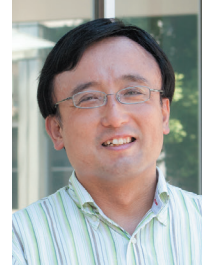


# Is Currency in Circulation Expanding?



Author Nobuo Iizuka

By Nobuo Iizuka

## Japan's Money Stock Statistics

Bank of Japan Governor Haruhiko Kuroda, who took office in March 2013, adopted quantitative and qualitative monetary easing with the aim of increasing the amount of currency circulating within Japan. The aim was to vitalize economic activities by increasing the amount of currency, and overcome deflation. Such amounts of domestic currency in circulation are shown in the Money Stock Statistics of the BOJ. Money Stock is basically defined as the quantity of money held by money holders (corporations, households, and local governments including municipal enterprises).

The definition of "Money" is complex and even the BOJ which compiles the statistics says it "differs between countries and time, and cannot be uniquely defined". The current Money Stock Statistics prepares the following four indices. As [Chart 1](#) shows, fluctuations of these four indices each differ.

- M1 = Currency in circulation + deposit money
- M2 & M3 = Currency in circulation + deposits
- Broadly-defined liquidity = M3 + pecuniary trusts + investment trusts + bank debentures + straight bonds issued by banks + commercial paper issued by financial institutions + government securities + foreign bonds

Here, currency in circulation is the sum of banknotes in circulation and coins in circulation. Deposit money is deposits that can be withdrawn easily when necessary as represented by ordinary deposits. Deposits also include quasi-money such as time deposits which become cash upon cancellation.

Thus, M1 is Money which can be most

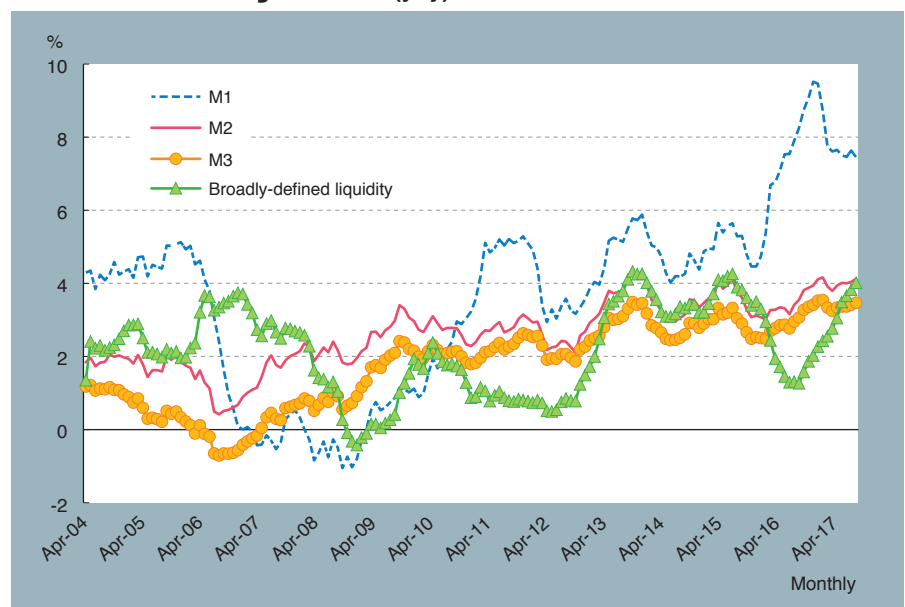
easily used as a method of payment. But Money which is used for analysis of economic activities is M3. This is because how much currency has circulated in all corners of the economy can be observed through bank lending.

## Analysis in Combination with Monetary Survey

There are several ways to analyze what economic activity results in fluctuations in M3, and one such method is by using the Monetary Survey also compiled by the BOJ. As previously mentioned, Money Stock is compiled from currencies such as cash and deposits owned by non-financial corporations and individuals. This is an asset for non-financial corporations and individuals, but a liability for financial institutions.

CHART 1

### Trend in money stock (yoy)



Source: "Money Stock", BOJ

To be more concrete, fluctuations in M3 and Liabilities Other Items is linked with the increase and decrease in monetary institutions' lending. Fluctuations in lending are shown in the following categories: Foreign Assets (Net), Claims on Government (Net), Claims on Other Financial Corporations, Claims on Local Governments, and Claims on Other Sectors. Here, Other Sectors refers to nonfinancial corporations, households and private nonprofit institutions serving households.

