

# Japanese Economy Monthly Forecast

Yoshihisa Inada

December 2021 Head of the Center for Quantitative Economic Analysis, APIR

#### e-mail: inada-y@apir.or.jp

## **Headlines**

#### • Review of data released in December

This forecast reflects data released by December 31, 2021. About two-thirds of the data required for an accurate estimation of Q4 GDP have been released, except for data on household consumption and public works.

The Index of Industrial Production rose sharply by 7.2% MoM in November, marking the second consecutive month in positive territory. The Ministry of Economy, Trade and Industry (METI) upgraded its assessment of the economy from the previous month, saying that there are signs of pick up. As a result, the October-November average was up +0.4% from the Q3 average.

The flow of people to retail stores and entertainment facilities, which is a good indicator of private consumption, accelerated in October and November. Based on that, we estimate that the overall consumption index rose by about +2.3% MoM in both October and November.

Planned construction in November declined MoM for the first time in two months, while capital goods shipment index rose for the second consecutive month. Comparing the October-November average with the Q3 average, the former was +1.4%, and the latter +0.8% higher.

Public works in October decreased for the fourth consecutive month, down -0.8% from the previous month. The October figure was - 3.3% lower than the Q3 average.

The export volume index increased for the second consecutive month in November, up +3.9% MoM. The import volume index increased for the first time in three months up +10.8% MoM. Comparing the October-November average with the Q3 average, exports declined by -1.9%, and imports by -3.2%. As the latter declined more, the contribution of net exports to GDP growth was positive in October-November.

#### • 2021 Q4 real GDP growth forecast update

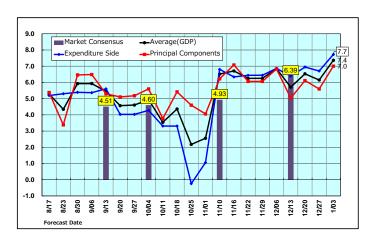
Our forecast for real GDP growth (expenditure side) in 2021 Q4 is an annualized +7.7% QoQ. The production-side forecast figure is an annualized +7.0% QoQ. The average of the two is an annualized +7.4% (Figure 1). Our forecast is tad higher than the market consensus figure (+6.39%).

#### • 2021 Q4 inflation forecast update

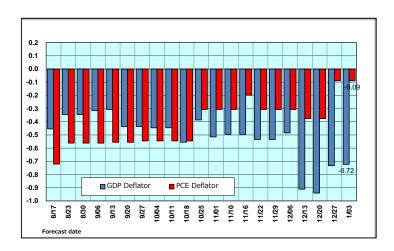
In November, the national Consumer Price Index (CPI) increased +0.6% YoY, marking the third consecutive month of inflation. The Corporate Services Price Index rose +1.1%, logging nine straight months of increase. Currently, the inflation is accelerating.

Our CQM forecasts for the private final consumption expenditure deflator and the domestic demand deflator in 2021 Q4 are respectively -0.1% and +0.3% QoQ. However, as the terms of trade are deteriorating, we forecast a GDP deflator of -0.7% QoQ (Figure 2).

# Fig 1 CQM Forecast: Real GDP Growth Rate Oct-Dec (Q4) 2021 (%, QoQ annualized growth)



### Fig 2 CQM Forecast: Inflation Oct-Dec (Q4) 2021 (%, QoQ growth)



We used the Current Quarter Model (CQM) methodology developed by Professor Emeritus L. R. Klein to create two forecasting models for the Japanese economy: a demand-side model and a production-side (principal component analysis) model. We refer to the forecasts by the former model as the main series, and those by the latter model, as well as the average of both models, as the reference series. Forecasts made using the CQM model are renewed continuously, incorporating the latest weekly data, which makes it possible to determine and trace the impacts of the latest short-term trends on macroeconomic conditions.

