

Economic Outlook for FY2011 and FY2012

August 2011

Key points of Mizuho Research Institute's (MHRI) outlook on the economy in FY2011 and FY2012 reflecting *The First Preliminary Quarterly Estimates of GDP (1st QE)* of Japan for the Apr-Jun quarter of 2011

<The US Economy>

Weak growth due to fiscal tightening amid balance sheet adjustment

2011 +1.6% (previous forecast +2.5%)

2012 +1.4% (previous forecast +2.1%)

<The Eurozone Economy>

Fiscal austerity serves as a drag upon growth. Sovereign debt concerns linger

2011 +1.7% (previous forecast +1.9%)

2012 +1.0% (previous forecast +1.2%)

<The Asian Economy>

China remains solid. But the pace of growth will moderate due to export slowdown

2011 +7.9% (previous forecast +7.8%)

2012 +7.6% (previous forecast +7.9%)

<The Japanese Economy>

FY2011 +0.6% (previous forecast +0.6%)

Rebound from summer due to restoration of supply chains and reconstruction demand

FY2012 +2.0% (previous forecast +2.6%)

Growth will peter out due to export slowdown and peak-out of reconstruction demand

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I. The global economy

More signs of global economic slowdown

In the Apr-Jun quarter of 2011, the global economy slowed due to the surge of crude oil prices up to early spring this year and global supply chain disruptions stemming from the impact of the Great East Japan Earthquake (the “Earthquake”).

US real GDP grew +1.3% q-o-q p.a. in the Apr-Jun quarter of 2011, revealing that the economy is still on extremely fragile footing as in the Jan-Mar quarter (+0.4% q-o-q p.a.) (**Chart 1**). Personal consumption slowed down due to the erosion of real income stemming from the rise of energy prices such as gasoline.

[Chart 1: Real GDP growth of major countries and areas]

(Q-o-q % change, p.a.)

	2010				2011	
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun
US	3.9	3.8	2.5	2.3	0.4	1.3
Eurozone	1.4	3.8	1.6	1.1	3.4	0.7
Germany	2.0	8.0	3.2	1.9	5.5	0.5
France	0.7	2.0	1.5	1.3	3.6	-0.0
Italy	2.6	1.9	1.1	0.6	0.6	1.0
Japan	9.4	-0.5	3.9	-2.5	-3.6	-1.3
South Korea	8.6	5.7	2.6	2.0	5.4	3.4
Taiwan	17.8	2.4	3.7	1.2	18.5	-3.6
Hong Kong	7.6	7.8	3.5	6.3	12.8	-2.1
Singapore	39.9	29.7	-16.7	3.9	27.2	-6.5
Thailand	12.8	-0.4	-1.0	5.2	8.4	
Philippines	16.3	7.7	1.1	1.9	7.7	

(Y-o-y % change)

China	11.9	10.3	9.6	9.8	9.7	9.5
Malaysia	10.1	9.0	5.3	4.8	4.6	
Indonesia	5.6	6.1	5.8	6.9	6.5	6.5
Vietnam	5.8	6.4	7.2	7.3	5.4	5.7
India	9.4	8.9	8.9	8.2	7.8	

Sources: Datastream, CEIC, statistics of the relevant countries and areas

Eurozone real GDP growth fell sharply to +0.7% q-o-q p.a. in the Apr-Jun quarter. Even in consideration of a backlash from the strong growth in the previous quarter, the economy is showing signs of a lull due to the rise of inflation stemming from the surge of commodity prices up to early spring and the deceleration of exports.

China continued to grow strongly with its real GDP rising +9.5% y-o-y in the Apr-Jun quarter (Jan-Mar quarter: +9.7% y-o-y). Despite the sluggish growth of real income because of the rise of inflation, investment in infrastructure (mainly machinery) picked up. As for the rest of Asia, the South Korean economy slowed (+3.4% q-o-q p.a.) and the economies of Taiwan (-3.6% q-o-q p.a.), Hong Kong (-2.1% q-o-q p.a.) and Singapore (-7.8% q-o-q p.a.) dipped into negative territory due in part to the impact of the Earthquake in Japan.

Amid the economic slowdown around the world, Japan’s real GDP contracted

The global economy will continue to decelerate in 2012

for the third consecutive quarter in the Apr-Jun quarter (-1.3% q-o-q p.a.) (Jan-Mar quarter: -3.6% q-o-q p.a.), given the lingering effect of the Earthquake on March 11th.

In 2011, global economic growth (the weighted average of countries and areas in MHRI's economic forecast) will likely fall short of 4%, slowing sharply from the pace of growth above 5% in 2010 (**Chart 2**). Furthermore, the downturn is expected to persist in 2012 and remain on the 3%-level. In addition to the slowdown of the US and eurozone economies due to the tightening of fiscal policies, many of the emerging countries should also slow down due to the stagnation of exports toward the US and Europe.

[Chart 2: Outlook on the global economy]

Calendar year (CY)	(Y-o-y % change)			
	2009 (Actual)	2010 (Actual)	2011 (Forecast)	2012 (Forecast)
Total of forecast area	0.2	5.3	3.9	3.8
Japan, US, Eurozone	-3.6	2.7	1.4	1.4
US	-2.6	3.0	1.6	1.4
Eurozone	-4.0	1.7	1.7	1.0
Japan	-6.3	4.0	-0.3	2.4
Asia	6.1	9.3	7.9	7.6
NIEs	-0.8	8.4	4.5	3.9
ASEAN5	1.6	6.9	5.3	5.3
China	9.2	10.3	9.5	9.3
India	7.0	9.0	7.8	7.5
Japan (FY)	-2.4	2.3	0.6	2.0
Crude oil price (USD/bbl)	62	80	92	84

Note: The total of the forecast area is calculated upon the 2010 GDP share (PPP) by the IMF.
Sources: IMF, MHRI.

US economic growth should remain extremely weak in 2011 (+1.6%) and 2012 (+1.4%). The government spending cuts under the Budget Control Act of 2011 passed in August 2011 and the expiration of the tax cuts included in the economic stimulus measures are expected to serve as significant drags upon growth in 2012. The impact of fiscal tightening, in addition to the ongoing balance sheet adjustment pressures in the household sector after the Lehman Shock, provides us with reasons to believe that US economy will remain weak for a prolonged period of time.

