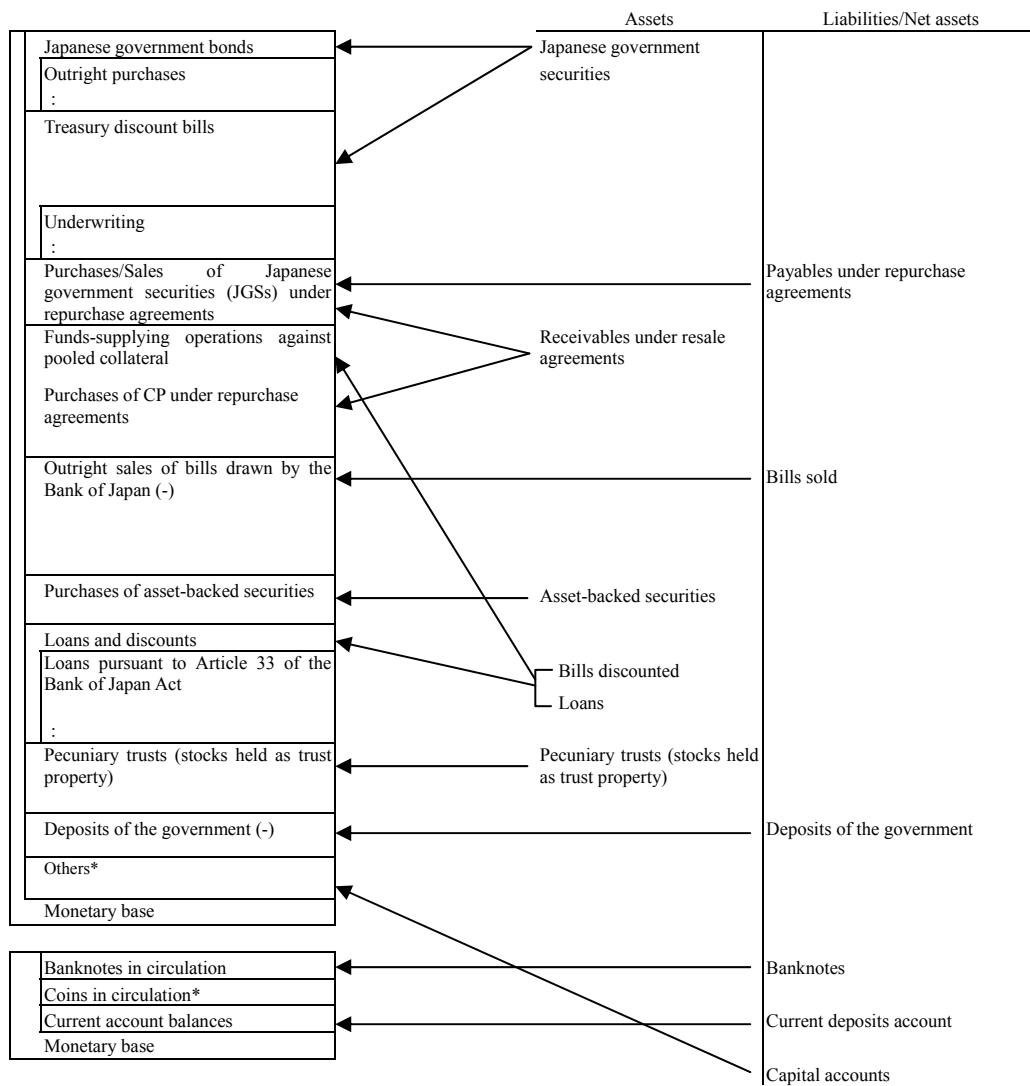


(Chart 1)

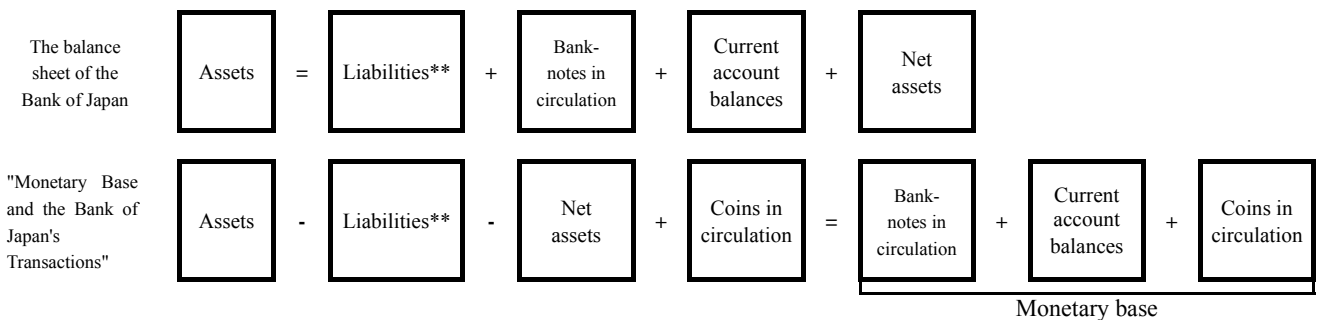
"Monetary Base and the Bank of Japan's Transactions"

