



# Japanese Economy Monthly Forecast

December 2022

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## Headlines

### ● Review of latest official data

▶ This forecast reflects data released by the end of December 2022. About two-thirds of all data required for an accurate estimation of 2022 Q4 GDP have been released, except for those related to household consumption expenditures.

▶ In November, the Index of Industrial Production fell -0.1% MoM, marking the third consecutive month of decline. As a result, the October-November average fell -3.3% from the July-September average. METI downgraded its assessment of the economy.

▶ The number of workers fell for the second consecutive month in November from the previous month, while the non-labor force increased for the second consecutive month. The labor market recovery in October-November was stagnant.

▶ Real gross wages fell for the eighth consecutive month in November (-3.8% YoY). The downward pressure on private consumption is increasing.

▶ The December Consumer Confidence Index rose for the first time in four months. Consumer sentiment improved ahead of the year-end and New Year holidays, as there were no restrictions on economic activity.

▶ In November, planned residential construction expenditure increased MoM for the first time in three months (+1.0%). On the other hand, capital goods shipments fell for the first time in two months (-4.4% MoM). Relative to their Q3 averages, the former was -1.6% lower, whereas the latter was a tad +0.4% higher.

▶ Relative to the Q3 average, the October-November average of the export and import volume indices declined -5.1% and -3.6%, respectively. The contribution of net exports to GDP growth was negative.

### ● 2022 Q4 real GDP growth forecast update

▶ Our expenditure-side CQM forecast for real GDP growth in 2022 Q4 is an annualized +1.5% QoQ. On the other hand, the production-side forecast figure is an annualized +0.5%. The average of the two forecasts is an annualized +1.0% (Figure 1). Reflecting the weak trend in the Index of Industrial Production, our forecast is lower than the Market Consensus forecast.

### ● 2022 Q4 inflation forecast update

▶ In November, the National Consumer Price Index (CPI) rose +3.8% YoY, marking the 15th consecutive month of inflation. Therein, the prices of goods rose by +6.7% (19th consecutive month of inflation), and the prices of services rose by +0.7% YoY (4th consecutive month of inflation).

▶ Our CQM forecasts for the private final consumption expenditure deflator and the domestic demand deflator in 2022 Q4 are respectively +1.0% and +0.9% QoQ. However, as the terms of trade are improving, we forecast a GDP deflator of +1.9% QoQ (Figure 2).

Fig 1 CQM Forecast: Real GDP Growth Rate Oct-Dec (Q4) 2022 (% , QoQ annualized growth)

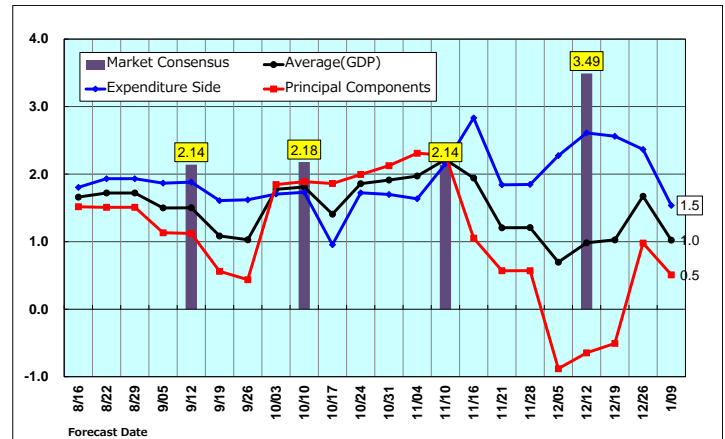
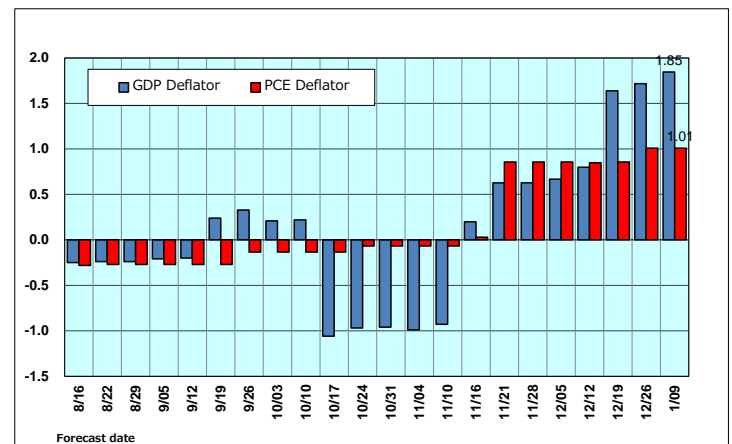


