## Japanese Economic Outlook

 $Abenomics \rightarrow Abelympics$ 



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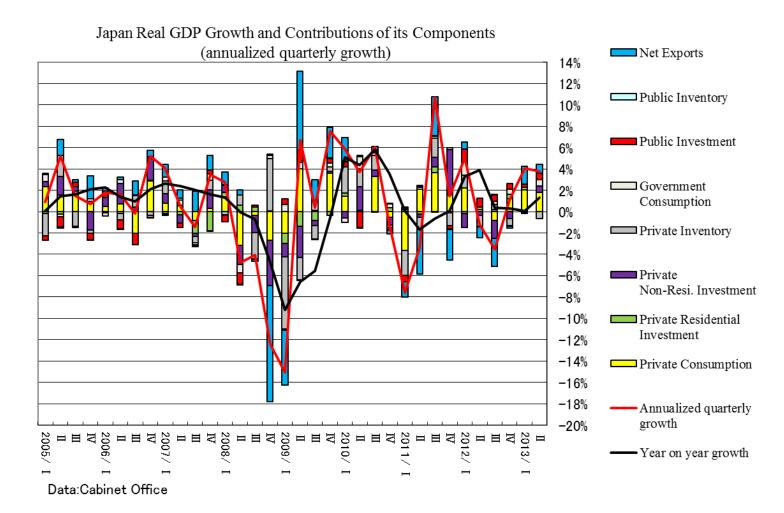


"We did it!"
The moment of 2020 Tokyo Olympic was decided.

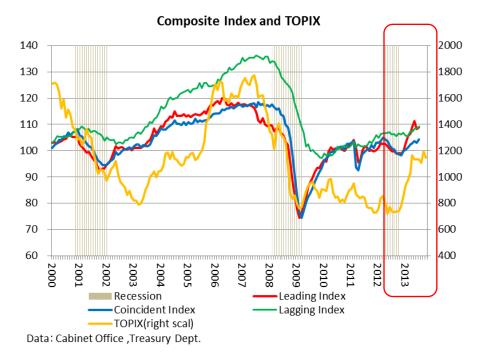
#### 1, Japanese Economic Outlook

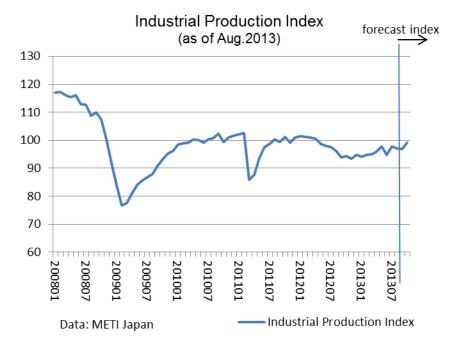
#### The current sentiment in Japan is the most upbeat for the last 5 years.

Real GDP growth will be 2.7% in 2013 fiscal year (forecast by JCER) and around 1.0% in 2014 fiscal year when a recoil reduction of consumption is expected after the consumption tax hike to 8.0% from 5.0% in April 2014. Abe Cabinet is planning 5 trillion yen fiscal stimulus to minimize a negative impact of the tax hike.



