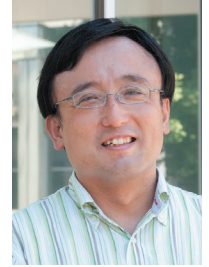


# Understanding the Consumption Structure Through Family Income & Expenditure Survey



Author Nobuo Iizuka

By Nobuo Iizuka

## Monthly Survey of 9,000 Households in Japan

The Family Income and Expenditure Survey is a sample survey that is conducted every month by extracting roughly 9,000 households out of some 57 million households in Japan. It aims to understand the actual situation of household income and expenditure in the daily lives of the Japanese people, with the purpose of offering fundamental information that serves as the basis for formulating national economic and social policies. Workers' households and unemployed households fill out household accounts every month for income and expenditures, and other households such as the self-employed only fill out expenditures in their accounts. For households with two or more people, it also surveys outstanding savings and debts as well as plans for purchasing real estate such as housing.

As the survey employs such methodology, details of each household expenditure, such as how much was spent on expense items such as food and housing, and among foods, how much was spent on seafood and meat, can be identified. Hence the results of the Family Income and Expenditure Survey are also used to calculate the Consumer Price Index (for the weight used in calculating the weighted average price of each item). They are also used for estimating Private Final Consumption Expenditure, which is the largest demand item of GDP.

*Chart 1* shows the average propensity to consume and the breakdown by item, using the monthly income and expenditure per household for each year, compiled from the data for workers' households with two or more people. The expenditure amount for each expense item is divided by disposable income.

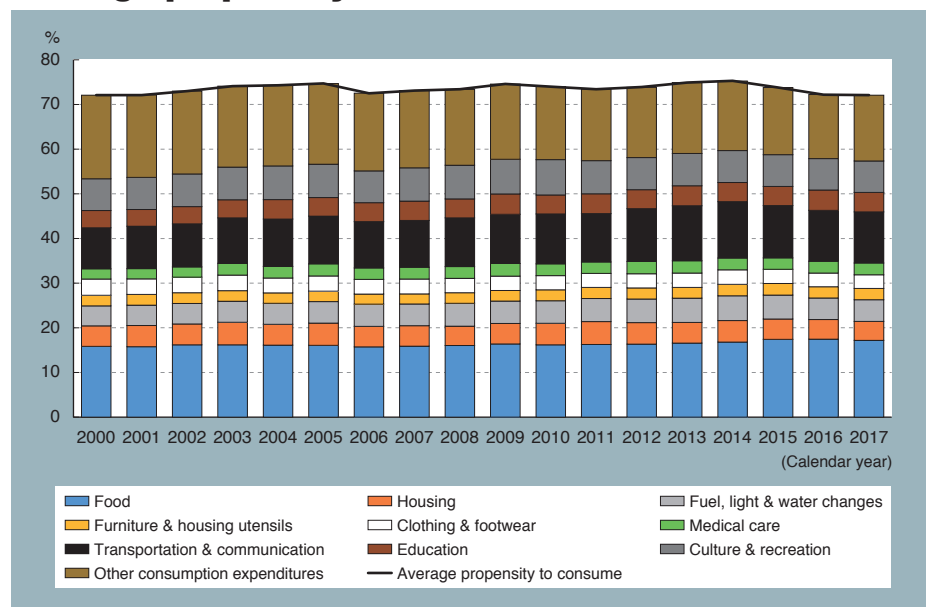
It can be observed that the percentage of expenditure on transportation and communication in disposable income is increasing. The reason behind this increase is the rise in communication expenditure with more people using smartphones and other devices.

It is important to note that the surplus rate, which is average propensity to consume subtracted from 100%, also includes debt repayments, and the concept is different from the average propensity to consume in the GDP statistics. It is also important to keep in mind that the average propensity to consume for elderly unemployed households is more than 100%.

