



RIETI Discussion Paper Series 16-E-033

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The International Use of the Renminbi: Evidence from Japanese firm-level data*

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Abstract

The use of the Chinese renminbi (RMB) is said to have been increasing in recent years for trade invoicing, due to active promotion policies by the Chinese government. However, only patchy information has been presented in the literature on the use of the RMB in Chinese trade. Since China plays the role of a regional and global manufacturing hub and foreign multinational companies (MNCs) actively operate there, it is necessary to investigate to what extent MNCs use the RMB for trade invoicing especially in their intra-firm trade, but no empirical evidence has been presented. Utilizing firm-level information obtained from large-scale questionnaire surveys, this study presents new evidence of the use of the RMB by Japanese MNCs operating in China and other Asian countries along their regional and global production network. We find that although the RMB is extensively used for local sales and procurement in China, Japanese MNCs in China mainly use the U.S. dollar and, to a lesser extent, the yen in trade with other countries. However, we also observe that Japanese MNCs in China increased the use of RMB in intra-firm trade with Japan. RMB transactions will be growing further if it becomes easier for MNCs to conduct marry and netting for their trade settlements.

Keywords: Renminbi internationalization, Invoice currency, Overseas subsidiary, Intra-firm trade, Production network

JEL classification: F31, F33, F23

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*This study is conducted as a part of the Project “Exchange Rates and International Currency” undertaken at Research Institute of Economy, Trade and Industry (RIETI). The authors would like to thank Japanese overseas subsidiaries that responded to the questionnaire, the RIETI staff who generously supports the questionnaire survey, and Discussion Paper seminar participants at RIETI.

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1. Introduction

The use of Chinese renminbi (RMB) is said to have been increasing in recent years for trade invoicing, reflecting a rapid growth and development of the Chinese economy. The internationalization of RMB can be defined as the greater use of RMB in international transactions including cross-border trade and financial/capital transactions. Various policy reforms to increase RMB cross-border transactions have been implemented by the Chinese government. RMB related deposits, bonds, and derivatives in offshore markets have also been expanding. Thus, the RMB internationalization has been promoted by policy-driven efforts as well as market-driven forces.

According to Eichengreen and Kawai (2014), the RMB internationalization has started in trade-related transactions. Since 2009, China has started to sign bilateral currency swap agreements with various countries to provide RMB liquidity for trade and direct investment. In the end of May 2015, China signed bilateral RMB-denominated swap arrangements with 32 foreign central banks, which enabled Japanese MNCs in both China and its partner countries to settle cross-border trade and direct investment in RMB. In July 2009, the Chinese government launched a pilot scheme that allowed the use of RMB in trade settlements with ASEAN countries, Hong Kong, China, Macau, and five mainland cities. Since then, authorization for the RMB denominated trade has been extended nationwide. At the same time, China has also promoted the direct RMB trading with non-U.S. dollar currencies, which eliminated the need for foreign counterparts to conduct indirect transactions by buying and selling U.S. dollars.¹

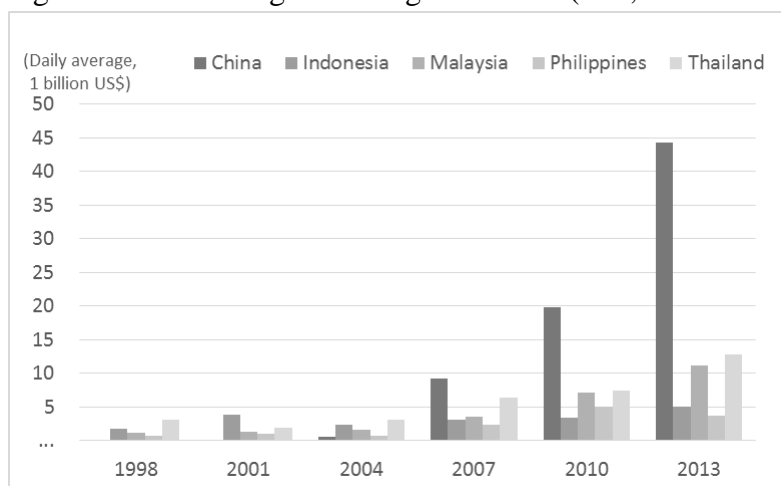
In addition to the above policies, an offshore market plays an important role in expanding RMB transactions. As RMB is still not yet fully convertible due to capital controls and regulations, the Chinese government has promoted the offshore market where RMB can be used outside the mainland. Offshore RMB markets are developing rapidly around the world. The official RMB clearing banks have been established in 17 countries across Asia, Europe, Middle East, and North and South America (as of March 2016). Recently, offshore RMB is actively used for cross-border trade, finance and direct investment.

In line with continuous efforts to internationalize RMB, the role of RMB has expanded in global foreign exchange trading. According to the BIS survey, RMB has

¹ The direct RMB trading has started with Malaysia (August 2010), the Russian Federation (November 2010), Japan (June 2012) and Australia (April 2013). In June 2014, CEFTS has announced to launch direct trading between RMB and Great Britain Pound (GBP).

become the ninth most actively traded currency in 2013, with a share of 2.2% in global foreign exchange volumes.² Compared with the other Asian currencies, the RMB turnover has soared especially since China moved to a managed float regime in July 2005. The RMB's daily average trading turnover was the smallest among 7 Asian currencies in 2004, but it became 44 billion U.S. dollars in 2013, which was the largest among the currencies (Figure 1).

Figure 1. OTC Foreign Exchange Turnover (BIS, 1998-2013)



Note: OTC (over-the-counter) transactions include spot transactions, outright forwards, foreign exchange swaps, currency swaps, options and other products, which are adjusted for local inter-dealer double-counting (i.e. “net-gross” basis). Data may differ slightly from national survey data owing to differences in aggregation procedures and rounding. The data for the Netherlands are not fully comparable over time due to reporting improvements in 2013.

Source: Bank for International Settlements (BIS), *Triennial Central Bank Survey: Global Foreign Exchange Market Turnover in 2013*, Monetary and Economic Department, February 2014.

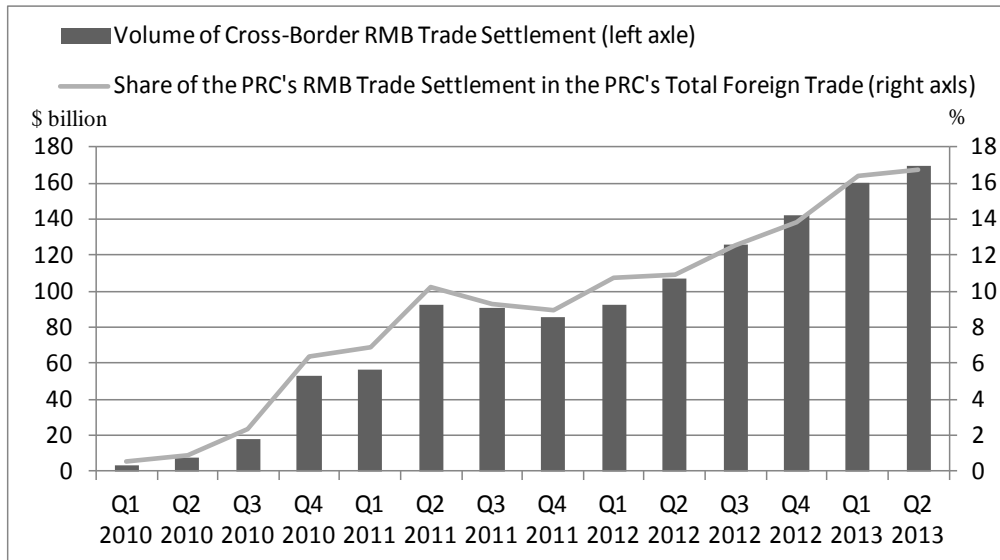
The role of RMB as a settlement currency has also gradually increased. Figure 2 shows the movement of the share of RMB trade settlements from 2010 to 2013. In the second quarter of 2010, the share of RMB trade settlements was only 1 percent of the Chinese total foreign trade. Then RMB trade settlements had increased almost 17-fold by the second quarter of 2013, reaching 16.5 percent of the China's total trade.³ According to the Society of Worldwide Interbank Financial Telecommunication (SWIFT) data, in August 2015, RMB entered the top four of world payment currencies

² It is mostly driven by a significant expansion of offshore RMB trading.

