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**Employee Stock Options in Balance of Payments Statistics**

**Prepared by the International Department  
The Bank of Japan**

## Employee Stock Options in Balance of Payments Statistics<sup>1</sup>

### I Introduction

In December 2002, the Bank of Japan (BOJ) conducted an interview survey of Japanese parent companies which have subsidiaries abroad and the subsidiaries of foreign companies in Japan regarding cross-border stock options (see Attachment 1 for details). This paper studies ways to reflect cross-border stock options in balance of payments (BOP) statistics based on (1) the survey findings and (2) recent discussions concerning international accounting standards.

It also provides answers to questions in the paper presented by the IMF to the fifteenth meeting of the IMF Committee on Balance of Payments Statistics (BOPCOM02/69 “Employee Stock Options in Balance of Payments Statistics”).

Neither the *IMF Balance of Payments Manual 5<sup>th</sup> edition* (hereafter BPM5) nor the *System of National Accounts 1993* specifies the treatments of stock options in macro economic statistics. Thus, OECD<sup>2</sup> national accounts experts as well as the BOP Committee propose necessity to set guidelines concerning stock options in the framework of SNA (see page 14 of STD/NA(2003)6 “National Accounts and Economic Statistics”).

### II Cross-Border Stock Option Transactions in Japan

There are many cases of stock options being granted by foreign parent companies (nonresidents) to executives and employees (hereafter employees; residents) working at their subsidiaries in Japan. According to a survey conducted by the Ministry of Economy, Trade and Industry (METI) in 2001, about 20 percent of the subsidiaries of foreign companies in Japan employ a stock options scheme.<sup>3</sup> This survey also shows that introduction of such schemes dates back no shorter than 20 years.<sup>4</sup> Moreover, according to “reports on payments and receipts”,<sup>5</sup> there have been many cases in recent years where grantees of stock options received net gains from overseas after obtaining shares at exercise price and simultaneously

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<sup>2</sup> Discussion papers are available at OECD’s EDG site (<http://www1.oecd.org/std/shares.htm>).

<sup>3</sup> *The 35<sup>th</sup> Survey of Trends in Business Activities of Foreign Affiliates* conducted by METI. The survey received responses from 1,935 companies.

<sup>4</sup> Fifteen percent of respondent companies introduced stock options before fiscal 1984.

<sup>5</sup> “Reports on payments and receipts” report fund transaction between residents and nonresidents as required by the Foreign Exchange and Foreign Trade Law. The law stipulates that reporters must submit the report to the Ministry of Finance via BOJ. The report is also the most basic source of BOP statistics.

selling them at market prices.<sup>6</sup> It is estimated that receipts of “value” by grantees resident in Japan comes to a significant amount (the interpretation of “value” in this context is explained in Section III).

The BOJ conducted a phone-based one-week survey on “reports on payments and receipts” in July 2002 and found 20 cases where employees at the Japanese subsidiaries of US companies received net gains from the purchase and sale of stock after exercising stock options. These 20 transactions amounted to 618 million yen, equivalent to about 39 percent of receipt in credit compensation of employees in July in Japan.<sup>7</sup>

There is also an increasing number of cases where Japanese companies grant stock options to employees at their subsidiaries overseas. The increase reflects the amendment of the Commercial Code in April 2002 that allows companies to grant stock options to employees at their subsidiaries. Accordingly, major listed companies started granting stock options to employees at their subsidiaries, including overseas, in the summer of 2002.<sup>8</sup>

It was not clear whether such stock options contracts were concluded (1) between a subsidiary and an employee at the subsidiary (resident-to-resident or nonresident-to-nonresident transaction) or (2) between a parent company and an employee at its overseas subsidiary (resident-to-nonresident transaction). The BOJ interview survey<sup>9</sup> found that companies grant stock options directly to employees at their overseas subsidiaries with whom they do not conclude employment contracts.

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<sup>6</sup> The BOJ survey found that at US companies, grantees who purchase shares at exercise price and sell them immediately afterward at market price may opt to make net settlement. On the other hand, grantees working for Japanese companies are not allowed to make net settlement because Article 280-37 of the Commercial Code requires that payments be made for the purchase of shares under a stock options scheme.

