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Japanese Economy Monthly Forecast

May 2023

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Headlines

<u>Review of latest official data</u>

► This forecast updates data released through the end of May. We have also added the first preliminary estimate of GDP for the January-March period. With the exception of household consumption-related indicators, public works, and balance of payments, almost one-third of the basic monthly data required for the April-June GDP estimates have been updated.

► According to the first advance GDP estimate, Japan's real GDP in Q1 grew by an annualized +1.6% QoQ, exceeding both the market consensus and APIR's CQM forecast. Although this was the first increase in three quarters, the recovery seems somewhat slow.

► The Index of Industrial Production in April fell by -0.4% MoM, marking the first decline in three months. However, it was still +1.8% higher than the Q1 average. METI's assessment of the underlying tone of production remained unchanged from the previous month's "gradual pick-up".

Planned construction expenditure in April decreased by 7.7% relative to the Q1 average. On the other hand, the capital goods shipments index rose by +1.6%. Public works in Q1 increased by +2.5% QoQ, marking the first increase in two quarters.

Compared to the Q1 average, real exports and imports in April increased by +3.3% and +2.0%, respectively. As a result, net exports made a positive contribution to real GDP growth.

• 2023 Q2 real GDP growth forecast update

▶ Our expenditure-side CQM forecast for real GDP growth in 2023 Q2 is +0.5% QoQ, or +2.2% if annualized. Our forecast is higher than the Market Consensus figure. Domestic demand and net exports are expected to contribute 0.3 percentage points QoQ to real GDP growth each (Figure 1).

• 2023 Q2 inflation forecast update

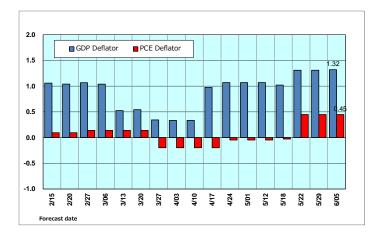
▶ In April, the national consumer price index (CPI) rose for the 20th consecutive month (+3.5% YoY). The core CPI and core-core CPI rose +3.4% YoY and +4.1% YoY, respectively. Core-core CPI inflation exceeded core CPI inflation for the third consecutive month.

▶ Our CQM forecasts for the private final consumption expenditure deflator and the domestic demand deflator in 2023 Q1 are respectively +0.5% and +0.4% QoQ. However, since the terms of trade are expected to improve significantly, our headline inflation (GDP deflator) forecast is +1.3% QoQ (Figure 2).

Fig 1 CQM Forecast: Real GDP Growth Rate Apr-Jun (Q2) 2023 (%, QoQ annualized growth)



Fig 2 CQM Forecast: Inflation Apr-Jun (Q2) 2023 (%, 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.

Release	Data	Foonemie Indicator	Value/ In-	Cha	nge
Date	Month	Economic Indicator	dex Score	МоМ	YoY
6/2	May	Food Buffer Stock (billion JPY)	-19.3		-7.2
6/1	May	New Car Sales (vehicles)	272,042		+28.4%
5/31	April	Indices of Industrial Production (preliminary figures, 2015=100)			
		Production	95.5	-0.4%	
		Shipments	93.0	-0.4%	
		Inventories	104.0	+0.3%	
	April	Current Survey of Commerce (preliminary figures)			
		Retail trade (billion JPY)	13,207.0	-1.2%	+5.0%
	April	New Housing Starts			
		New housing starts (SA, Unit)	67,250	-12.1%	-11.9%
		Planned residential construction expenditure (billon JPY)	1,243.1	-1.9%	-6.0%
	Мау	Consumer Confidence Index (SA)	36.0	+0.6	
	March	Construction Costs Deflator (2015=100)			
		Housing construction	122.9		+2.6%
		Public works	121.1		+3.8%
5/30	April	Labor Force Survey			
		Total employment (millions)	67.44	+0.13	
		Total unemployment (millions)	1.80	-0.15	
		Unemployment rate (%)	2.6%	-0.2%pt	
	April	General Job Placement Situation			
		Job offers-to-applicants ratio	1.32	0.00%pt	
5/29	29 April	Producer Price Index for Intermediate and Final Demand (2015=100)			
		Capital goods	105.4		+4.0%
		Consumer goods	110.5		+2.6%
5/26	March	Index of Business Conditions (revised, 2015=100)			
		Leading indicators	97.7	-0.5	
		Coincident indicators	98.8	+0.1	
		Lagging indicators	99.8	+0.1	
	Мау	Tokyo Region Consumer Price Index (2020=100)			
		Core	104.7	-0.1%	+3.2%
	April	Corporate Services Price Index (2015=100)			
		Overall index	108.6		+1.6%
5/23	March	Monthly Labor Statistics (final figures)			
		Gross average salary per worker (JPY)	292,546		+1.3%
		Total working hours	138.0		+0.9%
5/22	March	Private Core Machinery Orders (billion JPY)	852.9	-3.9%	
5/19	March	Tertiary Industry Activity Index (2015=100)	100.0	-1.7%	
	March	General Construction Statistics			
		Private non-residential construction (billion JPY)	900.1		+7.3%
		Public works (billion JPY)	2,616.3		+3.7%
	April	National Consumer Price Index (2020=100)			
		Core index	104.8	+0.5%	+3.4%
5/18	April	Trade Statistics (customs clearance level)			

