Economic Outlook of Japan

Are We Ready for Rainy Days of the World Economy Ahead?

龍谷大学
RYUKOKU UNIVERSITY

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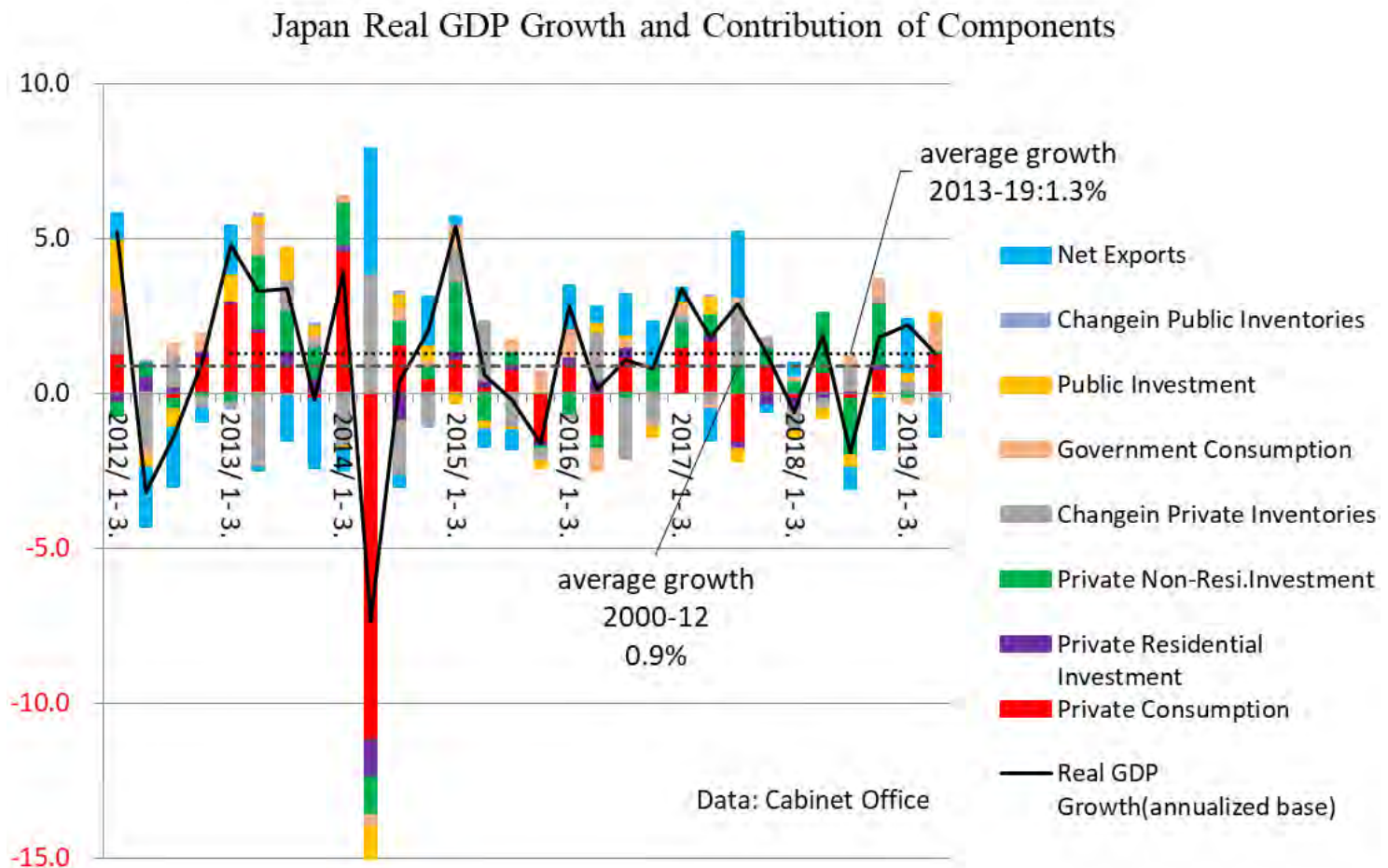takenaka1221@yahoo.co.jp
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1, Economic outlook of Japan

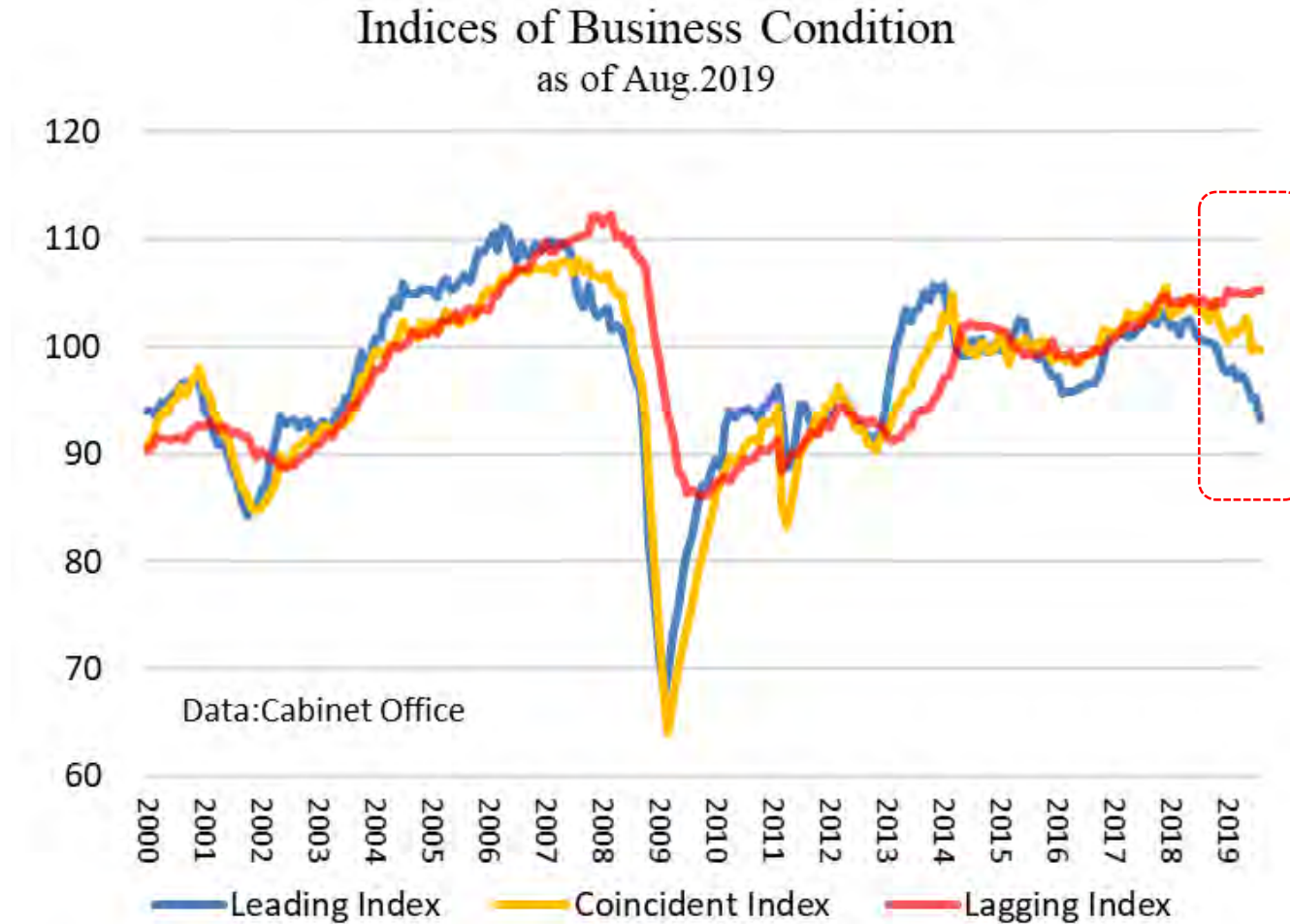2, Trade with China and the Global Stock Market

1, Economic Outlook of Japan

The real GDP growth in the 2nd quarter of 2019 lowered to ＋1.3% from the previous quarter +2.2%(annualized base).

The annual GDP growth is forecasted to be around +1.0% in 2019 and +0.4% in 2020 by JCER. The US-China trade war is affecting the Japanese economy through a slowdown of the exports.

Japan Real GDP Growth and Contribution of Components

Data: Cabinet Office

Legend:
- Net Exports
- Change in Public Inventories
- Public Investment
- Government Consumption
- Change in Private Inventories
- Private Non-Resi.Investment
- Private Residential Investment
- Private Consumption
- Real GDP Growth(annualized base)

average growth 2013-19:1.3%

average growth 2000-12 0.9%

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Overview

The business condition indicators are suggesting the recession probability is rising.

Indices of Business Condition
as of Aug.2019

Data:Cabinet Office

Leading Index — Coincident Index — Lagging Index

The recession probability indicator of JCER marked 92.8% as of Aug.2019.