<sup>7</sup> As stated later, BOJ advocates recognizing cross-border stock options (fair value at grant date) under employee compensation in BOP statistics. This is why net gains on the sale of shares are compared with employee compensation here, although they differ in amount from the fair value of stock options at grant date.

<sup>8</sup> Even before the amendment of the Commercial Code, some Japanese companies had already given their employees economic value corresponding to actual stock options by granting the warrant portion of warrant bonds (see footnote 2 to Attachment 1). In fact, two out of three Japanese companies interviewed by BOJ had granted warrant-method stock options to employees at their overseas subsidiaries in the 1997 – 2001 period. A number of grantees have already exercised their rights associated with this stock option scheme.

<sup>9</sup> In the survey, BOJ interviewed two Japanese subsidiaries of US IT companies and three companies in Japan.

Following are the answers to Question 1 and Question 3 presented by the IMF.

*Question 1. Do Committee members find the issue of employee stock options to be significant in balance of payments compilation?*

Answer: The value of stock options granted to employees at subsidiaries in Japan by parent companies overseas stands at a significant scale. Stock options granted to employees at subsidiaries overseas from companies in Japan are increasing.

*Question 3. Can Committee members identify any other cases where employee stock options give rise to balance of payments transactions [other than situations 1 and 2 below]?*

*Situation 1: A resident employee of a resident enterprise receives options or stocks in a nonresident enterprise.*

*Situation 2: (a) A resident employee of a nonresident enterprise receives stock options from the employer OR*

*(b) a nonresident employee of a resident enterprise receives stock options from the employer.*

Answer: In Japan, most stock options fall under “Situation 1” above. Specifically, most cases correspond to a situation where a resident employee at a subsidiary of a foreign company in Japan receives stock options from the parent company overseas (source of shares is those of the foreign parent company). Cases where a nonresident employee at a subsidiary of a Japanese company overseas receives stock options from the parent company in Japan (source of shares is those of the Japanese parent company) are also increasing. Our interview survey also showed that the cases corresponding to “Situation 2” above were found, and that no cases were identified other than ones mentioned in “Situation 1” (including vice versa transactions) and “Situation 2”.

It should be noted that these are resident-to-nonresident transactions, where employees at subsidiaries receive stock options from overseas parent companies, rather than resident-to-resident transactions, where employees at subsidiaries receive stock options from subsidiaries (see “Grantor and Grantees” in “A. Basic Framework” of Attachment 1).

Regarding Situation 2, employees living near a border and commuting to a nonresident country are mentioned as typical examples in BOPCOM02/69. Such

workers are not found in Japan considering its geographical characteristics. However, three out of five companies in our survey issued stock options to their employees loaned to their subsidiaries overseas from the head offices (see “Employment Contract” in “A. Basic Framework” of Attachment 1). This case falls under “Situation 2” because an employee who works abroad for one year or more is reclassified as a nonresident<sup>10</sup> but still concludes an employment contract with the resident parent company which gives stock options.

### III Classification and Period of Recording

What follows considers the classification of cross-border stock options in BOP statistics, which is a most controversial issue. As the Black-Sholes Model is widely used to measure the value of stock options, classification of them as “financial derivatives” is one of the ideas. As for the warrants, Paragraph 403 of BPM5 states, “Warrants can be traded apart from the underlying securities to which the warrants are linked and thus have a market value. The treatments of warrants are the same as those for other options”. However, that paragraph does not refer to the treatments of stock options. Apart from the characteristics of stock options as financial instruments (or anything else), which will need to be discussed in order to determine where the counter entry should be, we firstly decide how to treat the grant of them from a parent company to employees at its foreign subsidiaries. Considering the results of our survey, **BOJ proposes an idea of creating a new account under “Compensation for employees” to record the economic value of stock options**, for the following three reasons:

- (1) Our interview survey showed that stock option rights can be exercised only after a certain working period to vest qualifications, during which time grantees are expected to make certain contributions to their company.
- (2) A parent company gives stock options to employees of its subsidiaries because it expects improvements in the business performance of the corporate group. Stock options, thus, may be regarded as salary paid in advance for the expected performance of the grantee.
- (3) Stock options are granted in compensation for employment<sup>11</sup>. Therefore, it might be appropriate to impute economic employment contracts, no matter in what way legal contracts are concluded.

