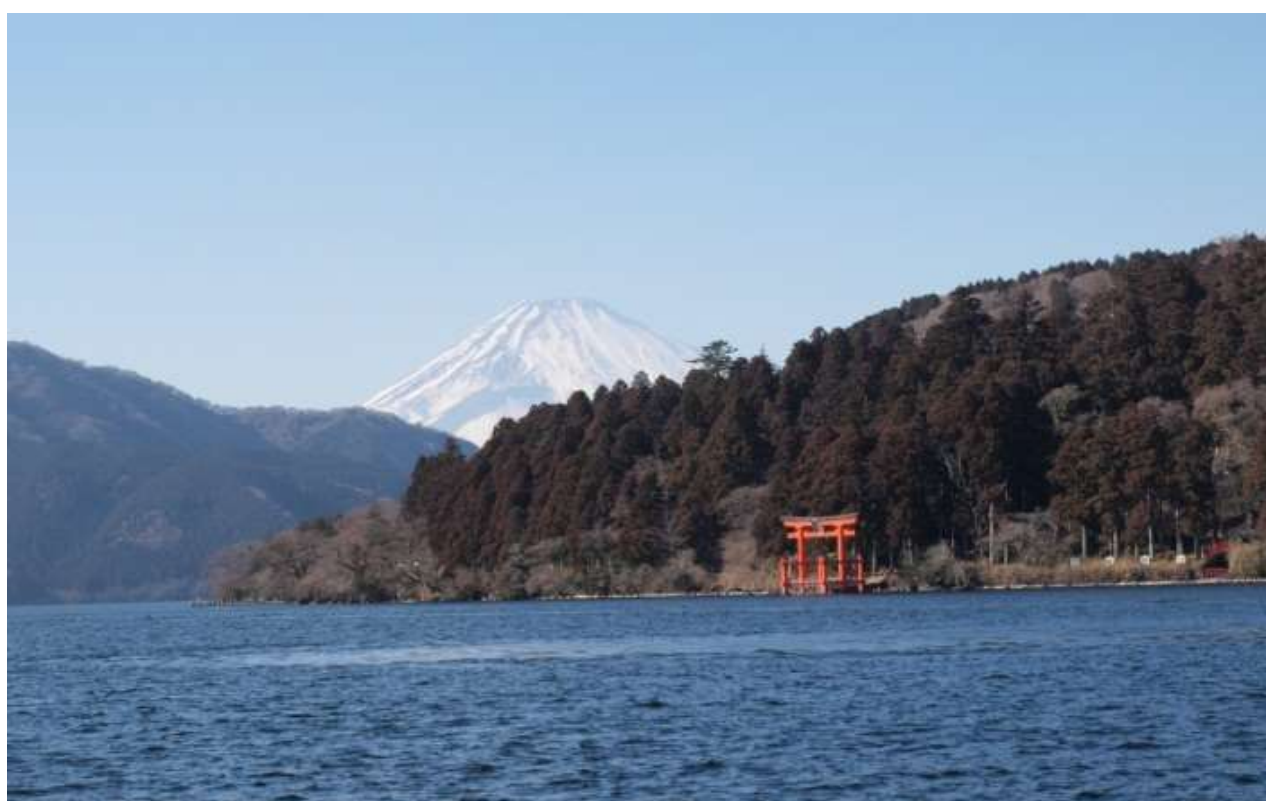


# Lessons from the Economic Growth in Post-war Japan



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# Lessons from the Economic Growth in Post-war Japan

## Introduction

My lecture is a success-and-failure story of Japan's economy and economic policies. Since the subject is so large as to require a full year of my lectures at universities, what I can give you today is only a broad outline. But, I will try to introduce our experience as frankly as possible based on my own 50-year career in the Government of Japan, Bank of Japan, etc. so that you may find some suggestions for your own countries.

## (Growth of the World Economy in the 20<sup>th</sup> Century)

(1) Though my lecture focuses on the Japanese economy after the 1950s, let us start from a slightly longer and broader viewpoint, so that we can share some common axes.

According to IMF's "World Economic Outlook May 2000," the world population increased by 4.7 billion (from 1.6 to 6.3 billion: quadrupled) during the last 100 years. As compared with the 800 million increases during the preceding 150 years (from 1750 to 1900), you can see how explosive was the population increase in the 20th century.

Fortunately enough, world production in real terms increased by 19 times. As a result, real production per capita increased by 4.7 times (\$1,263→\$5,973 at 1990 purchasing power parity by Angus Madison).

However, as you all know, the economic growth was not the same across the world. There were significant differences among countries and among periods.

(2) Chart 1 shows the growth of per capita GDP of each country in the 20th century with a breakdown of first and second halves of the century.

Chart 1

GROWTH OF PER CAPITA GDP IN 20TH.CENTURY

PERIOD	2000/1900 TIMES	1950/1900 TIMES	2000/1950 TIMES	ANNUAL GROWTH RATE 2000/1900
WORLD	4.7	1.7	2.8	1.6%
TAIWAN	22.2	1.2	18.3	3.1%
JAPAN	18.2	1.7	11.0	2.9%
S.KOREA	16.8	1.0	16.3	2.9%
FINLAND	12.1	2.5	4.8	2.5%
ITALY	10.7	2.0	5.4	2.4%
CHINA	9.6	0.9	10.2	2.3%
CANADA	8.1	2.6	3.2	2.1%
BRAZIL	7.6	2.4	3.2	2.0%
FRANCE	7.2	1.8	3.9	2.0%
THAILAND	7.0	1.0	6.7	2.0%
U.S.	6.7	2.3	2.8	1.9%
GERMANY	6.1	1.4	4.5	1.8%
CHILE	5.3	2.0	2.7	1.7%
MEXICO	4.9	1.8	2.7	1.6%
CZECHOSLOVAKIA	4.9	2.0	2.4	1.6%
AUSTRALIA	4.8	1.7	2.9	1.6%
PERU	4.7	2.8	1.7	1.6%
U.K.	4.3	1.5	2.9	1.5%
INDONESIA	4.2	1.2	3.6	1.4%
HUNGARY	4.2	1.5	2.8	1.4%
NEW ZEALAND	3.7	2.0	1.9	1.3%
ARGENTINA	3.3	1.8	1.8	1.2%
F. U.S.S.R.	3.0	2.3	1.3	1.1%
INDIA	3.0	1.0	3.1	1.1%
PHILIPPINES	2.4	1.3	1.9	0.9%
MYANMAR	1.6	0.6	2.7	0.5%
AFRICA	2.6	1.7	1.6	1.0%

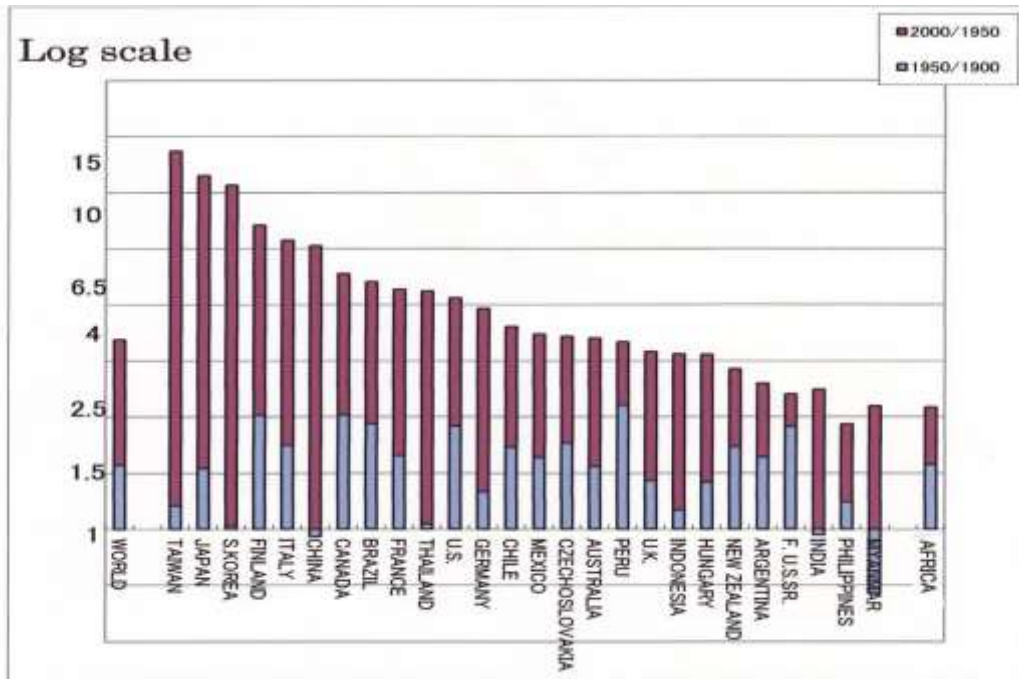
Source:IMF WEO May 2000 and Angus Maddison "Monitoring the World Economy 1820-1992  
 In constant 1990 US dollars at purchasing power parities  
 F.USSR stands for the area of former Soviet Union

*To be noted: these figures are in constant 1990 U.S. dollar equivalent terms of purchasing power parities by Angus Madison, and in that sense these are rather artificial or technical figures and are frequently revised.*

*Also, per capita GDP is not the only figure to measure the level of economy or the development stage, or the welfare of the people. It is just one of various statistical figures.*

Chart 1-2 is a graph of the figures in Chart 1 with a logarithmic scale.