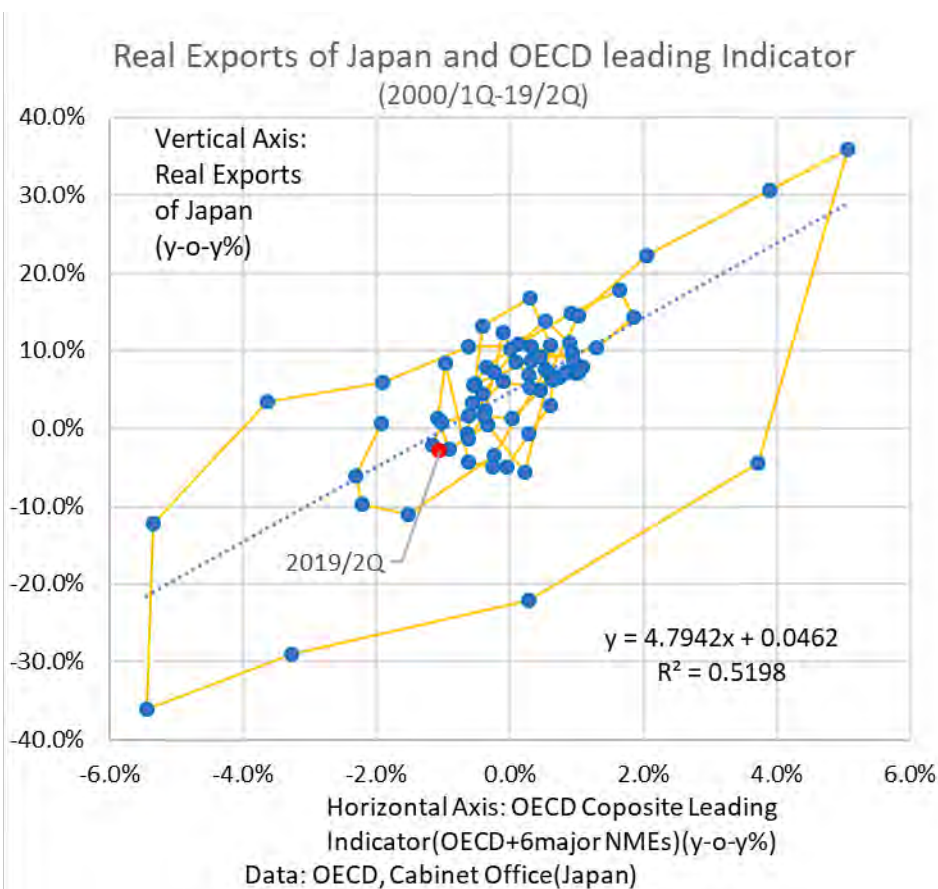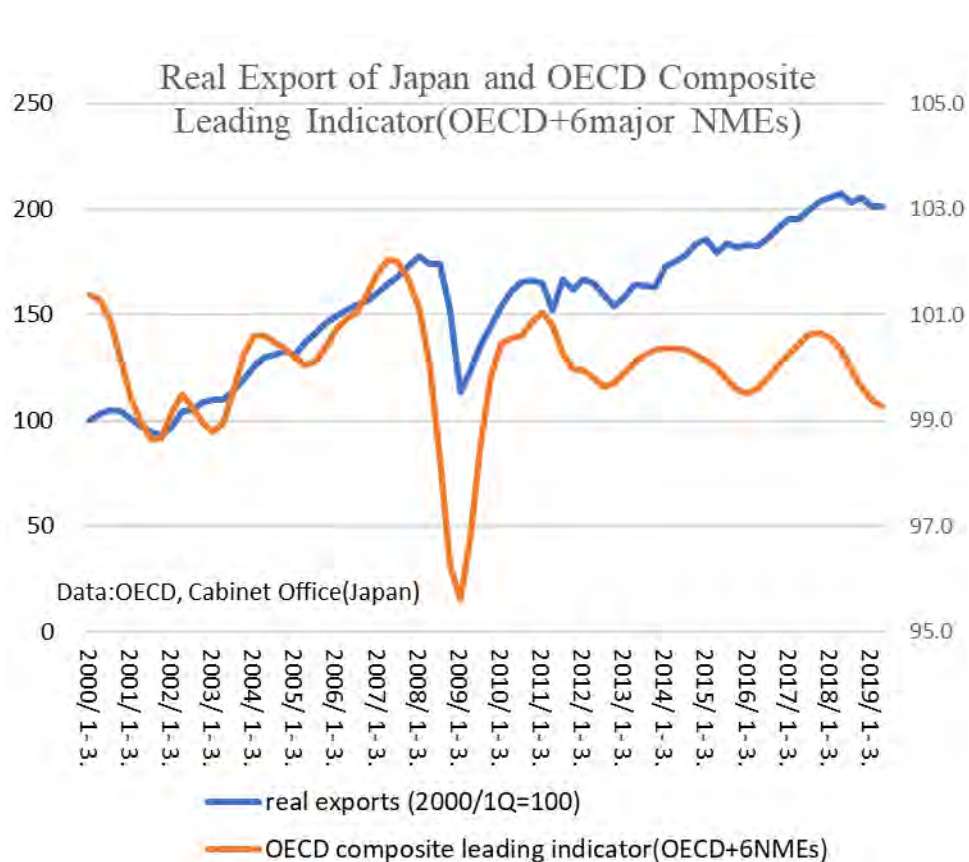The Recession Indicator: August, 2019
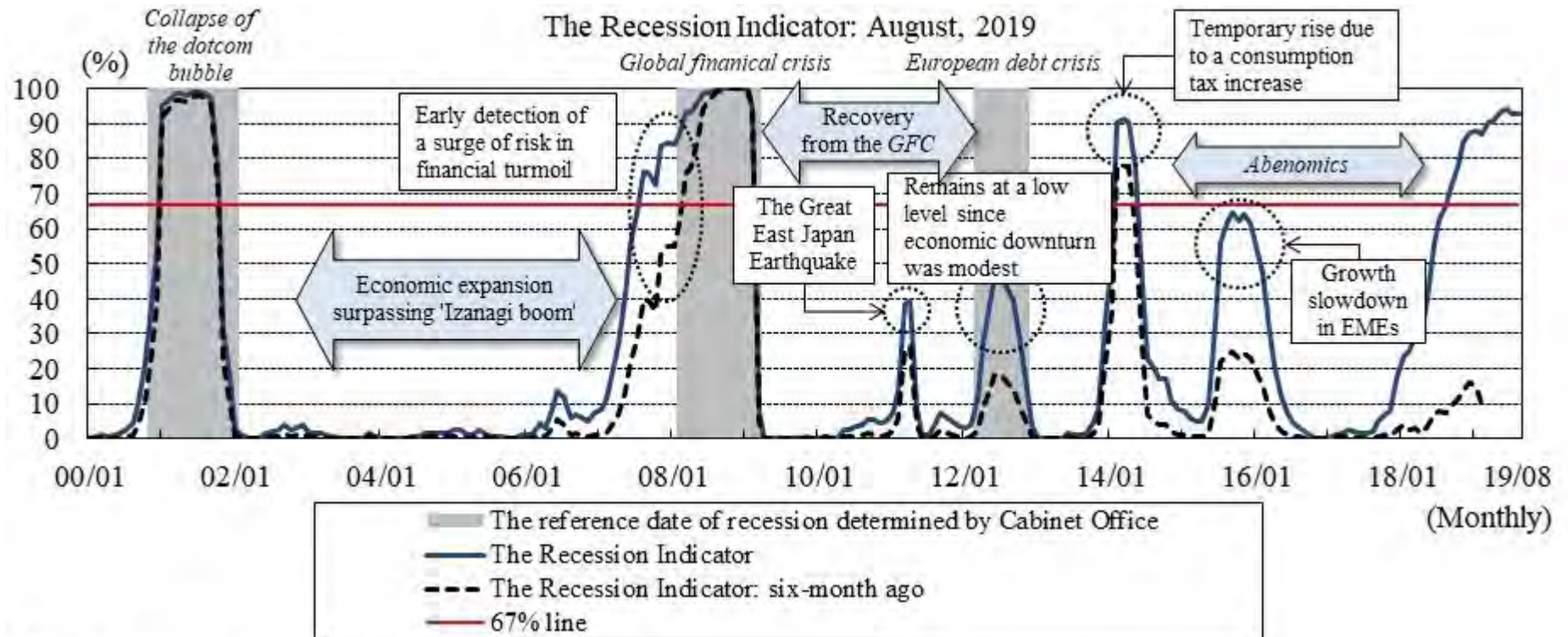
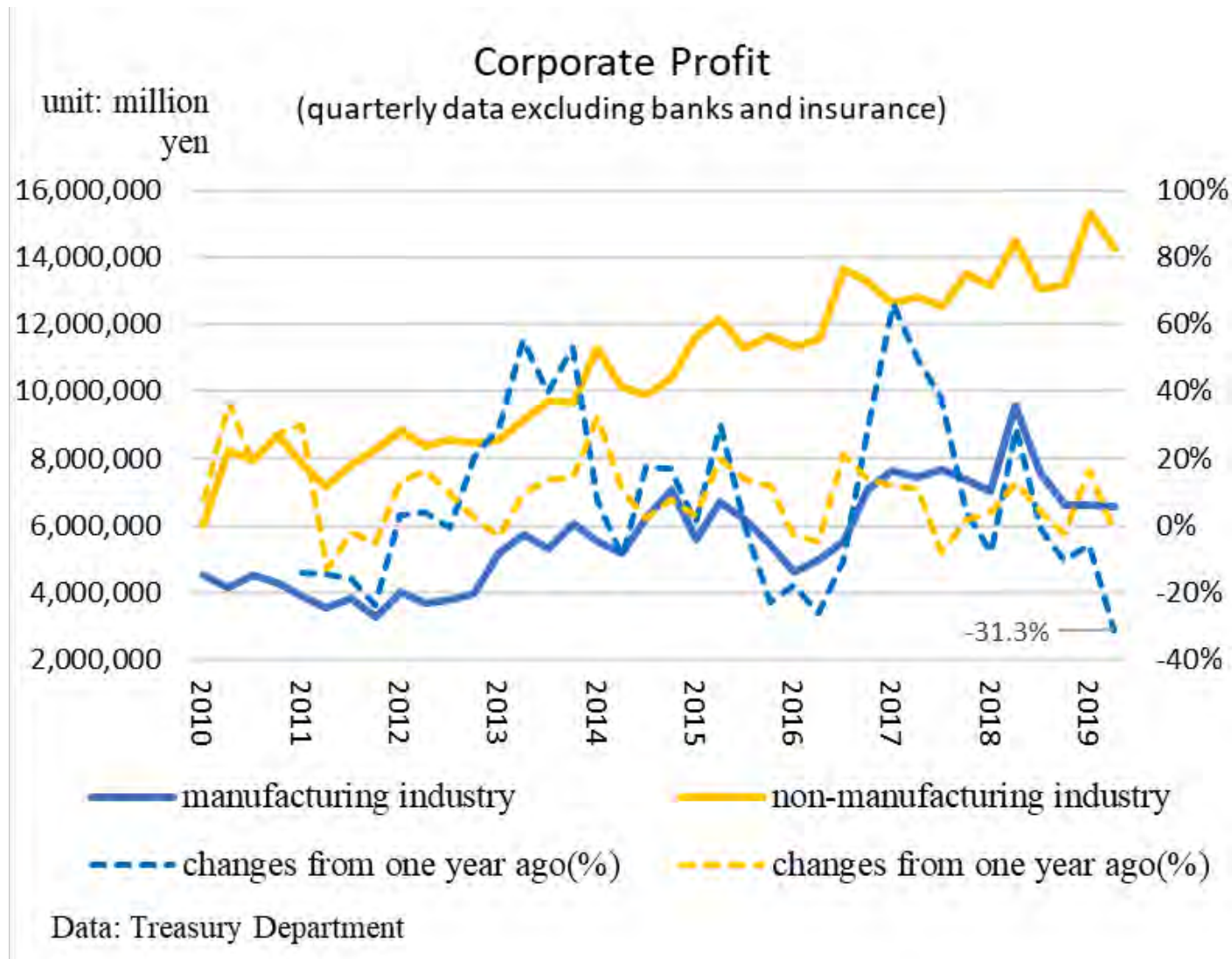(Source) JCER's estimate based on *Indexes of Business Conditions*.