The eurozone economy should manage to maintain growth of +1.7% in 2011 considering that both Germany and France had been in recovery cycles up to early 2011. In contrast, 2012 real GDP growth is forecast to slow sharply to +1.0%, considering that the eurozone economy has already entered a downturn and that the impact of fiscal tightening will also intensify.

Turning to Asia, in addition to the moderation of export growth reflecting the

**Rising concerns toward
US and eurozone fiscal
and monetary policy**

slowdown of the US and eurozone economies, monetary policy should remain in tightening mode in a bid to tackle inflation in some countries. The rate of real GDP growth among the NIEs should slow down to +4.5% in 2011 and +3.9% in 2012. In contrast, the ASEAN5 economies should maintain growth of 5.3% in both 2011 and 2012 on the back of solid domestic demand.

The Chinese economy is forecast to grow strongly in both 2011 (+9.5%) and 2012 (+9.3%). Although monetary policy should remain tight due to lingering inflationary pressures, investment should continue to grow strongly in view of the start of the new Five-Year Plan. Personal consumption should also chart firm growth due to the rise of wages.

In Japan, the rate of real GDP growth is forecast to gain momentum in 2012 (+2.4%) due in part to the boost by reconstruction demand after recording growth in negative territory (-0.3%) for the first time in two years in 2011 (on a calendar year basis).

In our latest economic outlook, we have made a sharp downward revision of our outlook on the US economy and have also revised down our outlooks for other areas.

A US debt default was averted as a result of an agreement on August 2nd ending the congressional turmoil to raise the US federal government debt ceiling. Even so, on August 5th, credit rating agency Standard and Poor's downgraded its long-term sovereign credit rating on the US by one notch from AAA to AA+ with a negative outlook. Subsequently on August 8th, Standard and Poor's also downgraded its ratings on government-backed mortgage financiers Fannie Mae and Freddie Mac. In addition to the unease regarding these downgrades, concerns regarding the potential negative impact of the government spending cuts based upon the Budget Control Act of 2011 (passed on August 2nd) and the downward revision of the Federal Reserve's economic outlook at the Federal Open Market Committee (FOMC) meeting on August 9th led to the rapid rise of uncertainties in the financial markets regarding the future course of the real economy.

We have made a sharp downward revision to our outlook on the US economy in view of the intensification of negative pressures stemming from fiscal tightening. More specifically, the expiration of the payroll tax cut and capital investment tax credit at the end of 2011 will serve as a drag upon personal consumption and private capital investment while the fall of government spending in 2012 (more exactly, from October 2011 when the US fiscal year 2012 starts) will serve to push down the rate of economic growth (**Chart 3**). Given the US economic downturn, US-bound exports of countries and regions around the world will slow down. The appreciation of currencies against the US dollar which takes a toll on the profitability of exports in Japan and many other countries will also serve as downside risks.

The debate regarding the extension of the so-called Bush tax cuts will gather attention in the second half of 2012. Should the Bush tax cuts expire at the end of the year, a US economic downturn in 2013 will be inevitable. Furthermore, there are risks that the US downturn will engulf the financial and capital markets in turmoil much in the same manner as this summer. On the other hand, even if the Bush tax cuts were extended in view of the economy, the risks of a US debt downgrade will intensify due to the deterioration of fiscal conditions and may lead to tensions in the financial market. The clouds of uncertainty cast over the future course of the US economy and fiscal conditions are unlikely to clear anytime soon.

[Chart 3: Major economic and political events in 2013]

	US	Eurozone	Others
2011 Jul-Sep	Passage of Budget Control Act of 2011 (Aug)	Review of Greece and Portugal by EU and IMF (Aug-Sep, every three months from then onward)	
Oct-Dec	Expiration of the payroll tax cut and capital investment tax (end of year)	Review of Ireland by EU and IMF (Sep-Oct, every three months from then onward) EU summit (Oct) Mario Draghi to assume ECB presidency (Nov) Spanish general election (Nov)	G-20 (Nov, Cannes) APEC (Nov, Honolulu) COP17 (Dec, South Africa)
2012 Jan-Mar			Russian presidential election (Mar) Taiwan presidential election (Mar) China, National People's Congress (Mar)
Apr-Jun		French presidential election (May)	G-20 (Apr)
Jul-Sep		Risks of a resurgence of debate on further support in the light of the resumption of market funding by Portugal and Ireland from 2013	
Oct-Dec	US Presidential election (Nov) Expiration of Bush tax cuts (end of year)		G-20 (Nov) China National Congress of the Communist Party (start of Xi Jinping regime) APEC (Nov, Vladivostok) South Korea presidential election (Dec)
2013		Portugal and Ireland scheduled to resume market funding from around mid-year	Start of gradual phasing-in of higher minimum capital requirement under Basel III

The recent US stock market fall stems largely from the bearish shift in view on the future (or, in other words growth expectations) of the US economy among a wide range of investors. The shift led to turmoil in the financial and capital markets in ways such as a global stock market downturn and fall in value of the US dollar.

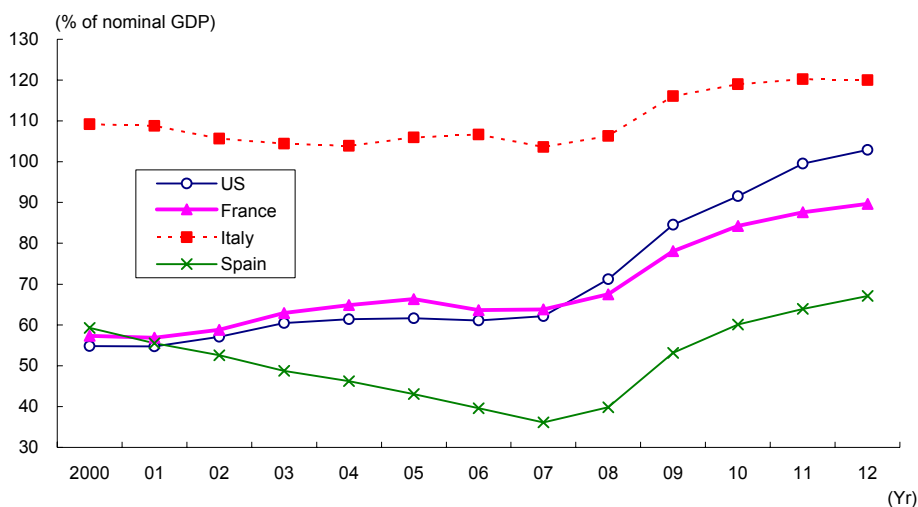
Turning to Europe, even though the eurozone countries agreed upon measures to support Greece at the emergency summit meeting in late July, this failed to dispel concerns in the financial market. One reason is the lingering uncertainty that the parliamentary approval process necessary for implementation of the support measures might not proceed smoothly in the countries providing support. Moreover, in addition to worries regarding Portugal and Ireland, there are rising concerns regarding the fiscal sustainability of Spain and Italy. The emerging risks of a possible credit downgrade of supporting countries such as France – triggered by the US downgrade – are also serving to fan the jitters in the financial market. Although we do not assume that the fiscal and monetary problems in the eurozone will spiral into a global financial crisis, we still see the