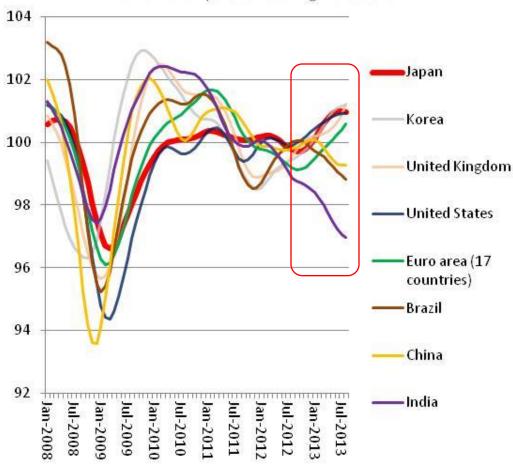
Contributions to Changes in Real GDP (seasonally adjusted series) (Unit:%) Chnages Private Private Year on Annualized Private Private Government Public Public Net from the Residential Non-Resi. quarterly year Consumption Exports Inventory Consumption Investment Inventory previous growth Investment Investment growth year 2005/ I 2.3% -0.2% 0.5% -2.0%0.7% -0.5%0.0% 0.1% 0.9% 0.1% 1.7% 1.9% 1.5% 1.6% -0.2%-0.2%-1.0%-0.1%5.2% 1.4% 0.2% 1.6% 0.3% 0.4% -1.4%-0.1%0.4% 0.0% 1.5% 1.6%  ${\rm I\hspace{-.1em}I\hspace{-.1em}I}$ IV 0.8% 0.2% -1.7%-0.3%0.2% -0.6%0.0% 2.2% 0.7% 2.1% 1.3% 1.8% 2006/ I 0.5% -0.1%0.8% 0.0% -0.3%0.6% 0.0% 0.2% 2.3% 0.7% -0.2%1.9% -0.6%0.4% -0.8%0.0% 0.3% 1.6% 1.4% Π -2.1% 0.1% 0.3% 1.1% 0.0% -1.0%0.1% 1.3% -0.2%1.0% Ш IV 0.2% 2.9% 0.1% 2.0% -0.3%-0.2%0.0% 0.6% 5.2% 2.1% 1.7% 1.2% 1.2% 2007/ I 0.8% -0.1%0.9% 0.4% -0.1% -0.1%4.1% 2.6% -0.5%0.5% -0.3%-0.8%0.0% 0.5% 0.1% 0.8% 0.5% 2.4% Π  ${\rm I\hspace{-.1em}I\hspace{-.1em}I}$ -0.8%-1.2%-0.3%-0.6%-0.2%-0.2% 0.0% 1.9% 2.1% -1.4%IV 0.3% -1.8%1.8% 0.9% 0.6% 0.3% 0.0% 1.4% 3.4% 1.6% 2.2% 2008/ I 1.4% 0.4% 0.7% -0.3%0.0% -0.6%0.1% 1.2% 2.7% 1.3% 0.6% Π -3.2%-1.8%1.0% -0.8%-1.0%0.0% 0.5% -4.8%-0.1%-0.4%0.4% -1.6%-2.4%0.0% 0.2% 0.0% -0.2%-4.0%-0.7%Ш IV -2.7%0.0% -4.3%4.9% 0.3% 0.0% 0.1% -10.9%-12.4%-4.8%-1.0%0.7% 2009/ I -2.1% -0.9%-1.3%-6.7%0.5% -0.1% -5.1%-15.0%-9.2%-3.0%4.0% -1.3%-2.0%0.6% 1.1% 0.0% 7.4% 6.7% -6.6%Π Ш 0.1% -0.8%-0.5%-1.3%1.0% 0.0% 0.0% 1.9% 0.4% -5.5%IV 3.6% -0.3%0.2% 0.4% 0.3% 0.5% 0.0% 2.9% 7.5% -0.5%-5.5%2010/ I 1.4% 0.3% -0.6%2.5% -0.4%0.5% 0.0% 2.2% 5.9% 5.1% 0.0% 0.1% 2.2% 1.7% 1.1% -1.5%-0.1%0.1% 3.7% 4.3% Π 3.3% 0.0% 0.6% 1.4% 0.2% 0.3% -0.1%0.3% 6.0% 5.8% Ш IV -0.5%0.4% -0.7%-0.2%0.3% -0.2%0.1% -0.3%-1.3%3.5% 4.6% -2.3% 2011/ I -3.6%0.2% 0.1% 0.1% -0.6% 0.0% -1.4%-7.6%0.1% 2.1% -0.2%-0.3%-1.2%0.2% 0.0% 0.1% -4.1%-3.4%-1.7%Π  ${\rm I\hspace{-.1em}I\hspace{-.1em}I}$ 3.7% 0.5% 0.9% 1.8% 0.2% -0.1%0.0% 3.7% 10.7% -0.6%IV 1.5% -0.1%4.2% -1.2%0.2% -0.3%-0.1%-2.9%1.4% 0.1% -0.6%2012/ I 2.2% -0.2%-1.3%1.2% 1.2% 1.2% 0.0% 0.6% 5.0% 3.3% 0.8% 0.2% 0.2% -0.4%-1.0%0.1% 0.0% -1.0%-1.2%3.9% Π 0.2% -1.7%0.5% 0.3% 0.6% 0.0% -2.6% -3.5%0.4% Ш -0.9%IV 1.1% 1.2% 0.4% -0.6%-0.7%0.5% 0.6% 0.0% -0.2%0.3% 2.3% 0.0% 4.1% 2013/ I 2.0% 0.2% -0.1%0.0% 0.3% 0.0% 1.7% 0.1% Π 1.8% 0.0% 0.6% -0.6% 0.6% 0.6% 0.0% 0.8% 3.8% 1.3%





#### Upbeat trends in the advanced countries Stalling trends in India, Brazil and China





# The most remarkable improvement is profit of the corporate sector.

Total net profit of 2013 fiscal year is expected to increase 37.2% from 2012 FY and surpass the peak before the Lehman crash.

The cash reserves of the corporate sector is piling up to a very high level.

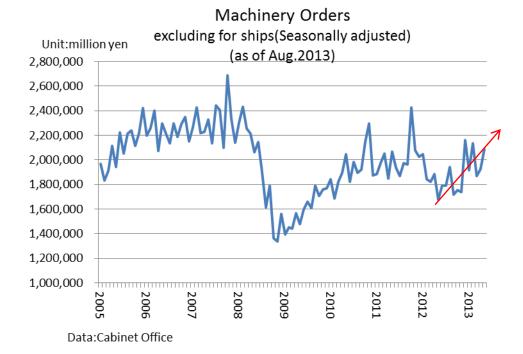
For a sustainable economic growth, these cash reserves should be recycled to the households as increases of wages and dividends, or should be reinvested domestically.

Tables: BOJ, The Short-Term Economic Survey of Enterprises, Sept.2013

Ratio of Current Pr	ofit to Sales			_	(%, % points)
		FY2012		FY2013	
			Changes	(Forecast)	Changes
	Manufacturing	4.64	-	5.48	0.37
Large Enterprises	Nonmanufacturing	3.86	-	3.97	0.07
	All industries	4.16		→ 4.56	0.19
Medium-sized	Manufacturing	4.01	-	4.19	0.10
Enterprises	Nonmanufacturing	3.06	-	2.89	0.01
	All industries	3.30	-	3.23	0.04
	Manufacturing	3.31	-	3.37	-0.12
Small Enterprises	Nonmanufacturing	2.61	-	2.62	0.04
	All industries	2.76	-	2.78	0.00
	Manufacturing	4.32	-	4.93	0.25
All Enterprises	Nonmanufacturing	3.33	-	3.36	0.05
	All industries	3.65		→ 3.87	0.11

Net Income (Year-to-year % change)					
		FY2012		FY2013	
			Revision rate	(Forecast)	Revision rate
	Manufacturing	29.2	-	109.1	8.7
	Basic materials	-38.2	-	85.4	3.5
Large Enterprises	Processing	224.3	-	122.2	11.2
	Nonmanufacturing	28.7	-	16.3	5.6
	All industries	28.9		<b>→</b> 50.0	7.1
Medium-sized	Manufacturing	6.4	-	23.2	3.1
Enterprises	Nonmanufacturing	28.8	-	14.6	3.1
	All industries	20.9	-	17.3	3.1
	Manufacturing	2.7	-	27.2	-5.1
Small Enterprises	Nonmanufacturing	14.4	-	13.9	0.9
	All industries	11.3	-	17.2	-0.8
	Manufacturing	20.0	-	81.5	6.3
All Enterprises	Nonmanufacturing	25.2	-	15.4	4.0
	All industries	23.4	-	→ 37.2	5.0

Capital spending of the corporate sector is picking up. Plans of fixed investment are revised up.