**Table 1: Main Economic Indicators (latest)** 

Release	Data		Value/ In-	Cha	nge
Date	Month	Economic Indicator	dex Score	MoM	YoY
12/28	November	Labor Force Survey			
		Total employment (millions)	66.24	0.00	
		Total unemployment (millions)	1.92	-0.10	
		Unemployment rate (%)	2.8%	+0.1%pt	
	November	General Job Placement Situation			
		Job offers-to-applicants ratio	1.15	-0.00pt	
	November	Indices of Industrial Production (preliminary figures, 2015=100)			
		Production	97.7	+7.2%	
		Shipments	95.3	+7.4%	
		Inventories	100.4	+1.7%	
12/27	November	Current Survey of Commerce (preliminary figures)			
		Retail trade (billion JPY)	12,799.0	+1.2%	+1.9%
	November	Manufacturing Industry Input-Output Price Index (2011=100)			
		Input price	111.9		+19.29
		Output price	107.0		+9.7%
12/24	November	New Housing Starts			
		New housing starts (SA, Unit)	73,414	-4.9%	+3.79
		Planned residential construction expenditure (billon JPY)	1,264.2	-5.0%	+9.6%
	November	National Consumer Price Index (2020=100)	1,20	0.070	, 0.07
		Core index	100.1	+0.3%	+0.5%
	November	Corporate Services Price Index (2015=100)		. 0.070	, 0.07
		Overall index	105.7		+1.19
	October	Construction Costs Deflator (2015=100)	100.7		
	00.0001	Housing construction	115.7		+8.2%
		Public works	113.1		+4.4%
12/23	October	Index of Business Conditions (revised figures, 2015=100)	110.1		14.47
12/23	October		101.5	+1.3	
		Leading indicators  Coincident indicators	89.8	_	
				+1.1 -0.3	
40/00	Ostaban	Lagging indicators	93.1	-0.3	
12/22	October	Monthly Labor Statistics (final figures)	074.404		0.00
		Total cash salary per capita (JPY)	271,121		+0.2%
		Total working hours	138.5		-1.8%
12/17	October	General Construction Statistics			
		Private non-residential construction (billion JPY)	847.5		+3.2%
		Public works (billion JPY)	2,017.0		-8.2%
12/16	November	Trade Statistics (customs clearance level)			
		Trade balance (billion JPY)	-954.8	+16.4%	-1,280
		Exports (billion JPY)	7,367.1	+5.3%	+20.59
		Imports (billion JPY)	8,321.8	+5.9%	+43.89
12/15	October	Tertiary Industry Activity Index (2015=100)	97.4	+1.5%	
	November	Public Works Advanced Securities Statistics			
		Contract amount (billion JPY)	753.4		-14.5%
		Number of contracts	18,594		-8.5%

12/14	October	Indices of Industrial Production (final figures, 2015=100)			
		Production	91.1	+1.8%	
		Shipments	88.7	+2.4%	
ļ		Inventory	98.7	+0.6%	
		Production capacity index	96.1		-1.2%
ļ		Capacity utilization ratio	89.7	+6.2%	
12/13	October	Private Core Machinery Orders (billion JPY)	870.8	+3.8%	
12/10	November	Domestic Corporate Price Index (2015=100)			
		Corporate Price	108.7	+0.6%	+9.0%
		Export Price	103.5	+0.9%	+15.0%
		Import Price	119.3	+4.9%	+44.3%
12/9	October	Information Services Industry Sales (billion JPY)	1,016.2		+7.9%
12/8	November	Economy Watchers Survey			
ļ		Current Conditions Diffusion Index	56.3	+0.8	
ļ		Future Conditions Diffusion Index	53.4	-4.1	
ļ	October	Balance of Payments			
		Current account (billion JPY)	1,180.1	+34.5%	-39.4%
		Exports (billion JPY)	7,080.0	+0.9%	+11.7%
		Imports (billion JPY)	6,913.2	-2.9%	+28.3%
12/7	October	Monthly Labor Statistics (preliminary figures)			
		Total cash salary per capita (JPY)	271,023		+0.2%
ļ		Total working hours	138.4		-1.9%
	October	Family Income and Expenditure Survey (households with 2 or more people)			
ļ		Nominal consumption expenditure (JPY)	281,996	+2.7%	-0.5%
		Real consumption expenditure		+3.4%	-0.6%
	October	Consumption Trend Index (2020=100)	101.0	+0.2%	
ļ	October	Consumption Activity Index (2015=100)	94.6	+4.3%	
ļ	October	Index of Business Conditions (preliminary, 2015=100)			
		Leading indicators	102.1	+1.9	
		Coincident indicators	89.9	+1.2	
		Lagging indicators	93.2	-0.2	
12/3	September	Synthetic Consumption Index (2015=100)	93.9	-0.1%	
12/2	November	Consumer Confidence Index (SA)	39.2	0.0	
14/4					
12/2	November	Food Buffer Stock (billion JPY)	+25.7		-3.8