necessity to take note of such risks. Even if events do not unravel into a global financial crisis, uncertainties regarding the eurozone's fiscal and financial problems will linger in the market and serve to push down the stock market and weaken the euro from time to time. For example, while Portugal and Ireland are scheduled to resume market funding in 2013, the hurdles remain considerably high, leading to the possibility that debate on additional support may be reignited around mid-2012.

The developed countries of US and Europe have depleted their fiscal and monetary arsenal

One factor which the developed countries of the US and Europe have in common is the rapid deterioration of fiscal conditions, leaving them with little choice but to pursue a fiscal austerity stance even in the face of economic stagnation (**Chart 4**). Given the depletion of arsenal for fiscal pump-priming, the burden will be placed upon monetary policy to revive the economy. However, with interest rates in the US and the eurozone at nearly zero, there is very little room to easy monetary policy much further. Even though the quantitative monetary easing in the US (QE2) succeeded in reversing the stock market fall and raise inflation expectations, it only had a limited impact upon the real economy and is also faulted for causing the surge of commodity prices and overheating of emerging markets. In addition to the difficulty to deliver a further bout of monetary easing (QE3), even if the US resorts to this option, the odds are high that the financial market will not respond in the way it did toward QE2. While the European Central Bank (ECB) is continuing to expand its balance sheet through the provision of funds to financial institutions and purchase of government bonds, there is the risk that it will eventually lead to market concerns regarding the deterioration of the ECB's assets. In short, the developed countries of the US and Europe have depleted their fiscal and monetary arsenal, making it difficult to quell the financial market's unease.

[Chart 4: Government debt of the developed countries of the US and Europe (as a percentage of GDP)]



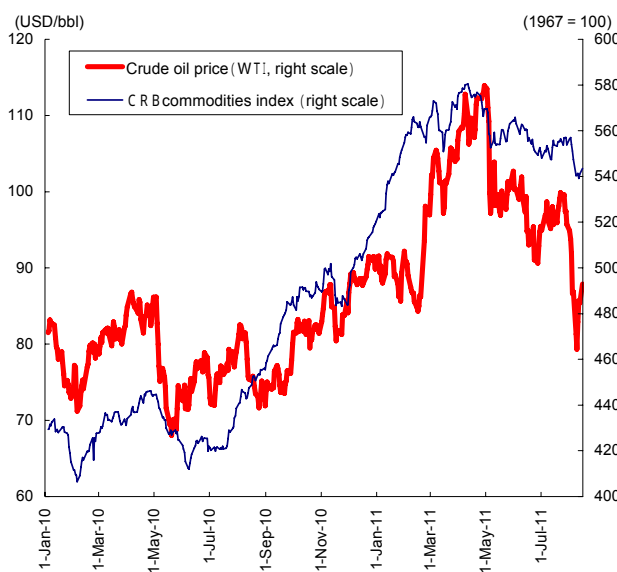
Note: Based upon IMF outlook from 2011 onward.
Source: IMF, *World Economic Outlook*.

Inflation concerns are receding

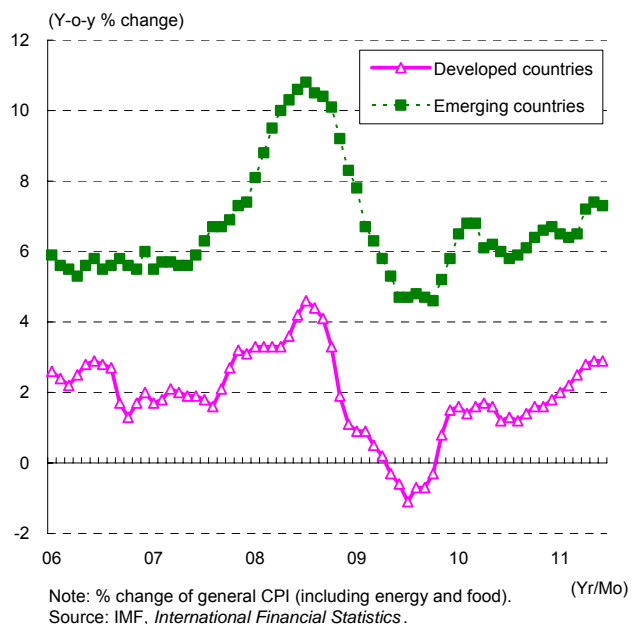
Commodity markets such as crude oil are currently falling amid the rise of uncertainties regarding the US and Europe in the financial and capital market (**Chart 5**). In early spring this year, the price of crude oil (WTI) surged at one point to USD110/bbl on the back of the deterioration of conditions in Libya. Subsequent to the cooling of the market following events such as the margin rate hike for silver and crude oil futures in May and the International Energy Agency's (IEA) announcement of the release of its Strategic Petroleum Reserve in June, the price of crude oil fell sharply and is currently trading around the USD80/bbl level amid the global stock market downturn. In view of the likelihood that the market will remain sensitive to the easing of supply and demand due to the slowdown of the US and Europe in 2012, the price of crude oil should continue to follow a downward path. Our forecast on crude oil (WTI) has been revised down sharply to USD92/bbl in 2011 and USD83/bbl in 2012 from our previous *Economic Outlook* in June (2011: USD107/bbl, 2012: USD126/bbl).