³ According to Eichengreen and Kawai (2014), more than 80% of these trade settlements have been with Hong Kong.

in value, reaching a record high share of world payments.⁴ From September 2015, however, RMB fell back to the fifth position as an international settlement currency and overtaken by the yen.

Figure 2. The Volume and Share of the RMB Trade Settlement



Source: Eichengreen and Kawai (2014); CEIC, PRC Premium Database; International Monetary Fund (IMF), *Direction of Trade Statistics*.

Although previous studies have mainly discussed the share of RMB in cross-border trade and settlements, to our knowledge, the firm-level information on RMB transactions has not been presented in the literature.⁵ Since China plays a role of regional and global manufacturing hub and foreign multinational companies (MNCs) actively operate in China, it is necessary to investigate to what extent MNCs use RMB for trade invoicing especially in their intra-firm trade. Utilizing the firm-level information obtained by the large-scale questionnaire surveys, this study presents the new evidence for the use of RMB by Japanese MNCs operating in China and other Asian countries along their regional and global production network. We found that although RMB is extensively used for local sales and procurement in China, Japanese MNCs in China mainly use the U.S. dollar and, to a lesser extent, the yen in trade with other countries. However, we also observed that Japanese MNCs in China increased the use of RMB in intra-firm trade with Japan. The RMB transactions will be growing

⁴ See the information on RMB Tracker on the website of SWIFT (<https://www.swift.com/our-solutions/compliance-and-shared-services/business-intelligence/renminbi/rmb-tracker>).

⁵ For a good overview of the recent progress of RMB internationalization, see Xu and He (2015).

further if it becomes easier for MNCs to conduct marry and netting for their trade settlement.

The remainder of this paper is organized as follows. Section 2 summarizes the results of our questionnaire survey conducted in 2010 and 2014. In Section 3, we discuss the firm-level choice of invoice currency, especially in intra-firm trade, focusing on China and other Asian countries. Finally, Section 4 concludes this paper.

2. Questionnaire Survey of Japanese Overseas Subsidiaries

2.1 Questionnaire Survey

In August 2010 and November 2014, we conducted a large-scale questionnaire survey (henceforth, the “RIETI Survey”) of overseas subsidiaries of Japanese firms, which was financially supported by the Research Institute of Economy, Trade and Industry (RIETI).⁶ We sent out the questionnaires to 16,020 and 18,932 subsidiaries in August 2010 and November 2014, respectively. These subsidiaries are chosen from the Toyo Keizai’s Overseas Japanese Companies database (henceforth, the “OJC database”). In the 2010 RIETI Survey, we chose the subsidiaries of either manufacturing, wholesale or controlling office that operated either in twenty-one Asia-Pacific countries (areas), five North-American countries (areas), thirty-seven European countries (areas). In the 2014 Survey, we added the subsidiaries operating in South American countries to the sample. Finally, 1,479 and 1,640 subsidiaries responded to the questionnaires conducted in 2010 and 2014, respectively.

While collecting the data on the invoice currency for both production and sales subsidiaries through the questionnaire survey, this paper focuses on the invoicing decision of the production subsidiaries. Japanese firms have built global production and sales network in Asia where intra-firm trade plays an important role. Export and import behavior of Japanese MNCs in Asia, especially in China, has gained a great deal of attention. We thus investigate to what extent the use of RMB has been growing in trade of Japanese MNCs along the production chain.

2.2 What Impedes RMB Transactions

⁶ We would like to thank RIETI for conducting the RIETI survey, “Questionnaire Survey on the Choice of an Invoice Currency by Japanese Overseas Subsidiaries”. In the RIETI survey, questionnaires were sent out to manufacturing subsidiaries mainly owned by Japanese firms. If sales subsidiaries and controlling office are owned not by Japanese manufacturing firms but by sales companies or financial institutions, they are excluded in the questionnaire survey.

In addition to the information on the invoice currency choice in Japanese subsidiary's exports and imports, we obtained useful information on what impedes the use of RMB and other Asian currencies for trade invoicing and whether the firms have a plan to increase the use of RMB and other Asian currencies in the future. Although sample firms that responded to questionnaires are not necessarily the same between the 2010 and 2014 surveys, we can check the difference of results between two surveys to discuss a possible increase in the use of Asian currencies.

Table 1 presents the 2010 and 2014 survey results obtained from Japanese overseas subsidiaries concerning the difficulties in using respective currencies as invoice currency. First, the second column shows that the U.S. dollar was the most used as an invoice currency. 86 percent and 83.9 percent of firms (respondents) used U.S. dollars in 2010 and 2014 surveys, respectively, while the yen was the second most used currency. The RMB was the fourth most used currency: about ten percent of sample firms used the RMB for trade invoicing. The ranking and the share of respective currencies do not change much between the 2010 and 2014 surveys.

Second, what is the problem when using respective currencies for trade invoicing? "(D5) high foreign exchange rate volatility" accounts for the largest share in most currencies in both the 2010 and 2014 surveys. For RMB invoicing, subsidiaries had difficulty in using RMB due to "(D1) foreign exchange controls/regulations" in the 2010 survey. But, in the 2014 survey, 63.4 percent of subsidiaries had difficulty in using RMB due to "(D5) high foreign exchange rate volatility."

Third, Japanese subsidiaries had less difficulty in using RMB for trade transactions in the 2014 survey than in the 2010 survey. In the third column of Table 1 ("(D3) currency firms have difficulty in using for trade"), the share of RMB decline from 51 percent to 27.9 percent. These results are consistent with the improvement of the RMB foreign exchange transactions discussed in the previous section and also with a gradual shift of the RMB's exchange rate regime toward a more flexible one.⁷

2.3 Any Plan to Increase the Use of RMB and Other Asian Currencies?

Table 2-A presents the survey results of the question: "Do you have any plan to increase RMB transactions in the future?" Basically, few respondents (firms) answered "yes" in both the 2010 and 2014 surveys, except for subsidiaries located in Asia. But, in the 2010 survey, only 21.2 percent of respondents in Asia answered "yes". The share of respondents that answered "yes" declines from 21.2 percent to 15.9 percent in the 2014

⁷ During the global financial crisis period (2009-2011), the RMB temporarily returned to the U.S. dollar peg system.

survey. Table 2-B presents the result of questionnaire surveys to Asian countries. According to the 2014 survey, more than a half of subsidiaries located in China and one fourth of subsidiaries located in Hong Kong plan to increase RMB transactions in the future, reflecting the growing use of RMB in China as suggested by columns (C1) and (C2) in Table 2-B. In contrast, only a few subsidiaries located in other Asian countries consider further use of RMB for their international transactions.