This proposal might seem to be against the principle that holding gains due to stock price fluctuation should not be recorded in “income” but in “financial accounts” as investment (BPM5 paragraph 268). However, notions between real holding gains and income cannot be

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<sup>10</sup> According to BPM5 paragraph 68, “An individual may cease being a member of a resident household when he or she works continuously for one year or more in a foreign country”.

<sup>11</sup> The value of stock options does not fall under “current transfer,” which require no consideration, though it might seem to be a suitable classification considering there are no employment contracts between a parent company and employees at its foreign subsidiaries.

easily classified. Paragraph 12.81 in 1993 SNA says, “As real holding gains increase or decrease the purchasing power of the owners of assets, they must exert an influence on their economic behaviour. ... It can be argued that real holding gains ought to be assimilated with income as defined in the System to obtain a more comprehensive measure of income”<sup>12</sup>. Our interview survey found that grantees working for US companies can confirm the number of available shares and their market value by having access to each individuals’ web page at any time. It is expected that the shift in the market value of shares influences grantees’ consumption behavior, in other words, “asset effect” works. From that viewpoint, we think “compensation of employees” the definition specified in Paragraph 269<sup>13</sup> in BPM5 should be expanded.

It should also be noted that there is another possibility of classification (services). For instance, stock options could be given to non-employees to reward the rendering of services<sup>14</sup>. In such cases, the value of stock options could be classified according to the kind of services transacted<sup>15</sup>.

Given the value of stock options is recorded in income, the counter entries should be taken into consideration. As grantees get options to purchase parent companies’ shares at a fixed price, it is considered appropriate to record an increase in “financial derivatives” as counter entries.

Regarding the period of recording (the timing for recording and the timing for evaluation should be considered separately; the latter is discussed in Section IV), it is appropriate to allocate the value over the period from the grant date to the vesting date of stock options based on the accrual principle. This is because grantees of stock options provide labor services from the grant date to the vesting date.

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<sup>12</sup> This paragraph also says “but there is no consensus on this”.

<sup>13</sup> In BPM5, compensation of employees is defined as follows: “*Compensation of employees* comprises wages, salaries, and other benefits (in cash or in kind) earned by individuals—in economies other than those in which they are residents—for work performed for and paid for by residents of those economies.” Therefore, the current “compensation of employees” records payments earned by “seasonal workers” or “border workers” in addition to “local staff” of embassies and consulates, which are regarded extraterritorial.

<sup>14</sup> Our interview survey did not find such cases (see “Grants to outsiders including lawyers and consultants” in “A. Basic Framework” in Attachment 1). However, in Japan there is a likelihood that grants to outsiders such as corporate lawyers or banks will increase because the amendment of the Commercial Code made it possible in April 2002.

<sup>15</sup> For example, if companies give stock options in compensation for services offered by corporate lawyers or consultants, the value might be classified as “legal, accounting, management consulting services” under “Miscellaneous business, professional, and technical services”. If they grant stock options as a quid pro quo for low-interest loans, they might be classified as “financial services”.

#### IV Method and Timing of Evaluation

Both from a conceptual and a technical point of view, it seems most appropriate to measure the fair value of stock options at grant date using the Black-Scholes model. This treatment is consistent with the exposure draft of new financial reporting standards set by the International Accounting Standards Board (IASB) in November 2002.<sup>16</sup> In our survey, BOJ found that the companies preparing financial statements in accordance with US accounting standards measure the fair value of stock options at grant date as required. In those companies net profits after recognizing the fair value of stock options as expenses are disclosed in a note to financial statements.

There are other ideas to measure the value of stock options such as (1) intrinsic value at grant date, i.e., the margin between market price and exercise price (Accounting Principles Board <APB>25)<sup>17</sup> and (2) fair value at vesting date (IASB/G4+1 Discussion Paper on Accounting for Share-Based Payments).<sup>18</sup> The former, however, seems not to be appropriate because it does not consider time value, which accounts for a substantial portion of the value of stock options.<sup>19</sup> Besides, the former has defects in that intrinsic value is calculated as zero when the exercise price is set as the market price at the grant date. The calculation of the latter is complicated because it requires remeasurement of fair value at each account settlement because the value is determined at vesting date (see Attachment 2 for details), while the method of using fair value at grant date is stable and thus practical.