Fig 2 CQM Forecast: Inflation Oct-Dec (Q4) 2022 (% , QoQ growth)



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 Date	Data Month	Economic Indicator	Value/ Index Score	Change	
				MoM	YoY
1/6	November	<b>Monthly Labor Statistics (preliminary figures)</b>			
		Gross average salary per worker (JPY)	283,895		+0.5%
		Total working hours	139.1		-0.2%
1/5	December	<b>Food Buffer Stock (billion JPY)</b>	+59.3		-4.6
	December	<b>New Car Sales (vehicles)</b>	284,330		+1.5%
	December	<b>Consumer Confidence Index (SA)</b>	30.3	+1.7	
12/28	November	<b>Indices of Industrial Production (preliminary figures, 2015=100)</b>			
		Production	95.2	-0.1%	
		Shipments	93.0	-0.5%	
		Inventories	103.6	+0.3%	
	November	<b>Producer Price Index for Intermediate and Final Demand (2015=100)</b>			
		Capital goods	103.7		+3.5%
	Consumer goods	110.8		+6.0%	
12/27	November	<b>Labor Force Survey</b>			
		Total employment (millions)	67.12	-0.23	
		Total unemployment (millions)	1.73	-0.05	
		Unemployment rate (%)	2.5%	-0.1%pt	
	November	<b>General Job Placement Situation</b>			
		Job offers-to-applicants ratio	1.35	0.00%pt	
	November	<b>Current Survey of Commerce (preliminary figures)</b>			
		Retail trade (billion JPY)	13,143.0	-1.1%	+2.6%
	November	<b>New Housing Starts</b>			
		New housing starts (SA, Unit)	72,372	-3.7%	-1.4%
		Planned residential construction expenditure (billion JPY)	1,272.4	+1.0%	+0.7%
	October	<b>Construction Costs Deflator (2015=100)</b>			
	Housing construction	121.9		+4.6%	
	Public works	118.9		+5.1%	
12/26	November	<b>Corporate Services Price Index (2015=100)</b>			
	Overall index	107.6		+1.7%	
12/23	November	<b>National Consumer Price Index (2020=100)</b>			
	Core index	103.8	+0.3%	+3.7%	
12/22	October	<b>Index of Business Conditions (revised, 2015=100)</b>			
		Leading indicators	98.6	+0.4	
		Coincident indicators	99.6	-1.2	
		Lagging indicators	99.2	+0.2	
12/21	October	<b>Monthly Labor Statistics (final figures)</b>			
		Gross average salary per worker (JPY)	275,195		+1.4%
		Total working hours	137.3		-0.9%
12/19	October	<b>General Construction Statistics</b>			
		Private non-residential construction (billion JPY)	958.3		+12.4%
		Public works (billion JPY)	2,007.3		+0.9%
12/15	October	<b>Tertiary Industry Activity Index (2015=100)</b>	99.9	+0.2%	

