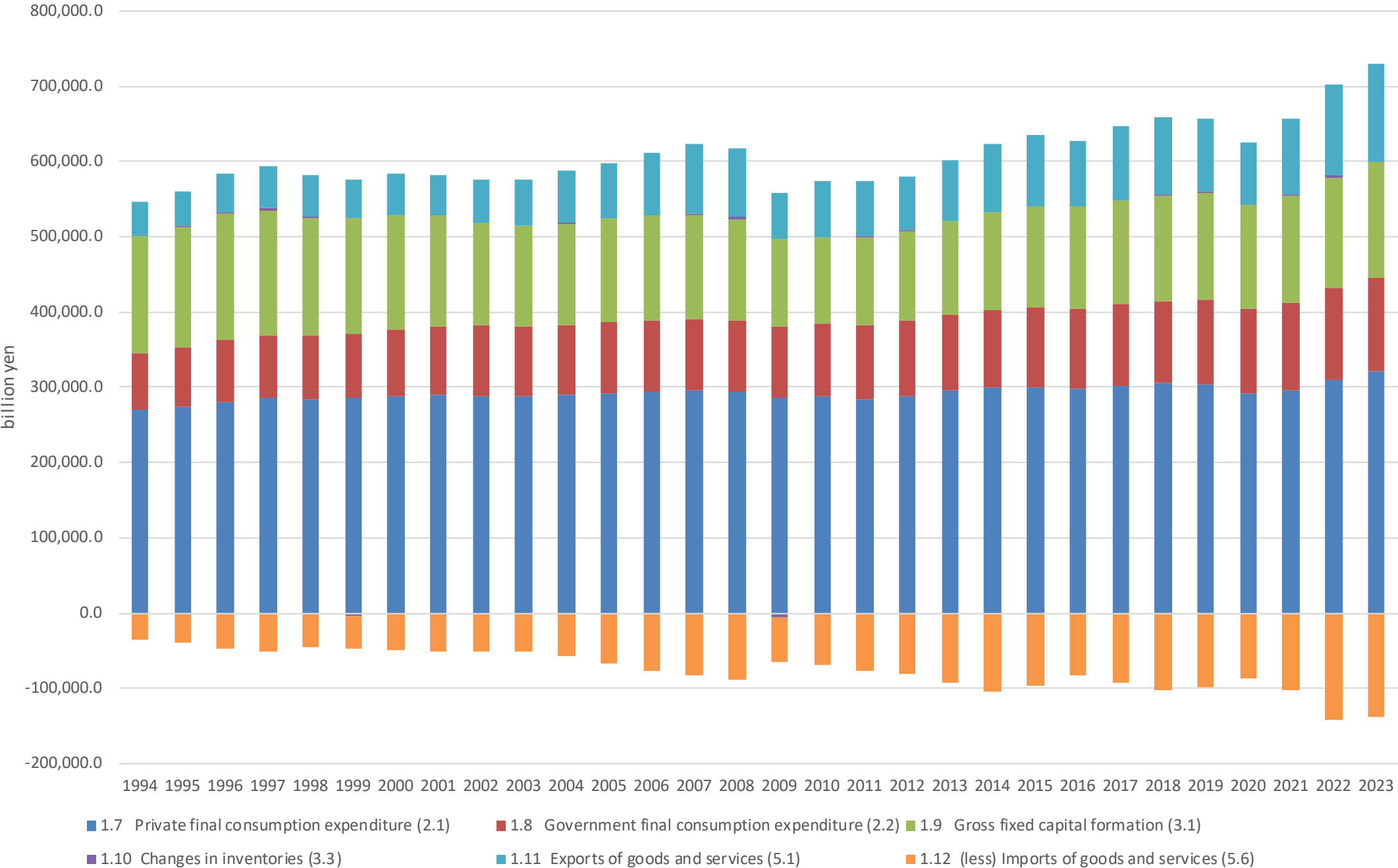
nominal Jpan's GDP and its growth rate 1994-2023