Inflation rates were following an uptrend around the world due to the crude oil and commodity market surge up to early spring (**Chart 6**). Looking forward, inflation rates should calm down in many countries due to the fall of the commodity markets. The stabilization of inflation is basically an upside factor for the global economy. That said, since inflation has rippled through to the rise of wages in some emerging countries such as India and Brazil, inflationary pressures should linger for some time and keep monetary policy tight in these countries.

[Chart 5: Crude oil and commodities]



[Chart 6: Inflation rates among developed and emerging countries]



China continued to grow strongly

The Asian economies were the first to revive after the Lehman Shock, serving as the driver of the global economy. There is no doubt that the Chinese economy served as a major engine, providing massive domestic demand stimulus measures amid the global financial crisis.

Although China has maintained a high rate of economic growth, inflation concerns have led to the ongoing tightening of monetary policy through channels such as deposit reserve ratio and policy interest rate hikes. The fall of the international commodity markets is an inflation-stabilizing factor also for China, leading to our view that consumer prices (+6.5% y-o-y as of July 2011) will gradually calm down. Even though inflation around 4% to 5% y-o-y should linger because of upward pressures upon wages and unresolved excess liquidity, China's monetary policy should shift into a wait-and-see stance in 2012. On the other hand, the start of China's Twelfth Five -Year Plan from 2011 and Xi Jinping's assumption of presidency next autumn provides us with reasons to believe that China will continue to loosen its fiscal spigot. Despite the slower growth of exports due to the economic slowdown in the US and Europe, the Chinese economy should maintain its high rate of economic growth on the 9%-level in 2012.

In other parts of Asia, inflationary pressures should persist in certain countries while the slowdown of exports bound for the US and Europe will serve as a drag upon growth. Even so, exports bound for fast-growing China should continue to grow and underpin the economy. Growth among the NIEs will likely slow in 2012 due to the vulnerability of exports of IT-related products and cars to the economic slowdown in the US and Europe. Meanwhile, given the large weight of domestic demand, the ASEAN5 should remain on solid footing and continue to grow in 2012 at a pace on par with 2011.

Even though the overall Asian economy is expected to moderate in 2012, the slowdown will be much more benign than in the US and Europe due in part to China's strong growth. Hence, economies of Asia will gain a larger presence in the global economy.

The strength of the yen and export slowdown will be an ordeal for Japan

As explained above, the global economy – primarily the US and Europe – will slow down next year, making it difficult to dispel concerns regarding fiscal and monetary policy among the developed countries of the US and Europe. In the forex market, yen-strengthening pressures will tend to intensify. For Japan, which is striving to strike a delicate balance between its reconstruction from the earthquake disaster and fiscal consolidation, the deterioration of the export environment stemming from the slowdown of the US and European economies and yen appreciation will serve as an ordeal.

II. The Japanese economy

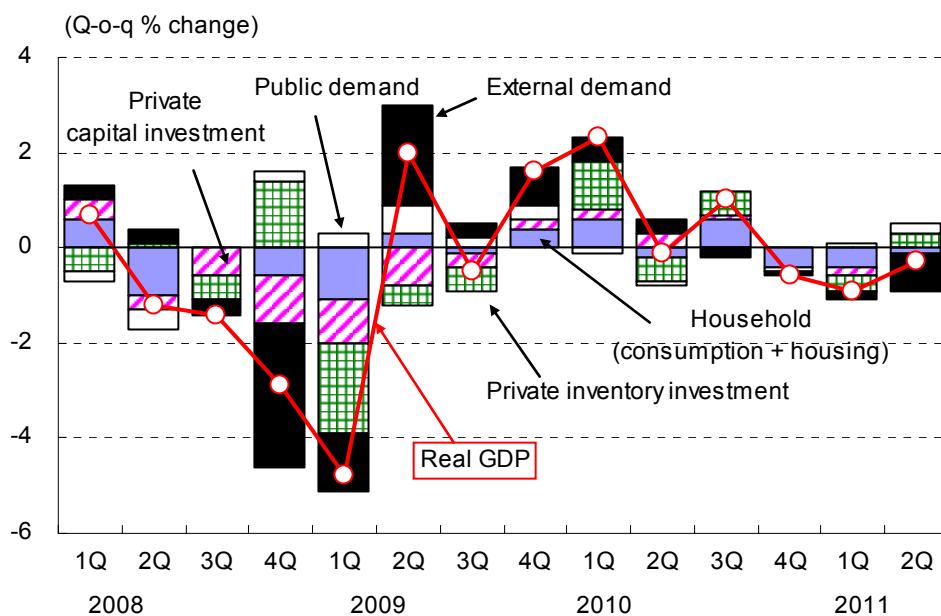
(1) The current state of the economy

The Japanese economy contracted for the third consecutive quarter in the Apr-Jun quarter of 2011 due to the lingering effects of the Great East Japan Earthquake

Japan's real GDP shrank in the Apr-Jun quarter of 2011 (-0.3% q-o-q, or -1.3% q-o-q p.a.), registering a contraction for the third consecutive quarter (**Chart 7**). This was due primarily to the sharp fall of exports stemming from the shortage of automotive inventories.

Looking closer at each of the components of demand, personal consumption ebbed slightly (-0.1% q-o-q) primarily with respect to nondurable goods (-2.4% q-o-q) due to a backlash to the hoarding of foodstuffs immediately after the earthquake. Housing investment fell for the first time in four quarters (-1.9% q-o-q) because of a temporary fall of housing starts after the earthquake. Capital investment growth stood at +0.2% q-o-q. Even though investment in machinery appears to have increased due to the recovery of the supply of capital goods, the weakness of construction investment served as a drag upon capital investment. Although private inventory investment continued to fall, the pace of decline slowed down amid the restoration of supply chains. As a result, private inventory investment contributed +0.3% pt and served to push up quarterly real GDP growth. Thus, domestic private demand contributed +0.2% pt to quarterly real GDP growth.

[Chart 7: Japan's quarterly real GDP growth]



Source: Cabinet Office, *Preliminary Quarterly Estimates of GDP*.

IP back to 95% of pre-earthquake levels in June

Public investment posted an upturn (+3.0% q-o-q), pushed up by the construction of temporary housing in disaster-stricken areas. Given the ongoing expansion of government consumption (+0.5% q-o-q) due to the cost for clearing debris, the contribution to real GDP growth by public demand along with public investment turned out to reach +0.2% pt. As a result, the contribution by domestic demand (combining both private and public demand) to Japan's GDP growth reached +0.4% pt.