	November	<b>Public Works Advanced Securities Statistics</b>			
		Contract amount (billion JPY)	696.1		-7.6%
		Number of contracts	17,707		-4.8%
	November	<b>Trade Statistics (customs clearance level)</b>			
		Trade balance (billion JPY)	-2,027.4	-21.5%	+108.2%
		Exports (billion JPY)	8,837.5	-1.3%	+20.0%
		Imports (billion JPY)	10,864.9	-5.3%	+30.3%
12/14	October	<b>Indices of Industrial Production (final figures, 2015=100)</b>			
		Production	95.3	-3.2%	
		Shipments	93.5	-1.7%	
		Inventory	103.3	-0.5%	
		Production capacity index	95.5		-0.6%
		Capacity utilization ratio	97.3	+2.2%	
	October	<b>Private Core Machinery Orders (billion JPY)</b>	914.7	+5.4%	
12/12	November	<b>Domestic Corporate Price Index (2020=100)</b>			
		Corporate Price	118.5	+0.6%	+9.3%
		Export Price	130.8	-1.9%	+15.1%
		Import Price	178.9	-5.1%	+28.2%
12/9	October	<b>Information Services Industry Sales (billion JPY)</b>	1,161.2		+6.1%
12/8	November	<b>Economy Watchers Survey</b>			
		Current Conditions Diffusion Index	48.1	-1.8	
		Future Conditions Diffusion Index	45.1	-1.3	
	October	<b>Balance of Payments</b>			
		Current account (billion JPY)	-64.1	+1,280.0	-1,798.8
		Exports (billion JPY)	8,989.2	+3.0%	+26.9%
		Imports (billion JPY)	10,864.6	+5.4%	+56.9%
12/7	October	<b>Family Income and Expenditure Survey (households with 2 or more people)</b>			
		Nominal consumption expenditure (JPY)	298,006	+1.7%	+5.7%
		Real consumption expenditure		+1.1%	+1.2%
	October	<b>Consumption Trend Index (2020=100)</b>	104.9	-0.1%	
	October	<b>Consumption Activity Index (2015=100)</b>	99.5	+2.1%	
12/6	September	<b>Synthetic Consumption Index (2015=100)</b>	99.1	+0.9%	

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

Forecast date	Real GDP			Deflator		Real GDP			Deflator		Real GDP			Deflator	
	Expenditure side	Production side (PCA)	Average	GDP	PCE	Expenditure side	Production side (PCA)	Average	GDP	PCE	Expenditure side	Production side (PCA)	Average	GDP	PCE
	2022Q3					2022Q4					2022Q4				
	SAAR (%)			QoQ (%)		SAAR (%)			QoQ (%)		SAAR (%)			QoQ (%)	
8/16	1.6	1.3	1.5	-0.6	0.3	1.8	1.5	1.7	-0.2	-0.3					
8/22	1.9	0.8	1.4	-0.4	0.5	1.9	1.5	1.7	-0.2	-0.3					
8/29	1.9	0.8	1.4	-0.4	0.5	1.9	1.5	1.7	-0.2	-0.3					
9/05	3.3	0.8	2.0	-0.3	0.5	1.9	1.1	1.5	-0.2	-0.3					
<b>9/08</b>															
9/12	1.3	1.6	1.5	-0.5	0.5	1.9	1.1	1.5	-0.2	-0.3					
9/19	0.7	0.6	0.6	-0.3	0.5	1.6	0.6	1.1	0.2	-0.3					
9/26	0.9	0.2	0.6	-0.1	0.8	1.6	0.4	1.0	0.3	-0.1					
10/03	2.4	2.6	2.5	-0.2	0.8	1.7	1.8	1.8	0.2	-0.1					
10/10	1.6	2.7	2.1	-0.2	0.8	1.7	1.9	1.8	0.2	-0.1					
10/17	0.2	2.6	1.4	-0.6	0.8	1.0	1.9	1.4	-1.1	-0.1					
10/24	0.3	3.3	1.8	-0.6	0.8	1.7	2.0	1.9	-1.0	-0.1					
10/31	0.3	3.3	1.8	-0.6	0.8	1.7	2.1	1.9	-1.0	-0.1					
11/04	0.4	3.1	1.8	-0.5	0.8	1.6	2.3	2.0	-1.0	-0.1					
11/10	2.7	3.0	2.8	-0.5	0.8	2.2	2.3	2.2	-0.9	-0.1					
<b>11/15</b>	<u>-1.2</u>			<u>-0.2</u>	<u>0.8</u>	0.0	0.0	0.0	0.0	0.0					
11/16						2.8	1.1	1.9	0.2	0.0	0.3	0.6	0.5	0.1	0.1
11/21						1.8	0.6	1.2	0.6	0.9	0.5	0.6	0.6	0.1	0.1
11/28						1.8	0.6	1.2	0.6	0.9	0.5	0.6	0.6	0.1	0.1
12/05						2.3	-0.9	0.7	0.7	0.9	0.4	-0.3	0.0	0.1	0.1
<b>12/08</b>	<b>-0.8*</b>			<b>-0.5*</b>	<b>0.4*</b>									0.0	0.0
12/12						2.6	-0.6	1.0	0.8	0.8	0.5	-0.4	0.1	0.1	0.1
12/19						2.6	-0.5	1.0	1.6	0.9	-0.1	-0.4	-0.3	0.9	0.1
12/26						2.4	1.0	1.7	1.7	1.0	-0.1	-0.5	-0.3	0.9	0.2
1/09						1.5	0.5	1.0	1.8	1.0	-0.1	-1.5	-0.8	1.0	0.2