Table 1: Main Economic Indicators (latest)

		Trade balance (billion JPY)	-432.4	-16.2%	-49.4%
		Exports (billion JPY)	8,288.4	+2.5%	+2.6%
		Imports (billion JPY)	8,720.8	+0.1%	-2.3%
5/17 March		Indices of Industrial Production (final figures, 2015=100)			
		Production	95.9	+1.1%	
		Shipments	93.4	+0.8%	
		Inventory	103.7	+0.2%	
		Production capacity index	95.5		-0.3%
		Capacity utilization ratio	93.8	+0.8%	
5/15	March	Information Services Industry Sales (billion JPY)	2,276.6		+7.2%
	April	Public Works Advanced Securities Statistics			
		Contract amount (billion JPY)	2,048.0		+1.9%
		Number of contracts	18,107		+0.3%
	April	Domestic Corporate Price Index (2020=100)			
		Corporate Price	119.8	+0.2%	+5.8%
		Export Price	126.8	+0.2%	+1.8%
		Import Price	158.1	-2.3%	-2.9%
5/11 Ap	April	Economy Watchers Survey			
		Current Conditions Diffusion Index	54.6	+1.3	
		Future Conditions Diffusion Index	55.7	+1.6	
	March	Balance of Payments			
		Current account (billion JPY)	2,278.1	-17.8%	-29.6%
		Exports (billion JPY)	8,788.0	+0.2%	+3.6%
		Imports (billion JPY)	9,242.4	-1.2%	+7.1%
5/10	March	Index of Business Conditions (preliminary figures, 2015=100)			
		Leading indicators	97.5	-0.7	
		Coincident indicators	98.7	0.0	
		Lagging indicators	99.4	-0.5	
	March	Consumption Activity Index (2015=100)	96.6	-2.0%	
5/9	March	Monthly Labor Statistics (preliminary figures)			
		Gross average salary per worker (JPY)	291,081		+0.8%
		Total working hours	137.5		+0.6%
	March	Family Income and Expenditure Survey (households with 2 or more people)			
		Nominal consumption expenditure (JPY)	312,758	-0.6%	+1.8%
		Real consumption expenditure		-0.8%	-1.9%
	March	Consumption Trend Index (2020=100)	103.5	+0.1%	
5/2	April	New Car Sales (vehicles)	289,525		+18.5%
	April	Food Buffer Stock (billion JPY)	-2.4		+5.7