**Table 2: CQM Forecast: GDP Tracking** 

		Real GDP Deflator			tor	Real GDP			Deflator		Real GDP			Deflator	
Forecast date	Expenditur e side	Production side (PCA)	Average	GDP	PCE	Expenditur e side	Production side (PCA)	Average	GDP	PCE	Expenditur e side	Production side (PCA)	Average	GDP	PCE
			2021Q3					2021Q4			2022Q1				
		SAAR (%)		QoQ (	(%)		SAAR (%)		QoQ	(%)		SAAR (%)	)	QoQ	(%)
5/19	4.2	2.4	3.3	-0.4	-0.1										
5/24	4.8		4.7	-0.4	-0.1										
5/31	5.7	5.2	5.4	-0.4	-0.1										
6/07	5.7	3.9	4.8	-0.4	-0.1										
6/08															
6/14	5.6		5.0	-0.1	-0.1										
6/21	5.3		4.8	-0.1	-0.1										
6/28	4.7		4.5	-0.1	-0.1										
7/05	4.8		3.2	-0.1	-0.1										
7/12	3.8		2.6	-0.1	-0.1										
7/19	4.1 3.9		2.5	-0.4	-0.1										
7/26 8/02	3.9		2.1 4.0	-0.3 -0.3	0.1 0.1										
8/11	3.2		3.7	-0.3	0.1										
8/16	3.0	4.3	3.7	-0.3	0.1										
8/17	1.6	0.2	0.9	-0.1	0.1	5.2	5.4	5.3	-0.5	-0.7					
8/23	3.8		3.1	0.0	0.1	5.3		4.3	-0.3	-0.6					
8/30	3.7		3.3	0.0	0.2			5.9	-0.3	-0.6					
9/06	4.0		3.1	0.0	0.2			5.9	-0.3	-0.6					
9/08															
9/13	4.0	1.7	2.8	0.0	0.2	5.6	5.3	5.5	-0.3	-0.6					
9/20	2.2	1.2	1.7	-0.1	0.2	4.0	5.1	4.6	-0.4	-0.6					
9/27	2.2	1.2	1.7	-0.1	0.2	4.0	5.2	4.6	-0.4	-0.5					
10/04	0.9		-0.4	0.0	0.2	4.3	5.6	4.9	-0.4	-0.5					
10/11	-0.1		-1.0	0.0	0.2	3.3		3.5	-0.4	-0.5					
10/18	-0.2		-1.2	-0.1	0.2	3.3		4.4	-0.6	-0.5					
10/25	-1.7		-2.2	0.0	0.4	-0.2		2.2	-0.4	-0.3					
11/01	-1.8		-2.9	0.1	0.4	1.1		2.6	-0.5	-0.3					
11/10	-0.7		-2.2	0.1	0.4	6.8	6.2	6.5	-0.5	-0.3					
11/15	<u>-3.0</u>			<u>0.1</u>	<u>0.3</u>										
11/16						6.3		6.7	-0.5	-0.2	1.2			0.4	
11/22 11/29						6.4		6.2 6.3	-0.5 -0.5	-0.3				0.4	
11/29						6.4		6.3 6.8		-0.3				0.4	0.5 0.5
12/06 12/08	<u>-3.6*</u>			<u>-0.1*</u>	<u>0.3*</u>	6.9	0.8	0.8	-0.5	-0.3	0.0	) 2.2	1.4	0.4	0.5
12/13	<u>-3.0</u>			<u>-0. 1</u>	0.3	6.4	5.0	5.7	-0.9	-0.4	2.4	1 2.5	2.4	-0.1	0.4
12/13						6.9		6.5	-0.9	-0.4				-0.1	0.4
12/27						6.7		6.1	-0.9	-0.4	5.2			-0.1	0.5
1/03						7.7		7.4	-0.7	-0.1	5.1			0.0	

Note: Underlined figures are 1st preliminary estimates, and figures marked by \* are 2nd preliminary estimates.