2.4 Which RMB is used, CNY or CNH?

In the 2014 survey, we obtained the information on the use of on-shore RMB (CNY) and off-shore RMB (CNH). Table 3 shows that only a few subsidiaries have RMB transactions in all regions except Asia. In Asia, 19.4 percent of respondents use RMB for their transactions, 85 percent of which use not CNH but CNY. This evidence suggests that Japanese subsidiaries mainly use CNY for their operation.

We also collected the information on which RMB market Japanese subsidiaries use for their RMB transactions. Table 4-A shows that RMB is used mainly by Japanese subsidiaries located in Asia, 84.2 percent of which use RMB in China's foreign exchange market. Only 13.3 percent of subsidiaries in Asia use the Hong Kong market, and offshore RMB-Yen market in Tokyo is rarely used by Japanese subsidiaries.

Table 4-B presents the information on why CNH is not used. Only 21.9 percent of subsidiaries consider CNH useful in hedging CNY transactions, and two-thirds or more of subsidiaries do not use CNH because CNH cannot be used for trade settlements. Thus, we may conclude that only one-fifth of Japanese subsidiaries use CNH for hedging purpose, and the rest of subsidiaries are reluctant to use CNH for RMB transactions.

2.5 Difference in Internationalization between Yen and RMB

As mentioned earlier, the RMB internationalization has started from trade-related transactions. In the first step of the RMB internationalization, the Chinese government focused on promoting the use of RMB for trade settlement without full convertibility of RMB. In their unique approach, the bilateral swap arrangements played an important role. As the capital account is not fully liberalized in China, and foreign countries cannot freely use RMB in international markets, one alternative approach toward increasing the international flow of RMB is to sign bilateral swap agreements. In addition, the Chinese government promoted to utilize the offshore RMB (CNH) for cross-border transactions including trade settlements, deposit and direct investment. In order to make CNH transactions more convenient, they set up the official RMB clearing

banks in 15 countries across the world.

Let us briefly discuss differences in the internationalization process between yen and RMB.⁸ The yen became a fully convertible currency through the following deregulations: the establishment of Free Yen Accounts for nonresidents in 1960, the amendment of Foreign Exchange and Foreign Trade Control Act in 1980, the abolition of the real demand principle and US-Japan Yen Dollar Committee in 1984, and the amendment of Foreign Exchange and Foreign Trade Act in 1998.⁹

In comparison with the RMB internationalization, there are three marked differences of the yen internationalization. First, the Japanese government started to deregulate the foreign exchange and capital controls to make the yen fully convertible. Second, as suggested by Eichengreen and Kawai (2014), Japan was reluctant to internationalize the yen for trade settlement in the 1980s and the first half of the 1990s when Japan increased exports to the world market, while the Chinese government has aggressively and rapidly promoted RMB internationalization just after becoming the largest exporting country.

When the Foreign Exchange and Foreign Trade Act in 1998 was amended to deregulate domestic and foreign capital transactions and foreign exchange operations, 14 years had passed since the abolition of the real demand principle in 1984. Although this amendment liberalized the settlements in foreign currencies, it was too late to internationalize the yen for trade invoicing, because the Japanese economy suffered from the prolonged stagnation in the 1990s. Since the second half of the 1990s, Japan has tried to promote the use of the yen as an international currency, but the internationalization process has made little progress so far. Third, the Japanese government allowed a large appreciation of the yen from the Plaza Accord in 1985. However, they did not promote the use of the yen for trade settlements at that time. On the other hand, RMB internationalization has started after the Chinese government changed their currency regime from U.S. dollar peg to managed floating system. Under the strong expectation of RMB appreciation, there should be strong incentive to hold RMB. As Eichengreen and Kawai (2014) indicated, RMB internationalization was supported by speculative motives rather than the convenience of RMB for trade invoicing and settlement.

The use of the yen in trade transactions gradually increased its share until 1980s, but the share stopped rising and declined in the 1990s. There are various arguments and explanations for the reasons behind the limited use of the yen. First, the

⁸ For a good survey of the yen internationalization, see Ito (1993), Kawai (1994), and Sato (1999).

⁹ Details of these deregulation policies are presented in Appendix.

choice of invoice currency in international trade is usually affected by various factors such as market competitiveness (bargaining power) and trade structure. Japan used to import large amounts of raw materials that are traditionally invoiced in dollars in international markets.

Even in the trade between Asian countries, the yen is not extensively used. First, the yen is not conveniently used, because the foreign exchange markets between the yen and Asian currencies remain underdeveloped. Second, the exchange rates between the yen and Asian currencies were unstable because most Asian currencies were linked more to the dollar. Third factor is the declining credibility of the yen reflecting the long stagnation of the Japanese economy from the 1990s. Furthermore, the inertia and institutional constraints in choosing the currency for international trade and capital transactions are often pointed out as a possible reason for the limited use of the yen.

As explained above, the Chinese government has been pursuing a unique approach to the RMB internationalization, learning from Japan's failure to internationalize the yen. Indeed, the use of RMB has been growing, but Japanese firms are still reluctant to use the offshore RMB for their cross-border trade settlements. Japan made an effort to promote the international use of the yen by removing capital controls and restrictions on yen transactions. In contrast, China has facilitated the RMB internationalization and developed the offshore RMB markets, while keeping strict capital controls on the international use of the onshore RMB. As long as capital controls exist, Japanese firms do not assume that RMB is an international currency. Thus, the unique approach to the RMB internationalization in fact prevents Japanese firms from using RMB despite the rapid growth of the offshore RMB markets. .

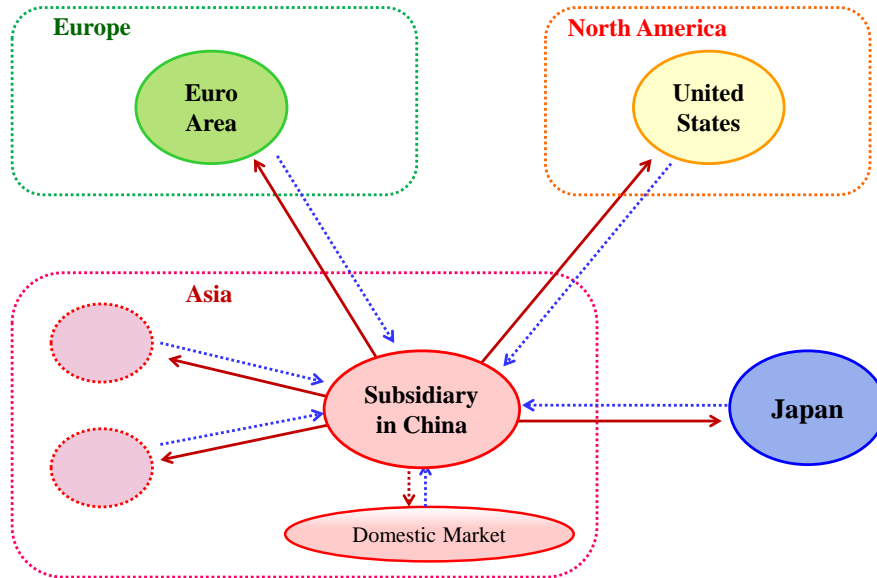
3. Invoice Currency Choice in Japanese Production Subsidiaries

3.1 Data on Invoice Currency

This paper uses the firm-level data on the invoicing choice of Japanese overseas subsidiaries that were collected from the questionnaire survey conducted in 2010 and 2014. Through the questionnaire survey, we obtained the information on export (sales) and import (procurement) pattern of Japanese subsidiaries. In Figure 3, suppose one sample subsidiary (respondent) operates in China. This manufacturing subsidiary imports or procures intermediate inputs from various source countries or domestic market (shown by the dotted arrow in blue), and exports or sells products in various destination countries or in local markets (shown by the thick arrow in red). For

each transaction, we collected the information on which currency is used for trade invoicing.