Followings are the answers to Question 2 and Question 4 presented by the IMF.

*Question 2. Do Committee members have views on the proper classification, valuation, and timing of employee stock options?*

Answer: Stock options should be classified under “compensation for employees”. As for valuation, measuring fair value at grant date is the most appropriate from the aspect of the conceptual nature of stock options and the feasibility of accounting treatment. In light of recording, value should be allocated over the period from the grant date to vesting date.

<sup>16</sup> The IASB is an independent, privately-funded accounting standard setter committed to developing global accounting standards.

Accounting standards for stock options are set only in a limited number of countries such as the US, Korea, and Canada. The UK will require all companies in the UK to introduce IASB’s new financial reporting standard from 2004. In Japan, the Stock Option Technical Committee of the Financial Accounting Standards Foundation (FASF) is currently working on a new accounting standard for stock options to be announced within 2003.

<sup>17</sup> APB Opinion No. 25 issued in 1972. APB is the forerunner of the Financial Accounting Standards Board (FASB).

<sup>18</sup> A discussion paper prepared in 2000 by the Board of the International Accounting Standards Committee (IASC), the International Accounting Standards Board’s (IASB) predecessor body, and representatives of accounting standard boards in Australia, Canada, New Zealand, the UK and the US.

<sup>19</sup> The concept of time value stems from the fact that rights to purchase shares are exercised at a future

*Question 4. Do Committee members have any views on the International Accounting Standards proposal?*

Answer: We consider the IASB's proposal as appropriate.

#### **V Suggestions on Data Collection**

As far as what has been disclosed through the BOJ survey, hardly any overseas subsidiary has been involved in decision-making of stock options issued by a parent company to employees at a subsidiary.<sup>20</sup> This means that accurate information on stock options, including the number of grantees and the number of stock options issued, can only be obtained from parent companies. As a consequence, compilers of BOP statistics can keep track of debits, i.e., payments by resident companies to other economies, but not credits, i.e., receipts by resident companies from other economies.

There seems to be two solutions. One is for statisticians in each country to exchange data on stock options granted by parent companies in each country to overseas subsidiaries. And, the second is to build and share a database on cross-border stock options. These measures will enable recording of both payments and receipts in cross-border transactions by country or area.

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date. It refers to expected future gains (1) on interest rates and (2) from stock price volatility.

<sup>20</sup> A parent company grants stock options under the following procedure. First, it determines the importance of each consolidated subsidiary by taking into account factors such as the controlling share in each subsidiary, the level of involvement of management in each subsidiary, the number of personnel at each subsidiary, and contribution to consolidated profits by each subsidiary. Second, the parent company then decides the number of shares to be allocated to each subsidiary. Finally, it notifies the grantees of stock options directly using e-mail or other means.



## Other Issues To Be Considered

### (1) Expenses charged to an overseas subsidiary

When a certain debit arises between a parent company and an overseas subsidiary in compensation for some convenience, it is usual for both parties to decide beforehand what portion is booked by each company<sup>21</sup>. However, that is not applied to stock options, because it is not accompanied by cash flow at the time of grant and because the recording of the expenses in financial statements was not required.

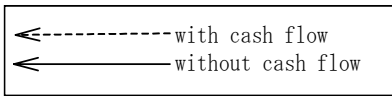
Most companies responding to our interview survey do not charge for their overseas subsidiaries ex-post expenses concerning cross-border stock options. However, some US financial institutions or IT companies charge the Tokyo branches or Japanese subsidiaries. As for stock options which US companies grant to employees working for overseas subsidiaries, at the end of August 2003 the US Treasury and the IRS (Internal Revenue Service) introduced new regulations<sup>22</sup> requiring recognition in the overseas subsidiaries' financial accounts. Therefore, ex-post expense recorded at overseas subsidiaries may increase in the future.

