Stock Repurchases in Japan

Kenji Wada

Faculty of Business and Commerce, Keio University, Japan

March 5 2010
Before 1994, Japanese commercial code banned firms from repurchasing its own stocks.

In 1994, there was a major revision in Japanese commercial code that made it possible for Japanese firms to repurchase shares 1) for the purpose of retirement or 2) for the purpose of giving stocks to employees after the resolution at the shareholder’s meeting.

In 1997, stock repurchase programs for the purpose of granting stock options both for employees and executives were introduced.

After the introduction, stock repurchase programs in Japan became quite popular: none (1994) to 9 billion dollars (2000). Stock repurchase programs as an alternative to dividends has become important.
Motivation

- There was stringent regulation on the purpose of, the fund for, the period of and the disclosure for stock repurchase programs in Japan. Firms are not allowed to hold stocks for resale and they must retire stocks immediately after repurchase except for stock option purpose.

- There is no such regulation for Japanese treasury stock programs introduced in 2001 except for the total value of the programs possible and disclosure requirement. Firms are allowed to keep holding their stocks and they can later sell them in the market, retire them or give them to employees and executives. In the U.S. firms do not even have a legal obligation to announce the treasury stock program (they have to file a quarterly report on the progress of repurchase after the stock repurchase on and after March 15 2004).
Because of the strong regulation, I was able to obtain much clearer results on the effect of announcement of stock repurchase programs on stock return in short-term and long-term in Japan compared with those for both U.S. and Japanese treasury stock programs due to the stronger regulation.

Hence, in this paper I investigate the role of stock repurchase programs in Japan.

Some remark on the empirical analysis of treasury stock programs in Japan if time permits.
Literature on U.S. Treasury Stock programs

Literature on Japanese Stock Repurchase programs

- Kan (1999) investigated 138 cases and found that companies with higher EPS and ROE have higher returns.
- Makita (2002) showed the difference between open market repurchase and tender offer does not affect the short-term stock returns after the repurchase for 165 firms.
- Sumio et al. (2005) compared repurchase according to the 1994 revision of commercial code (44 firms) and one based on 1997 special code for revision (379 firms). They did not cover other revisions and they did not consider stock options purpose.
Regulations on Japanese Stock Repurchase Programs for Retirement Purpose

- Resolution
  1. At each shareholder’s meeting 10/94
  2. Board of director’s meeting after the change in the article of the firm 06/97

- Fund
  1. Retained earnings 10/94 (41 announcements till 06/01/97, 52 announcements till 03/30/98, 249 announcements till 03/30/99, 589 announcements till end)
  2. Capital reserve 03/30/98 (111 announcements till 03/30/99, 213 announcements till end)
  3. Latent real estate profits 03/99 (5 announcements till end)
Regulations on Japanese Stock Repurchase Programs for Retirement Purpose (cont.)

- Repurchase deadline: till the next shareholder’s meeting
- Holding period: must be retired immediately (firms cannot keep holding or resell the repurchased stocks)
- Amount:
  1. no limit: 10/94
  2. 10% of total shares outstanding: 06/97
  3. no limit if repurchased through capital reserve: 03/98
  4. no limit if repurchased through latent real estate profits 03/99
Regulations on Japanese Stock Repurchase Programs for Option Purpose

- Resolution: announcement for planned repurchase after board decision and approval for repurchase at the shareholder’s meeting
- Fund: retained earnings
- Repurchase deadline: till the next shareholder’s meeting
Regulations on Japanese Stock Repurchase Programs for Option Purpose (cont.)

- Holding period for option purpose:
  1. within 6 months
  2. within the expiration period (maximum 10 years)

- Amount:
  1. 3% of total shares outstanding: 10/94
  2. 10% of total shares outstanding: 06/97
Disclosure Requirement for Japanese Stock Repurchase Programs for Retirement Purpose

- At the time of announcement: 1) the purpose, 2) the maximum number of shares, 3) the maximum amount of money: At TSE, the announcement to the press club, reporting to the TSE and TDnet at 15:30.