Figure 3. Sales and Procurement Pattern of Overseas Subsidiaries in China



Note: Dotted arrow shows the subsidiary’s procurements (imports) of intermediate or finished goods from Japan. Thick arrow represents the subsidiary’s sales (exports) of intermediate or finished goods to various destinations.

We have two types of unique data on trade invoicing. First, we collected the *share* of invoice currency for each subsidiary’s exports and imports, which is a firm-level invoicing data. Second, we obtained the data on the choice of invoice currency for each *product*. Since we got the product level information (i.e., the name of products traded and which currency is used for the product), we can distinguish the invoicing decision of differentiated products from that of homogeneous products. The difference in invoicing choice between final consumption goods and intermediate input goods can also be analyzed. We also collected the information on who is the trading partner, a group company (including the parent company) or other non-related company, for each product or intermediate input traded, which enables us to distinguish the invoicing choice between intra-firm trade and arm’s length trade.

This paper uses both *share* and *product* data of invoice currency choice. When using the *product* data, we mainly focus on the difference in the choice of invoice currency between intra-firm trade and arm’s length trade.¹⁰

¹⁰ The information on product differentiation and type of products is not used in this paper but was investigated in Ito, Koibuchi, Sato and Shimizu (2015b).

3.2 Trade Pattern

Before discussing the use of invoicing currency, let us observe the import (procurement) and export (sales) pattern of Japanese production subsidiaries in China and other Asian countries. Table 5 shows that one notable feature of their trade pattern is a relatively higher share of trade with foreign countries including both Japan and other countries. In the 2014 survey, for instance, 34.1 percent of intermediate inputs are imported from Japan, which is higher than the corresponding share of production subsidiaries in North America and Europe.¹¹ In addition, 49.7 percent of subsidiary's production goods in Asia are exported to Japan and other countries. This exported-oriented sales pattern is not observed in North America, where only 22.9 percent of subsidiary's production goods are exported abroad (see, Ito, Koibuchi, Sato and Shimizu 2015a).

3.3 Share of Invoice Currency in Asia

By using the *share* data of invoice currency, we show to what extent RMB is used in Japanese production subsidiary's operations in Asia. Table 6 presents the choice of invoice currency in subsidiary's local procurements in China and other Asian countries. In China, the share of RMB transactions in local procurements has increased somewhat from 60.8 percent in 2010 to 68.0 percent in 2014. In ASEAN, Taiwan and Korea, the share of local currency invoicing declined, while the share of U.S. dollar invoicing increased. The share of yen invoicing is lower than that of U.S. dollar invoicing in Asia. Although the share of RMB is quite high in China, RMB is rarely used in local procurements of other Asian countries.

Table 7 shows the choice of invoice currency of production subsidiaries in imports of intermediate inputs from Japan. More than 90 percent of subsidiary's imports from Japan are invoiced in the yen and U.S. dollar. Subsidiaries in China increased the share of RMB invoicing from 3.8 percent in 2010 to 10.4 percent in 2014, but the share of local currency invoicing in Taiwan and Korea is higher in 2014 than the corresponding share in China in imports of intermediate inputs from Japan. RMB is not used at all in other countries in imports from Japan.

Table 8 indicates the share of invoice currency in production subsidiaries imports from other countries (excluding Japan). In Asia, the U.S. dollar is largely used

¹¹ According to the 2014 survey, 25.6 percent and 23.8 percent of intermediate inputs are imported from Japan in total imports of Japanese subsidiaries located in North America and Europe, respectively. The information on the trade pattern of Japanese subsidiaries in non-Asian countries are not reported in this paper. For the details, see Ito, Koibuchi, Sato and Shimizu (2015a, 2015b).

in subsidiary's imports from other countries. In 2014, 80.4 percent of imports are invoiced in U.S. dollars, while the share of the yen is only 6.8 percent. RMB and local currency invoicing is quite small in imports from other countries, except for the imports of subsidiaries in Hong Kong, 16 percent of which are invoiced in HK dollar.

Table 9 shows the share of invoice currency in subsidiary's sales in local markets. The share of RMB transactions is 81.6 percent in 2014, and the share of local currency invoicing exceeds 70 percent in Korea and Taiwan. RMB is not used at all in the local markets of Asian countries except China.

According to Table 10, the share of RMB in subsidiary's exports to Japan increased markedly from 0.8 percent in 2010 to 13.9 percent in 2014, which is higher than the share of local currency invoicing in other Asian countries. It must also be noted that the share of U.S. dollar invoicing is on average higher than that of yen invoicing in exports of Asian subsidiaries to Japan.

Finally, Table 11 shows that, according to the 2014 survey, the share of RMB in exports to other countries is only 5.2 percent in China, and about 80 percent of exports are invoiced in U.S. dollars. Only Taiwan uses RMB in exports to other countries. As will be discussed, however, the Taiwan's RMB transactions are likely to be related to Taiwan's exports to China.

3.4 Invoice Currency Choice in Intra-Firm Trade

In this section, we investigate the *product* level data on the choice of invoice currency, focusing on production subsidiaries in Asia (all Asian countries), China, and ASEAN-6 countries. In the right-hand side of Table 12, we present the information on the invoice currency choice in terms of the number of transactions. The share (simple arithmetic average) of invoice currency in the left-hand side of Table 12 is calculated using the information on the number of transactions. The similar information is presented in Tables 13–18.

Table 12 shows that Japanese production subsidiaries in Asia procure 78 percent of their intermediate inputs from local companies, where local currencies are mainly chosen as a contract currency. In China, 86.5 percent of procurements from local companies are contracted in RMB in 2014. In ASEAN-6, 70.0 percent of local procurements are contracted in the local currency. However, in procurements of intermediate inputs from group companies, China exhibits a remarkable increase in RMB transactions from 26.7 percent in 2010 to 75.0 percent in 2014. In ASEAN, local

currency transactions account for only 34.8 percent in 2014, whereas 47.8 percent of local procurements from group companies are traded in U.S. dollar.

As shown in Table 13, Japanese production subsidiaries in China mainly used RMB for sales to customers in local markets: in 2014, 85.4 percent of local sales to customers are traded in RMB. In local sales to group companies in China, the share of RMB transactions declined somewhat, but is higher than the corresponding share of local currency transactions in other Asian countries.

Table 14 shows the invoice currency share in imports of intermediate inputs from Japan. The share of RMB invoicing exhibits a marked increase to 11-12 percent in imports from Japanese head office, group companies, and *Sogo Shosha* (large trading companies), whereas the number of transactions is quite small in imports from group companies and *Sogo Shosha*. Table 15 also indicates that the share of RMB invoicing in exports of subsidiaries in China to Japanese head office rose considerably from 1.8 percent in 2010 to 16 percent in 2014. This observation shows that in intra-firm trade between production subsidiaries in China and Japanese head office, the RMB transactions have grown to a certain extent.

In imports from and exports to foreign countries excluding Japan (Tables 16 and 17), we do not find a marked increase in RMB transactions by Japanese subsidiaries in China. The subsidiaries typically use the U.S. dollar for trade invoicing when they export to and import from other countries.