Source: Japan Cabinet Office

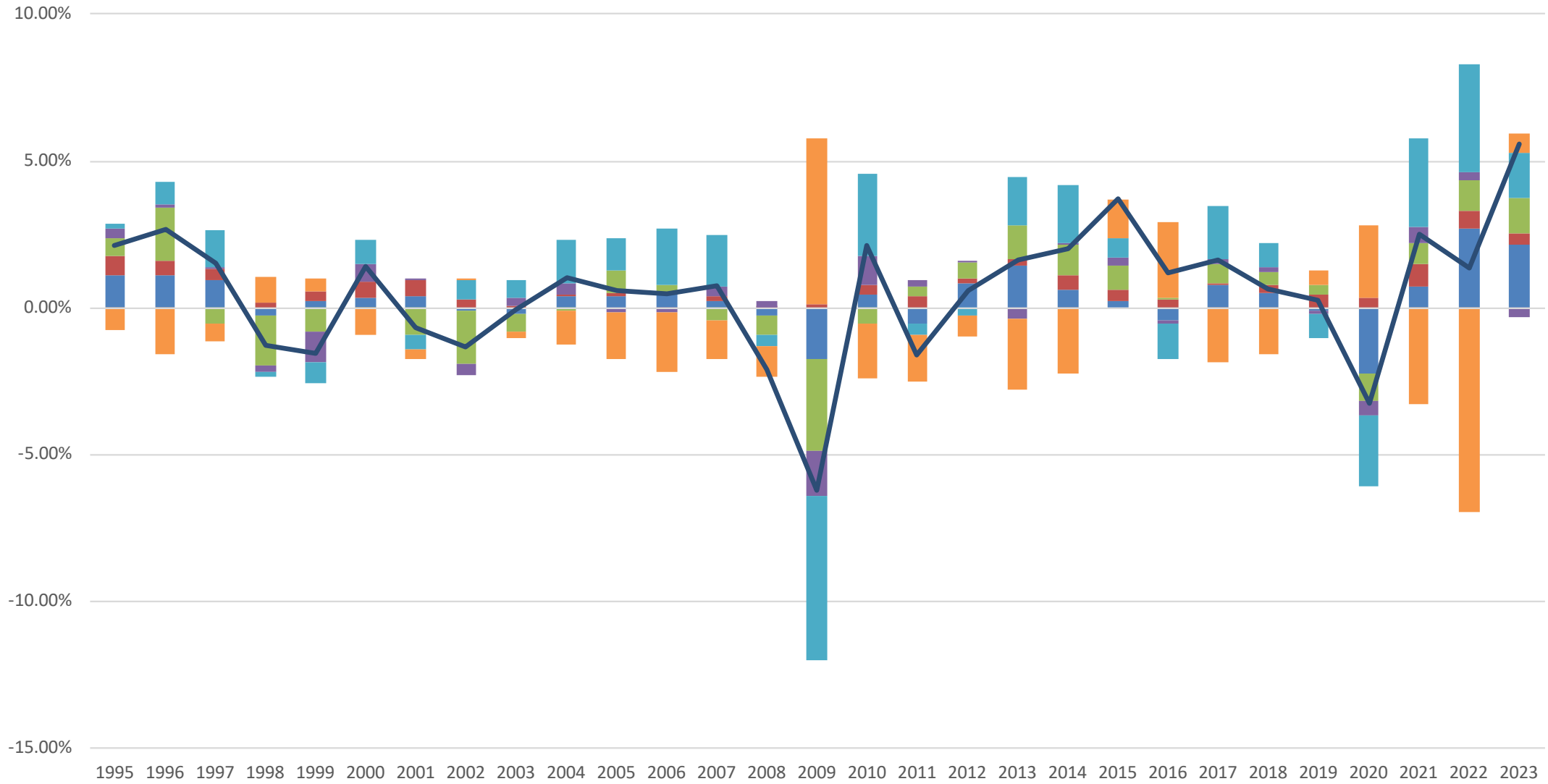


GDP components (expenditure side) 1994-2023

Source: Japan Cabinet Office



Contribution degree of GDP growth 1995-2023 (expenditure side)