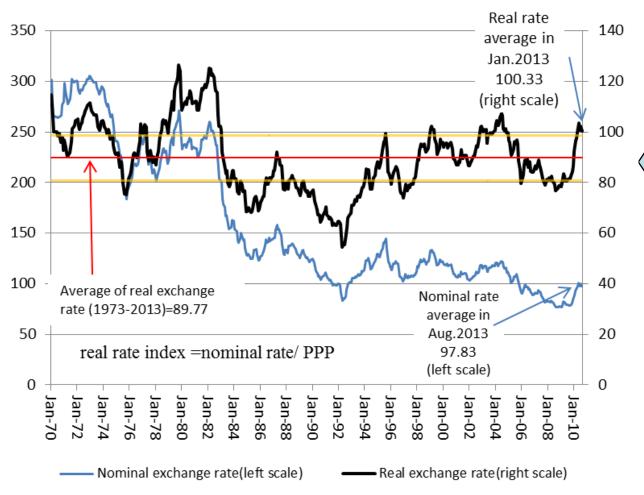


Fixed Investm	nent including Land	Purchasing Ex	penses*	(Year-to	o-year % change)						(Year-to	o-year % change	)
		FY2012		FY2013		1H FY2012	2H FY2012		1H FY2013		2H FY2013		
			Revision rate	(Forecast)	Revision rate			Revision rate	(Forecast)	Revision rate	(Forecast)	Revision rate	]
Large	Manufacturing	1.6	-	6.6	-0.1	12.4	-6.7	-	5.0	-3.4	8.2	3.1	1
Enterprises	Nonmanufacturing	2.6	-	4.4	-0.5	1.9	3.1	-	11.8	0.2	-1.2	-1.1	
	All industries	2.2	-	5.1	-0.3	5.5	-0.2	-	9.3	-1.1	1.7	0.3	
Medium-sized	Manufacturing	2.8	-	1.9	0.4	16.0	-7.0	-	2.6	-6.7	1.3	8.0	Ī
Enterprises	Nonmanufacturing	14.4	-	-2.5	3.2	26.1	5.9	-	2.4	-3.4	-6.8	10.2	
	All industries	9.7	-	-0.9	2.1	22.0	0.8	-	2.5	-4.7	-3.8	9.4	
Small	Manufacturing	-4.5	-	14.2	3.4	6.1	-11.7	-	26.5	1.6	4.2	5.3	1
Enterprises	Nonmanufacturing	26.7	-	-8.0	11.0	29.1	24.8	-	6.0	6.8	-19.1	15.8	
	All industries	14.4	-	-0.7	8.0	20.4	9.9	-	12.8	4.8	-11.5	11.5	
	Manufacturing	0.8	-	7.0	0.6	12.1	-7.6	-	7.7	-3.1	6.3	4.2	11
All Enterprises	Nonmanufacturing	7.6	-	1.3	1.6	9.0	6.4	-	9.4	0.6	-4.9	2.4	
	All industries	5.2	-	3.3	1.2	10.1	1.4	-	8.7	-0.7	-1.2	3.1	

<sup>\*</sup> Excludes Software Investment.

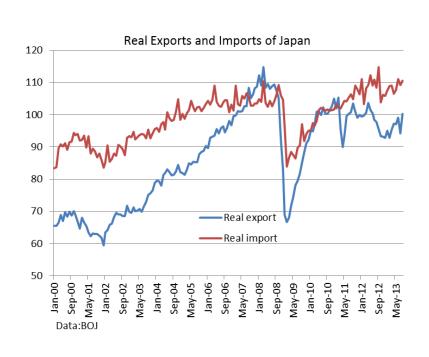
### 2, Effect of Yen's depreciation





Fairway range of Yen:  $\pm 10\%$  from the average since 1973

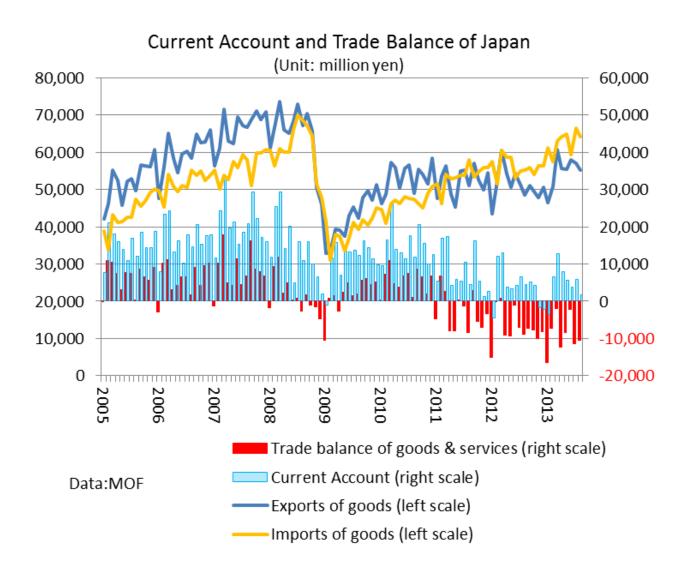
Data: BOJ, Department of Commerce, Department of Labor PPP is calculated based on the corporate price index(Japan) and the producer price index(USA) based on the level of 1973=100 The increase of exports to the US and ASEAN countries offset the decrease to EU and China in 2012. The total exports is recovering modestly this year.