	Real GDP			Deflator		Real GDP		Defla	ator	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
dute			2023Q1					2023Q2					2023Q3		
		SAAR (%)		QoQ (%)		SAAR (%)		QoQ	(%)		SAAR (%)		QoQ (%)
2/15	0.5	-2.4	-1.0	2.2	0.5	-0.5	-0.2	-0.3	1.1	0.1					
2/20	-0.4	-4.0	-2.2	2.2	0.5	-0.9	-0.1	-0.5	1.0	0.1					
2/27	-0.4	-4.5	-2.4	2.4	0.9	-0.9	-0.2	-0.5	1.1	0.1					
3/06	-1.3	-5.1	-3.2	2.4	0.9	-0.7	-0.7	-0.7	1.0	0.1					
3/09															
3/13	-3.0	-5.4	-4.2	2.3	0.9	-0.5	-0.7	-0.6	0.5	0.1					
3/20	-0.4	-4.3	-2.3	2.4	0.9	0.5	-0.3	0.1	0.5	0.1					
3/27	-0.4	-3.7	-2.0	2.0	0.3	0.5	0.0	0.2	0.3	-0.2					
4/03	-0.3	-1.2	-0.8	2.0	0.3	0.9	0.6	0.7	0.3	-0.2					
4/10	-0.5	-0.4	-0.5	2.0	0.3	0.9	0.6	0.8	0.3	-0.2					
4/17	-1.1	-0.6	-0.8	2.1	0.3	1.1	0.4	0.7	1.0	-0.2					
4/24	0.1	-0.7	-0.3	2.2	0.4	1.4	0.6	1.0	1.1	-0.0					
5/01	0.5	-0.2	0.1	2.2	0.4	0.9	0.2	0.5	1.1	-0.0					
5/12	0.5	-0.7	-0.1	2.2	0.4	1.3	0.1	0.7	1.1	-0.0					
5/17	<u>1.6</u>			<u>1.3</u>	<u>1.1</u>										
5/18						1.2	-0.6	0.3	0.0	0.0	3.1	-0.5	1.3	0.4	0.0
5/22						1.8	-0.3	0.8	1.0	-0.0	3.4	-0.5	1.4	0.4	0.1
5/29						1.8	-0.5	0.7	1.3	0.4	3.3	-0.6	1.4	0.4	0.1
6/05						2.2	-0.7	0.7	1.3	0.4	2.7	-0.2	1.2	0.4	0.1

Table 2: CQM Forecast: GDP Tracking

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	erly Forecast			CY		FY		
	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2022	2023	2021	2022
GDP/GDE									
Gross Domestic Products	546,885	546,814	548,968	551,941	555,594	545,962	552,751	541,037	547,749
Private Consumption	294,911	295,501	297,232	297,992	298,397	293,807	298,109	288,680	295,675
Residential Investment	17,796	17,822	17,856	17,725	17,503	17,924	17,678	18,649	17,837
Nonresidential Investment	90,149	89,555	90,388	91,187	91,071	88,757	90,945	87,182	89,774
Change in Private Inventory	3,039	286	763	728	1,849	2,448	836	1,194	1,701
Government Consumption	118,976	119,208	119,197	119,460	119,966	118,817	119,774	117,817	119,078
Public Investment	26,710	26,772	27,422	27,279	27,645	26,527	27,436	27,563	26,851
Change in Public Inventory	-255	-53	-83	-199	-188	-109	-165	-67	-113
Net Exports	-3,773	-1,502	-3,509	-1,935	-351	-1,595	-1,564	499	-2,292
Exports of Goods & Services	109,223	111,451	106,815	109,914	110,728	108,069	109,713	103,884	108,481
Imports of Goods & Services	112,997	112,953	110,324	111,848	111,079	109,664	111,277	103,385	110,773
Gross National Income	561,528	566,238	564,775	570,069	576,047	563,365	571,335	562,417	564,420
Memo:	,	,	, -	,	,-	,	- ,	,	,
Total Demand	659,882	659,767	659,292	663,790	666,673	655,626	664,028	644,421	658,522
	,		, -						
	Upper Row	: % chang	e from the	previous qu	arter Low	er Row : %	change froi	ma year ea	rlier
Gross Domestic Products	-0.2	0.0	0.4	0.5	0.7		<u> </u>		-
SAAR	-1.0	-0.1	1.6	2.2	2.7				
% Change Year Ago	1.6	0.4	1.3	0.7	1.6	1.0	1.2	2.6	1.2
Private Consumption	0.0	0.2	0.6	0.3	0.1			_	
% Change Year Ago	3.7	0.8	2.5	1.1	1.2	2.1	1.5	1.5	2.4
Residential Investment	-0.5	0.2	0.2	-0.7	-1.3			_	
% Change Year Ago	-5.2	-3.9	-1.9	-0.9	-1.6	-4.6	-1.4	-1.1	-4.4
Nonresidential Investment	1.5	-0.7	0.9	0.9	-0.1				
% Change Year Ago	4.0	2.8	3.9	2.7	1.0	1.8	2.5	2.1	3.0
Government Consumption	0.0	0.2	0.0	0.2	0.4				
% Change Year Ago	0.3	1.6	0.9	0.5	0.8	1.5	0.8	3.4	1.1
Public Investment	1.1	0.2	2.4	-0.5	1.3				
% Change Year Ago	-5.2	-2.1	4.5	3.3	3.5	-7.0	3.4	-6.4	-2.6
Exports of Goods & Services	2.5	2.0	-4.2	2.9	0.7				
% Change Year Ago	5.8	7.4	1.7	3.1	1.4	5.1	1.5	12.4	4.4
Imports of Goods & Services	5.6	0.0	-2.3	1.4	-0.7				
% Change Year Ago	10.9	10.5	4.1	4.5	-1.7	8.0	1.5	7.1	7.1
Gross National Income	-0.6	0.8	-0.3	0.9	1.0				
SAAR	-2.2	3.4	-1.0	3.8	4.3				
% Change Year Ago	0.4	0.6	0.5	0.9	2.6	0.2	1.4	2.2	0.4
Total Demand	0.7	0.0	-0.1	0.7	0.4				
SAAR	2.9	-0.1	-0.3	2.8	1.7				
% Change Year Ago	0.0	13.4	1.7	1.3	1.0	2.1	1.3	3.3	2.2
Contribution to GDP Grow th Ra									
Domestic Demand	0.4	-0.4	0.7	0.3	0.4	1.6	1.2	1.8	1.8
Private Demand	0.3	-0.5	0.6	0.3	0.2	1.7	0.8	1.4	1.7
Public demand	0.0	0.1	0.1	0.0	0.2	-0.1	0.3	0.4	0.1
Net Exports	-0.6	0.4	-0.3	0.3	0.3	-0.5	0.1	0.8	-0.5