Finally, Table 18 presents the destination breakdown of the invoice currency share in exports of subsidiaries in Asia (all countries), Greater China (including mainland China, Hong Kong, and Taiwan), and ASEAN6 countries, using the information obtained from the 2014 survey. It must be noted that most exports of Japanese subsidiaries to other countries are directed toward other Asian countries. The U.S. dollar is largely used in exports to other Asian countries: 82.6 percent in exports of subsidiaries in Asia, 79.4 percent in Greater China, and 85.5 percent in ASEAN6 countries. RMB is marginally used only in exports of subsidiaries in Greater China. RMB is not extensively used in intra-Asian trade.

4. Concluding Remarks

While the international use of RMB for trade invoicing has been discussed in recent years, the firm-level information on RMB transactions especially along production chains has not been investigated in the previous studies. One reason is that it

is difficult to collect the data on the firm's pricing behavior and the choice of invoice currency. Since China plays a role of regional and global manufacturing hub and foreign MNCs operate actively in China, it is necessary to investigate to what extent foreign MNCs use RMB for trade invoicing especially in their intra-firm trade. Utilizing the firm-level information obtained by the large-scale questionnaire surveys, this study presents new evidence for the use of RMB by Japanese MNCs operating in China and other Asian countries along their regional and global production network. We have found that although RMB is largely used for local sales and procurement in China, Japanese MNCs in China mainly use the U.S. dollar and, to a lesser extent, the yen in trade with other countries. However, we also observe the growing use of RMB in MNCs' international trade along the production chain, especially in intra-firm trade. Production subsidiaries in China exhibit an increase in RMB transactions not only for imports of intermediate inputs from Japanese head office and group companies but also for exports of production goods to Japanese head office. This evidence implies that RMB transactions will be growing further if it becomes easier for MNCs to use RMB in intra-firm trade by conducting marry and netting for their trade settlement.

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Table 1. Problems in Using Respective Currencies for Trade Invoicing

1-A. Result for the 2010 Survey

Answers in 2010 (Multiple answers are allowed.)								
(A) Name of Currency	(B) Currency firms use for trade transactions	(C) Currency firms have difficulty in using for trade	(D) Problems					
			(D1) Foreign exchange controls/regulations prevent non-residents' transactions of the currency	(D2) Foreign exchange controls/regulations prevent operational hedging (marry and netting)	(D3) Capital controls/restrictions prevent investment and fund-raising in that currency	(D4) High transaction costs involved with currency hedging	(D5) High foreign exchange volatility	(D6) Others
US Dollar	1,224 (86.0)	714 (58.3)	31 [4.3]	-	40 [5.6]	84 [11.8]	608 [85.2]	39 [5.5]
Euro	484 (34.0)	236 (48.8)	7 [3.0]	-	6 [2.5]	28 [11.9]	210 [89.0]	11 [4.7]
Japanese yen	920 (64.6)	654 (71.1)	29 [4.4]	-	21 [3.2]	84 [12.8]	593 [90.7]	25 [3.8]
Chinese Renminbi	149 (10.5)	76 (51.0)	32 [42.1]	-	28 [36.8]	8 [10.5]	20 [26.3]	2 [2.6]
Hong Kong Dollar	83 (5.8)	18 (21.7)	2 [11.1]	-	1 [5.6]	2 [11.1]	14 [77.8]	2 [11.1]
Taiwan Dollar	44 (3.1)	14 (31.8)	1 [7.1]	-	2 [14.3]	2 [14.3]	12 [85.7]	0 [0.0]
Korean Won	22 (1.5)	10 (45.5)	0 [0.0]	-	0 [0.0]	1 [10.0]	9 [90.0]	0 [0.0]
Singapore Dollar	143 (10.0)	45 (31.5)	2 [4.4]	-	4 [8.9]	8 [17.8]	36 [80.0]	2 [4.4]
Malaysian Ringgit	55 (3.9)	24 (43.6)	6 [25.0]	-	4 [16.7]	1 [4.2]	14 [58.3]	0 [0.0]
Indonesia Rupiah	41 (2.9)	26 (63.4)	1 [3.8]	-	0 [0.0]	3 [11.5]	22 [84.6]	3 [11.5]
Thai Baht	137 (9.6)	49 (35.8)	3 [6.1]	-	6 [12.2]	5 [10.2]	38 [77.6]	5 [10.2]
Philippines Peso	23 (1.6)	10 (43.5)	2 [20.0]	-	0 [0.0]	1 [10.0]	7 [70.0]	1 [10.0]
India Rupee	13 (0.9)	6 (46.2)	2 [33.3]	-	2 [33.3]	1 [16.7]	2 [33.3]	1 [16.7]

Note: The total number of respondents (firms) is 1,424. Figures in parenthesis of column (B) denote percentage figures based on the ratio of (B) to the total respondents (1,424). Figures in parenthesis of column (C) denote percentage figures based on the ratio of (C) to (B). Figures in square bracket denote percentage figures based on the ratio of (D) to (C).

Source: RIETI Questionnaire Survey 2010, "Questionnaire Survey on the Choice of Invoice Currency by Japanese Overseas Subsidiaries".

1-B. Result for the 2014 Survey

Answers in 2014 (Multiple answers are allowed.)								
(A) Name of Currency	(B) Currency firms use for trade transactions	(C) Currency firms have difficulty in using for trade	(D) Problems					
			(D1) Foreign exchange controls/regulations prevent non-residents' transactions of the currency	(D2) Foreign exchange controls/regulations prevent operational hedging (marry and netting)	(D3) Capital controls/restrictions prevent investment and fund-raising in that currency	(D4) High transaction costs involved with currency hedging	(D5) High foreign exchange volatility	(D6) Others
US Dollar	1,266 (83.9)	311 (46.6)	22 [7.1]	18 [6.2]	18 [6.2]	53 [18.3]	247 [85.2]	13 (4.5)
Euro	527 (34.9)	87 (13.0)	5 [5.7]	3 [3.8]	4 [5.0]	11 [13.8]	70 [87.5]	3 (3.8)
Japanese yen	924 (60.4)	377 (40.8)	15 [4.0]	14 [3.7]	15 [4.0]	51 [13.5]	357 [94.7]	8 (2.1)
Chinese Renminbi	147 (9.6)	41 (27.9)	12 [29.3]	14 [34.1]	16 [39.0]	10 [24.4]	26 [63.4]	1 (2.4)
Hong Kong Dollar	63 (4.1)	4 (6.3)	0 [0.0]	0 [0.0]	0 [0.0]	1 [25.0]	3 [75.0]	0 [0.0]
Taiwan Dollar	36 (2.4)	4 (11.1)	1 [25.0]	1 [25.0]	0 [0.0]	2 [50.0]	0 [0.0]	1 (25.0)
Korean Won	25 (1.6)	3 (12.0)	0 [0.0]	0 [0.0]	0 [0.0]	1 [33.3]	3 [100.0]	0 [0.0]
Singapore Dollar	106 (6.9)	9 (8.5)	0 [0.0]	1 [11.1]	0 [0.0]	2 [22.2]	7 [77.8]	1 (11.1)
Malaysian Ringgit	56 (3.7)	12 (21.4)	3 [25.0]	2 [16.7]	2 [16.7]	3 [25.0]	8 [66.7]	1 (8.3)
Indonesia Rupiah	53 (3.5)	34 (64.2)	5 [14.7]	0 [0.0]	1 [2.9]	5 [14.7]	31 [91.2]	0 [0.0]
Thai Baht	127 (8.3)	23 (18.1)	0 [0.0]	1 [4.3]	2 [8.7]	3 [13.0]	18 [78.3]	1 (4.3)
Philippines Peso	18 (1.2)	5 (27.8)	0 [0.0]	0 [0.0]	1 [20.0]	0 [0.0]	4 [80.0]	0 [0.0]
India Rupee	28 (1.8)	10 (35.7)	0 [0.0]	1 [10.0]	1 [10.0]	2 [20.0]	6 [60.0]	1 [10.0]

Note: The total number of respondents (firms) is 1,529. Figures in parenthesis of column (B) denote percentage figures based on the ratio of (B) to the total respondents (1,529). Figures in parenthesis of column (C) denote percentage figures based on the ratio of (C) to (B). Figures in square brackets denote percentage figures based on the ratio of (D) to (C).