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	
	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2021	2022	2021	2022
GDP/GDE									
Gross Domestic Products	541,965	547,946	546,815	548,904	548,829	540,226	546,407	540,796	548,123
Private Consumption	289,951	294,768	295,115	296,563	296,937	287,894	294,099	288,614	295,846
Residential Investment	18,223	17,869	17,778	17,804	17,806	18,797	17,919	18,650	17,814
Nonresidential Investment	86,845	88,581	89,919	90,102	89,838	87,169	88,862	87,178	89,610
Change in Private Inventory	4,199	2,610	3,087	3,025	2,344	43	3,230	1,179	2,767
Government Consumption	118,052	118,931	119,073	119,167	119,680	117,047	118,806	117,823	119,213
Public Investment	26,325	26,510	26,759	26,424	26,471	28,532	26,504	27,563	26,541
Change in Public Inventory	-80	-112	-245	-161	-153	-84	-150	-67	-168
Net Exports	-1,059	-613	-3,993	-3,342	-3,415	1,122	-2,252	430	-2,841
Exports of Goods & Services	104,900	106,448	108,675	107,220	107,182	102,619	106,811	103,732	107,381
Imports of Goods & Services	105,960	107,061	112,668	110,562	110,598	101,497	109,063	103,302	110,222
Gross National Income	561,781	564,395	561,193	563,772	567,533	562,365	562,785	562,416	564,223
Memo:									
Total Demand	647,925	655,006	659,483	659,466	659,427	641,723	655,470	644,098	658,345
Upper Row : % change from the previous quarter Lower Row : % change from a year earlier									
Gross Domestic Products	-0.5	1.1	-0.2	0.4	0.0				
<b>SAAR</b>	<b>-1.8</b>	<b>4.5</b>	<b>-0.8</b>	<b>1.5</b>	<b>-0.1</b>				
% Change Year Ago	0.6	1.4	1.7	0.8	1.3	2.1	1.1	2.5	1.4
Private Consumption	-1.0	1.7	0.1	0.5	0.1				
% Change Year Ago	1.0	2.5	3.9	1.2	2.4	0.4	2.2	1.5	2.5
Residential Investment	-1.7	-1.9	-0.5	0.1	0.0				
% Change Year Ago	-3.1	-6.4	-5.3	-4.0	-2.3	-1.1	-4.7	-1.1	-4.5
Nonresidential Investment	-0.4	2.0	1.5	0.2	-0.3				
% Change Year Ago	-0.1	0.4	3.8	3.3	3.4	0.8	1.9	2.1	2.8
Government Consumption	0.5	0.7	0.1	0.1	0.4				
% Change Year Ago	2.7	1.5	0.3	1.5	1.4	3.5	1.5	3.4	1.2
Public Investment	-3.1	0.7	0.9	-1.3	0.2				
% Change Year Ago	-11.3	-9.1	-5.1	-2.7	0.6	-1.9	-7.1	-6.4	-3.7
Exports of Goods & Services	1.2	1.5	2.1	-1.3	0.0				
% Change Year Ago	4.5	2.9	5.4	3.4	2.2	11.7	4.1	12.3	3.5
Imports of Goods & Services	3.7	1.0	5.2	-1.9	0.0				
% Change Year Ago	7.3	3.8	10.6	8.2	4.4	5.1	7.5	7.1	6.7
Gross National Income	-0.4	0.5	-0.6	0.5	0.7				
<b>SAAR</b>	<b>-1.8</b>	<b>1.9</b>	<b>-2.2</b>	<b>1.9</b>	<b>2.7</b>				
% Change Year Ago	0.1	-0.3	0.4	-0.1	1.0	2.0	0.1	2.2	0.3
Total Demand	0.2	1.1	0.7	0.0	0.0				
<b>SAAR</b>	<b>0.8</b>	<b>4.4</b>	<b>2.8</b>	<b>0.0</b>	<b>0.0</b>				
% Change Year Ago	0.0	12.6	3.1	2.0	1.8	2.6	2.1	3.2	2.2
Contribution to GDP Growth Rate									
Domestic Demand	0.0	1.0	0.4	0.3	0.0	1.1	1.8	1.8	2.0
Private Demand	0.1	0.8	0.4	0.3	-0.1	0.5	1.9	1.4	2.0
Public demand	-0.1	0.2	0.0	0.0	0.1	0.6	-0.1	0.4	0.0
Net Exports	-0.5	0.1	-0.6	0.1	0.0	1.0	-0.7	0.8	-0.6