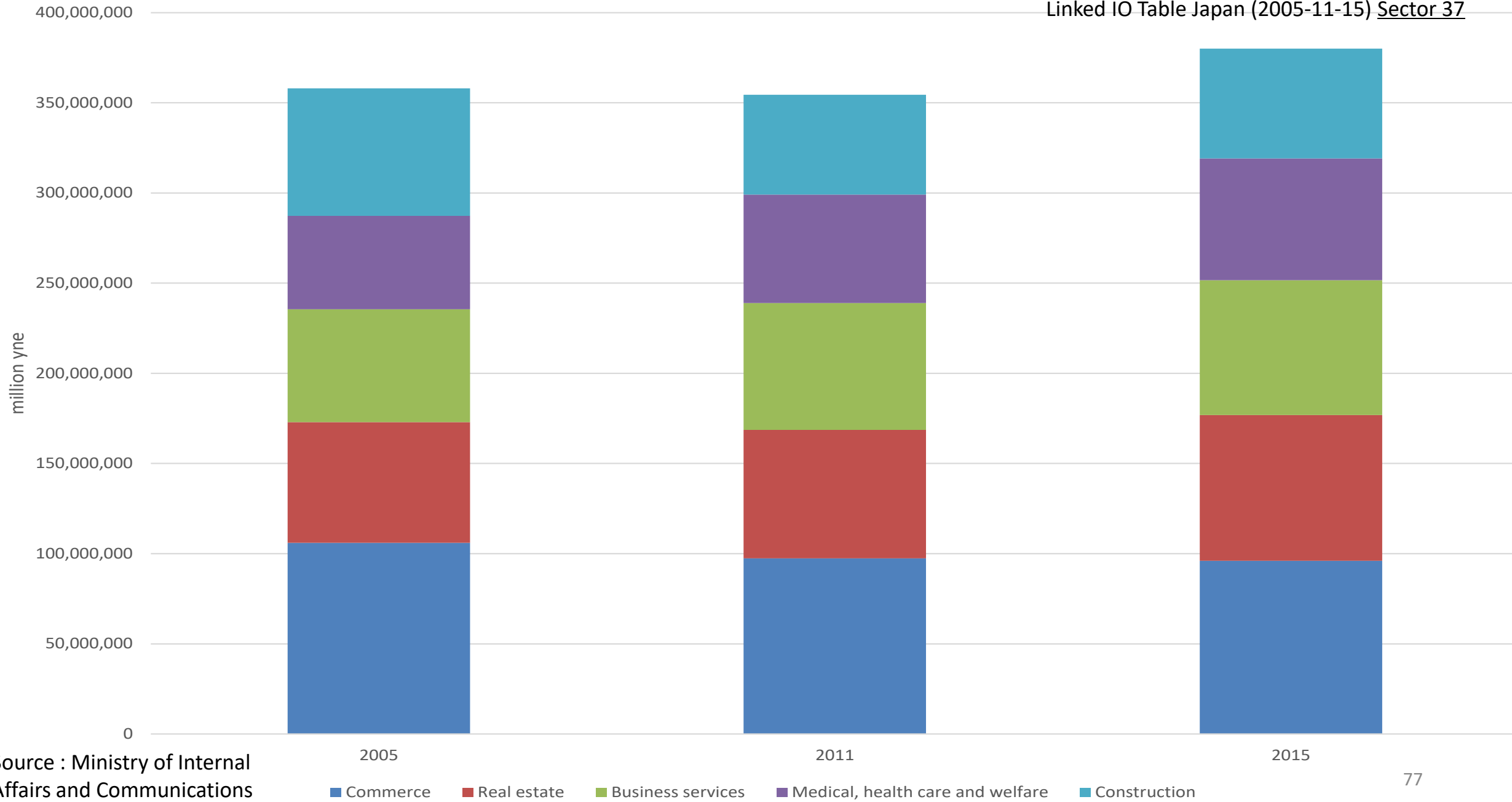


- 1.7 Private final consumption expenditure (2.1)
- 1.8 Government final consumption expenditure (2.2)
- 1.9 Gross fixed capital formation (3.1)
- 1.10 Changes in inventories (3.3)
- 1.11 Exports of goods and services (5.1)
- 1.12 (less) Imports of goods and services (5.6)
- GDP Growth Rate