Source: RIETI Questionnaire Survey 2014, "Questionnaire Survey on the Choice of Invoice Currency by Japanese Overseas Subsidiaries".

Table 2. Do you have any plan to increase RMB transactions in the future?

2-A. Result for Major Regions

	2010				2014			
	Number of respondents	Yes	No	Others	Number of respondents	Yes	No	Others
Asia	755 (100.0)	160 (21.2)	572 (75.8)	23 (3.0)	623 (100.0)	99 (15.9)	501 (80.4)	23 (3.7)
Oceania	43 (100.0)	0 (0.0)	43 (100.0)	0 (0.0)	44 (100.0)	0 (0.0)	43 (97.7)	1 (2.3)
North America	273 (100.0)	6 (2.2)	262 (96.0)	5 (1.8)	204 (100.0)	3 (1.5)	196 (96.1)	5 (2.5)
South America	-	-	-	-	20 (100.0)	0 (0.0)	20 (100.0)	0 (0.0)
Europe (Euro area)	109 (100.0)	3 (2.8)	104 (95.4)	2 (1.8)	121 (100.0)	7 (5.8)	112 (92.6)	2 (1.7)
Europe (non-Euro area)	70 (100.0)	0 (0.0)	70 (100.0)	0 (0.0)	70 (100.0)	1 (1.4)	66 (94.3)	3 (4.3)
All	1,250 (100.0)	169 (13.5)	1,051 (84.1)	30 (2.4)	1,082 (100.0)	110 (10.2)	938 (86.7)	34 (3.1)

Note: Figures in parenthesis denote percentage figures based on the ratio to the total respondents of respective regions.

Source: RIETI Questionnaire Survey 2010 and 2014.

2-B. Result of the 2014 Survey for Asian Countries

	(A) Number of respondents	(B) Do you have any plan to expand RMB transactions in the future?			(C) If "Yes", what is the reason? (Multiple answers are allowed.)			
		(B1) Yes	(B2) No	(B3) Others	(C1) Amount of RMB received has been increasing	(C2) Payment in RMB becomes more acceptable	(C3) RMB has become used due to the progress of the China's currency reform	(C4) Others
All Countries	1,082	110 (10.2)	938 (86.7)	34 (3.1)	66	41	21	16
China	151	80 (53.0)	63 (41.7)	8 (5.3)	52	24	11	13
Hong Kong	39	10 (25.6)	26 (66.7)	3 (7.7)	6	7	3	0
Taiwan	46	2 (4.3)	42 (91.3)	2 (4.3)	0	0	1	1
Korea	22	0 (0.0)	21 (95.5)	1 (4.5)	0	0	0	0
Singapore	62	3 (4.8)	56 (90.3)	3 (4.8)	1	1	2	1
Malaysia	65	1 (1.5)	64 (98.5)	0 (0.0)	0	1	0	0
Thailand	85	0 (0.0)	82 (96.5)	3 (3.5)	0	0	0	0
Indonesia	73	0 (0.0)	72 (98.6)	1 (1.4)	0	0	0	0
Philippines	17	1 (5.9)	16 (94.1)	0 (0.0)	0	1	0	0
Vietnam	29	2 (6.9)	26 (89.7)	1 (3.4)	2	1	1	0
India	29	0 (0.0)	28 (96.6)	1 (3.4)	0	0	0	0

Note: Figures in parenthesis denote percentage figures based on the ratio of (B) to (A).

Source: RIETI Questionnaire Survey 2014.

Table 3. Do you have RMB transactions? (Result of the 2014 Survey)

	Number of respondents	Yes	If "yes", which RMB?		No
			CNY	CNH	
			(On-shore RMB)	(Off-shore RMB)	
Asia	643 (100.0)	125 (19.4)	102 [85.0]	18 [15.0]	518 (80.6)
Oceania	43 (100.0)	1 (2.3)	1 [100.0]	0 [0.0]	42 (97.7)
North America	206 (100.0)	7 (3.4)	4 [57.1]	3 [42.9]	199 (96.6)
South America	20 (100.0)	0 (0.0)	0 [0.0]	0 [0.0]	20 (100.0)
Europe (Euro area)	123 (100.0)	5 (4.1)	4 [100.0]	0 [0.0]	118 (95.9)
Europe (Non-Euro area)	70 (100.0)	2 (2.9)	2 [100.0]	0 [0.0]	68 (97.1)
All	1,105 (100.0)	140 (12.7)	113 [84.3]	21 [15.7]	965 (87.3)

Note: Figures in parenthesis denote percentage figures based on the ratio to the total number of respondents. Figures in square brackets denote the ratio to the number of respondents that answered “yes”. It must be noted that all respondents that answered “yes” did not answer to the question, “If ‘yes’, which RMB?”

Source: RIETI Questionnaire Survey 2014.

Table 4. The Use of CNY (On-shore RMB) and CNH (Off-shore RMB)

4-A. If you have RMB transactions, in which foreign exchange market do you use RMB? (Result of the 2014 Survey)

	Number of respondents	Foreign exchange market in China	Foreign exchange market in Hong Kong	Offshore RMB-Yen market in Tokyo	Others
Asia	120 (100.0)	101 (84.2)	16 (13.3)	2 (1.7)	1 (0.8)
Oceania	1 (100.0)	1 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)
North America	7 (100.0)	5 (71.4)	1 (14.3)	0 (0.0)	1 (14.3)
South America	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Europe (Euro area)	4 (100.0)	3 (75.0)	0 (0.0)	0 (0.0)	1 (25.0)
Europe (Non-Euro area)	2 (100.0)	1 (50.0)	0 (0.0)	0 (0.0)	1 (50.0)
All	134 (100.0)	111 (82.8)	17 (12.7)	2 (1.5)	4 (3.0)

4-B. If you have RMB transactions, please choose which is the most appropriate for the use of CNH. (Result of the 2014 Survey)

	Number of respondents	CNH is useful in hedging CNY transactions.	Basically, we do not use CNH. But, in some cases, we use CNH due to the regulation on CNY transactions.	We do not use CNH because only CNY can be used for trade settlement.	Others
Asia	96 (100.0)	21 (21.9)	5 (5.2)	63 (65.6)	7 (7.3)
Oceania	1 (100.0)	0 (0.0)	0 (0.0)	1 (100.0)	0 (0.0)
North America	5 (100.0)	0 (0.0)	0 (0.0)	3 (60.0)	2 (40.0)
South America	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Europe (Euro area)	3 (100.0)	0 (0.0)	0 (0.0)	3 (100.0)	0 (0.0)
Europe (Non-Euro area)	2 (100.0)	0 (0.0)	0 (0.0)	1 (50.0)	1 (50.0)
All	107 (100.0)	21 (19.6)	5 (4.7)	71 (66.4)	10 (9.3)

Note: Figures in parenthesis denote percentage figures based on the ratio to the total number of respondents.

Source: RIETI Questionnaire Survey 2014.