Chart 1-2



(3) Actual figures of the countries at each point in time are shown in Chart 2

Chart 2 GDP per capita in the Selected Countries

Year	1900	1950	1975	1985	2000
WORLD	1,263	2,138	4,119	4,797	5,973
Country	\$	Country	\$	Country	\$
U.K.	4,593	U.S. 9,573	U.S. 16,060	U.S. 20,050	U.S. 27,272
NEW ZEALAND	4,320	NEW ZEALAND 8,495	CANADA 14,158	CANADA 17,954	CANADA 22,401
AUSTRALIA	4,299	AUSTRALIA 7,218	FRANCE 13,101	GERMANY 16,412	JAPAN 20,616
U.S.	4,096	CANADA 7,047	GERMANY 13,034	FRANCE 15,773	AUSTRALIA 20,609
GERMANY	3,134	U.K. 6,847	NEW ZEALAND 12,676	JAPAN 15,237	FRANCE 20,377
FRANCE	2,849	FRANCE 5,221	AUSTRALIA 12,671	AUSTRALIA 15,008	U.K. 19,704
CANADA	2,758	ARGENTINA 4,987	U.K. 11,701	FINLAND 14,282	FINLAND 19,655
ARGENTINA	2,756	GERMANY 4,281	FINLAND 11,098	U.K. 14,046	GERMANY 19,119
CHILE	1,950	FINLAND 4,131	JAPAN 10,973	NEW ZEALAND 13,957	ITALY 18,416
CZECHOSLOV	1,729	CHILE 3,827	ITALY 10,558	ITALY 13,859	TAIWAN 16,854
ITALY	1,717	CZECHOSLOV 3,501	ARGENTINA 8,132	CZECHOSLOV 8,343	NEW ZEALAND 16,072
HUNGARY	1,682	ITALY 3,425	CZECHOSLOV 7,384	TAIWAN 7,187	S.KOREA 14,293
FINLAND	1,621	F. U.S.S.R. 2,834	F. U.S.S.R. 6,136	ARGENTINA 6,912	CHILE 10,275
F. U.S.S.R.	1,218	HUNGARY 2,480	HUNGARY 5,805	F. U.S.S.R. 6,715	ARGENTINA 9,122
MEXICO	1,157	PERU 2,263	MEXICO 4,408	HUNGARY 6,551	CZECHOSLOV 8,398
JAPAN	1,135	MEXICO 2,085	CHILE 4,282	S.KOREA 5,777	HUNGARY 7,053
PHILIPPINES	1,033	JAPAN 1,873	BRAZIL 4,230	CHILE 5,145	CHINA 6,283
S.KOREA	850	BRAZIL 1,673	PERU 4,226	MEXICO 5,141	MEXICO 5,721
PERU	817	PHILIPPINES 1,293	TAIWAN 3,755	BRAZIL 4,902	THAILAND 5,720
THAILAND	812	TAIWAN 922	S.KOREA 3,131	PERU 3,676	BRAZIL 5,355
TAIWAN	759	S.KOREA 876	PHILIPPINES 2,077	THAILAND 2,786	PERU 3,797
INDONESIA	745	INDONESIA 874	THAILAND 1,871	CHINA 2,084	F. U.S.S.R. 3,686
BRAZIL	704	THAILAND 848	INDONESIA 1,531	PHILIPPINES 2,073	INDONESIA 3,136
MYANMAR	667	CHINA 614	CHINA 1,250	INDONESIA 2,034	PHILIPPINES 2,442
CHINA	652	INDIA 597	INDIA 900	INDIA 1,096	INDIA 1,880
INDIA	625	MYANMAR 393	MYANMAR 618	MYANMAR 865	MYANMAR 1,079
AFRICA	500	AFRICA 830	AFRICA 1,324	AFRICA 1,353	AFRICA 1,290

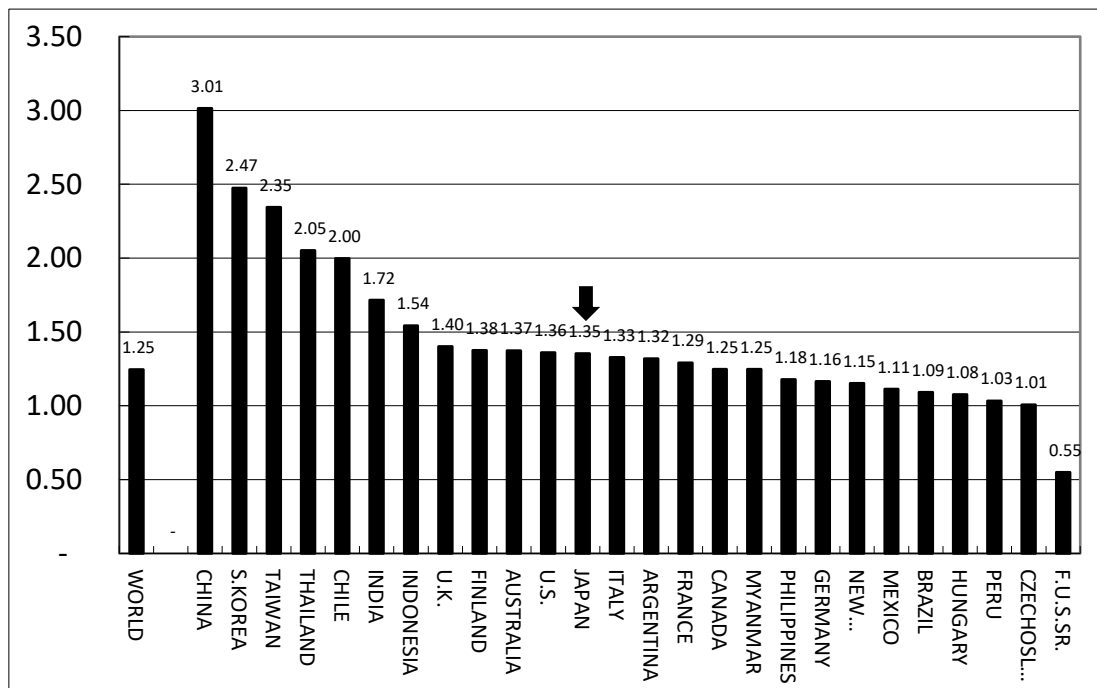
Ibid  
in 1990 US\$ at PPP

This table contains almost infinite information, including the following:

- a. At the beginning of the 20th century, UK was at the top, and so-called Western offshoots followed. Japan's level was 90% of the world average, next to Mexico.
- b. In 1950 Japan's relative position returned to the level of 50 years before. It had once gone up, but it then went down because of the war.
- c. So, Japan's miraculous rapid growth started just 60 years or so ago, from below the world average of per capita GDP level.
- d. China and South Korea followed Japan's path with some time-lags.
- e. The paths of the UK, Argentina, former Soviet Union and so on fluently tell the history of these countries.

(4) The features in the last 15 years of the 20th century is somewhat different. (Chart 3)

**Chart 3 Growth of GDP per capita from 1985 to 2000**

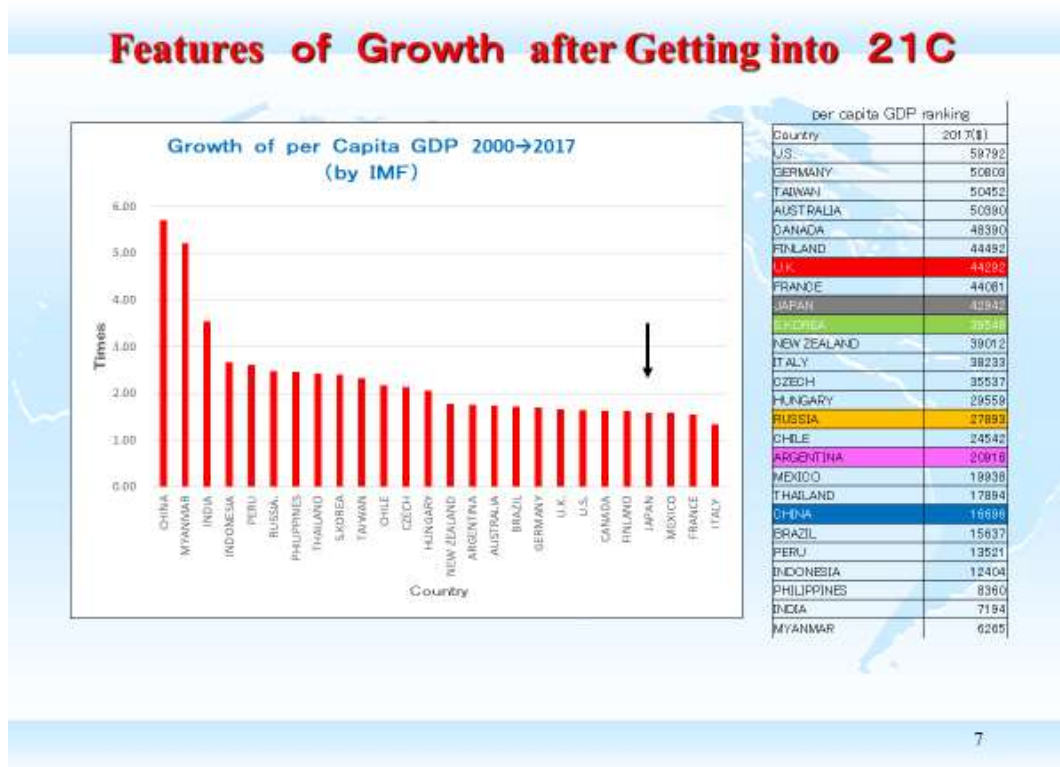


Japan was not a top runner any more. UK recovered a little bit by virtue of Mrs. Thatcher's policy packages, and so on.

What I want you all to recall by my remarks so far is that Japan's well-known miraculous economic growth is just a story of at most 35 or 40 years, and that any of your countries, even though today's starting point may be behind, has the same chance, and it is upon your shoulders whether the chance is realized or not.

Actually, this story after getting into the 21th century shows further different features as in the next Slide P7.

We shall look it back later.



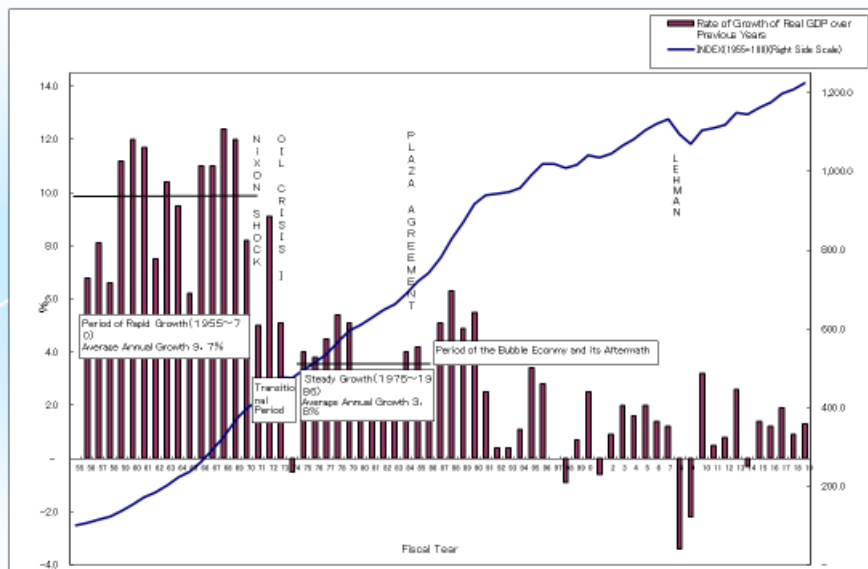
(Overview of Japan's Post-war Economic Growth)

Now, we shall have a quick overview over the post-war growth of Japan's economy.