Table 3-1: Gross Domestic Product at Chained 2015 Price: Y Billion

	Quarterly			Forecast		CY		FY	
	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2020	2021	2020	2021
GDP/GDE									
Gross Domestic Products	535,013	537,631	532,778	542,784	549,547	528,179	537,051	525,658	540,685
Private Consumption	287,141	288,839	285,102	293,415	296,721	285,181	288,624	282,948	291,019
Residential Investment	18,734	18,922	18,623	18,295	18,203	19,016	18,643	18,823	18,511
Nonresidential Investment	84,587	86,311	84,335	84,428	84,821	85,389	84,916	83,944	84,974
Change in Private Inventory	-249	-131	421	1,964	1,936	651	501	451	1,048
Government Consumption	114,279	115,090	116,259	116,818	117,337	113,042	115,611	113,764	116,376
Public Investment	29,386	28,625	28,049	27,152	27,071	29,126	28,303	29,527	27,724
Change in Public Inventory	-19	-33	-87	-22	-20	-24	-40	-32	-40
Net Exports	1,108	-229	-80	578	3,322	-4,519	344	-4,163	898
Exports of Goods & Services	100,155	102,669	101,760	102,367	106,176	91,662	101,738	91,885	103,243
Imports of Goods & Services	99,048	102,898	101,840	101,789	102,854	96,181	101,394	96,048	102,345
Gross National Income	556,199	556,799	548,305	555,139	559,456	550,508	554,110	548,247	554,925
Memo:									
Total Demand	634,060	640,529	634,618	644,573	652,401	624,360	638,445	621,707	643,030
	Upper Row	: % chang	e from the	previous qu	arter Low	er Row: %	change fro	m a year ea	rlier
Gross Domestic Products	-0.7	0.5	-0.9	1.9	1.2				
SAAR	-2.9	2.0	-3.6	7.7	5.1				
% Change Year Ago	-1.8	7.3	1.1	0.7	2.7	-4.5	1.7	-4.5	2.9
Private Consumption	-1.1	0.6	-1.3	2.9	1.1				
% Change Year Ago	-3.0	6.9	0.4	1.1	3.3	-5.3	1.2	-5.5	2.9
Residential Investment	0.9	1.0	-1.6	-1.8	-0.5				
% Change Year Ago	-4.0	-2.9	0.3	-1.5	-2.8	-7.9	-2.0	-7.8	-1.7
Nonresidential Investment	0.4	2.0	-2.3	0.1	0.5				
% Change Year Ago	-5.8	3.3	1.3	0.2	0.3	-6.5	-0.6	-7.5	1.2
Government Consumption	-0.6	0.7	1.0	0.5	0.4				
% Change Year Ago	2.6	3.0	1.9	1.6	2.7	2.3	2.3	2.5	2.3
Public Investment	-1.5	-2.6	-2.0	-3.2	-0.3				
% Change Year Ago	5.0	-1.9	-5.4	-9.0	-7.9	3.9	-2.8	5.1	-6.1
Exports of Goods & Services	2.3	2.5	-0.9	0.6	3.7				
% Change Year Ago	1.1	26.6	15.5	4.5	6.0	-11.8	11.0	-10.5	12.4
Imports of Goods & Services	3.2	3.9	-1.0	0.0	1.0				
% Change Year Ago	-0.4	5.1	11.5	6.1	3.8	-7.2	5.4	-6.6	6.6
Gross National Income	-1.2	0.1	-1.5	1.2	0.8			0.0	
SAAR	-4.6	0.4	-6.0	5.1	3.1				
% Change Year Ago	-1.6	6.4	-0.2	-1.4	0.6	-3.9	0.7	-3.9	1.2
Total Demand	-0.1	1.0	-0.9	1.6	1.2		•		
SAAR	-0.5	4.1	-3.6	6.4	4.9				
% Change Year Ago	0.0	10.1	2.7	1.5	2.9	-4.9	2.3	-4.9	3.4
Contribution to GDP Grow th Ra		10.1	2.1	1.0	2.0	7.0	2.0	4.0	0.4
Domestic Demand	-0.6	0.7	-0.9	1.8	0.7	-3.7	0.8	-3.9	1.9
Private Demand	-0.4	0.7	-1.0	1.8	0.7	-4.4	0.5	-4.7	1.8
Public demand	-0.4	0.0	0.1	-0.1	0.7	0.7	0.3	0.8	0.1
Net Exports	-0.2	-0.2	0.0	-0.1 0.1	0.1	-0.8	0.3	-0.6	1.0
net exports	-0.1	-0.2	0.0	0.1	0.5	-0.8	0.9	-0.0	1.0