Table 5. Trade Pattern of Japanese Production Subsidiaries in Asia

Source Country/Region Breakdown	2010				2014			
	Number of Respondents	(a) Imports from Japan (%)	(b) Local Procurements (%)	(c) Imports from Others (%)	Number of Respondents	(a) Imports from Japan (%)	(b) Local Procurements (%)	(c) Imports from Others (%)
Asia	490	34.8	48.6	16.6	365	34.1	45.9	19.7
China	133	36.9	54.2	8.9	106	35.0	55.7	9.3
Hong Kong	19	38.2	31.4	30.4	6	31.0	31.3	37.7
Taiwan	28	35.2	50.9	13.9	21	50.9	33.7	8.7
Korea	16	40.8	50.5	8.8	8	59.4	29.1	11.5
ASEAN-6	277	33.3	47.4	19.3	206	32.2	42.5	25.4
Other Asia	17	29.9	38.8	31.3	18	26.2	49.7	24.1
Exports and Sales Destination	Number of Respondents	(a) Exports to Japan (%)	(b) Local Sales (%)	(c) Exports to Others (%)	Number of Respondents	(a) Exports to Japan (%)	(b) Local Sales (%)	(c) Exports to Others (%)
Asia	492	28.0	47.9	24.1	342	26.0	50.3	23.7
China	135	36.4	49.1	14.5	96	31.7	52.6	15.7
Hong Kong	19	42.8	26.2	31.0	6	31.7	23.2	45.2
Taiwan	28	14.8	54.7	30.5	20	17.6	55.5	27.0
Korea	16	30.6	58.1	11.3	8	4.5	91.3	4.3
ASEAN-6	276	25.4	44.7	29.9	197	26.0	46.1	27.9
Other Asia	18	6.8	91.2	2.1	15	10.8	72.6	16.6

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 6. Share of Invoice Currency in Manufacturing Subsidiaries' Procurements of Intermediate Inputs from Local Market

2014 Survey	Number of Respondents	(a) Yen (%)	(b) US Dollar (%)	(c) Euro (%)	(d) Renminbi (%)	(e) Local Currency (%)	(f) Others (%)
Asia	319	11.8	28.9	0.3	20.3	36.9	1.8
China	95	8.6	20.9	0.2	68.0	2.1	0.2
Hong Kong	4	10.0	56.3	0.0	0.0	33.8	0.0
Taiwan	18	24.3	18.2	0.6	0.8	56.1	0.0
Korea	7	21.4	20.1	0.7	0.0	57.7	0.0
ASEAN-6	182	12.6	35.4	0.3	0.1	48.7	2.9
Other Asia	13	1.5	7.3	0.0	0.0	90.0	1.2
2010 Survey	Number of Respondents	(a) Yen (%)	(b) US Dollar (%)	(c) Euro (%)	(d) Renminbi (%)	(e) Local Currency (%)	(f) Others (%)
Asia	456	13.3	25.9	0.5	17.4	41.3	1.6
China	126	13.0	22.8	0.3	60.8	1.9	1.2
Hong Kong	14	24.7	41.6	0.2	11.1	22.4	0.0
Taiwan	25	15.2	13.8	0.1	0.0	70.9	0.0
Korea	14	20.1	8.1	1.1	0.0	70.6	0.0
ASEAN-6	263	12.3	29.6	0.6	0.4	55.3	1.9
Other Asia	14	13.6	7.1	1.4	0.0	70.7	7.1

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 7. Share of Invoice Currency in Manufacturing Subsidiaries' Imports of Intermediate Inputs from Japan

2014 Survey	Number of Respondents	(a) Yen (%)	(b) US Dollar (%)	(c) Euro (%)	(d) Renminbi (%)	(e) Local Currency (%)	(f) Others (%)
Asia	288	48.2	43.7	0.4	3.0	4.4	0.4
China	82	43.9	44.5	0.0	10.4	1.2	0.0
Hong Kong	5	17.0	83.0	0.0	0.0	0.0	0.0
Taiwan	18	49.2	28.7	0.0	0.0	21.8	0.3
Korea	8	71.9	10.6	0.0	0.0	17.5	0.0
ASEAN-6	159	49.0	47.0	0.6	0.0	2.7	0.7
Other Asia	16	59.4	28.6	0.0	0.0	11.9	0.1
2010 Survey							
Asia	422	54.0	40.3	0.4	1.0	3.9	0.4
China	110	48.1	47.7	0.0	3.8	0.0	0.5
Hong Kong	16	57.8	41.6	0.0	0.0	0.6	0.0
Taiwan	27	63.2	32.6	0.0	0.0	4.3	0.0
Korea	13	87.3	11.2	0.0	0.0	1.5	0.0
ASEAN-6	243	53.5	39.5	0.7	0.0	6.1	0.1
Other Asia	13	56.5	35.9	0.0	0.0	0.0	7.5

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 8. Share of Invoice Currency in Manufacturing Subsidiaries' Imports of Intermediate Inputs from Other Countries (exc Japan)

2014 Survey	Number of Respondents	(a) Yen (%)	(b) US Dollar (%)	(c) Euro (%)	(d) Renminbi (%)	(e) Local Currency (%)	(f) Others (%)
Asia	205	6.8	80.4	4.2	0.7	4.5	3.4
China	34	8.9	84.2	2.9	3.6	0.0	0.3
Hong Kong	5	0.0	82.0	0.0	2.0	16.0	0.0
Taiwan	8	8.8	79.4	11.9	0.0	0.0	0.0
Korea	4	12.5	87.5	0.0	0.0	0.0	0.0
ASEAN-6	141	6.1	80.7	4.1	0.0	5.3	3.8
Other Asia	13	9.0	64.5	6.4	0.0	7.7	12.5
2010 Survey							
Asia	282	6.1	79.0	5.6	1.0	4.9	3.5
China	49	4.0	77.5	11.9	3.8	0.5	2.2
Hong Kong	12	12.8	68.6	0.3	4.6	13.8	0.1
Taiwan	12	1.5	94.8	0.4	0.0	1.7	1.7
Korea	5	16.0	74.2	9.8	0.0	0.0	0.0
ASEAN-6	191	6.6	79.4	4.3	0.1	5.6	4.0
Other Asia	13	1.1	74.8	8.2	0.4	7.7	7.8

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 9. Share of Invoice Currency in Manufacturing Subsidiaries' Sales in Local Market

2014 Survey	Number of Respondents	(a) Yen (%)	(b) US Dollar (%)	(c) Euro (%)	(d) Renminbi (%)	(e) Local Currency (%)	(f) Others (%)
Asia	299	3.2	23.2	0.6	23.8	47.2	2.0
China	87	2.5	13.1	0.9	81.6	0.9	1.0
Hong Kong	4	5.0	84.5	0.0	0.0	10.5	0.0
Taiwan	19	2.9	19.7	0.0	0.0	77.4	0.0
Korea	8	10.1	14.0	4.4	0.0	71.5	0.0
ASEAN-6	168	3.5	29.4	0.3	0.0	64.2	2.5
Other Asia	13	0.0	1.7	0.0	0.0	90.6	7.7
2010 Survey							
Asia	414	4.9	21.5	0.2	21.9	50.6	0.9
China	112	2.2	13.5	0.3	80.2	3.6	0.3
Hong Kong	14	0.0	49.5	0.0	0.0	50.5	0.0
Taiwan	26	5.4	17.9	0.1	0.0	76.7	0.0
Korea	12	9.6	16.3	0.0	0.8	73.3	0.0
ASEAN-6	234	6.5	25.4	0.3	0.3	66.1	1.4
Other Asia	16	0.0	6.4	0.0	0.0	93.6	0.0