Chart 4 shows the path of Japanese economic growth since 1955.

## Chart 4 Post-War Growth of Japan's Economy

### POST-WAR GROWTH of JAPAN'S ECONOMY



8

The blue line shows each fiscal year's index of real GDP as of 1955=100 (right scale: ex. the index of 2019 estimated is 1224)

Each pillar shows the rate of growth of real GDP over the previous fiscal year in percentage terms (left scale).

As you can notice at a glance there are broadly three phases.

The first phase is the rapid growth period from 1955 to 1970. After overcoming the turmoil of the direct post war period, Japanese economy continued to grow by nearly 10% per year for 15 years. Real GDP quadrupled from 1955 to 1970. Looking precisely, there were two sub-stages in this rapid growth period. The 1st half is up to 1964 and the 2nd half is since 1965.

We did have business cycles in this period, but the fluctuation was happening at around a very high level.

Passing through the transitional period caused by the Nixon-shock (Aug. 1971) and the 1st oil crisis (Oct. 1973), Japanese economy went into the 2nd phase: i.e. a steady growth period which lasted from 1975 until around 1986. Although the rate of growth slowed down, nominal per capita GDP in dollar terms continued to rise relatively among G7 countries.



The 3rd phase is the period since 1987, the period of the crazy bubble economy (i.e. sharp increase of asset prices) and the aftermath (sharp fall of asset prices followed by the serious debt problem of enterprises and the accompanying banking crisis, causing deflationary pressure on the real economy).

I will introduce these points in more detail later.

Chart 5 shows the path of nominal per capita GDP growth with the comparison to U.S.

### Chart 5 Growth of Nominal per capita GDP (\$U.S.)

Year	Japan	U. S.	Japan/US (%)	Information
1955	259	2,436	10.6	
1963	721	3,187	22.6	1964:IMF § 8 Status, OECD membership
1971	2,177	5,284	41.2	Nixon Shock 1 \$ = ¥ 360 → ¥ 308
1973	3,809	6,369	59.8	Exchange Rates Floating Overtook Italy & U. K.
				1983, 4: Overtook France and West Germany
1986	16,344	17,736	92.2	Overtook Canada
1987	19,731	18,695	105.5	Overtook U. S. (No. 1 among G7 Countries)

Nominal per capita GDP in 1955 was only \$259, 10.6% of that of the U.S., and at the same level of Malaysia and Ghana at that time.

How this position relative to the U.S. went up.

The year 1964 was an epoch-making year during which Japan joined the OECD and obtained the status of an Article 8 country in the IMF, and the Olympic Games were successfully held in Tokyo. Rapid growth continued and nominal per capita GDP surpassed 40% of that of the U.S. in 1971 and reached 60% in 1973.

In 1987, we finally overtook U.S. and continued to be top among the G7 until 1997.

Entering the 21<sup>st</sup> century, the next stage of this story began. We will come back to it in the last part of this lecture.

### Three Points of this Lecture

My lecture today will tell you the following 3 points.

- a. What were the policy-packages that contributed to such miraculous rapid growth?
- b. How and why did the rapid growth come to an end?
- c. What followed thereafter?

# 1. Backgrounds of the Rapid Growth

## (1) Favorable Conditions and Macroeconomic Policies

It may not be fair to attribute the rapid growth only to policies and to neglect the favorable or lucky external and domestic environments.

One of the lessons learned from the past experiences was that competition for higher trade barriers may have been one of the causes of World War 2. This recognition led to the establishment of the free trade system and the GATT framework.

The free-trade policy of western developed countries after the War, no doubt, enabled Japan to achieve export-led growth. Also, the Cold War made the occupation policy by U.S. at that time more generous and favorable for Japan's reconstruction. Those were the favorable international environments.

And domestically, such conditions as,

- a. Strong and persistent demand for investment  
(34% of industrial equipment was lost during the war)
- b. A large skilled and diligent labor force
- c. Very low military burden
- d. Significant technological development, which was largely supported by imports of new technology
- e. The high household saving ratio was extremely favorable for reconstruction and development.

Certainly, we did have those favorable conditions. However, conditions did not lead to anything unless we took advantage of them. The most important factor in the backgrounds of the rapid growth was the economic policy packages at that time. Those are, in one phrase, "Growth-oriented Policy-packages based on Comprehensive Strategy and Economic Plans." Among them, the macroeconomic policy of the combination of tight-fiscal and relatively loose monetary policy was most important. It was called "Easy Money Tight Budget" in Japan.

In order to understand the effect of the policy-mix of “easy money, tight budget”, I would like to briefly touch upon the pattern of business cycle at that time.

Since the potential demand level had always exceeded supply capacity (because of strong demand for investment), the balance of payments was the most severe restricting condition (poor foreign reserves).

So, the cycle of

Overheat → BP crisis → credit restriction → recession → BP improvement → removal of credit restriction → rapid recovery → overheat → BP crisis ... recurred up to 1967

Therefore, demand control policies should be directed to realize the optimal combination of various demands for future growth under the strict restriction of the total demand level.

In such an economy,

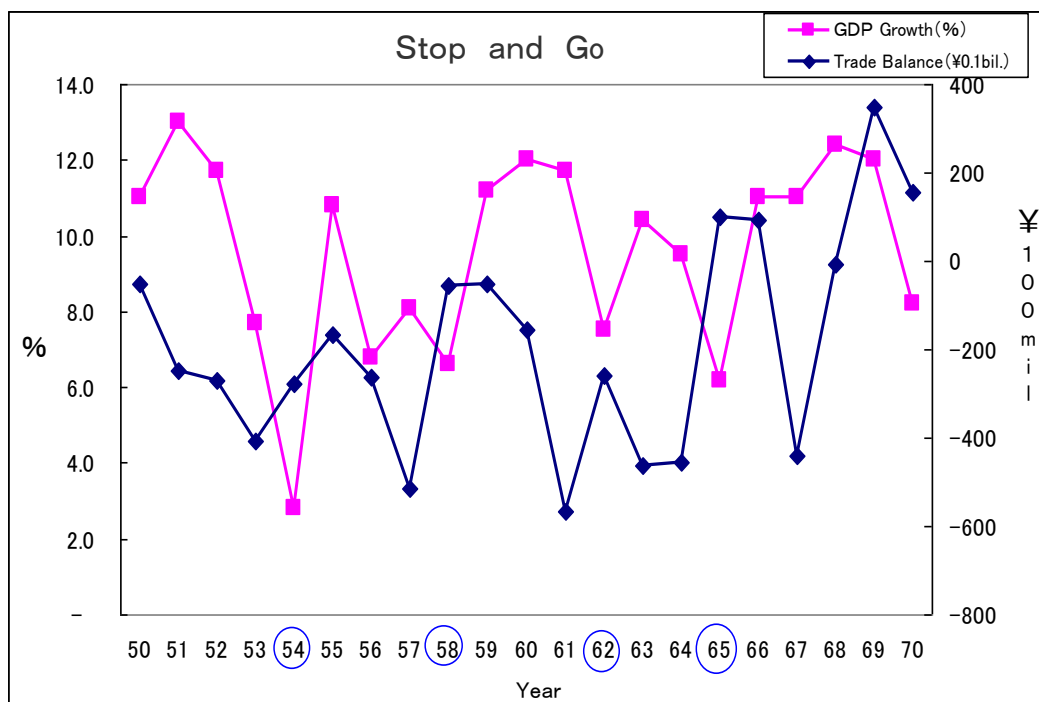
- a. Small government policy left the private sector more room to invest
- b. Usually, private investments increase the supply-capacity more than government expenditures
- c. So, in such a demand-excessive economy, small government policy promised higher economic growth than otherwise

Furthermore, among public expenditures in the small government policy, priority was given to investments in social infrastructure.

We had four BP crises—in 1953, 1957, 1961, and 1963 to 1964—and the years following each crisis are the bottoms of growth, as shown by Chart 6.

Since 1968, BP continued to be in surplus, and we were free from BP restriction.

**Chart 6 Trend of GDP Growth and BP Crises (Stop and Go)**



## (2) Features of Fiscal Policies

The important features of the fiscal policy during the rapid growth period are the following four points:

- Tight fiscal policy
- Small government
- Expenditure policies = infrastructures for growth prioritized
- Tax incentives for household savings and for equipment investments

### (i) Tight Fiscal Policy

Fiscal discipline based on strict regulations on borrowing had worked until FY1974.

The Balanced Budget (No Debt) Principle had been kept until FY1964, and even after 1965, the Construction-Bond-Principle (only borrowing for financing investment is exceptionally allowed) was observed until FY1974.

Certainly, underwriting of government bonds by the Bank of Japan has been prohibited until now at least on the surface.

(ii) Small Government

The ratios of public expenditure and revenue to GDP or NI were very small as compared with the recent situation or by international comparison at that time (Chart 7).

**Chart 7-1 Ratio of Government Expenditure to GDP**

Year	(I <sub>g</sub> + C <sub>g</sub> )/GDP %	(Social Security Transfer)/GDP %
1960	15. 2	4. 4
1965	17. 2	5. 5
1970	15. 6	5. 8
C. F. (1999)	(23. 7)	(19. 7)

**Chart 7-2 (Taxes + Social Security Contributions)/NI  
(%)**

	Japan	U. S.	U. K.	Germany	France
1960	22. 4	30. 8	35. 7	41. 1	NA
1965	23. 0	29. 8	38. 8	42. 9	47. 5
1970	24. 3	33. 6	49. 2	45. 1	47. 8
C.F. (1997)	37. 2	37. 6	48. 9	55. 9	64. 6
*	(44. 9)				

\* Including fiscal deficit

### (iii) Public Expenditure Policies

Even under the small-government principle, such public expenditures that would provide grounds for economic growth were treated with high priority.

#### (Examples of Priority Areas)

- a. Public works: road-construction, flood-prevention, ports and airports, etc.

(Share of paved roads: 7.4% (1965) → 30% (1975))

- b. Education, science and technology

(Higher education ratio: 10.3% (1960) → 32.7% (1973))

(15+ Education ratio: 51.5% (1955) → 89.3% (1973))

“Priority areas” inevitably suggests “modest areas”

#### (Examples of Modest Areas)

- a. Social security: around 5% of GDP as shown in previous Chart 7-1

- b. Defense: remained less than 1% of GNP

*To be noted: Political stability contributed to supporting such policy packages.*

### (iv) Tax Incentives

Also, the tax policies were designed to encourage household savings and to stimulate investment by enterprises, especially export-oriented or with advanced technology.