Meanwhile, exports fell sharply (-4.9% q-o-q) in the Apr-Jun quarter due to the decline of exports up to mid-April because of the depletion of inventories of cars and electronic parts. Imports edged up (+0.1% q-o-q) during the same period. As a result, the contribution to growth by external demand (net exports) stood at -0.8% pt, serving as the principal factor of Japan's growth in negative territory.

That said, monthly data show that most economic indicators are recovering after bottoming in the period from March to April, indicating that the current economic recovery is gaining momentum. In particular, the industrial production index rose for three months in a row after bottoming in March. In June, the industrial production index recovered to approximately 95% of pre-earthquake (February) levels.

(2) Outlook on the Japanese economy in FY2011 and FY2012

Strong growth in Jul-Sep quarter due to rebound of personal consumption and external demand

It looks certain that exports, which served as the principal drag upon the economy in the Apr-Jun quarter, will stage a major rebound in the Jul-Sep quarter of 2011 and that external demand will push up the rate of growth. Exports have been growing rapidly to date, given the restoration of automotive supply chains, leading to our view that real exports will grow sharply on a quarter-on-quarter basis in the Jul-Sep quarter of 2011. Moreover, the odds are high that personal consumption, which ebbed slightly in the Apr-Jun quarter, will also pick up in the Jul-Sep quarter of 2011. Even though spending on flatscreen TVs and energy-saving items (such as electrical fans, air conditioners and casual business clothing) peaked out in July, automotive sales should increase along with the resolution of the inventory shortage. Also, note that spending on services such as travel and restaurants should gradually increase along with the recovery of consumer confidence. Given the ongoing rise of public demand accompanying the restoration and recovery from the earthquake disaster, Japan's real GDP should grow strongly at a rate of +7% p.a. in the Jul-Sep quarter.

Despite the ongoing recovery stemming from inventory replenishment and reconstruction demand, the overseas economic slowdown and yen appreciation will start to have an impact

The Japanese economy in FY2012: growth will peter out due to overseas economic slowdown and peak-out of reconstruction demand

In the second half of FY2011, the Japanese economy should continue to follow a recovery, given (1) the ongoing movement to replenish inventories which fell as a result of supply constraints after the earthquake disaster, and (2) the materialization of reconstruction demand. Along with the rebound of industrial production to pre-earthquake levels, the growth of private demand should pick up, reflecting the improvement of household income and corporate earnings. Turning to earthquake-related spending, public investment and government spending for immediate restoration such as the construction of temporary housing and livelihood support toward disaster victims has been growing thus far. Looking forward, we expect public demand to keep expanding due to the materialization of “reconstruction demand” which includes the reconstruction of damaged infrastructure.

Despite an inevitable slowdown of growth compared to the Jul-Sep quarter which is expected to grow strongly due to a rebound from the slump after the earthquake disaster, Japan’s economic recovery should continue, growing at a rate of +2% to +3% p.a. or so in the Oct-Dec quarter of 2011 and Jan-Mar quarter of 2012. The rate of real GDP growth in FY2011 is forecast to reach +0.6% (MHRI’s previous forecast in June: +0.6%) (**Chart 8**).

In the first half of FY2012, the pace of Japan’s economic growth should shift into cruise mode (around +1% - +2%) as the rebound from the slump due to the earthquake disaster comes to an end. Even though public demand will remain strong due to reconstruction demand, the pace will moderate, leading to a contraction of its contribution to real GDP growth. In contrast, domestic private demand will serve as the main engine of growth, given the ongoing mild expansion of personal consumption backed by the recovery of labor market conditions and rise of capital investment accompanying the improvement of corporate earnings. External demand will most likely turn out to be an insignificant contributor to Japan’s economic growth due to sluggish exports reflecting the US and European economic slowdown and appreciation of the yen.

In the second half of FY2012, demand related to reconstruction after the earthquake disaster is also expected to peak out amid the tepid growth of exports. In the Basic Policy on Reconstruction, it is estimated that reconstruction works will total JPY23 trillion in ten years, of which JPY19 trillion or so will be used during the initial five-year period referred to as the “period of intensive reconstruction”. Considering that reconstruction demand after the Great Hanshin-Awaji Earthquake peaked in the second year after the disaster, we expect that reconstruction-related costs on a fiscal year basis will reach a peak in FY2012. Depending upon the pace of reconstruction, the odds are high that reconstruction-related demand will peak around the middle of FY2012. In the second half of FY2012, the Japanese economy should lose momentum due to the weak growth of exports, peak-out of public demand and slowdown of private

demand.

Due in part to the large carry-over of growth (forecast to be +1.3%) to FY2012 stemming from the strong growth in the second half of FY2011, Japan's real GDP is predicted to grow a strong +2.0% (*Economic Outlook* in June : +2.6%) in FY2012 but slow down in the second half of the fiscal year.

We have revised down our outlook on FY2012 from the *Economic Outlook* in June primarily because of the downward revision of our outlook on exports along with the downturn of our outlook on the overseas economies.

[Chart 8: Outlook on the Japanese economy]