(1)	B	reakdown by	Region										
`				y/y <sup>(</sup>	% chg.			S.8	a.; q/q <sup>9</sup>	% chg.	s.a.	; m/m 9	% chg.
				CY		2012		2013			2013		
				2011	2012	Q3	Q4	Q1	Q2	Q3	May	Jun.	Jul.
	U	nited States	<17.6>	-0.3	13.0	-3.8	-3.0	2.1	7.5	-5.5	-3.9	4.6	-7.1
		EU	<10.2>	3.4	-12.9	-6.3	-4.4	-0.4	0.4	6.3	-6.2	11.0	1.3
		East Asia	<51.3>	-1.4	-2.6	-2.6	-3.9	-1.1	3.9	-5.4	2.3	2.4	-7.6
		China	<18.1>	1.3	-8.1	-2.6	-9.2	-0.7	7.0	-2.4	5.0	2.6	-5.5
		NIEs	<21.5>	-4.5	-4.7	-2.5	-0.5	-0.3	4.2	-6.9	2.6	-0.7	-7.3
		Korea	<7.7>	-2.6	-3.5	-0.1	1.1	1.0	2.0	0.4	-8.4	4.9	0.2
		Taiwan	<5.8>	-9.4	-6.0	0.6	-2.8	2.4	-1.1	-7.9	9.2	8.2	-14.9
		Hong Kong	<5.1>	4.2	-0.7	-0.4	-0.9	-5.1	9.8	-6.8	15.2	-10.0	-4.5
		Singapore	<2.9>	0.6	-11.6	-15.9	-2.6	0.5	13.8	-17.5	-1.5	-7.7	-12.4
		ASEAN43	<11.7>	0.6	12.5	-2.7	-1.9	-3.1	-1.6	-7.5	-2.7	8.5	-11.5
		Thailand	<5.5>	1.4	19.3	-0.8	0.1	-6.0	0.7	-4.4	-1.5	6.7	-8.0
		Others	<21.0>	0.9	1.7	-7.5	-5.1	3.6	1.0	-0.1	8.7	-2.1	-1.4
		Real exports		-0.9	-1.0	-4.5	-4.2	1.5	3.6	-3.7	-0.2	2.0	-4.9

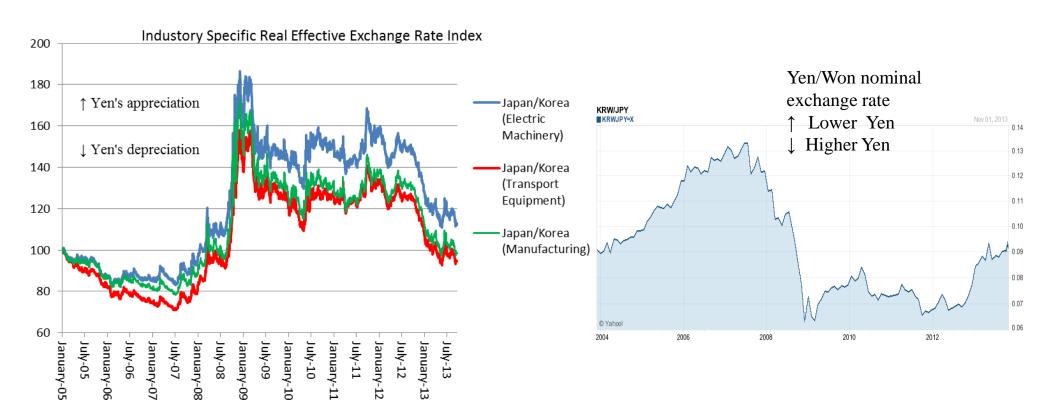
Table: Monthly Report of Recent Economic and Financial Developments BOJ Sept.2013

The current balance is still surplus due to the large income surplus while the trade balance has turned to deficit since 2011. Economists' forecasts on a long-term prospect of the trade balance are divided.



According to "the industry specific real effective exchange rate" estimated by RIETI(The Research Institute of Economy, Trade and Industry), the manufacturing sector of Japan recovered its price competitiveness remarkably against Korea.

http://www.rieti.go.jp/en/



Data: RIETI

# 3, Interim Assessment of Economic performance of Abenomics and Kuroda's QE





		Announcement to dissolve the Lower House	Start of Kuroda's QE	4.0 4.2014	Rating
M + D !'	<b>b</b> # 1 // 'II'	14 Nov.2012	4 Apr.2013	4 Oct.2014	Α
Monetary Policy	Monetary base(trillion yen)	125.9	155.3	182.9	A
	Yen/Dollar rate	79.9	95.6	97.08	A+
	Yield of 10-year JGBs(%)	0.75	0.455	0.65	В
	Stock market, Nikkei Average	8,664	12,634	14,024	A+
Financial Market	Expected inflation (break even inflation rate)(%)	0.72	1.37	1.72	A
	Bank Loan growth (y-o-y %)	1.6	2.2	3.0 (end of Sept.)	В
	CPI (excl.foods) (y-o-y %)	-0.1	-0.4	+0.7 (Sept.)	В
	CPI (excl.foods & energy) (y-o-y %)	-0.5	-0.5	0.0 (Sept.)	С
Real Economy	Total and waren (v. a. v. 0/)	-0.9	-0.6	0.1	С
	Total cash wages (y-o-y %)	2012 4Q	2013 1Q	2013 2Q	
	Deal CDD Crowth (approling of base)	1.1	4.1	3.8	Δ.
	Real GDP Growth (annualized base)	2012 4Q	2013 1Q	2013 2Q	A

How much will the Olympic related spending increase the GDP during 2013-2020?

Estimation by Tokyo Metropolitan Government

The estimation is likely to be somewhat undervalued. But the total economic effect is very limited compared to the Japan's GDP scale, about 500 trillion yen.

One of the important effect of 2020 Tokyo Olympics will be a social psychological one.

Another positive effect may derive from a set of structural reforms liberalizing the markets with a participation to TPP.

Economic Economic Effect of 2020 Tokyo Olympics

**Estimated Total Spending** 

(Unit:100million Yen)

	Tokyo	other areas	total
constructions	3,557	0	3,557
operating cost	2,951	153	3,104
other spending	3,161	2,417	5,578
total	9,669	2,570	12,239

Total Effect Including Spillover Effect

Total Production Increase	16,753	12,856	29,609
Total Added Value Increase	8,586	5,624	14,210
Total Compensation Increase	4,687	2,846	7,533

The Olympic Effect : A Large Positive Impact on National Exports !?