Table 3-2: Gross Domestic Product at Current Prices: Y Billion

	Quarterly			Forecast		CY		FY	
	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2020	2021	2020	2021
GDP/GDE	202 IQI	202 I Q2	202 I Q3	202 TQ4	2022Q1	2020	2021	2020	2021
	E 40 E 00	E 40 007	E20 4E4	E44.070	EE4 440	F00.4F0	E40 440	F0F F40	E44.040
Gross Domestic Products	543,530	543,807	538,151	544,279	551,149	538,156	542,442	535,510	544,346
Private Consumption	291,113	291,306	288,266	296,403	301,324	289,499	291,772	286,940	294,325
Residential Investment	19,926	20,558	20,853	20,987	20,971	20,021	20,581	19,832	20,842
Nonresidential Investment	85,450	87,875	86,373	87,277	88,264	86,027	86,744	84,498	87,447
Change in Private Inventory	-435	-431	-61	1,728	1,801	289	201	69	759
Government Consumption	114,520	115,613	117,640	118,411	119,111	113,185	116,546	113,706	117,694
Public Investment	30,946	30,467	30,115	29,390	29,323	30,449	30,230	30,911	29,824
Change in Public Inventory	-34	-44	-136	-42	-40	-15	-64	-28	-65
Net Exports	2,044	-1,536	-4,899	-9,876	-9,604	-1,300	-3,567	-419	-6,479
Exports of Goods & Services	93,977	98,989	100,182	102,928	107,737	83,729	99,019	84,125	102,459
Imports of Goods & Services	91,933	100,525	105,082	112,804	117,342	85,029	102,586	84,544	108,938
Gross National Income	563,661	564,538	558,968	567,178	574,019	557,672	563,586	554,667	566,176
Memo:									
Total Demand	635,463	644,332	643,233	657,083	668,490	623,185	645,028	620,054	653,285
Compensation of Employee	289,504	288,359	288,131	288,403	289,492	283,352	288,599	283,664	288,596
	Upper Row	: % chang	e from the	previous qu	arter Low	er Row: %	change fro	n a year ea	rlier
Gross Domestic Products	-0.7	0.1	-1.0	1.1	1.3				
SAAR	-3.0	0.2	-4.1	4.6	5.1				
% Change Year Ago	-1.9	6.2	0.0	-0.6	1.4	-3.6	8.0	-3.9	1.7
Private Consumption	-0.7	0.1	-1.0	2.8	1.7				
% Change Year Ago	-3.4	6.0	-0.1	1.1	3.5	-5.0	0.8	-5.5	2.6
Residential Investment	2.3	3.2	1.4	0.6	-0.1				
% Change Year Ago	-3.7	0.4	6.8	7.8	5.2	-6.9	2.8	-7.3	5.1
Nonresidential Investment	0.9	2.8	-1.7	1.0	1.1				
% Change Year Ago	-6.1	4.7	3.2	3.1	3.3	-6.7	0.8	-7.9	3.5
Government Consumption	0.1	1.0	1.8	0.7	0.6				
% Change Year Ago	2.0	3.6	2.8	3.5	4.0	1.7	3.0	1.7	3.5
Public Investment	-0.7	-1.5	-1.2	-2.4	-0.2				
% Change Year Ago	5.5	0.3	-2.8	-5.7	-5.2	4.7	-0.7	5.5	-3.5
Exports of Goods & Services	5.0	5.3	1.2	2.7	4.7				
% Change Year Ago	1.8	36.3	24.6	15.0	14.6	-14.1	18.3	-12.1	21.8
Imports of Goods & Services	9.6	9.3	4.5	7.3	4.0				
% Change Year Ago	-1.8	20.7	32.5	34.4	27.6	-14.2	20.6	-13.4	28.9
Gross National Income	-0.7	0.2	-1.0	1.5	1.2				
SAAR	-2.6	0.6	-3.9	<b>6.0</b>	4.9				
% Change Year Ago	-2.0	6.5	0.4	0.0	1.8	-3.9	1.1	-4.2	2.1
Memo:	2.0	0.0	υτ	0.0	1.5	0.0		7.2	2.1
Total Demand	0.6	1.4	-0.2	2.2	1.7				
SAAR	2.5	5.7	-0.7	8.9	7.1				
% Change Year Ago	0.0	17.2	4.2	4.0	5.2	0.0	-5.2	0.0	-5.3
Compensation of Employee	1.9	-0.4		0.1		0.0	-5.2	0.0	-5.5
% Change Year Ago			-0.1		0.4	1.0	1.0	1 F	1.7
™ Change rear Ago	0.3	2.9	2.3	1.6	0.0	-1.2	1.9	-1.5	1.7