Growth of exports

The real export of Japan has already decreased due to the slowdown in overseas market. The average contribution to GDP growth of the net exports was -0.5% at the last 4 quarters and -1.2% at the 2nd quarter of 2019.

Real Export of Japan and OECD Composite Leading Indicator(OECD+6major NMEs)

Data:OECD, Cabinet Office(Japan)

— real exports (2000/1Q=100)
— OECD composite leading indicator(OECD+6NMEs)

Real Exports of Japan and OECD leading Indicator (2000/1Q-19/2Q)

Vertical Axis: Real Exports of Japan (y-o-y%)

2019/2Q

$y = 4.7942x + 0.0462$
$R^2 = 0.5198$

Horizontal Axis: OECD Coposite Leading Indicator(OECD+6major NMEs)(y-o-y%)
Data: OECD, Cabinet Office(Japan)

Corporate Sector
The slowdown is prominent in the manufacturing industry.

Corporate Profit
(quarterly data excluding banks and insurance)

unit: million yen

manufacturing industry — non-manufacturing industry

- - - - changes from one year ago(%) - - - - changes from one year ago(%)
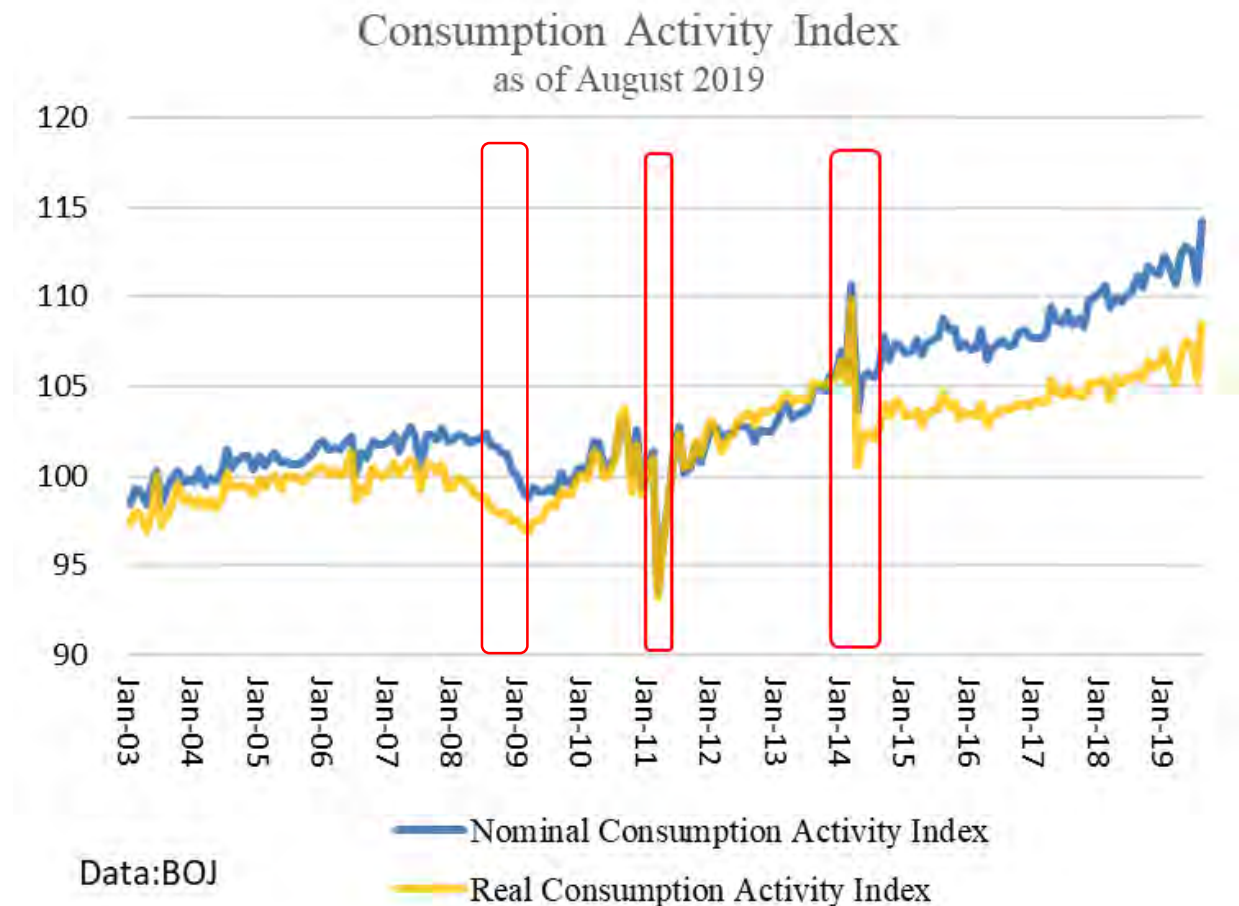
-31.3%

Data: Treasury Department

Consumption

There was a rush and setback of purchasing just before and after April 2014 when the consumption tax rate was raised to 8% from 5%. Such a movement appears to be more moderate this time when the tax rate was raised to 10% from 8% in October 2019 because the tax rate for foods remains at 8% and the other subsides are introduced to ease the tax burden of households.

2008-09: The great financial crisis and the world recession
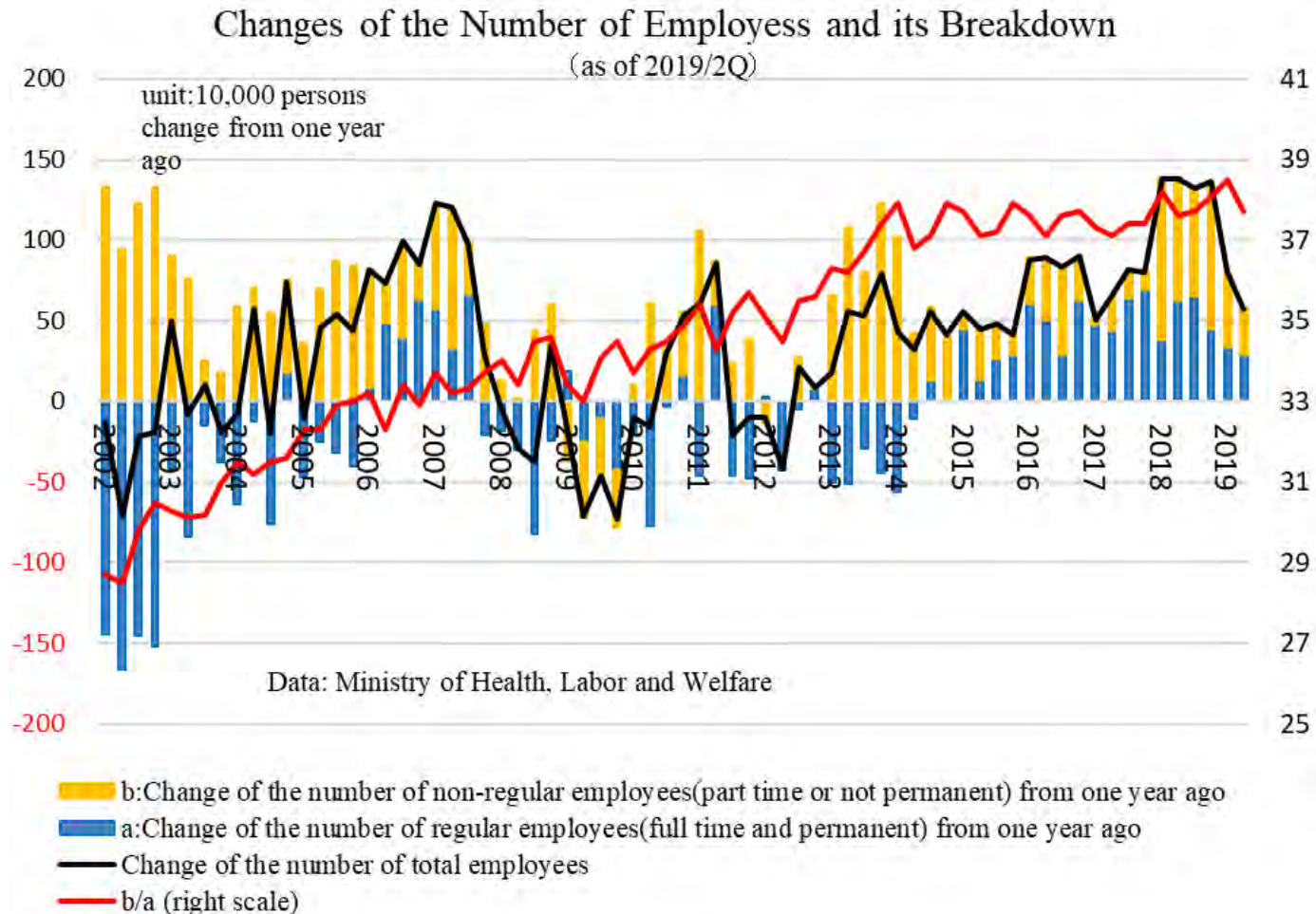
2011: East Japan great earthquake