		FY2009	FY2010	FY2011	FY2012	2010		2011				2012				2013
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
GDP (real)	Q-o-q % ch	-2.4	2.3	0.6	2.0	1.0	-0.6	-0.9	-0.3	1.6	0.7	0.5	0.4	0.4	0.2	0.0
	Q-o-q % ch p.a.	--	--	--	--	3.9	-2.5	-3.6	-1.3	6.7	3.0	1.9	1.8	1.7	1.0	0.2
Domestic demand	Q-o-q % ch	-2.7	1.5	0.9	1.6	1.3	-0.6	-0.7	0.4	0.7	0.6	0.5	0.4	0.4	0.1	0.0
Private sector demand	Q-o-q % ch	-5.0	2.0	0.7	1.9	1.7	-0.6	-1.1	0.3	0.8	0.7	0.6	0.4	0.5	0.2	0.0
Personal consumption	Q-o-q % ch	0.0	0.8	-0.2	1.0	0.9	-0.9	-0.6	-0.1	0.5	0.2	0.4	0.1	0.2	0.2	0.1
Housing investment	Q-o-q % ch	-18.2	-0.3	1.7	3.8	2.1	2.8	0.2	-1.9	1.7	2.1	-3.0	1.2	3.4	1.2	0.6
Capital investment	Q-o-q % ch	-13.6	4.2	2.4	4.9	1.1	0.1	-1.4	0.2	2.2	1.8	0.8	1.2	1.5	0.7	0.5
Inventory investment	Q-o-q contribution, % pt	-1.1	0.5	0.2	0.1	0.5	0.0	-0.3	0.3	-0.0	0.1	0.2	0.0	-0.1	-0.1	-0.1
Public sector demand	Q-o-q % ch	5.2	0.0	1.7	0.8	-0.1	-0.6	0.6	0.9	0.5	0.3	0.3	0.2	0.2	0.0	-0.1
Government consumption	Q-o-q % ch	3.5	2.2	1.8	0.6	0.5	0.4	0.9	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1
Public investment	Q-o-q % ch	14.2	-10.0	1.6	1.4	-2.2	-5.8	-1.0	3.0	1.8	1.0	0.9	0.7	0.3	-0.9	-1.4
External demand	Q-o-q contribution, % pt	0.3	0.9	-0.4	0.3	-0.2	-0.1	-0.2	-0.8	0.8	0.1	-0.1	0.0	0.0	0.1	0.0
Exports	Q-o-q % ch	-9.6	17.0	1.2	5.2	0.7	-1.0	0.0	-4.9	7.2	2.1	0.4	1.0	0.8	0.8	0.4
Imports	Q-o-q % ch	-11.0	11.0	3.8	3.3	2.6	-0.6	1.5	0.1	1.6	1.5	0.9	0.7	0.7	0.3	0.2
GDP (nominal)	Q-o-q % ch	-3.7	0.4	-1.1	1.8	0.6	-1.0	-1.5	-1.4	1.7	0.7	0.5	0.2	0.2	0.5	0.0
GDP deflator	Y-o-y % ch	-1.3	-1.9	-1.7	-0.3	-2.1	-1.6	-1.9	-2.2	-2.0	-1.6	-0.9	-0.2	-0.4	-0.2	-0.2
Domestic demand deflator	Y-o-y % ch	-2.2	-1.1	-0.8	-0.6	-1.5	-1.0	-0.9	-0.9	-0.7	-0.7	-0.6	-0.9	-0.7	-0.5	-0.2

Source: Made by MHRI based upon Cabinet Office, *Preliminary Quarterly Estimates of GDP*.

		FY2009	FY2010	FY2011	FY2012	2010		2011				2012				2013
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Industrial production	Q-o-q % ch	-8.8	8.9	1.8	7.2	-1.0	-0.1	-2.0	-4.0	7.0	3.9	1.8	0.4	1.4	1.0	0.9
Ordinary profits	Y-o-y % ch	2.1	38.9	2.8	10.5	54.1	27.3	11.4	-5.0	0.3	5.9	10.1	18.5	11.0	8.0	5.2
Nominal labor compensation	Y-o-y ch	-3.6	1.0	-0.0	1.2	1.2	0.9	0.6	0.1	-0.1	-0.6	0.7	1.1	1.4	1.2	1.1
Unemployment rate	%	5.2	5.0	4.6	4.3	5.0	5.0	4.7	4.6	4.6	4.6	4.5	4.4	4.3	4.3	4.2
New housing starts	P.a., 10,000 units	77.5	81.9	82.6	89.2	81.5	84.3	84.2	81.0	84.0	82.3	83.3	84.2	85.3	86.3	87.2
Current account balance	P.a., JPY tril	15.8	16.1	13.1	17.2	17.6	17.3	13.0	7.4	13.8	16.0	10.0	16.1	16.8	18.5	11.5
Domestic corporate goods prices	Y-o-y % ch	-5.2	0.7	1.0	-1.2	-0.1	1.0	1.7	2.4	2.1	0.6	-0.9	-2.5	-1.8	-0.7	-0.0
Consumer prices	Y-o-y % ch	-1.6	-0.8	-0.4	-0.8	-1.1	-0.5	-0.8	-0.2	-0.1	-0.6	-0.8	-1.0	-1.0	-0.7	-0.5
Uncollateralized overnight call rate	%	0.08	0.06	0	-0.10	0	-0.10	0	-0.10	0	-0.10	0	-0.10	0	-0.10	0
Yield on newly-issued 10-yr JGBs	%	1.35	1.13	1.11	1.13	0.99	1.07	1.24	1.16	1.07	1.10	1.10	1.10	1.10	1.15	1.15
Nikkei average	JPY	9,974	9,961	9,850	10,300	9,357	9,836	10,308	9,612	9,600	9,900	10,200	10,000	10,200	10,500	10,500
Exchange rate	JPY/USD	93.0	86.0	79.0	76.0	85.9	82.6	82.3	82.0	79.0	79.0	77.0	75.0	76.0	77.0	77.0
Crude oil price (WTI nearest term contract)	USD/bbl	71.0	84.0	89.0	84.0	76.2	85.2	94.6	102.0	86.0	84.0	83.0	82.0	83.0	85.0	86.0

Notes: 1. The readings above may differ from public releases because the rates of change are calculated based upon actual results.

2. Ordinary profits are based upon the *Financial Statements Statistics of Corporations by Industry (all industries)*.

3. Consumer prices exclude fresh food (2010 base).

4. Quarterly data on the unemployment rate, new housing starts and current account balance are seasonally-adjusted. Unemployment rate excludes data on Iwate, Miyagi and Fukushima prefectures.

5. Of the finance-related indices, the uncollateralized overnight call rate refers to the rate at the end of term and all others are averages during the relevant terms.