## Survey Method Revised from January 2018

The Family Income and Expenditure Survey changed its survey

CHART 1  
**Average propensity to consume**



Note: Expenditures for two-or-more-person workers' households. Each expenditure is divided by disposable income.  
Source: "Family Income and Expenditure Survey", Statistics Bureau, Ministry of Internal Affairs and Communications

and publication method from the January 2018 survey (published in March 2018). The household accounts changed its format to make it easier to keep. The Family Income and Expenditure Survey allows data use of employment status of the heads of households and for different age groups and income groups, but the classification for employment status has now been changed. Before, the classifications were workers' households, non-workers' households (unemployed households are a component of this group), and farming and fishing households, but since January 2018 the classification has become workers' households, unemployed households, and other households. It is an attempt to focus on an increase in unemployed households, such as pensioners, with the ageing of society progressing. Other households include self-employed workers and farming and fishing households.

With these revisions in place, for the 2018 survey, there is a mix of households who responded using the old household accounts and those who responded by using the new household accounts. The Family Income and Expenditure Survey also publishes discontinuity-adjusted figures that reflect the impact of the changes in the household accounts. For example, the March 2018 survey which was published on May 8, 2018 saw a year-on-year 1.1% increase in nominal consumption expenditure for households with two or more people, but the adjusted figure was a 0.6% increase. There is a need to pay attention to this point when using the data.

### What Is Its Role as a Business Index?

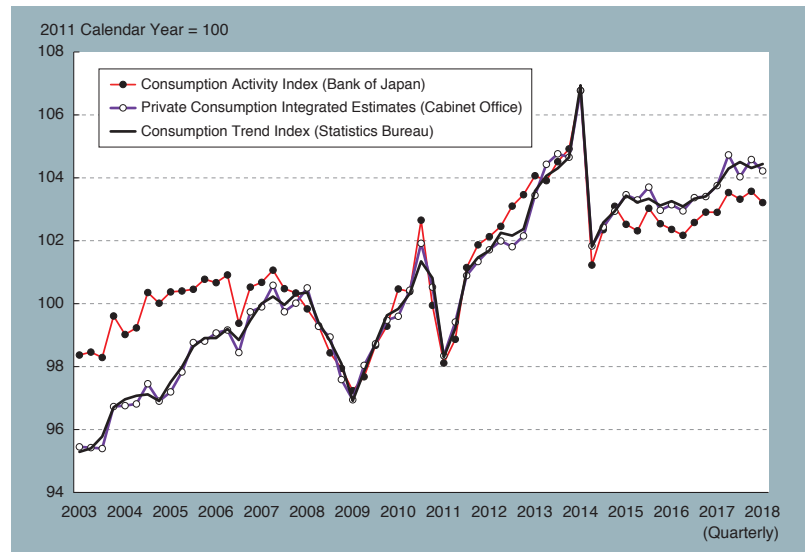
As described above, the Family Income and Expenditure Survey is an important index in understanding the consumption structure of Japanese households, but its valuation as a business index is not too high. As fewer households keep household accounts, there are fewer households that agree to take part in the survey, and there are economists who suspect that the sample is skewed towards civil servant households. There are also criticisms that point to the difficulty in reading trends because of the high fluctuations in monthly consumption amounts.

Estimations of the GDP Private Final Consumption Expenditure aggregates the demand side (the Family Income and Expenditure Survey and others) data and the supply side (production statistics and others) data, and the Cabinet Office lowered the demand side ratio to 0.3139 from 0.5271 from the "Fiscal 2016 National Accounts Annual Estimations" which was published in December 2017.

In order to respond to these criticisms, the Statistics Bureau of the Ministry of Internal Affairs and Communications began publishing the Consumption Trend Index (CTI) from January 2018. CTImicro is

CHART 2

## Three kinds of consumption index



Note: Consumption Trend Index is converted to the index of 2011 Calendar Year = 100.