2014: The hike of consumption tax rate to 8% from 5%

Consumption Activity Index
as of August 2019

Data:BOJ

— Nominal Consumption Activity Index
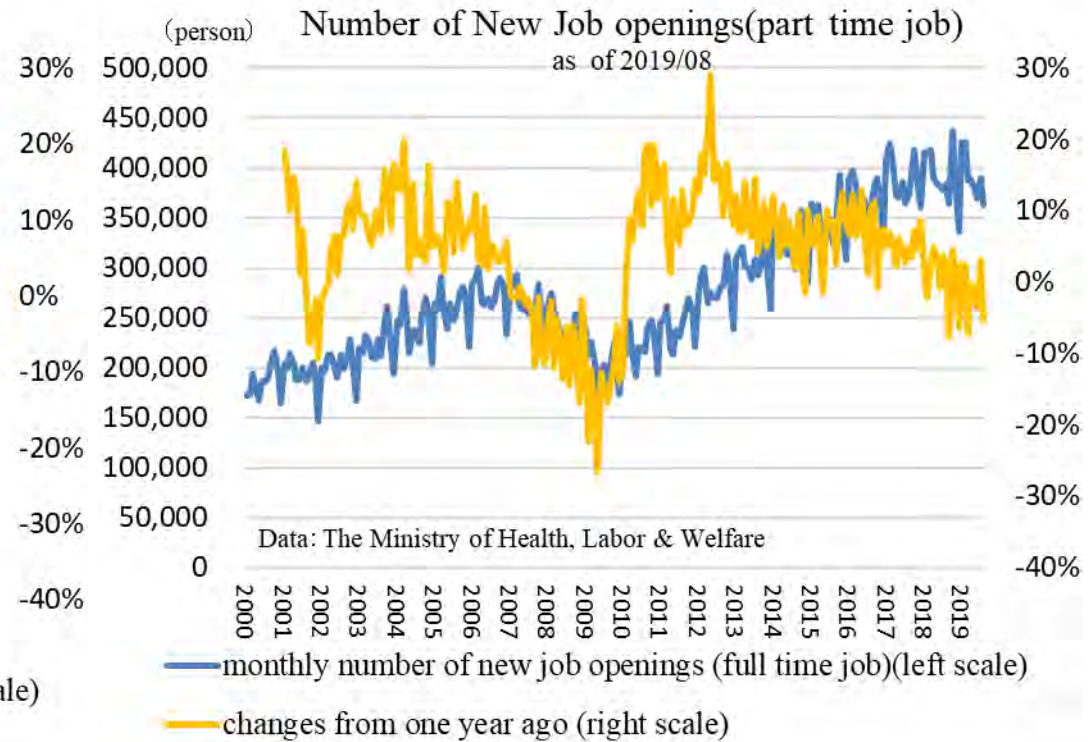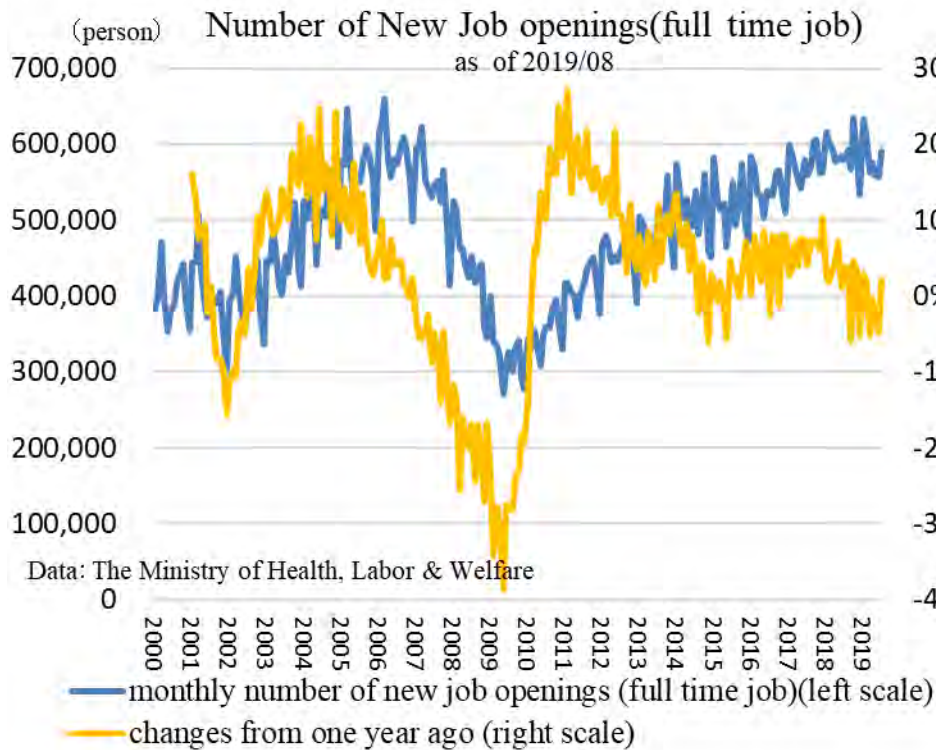— Real Consumption Activity Index

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Labor market

The number of employees have been still increasing and the unemployment rate is 2.4% (as of Sept.2019) which is the lowest since 1993. Most of the increase is coming from the rise of labor participation rate of women and the elder people over 65.

Changes of the Number of Employess and its Breakdown
（as of 2019/2Q）

unit:10,000 persons change from one year ago

Data: Ministry of Health, Labor and Welfare

■ b:Change of the number of non-regular employees(part time or not permanent) from one year ago
■ a:Change of the number of regular employees(full time and permanent) from one year ago
— Change of the number of total employees
— b/a (right scale)

The numbers of new job openings both for full time and part time workers appear to be peaking out.

Number of New Job openings(full time job) as of 2019/08

Number of New Job openings(part time job) as of 2019/08

Data: The Ministry of Health, Labor & Welfare

monthly number of new job openings (full time job)(left scale)

changes from one year ago (right scale)

monthly number of new job openings (full time job)(left scale)

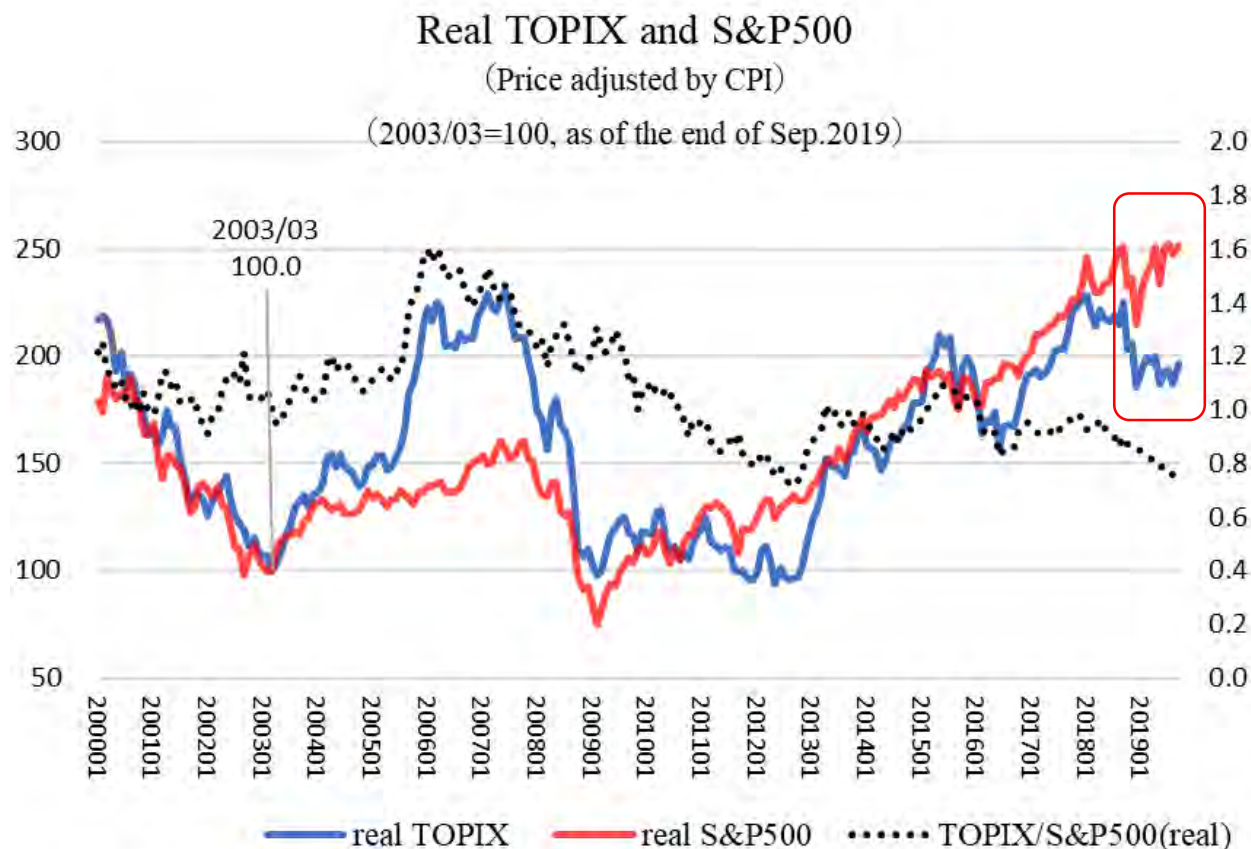changes from one year ago (right scale)

Stock market

If we compare real S&P500 and real TOPIX by adjusting prices (CPI) starting with 2003/03, the fiscal year end when the major Japanese banks finished writing off of their non-performing loans, the returns of stock markets are nearly the same until 2017. Annualized return of 2003/03-17/12: TOPIX 5.7% and S&P500 5.9% (not including the dividend yields: TOPIX 1.7%, S&P500 2.0%)

The gap has expanded again since 2018 in the way that the growth of S&P500 is higher than that of TOPIX.
It appears to be strongly affected by the Trump's corporate tax cut.