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

	Quarterly			Forecast		CY		FY	
	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2021	2022	2021	2022
GDP/GDE									
Gross Domestic Products	552,910	558,196	554,126	566,505	572,258	549,379	557,934	550,530	562,771
Private Consumption	301,262	308,677	310,240	314,931	315,956	293,986	308,778	296,250	312,451
Residential Investment	21,273	21,178	21,167	21,202	21,103	20,828	21,205	21,129	21,163
Nonresidential Investment	90,819	94,016	96,599	98,107	98,508	89,270	94,885	90,079	96,808
Change in Private Inventory	3,976	3,507	3,767	3,493	2,817	135	3,686	1,106	3,396
Government Consumption	119,932	120,167	122,008	122,577	123,086	117,711	121,171	118,968	121,960
Public Investment	28,943	29,583	30,104	29,990	29,906	30,510	29,655	29,807	29,896
Change in Public Inventory	-60	-102	-866	-301	-295	-108	-332	-89	-391
Net Exports	-13,235	-18,830	-28,894	-23,494	-18,823	-2,952	-21,113	-6,718	-22,510
Exports of Goods & Services	109,141	117,926	124,336	123,936	124,206	99,996	118,835	103,637	122,601
Imports of Goods & Services	122,375	136,755	153,230	147,430	143,028	102,948	139,948	110,355	145,111
Gross National Income	584,953	591,276	589,521	598,937	605,145	576,048	591,172	579,781	596,220
Memo:									
Total Demand	675,285	694,951	707,356	713,935	715,286	652,327	697,882	660,885	707,882
Compensation of Employee	291,994	293,828	294,614	294,273	294,946	288,746	293,677	289,508	294,415
Upper Row : % change from the previous quarter Lower Row : % change from a year earlier									
Gross Domestic Products	0.2	1.0	-0.7	2.2	1.0				
<b>SAAR</b>	<b>0.7</b>	<b>3.9</b>	<b>-2.9</b>	<b>9.2</b>	<b>4.1</b>				
% Change Year Ago	0.8	1.4	1.3	2.6	3.5	1.9	1.6	2.4	2.2
Private Consumption	0.4	2.5	0.5	1.5	0.3				
% Change Year Ago	3.2	5.2	6.8	5.0	4.9	1.0	5.0	2.7	5.5
Residential Investment	-0.4	-0.4	0.0	0.2	-0.5				
% Change Year Ago	6.1	2.0	0.2	-0.7	-0.8	4.0	1.8	6.3	0.2
Nonresidential Investment	0.5	3.5	2.7	1.6	0.4				
% Change Year Ago	3.2	4.5	8.5	8.6	8.5	2.4	6.3	4.7	7.5
Government Consumption	1.1	0.2	1.5	0.5	0.4				
% Change Year Ago	4.5	2.2	1.8	3.3	2.6	4.0	2.9	4.5	2.5
Public Investment	-2.0	2.2	1.8	-0.4	-0.3				
% Change Year Ago	-7.6	-4.3	-0.5	1.5	3.3	0.4	-2.8	-3.3	0.3
Exports of Goods & Services	4.2	8.0	5.4	-0.3	0.2				
% Change Year Ago	15.6	18.6	22.6	18.3	13.8	19.3	18.8	22.8	18.3
Imports of Goods & Services	8.2	11.8	12.0	-3.8	-3.0				
% Change Year Ago	32.6	35.9	45.2	30.4	16.9	20.7	35.9	30.1	31.5
Gross National Income	0.5	1.1	-0.3	1.6	1.0				
<b>SAAR</b>	<b>2.1</b>	<b>4.4</b>	<b>-1.2</b>	<b>6.5</b>	<b>4.2</b>				
% Change Year Ago	2.5	2.2	2.6	2.9	3.5	3.1	2.6	4.1	2.8
Memo:									
Total Demand	1.5	2.9	1.8	0.9	0.2				
<b>SAAR</b>	<b>6.3</b>	<b>12.2</b>	<b>7.3</b>	<b>3.8</b>	<b>0.8</b>				
% Change Year Ago	0.0	26.4	8.4	7.4	5.9	0.0	4.5	0.0	6.2
Compensation of Employee	0.9	0.6	0.3	-0.1	0.2				
% Change Year Ago	1.0	2.1	1.9	1.7	1.0	2.0	1.7	2.1	1.7