Source: "Consumption Activity Index", Bank of Japan; "Private Consumption Integrated Estimates", Cabinet Office; "Consumption Trend Index", Statistics Bureau, Ministry of Internal Affairs and Communications

an index that grasps the changes in household consumption by aggregating family income and other consumption-related indices conducted by the Ministry of Internal Affairs and Communications, the Survey of Household Economy and the National Income and Expenditure Survey for single-person households. CTImacro aggregates statistical information related to sales of goods and services, and is an index dedicated to anticipating private final consumption expenditure of GDP.

As an index to anticipate GDP Private Final Consumption Expenditure, and to also grasp the monthly trends, the Cabinet Office began publishing Private Consumption Integrated Estimates from the early 2000s, and the Bank of Japan began calculating a Consumption Activity Index from May 2017 (Chart 2). For real private final consumption expenditure for the period January to March 2018, both the Private Consumption Integrated Estimates and the Consumption Activity Index estimate a negative 0.3% from the previous period. On the other hand, CTImacro saw a growth of 0.1% compared to the previous period. And the preliminary Private Final Consumption Expenditure for the quarterly GDP which was published on May 16 was minus 0.0%.

**Note:** This article has been written with available information as of May 16, 2018. JS

Nobuo Iizuka is a professor of the Department of Economics at Kanagawa University. He worked for the *Nihon Keizai Shimbun (Nikkei)* and the Japan Center for Economic Research for more than 20 years, and is one of the most highly-regarded commentators on Japanese business and the economy.

## ECONOMIC INDICATORS FOR JAPAN

Calendar year, Quarter and Month	Real GDP		Nominal GDP		IIP rate of increase over previous year/term (month) (%)	CPI (All terms, less fresh food) rate of increase over previous year/the same term (month) of the previous year (%)
	Amount (trillion yen)	Rate of increase over previous year/term (%)	Amount (trillion yen)	Rate of increase over previous year/term (%)		
2009	472.2	-5.4	489.5	-6.0	-21.9	-1.3
2010	492.0	4.2	500.4	2.2	15.6	-1.0
2011	491.5	-0.1	491.4	-1.8	-2.8	-0.3
2012	498.8	1.5	495.0	0.7	0.6	-0.1
2013	508.8	2.0	503.2	1.7	-0.8	0.4
2014	510.7	0.4	513.9	2.1	2.1	2.6
2015	517.6	1.4	532.0	3.5	-1.2	0.5
2016	522.5	1.0	538.5	1.2	-0.1	-0.3
2017	531.6	1.7	546.6	1.5	4.4	0.5
2017/2nd Qtr.	530.7	0.5	545.5	0.9	1.8	0.4
3rd Qtr.	533.4	0.5	549.6	0.8	0.5	0.6
4th Qtr.	534.7	0.3	550.9	0.2	1.6	0.9
2018/1st Qtr.	533.9	-0.2	548.7	-0.4	-1.3	0.9
2017/Sep.	—	—	—	—	-0.6	0.7
Oct.	—	—	—	—	0.5	0.8
Nov.	—	—	—	—	0.7	0.9
Dec.	—	—	—	—	1.8	0.9
2018/Jan.	—	—	—	—	-4.5	0.9
Feb.	—	—	—	—	2.0	1.0
Mar.	—	—	—	—	1.4	0.9
Apr.	—	—	—	—	0.5	0.7
Sources	"SNA (National Accounts of Japan)", Cabinet Office				"Indices of Industrial Production", Ministry of Economy, Trade and Industry	"Consumer Price Index", Statistics Bureau, Ministry of Internal Affairs and Communications