Table 3-3: Deflator: 2015=100

	Quarterly			Forecast		CY		FY	
	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2020	2021	2020	2021
GDP/GDE									
Gross Domestic Products	101.6	101.2	101.0	100.3	100.3	101.9	101.0	101.9	100.7
Private Consumption	101.4	100.9	101.1	101.0	101.6	101.5	101.1	101.4	101.1
Residential Investment	106.4	108.6	112.0	114.7	115.2	105.3	110.4	105.4	112.6
Nonresidential Investment	101.0	101.8	102.4	103.4	104.1	100.7	102.2	100.6	102.9
Government Consumption	100.2	100.5	101.2	101.4	101.5	100.1	100.8	100.0	101.1
Public Investment	105.3	106.4	107.4	108.2	108.3	104.5	106.8	104.6	107.6
Exports of Goods & Services	93.8	96.4	98.5	100.6	101.5	91.3	97.3	91.5	99.2
Imports of Goods & Services	92.8	97.7	103.2	110.8	114.1	88.4	101.1	88.0	106.5
Unit Profit	103.0	103.1	101.8	102.3	103.3	104.7	102.6	104.0	102.6
Unit Labor Cost	100.4	99.5	100.4	98.6	97.8	99.6	99.7	100.1	99.0
		Ì							
	Upper Row	: % change	e from the p	previous qu	arter Low	er Row: %	change fro	m a year ea	rlier
Gross Domestic Products	0.0	-0.4	-0.1	-0.7	0.0				
	-0.1	-1.0	-1.1	-1.3	-1.3	0.9	-0.9	0.7	-1.2
Private Consumption	0.4	-0.5	0.3	-0.1	0.5				
	-0.4	-0.8	-0.5	0.0	0.2	0.3	-0.4	0.0	-0.3
Residential Investment	1.4	2.1	3.1	2.4	0.4				
	0.3	3.5	6.5	9.4	8.3	1.1	4.9	0.5	6.9
Nonresidential Investment	0.5	8.0	0.6	0.9	0.7				
	-0.3	1.3	1.9	2.8	3.0	-0.3	1.4	-0.5	2.3
Government Consumption	0.7	0.2	0.7	0.2	0.2				
	-0.6	0.6	0.9	1.9	1.3	-0.6	0.7	-0.8	1.2
Public Investment	0.8	1.1	0.9	0.8	0.1				
	0.4	2.2	2.7	3.6	2.9	0.7	2.3	0.4	2.9
Exports of Goods & Services	2.7	2.8	2.1	2.1	0.9				
	0.7	7.7	7.9	10.0	8.1	-2.6	6.6	-1.9	8.5
Imports of Goods & Services	6.1	5.3	5.6	7.4	3.0				
	-1.4	14.9	18.8	26.7	22.9	-7.6	14.5	-7.3	21.0
Unit Profit	0.0	0.1	-1.2	0.5	1.0				
	0.0	2.7	-3.6	-3.6	0.3	-1.8	-2.0	-2.0	-1.3
Unit Labor Cost	0.0	-0.9	0.8	-1.8	-0.9				
	0.0	13.5	1.1	0.8	-2.6	3.4	0.2	3.2	-1.1