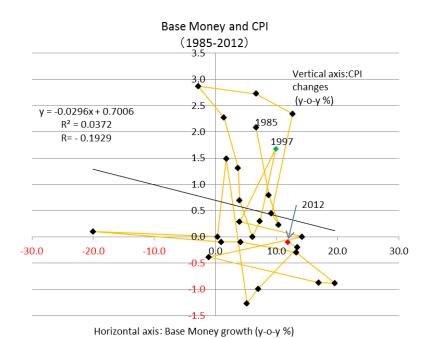
"Economists are skeptical about the economic benefits of hosting "mega-events" such as the Olympic In this paper, we reconcile these positions by examining the economic impact of hosting mega-events like the Olympics; we focus on trade. Using a variety of trade models, we show that hosting a mega-event like the Olympics has a positive impact on national exports. This effect is statistically robust, permanent, and large; trade is around 30% higher for countries that have hosted the Olympics. We conclude that the Olympic effect on trade is attributable to the signal a country sends when bidding to host the games, rather than the act of actually holding a mega-event. We develop a political economy model that formalizes this idea, and derives the conditions under which a signal like this is used by countries wishing to liberalize."

Andrew K. Rose, Mark M. Spiegel "THE OLYMPIC EFFECT" NBER Working Paper 14854

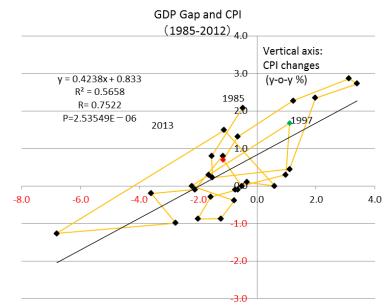
http://www.nber.org/papers/w14854

What has a high correlation with CPI changes are the GDP gaps and the changes of total wages, while the growth of base money has not any direct correlation with CPI in Japan.

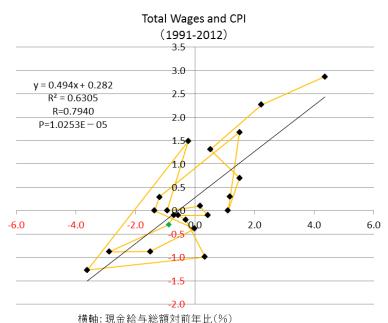
Then, why does Kuroda's QE seem to be working?



Data: IMF World Economic Outlook Data Base



Horizontal axis: GDP Gap (minus: demand < supply)
Data: IMF World Economic Outlook Data Base



データ: IMF World Economic Outlook Data Base

Regression analysis of CPI, GDP gaps and wages.

Y: CPI(excluding food & energy) y-o-y (%)

X1: GDP gap (percent of GDP) estimation by OECD and Japan Cabinet Office

X2: index of total cash wages y-o-y (%)

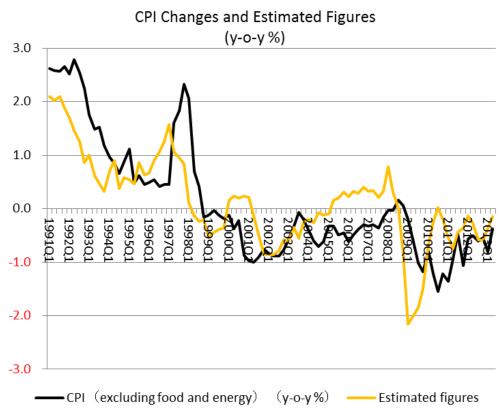
Period: 1991 1<sup>st</sup> Q- 2013 2<sup>nd</sup> Q Data : quarterly

Regression Statistics					
Multiple R	0.75206				
R Square	0.565594				
Adjusted R Square	0.555608				
Standard Error	0.736193				
Observations	90				

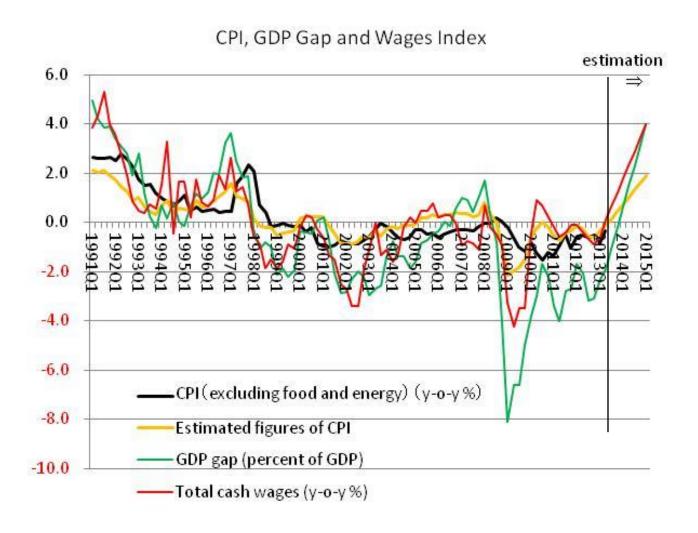
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$\overline{}$	I V	$\mathbf{\mathcal{I}}$	v	$^{-}$	

	df	SS	MS	F	Significance F
Regression	2	61.39212162	30.69606	56.63684	1.77194E-16
Residual	87	47.15230256	0.54198		
Total	89	108.5444242			_

	Coefficient S	Standard Error	t Stat	P-Value
Intercept	0.27645	0.082909092	3.334377	0.001258
X1	0.22834	0.051186896	4.460912	2.43E-05
X2	0.179846	0.071392416	2.519115	0.013593



If we estimate based on this regression result, the annual growth of total cash wages should be 4% and the GDP gap should be +4.0% in order to achieve 2.0% of CPI growth (excluding the effect of the consumption tax hike) by 1<sup>st</sup> quarter of 2015.



### Transmission mechanism of Kuroda's QE

(1) Lower long-term interest rate and the forward guidance? The yields of JGBs' were already as low as possible. The forward guidance was already introduced in the previous QE during 2001-06.