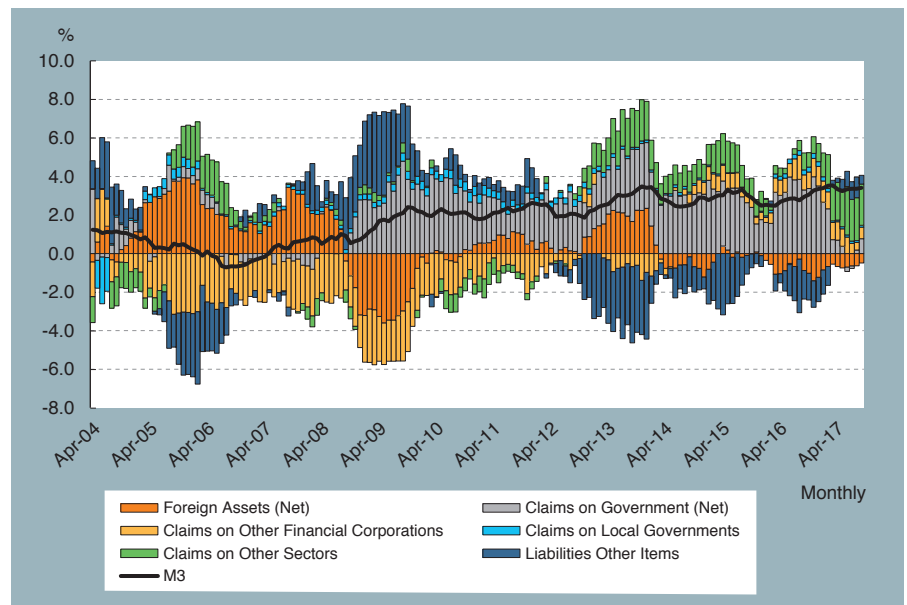
Chart 2 shows the breakdown of the fluctuation factors of M3 using the Monetary Survey. Even after Kuroda's monetary easing began, until most recently, growth in M3 was primarily an increase in Claims on Government. But since 2017, there has been a sharp increase in Other Sectors, or in other words, a higher contribution of expanded lending to the private sector. The Japanese economy is once again on a recovery trend since the latter half of 2016, and Chart 2 can be described as showing this economic trend.

### Why is This Column Publishing M2?

We have thus identified that fluctuations in M3 are important when looking at economic trends, but we have published M2 in the Statistics Chart of this series. The reasons for that are as follows.

The current Money Stock Statistics were first published in June 2008 (thus the actual values are only available since April 2008). It is a wardrobe-change version of the Money Supply Statistics that were available prior to that. One of the reasons behind the wardrobe-change was the need for revision on the back of the variety of financial products, but the most influential incident was the privatization of postal services in October 2007. With the privatization, Japan Post Bank began its business operations and became treated as a domestic bank under the banking system.

CHART 2  
Contribution to M3 growth (yoy)



Source: "Monetary survey", BOJ

As noted previously, M2 and M3 of the current Money Stock Statistics are the same concepts, but M2 excludes Japan Post Bank. Thus, this is the only indicator that one can continue to watch carrying on from the M2+CD in the old Money Supply Statistics.

This column requires fluctuations in each data to be monitored for a considerable time period. Fluctuations in M3 are limited and can only be grasped after 2010 (since data is only available from April 2008). This is why this column publishes M2.