- a. Income tax exemption for capital gains and small amount interest incomes
- b. Lower tax rate for interest incomes in general
- c. Accelerated depreciation for advanced equipment
- d. Corporate tax exemption for R&D, etc.

### (3) Monetary Policies and Flow of Funds

Then, we shall look at monetary policies or monetary conditions.

The characteristic features of monetary policies and flow of funds at that time can be summarized as follows:

- a. Regulated interest rates at an artificially low level, accompanied by direct quantitative control of credit
- b. Household savings (formed by a high saving ratio) channeled to the corporate sector mainly through bank loans (capital market underdeveloped)
- c. So-called “over-loan and over-borrowing” (banks’ high dependency on BOJ as a result enabled the government to induce private bank lending to strategic areas)
- d. Strict division of labor among various types of financial institutions
- e. International capital movement severely restricted
- f. Significant role by the “Fiscal Investment & Loan Program”
- g. ¥360/\$ fixed rate unchanged for 22years

Chart 8 shows the international comparison of household saving ratio and domestic investment ratio.

#### **Chart 8 International Comparison of Investment and Saving Ratios**

	Domestic gross capital formation per GDP (1951–60) %	Household saving ratio (1950–60) %
JAPAN	23.4	15.2
W. GERMANY	21.5	13.2
U.S.	16.5	7.4
FRANCE	17.1	6.1
U.K.	14.3	2.9

The reason for such a high saving ratio in Japan at that time is a mystery, especially when interest rates were often lower than CPI increases.

Many economists have tried to solve the mystery, and have suggested the following reasons:



- a. The system of both annual and life-cycle wage payments
- b. The public pension scheme was immature → need for self-help
- c. The sense of virtue, encouragement to save by the government and BOJ
- d. Consumer loans were underdeveloped

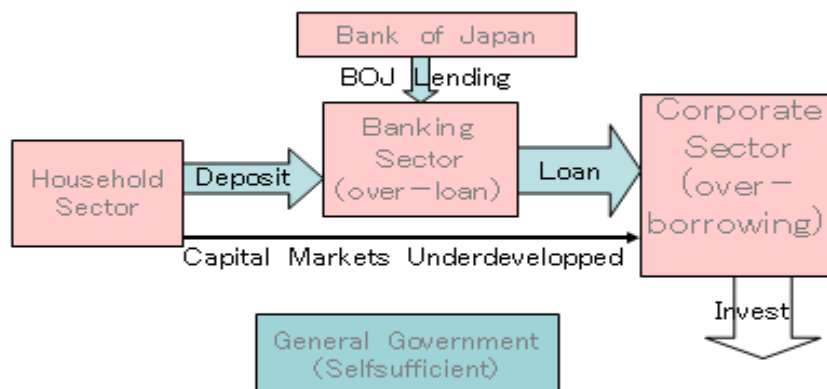
However, the ultimate reason seems to be the national character of traditional Japanese people. I will give you an anecdote about some elderly twin sisters.

#### The Story of 100-year-old Twin Sisters

- In the 1990's there were 100-year-old twin sisters in central Japan whose names were Gold and Silver. They were quite healthy both in body and mind, and very popular because of their conversation with natural wit. TV programs featuring their everyday lives were very popular.
- Once a TV reporter asked Ms. Gold, "How will you spend the money you earned by appearing on TV today?"
- She answered, "I will save the money to prepare for when we get older"

The main framework of the flow of funds in the rapid growth period is illustrated by Chart 9.

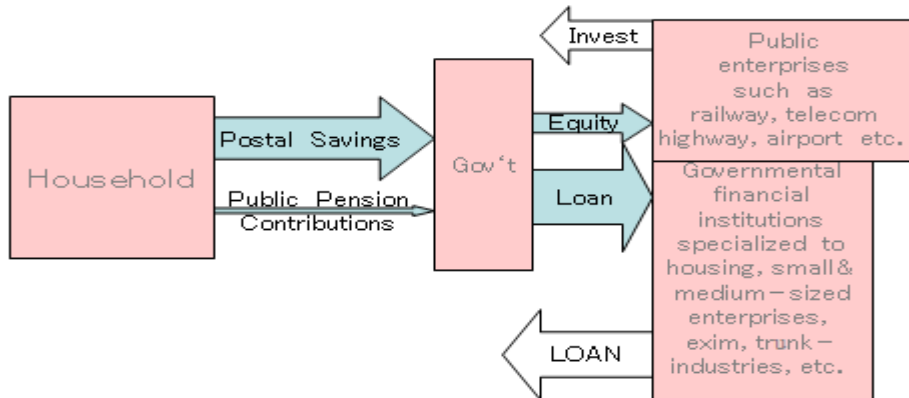
Chart 9 **Flow of Funds**



One of the important strategic measures that might be unique to Post-war Japan was the “Fiscal Investment and Loan Program,” on which another lecture will give you a more precise introduction. Chart 10 simply illustrates its framework.

CHART10

Fiscal Investment & loan Program



This “Fiscal Investment and Loan Program” of Japan during the rapid growth period must be one of the best examples of successful strategic interventions by the government to provide a necessary platform for rapid growth.

c.f. *“The East Asian Miracle”*: World Bank Report, Sep. 1993.

## 2. End of the Rapid Growth

### (1) Two External Shocks Coincided with the Maturity of Japan's Economy

From a simple historical viewpoint, the end of the rapid growth of Japan must have been an inevitable consequence of the maturity of the Japanese economy itself. But unfortunately, it was triggered by two drastic external shocks, which made the history of Japanese economy far more painful.

Let us start from the external shocks. The first shock consisted of the changes in the international currency regime as follows:

- 1971 Nixon Shock and Smithsonian Agreement
- 1973 Floating rate system started
- Appreciation of the Japanese yen stirred fears of further appreciation, leading to inflationary policy packages

Then, the First Oil Crisis (1973) followed. That brought about serious depression and frantic price increases.

Domestic conditions, that is, the changes within the Japanese economy as the fruits of the rapid growth for many years (so to say maturity of the economy) can be listed as follows:

- a. The accumulation of capital stock brought about decline in the rate of return on investment and the “over-borrowing” had been disappearing.
- b. The change of the supply-demand structure from excessive demand to demand shortage brought about the need for fiscal stimulus. The balance of payments current account turned to continuous surplus.
- c. Above all, people's choices diversified. They became more and more demanding, and were not satisfied with just economic growth, but started pursuing welfare, a better environment, leisure, and so on.

As result of all those changes, fiscal discipline had to be abandoned. Inevitably, the flow of funds changed too.

### (2) Deterioration of Fiscal Conditions

Fiscal changes are shown in Chart 11

**Chart 11 Path of Deterioration of Fiscal Conditions**

Fiscal Year	Government bond dependency (%)	Outstanding JGB per GDP (%)
1970	4.2	3.7
1971	12.4	4.8
1972	16.3	6.0
1975 <b>Construction</b>	25.3 <b>Bond Principle</b>	9.8 <b>Unsustainable</b>
1978	31.3	20.4
1981	27.5	31.5
1984	24.8	39.9
c.f. 2012	48.9	149.2

*Note: Bond dependency means the ratio of new bonds issued to the total revenue of the budget in each fiscal year.*

### (3) Changes in Flow of Funds

Naturally, those fiscal changes brought about changes in the flow of funds as follows:

- a. Corporate-sector's net borrowing decreased.
- b. "Over-loan and over-borrowing" disappeared.
- c. Public sector became the largest borrower.
- d. International capital movement was gradually liberalized and expanded.

On the other hand,

- a. Household savings remained at a high level.
- b. Still bank loans continued to play a key role despite capital market development.

### **3 What Followed the End of the Rapid Growth**

#### **(1) Steady Growth Period and Pressures from Abroad**

Now, I shall introduce you to the difficulties involved in exiting from the rapid growth stage based on our experience. This may not be your concern right now, but you can find some helpful hints for your own economy when you are graduating from the developing stage in the future.

After overcoming the above-mentioned external shocks, Japan's economy entered a steady growth period in approximately 1975. Since Japan was most successful in achieving energy efficiency, which meant the highest productivity, among developed economies, the significant trade surplus continued even under sharp appreciation of Japanese yen, bringing about persistent trade frictions against U.S. and European countries. The trade frictions aroused strong diplomatic pressures from Western countries not only on direct trade issues, but also on Japan's economic policy measures.

The pressures on economic policies could mainly be categorized as following two requests. The first was the request for expanding domestic demand (request for further fiscal stimulus). The second was for deregulation of domestic financial markets, the main issues of which were liberalizations of interest rates, international capital movements, and financial businesses.

As the second largest economic power in the capitalist world, Japan was expected to play a responsible role for the best of the whole world economy. So, we could not simply refuse these requests. We had to adapt our domestic policies in conformity with them, even against our will or sometimes at the expense of our own longer-term interests.

Nevertheless, all these measures turned out to be ineffective in reducing Japan's trade surplus, or international imbalances, and so finally, a direct multilateral realignment of exchange rates was agreed upon in September 1985. That was the Plaza Agreement, which you all know well.

In hindsight, those responses to the pressures from abroad,

together with our policy measures after the Plaza Agreement left serious aftereffects in the Japanese economy from which we have suffered even until now.

The most significant problem was the further explosive expansion of fiscal deficit. As we saw earlier in Chart 11, fiscal conditions had already been significantly aggravated since 1975 by the sharp fall of tax revenue caused by the first oil crisis. So, the latter half of 1970's should have been the time to reduce fiscal deficit. Nevertheless, persistent pressures for fiscal stimulus from overseas enlarged the fiscal deficit furthermore. The typical example was the catch phrase at the Bonn Summit in 1978, "Japan's economy is to be a locomotive of the world economy."

*(To be noted: Ironically, the massive issuance of government bonds contributed to developing the domestic bond market.)*

The second issue was rather complicated. Deregulation and the opening-up of domestic financial markets in Japan proceeded very slowly, pushed by the overseas pressures.

Deregulation of interest rates for bonds came first, as a result from the liberalization of international capital movement and the development of the Japanese government bond market. But the liberalization of deposit rates took many years, and the deregulation of financial businesses came eventually at last.

Such a crippled process of liberalizations caused distortions in financial markets.

