



Economic Outlook

# LONG-TERM ECONOMIC OUTLOOK

Perspectives on the Emerging Markets  
and Prompts of Japanese Economy to  
Raise Income Per Capita

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## - Executive Summary -

### 1. Limits to growth challenged by expansion of emerging economies

#### (1) Turning point for global community viewed from ultra-long perspective

The world's population, which was around 300 million in AD 0 and still only in the region of 500 million c.1650, grew rapidly to 1.0 billion in 1800, 2.5 billion in 1960, and 6.0 billion in 2000, and in 2050 is projected to reach 9.0 billion. Production of food and goods has also risen dramatically due to the development of technologies and the world's resources. Although people's lives have as a result grown quite affluent, this has imposed a heavy burden on the global environment over the past few decades.

Global society has industrialized since the industrial revolution, and, propelled by the developed economies of Japan, North America, and Europe up to the 20th century, economic growth has been rapid. At the beginning of the 21st century, however, this structure is on the verge of major change in a variety of respects. The challenge is one of overcoming the Club of Rome's "Limits to Growth," and this report is a forecast of this period of great transformation in the global community over the next 25 years up to 2030.

#### (2) World economy over the past quarter century: End of the Cold War and rapid growth of the Chinese and Indian economies

The major fluctuations in the world economy over the past 25 years (1980-2005) were, firstly, the end of the Cold War, and, secondly, the economic takeoff of the emerging economies of Asia. The economic expansion of China and India in particular is still severely underestimated due to actual exchange rates' divergence from purchasing power parity.

Conversion using purchasing power parity rates rather than actual exchange rates provides a clearer picture of long-term trends as they more closely approximate economic scales on a material basis. If we thus break down world GDP by converting to U.S. dollars according to purchasing power parity, we find that in 2005 the U.S. accounted for 20%, the EU for 22%, China for 15%, Japan for 7%, and India for 6%. China's share is more than twice Japan's, and India, too, is already hard on Japan's heels. These figures are nearer to these economies' shares of world energy consumption and carbon dioxide emissions, and they demonstrate that the situation is already changing.

#### (3) Change of world economy over the next quarter century: Inflationary pressure generated by expansion of emerging economies

As over the past 25 years, the next 25 years (2005-2030) will see world economic growth driven by growth in trade and direct investment. Growth will be characterized by three features. Firstly, whereas over the past quarter century the supply of cheap labor by emerging Asian economies such as China and India created "disinflationary pressure," local currencies' appreciation against the U.S. dollar and population aging in China in particular will in the future exert "inflationary pressure" on the world through the expansion of consumption. Indeed, inflationary pressure is already building on the

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resource markets.

Secondly, rising resource prices will lead to growth in resource producers like Russia, the Middle East, Latin America, and Africa, stimulating investment in infrastructure such as roads and electricity to provide the foundations for growth. However, unless efforts are made to catch up educationally and institutionally, growth is highly likely to be limited.

And thirdly, emerging economies outside Asia will also achieve economic takeoff, causing the gap in per capita incomes between developed and developing countries to begin to shrink. However, as this takeoff will mean an escape from the “equality” of being the poorest of the poor, the income disparity within developing countries will in fact widen. Among developed countries as well, the leveling off of wages of low-skilled workers substituting for the labor of developing countries provided through trade will likely cause the income gap to widen.

#### (4) Inhibition of growth by global warming: Innovation versus rising temperatures

Against this backdrop of growth in trade, the economic takeoff of a succession of emerging economies will test the capacity of the earth’s resources. Humans’ economic activities are increasing the concentration of greenhouse gases such as carbon dioxide, leading to global warming. Already the average global temperature has risen 0.8 degrees Celsius over the past century, and if the temperature rises 3 degrees Celsius or more, severe damage to water resources, food shortages, damage to human health, flooding, and harm to biodiversity are expected.

Despite some uncertainty concerning the correlation between greenhouse gas emissions and concentrations and rising air temperatures, most simulations suggest that in order to keep the temperature rise below 3 degrees Celsius, emissions will have to be halved between 2000 and 2050. This is estimated to cost less than 5.5% per annum of world GDP, or under 0.12% in terms of annual average growth rate. While an annual average growth rate of 0.12% may seem small, it is in fact rather large considering that it would wipe out the GDP of an entire country such as Japan, whose average share of world GDP over the next 25 years on a purchasing power parity basis is forecast to be 5.5%. Technological and institutional innovation is therefore needed to reduce emissions while compromising economic growth as little as possible.