Calendar year, Quarter and Month	Foreign Trade Statistics									
	Exports amount (trillion yen)	Exports rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount (trillion yen)	Imports rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to US (trillion yen)	Exports to US rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount from US (trillion yen)	Imports from US rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to EU (trillion yen)	Exports to EU rate of increase over previous year/ the same term (month) of the previous year (%)
2009	54.2	-33.1	51.5	-34.8	8.7	-38.6	5.5	-31.4	6.7	-41.0
2010	67.4	24.4	60.8	18.0	10.4	18.8	5.9	7.2	7.6	12.8
2011	65.5	-2.7	68.1	12.1	10.0	-3.4	5.9	0.3	7.6	0.0
2012	63.7	-2.7	70.7	3.8	11.2	11.7	6.1	2.5	6.5	-14.7
2013	69.8	9.5	81.2	14.9	12.9	15.6	6.8	12.0	7.0	7.7
2014	73.1	4.8	85.9	5.7	13.6	5.6	7.5	10.7	7.6	8.4
2015	75.6	3.4	78.4	-8.7	15.2	11.5	8.1	6.9	8.0	5.3
2016	70.0	-7.4	66.0	-15.8	14.1	-7.1	7.3	-9.2	8.0	-0.0
2017	78.3	11.8	75.4	14.1	15.1	6.9	8.1	10.5	8.7	8.5
2017/2nd Qtr.	18.8	10.5	18.1	16.2	3.6	6.8	2.0	12.2	2.1	10.0
3rd Qtr.	19.6	15.1	18.4	14.8	3.8	14.4	2.0	12.4	2.2	11.1
4th Qtr.	20.9	13.0	20.2	17.0	4.1	7.5	2.0	7.8	2.3	13.4
2018/1st Qtr.	19.9	4.9	20.1	7.5	3.7	1.9	2.1	4.6	2.3	9.7
2017/Sep.	6.8	14.1	6.2	12.3	1.3	11.1	0.7	17.6	0.8	11.6
Oct.	6.7	14.0	6.4	19.0	1.3	7.1	0.6	3.3	0.8	15.8
Nov.	6.9	16.2	6.8	17.3	1.4	13.0	0.7	12.5	0.7	13.3
Dec.	7.3	9.4	6.9	15.0	1.4	3.1	0.7	7.6	0.8	11.4
2018/Jan.	6.1	12.3	7.0	7.8	1.1	1.2	0.7	8.5	0.7	20.3
Feb.	6.5	1.8	6.5	16.6	1.3	4.3	0.6	5.3	0.8	11.5
Mar.	7.4	2.1	6.6	-0.5	1.4	0.2	0.7	0.6	0.8	0.3
Apr.	6.8	7.8	6.2	5.9	1.3	4.3	0.7	3.9	0.8	14.1
Sources	"Trade Statistics of Japan", Ministry of Finance									

## ECONOMIC INDICATORS FOR JAPAN

Calendar year, Quarter and Month	Cash salary amount rate of increase over previous year/ the same term (month) of the previous year (%)	Active job openings-to-applicants ratio (time(s))	Unemployment rate (%)	M2 rate of increase over previous year/ the same term (month) of the previous year (%)	Balance of payments		Yen/\$ rate (averaged during the term)
					Trade balance (trillion yen)	Current balance (trillion yen)	
2009	-3.9	0.47	5.1	2.7	5.4	13.6	93.5
2010	0.5	0.52	5.1	2.8	9.5	19.4	87.8
2011	-0.2	0.65	4.6	2.7	-0.3	10.4	79.8
2012	-0.9	0.80	4.3	2.5	-4.3	4.8	79.8
2013	-0.4	0.93	4.0	3.6	-8.8	4.5	97.6
2014	0.4	1.09	3.6	3.4	-10.5	3.9	105.8
2015	0.1	1.20	3.4	3.6	-0.9	16.5	121.0
2016	0.5	1.36	3.1	3.4	5.5	21.1	108.8
2017	0.4	1.50	2.8	4.0	5.0	22.0	112.2
2017/2nd Qtr.	0.5	1.49	2.9	3.9	1.0	4.6	111.1
3rd Qtr.	0.2	1.52	2.8	4.0	1.8	7.0	111.0
4th Qtr.	0.7	1.57	2.7	3.9	1.2	4.3	112.9
2018/1st Qtr.	1.4	1.59	2.5	3.2	0.7	5.8	108.2
2017/Sep.	0.9	1.53	2.8	4.1	0.9	2.3	110.7
Oct.	0.2	1.55	2.8	4.1	0.4	2.2	112.9
Nov.	0.9	1.56	2.7	4.0	0.2	1.3	112.9
Dec.	0.9	1.59	2.7	3.6	0.5	0.8	113.0
2018/Jan.	1.2	1.59	2.4	3.4	-0.7	0.6	110.7
Feb.	1.0	1.58	2.5	3.2	0.2	2.1	107.9
Mar.	2.0	1.59	2.5	3.1	1.2	3.1	106.0
Apr.	0.8	1.59	2.5	3.3	0.6	1.8	107.5
Sources	"Monthly Labour Survey", Ministry of Health, Labour and Welfare	"Employment Referrals for General Workers", Ministry of Health, Labour and Welfare	"Labour Force Survey", Statistics Bureau, Ministry of Internal Affairs and Communications	"Money Stock", Bank of Japan	"Balance of Payments", Ministry of Finance		Bank of Japan