Valuation
expected PER of Nikkei
Average :14.3 (Nikkei)
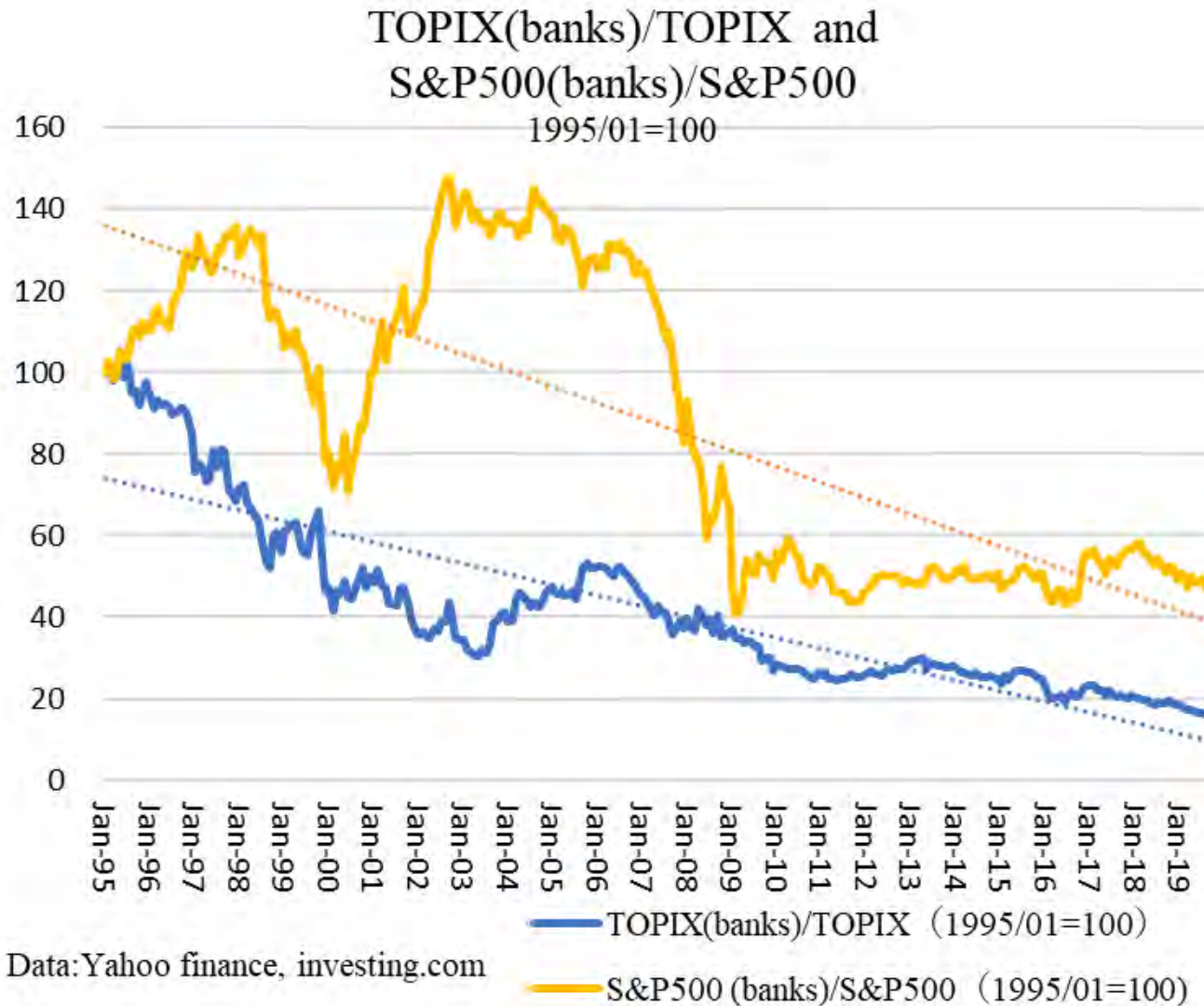expected PER of S&P500
:18.5   (FactSet)
as of Oct.16.2019

Real TOPIX and S&P500
(Price adjusted by CPI)
(2003/03=100, as of the end of Sep.2019)

2003/03
100.0

real TOPIX   real S&P500   ‧‧‧‧‧ TOPIX/S&P500(real)

Data : Yahoo finance,Ministry of Internal Affairs(Japan)
Department of Labor (USA)

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Stock market
The decline of banks

TOPIX(banks)/TOPIX and S&P500(banks)/S&P500
1995/01=100

Data:Yahoo finance, investing.com

TOPIX(banks)/TOPIX （1995/01=100）
S&P500 (banks)/S&P500 （1995/01=100）

Exchange rate of Yen/DLR

The real exchange rate index shows yen's appreciation since 2018 but it is still in a range of weaker Yen compared with its 15 years moving average rate. I predict Yen is likely to appreciate around 90 against DLR under the assumption that the US economy moves into a recession by the end of next year.
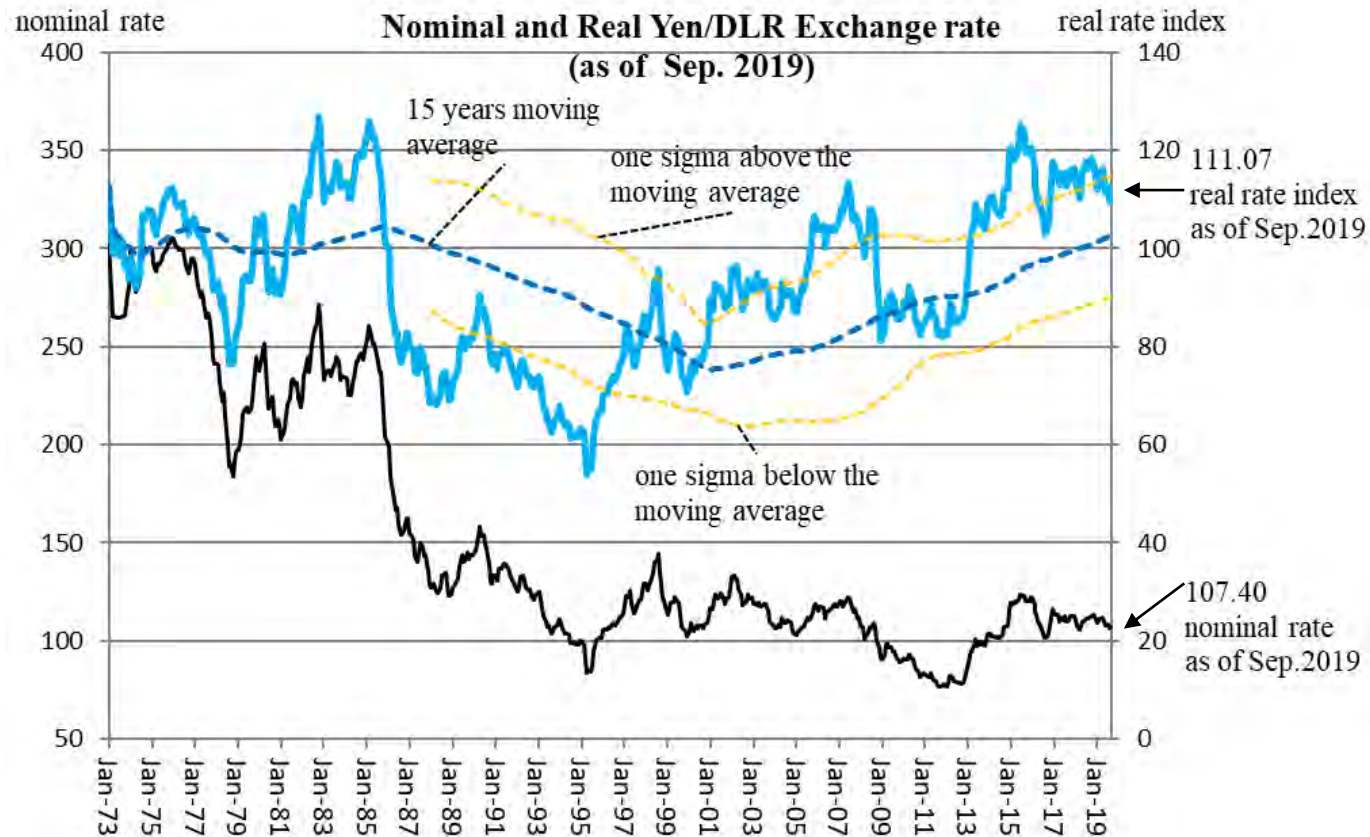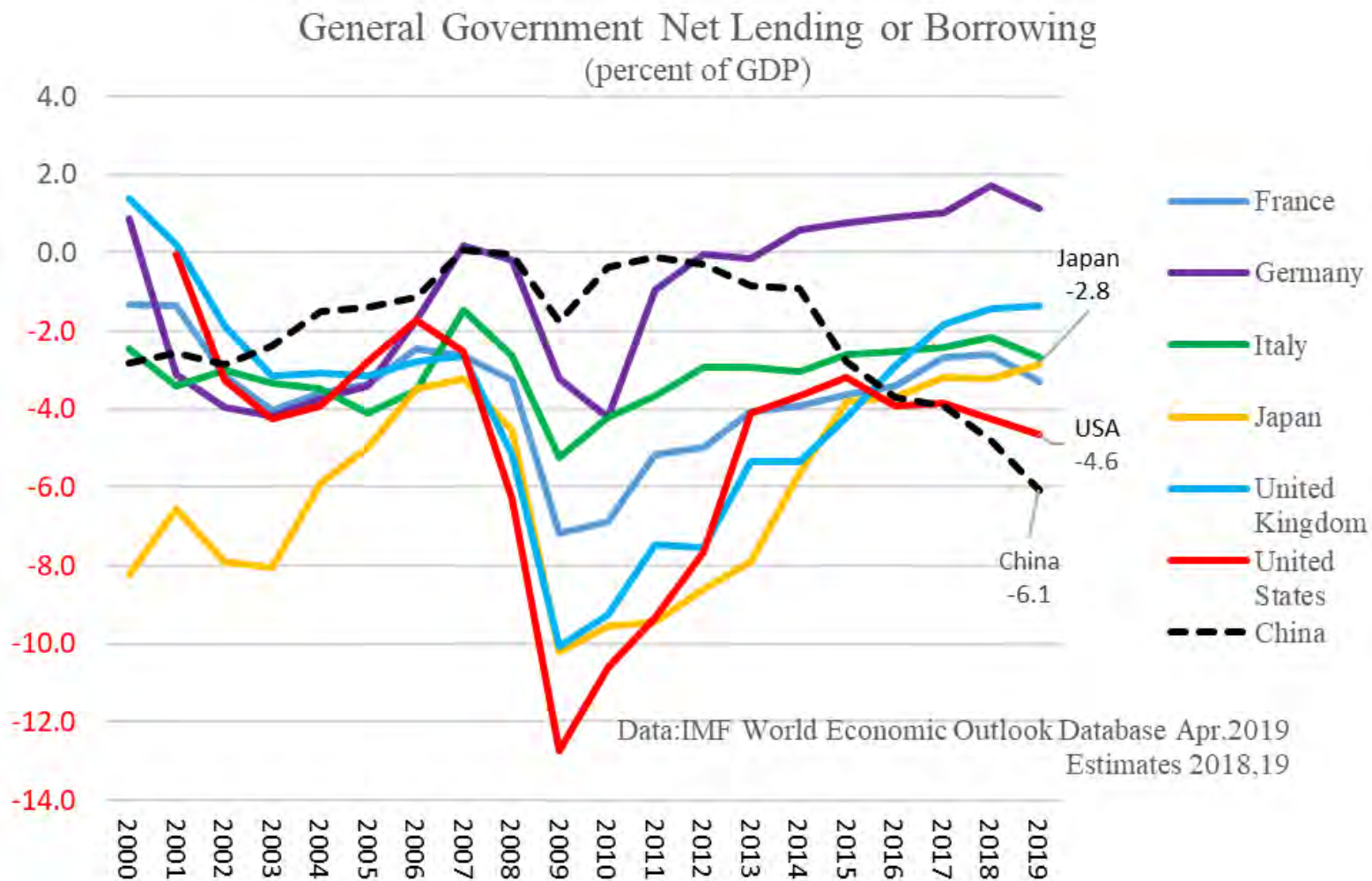