- Every three month: 1) the number of shares purchased during the period, 2) the amount of money spent during the period, 3) the number of shares repurchased by the end of the period, 4) the total amount of money spent by the end of the period

- Shareholder’s Meeting: 1) the type of shares repurchased, 2) the number of shares repurchased, 3) the amount of money spent
In addition to the three mentioned in the previous slides, names of the people receiving options, type of stocks given, number and price of stocks given, exercise period and additional conditions on exercise.
Data Source Problem for U.S. Treasury Stock programs

- U.S. Treasury Stock programs
  1. Compustat Purchase of Stock: overestimates repurchase (includes conversion of stock etc.)
  2. Compustat or CRSP Change in number of shares: underestimate repurchase (possibility of repurchase and distribution)
  3. Wall Street Journal: underestimates repurchase (firms do not have to announce)
  4. Securities Data Companies underestimates repurchase (repurchases with more than 5% fraction only)
  5. Net dollar spent on repurchase in cash flow statement: does not report the number of shares

Japanese Stock Repurchase programs in this paper

1. Firms must announce by law and the specific database records all and only the repurchase announcements

Kenji Wada (Faculty of Business and Commerce, Keio University, Japan)
Data for Japanese Stock Repurchase Programs

Corporate Action Related Data on Stocks and Bonds (Listed)

1. date of the board of director’s meeting
2. Nikkei Company code
3. name of the company
4. date the resolutions for the share repurchase is made
5. type of the stock to be reacquired
6. face value of the stock
7. purpose of the repurchase
8. scheduled number of maximum shares to be reacquired
1. scheduled maximum value of the shares to be reacquired
2. actual number of shares repurchased
3. date of the first shareholder’s meeting after the repurchase announcement
4. date of the company finished repurchasing shares
5. stock exchange report in which repurchase is recorded
6. suspension flag and
7. decision date of suspension.

This data does not record the total value of actual repurchased shares.
Table 1

- trading volume, trading value, market cap and # of firms in each stock exchange and OTCs
- mean and variance of rate of return
- market cap/real GDP ratio for Japan and the U.S.
Figure 1-1

- the repurchase value per announcement: three distinct groups, the average value is 2.4 billion yen (the average is $120-$150 million in the U.S.)

Figure 1-2

- the number of shares per announcement: three distinct groups, the average is 3.1 million shares

Figure 1-3

- the relative program size: the average is 2.2% (Securities Data Company’s Database: observations with at least 5%) Some companies announced to repurchase more than 10%.

Figure 1-4

- the relative program value: the average is 3.6% (U.S. average is 6.64%)
Table 2

- decomposition of the repurchase announcement by the purpose, location and year
- # of announcements, announced value and repurchased value by the purpose and year
fraction of announced shares actually repurchased by the location: average is 74\% vs. 54.1\% by the end of the first year and 73.8\% by the end of the third year in the U.S.
Table 4

- time to complete the repurchase by the purpose
- the average is 103 days (100 days for the retirement purpose and 115 days for the stock option purpose)
dividends vs. share repurchase: no substitution in Japan.
Table 6

- Frequency of payouts by the year
Table 7: Short-term and Long-term Mean Excess Returns around Repurchase Announcements

- Definition of Excess Returns and Abnormal Excess Returns

\[
R_{it} = \frac{P_t - P_{t-1}}{P_{t-1}}
\]

\[
R_{it} = \alpha_i + \beta_i MR_t + \epsilon_{it}
\]

\[
AR_{it} \equiv R_{it} - \hat{\alpha}_i - \hat{\beta}_i MR_t
\]

\[
CAR_i(\tau_1, \tau_2) \equiv \sum_{t=\tau_1}^{\tau_2} AR_{it}
\]

\[
\overline{CAR(\tau_1, \tau_2)} \equiv \frac{1}{N(\tau_1, \tau_2)} \sum_{i=1}^{N(\tau_1, \tau_2)} CAR_i(\tau_1, \tau_2)
\]
The Short-term and Long-term CARs before announcements are in general negative and significant. (consistent with the U.S.)

The Short-term and Long-term CARs after announcements are all positive and significant.

Short-term CAR (1.33% for one day) in Japan is smaller but long-term CAR (14.26% for 250 days) is about the same level as those in the U.S.