#### (2) Portfolio balance effect?

That effect which is caused by massive government bonds purchase by central banks is verified to be very limited.

#### (3) Expectation changes

A very bold action by BOJ Gov. Kuroda fully supported by PM Abe **somehow** caused an inflationary expectation of the market participants.

- → ①Correction of Yen's appreciation (or Yen's depreciation) → Profit recovery of the export-manufacturing industries
  - ②Recovery of the share prices → Increase of consumption by a positive asset effect
- → Narrowing negative GDP gap
- →??? Increase of wages and mild inflation (2% growth of CPI excluding the effect of consumption tax hike)

For a sustainable growth, increase of the total wages, which is not yet achieved, is a vital factor.

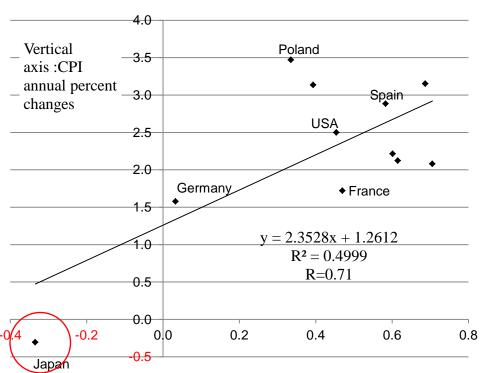
Can we really cure the Japanese deflation by the QE and the inflation target (CPI 2%)? "Hypothesis of Labor Cost Deflation" by Hiroshi Yoshikawa who is the professor of Tokyo

University and the most prominent Keynesian in Japan.

Unit Labor Cost and CDI (2000-2011)

We see high correlations between the labor cost and CPI changes. If a real reason for the deflation of Japan is **a downward flexibility of wages**, it will be hard to cure it by the monetary policy under the liquidity trap.

Unit Labor Cost and CPI average annual changes during 2000-2011

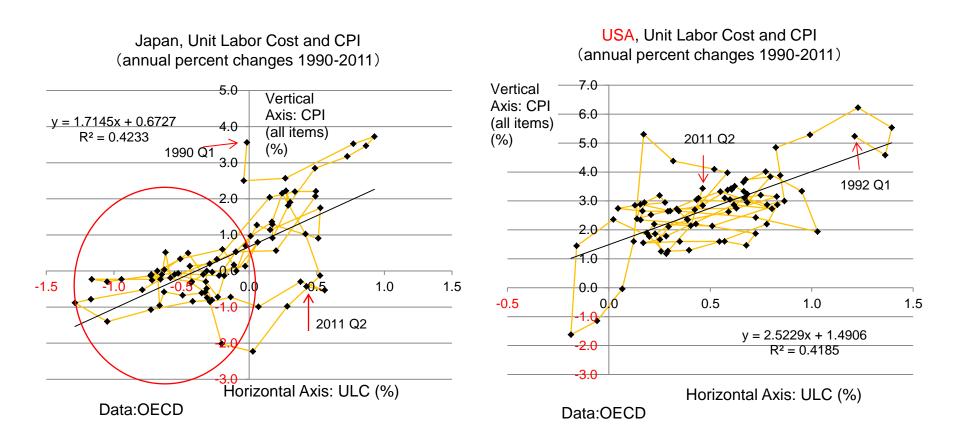


Unit Labor Gost and GPI (2000-2011)				
	ULC average annual percent	CPI average annual percent		
	changes	changes		
Australia	0.69	3.15		
Canada	0.62	2.12		
France	0.47	1.72		
Germany	0.03	1.58		
Italy	0.60	2.22		
Japan	-0.33	-0.31		
Korea	0.39	3.14		
Poland	0.34	3.47		
Spain	0.58	2.89		
United Kingdom	0.71	2.08		
United States	0.45	2.50		
Data: OECI				

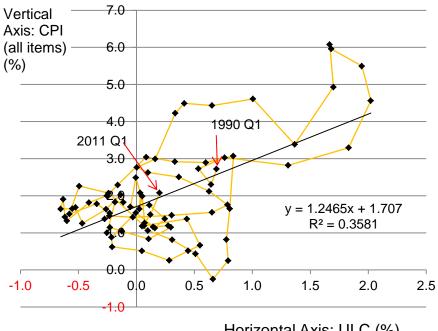
Horizontal axis: ULC annual percent changes

Data: OECD

# Negative growth of the unit labor cost of Japan Is it a cause of the deflation or a result?



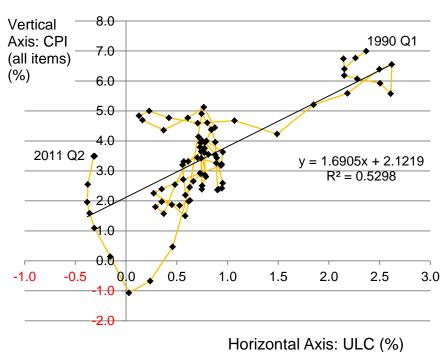
Germany, Unit Labor Cost and CPI (annual percent changes 1990-2011)



Data:OECD

Horizontal Axis: ULC (%)

Spain, Unit Labor Cost and CPI (annual percent changes 1990-2011)