Data:Bank of Japan, US Labor Department
real index =nominal rate／relative PPP×100　Relative PPP is calculated based on the US PPI (producer price index) , Japan CGI(corporate goods index) and 1973 as the the staring point.
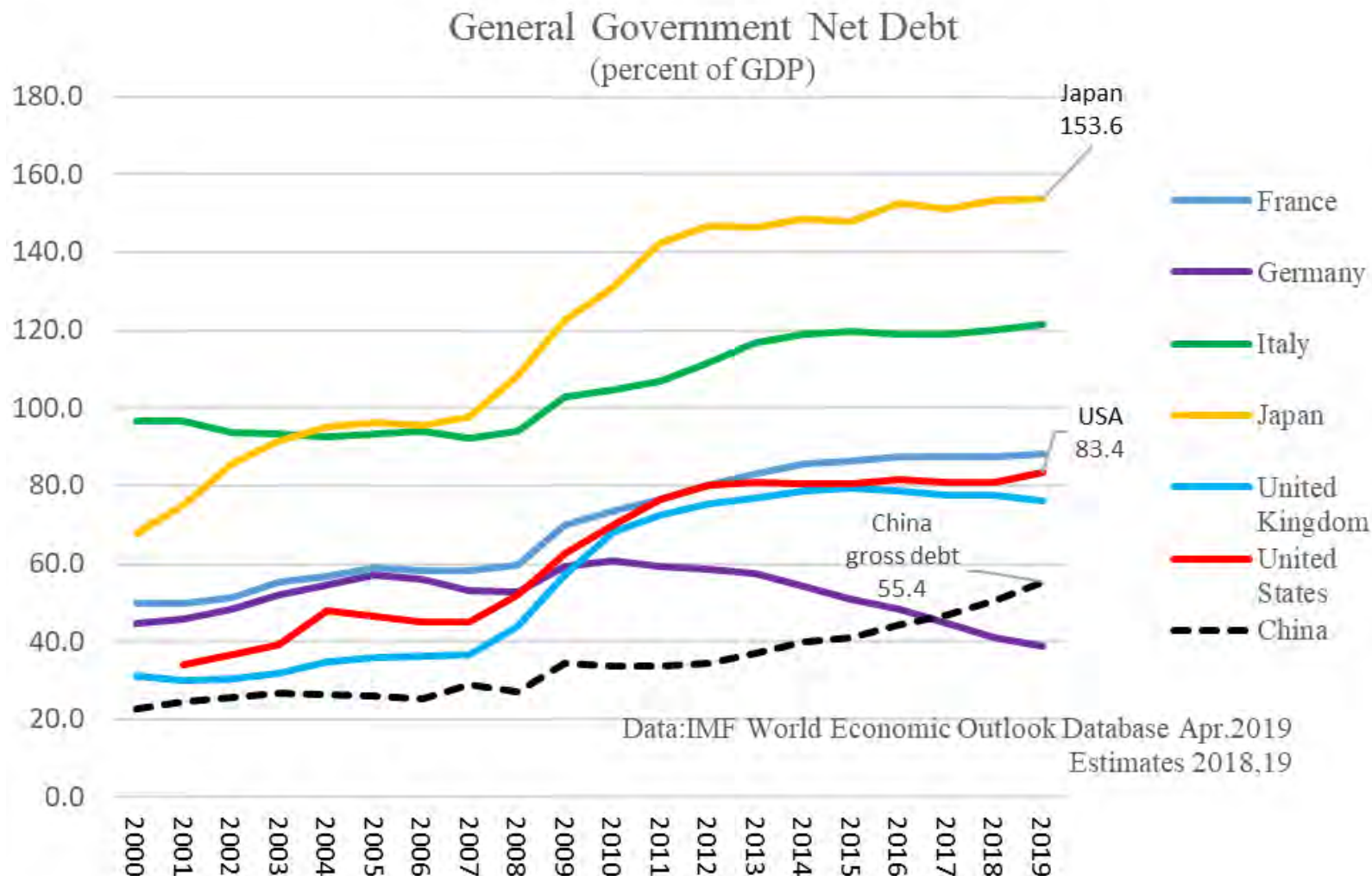
Fiscal balance and Government debt

The fiscal deficit of Japan narrows to -2.8% in 2019 due to the increase of tax revenues backed by economic growth and the hike of consumption tax rate.

General Government Net Lending or Borrowing
(percent of GDP)

Data:IMF World Economic Outlook Database Apr.2019
Estimates 2018,19

The net debt of Japanese government is still high but the growth of net debt ratio to GDP is almost flattening.

General Government Net Debt
(percent of GDP)

Data:IMF World Economic Outlook Database Apr.2019
Estimates 2018,19

The fiscal deficit of Japan has been sustainable over the long term due to the large surplus in the private sector.
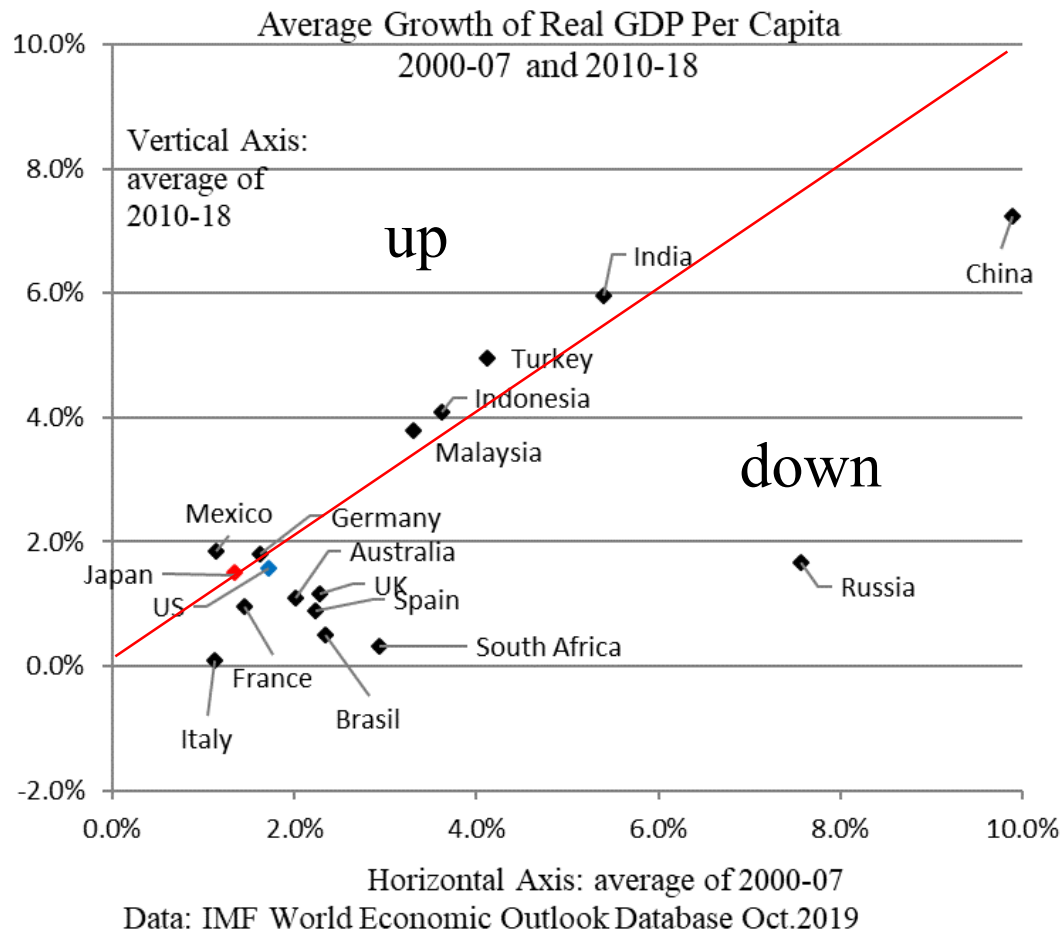