Calendar year, Quarter and Month	Foreign Trade Statistics									
	Imports amount from EU (trillion yen)	Imports from EU rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to Asia (excluding China) (trillion yen)	Exports to Asia (excluding China) rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount from Asia (excluding China) (trillion yen)	Imports from Asia (excluding China) rate of increase over previous year/ the same term (month) of the previous year (%)	Exports amount to China (trillion yen)	Exports to China rate of increase over previous year/ the same term (month) of the previous year (%)	Imports amount from China (trillion yen)	Imports from China rate of increase over previous year/ the same term (month) of the previous year (%)
2009	5.5	-24.3	19.1	-29.3	11.6	-32.8	10.2	-21.0	11.4	-22.9
2010	5.8	5.5	24.7	29.5	14.1	22.0	13.1	27.8	13.4	17.3
2011	6.4	10.1	23.8	-3.9	15.7	11.7	12.9	-1.4	14.6	9.2
2012	6.6	3.6	23.3	-1.8	16.3	3.3	11.5	-10.8	15.0	2.7
2013	7.6	15.2	25.2	8.1	18.3	12.6	12.6	9.7	17.7	17.4
2014	8.2	6.8	26.1	3.5	19.4	6.2	13.4	6.0	19.2	8.6
2015	8.6	5.6	27.1	3.7	18.9	-2.6	13.2	-1.2	19.4	1.3
2016	8.2	-5.5	24.7	-8.7	16.2	-14.5	12.4	-6.5	17.0	-12.4
2017	8.8	7.4	28.0	13.3	18.6	14.8	14.9	20.5	18.5	8.5
2017/2nd Qtr.	2.1	10.0	6.7	11.6	4.5	16.6	3.6	19.2	4.3	7.7
3rd Qtr.	2.2	10.3	7.0	14.7	4.6	18.4	3.7	24.1	4.5	8.3
4th Qtr.	2.4	11.5	7.5	13.0	4.9	18.2	4.2	21.9	5.1	17.0
2018/1st Qtr.	2.4	13.8	7.1	3.4	5.1	10.4	3.7	8.8	4.6	2.1
2017/Sep.	0.8	15.4	2.4	13.7	1.5	15.0	1.3	29.3	1.6	1.7
Oct.	0.8	18.2	2.4	15.2	1.6	20.3	1.4	26.0	1.6	14.4
Nov.	0.8	6.9	2.5	17.9	1.6	17.9	1.4	25.1	1.8	21.7
Dec.	0.8	9.9	2.6	6.8	1.7	16.7	1.5	15.9	1.7	14.9
2018/Jan.	0.8	18.3	2.2	9.6	1.7	10.2	1.2	30.8	1.7	-3.3
Feb.	0.7	11.2	2.3	0.3	1.6	16.8	1.1	-9.7	1.5	39.2
Mar.	0.8	11.8	2.6	1.3	1.7	5.1	1.4	10.8	1.3	-16.8
Apr.	0.7	9.0	2.3	3.4	1.5	5.3	1.3	10.9	1.5	2.2
Sources	"Trade Statistics of Japan", Ministry of Finance									