## (2) Emergence and Burst of the Bubble

- a. After the Plaza Agreement, the value of the yen doubled within 27 months (¥240/\$ → ¥120/\$)
- b. Partly reflecting such yen appreciation, bullish expectations for Japan's future came to prevail. One of the typical examples may be the book "Japan as Number One" by Ezra Vogel 1979
- c. Significant monetary easing continued for a long time due to the fear of further yen appreciation
- d. Distortions in the financial markets because of the long process of partial deregulation brought about many

vicious side-effects

- e. According to my personal view, the most fundamental element to be noted was the fact that Japanese financial institutions at that time lacked the professional expertise necessary under globalization and liberalization

All these elements paved the way for the so-called bubble economy and the aftermath.

The bubble (sharp and unsustainable rises of asset prices inconsistent with economic fundamentals) and its burst resulted in the banking crisis and the disastrous fiscal situation.

The symbolic features of the bubble economy (since the beginning of 1987 till the end of 1990) can be described as follows:

- a. Rapid growth of bank lending (esp. land-related loans)  
(1985: ¥250→1989: ¥357 trillion, land-related: ¥52→ ¥103 trillion)
- b. Fanatic investment in real estate and stock  
(Real estate investment in 2nd half of 1980's = 800% of 1st half)
- c. Explosive rises of asset prices  
(Total market value of land 1985: ¥1049→ 1990: ¥2,420 trillion)  
(Total market value of stock 1985: ¥196→1989: ¥630 trillion)
- d. Overheating of the real economy in the final stage  
(Over-investment in manufacturing equipment, housing and durables)

Any bubble that mankind has ever experienced had burst, as John Kenneth Galbraith wrote in his book "A Short History of Financial Euphoria" (1990). Japan's bubble introduced above was no exception.

The aftermath was miserable:

- a. Sharp fall of asset prices  
Nikkei stock index fell from the peak of ¥38,915 to the bottom of ¥7,607  
Typical urban commercial land price fell to 15% of the

- peak level.
- b. Borrowing companies' insolvency → Banks' non-performing loans → Many banks failed → Serious financial crisis and credit crunch
  - c. Banks' non-performing loans amounted to 20% of GDP  
180 financial institutions (including 20 banks) failed
  - d. Excessive debt, equipment and redundancy together with credit crunch and uncertainty about the future brought about long and serious depression ("Lost Two Decades").

### (3) Lost Two Decades as the Aftermath

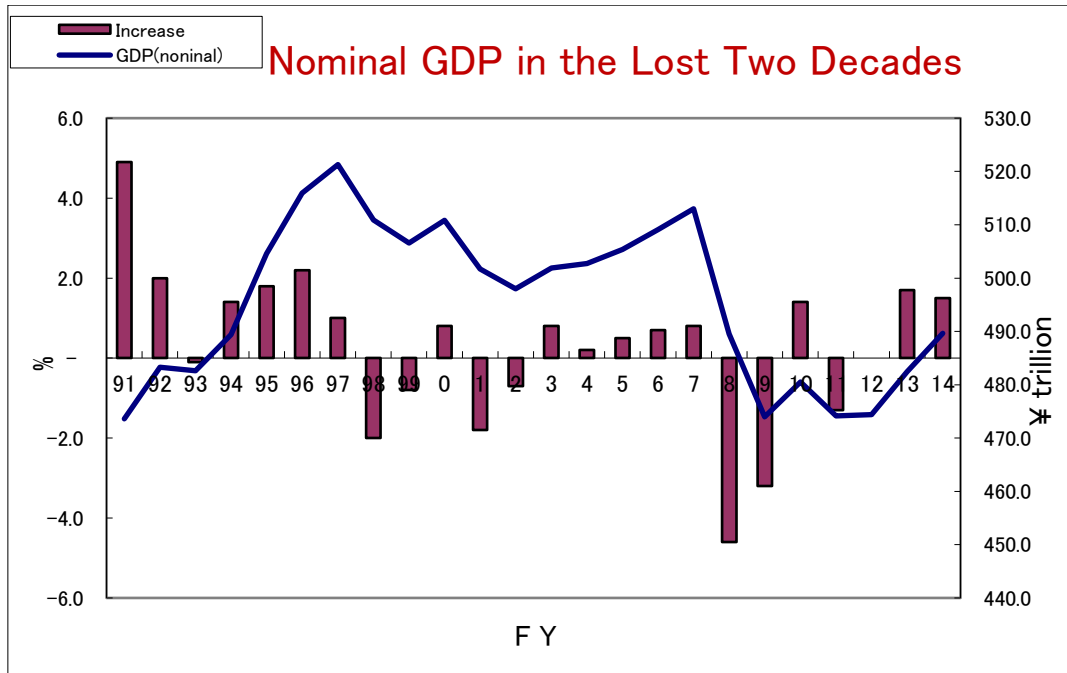
To make the situation worse, the policy measures taken in the early stage after the burst of the bubble turned out to be completely wrong.

- a. Traditional macroeconomic policies mobilized at an unprecedented magnitude were not only ineffective, but also left vicious aftereffects. The most serious was the explosive fiscal deficit as shown earlier in Chart 11. Also, the policy interest rate continued to be below 0.5% since September 1995, and 0% in most of the period since February 1999 until now, that has caused various distortions in the economy.
- b. Many years of painful sacrifice by borrowing companies and a large amount of public money were required to reconstruct the domestic financial system. For instance, public money amounting to 50 trillion yen (10% of GDP) was spent, of which 1/3 was unrecoverable.
- c. Delays in R&D and IT investment, job insecurity and increased inequality caused by companies' cost-cuts led to weakening the competitiveness.

Nominal GDP was stagnated for more than two decades, as shown by Chart 12.



Chart12



As a natural consequence, the relative position of nominal per capita GDP among G7 countries stepped down again, and so did the ranking of ODA donors which had once been in the far top position.

Chart13

**G7 Countries' Nominal Per Capita GDP (in US\$)**

1991		2002		2004		2007		2014	
JPN	28134	US	36116	US	39548	UK	45962	US	54369
US	23456	JPN	30837	UK	36239	US	45607	CAN	50304
GER	22612	UK	26674	JPN	36084	CAN	43278	GER	47773
CAN	21340	GER	24454	GER	33279	FRA	42019	UK	45729
FRA	21280	FRA	23653	FRA	33012	GER	40360	FRA	44331
ITA	21052	CAN	23417	CAN	31014	ITA	35654	JPN	36221
UK	18107	ITA	21327	ITA	29679	JPN	34384	ITA	35334

Chart 14 G7 Countries' ODA (million \$U.S.)

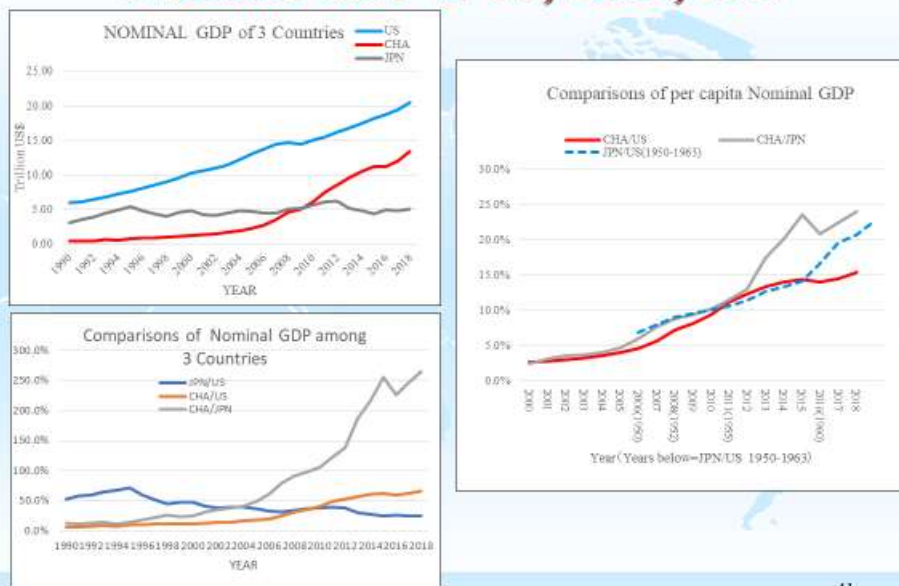
## G7 Countries' ODA (mil. US\$)

	2000		2001		2006		2007		2014
JPN	13504	US	11429	US	23532	US	21753	US	32730
US	9955	JPN	9847	UK	12459	GER	12267	UK	19390
GER	5030	GER	4990	JPN	11187	FRA	9940	GER	16250
UK	4501	UK	4566	FRA	10601	UK	9921	FRA	10370
FRA	4105	FRA	4198	GER	10435	JPN	7691	JPN	9190
CAN	1744	ITA	1627	CAN	3684	ITA	3929	CAN	4200
ITA	1376	CAN	1533	ITA	3641	CAN	3922	ITA	3340

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Next chart (14-2) shows comparisons of nominal GDP of US, China and Japan.  
(Chart 14-2)

## Nominal GDP of US, CHA, JPN



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After more than 10 years of trial and error, we seemed to have had finally recovered from the direct aftermath of the burst of the bubble in 2007, just before the Lehman Shock. However, in the meantime, the strength of Japan's economy in the longer term seems to have been undermined.

The clearest evidence was the economic performance after the Lehman Shock in 2008. As compared with U.S. or European banks, Japanese banks suffered far less direct losses caused by subprime loans or securitized assets, because they had learned painful lessons through their own bad assets in the 1990's. So, they became better at managing risks in their portfolios. Nevertheless, as for the real economy, the Japanese economy was most seriously hit among developed countries mainly because of the sharp fall in exports.