If an overseas subsidiary pays ex-post charges, the treatment of such cross-border charges should be fixed. As mentioned in BOPCOM02/69, the expense could be regarded as the reimbursement of a debt loan if we presume that parent companies pay compensation on behalf of overseas subsidiaries and the subsidiaries borrow from their parent companies. However, decisions in granting stock options to individuals are made by parent companies or head offices which expect increases in consolidated profits. Subsidiaries or branches are not involved in decision-making. Therefore, it is not natural to regard subsidiaries as borrowing expenses at the time of the grant of stock options. It is more appropriate to regard a grant as a current account transaction by expanding the definition of "Compensation for employees", and to record ex-post expenses as a "Current transfer" if charged (see chart on next page).

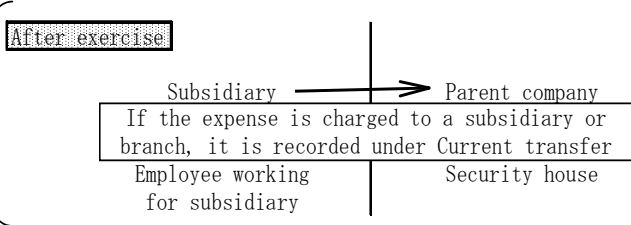
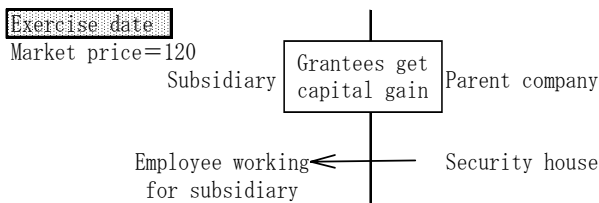
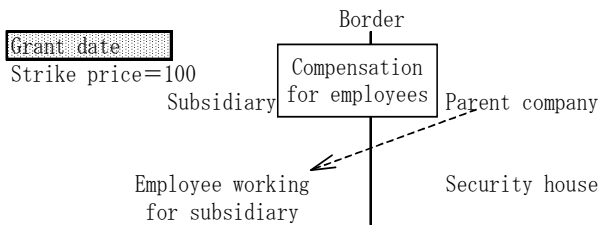
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<sup>21</sup> For example, which company pays an allowance for the remuneration of employees loaned to overseas subsidiaries is fixed beforehand.

<sup>22</sup> This does not require recognition of expenses for stock options granted within the US.



Residents      Nonresidents



**Balance of Payments Statistics  
from the Viewpoint of Residents**

Credit	Debit
<b>Compensation for employees (credit) /Income</b> Fair value* of stock options, the strike price of which is 100	<b>Increase in financial derivatives (assets) /Financial accounts</b> Fair value* of stock options, the strike price of which is 100
Credit	Debit
<b>Decrease in portfolio investment (assets) /Financial accounts 120</b>	<b>Increase in portfolio investment (assets) /Financial accounts 100</b>  <b>Increase in other investment (assets) /Financial accounts 20</b>
Credit	Debit
<b>Decrease in other investments (assets) /Financial accounts 20</b>	<b>Other current transfers (debit) /Current transfer 20</b>

\*Fair value is calculated by using the Black-Scholes Model or others considering not only the exercise price and market price but also volatility, risk-free interests, remaining period, dividend yield and so on.

**(2) Stock compensation plans other than employee stock options**

It is well accepted that stock options were a popular device to boost profits because recognition of related expenses was not required. However, considering that recognition of labor cost is likely to be adopted in accounting rules, it is envisaged companies will look for compensation plans other than stock options. In this context, “share incentive plans (SIPs)” and “save-as-you-earn schemes (SAYE schemes)” are already introduced.

As for SIPs, there are plans such as “free shares”, where shares are issued to grantees gratis, “partnership shares”, where a regular amount is deducted from one’s monthly salary and used to purchase stocks, and “matching shares”, where shares are issued gratis to the target employees of “partner shares”. As for SAYE schemes, employees have to save a certain amount from their monthly salary and are allowed to purchase shares at a discount.

Therefore, statisticians should not focus only on the treatment of employee stock options but should also consider what item is most suitable as “compensation for employees” from a

broader perspective. Regarding mentioned schemes, cross-border transactions may arise if shares continue to be traded only in the economy of parent companies. As both the *IMF Balance of Payments Manual* and the *System of National Accounts 1993* are currently being revised, BOJ proposes that the concept of employment compensation should be reconsidered so that statistics properly reflect the actual economy.