Source: Japan Cabinet Office

Top 5 Total Output in Japan (2005-11-15) : constant price 2015

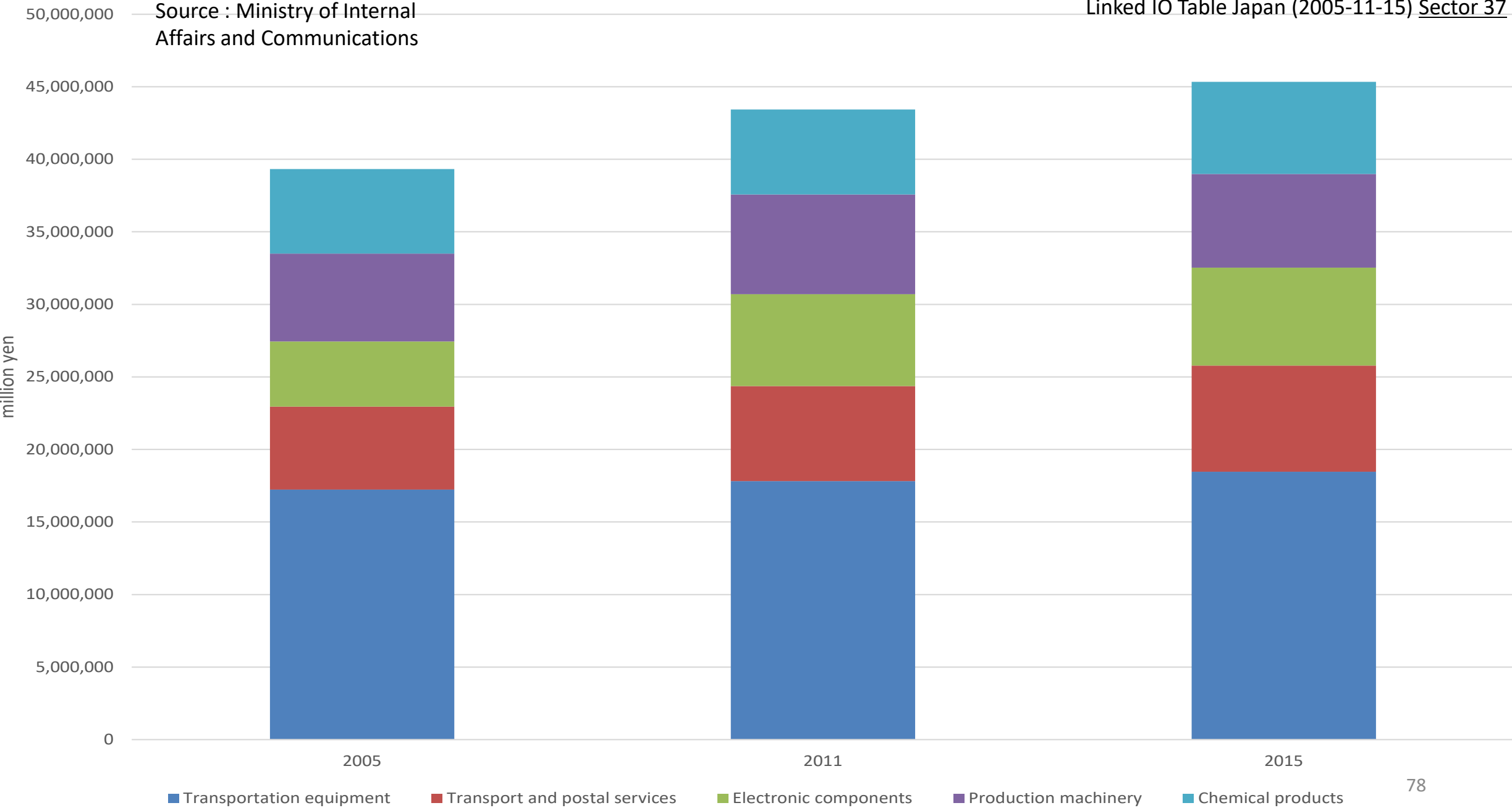
Linked IO Table Japan (2005-11-15) [Sector 37](#)