**Note:** This article has been written based on available information as of Nov. 15, 2017. **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 (%)		
2008	499.3	-1.1	520.7	-2.1	-3.4	1.5
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	0.9	538.4	1.2	-0.1	-0.3
2016/4th Qtr	525.0	0.3	540.2	0.5	1.8	-0.3
2017/1st Qtr.	527.0	0.4	540.6	0.1	0.2	0.2
2nd Qtr.	530.8	0.7	544.9	0.8	2.1	0.4
3rd Qtr.	534.1	0.6	549.2	0.8	0.4	0.6
2017/Mar.	—	—	—	—	-1.9	0.2
Apr.	—	—	—	—	4.0	0.3
May	—	—	—	—	-3.6	0.4
Jun.	—	—	—	—	2.2	0.4
Jul.	—	—	—	—	-0.8	0.5
Aug.	—	—	—	—	2.0	0.7
Sep.	—	—	—	—	-1.0	0.7
Oct.	—	—	—	—	0.5	0.8
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 (%)
2008	81.0	-3.5	79.0	8.0	14.2	-15.9	8.0	-3.7	11.4	-7.8
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
2016/4th Qtr	18.5	-1.9	17.2	-9.3	3.8	-3.9	1.9	-2.2	2.0	-5.3
2017/1st Qtr.	19.0	8.5	18.7	8.6	3.6	-0.7	2.0	9.2	2.1	-0.1
2nd Qtr.	18.8	10.5	18.1	16.2	3.6	6.8	2.0	12.1	2.1	10.0
3rd Qtr.	19.6	15.1	18.4	14.5	3.8	14.4	2.0	12.3	2.2	11.1
2017/Mar.	7.2	12.0	6.6	15.9	1.4	3.5	0.7	16.4	0.8	1.4
Apr.	6.3	7.5	5.9	15.2	1.2	2.6	0.6	9.8	0.7	2.2
May	5.9	14.9	6.1	17.9	1.1	11.6	0.7	7.4	0.7	19.8
Jun.	6.6	9.7	6.2	15.5	1.3	7.1	0.7	19.3	0.7	9.6
Jul.	6.5	13.4	6.1	16.3	1.3	11.5	0.7	14.0	0.7	8.3
Aug.	6.3	18.1	6.2	15.3	1.2	21.8	0.6	5.7	0.7	13.7
Sep.	6.8	14.1	6.1	12.1	1.3	11.1	0.7	17.4	0.8	11.6
Oct.	6.7	14.0	6.4	18.9	1.3	7.1	0.6	3.2	0.8	15.8
Sources	"Trade Statistics of Japan", Ministry of Finance									

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)	
2008	-0.3	0.88	4.0	2.1	5.8	14.9	103.3
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	16.2	121.0
2016	0.5	1.36	3.1	3.4	5.5	20.3	108.8
2016/4th Qtr	0.4	1.41	3.0	3.7	1.7	4.1	109.4
2017/1st Qtr.	0.2	1.44	2.9	4.1	1.1	6.0	113.6
2nd Qtr.	0.5	1.49	2.9	3.9	0.9	4.6	111.1
3rd Qtr.	0.2	1.52	2.8	4.0	1.7	7.0	111.0
2017/Mar.	0.0	1.45	2.8	4.2	0.9	3.0	113.0
Apr.	0.5	1.48	2.8	3.9	0.5	2.0	110.1
May	0.6	1.49	3.1	3.8	-0.1	1.7	112.2
Jun.	0.4	1.51	2.8	3.9	0.5	0.9	110.9
Jul.	-0.6	1.52	2.8	4.0	0.6	2.3	112.5
Aug.	0.7	1.52	2.8	4.0	0.3	2.4	109.9
Sep.	0.9	1.52	2.8	4.0	0.9	2.3	110.7
Oct.	0.6	1.55	2.8	4.1	0.4	2.2	112.9
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 (%)
2008	7.3	-4.8	27.0	-2.0	17.2	4.1	12.9	0.9	14.8	-1.4
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
2016/4th Qtr	2.1	-9.9	6.6	1.3	4.2	-9.1	3.5	2.4	4.4	-11.1
2017/1st Qtr.	2.1	-1.7	6.9	13.9	4.6	6.4	3.4	16.3	4.5	0.8
2nd Qtr.	2.1	9.9	6.7	11.6	4.5	16.5	3.6	19.2	4.3	7.4
3rd Qtr.	2.2	10.3	7.0	14.7	4.6	18.2	3.7	24.2	4.5	8.3
2017/Mar.	0.7	7.1	2.6	16.3	1.6	10.9	1.3	16.4	1.6	10.4
Apr.	0.7	5.5	2.3	10.9	1.4	13.2	1.2	14.8	1.4	7.5
May	0.7	12.5	2.1	13.4	1.5	19.6	1.1	23.8	1.4	9.6
Jun.	0.7	11.6	2.3	10.6	1.6	16.7	1.2	19.6	1.5	5.2
Jul.	0.7	3.2	2.3	13.4	1.6	23.2	1.2	17.7	1.5	13.2
Aug.	0.8	12.4	2.3	17.0	1.5	16.5	1.2	25.8	1.5	11.1
Sep.	0.8	15.4	2.4	13.7	1.5	14.9	1.3	29.3	1.6	1.7
Oct.	0.8	18.1	2.4	15.2	1.6	20.2	1.4	26.0	1.6	14.3
Sources	"Trade Statistics of Japan", Ministry of Finance									