Table 3-3: Deflator : 2015=100

	Quarterly			Forecast		CY		FY	
	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2021	2022	2021	2022
GDP/GDE									
Gross Domestic Products	102.0	101.9	101.3	103.2	104.3	101.7	102.1	101.8	102.7
Private Consumption	103.9	104.7	105.1	106.2	106.4	102.1	105.0	102.6	105.6
Residential Investment	116.7	118.5	119.1	119.1	118.5	110.7	118.4	113.3	118.8
Nonresidential Investment	104.6	106.1	107.4	108.9	109.7	102.5	106.8	103.3	108.0
Government Consumption	101.6	101.0	102.5	102.9	102.9	100.5	102.0	101.0	102.3
Public Investment	109.9	111.6	112.5	113.5	113.0	106.9	111.9	108.0	112.6
Exports of Goods & Services	104.0	110.8	114.4	115.6	115.9	97.4	111.2	99.9	114.2
Imports of Goods & Services	115.5	127.7	136.0	133.4	129.3	101.3	128.1	106.8	131.6
Unit Profit	104.5	104.7	103.0	107.6	109.6	104.7	104.9	104.7	106.2
Unit Labor Cost	100.0	99.5	100.0	99.5	99.7	99.2	99.7	99.3	99.7
Upper Row : % change from the previous quarter Lower Row : % change from a year earlier									
Gross Domestic Products	0.6	-0.2	-0.5	1.9	1.0				
	0.2	0.0	-0.4	1.8	2.2	-0.3	0.4	-0.2	0.9
Private Consumption	1.5	0.8	0.4	1.0	0.2				
	2.2	2.6	2.8	3.7	2.4	0.6	2.8	1.2	2.9
Residential Investment	1.4	1.5	0.5	0.0	-0.5				
	9.6	9.0	5.9	3.4	1.5	5.2	6.9	7.5	4.9
Nonresidential Investment	0.9	1.5	1.2	1.4	0.7				
	3.3	4.0	4.5	5.1	4.9	1.7	4.2	2.6	4.6
Government Consumption	0.6	-0.5	1.4	0.4	0.0				
	1.7	0.7	1.5	1.8	1.2	0.5	1.5	1.1	1.3
Public Investment	1.1	1.5	0.8	0.9	-0.5				
	4.2	5.2	4.8	4.4	2.8	2.4	4.6	3.3	4.3
Exports of Goods & Services	2.9	6.5	3.3	1.0	0.3				
	10.6	15.3	16.3	14.4	11.4	6.8	14.2	9.4	14.3
Imports of Goods & Services	4.4	10.6	6.5	-2.0	-3.0				
	23.6	31.0	31.3	20.5	12.0	14.9	26.5	21.5	23.3
Unit Profit	0.0	0.2	-1.6	4.5	1.9				
	0.0	4.3	-1.1	2.9	5.0	-0.3	0.2	0.2	1.4
Unit Labor Cost	0.0	-0.5	0.5	-0.5	0.2				
	0.0	13.5	0.3	0.8	-0.3	-0.2	0.6	-0.4	0.3