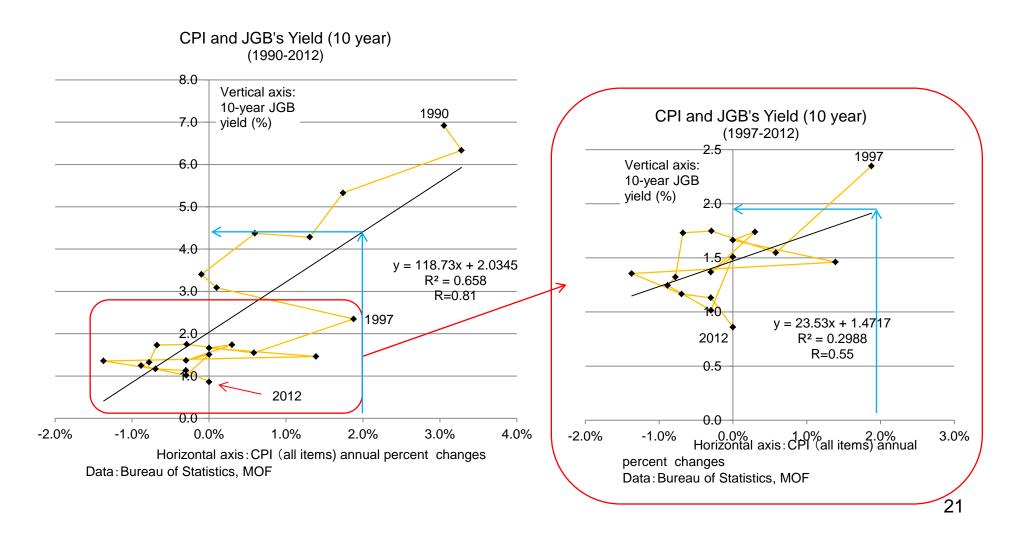


Data:OECD

#### Can Abenomics cure the deflation without causing a crash of the JGBs market?

The yield of 10-year JGB could be **4.4%** when the inflation rate (CPI) reaches 2% if we calculate based on the correlation during the period of 1990-2012.

It could be 1.9% based on the correlation during the period of 1997-2012.



#### How much loss could occur the yields of JGBs rise?

The average duration of JGBs is 7.0 year.

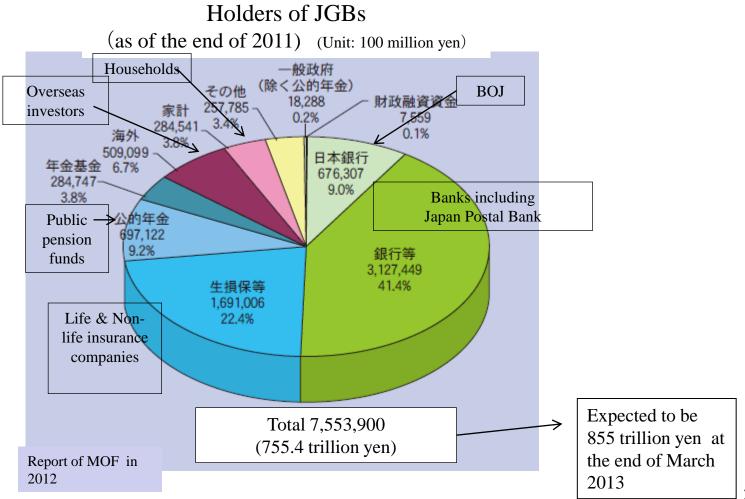
The average duration of major private banks is about 3 years.

The biggest holder of JGBs is The Japan Postal Group which has 240 trillion yen of the government notes & bonds in their banking and insurance accounts.

One point rise of the yield of 7-year bond causes 6.55 % drop of its price.

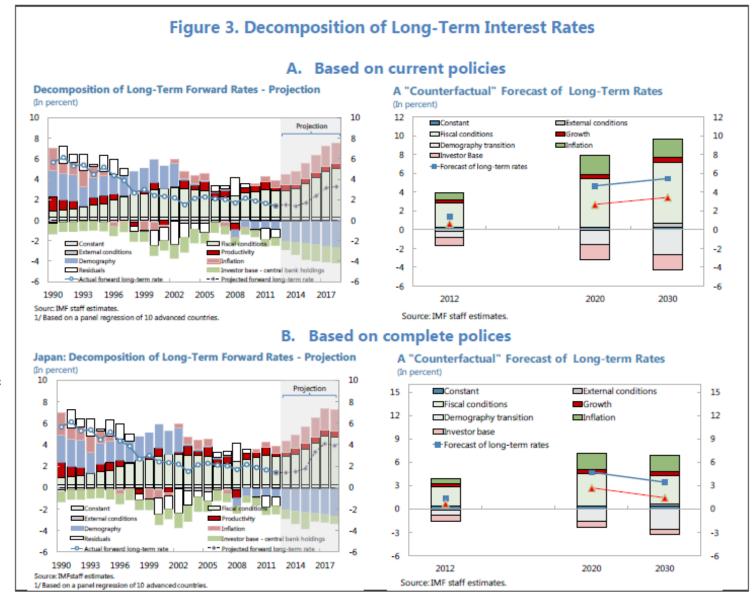
If we apply this to the outstanding 855 trillion yen, an estimated loss will be 56 trillion yen.

But this scale of loss is balanced out by the recovery of the capitalization of the stock market in total. The total capitalization of Tokyo Stock Market increased 162 trillion yen since the end of Nov. 2013. (As of Sept.2013).



# 2 scenarios of JGBs' yields by the IMF working paper

- 1) Based on current policies, deteriorating fiscal conditions over the medium term are likely to exert upward pressures on long-term interest rates (Figure 3 upper charts).
- 2) Under a complete policy package, assuming credible fiscal policy adjustments and structural reforms that will achieve a declining public debt trajectory and higher potential growth, the long-term interest rates are likely to remain stable in the long run (Figure 3 lower charts).