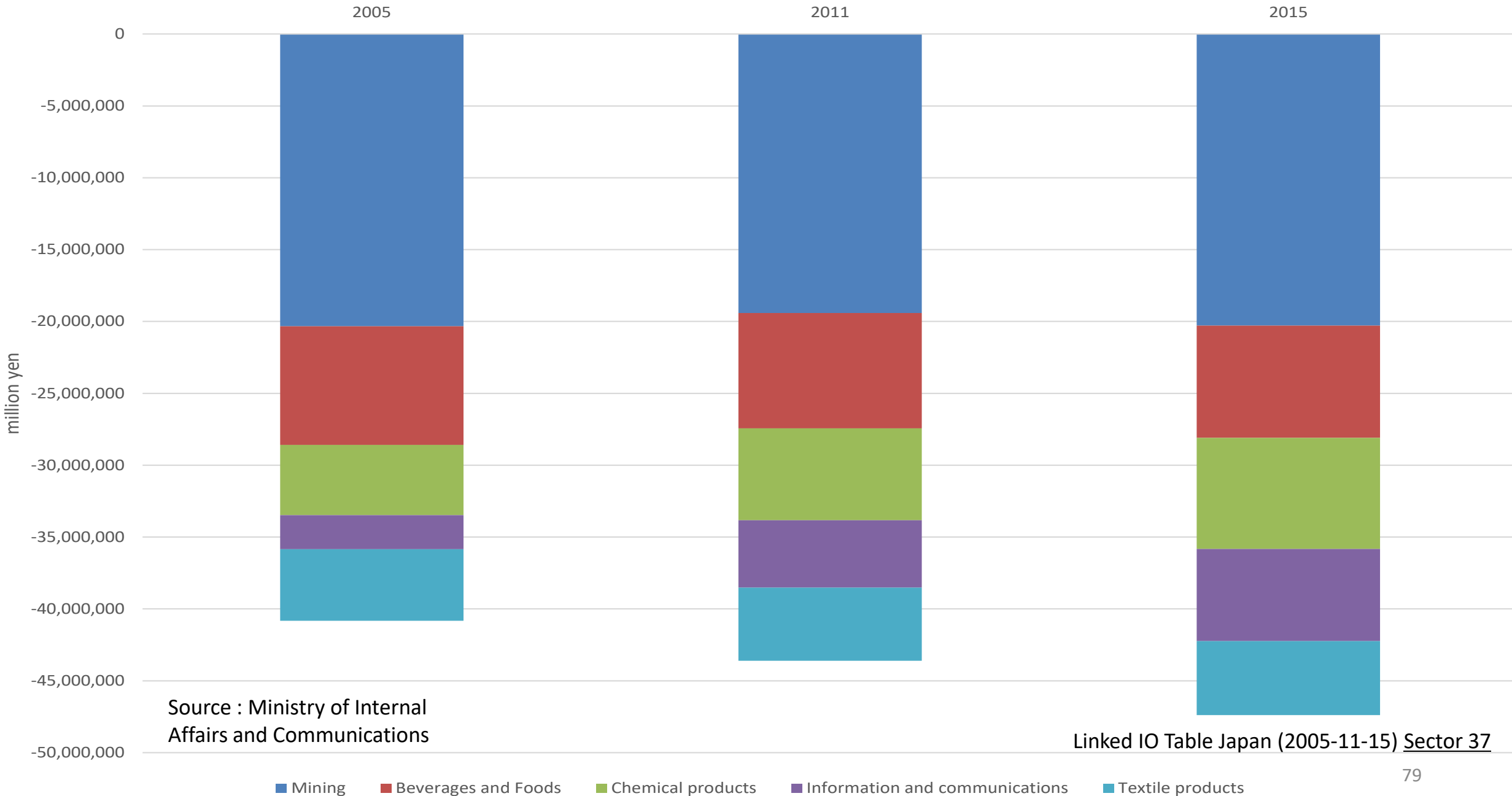
Top 5 Exports in Japan (2005-11-15) : constant price 2015

Source : Ministry of Internal
Affairs and Communications

Linked IO Table Japan (2005-11-15) [Sector 37](#)



Top 5 Imports in Japan (2005-11-15) : constant price 2015



Top 10 Total Output, Exports, and Imports in 2020 Japan IOT sector 188

		Total Output		Export		(less)Import
1	Miscellaneous business services	54,438.9	Passenger motor cars	7,764.8	Coal mining, crude petroleum and natural gas	-11,220.7
2	House rent (imputed house rent)	52,214.3	Wholesale trade	6,670.9	Medicines	-3,593.2
3	Wholesale trade	48,960.0	Activities not elsewhere classified	4,303.4	Communication equipment	-3,309.2
4	Medical service	47,342.2	Electronic devices	3,713.3	Information services	-3,273.0
5	Retail trade	43,758.3	Motor vehicle parts and accessories	3,677.6	Electronic computing equipment and accessory equipment of electronic computing equipment	-3,088.8
6	Information services	27,277.5	International shipping	3,279.7	Woven fabric and knitted Apparel	-2,778.9
7	Public administration (local government)	27,215.8	Electrical devices and parts	2,644.9	Electronic devices	-2,703.4
8	Financial service	23,544.9	Miscellaneous electronic components	2,513.2	Miscellaneous ores	-2,694.0
9	Real estate agencies and rental services	23,399.3	Semiconductor making equipment	2,252.7	Miscellaneous business services	-2,320.3
10	School education	22,983.0	Financial service	1,711.5	Petroleum refinery products	-2,305.3