Balance sheet of the Bank of Japan



\* "Coins in circulation" is calculated separately

(Chart 2)



\*\* Excluding banknotes in circulation and current account balances

#### IV. Information about Seasonal Adjustment (X-12-ARIMA)

The following statistics are seasonally adjusted using the Bureau of Census X-12-ARIMA (Version 0.3). The models for each indicator are shown below. A multiplicative model and a logarithmic transformation are adopted for every series except as noted.

##### 1. Monetary Base

Indicator	Model	Level shift and ramp	Trading-day adjustment	Beginning of the series
Monetary base (average amounts outstanding)	(011)(011)	<ul style="list-style-type: none"> <li>- Months when the reserve requirement rate was changed.</li> <li>- November 1986 (issue of a coin commemorating the Emperor's 60th year on the throne).</li> <li>- April 2003 (inclusion of the deposits of Japan Post).</li> <li>- Months when the guideline for money market operations was changed from February 1999 through July 2006.</li> <li>- Months from April 2013 through October 2014 (introduction of the "Quantitative and Qualitative Monetary Easing").</li> <li>- Months from October 2014 (expansion of the "Quantitative and Qualitative Monetary Easing").</li> </ul>	None	January 1970

—The critical value for additive outliers and temporary changes depends on the length of the time-series data used for seasonal adjustment, which is from the beginning of data compilation through December 2015. For the months after December 2015, seasonally adjusted figures are calculated by applying the predicted seasonal factors.

##### 2. Money Stock

Indicator	Model	Level shift and ramp	Trading-day adjustment	Former series data used through March 2003 <beginning of the series>
M2 (average amounts outstanding)	(111)(011)	April 2003	None	M2+CDs <January 1967>
M3 (average amounts outstanding)	(011)(011)	April 2003	None	M3+CDs - money trusts <January 1996>
M1 (average amounts outstanding)	(010)(110)	From February through April 2002 April 2003	None	M1 <January 1963>
Currency in circulation (average amounts outstanding)	(010)(011)	None	None	Currency in circulation <January 1963>
Deposit money (average amounts outstanding)	(010)(111)	From February through April 2002 April 2003	None	Deposit money <January 1963>
Quasi-money (average amounts outstanding)	(110)(011)	From February through April 2002 April 2003	None	Quasi-money <January 1967>
L (average amounts outstanding)	(110)(011)	January 1996 April 1998 April 2003	None	Broadly-defined liquidity <January 1980>
M3 (amounts outstanding at end of period)	(011)(010)	April 1998 April 2003	Yes	M3+CDs - money trusts <January 1996>
M1 (amounts outstanding at end of period)	(110)(011)	March 2002 April 2003	Yes	M1 <January 1960>

—The critical value for additive outliers and temporary changes depends on the length of the time-series data used for seasonal adjustment, which is from the beginning of data compilation through December 2015. For the months after December 2015, seasonally adjusted figures are calculated by applying the predicted seasonal factors.

—Both the former series data (from the beginning of the series through March 2003) and the current series data (from April 2003 through December 2015) are used for seasonal adjustment.

—M1 (amounts outstanding at end of period) is seasonally adjusted by using data (in which the former series are linked to the current series) of the last 56 years.

##### 3. Currency in Circulation

Indicator	Model	Level shift and ramp	Trading-day adjustment	Length of the series
Banknotes in circulation (average amount outstanding)	(110)(011)	February 1989 From February through April 2002 From February through April 2005	None	From January 1960 through December 2015
Banknotes in circulation (amount outstanding at end of period)	(212)(011)	March 2002 March 2005	Yes	From January 1960 through December 2015

—The critical value for additive outliers and temporary changes depends on the length of the time-series data used for seasonal adjustment, which is the most recent 56 years, or 672 months, from January 1960 through December 2015. For the months after December 2015, seasonally adjusted figures are calculated by applying the predicted seasonal factors.

—Seasonally adjusted data from January 1960 were revised in February 2016, and those from January 1955 through December 1959 remain unchanged.

—Trading-day effects are adjusted by user-defined, day-of-the-week variables.