	Quarterly			Forecast		CY		FY	
	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2022	2023	2021	2022
GDP/GDE									
Gross Domestic Products	554,502	560,402	570,080	580,777	587,154	556,558	581,268	550,664	561,197
Private Consumption	310,111	312,971	318,258	320,488	321,113	308,462	320,464	296,323	312,663
Residential Investment	21,187	21,201	21,125	20,892	20,468	21,216	20,750	21,129	21,178
Nonresidential Investment	96,749	96,890	97,853	99,722	100,199	94,562	99,639	90,084	96,533
Change in Private Inventory	3,811	668	724	252	1,102	2,942	343	1,122	2,157
Government Consumption	122,000	122,585	123,096	123,914	124,447	121,198	124,102	118,968	121,915
Public Investment	30,131	30,362	31,060	31,144	31,059	29,688	31,060	29,807	30,317
Change in Public Inventory	-866	-29	-30	-326	-318	-261	-248	-90	-255
Net Exports	-28,620	-24,245	-22,005	-15,310	-10,916	-21,249	-14,843	-6,679	-23,312
Exports of Goods & Services		128,058	119,296	122,160	122,731	120,233	121,852	103,819	122,700
Imports of Goods & Services		152,303	141,302	137,470	133,647	141,482	136,694	110,497	146,012
Gross National Income	590,135	600,136	602,863	612,435	619,308	591,610	613,382	579,692	596,581
Memo:	,				, i i i i i i i i i i i i i i i i i i i	,	, , , , , , , , , , , , , , , , , , ,		
Total Demand	708,205	712,705	711,382	718,247	720,801	698,040	717,962	661,161	707,209
Compensation of Employee	294,880	296,059	296,209	296,981	297,302	294,492	296,963	289,508	295,273
			· · ·						
	Upper Row	: % chang	e from the	previous qu	arter Low	er Row:%	change fro	m a year ea	rlier
Gross Domestic Products	-0.8	1.1	1.7	1.9	1.1				
SAAR	-3.1	4.3	7.1	7.7	4.5				
% Change Year Ago	1.2	1.6	3.1	3.9	5.9	1.3	4.4	2.4	1.9
Private Consumption	0.4	0.9	1.7	0.7	0.2				
% Change Year Ago	6.7	4.4	5.6	3.7	3.5	4.9	3.9	2.7	5.5
Residential Investment	0.0	0.1	-0.4	-1.1	-2.0				
% Change Year Ago	0.3	-0.6	-0.7	-1.4	-3.4	1.9	-2.2	6.3	0.2
Nonresidential Investment	2.6	0.1	1.0	1.9	0.5				
% Change Year Ago	8.6	7.4	7.6	5.8	3.6	5.9	5.4	4.7	7.2
Government Consumption	1.6	0.5	0.4	0.7	0.4				
% Change Year Ago	1.8	3.4	2.5	3.2	2.0	3.0	2.4	4.5	2.5
Public Investment	2.1	0.8	2.3	0.3	-0.3				
% Change Year Ago	-0.5	2.1	8.0	5.5	3.1	-2.7	4.6	-3.3	1.7
Exports of Goods & Services	5.6	2.4	-6.8	2.4	0.5				
% Change Year Ago	23.3	22.1	9.1	3.2	-1.9	20.0	1.3	23.0	18.2
Imports of Goods & Services	12.2	-0.9	-7.2	-2.7	-2.8				
% Change Year Ago	45.8	34.5	15.1	0.4	-13.0	37.3	-3.4	30.3	32.1
Gross National Income	-0.3	1.7	0.5	1.6	1.1				
SAAR	-1.2	7.0	1.8	6.5	4.6				
% Change Year Ago	2.7	3.4	2.9	3.5	4.9	2.7	3.7	4.0	2.9
Memo:									
Total Demand	1.8	0.6	-0.2	1.0	0.4				
SAAR	7.3	2.6	-0.7	3.9	1.4				
% Change Year Ago	0.0	29.6	5.3	3.2	1.8	0.0	7.0	0.0	6.2
Compensation of Employee	0.3	0.4	0.1	0.3	0.1				
% Change Year Ago	2.0	2.5	1.2	1.0	0.8	2.0	0.8	2.1	2.0