Surplus and Shortage of funds by Sector

Unit: 100 million yen

Legend: Financial Institutions, Non-financial Companies, General Government, Households, NPOs, Overseas
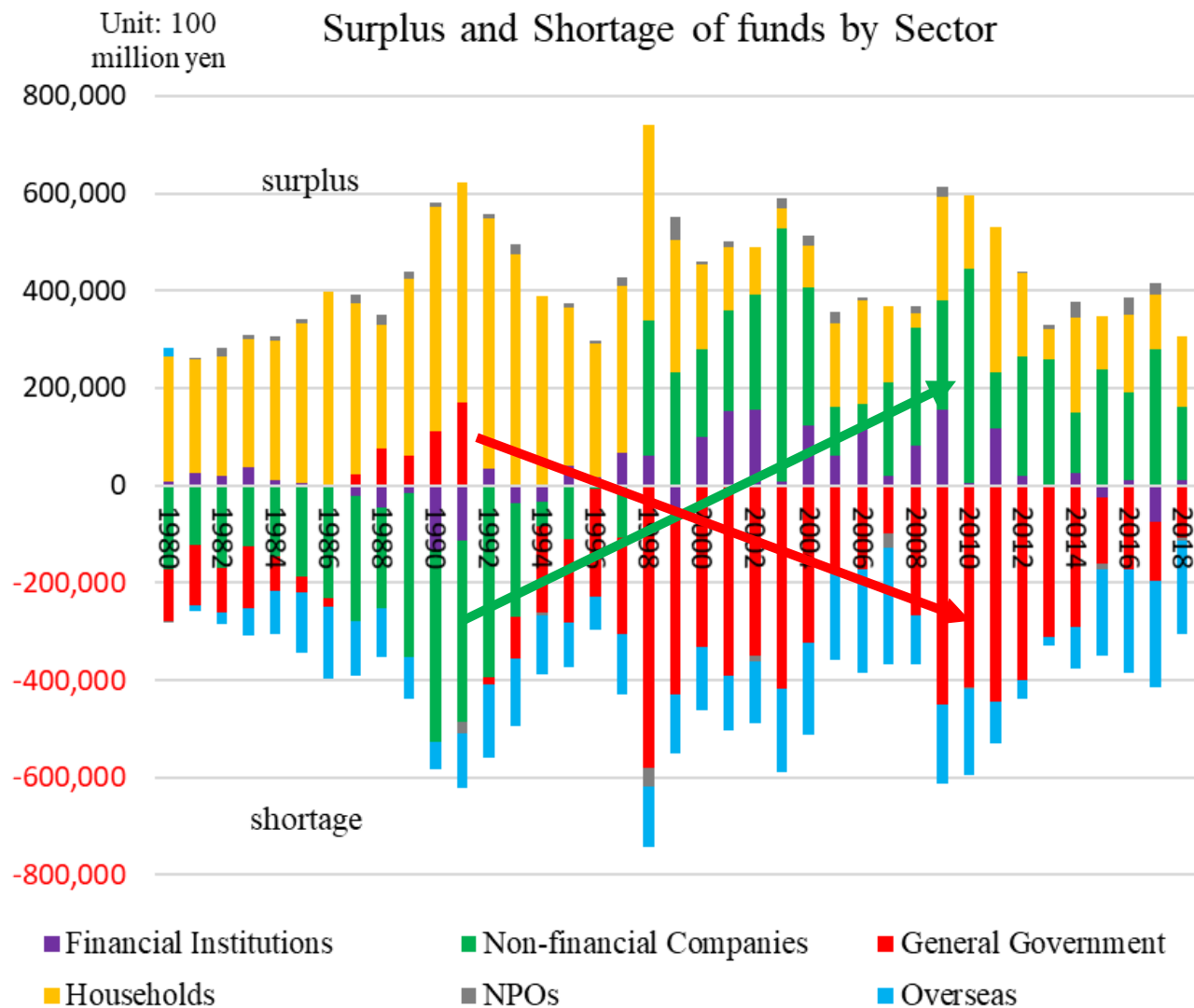
Data: Flow of Funds, Bank of Japan
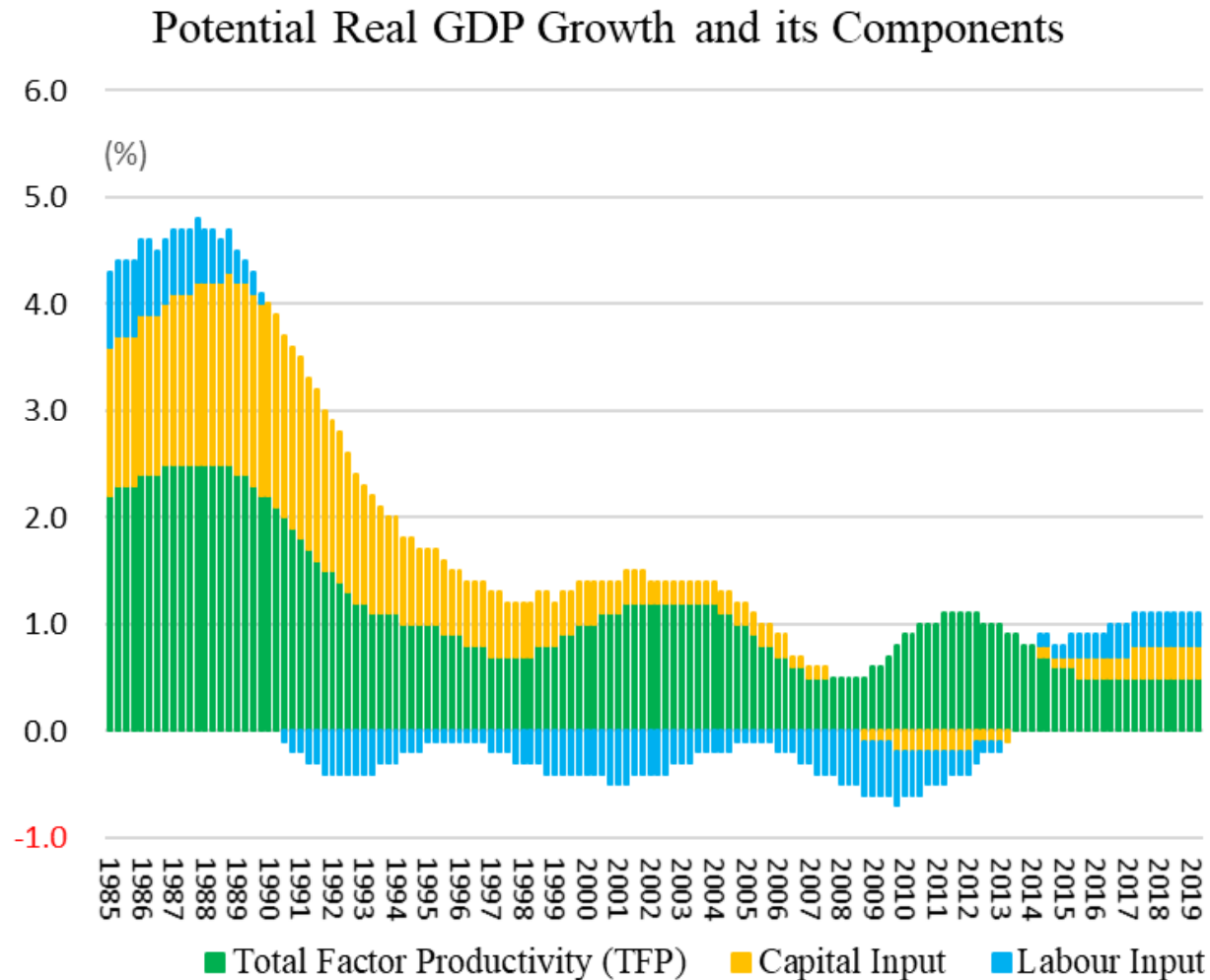
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Growth per capita

If you look at the average growth of real GDP per capita, you can see more clearly what has changed and what has not changed after the global financial crisis.

Average Growth of Real GDP Per Capita 2000-07 and 2010-18

Vertical Axis: average of 2010-18

Horizontal Axis: average of 2000-07

Data: IMF World Economic Outlook Database Oct.2019

Real GDP Growth per capita	average 2000-07	average 2010-18	average 2000-18
China	9.9%	7.2%	8.5%
India	5.4%	6.0%	5.6%
Turkey	4.1%	5.0%	3.7%
Indonesia	3.6%	4.1%	3.9%
Malaysia	3.3%	3.8%	3.2%
Mexico	1.1%	1.8%	1.0%
Germany	1.6%	1.8%	1.3%
Russia	7.6%	1.7%	3.8%
United States	1.7%	1.6%	1.2%
Japan	1.4%	1.5%	0.9%
United Kingdom	2.3%	1.2%	1.2%
Canada	1.8%	1.1%	1.1%
Australia	2.0%	1.1%	1.4%
France	1.5%	1.0%	0.9%
Spain	2.2%	0.9%	1.1%
Brazil	2.3%	0.5%	1.4%
South Africa	2.9%	0.3%	1.3%
Italy	1.1%	0.1%	0.1%

IMF World Economic Database, Oct. 2019

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As long as we trust the estimates by Cabinet Office, the recovery of potential growth rate after the recession in 2008-09 was brought by the increase of capital and labor input and the contribution of TFP growth is limited.