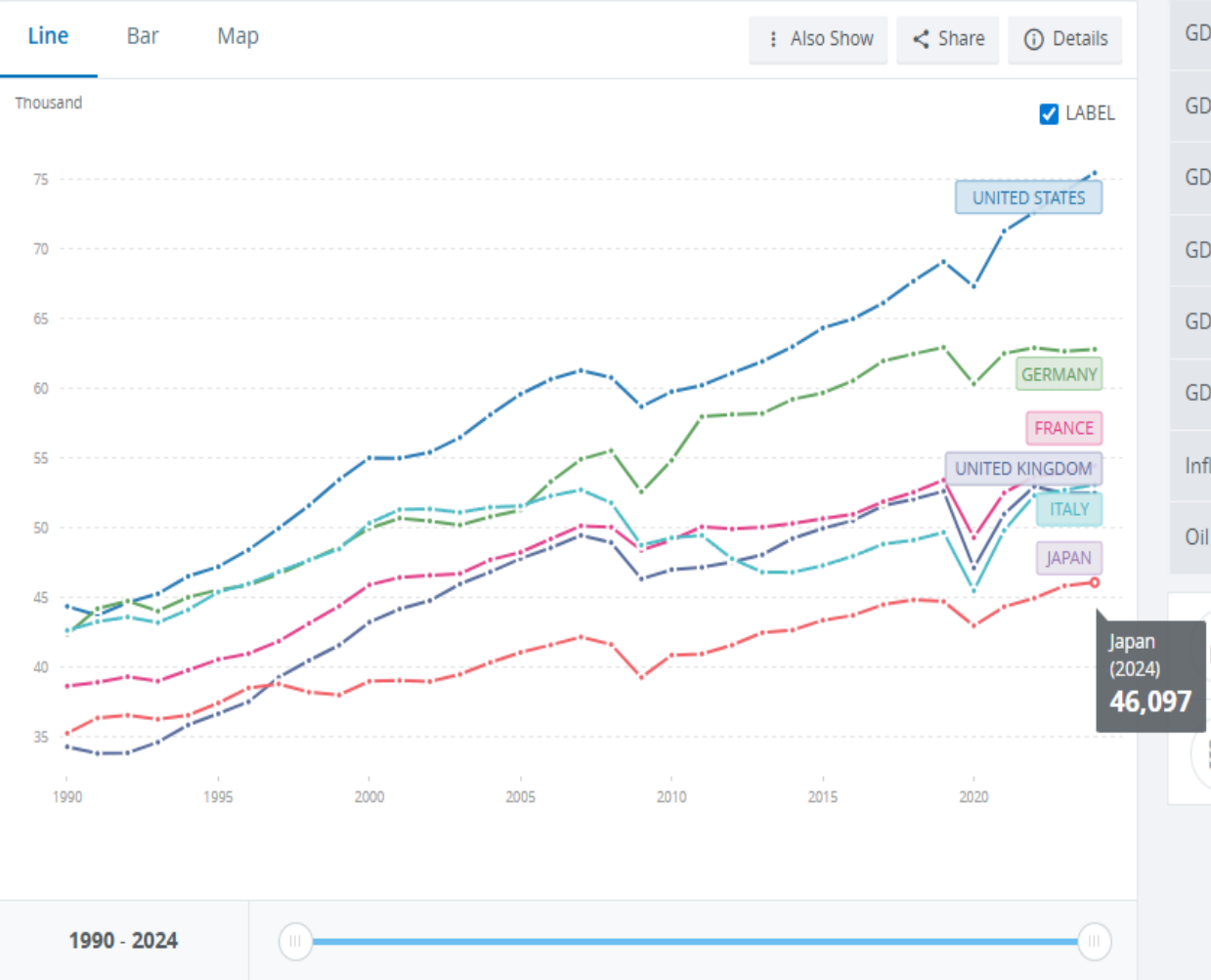
Unit: billion yen

Source : Ministry of Internal
Affairs and Communications

GDP per capita, PPP (constant 2021 international \$) - United States, Germany, United Kingdom, France, Italy, Japan

International Comparison Program (ICP), World Bank (WB), uri: worldbank.org/en/programs/icp/data, note: This information is for ICP's PPPs utilized in WDI, publisher: International Comparison Program (ICP), data accessed: May 30, 2024, date published: May 30, 2024; The Eurostat PPP Programme, Eurostat (ESTAT), uri: ec.europa.eu/eurostat/databrowser/explore/all/all_themes, publisher: Eurostat; The OECD PPP Programme, Organisation for Economic Co-operation and Development (OECD), uri: data-explorer.oecd.org, publisher: OECD; Staff estimates, World Bank (WB); National Accounts data files, Organisation for Economic Co-operation and Development (OECD); World Economic Outlook database, International Monetary Fund (IMF)