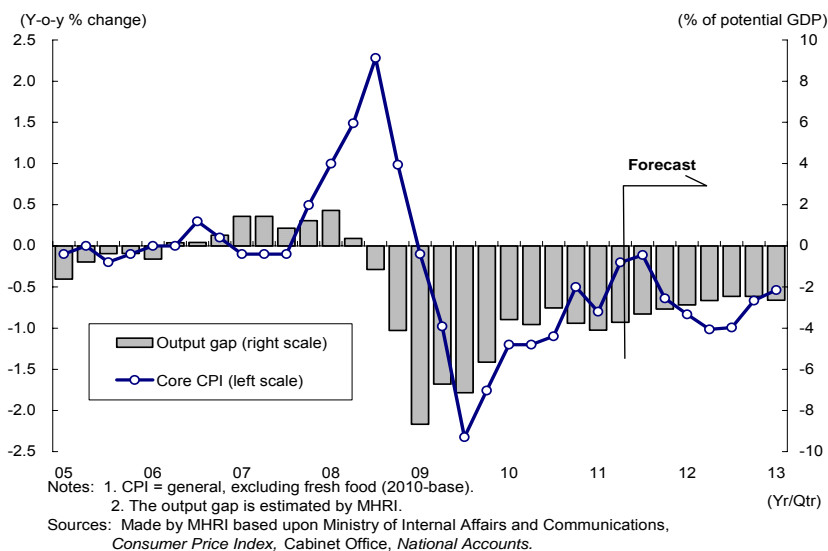
Sources: Made by MHRI based upon Cabinet Office, *Preliminary Quarterly Estimates of GDP*, Ministry of Economy, Trade and Industry, *Indices of Industrial Production*, Ministry of Finance, *Financial Statements, Statistics of Corporations by Industry, Quarterly*, Ministry of Internal Affairs and Communications, *Labor Force Survey, Consumer Price Index*, Ministry of Land, Infrastructure, Transport and Tourism, *Current Survey on Construction Statistics*, Bank of Japan, *Balance of Payments, Corporate Goods Price Index, Financial and Economic Statistics Monthly, Foreign Exchange Rates*, Japan Bond Trading Co., Ltd., *Latest Daily JGB Rates*, Nikkei Inc. and Bloomberg.

An emergence out of deflation unlikely during FY2012

The output gap (the gap between actual GDP and potential GDP) estimated by MHRI stood at -3.7% of potential GDP (meaning an excess of supply of JPY20.6 trillion) as of the Apr-Jun quarter of 2011. In the event the Japanese economy grows according to our latest *Economic Outlook*, the output gap should reach -2.6% (an excess of supply of JPY15.0 trillion) as of the end of FY2012.

The 2010-base consumer price index (excluding fresh food, the “core CPI”) released on August 12th stood at -0.2% y-o-y as of June 2011. Looking forward, after the year-on-year (y-o-y) change of the core CPI falls deeper into negative territory in October 2011 because of factors such as the fading impact of the tobacco tax hike from last year, the y-o-y change of the core CPI is forecast to remain negative during the forecast horizon due to the output gap and fall of energy prices. Our forecast on the percentage change of the core CPI is -0.4% y-o-y in FY2011 and -0.8% y-o-y in FY2012. Japan’s emergence out of deflation is unlikely during FY2012.

[Chart 9: The output gap and core CPI (forecast)]



Risk factor 1: electrical power shortage

While our main scenario outlook is as set forth in the preceding paragraphs, there are various factors providing uncertainties to the Japanese economy in FY2012. One such factor is the shortage of electrical power.

This summer, the areas served by the Tokyo Electric Power Company (TEPCO) was subject to an electrical power regulation order for the first time in 37 years since 1974 after the first oil crisis. Thus far, an electrical power crunch has been avoided as corporate enterprises have restrained electrical power usage during peak periods while minimizing the impact upon production and business activity through night-time and rotating shifts. However, electrical power supply in the areas served by the Tohoku Electric Power Co. and The Kansai Electric Power Co. (KEPCO) remain on a tightrope due to the suspension of some of the hydroelectric power plants stemming from the rain storms at the end of July (in the case of Tohoku Electrical Power Co.) and the malfunction of nuclear and thermal

electric power plants (in the case of KEPCO).

Our latest *Economic Outlook* is based upon the assumption that all the nuclear power plants suspended for regular maintenance inspections will resume operations by next spring and that FY2012 will not face a shortage of electrical power. However, a time schedule for the restart of the nuclear power plants is yet to be determined. If the nuclear power plants are not restarted after the regular maintenance inspections, this would mean that all the nuclear power plants in Japan will be suspended by next summer.

In the event all the nuclear power plants in Japan are suspended, an electrical power shortage will occur primarily during the summer months in a far wider area than this summer even by raising the operating rates of thermal power plants. This, in turn, will serve as a factor dragging down the rate of economic growth. Furthermore, the increase of imports of fossil fuel (crude oil, coal, liquid natural gas (LNG)) needed to raise the operating rates of thermal power plants to cover the shortage of electrical power (due to the suspension of the nuclear power plants) will also serve as a drag upon Japan's growth rate. In the event all the nuclear power plants are suspended, MHRI estimates that FY2012 real GDP growth will be pushed down by 0.4% to 0.8% pt due to the quantitative constraints upon electrical power (**Chart 10**). Furthermore the rise of imports will push down the rate of real GDP growth by approximately 0.4% pt. As a result, the combined impact will drag down the rate of real GDP growth by 0.8% to 1.2% pt.

[Chart 10: Impact upon FY2012 real GDP in the event of a suspension of all nuclear plants in Japan (estimate)]

	Power conservation period	Power conservation rate (Note 1)	GDP weight (Note 2) (Nationwide = 1)	Impact upon nationwide GDP (FY2012) (Note 3)			
				Jul-Sep	Oct-Dec	Jan-Mar	FY2012
				(Contribution, % pt)			
Hokkaido Electric Power Co. Inc. (HEPCO)	Dec-Feb	15%	0.036		-0.03 ~ -0.05	-0.05 ~ -0.10	-0.02 ~ -0.04
Tohoku Electric Power Co. Inc.	Jul-Sep	15%	0.081	-0.17 ~ -0.35			-0.04 ~ -0.09
Tokyo Electric Power Company (TEPCO)	Jul-Sep	15%	0.378	-0.81 ~ -1.62			-0.20 ~ -0.40
The Kansai Electric Power Co. Inc. (KEPCO)	Jul-Sep	15%	0.158	-0.34 ~ -0.68			-0.08 ~ -0.17
Kyushu Electric Power Co., Inc.	Jul-Sep	15%	0.095	-0.20 ~ -0.41			-0.05 ~ -0.10
Total				-1.52 ~ -3.04	-0.03 ~ -0.05	-0.05 ~ -0.10	-0.40 ~ -0.80

Notes: 1. "Power conservation rate" = % change from maximum electrical power during the year before the Great East Japan Earthquake

2. FY2008 weight

3. Electrical power supply capacity should be maintained, thus having no impact upon GDP, in the Apr-Jun quarter.

In times other than the power conservation periods, the areas served by HEPCO, Tohoku Electric Power, TEPCO, KEPCO and Kyushu Electric Power are expected to secure supply capacity above the maximum electrical power by raising the operating rates of thermal power plants.