Potential Real GDP Growth and its Components

■ Total Factor Productivity (TFP) ■ Capital Input ■ Labour Input

Data:Cabinet Office

2, Trade with China and the global stock market

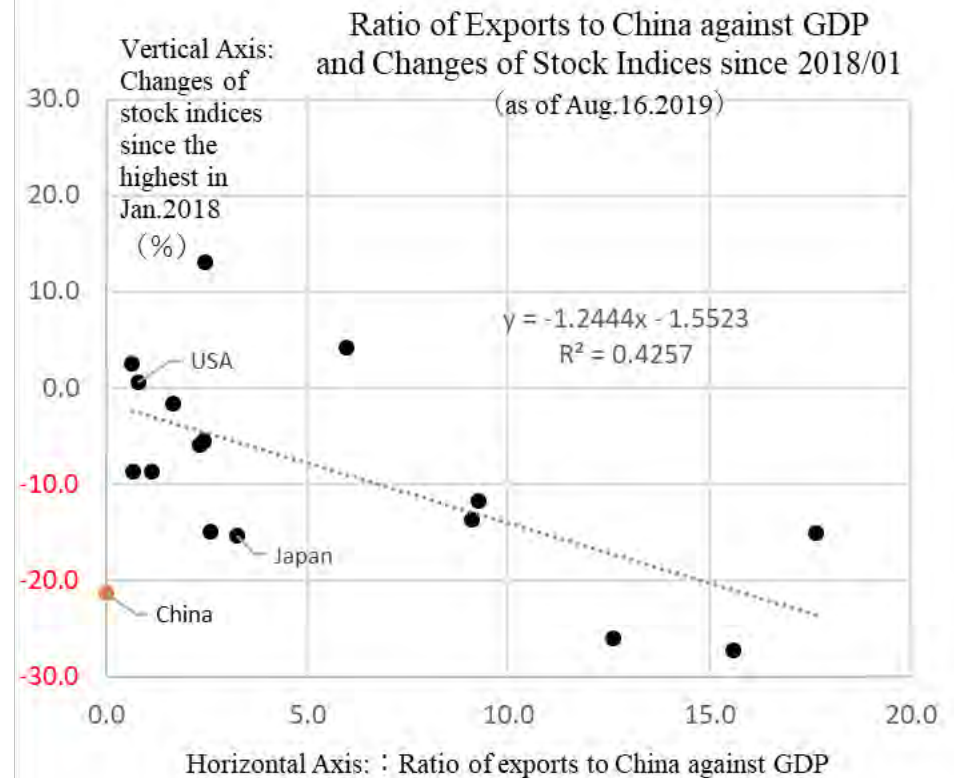| Top 16 countries in the share of China's imports	Ratio of each countries' exports to China against their GDP(%)	Changes of stock indices from the peak in Jan.2018(as of Aug.16)(%)	Stock indices
Malaysia	17.7	-15.1	Malaysia Top100
Vietnam	15.6	-27.2	HNX
Korea Republic	12.6	-26.1	KOSPI
Thailand	9.3	-11.7	SET
Singapore	9.1	-13.7	STI
Australia	6.0	4.2	S&P ASX200
Japan	3.3	-15.4	Nikkei 225
Germany	2.6	-15.0	DAX
Brazil	2.4	13.0	BVSP
Russia	2.4	-5.6	RTSI
Indonesia	2.3	-6.0	JKSE
Canada	1.7	-1.7	S&P/TSX
Netherlands	1.1	-8.7	AMX
United States	0.8	0.6	S&P500
United Kingdom	0.7	-8.7	FTSE100
India	0.6	2.5	BSESN
China		-21.3	SSEC

Figures are for mainland China, excluding the special administrative regions.

Data: China Statistical Year Book 2016

Investing.com

There is a significant correlation between the ratio of exports to China against GDP and changes of each countries' stock indices since the highest in 2018/01.
I chose 2018/01 as a starting point because the trade war between the US and China has became intense since the spring of 2018.

Ratio of Exports to China against GDP and Changes of Stock Indices since 2018/01 (as of Aug.16.2019)

Vertical Axis: Changes of stock indices since the highest in Jan.2018 (%)

$y = -1.2444x - 1.5523$
$R^2 = 0.4257$
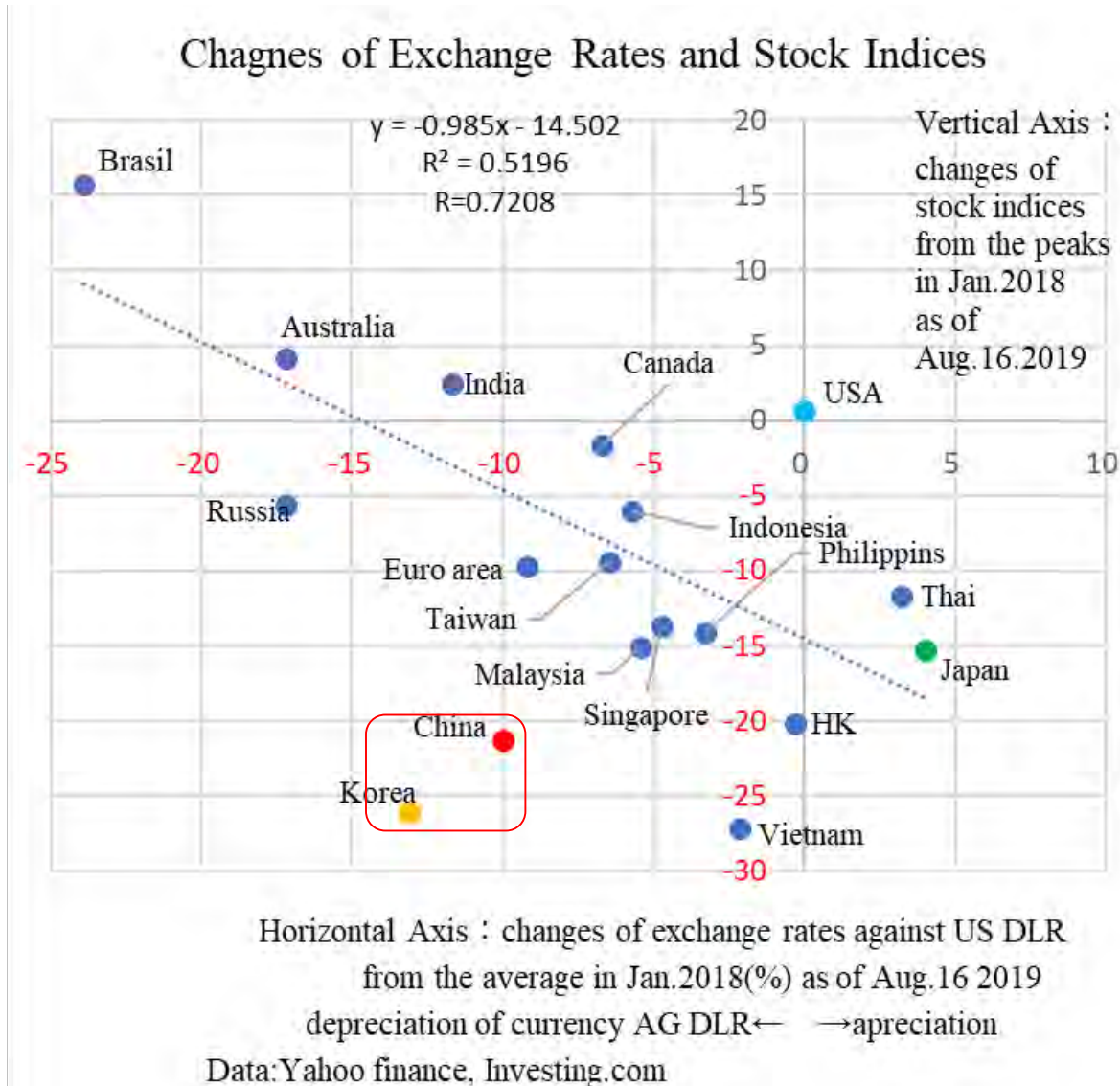
Horizontal Axis: : Ratio of exports to China against GDP

Correlation between exchange rates and stock indices of 17 countries

If we focus these16 countries and China, there is a interesting relations between the changes of exchange rates against US DLR and stock indices during the period of 2018/01-2019/08 except China and South Korea.

Regarding 15 countries, there is a significant correlation that stock prices are stronger in countries where the exchange rate more depreciated against DLR.

China and Korea are exceptional in the way that both their stock prices and exchange rates have fallen.   It suggests a risk of capital flight from these two countries even though such a risk still remains potential one.

Chagnes of Exchange Rates and Stock Indices

$y = -0.985x - 14.502$
$R^2 = 0.5196$
$R = 0.7208$

Vertical Axis : changes of stock indices from the peaks in Jan.2018 as of Aug.16.2019

Horizontal Axis : changes of exchange rates against US DLR from the average in Jan.2018(%) as of Aug.16 2019
depreciation of currency AG DLR←   →apreciation

Data:Yahoo finance, Investing.com

The Rise of The Digital Big Brother Nation

The Communist Party released the full text of the decision adopted at the 19th Central Committee 4th General Meeting held on the night of the 5th, late October. It states: "Armed the whole party in the Chinese characteristics socialist idea of a new era of Xi Jinping, to educate the people."

Specifically, They will build an administrative system that uses big data and AI to promote the construction of a digital government. China is said to have more than 200 million surveillance cameras, and public security authorities have introduced a system to manage ID cards, mobile phone numbers, and bank accounts in combination with face authentication. A large amount of image data and payment information on smartphones will be analyzed in detail using AI, and the aim is to strengthen the monitoring of each individual's behavior. It also included strengthening Internet public opinion management both at home and abroad.

quote from Nikkei News Paper (Nov.7.2019)