## 2. Japanese economy aiming for higher per capita income

The Japanese population is already shrinking, having reached a peak in 2006. The economically active population has also been declining since peaking in 1998, and the decline in labor inputs over the next 25 years (2005-2030) will make a negative contribution to growth of -0.2% per year. Japan’s potential growth rate will decline from just under 2% at present to 1.2%. Furthermore, if labor productivity falls due, for example, to a higher proportion of the economy being accounted for by services, where productivity is low, or a decline in job satisfaction stemming from a rise in the national contribution ratio, Japan’s potential growth rate will fall further to 0.9%.

Growth in labor productivity leads to increases in individual living standards. In order to raise labor productivity, it will be essential to take steps to increase external openness, attract people, goods, and

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funds to Japan, and stimulate innovation. Policies that may cause considerable frictions in society, including acceptance of immigrants and inflows of foreign capital, will have to be considered, and it will be necessary to revise the social security system in order to build a society in which feelings of intergenerational inequality are eliminated and job satisfaction is enhanced.

In 2030, population aging will cause the household savings rate to become negative, prompting the trade balance to go into deficit. On the other hand, the balance of investment income from external net assets (accumulated in the past) will expand, and so the current account surplus will continue. Japan will move from being an immature creditor nation, as at present, to a mature creditor nation.

These demographic movements and changes in economic growth do not owe their origins to issues specific to Japan, but may rather be regarded as the typical outcomes of becoming a developed country, such as the establishment of generous public old-age security systems and lengthening life-spans. Emerging economies in Asia, such as South Korea and China, will also follow suit. Japan is in this sense an aging developed country, and by surmounting these various challenges, it can continue to achieve higher individual living standards.

Table 1 Real GDP growth rate

(Percent per annum)

Region	Calendar year	10-year average					25-year average	
		1980-1990	1990-2000	2000-2010	2010-2020	2020-2030	1980-2005	2005-2030
World total		3.3	3.2	4.3	3.7	3.2	3.4	3.7
Developed countries		2.9	2.6	2.3	2.3	2.1	2.6	2.3
U.S.		3.3	3.3	2.4	2.6	2.4	3.1	2.5
Japan		3.9	1.3	1.7	1.0	1.1	2.3	1.2
Western Europe		2.4	2.4	2.4	2.2	2.0	2.3	2.3
EU		2.3	2.4	2.3	2.1	1.9	2.3	2.1
Germany		2.3	2.1	1.5	1.7	1.5	1.9	1.8
U.K.		2.6	2.4	2.4	2.4	2.1	2.5	2.3
France		2.4	2.0	1.9	1.8	1.9	2.1	1.9
Italy		2.4	1.6	1.1	1.4	1.3	1.7	1.4
Canada		2.8	2.9	2.6	2.4	2.2	2.8	2.3
Australia		3.2	3.4	3.2	3.1	3.0	3.3	3.1
New Zealand		1.7	2.8	3.2	2.8	2.8	2.6	2.8
Developing countries/regions		4.2	5.6	6.6	4.9	3.9	5.1	5.0
Asia		7.1	7.3	7.7	5.1	3.9	7.2	5.2
China		9.2	10.4	9.6	4.5	3.0	9.8	4.9
NIEs		8.1	6.1	4.3	3.9	2.9	6.5	3.6
South Korea		8.7	6.1	4.4	3.7	2.6	6.8	3.3
Taiwan		8.0	6.5	3.8	3.9	2.7	6.4	3.5
Hong Kong		6.8	4.5	5.1	4.5	3.6	5.4	4.4
Singapore		7.4	7.6	4.9	4.5	4.1	6.8	4.6
ASEAN		5.1	4.5	5.3	4.9	4.6	4.8	4.9
Thailand		7.9	4.4	4.8	4.5	4.4	5.9	4.5
Malaysia		6.0	7.1	5.0	4.6	4.0	6.1	4.6
Philippines		1.7	3.0	4.9	4.6	4.2	2.8	4.6
Indonesia		5.5	4.0	5.1	4.7	4.3	4.7	4.7
South Asia		5.8	5.4	7.1	7.0	5.3	5.8	6.5
India		5.8	5.6	7.2	7.2	5.4	5.8	6.6
Latin America		1.4	3.1	3.6	4.0	3.7	2.3	4.0
Mexico		1.9	3.5	2.8	3.9	3.6	2.5	3.7
Brazil		1.5	2.5	3.5	3.4	3.3	2.2	3.5
Middle East		1.6	3.7	5.1	4.5	3.9	3.1	4.4
Africa		2.3	2.1	5.1	4.9	4.6	2.7	4.9
South Africa		1.5	1.8	4.5	5.9	6.0	2.1	5.8
Former Soviet Union and Eastern Europe		3.0	4.4	6.9	4.7	3.7	0.7	4.8
CIS		3.2	4.6	7.1	4.7	3.6	0.7	4.8
Russia		-	-	6.2	4.5	3.5	-	4.5
Eastern Europe		1.1	2.4	5.7	4.4	3.9	0.6	4.5
(Reference)								
North America		3.1	3.3	2.4	2.7	2.5	3.0	2.6
Europe (including former Soviet Union)		2.5	1.2	3.1	2.7	2.4	2.0	2.8
China + Hong Kong		9.1	10.2	9.5	4.5	3.0	9.6	4.9
BRICs		5.7	8.6	8.0	5.1	3.8	7.2	5.2