The areas served by Hokuriku Electric Power Company, Chubu Electric Power Co., Inc., Shikoku Electric Power Co., Inc. and The Okinawa Electric Power Company Incorporated are not expected to suffer shortages of electrical power throughout the year.

Sources: Estimates by MHRI based upon Cabinet Office, *National Accounts, Annual Report on Prefectural Accounts*, and releases by the Information Plaza of Electricity and TEPCO.

Risk factor 2: tax hike

The absence of prospects of the stabilization of electrical power supply would hamper domestic capital investment by Japanese corporations and direct investment by foreign corporations, and may serve to erode Japan's economic growth over the medium to long term. Even if Japan were to pursue a medium to long term energy policy to raise the weight of renewable energy, in the meantime, it would be necessary to provide a clear policy on nuclear power.

Developments regarding Japan's tax system reform pose the second risk to our outlook on the Japanese economy in FY2012. Currently, discussions are being held with respect to various matters ranging from (1) the treatment of the child allowance from the second half of FY2011, (2) tax hike of core taxes (income tax, consumption tax and corporate income tax) to pay for the costs for post-earthquake disaster reconstruction, and (3) consumption tax hike in the course of an integrated tax and social security reform.

Of the foregoing matters, the Democratic Party of Japan (DPJ), Liberal Democratic Party (LDP) and the New Komeito reached an agreement to amend the child allowance (which includes changes to the amount of payment from October 2011 and the establishment of an income ceiling from FY2012). Household burdens are estimated to increase by JPY0.1 trillion in FY2011 and JPY0.5 trillion in FY2012 (an additional burden of JPY0.4 trillion in comparison with FY2011) as a result of these changes.

Turning to the financial resources necessary for the reconstruction of the ravaged areas, a proposal (June 25, 2011) by The Reconstruction Design Council in Response to the Great East Japan Earthquake urges "prompt discussions from a diverse perspective with particular emphasis upon core taxes, thereby leading to the implementation of concrete measures". While the predominant plan is to levy a surtax on personal income and corporate income, it appears that plans to raise the tobacco tax and liquor tax are also being considered. Furthermore, the DPJ Fundamental Tax and Social Security Reform Research Committee set forth its stance to "raise the (national and local) consumption tax rate to 10% in graduated phases by the mid-2010s" in its "proposal for integrated reform of social security and tax" (provisional translation) (June 30, 2011).

Our latest *Economic Outlook* is based upon the assumption that the child allowance will be revised in accordance to the tripartite agreement and that the income tax will be raised (surtax of 10%). MHRI estimates that burdens upon the household sector in FY2012 will increase by JPY1.7 trillion (JPY0.4 trillion from the revision of the child allowance, and JPY1.3 trillion from the consumption tax hike) and push down disposable income by 0.6% pt (**Chart 11**) in comparison to FY2011. Our outlook factors in a 0.4%pt drag upon personal consumption in FY2012.

However, given the ongoing instability of the political situation, it is difficult to provide a forecast on the future course of the debate on the tax system from next

fiscal year. While it is possible that taxes will not be raised as much as expected in our latest outlook, there is also the possibility that a much larger tax hike will be implemented. In particular, the timing and breadth of the consumption tax hike would have a significant impact upon economic trends. A 2%-consumption tax hike would be equivalent to JPY5.4 trillion of additional burdens upon the household sector (**Chart 11**). Assuming that the consumption tax rate is raised by 2%, personal consumption is estimated to be dragged down by 1.4% pt in FY2012 due to (1) a decline of real income because of the rise of consumer prices, and (2) a backlash to the last-minute rush of demand in the second half of FY2011 (assumed to be around JPY2 trillion). Furthermore, in the case of a consumption tax hike from FY2013, the last-minute demand will occur in the second half of FY2012 and push up personal consumption in FY2012 by approximately 0.7% pt. In the case of a 10% surtax on income in FY2012 and a consumption tax hike from FY2013 (**Chart 11**), these measures would lead to a 0.3%pt uptick of personal consumption.

[Chart 11: Change in household burdens due to tax system revision and its impact upon personal consumption in FY2012]

(JPY trillion)

	Consumption tax: no hike Income tax: 10% surtax	Consumption tax: from FY2013 (+2% in FY2013) Income tax: 10% surtax	Consumption tax: +2% hike Income tax: no hike	Consumption tax: +3% hike Income tax: no hike	Consumption tax: +2% hike Income tax: 10% surtax
Revision of child allowance	0.4	0.4	0.4	0.4	0.4
Consumption tax hike	—	—	+2%	+3%	+2%
	0.0	0.0	5.0	7.5	5.0
Surtax on income	10%	10%	0%	0%	10%
	1.3	1.3	0.0	0.0	1.3
Household sector burden (total)	1.7	1.7	5.4	7.9	6.7
(% of disposable income)	(0.6)	(0.6)	(1.8)	(2.7)	(2.3)
Impact upon personal consumption (%)	-0.4	0.3	-1.4	-1.8	-1.8

Notes: 1. The "impact upon personal consumption" refers to the difference from the case where there are no revisions to the tax system.

2. The impact of the fall of disposable income upon consumption is estimated based upon a marginal consumption propensity of 0.65.

The marginal consumption propensity is estimated based upon the y-o-y change of household final consumption expenditures and disposable income (SNA base) from FY1980 to FY2009. The impact of the consumption tax hike upon consumption is based upon the multiplier in MHRI's macroeconomic model.

3. The last-minute demand accompanying the consumption tax hike is assumed to be JPY2 trillion.

Sources: Made by MHRI based upon Cabinet Office, *National Accounts*, and others.

Risks stemming from a further overseas economic downturn and yen appreciation cannot be ignored

In addition to these domestic risk factors, the risks stemming from a further economic downturn overseas and the appreciation of the yen may not be ignored. Even though the Japanese economy has shown remarkable resilience after the earthquake disaster, there are still uncertainties on whether the Japanese economy will be able to remain on a recovery track in FY2012 in the presence of such domestic and overseas instabilities.

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