The backgrounds of the long-lasting stagnation of Japanese economy can be summarized as follows,

1. Decreasing population together with rapid aging
2. Enterprises' conservative or timid behavior that gave priority only to cost-cuts and neglected necessary innovations, having been suffered from the long and painful debt problems
3. Because of such a lack of challenging spirit, Japan fell to a loser in the new era of global mega-competition
4. Especially in the fields of ICT

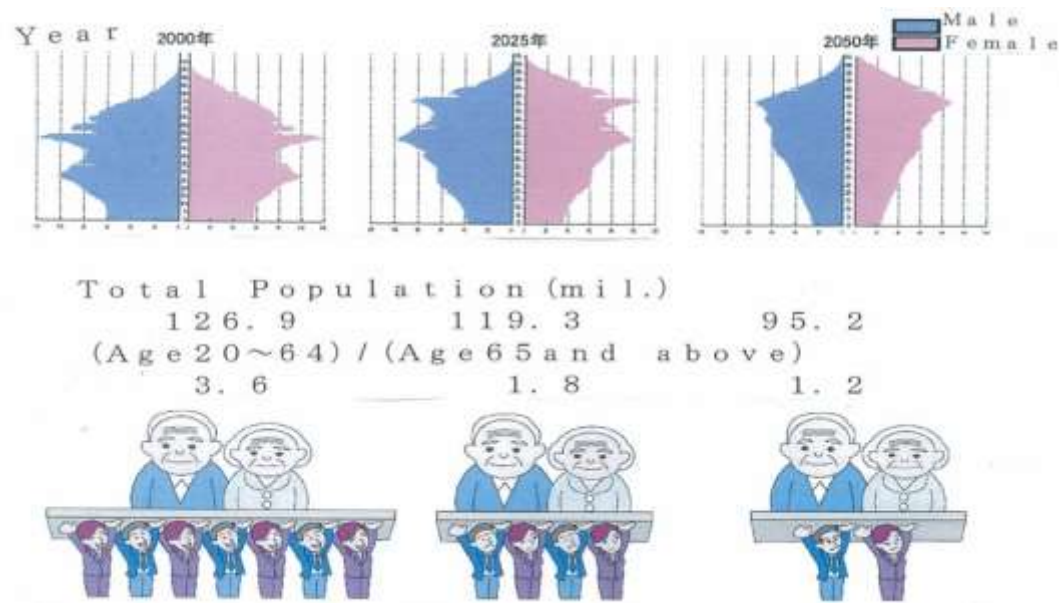
#### (4) Not Rosy Prospects for Japan's Economy

At any rate, the past is the past. More important is the prospects for the future. I must admit that they are not rosy. We shall investigate into some difficult conditions existing in the current domestic economy which should be taken into accounts to prophesy the future.

##### (i) Demographic Structure

The most serious and unavoidable problem is the rapid aging of the population, as shown in Chart 15. In 2000, the ratio of the working population to the population above age 65 was 3.6. This ratio will reach 1.8 in 2025 and 1.2 in 2050. Can you

imagine a society in which one worker supports one pensioner?  
**Chart 15 Estimated Changes in the Demographic Structure**



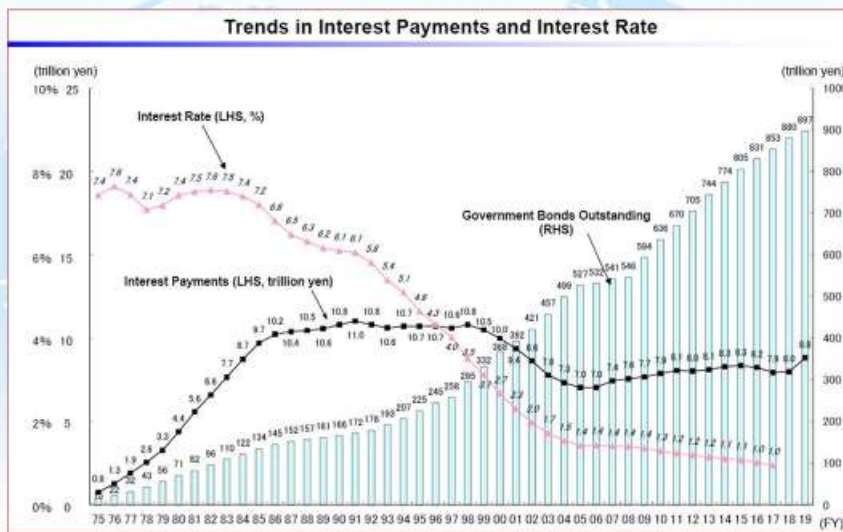
*Source: Ministry of Finance*

(ii) Government Debt Accumulation

Confronting such rapid aging, wise taxpayers would have forced the government to maintain fiscal discipline and to reduce the future public debt burden in preparation for future aging. Or, if taxpayers were not wise enough to do so, it would have been the duty of political leaders to educate people to be patient. But, the actual Japanese fiscal policy in the last two decades has been completely the opposite. The public debt-burden has increased sharply because of the gap between the tax revenue and public expenditure, even under unprecedentedly low interest levels, as shown in Chart 16.

**Chart 16 Government Debt Accumulation & Interest Rate**

## BOND OUTSTANDING and INTEREST PAYMENTS



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*Source: Ministry of Finance*

### (iii) Changes in the Public Expenditure Composition

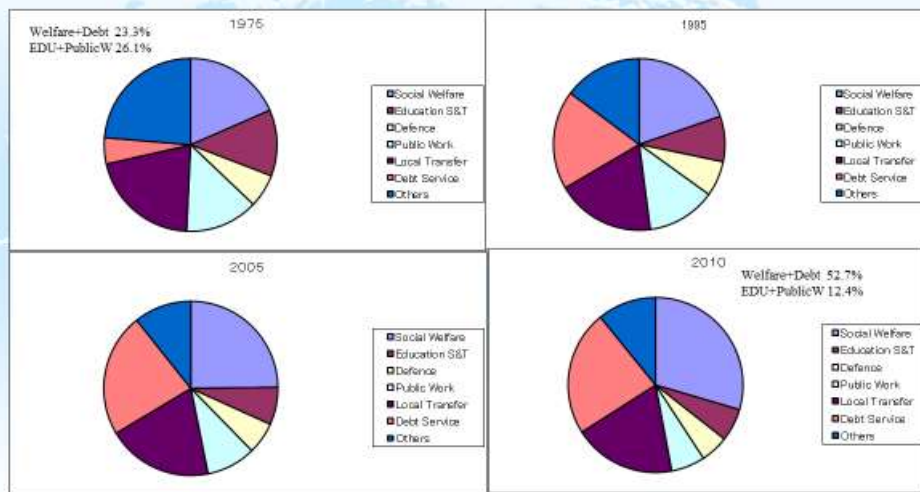
In addition to the total debt accumulation, the composition of the expenditure by major policy fields is to be worried.

As shown in Chart 17, the ratios of social welfare and debt service to the annual budget were 18.4% and 4.9% respectively (total 23.3%) in 1975, whereas, those of public works and education, science and technology were 13.7% and 12.4% each (total 26.1%) in the same year. But, those non-productive expenditures such as social welfare and debt service grew far faster than the total budget because of the rapid aging and debt accumulation, at the expense of productive areas such as public works and education. In consequence, the total share of social welfare and debt service came to exceed half of the budget (52.7 %), and that of public works and education, science and technology fell to 12.4% in 2010.

Needless to say, those changes significantly weakened the positive function of public finance as a whole.

### **Chart 17 Changes in the Public Expenditure Composition**

## Changes in the Expenditure Composition



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### (iv) Human Resources and Employment

The most important key to the future may be human resources. But in this respect also I cannot be optimistic, considering the current employment structure. As result of nearsighted reaction by many enterprises during the lost decades, the share of so-called contingent employees to the whole employment jumped from 20% in 1990 to 37.9% in 2018. That brought about job-insecurity and demoralized youngsters.

### (5) ABENOMICS ( Slide P46~) (revised 2019)

Using the rest of the time, I would like to give you a brief introduction to the recent economic policy packages, so called “ABENOMICS” which is now in its 7<sup>th</sup> year. I will start from its historical backgrounds and objectives, then follow its evolution, and then examine both positive and adverse effects.

Confronting the long stagnant or deflationary economy above mentioned, Liberal Democratic Party headed by Mr. Abe fought the general election in December 2012 with the manifesto committed to new drastic policy packages and obtained a land-slide victory. Immediately after their victory, they announced so-called “ABENOMICS” whose outline is as in slide P46

The objective is clear i.e. “Escape from a bad deflationary or

shrinking equilibrium by which Japanese economy has been imprisoned for nearly 20 years”. Then, the question is “how to?”

Their answer is by adopting the three-pronged strategy or three arrows as in the slide. Among these three arrows “2. flexible fiscal policy” and “3. growth strategy” are easy to understand. Under current severely deteriorated fiscal conditions, room for fiscal stimulus is limited, and as for “3. growth strategy”, effective panaceas are not so easy to find or to implement.

Slide P46

**Outline of the New Policy Package**  
**So-Called “ABENOMICS” (Jan. 11 2013)**  
(Abe Administration Started Dec. 26 2012  
After winning the General Election Dec. 16)  
Aimed at Getting Out of the Shrinking Economy Suffering  
from the Prolonged Appreciation of Yen and Deflation by  
Adopting the Following  
**“Three-Pronged Strategy”** Consisting of  
1. **Bold Monetary Policy**  
2. **Flexible Fiscal Policy**  
3. **Growth Strategy That Promotes Private Investment**  
That will drive an Increase in Employment and Income<sub>5</sub>

The most essential and controversial subject is the first arrow “Bold Monetary Policy”.

You may have more precise lectures on this subject by other lecturers, and perhaps it is not under my responsibility in this seminar. Still as a former executive director of BOJ who knows the inside of BOJ well, I would like to spare some time to briefly look back the historical backgrounds and to clarify BOJ’s philosophy. I hope that will be of some help for your further study on this interesting, epoch making and rather controversial experiments.

(The Backgrounds and Prehistory of the Abe-Kuroda Monetary Policies):  
Slide P47

## Backgrounds and Prehistory of the Abe –Kuroda Monetary Policies

**Basic Question:** How a central bank can achieve further effective monetary easing under nominal zero interest rate?

Note	Japan	World
Japan's Forerunner Period	<b>Quantative Monetary Easing:</b> 2001Mar. →2006Mar. (by Gov. Hayami and Fukui)	
Lehman–Shock 2008 Sep.  EU Financial Crisis 2009 Autumn~	<b>Comprehensive Monetary Easing:</b> (Zero Rate+“Asset Purchase Program” +Forward Guideline) 2010 Oct. →2013 Mar. (by Gov. Shirakawa)	(FRB)Large Scale Asset Purchases( <b>QE1</b> ):2008 Oct. <b>QE2</b> :2010Nov. →2011 Jul. <b>Operation Twist</b> :2011 Sep. <b>QE3</b> :2012Sep. →2014 Oct.
<b>Abenomics before Gov. Kuroda</b>	Joint–Statement by the Government and BoJ for “ <b>Price Stability Target of 2%</b> ” within 2 years and Announcement of the open–market operation without time–limit (“ <b>Open–ended purchasing method</b> ”): 2013 Jan.	(ECB) <b>Negative Interest Rate</b> : 2014 Autumn <b>Quantitative Easing</b> :2015 Jan.