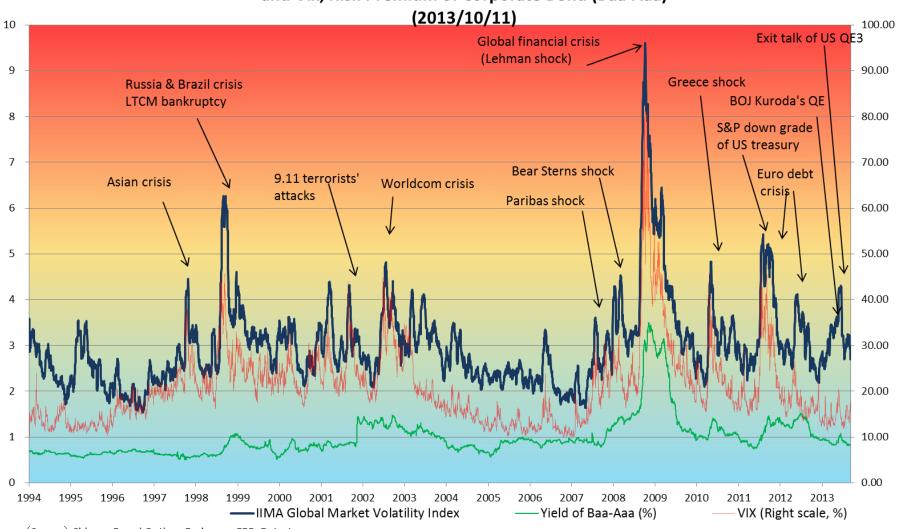


Serkan Arslanalp and W. Raphael Lam "Outlook for Interest Rates and Japanese Banks' Risk Exposures under Abenomics" IMF WP/13/213 Oct.2013 (pp.13-14)

## 4, IIMA Global Market Volatility Index(IIMA-GMVI)

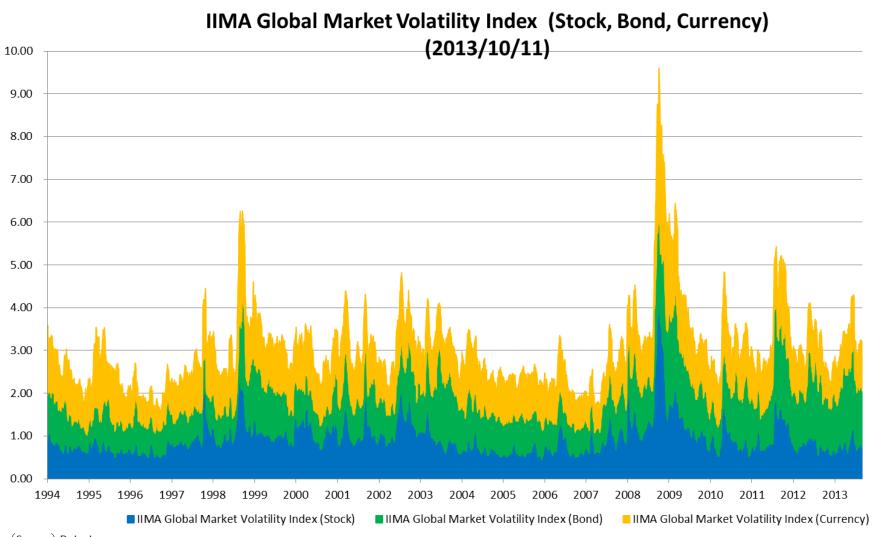
http://www.iima.or.jp/en/research/ppp/index.html

IIMA Global Market Volatility Index and Vix, Risk Premium of Corporate Bond (Baa-Aaa)



## Breakdown of 3 components of IIMA-GMVI

http://www.iima.or.jp/en/research/ppp/index.html



#### Data source of IIMA-GMVI

http://www.iima.or.jp/en/index.html

Chart 1 Data Source of the INDEX

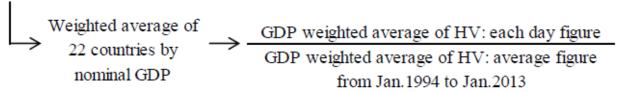
	Weight	Market Indicators
Data	Nominal GDP (in current US dollar)  × 22 countries + HK	Stock price index × 22 countries + HK
		10 year government bond yield × 22 countries
		Foreign exchange rate against US\$ × 18 currencies
Frequency	Yearly	Daily
Start	1994.01 ~ today	

#### Calculation methods of IIMA-GMVI

#### Chart 2 How to Calculate IIMA Global Market Volatility Index

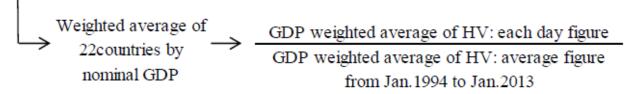
#### Stock market

Historical volatility (HV) of stock price index in each country for the latest 20 business days



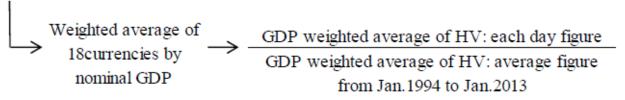
#### Bond market

Historical volatility (HV) of 10 year gov't bond yield in each country for the latest 20 business days



#### Foreign exchange market

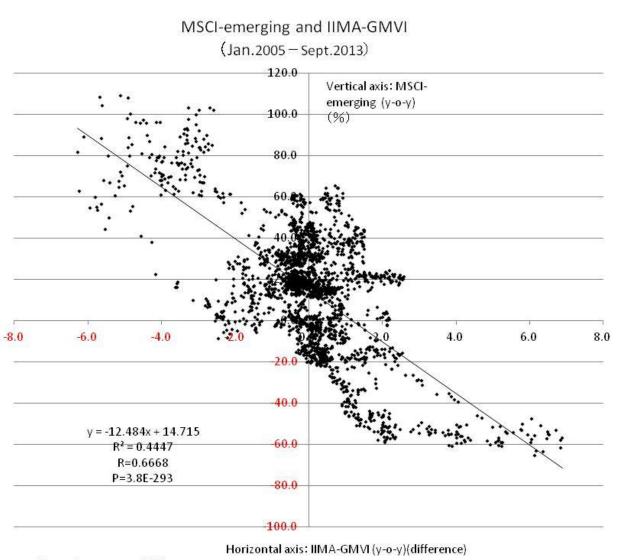
Historical volatility (HV) of foreign exchange rate of each currency against US dollar for the latest 20 business days



add all three ⇒ IIMA-GMVI

Units: times If the each day figure becomes the same as the average of the whole period, the index becomes 1 + 1 + 1 = 3.

#### IIMA-GMVI shows a high correlation with the world share price indexes.



Data: Datastream、IIMA