Consistent with a signalling hypothesis.
Table 8: Regression Analyses after Announcement

\[
CAR(t, t + k) = \beta_{1k} X_1 + \beta_{2k} X_2 + \beta_{3k} X_3 + \beta_{4k} X_4 + \epsilon_{t, t+k}
\]

\[
X_1 = \begin{cases} 
1 & \text{if the purpose is stock option} \\
0 & \text{if the purpose is retirement} 
\end{cases}
\]

\[
X_2 = \begin{cases} 
1 & \text{if this is the first announcement} \\
0 & \text{if this is not the first announcement} 
\end{cases}
\]

\[
X_3 = \begin{cases} 
1 & \text{if the firm repurchased any shares} \\
0 & \text{if the firm did not repurchase any shares} 
\end{cases}
\]

\[
X_4 : \text{the ratio of announced number of shares divided by total number of shares}
\]
The short-term and long-term CARs for stock option purpose were higher than those for the retirement purpose. Firm must keep the repurchased shares for a maximum of 10 years for the stock option purpose. Firms must be really sure if it repurchase shares for option purpose.

The short-term and long-term CARs for the first announcement were higher than those for the subsequent announcements.

The short-term and long-term CARs for the announcements with actual repurchase were higher than those for the ones without actual repurchase.

The short-term and long-term CARs for the announcements with higher repurchase fractions were higher than those with lower fractions but not significant.
Table 9:

\[
\text{CAR}(t - k, t - 1) = \beta_{1k-1} X_1 + \beta_{2k-1} X_2 + \varepsilon
\]

\[
X_1 = \begin{cases} 
1 & \text{if the purpose is stock option} \\
0 & \text{if the purpose is retirement} 
\end{cases}
\]

\[
X_2 = \begin{cases} 
1 & \text{if this is the first announcement} \\
0 & \text{if this is not the first announcement} 
\end{cases}
\]
The CARs between 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 25 and 50 trading days prior to the announcement were higher for stock option.

The CARs between 4, 5, 6, 10, 20, 25, 50, and 100 trading days prior to the announcement were lower for the first announcement.

Firms made first announcement following sharper declines in stock prices relative to the subsequent announcements.
Table 10:

\[
T = \beta_1 \overline{CAR(t, t + 5)} + \beta_2 \overline{CAR(t + 6, t + 10)} \\
+ \beta_3 \overline{CAR(t + 11, t + 25)} \\
+ \beta_4 \overline{CAR(t + 26, t + 50)} + \beta_5 \overline{CAR(t + 51, t + 75)} \\
+ \beta_6 \overline{CAR(t + 76, t + 125)} + \beta_7 \overline{CAR(t + 126, t + 250)} + \epsilon
\]
Firms wait to repurchase shares initially, when the stock price is rising more relative to the benchmark.

Firms hurry up repurchasing shares between 76 and 125 days.

It takes longer for firms to repurchase shares between 126 and 250 days.

Firms seem to time the market when they repurchase shares after the announcement.
The stock price reacts to the announcement of repurchases positively. The reaction is different according to the motive of the repurchase. Firms have been able to time to market to some extent. Firms that repurchased stocks increased the payout. Classification of the repurchase for the retirement purpose by the different legal procedures each with different sample period (from 1994, 199 and 1999) and each with the same sample period (from 1998). Comparison of each purpose for different sample period. Comparison of stock options through repurchase and one through new issue. Research on the announcement of re-selling or retirement of shares on stock prices after repurchase announcement for the Japanese treasury stock programs.
Revision of Commercial Code 210 (2001/10/01): Corporations can repurchase and keep holding its shares after the special resolution (2/3 of the vote) at the shareholder’s meeting irrespective of the motive or the holding term. The type and total number of shares and the total amount of funds are determined at the shareholders’ meeting.

Revision of Commercial Code (2003): Corporations can repurchase and keep holding its shares after the resolution at the board meeting.

Disclosure requirement each one month instead of every three months

We cannot judge the effect of the motive of the source of fund on stock returns from the treasury stocks at the time of announcement of repurchase, but we can when the firm announces that it will retire or resell the repurchased shares. So we can implement the event study when the firm makes the announcement for retirement or sale.