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

	Quarterly			Forecast		CY		FY	
	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2022	2023	2021	2022
GDP/GDE									
Gross Domestic Products	101.4	102.5	103.9	105.2	105.7	101.9	105.2	101.8	102.4
Private Consumption	105.2	105.9	107.1	107.6	107.6	105.0	107.5	102.6	105.7
Residential Investment	119.1	119.0	118.3	117.9	116.9	118.4	117.4	113.3	118.7
Nonresidential Investment	107.3	108.2	108.3	109.4	110.0	106.6	109.6	103.3	107.5
Government Consumption	102.5	102.8	103.3	103.7	103.7	102.0	103.6	101.0	102.4
Public Investment	112.8	113.4	113.3	114.2	112.4	111.9	113.2	108.0	112.8
Exports of Goods & Services	114.5	114.9	111.7	111.1	110.8	111.2	111.1	99.9	113.1
Imports of Goods & Services	136.0	134.8	128.1	122.9	120.3	128.8	122.9	106.8	131.8
Unit Profit	103.0	104.9	108.3	111.6	113.2	104.2	111.6	104.7	105.3
Unit Labor Cost	100.1	100.5	100.1	99.8	99.3	100.1	99.7	99.3	100.0
	Upper Row	: % chang	e from the	previous qu	arter Low	er Row : %	change fro	ma year ea	rlier
Gross Domestic Products	-0.5	1.1	1.3	1.3	0.4				
	-0.3	1.2	1.8	3.2	4.2	0.2	3.2	-0.2	0.7
Private Consumption	0.3	0.7	1.1	0.4	0.1				
	2.9	3.5	3.0	2.6	2.3	2.8	2.4	1.2	3.0
Residential Investment	0.4	-0.1	-0.5	-0.4	-0.8				
	5.8	3.4	1.3	-0.6	-1.8	6.9	-0.8	7.5	4.8
Nonresidential Investment	1.1	0.8	0.1	1.0	0.6				
	4.4	4.4	3.5	3.0	2.5	4.0	2.8	2.6	4.1
Government Consumption	1.6	0.3	0.4	0.4	0.0				
	1.5	1.8	1.6	2.7	1.2	1.4	1.6	1.1	1.4
Public Investment	0.9	0.5	-0.1	0.8	-1.6				
	4.9	4.3	3.4	2.2	-0.4	4.7	1.2	3.3	4.4
Exports of Goods & Services	3.1	0.3	-2.8	-0.5	-0.3				
	16.5	13.7	7.3	0.0	-3.2	14.1	-0.1	9.5	13.2
Imports of Goods & Services	6.3	-0.9	-5.0	-4.0	-2.1				
	31.4	21.7	10.6	-4.0	-11.6	27.1	-4.6	21.6	23.4
Unit Profit	0.0	1.8	3.2	3.1	1.5				
	0.0	4.5	3.8	6.4	9.9	-0.5	7.2	0.2	0.6
Unit Labor Cost	0.0	0.4	-0.3	-0.3	-0.6				
	0.0	14.6	0.0	0.3	-0.8	0.9	-0.4	-0.5	0.7

Table 3-3: Deflator : 2015=100