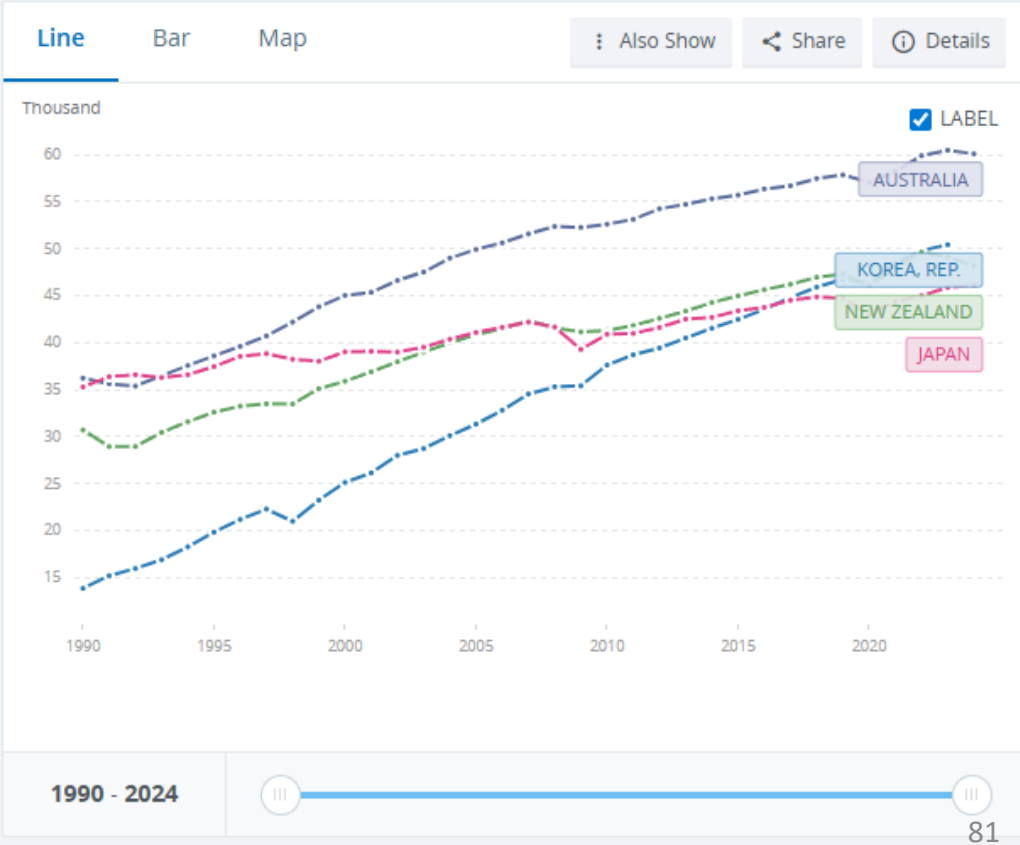
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GDP per capita, PPP (constant 2021 international \$) - Korea, Rep., New Zealand, Australia, Japan

International Comparison Program (ICP), World Bank (WB), uri: worldbank.org/en/programs/icp/data, note: This information is for ICP's PPPs utilized in WDI, publisher: International Comparison Program (ICP), data accessed: May 30, 2024, date published: May 30, 2024; The Eurostat PPP Programme, Eurostat (ESTAT), uri: ec.europa.eu/eurostat/databrowser/explore/all/all_themes, publisher: Eurostat; The OECD PPP Programme, Organisation for Economic Co-operation and Development (OECD), uri: data-explorer.oecd.org, publisher: OECD; Staff estimates, World Bank (WB); National Accounts data files, Organisation for Economic Co-operation and Development (OECD); World Economic Outlook database, International Monetary Fund (IMF)

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World Competitiveness Rankings out of 69 countries 2025

Japan ranked 35(!), lower than Kazakhstan, Estonia, and Thailand.

IMD(International Institute for Management Development)

[WCR-Rankings - IMD business school for management and leadership courses](#)

*The International Institute for Management Development (IMD) is a business school with campuses in Lausanne, Switzerland, and Singapore.



2025

Rankings out of 69 countries



Results

The Ranking

Country Profiles

Comparison

Methodology

35th ▲ +3

World Competitiveness Ranking 2025

🇯🇵

Japan

Capital: Tokyo

⏮️

🔗

⏭️

🌿

🌿

Rank over time



Download Japan PDF ⬇️

Buy full profile

Economic Performance

Position: 23rd | Score: 58.7

12th

20th

26th

21st

23rd

20212025

Government Efficiency

Position: 38th | Score: 52.6

41st

39th

42nd

42nd

38th

20212025

Business Efficiency

Position: 51st | Score: 36.6

48th

51st

47th

51st

51st

20212025

Infrastructure

Position: 19th | Score: 71.1

22nd

22nd

23rd

23rd

19th

20212025

Compare countries

1

Summary: Why Japan Economy has been stuck in long recession (around 30 years?)

“Flying Geese” in Japan since late 19C

In late the 19C

Main exports: tea → raw silk → cotton yarn, cotton fabric → iron

Main imports: cotton, wool

the 20C

Light industry such as garment → Heavy industry such as iron steel, petro chemistry → Assembling industry such as vehicle and electric equipment

e.g. TV, Washing Machine and Refrigerator in 1960s → Color TV, Car and Air Conditioner in 1970s

the 21C

Digital Camera, Liquid crystal television and DVD recorder,

And pop culture such as Japanese manga, animation, game and J-Pop music,

Japanese food chains like Izakaya restaurants, kaiten-zushi, ramen, and convenience stores

But disadvantage or less innovation in AI, ICT, smartphone, blockchain (bitcoin) or monetary technology, entertainment like movies and theme park, pharmaceutical industry??