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The basic question is “How a central bank can achieve further effective monetary easing under nominal zero interest rate?”

As to find an answer to this basic question, so-called quantitative monetary ease seems to be a kind of fashion among developed central banks. Bank of Japan had once experienced it for 5 years since March 2001 until March 2006, preceding U.S. FRB and ECB.

Any persuasive assessments on the effects of the quantitative ease at that time have not been found yet, but at least it was effective in mitigating the serious financial system instability at that time, and in flattening the yield curve (i.e. decline of longer-term interest rate) mainly by so-called “policy duration effect”. Nevertheless, expected effects on the real economy have remained unclear.

In the meantime, Japanese economy seemed to be recovered, supported by the rapid recovery in exports, reflecting the recovery of the world economy. So, Bank of Japan ended the quantitative ease, came back to the policy interest rate target



again in March 2006, and then gradually raised the interest rate level from zero up to 0.5%.

Unfortunately, Lehman-Shock attacked in September 2008. Confronting the shocks to the Japanese domestic economy, Bank of Japan (governor Shirakawa at that time) started to lower the policy interest level, finally unto zero again in October 2010, and introduced de-facto quantitative ease in parallel, that was called “Comprehensive Monetary Easing”. The de-facto quantitative ease was enlarged step by step (for 10 times) seeming reluctantly from public eyes, arousing frustrations by the political world.

Towards the general-election December 2012, Abe LDP flagged “Bold Monetary Policy” as one of the major campaign slogans and came to the power again after 3 years absence.

January 22<sup>nd</sup>. 2013, soon after the start of Abe administration, the Government and the Bank of Japan announced a joint statement to introduce “Price Stability Target” of 2% CPI increase in year-to-year terms.

In order to achieve this target at the earliest possible time, the Bank of Japan announced to introduce so-called “open-ended purchasing method” That is a kind of an open market operation without time-limits.

Those were the backgrounds and the prehistory.

Immediately after the new governor Mr. Kuroda’s appointment in March 2013, the Bank of Japan announced QQE (Slide P48 center column), on April 4<sup>th</sup>. 2013. That is to achieve the “2%” target within 2years, and to adopt the “monetary base control“, to make double the monetary base from 138 trillion yen to 270 within 2 years, by increasing governmental bond purchases and their maturity extension, together with by increasing ETF and J-REITs purchasing.

These measures are called “Quantitative and Qualitative Monetary Easing” (Slide P48)

SlideP48

## Quantitative and Qualitative Monetary Ease April 2013 and its Expansion October 2014

BOJ is committed to achieve the price stability target of 2 % CPI increase at the earliest possible time, with a time horizon of about two years. In order to do so, it entered a new phase of monetary easing

Operational Targets	QQE Apr. 2013	Expansion Oct. 2014
Monetary Base	60~70¥tril.Increase/year double within 2 years	80¥tril. Increase/year
JGB Holding	50¥tril.Increase/year double within 2 years	80¥tril. Increase/year
Maturity of Holding JGBs	3years→about 7years	7~10(7~12 since Dec.2015) years
ETF and J-REIT Purchase	double within 2 years	triple within 2years

BOJ also announced that it will continue with the QQE, aiming to achieve the price stability target of 2 percent, as long as it is necessary for maintaining that target in a stable manner.

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(Philosophy)

The first paragraph in Slide 48 is that the Bank of Japan firmly committed itself to the 2% inflation target within 2 years.

At the same time the Bank of Japan showed their decisive will to do anything they can do in achieving the commitment, by introducing the surprising and untraditional monetary ease. That is the second paragraph. And the bottom paragraph intends “policy duration effect”.

BOJ clarified, “Since Japanese firms and households have been long imprisoned in a bad deflationary or shrinking equilibrium, they need some strong shock for escaping from the deflationary equilibrium and shift to a different more desirable equilibrium. The QQE was expected to address to the people’s expectation and implant inflationary expectation so that firms and households would decide their investment or consumption based on 2% inflationary expectation, or assumption”.

That was the BOJ’s philosophy.

No empirical or theoretical explanations, concerning the path on which the increase of monetary base will exert positive effects on real economy, can be found in BOJ’s statements other

than the path through people's expectation above mentioned.

Now more than 6 years have passed since the QQE was first introduced, and governor Kuroda entered his second 5-year-term in March 2018. As you can find in Slide 48 right column and in Slide 49, the QQE itself has evolved and the main policy tool has shifted from monetary base, then negative interest rate, and now yield curve control. And explanations by the Bank of Japan also changed from time to time. Despite such technical developments, QQE's effects on the real economy especially on the revitalization of Japanese economy in the longer terms, that is most important, remain still unclear and its policy evaluation is very much controversial and diversified.

(Slide P 49) QQE Further Developments

<b>QQE Further Developments</b>	
<b>QQE with a Negative Interest Rate</b> (Jan. 29 2016)	Introduce a Negative Interest Rate (-0.1%) Applied to the Newly Increased Amount of BOJ Current a/c
New Framework for Strengthening Monetary Easing: QQE with Yield Curve Control  (Sep. 21 2016)	<ul style="list-style-type: none"> <li>•Yield Curve Control(Return to the Interest Level Target Again):</li> <li>Short-Term Interest Rate; Minus 0.1% to the Current a/c (Policy Rate Balance=the 3<sup>rd</sup> tier)</li> <li>Long-Term Interest Rate; 10-Year JGB Yield More or Less at the Current Level(around Zero %)</li> <li>by purchasing JGBs with the current pace and introducing the New Tools of Fixed Rate Purchase and Funds—Supplying Operations</li> <li>•Inflation-Overshooting Commitment:</li> <li>Continue with the Policy for Maintaining the 2% Inflation—Target</li> <li>•ETFs Purchases Increase 3¥tril. →6¥tril. Per Year</li> </ul>
Strengthening the Framework(Jul. 31 2018)	More Flexible for Long-Term Interest Rate Level (Stealth Tapering?)
<b>Clarification of forward guidance for policy rates (NEW)</b> (Apr. 25 2019)	<b>Maintain the current extremely low levels of short- and long-term interest rates for an extended period of time, at least through around spring 2020</b>

(Effects 1: Stock Price and Exchange Rates)

At least, the effects on the depreciation of yen and on stock price increases thereof were very significant up to the summer 2015 with a short period of pause between the beginning and summer of 2014, as shown in Slide P50. But, since the autumn 2015, yen appreciated again and back to the same level as the start of QQE.

After the introduction of the Yield Curve Control in Sep. 2016, yen depreciated half way back, and more or less stable until

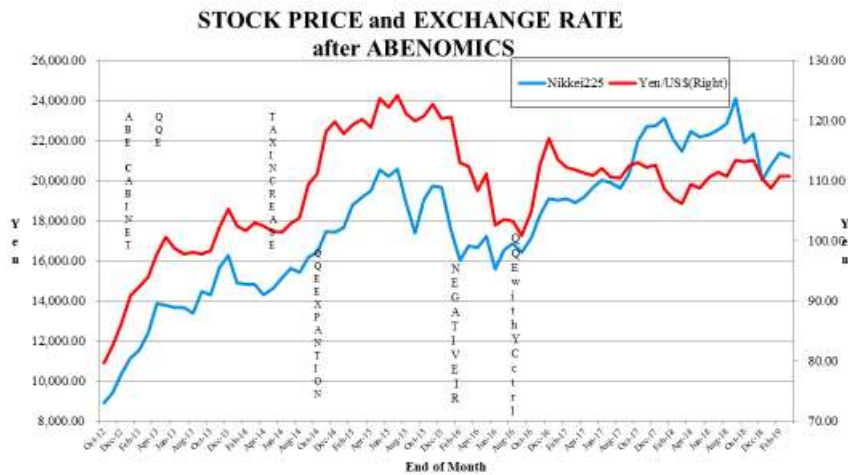
now.

In the meantime, yen rate and stock price became decoupled.

Looking back these movements throughout whole 6 years, the depreciation of yen at the first stage could be interpreted as just the correction of overshooting yen appreciation at that time.

(Slide P50) Stock Price and Exchange Rate

### Effects of the Monetary Policies I

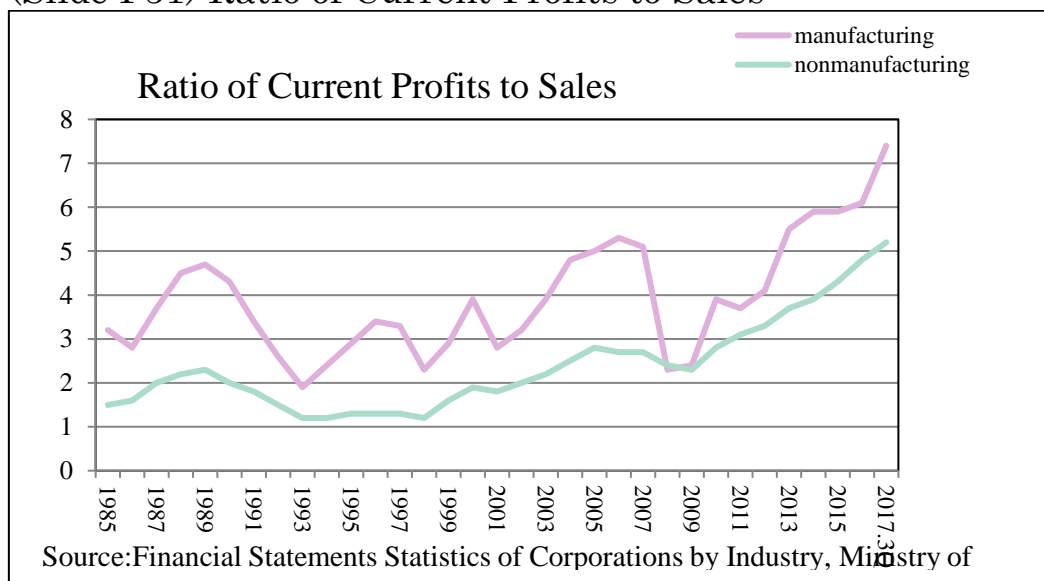


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(Effects 2: Corporate Profits)

Corporate profits have recovered and reached historically high level reflecting mainly Yen depreciation (Slide P51)