Source: IMF. Forecasts by HRI.

Table 2 Japanese economic overview

(Percent annual average growth)

Category	Fiscal year	10 years					25 years	
		1980 ~ 1990	1990 ~ 2000	2000 ~ 2010	2010 ~ 2020	2020 ~ 2030	1980 ~ 2005	2005 ~ 2030
Real gross domestic expenditure (real GDP, 2000 base)		4.0	1.4	1.6	1.2	0.9	2.4	1.2
Domestic demand		4.1	1.3	1.2	1.4	1.1	2.4	1.3
Personal consumption		3.7	1.5	1.2	1.3	1.1	2.4	1.2
Housing investment		3.5	-2.5	-1.0	-1.0	-2.5	0.0	-1.4
Capital investment		8.0	0.0	3.4	2.0	1.5	3.6	2.3
Private inventory investment		-	-	-	-	-	-	-
Public inventory investment		-	-	-	-	-	-	-
Government consumption		3.5	3.3	1.6	1.7	1.6	3.1	1.6
Government investment		0.5	1.9	-5.7	-1.0	-1.0	-0.4	-1.7
Foreign demand		-	-	-	-	-	-	-
Exports		4.6	4.3	6.6	3.0	2.5	4.8	3.5
Imports		6.6	3.8	4.0	5.0	4.0	4.9	4.4
Domestic demand contribution		3.6	0.9	1.1	1.3	1.1	2.3	1.3
Foreign demand contribution		0.4	0.4	0.5	-0.2	-0.3	0.2	-0.1
Nominal gross domestic expenditure (nominal GDP)		6.2	1.2	1.0	1.7	1.5	3.2	1.4
Domestic demand		6.1	1.1	0.9	2.0	1.8	3.0	1.7
Personal consumption		5.9	1.8	0.8	2.3	2.1	3.3	1.8
Housing investment		5.2	-2.1	-0.3	-0.3	-1.8	0.8	-0.6
Capital investment		8.8	-2.3	3.0	2.0	1.5	3.0	2.1
Private inventory investment		-	-	-	-	-	-	-
Public inventory investment		-	-	-	-	-	-	-
Government consumption		5.7	4.0	1.3	1.9	1.8	4.3	1.6
Government investment		2.2	1.7	-5.3	-0.3	-0.3	0.0	-0.8
Foreign demand		-	-	-	-	-	-	-
Exports		3.2	1.8	7.5	3.5	3.2	3.3	4.4
Imports		1.8	1.7	7.5	5.0	4.1	2.1	5.9
Consumer price index (2005 = 100)		2.0	0.7	0.2	1.0	1.0	1.0	1.0
Trade balance as proportion of GDP*		2.3	2.2	3.0	-0.5	-3.2	1.8	-3.2
Current account as proportion of GDP*		1.2	2.5	6.4	3.0	0.8	3.5	0.8
Yen exchange rate* (yen/dollar)		141.0	111.0	110.0	95.0	85.0	113.0	85.0
(yen/euro)		-	-	160.0	145.0	130.0	138.0	130.0
Crude oil price* (CIF US\$/barrel)		23.0	28.0	70.0	80.0	95.0	55.0	95.0

Note: 1980 and 1990 values converted from fixed-base to chain-linking method by HRI.

Asterisk denotes the value at end of period.

Source: Cabinet Office, *System of National Accounts*. Forecasts by HRI.