What's the next something new for high-value added??

Why?? → Less venture business? Fewer new SMEs? Government Failure?

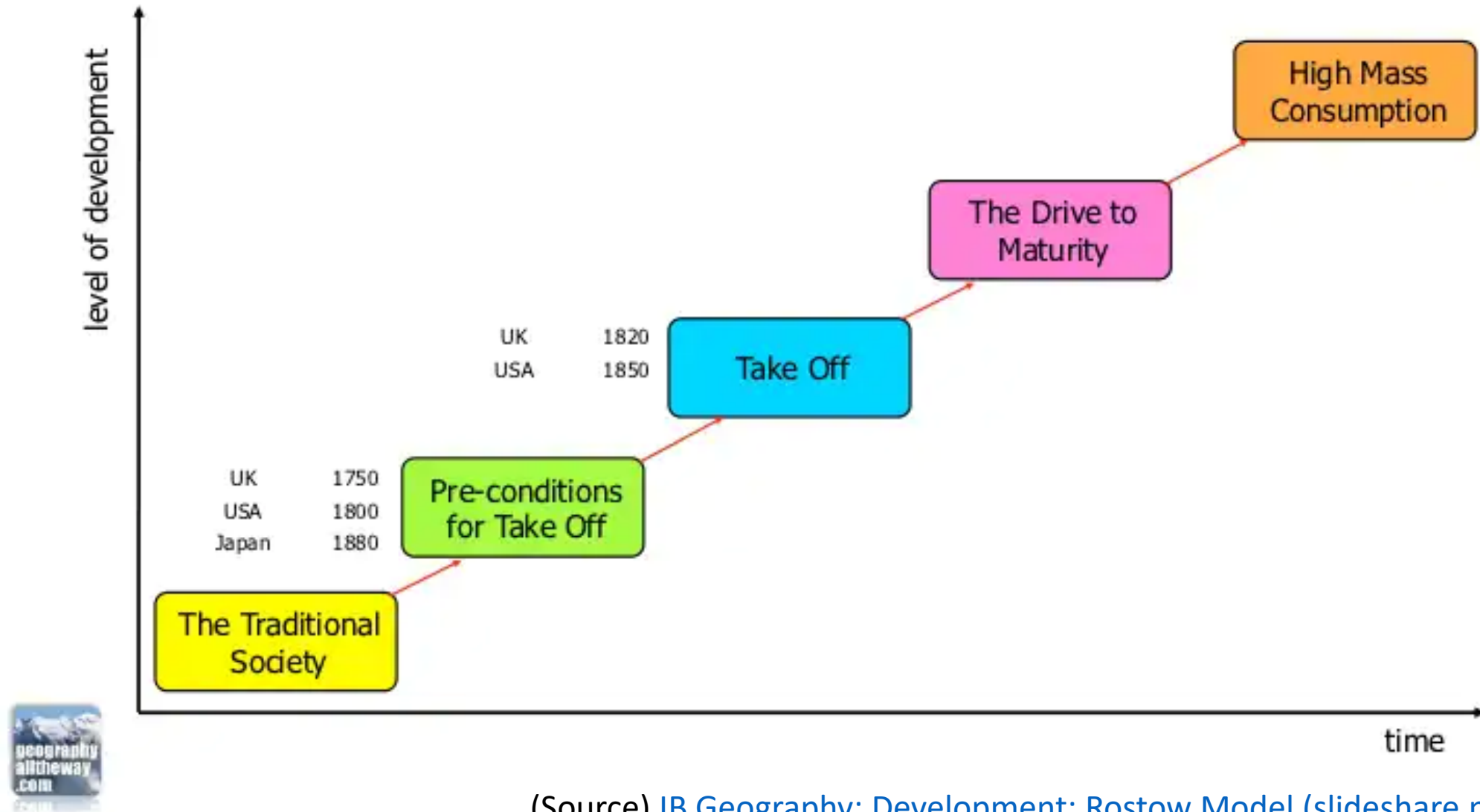
However, we have to be careful with “Historicism”.

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.

Appendix: Rostow (1961), *Stages of Economic Development*



(Source) [IB Geography: Development: Rostow Model \(slideshare.net\)](http://IB Geography: Development: Rostow Model (slideshare.net))