(Slide P51) Ratio of Current Profits to Sales

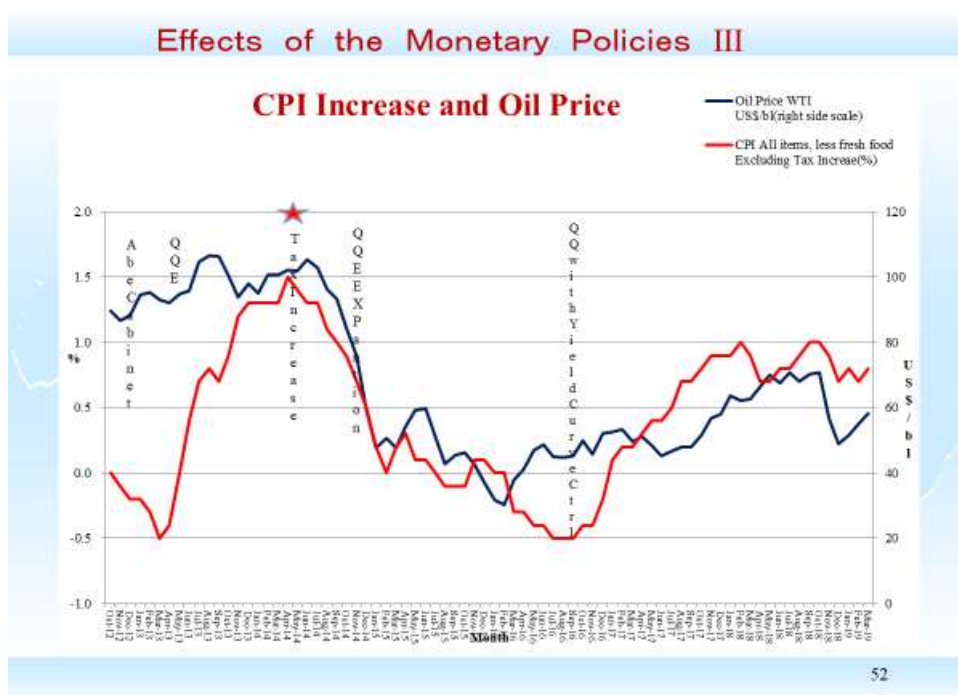


The problem is that companies are reluctant to reinvest the profits, they just retain them as reserves for fear of another credit crunch (lack of challenging spirits!).

(Effects 3: Consumer Price Index)

On the price front which seems to be most essential to the credibility of BOJ, CPI bottomed out in March 2013, and turned to be plus over the same month of previous year in May. The plus margin increased until April 2014 when consumption tax rate was raised from 5% to 8%.

(Slide P52 CPI Increase)



But this trend did not continue. From May 2014 on, the plus margin (excluding the direct increase reflecting tax rate change that was around 2%) continuously decreased, and back to around zero again in spring 2015. During a few months after the tax increase, that was due to the decline in demand following the front-loaded increase before tax increase, but since the end of the summer 2014, that was mainly due to the sharp fall in oil price.

No doubt, oil price fall is a very desirable external condition to Japan's economy, but BOJ was worried about its negative impacts on their 2% CPI increase target they were committed.

So, BOJ decided to enhance the monetary ease in the end of

Oct.2014 (right column of previous Slide P48) in order to pre-empt manifestation of such risk and to maintain the improving momentum of expectation formation.

From Sep.2014, shortly before the QQE enhancement, depreciation of yen resumed, and stock-price-rise followed, until around the summer 2015. However, those movements seemed to have ended and reversed at around Nov.2015. Meanwhile, CPI rise continued to decrease despite the modest rise of oil price. Considering such environments, BOJ introduced negative interest rate policy on Jan.29,2016. (as in previous Slide P49)

However, this time, the new surprise did not exert any positive effects on even Yen and stock-price, nor on the price front. Moreover, it was quite unpopular especially among banks which were worrying about the negative impacts on their profits.

Confronting these circumstances, New Framework for Strengthening Monetary Easing: "Quantitative and Qualitative Monetary Easing with Yield Curve Control" was implemented Sep 21<sup>st</sup>. 2016. (2<sup>nd</sup>.Paragraph Slide P49)

Notwithstanding all these efforts or new policy tools inventions, CPI increase remained below 1% and the 2%-inflation target seems to be far beyond the horizon. After postponing the inflation target achievement time for six times, BOJ finally stopped committing specific time in its announcements since April 2018.

(Changes in BOJ's Balance Sheet as the Result)

As the natural results of those monetary policies, the features of the balance sheet of BOJ have changed significantly as in Slide P53.

One important point to be noted is that JGBs have maturity, but EFTs have not. So, BOJ's holding of EFTs does not decrease unless it sells them. That makes future exit more delicate to handle.

(Slide P53 Changes in BOJ's B/S Resulted by QQE)

## Changes in BOJ's B/S Resulted by QQE



(Foreseeable Adverse Effects)  
Slide P54

## Foreseeable Adverse Effects

- Squeezing Banks' Profits
- Increasing the Risks of BOJ's Balance Sheet
- Deteriorating the Function of Bond Markets
- Undermining Fiscal Discipline
- Accumulating Potential Risks at the time of Future Exit
- And Ultimately, Stirring Risks of Another Bubble or Inflation

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Among, the foreseeable adverse effects in this slide, the present and clear one is the squeeze of banks' profits caused by excessively flat yield curve.

Considering these circumstances, BOJ announced new policy

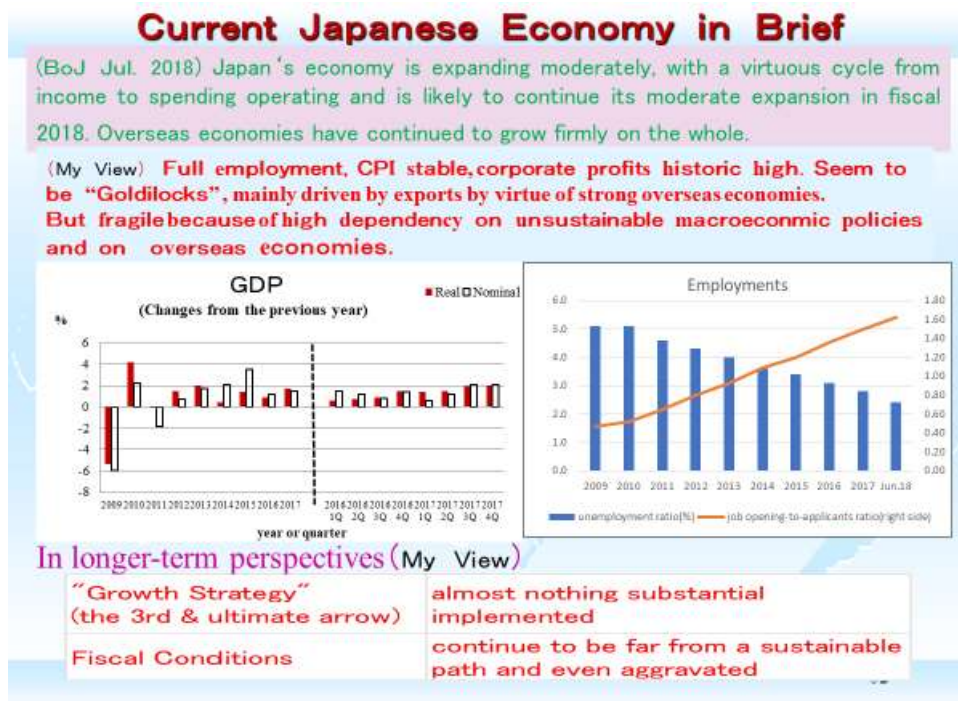
measures titled “Strengthening the Framework for Continuous Powerful monetary Easing” on 31. Jul. (3<sup>rd</sup>.paragraph Slide 49)

Despite the splendid title, the contents are empty and ambiguous. Only essential is adopting flexibility for the long-term interest rates level. So, it could be interpreted as a stealth tapering.

Those were the path of the unprecedented experiments so far.

One thing clear is that the present policy cannot be continued forever. Sometime in the future we must get out of it. The most difficult question is the so-called exit-strategy of the QQE (that is how to finish it smoothly without causing serious turmoil in the financial markets, i.e. violent rise of bond rates). Both FRB and ECB have already entered this stage, but in Japan even honestly talking about tapering seems to be a kind of taboo for the moment. What I am afraid is that BOJ and the government may hesitate to enter the exit-stage at the necessary timing and continue Abenomics too long, causing another bubble and/or an unmanageable inflation.

(Current Economic Situation Slide P55)



So, though it is not clear how Abenomics would affect the



future of Japanese economy, the newest summary of current Japanese economic situation is as in Slide P55.

Japanese current economy in general is in “Goldilocks” situation. Especially as for corporate profits and employment side (ex. the unemployment rate 2.4%, the active job opening-to-applicants ratio 1.61). The wording “expansion” was first seen for 9 years in 2017.

Still such “Goldilocks” situation is mainly supported by exports reflecting the strong world economy, and no substantial improvements in longer term or fundamental conditions of Japanese economy itself have been seen yet.

Speaking more fundamentally, the most essential prescription for current Japanese economy shall be the growth strategy, the 3<sup>rd</sup>. arrow, however difficult it may be. An easy-going way to continue the present opium-like unsustainable fiscal and monetary demand creation policies too long is no good for the longer-term revitalization of Japanese economy. That might even probably bring about another crisis, I am afraid. In my view as a former MOF official, fiscal reconstruction shall be the most fundamental and urgent requirement. Only patient and steady efforts should be the sole remedy.

## (6) Lessons Implied

Now my story has come to an end. It’s up to you what lessons you may feel to learn from it. But, I would like to give you some hints by making three points

- a. Interventions by the government are favorable for growth at some early stages of development, strictly provided that they are
  - Based on a consistent and comprehensive strategy
  - Directed at the right way for long-term sustainable growth in the specific country
  - Accompanied by firm political will to maintain macro-economic discipline (no populism)

But it is to be noted that the method and extent of the interventions by the government should differ according to

the specific environment and the stage of the development of the country

b. The difficult question is “When and how to graduate?”

The macro and micro policy features should both evolve in line with the socio-economic development of the specific country.

Policy packages which once very much contributed to the development of the country could become even harmful, if they are unthinkingly continued after significant progress in both the domestic and international environments.

c. Giving too much consideration to the exchange rate is sometimes harmful.

**(Ending) Thank You for Listening**

I sincerely hope that your stay in Japan will be fruitful and memorable, and that you will become best friends with Japan in the future.

**(Appendix)**

At this seminar several years ago, a participant from Mexico asked me, “Why did the Japanese economy not go into hyper-inflation as Mexico did, during its rapid growth period under such demand excessive circumstances?”

It is a very good question. Find your own answer from my lecture!