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 10. Share of Invoice Currency in Manufacturing Subsidiaries' Exports to Japan

2014 Survey	Number of Respondents	(a) Yen (%)	(b) US Dollar (%)	(c) Euro (%)	(d) Renminbi (%)	(e) Local Currency (%)	(f) Others (%)
Asia	209	37.8	52.2	0.0	4.7	4.8	0.4
China	71	39.3	45.4	0.0	13.9	1.4	0.0
Hong Kong	5	16.0	84.0	0.0	0.0	0.0	0.0
Taiwan	12	49.2	42.5	0.0	0.0	8.3	0.0
Korea	4	100.0	0.0	0.0	0.0	0.0	0.0
ASEAN-6	113	35.8	56.2	0.0	0.0	7.2	0.8
Other Asia	4	0.0	100.0	0.0	0.0	0.0	0.0
2010 Survey							
Asia	313	46.0	48.0	0.2	0.2	5.6	0.0
China	93	47.8	50.8	0.7	0.8	0.0	0.0
Hong Kong	12	29.6	70.4	0.0	0.0	0.0	0.0
Taiwan	17	43.5	56.5	0.0	0.0	0.0	0.0
Korea	10	79.0	10.0	0.0	0.0	11.0	0.0
ASEAN-6	177	43.8	46.8	0.0	0.0	9.3	0.0
Other Asia	4	75.0	25.0	0.0	0.0	0.0	0.0

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 11. Share of Invoice Currency in Manufacturing Subsidiaries' Exports to Other Countries (exc Japan)

2014 Survey	Number of Respondents	(a) Yen (%)	(b) US Dollar (%)	(c) Euro (%)	(d) Renminbi (%)	(e) Local Currency (%)	(f) Others (%)
Asia	220	6.0	80.7	2.9	1.7	5.4	3.3
China	54	7.3	79.6	4.5	5.2	1.9	1.6
Hong Kong	5	4.0	93.0	1.0	0.0	2.0	0.0
Taiwan	16	6.3	79.0	0.9	5.7	6.3	1.9
Korea	3	6.7	93.3	0.0	0.0	0.0	0.0
ASEAN-6	133	5.9	80.5	2.7	0.0	7.4	3.5
Other Asia	9	0.1	82.8	1.1	0.0	0.0	16.0
2010 Survey							
Asia	323	8.6	77.5	3.2	0.7	6.6	3.4
China	68	8.4	76.5	4.6	2.3	1.4	6.8
Hong Kong	12	5.4	70.8	0.4	2.5	20.8	0.0
Taiwan	19	5.5	82.5	1.6	0.0	10.3	0.1
Korea	8	16.9	69.5	7.4	5.6	0.6	0.0
ASEAN-6	208	9.1	77.2	3.0	0.0	7.6	3.0
Other Asia	8	0.0	100.0	0.0	0.0	0.0	0.0

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 12. Invoice Currency Choice in Intra-Firm Transactions: Local Procurements

	Local Procurement (Percent)						Local Procurement (Number of Transactions)					
	Asia		China		ASEAN-6		Asia		China		ASEAN-6	
	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014
1. From Local Company												
1. JPY	2.1	2.2	2.7	1.2	1.7	3.0	17	12	6	2	8	9
2. USD	16.2	17.7	11.5	7.6	20.7	25.6	132	95	26	13	95	76
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	23.7	27.4	84.5	86.5	0.0	0.0	193	147	191	147	0	0
5. Local	53.9	50.8	1.3	4.7	71.9	70.0	439	273	3	8	330	208
6. Others	4.1	1.9	0.0	0.0	5.7	1.3	33	10	0	0	26	4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	814	537	226	170	459	297
2. From Group Company												
1. JPY	28.0	11.6	20.0	12.5	23.1	13.0	40	8	6	2	21	6
2. USD	42.7	39.1	53.3	12.5	41.8	47.8	61	27	16	2	38	22
3. Euro	0.7	0.0	0.0	0.0	0.0	0.0	1	0	0	0	0	0
4. Renminbi	5.6	17.4	26.7	75.0	0.0	0.0	8	12	8	12	0	0
5. Local	22.4	29.0	0.0	0.0	34.1	34.8	32	20	0	0	31	16
6. Others	0.7	2.9	0.0	0.0	1.1	4.3	1	2	0	0	1	2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	143	69	30	16	91	46
3. From Other Company												
1. JPY	13.5	3.4	9.1	0.0	13.4	0.0	12	1	1	0	9	0
2. USD	44.9	72.4	27.3	50.0	41.8	80.0	40	21	3	3	28	16
3. Euro	3.4	0.0	9.1	0.0	3.0	0.0	3	0	1	0	2	0
4. Renminbi	7.9	10.3	54.5	50.0	1.5	0.0	7	3	6	3	1	0
5. Local	24.7	10.3	0.0	0.0	32.8	15.0	22	3	0	0	22	3
6. Others	5.6	3.4	0.0	0.0	7.5	5.0	5	1	0	0	5	1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	89	29	11	6	67	20

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 13. Invoice Currency Choice in Intra-Firm Transactions: Local Sales

	Local Sales (Percent)						Local Sales (Number of Transactions)					
	Asia		China		ASEAN-6		Asia		China		ASEAN-6	
	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014
1. To Customer												
1. JPY	1.4	1.6	0.0	3.7	1.6	0.6	6	5	0	3	4	1
2. USD	18.6	21.5	10.4	7.3	24.2	30.0	81	69	11	6	59	54
3. Euro	0.0	0.3	0.0	0.0	0.0	0.0	0	1	0	0	0	0
4. Renminbi	21.8	21.8	88.7	85.4	0.4	0.0	95	70	94	70	1	0
5. Local	53.8	53.6	0.0	2.4	67.6	68.3	234	172	0	2	165	123
6. Others	4.4	1.2	0.9	1.2	6.1	1.1	19	4	1	1	15	2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	435	321	106	82	244	180
2. To Group Company												
1. JPY	7.0	3.3	5.7	2.5	7.4	4.8	10	3	2	1	7	2
2. USD	30.1	26.7	14.3	17.5	34.0	38.1	43	24	5	7	32	16
3. Euro	0.7	4.4	0.0	7.5	1.1	2.4	1	4	0	3	1	1
4. Renminbi	18.9	28.9	77.1	65.0	0.0	0.0	27	26	27	26	0	0
5. Local	41.3	35.6	0.0	7.5	55.3	54.8	59	32	0	3	52	23
6. Others	2.1	1.1	2.9	0.0	2.1	0.0	3	1	1	0	2	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	143	90	35	40	94	42
3. To Distributor												
1. JPY	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
2. USD	8.1	27.5	0.0	11.1	19.0	32.1	5	11	0	1	4	9
3. Euro	0.0	2.5	0.0	0.0	0.0	3.6	0	1	0	0	0	1
4. Renminbi	48.4	20.0	100.0	88.9	0.0	0.0	30	8	30	8	0	0
5. Local	41.9	50.0	0.0	0.0	81.0	64.3	26	20	0	0	17	18
6. Others	1.6	0.0	0.0	0.0	0.0	0.0	1	0	0	0	0	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	62	40	30	9	21	28
4. To Other Company												
1. JPY	6.7	0.0	0.0	0.0	12.5	0.0	1	0	0	0	1	0
2. USD	20.0	100.0	0.0	100.0	37.5	100.0	3	5	0	3	3	2
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	13.3	0.0	100.0	0.0	0.0	0.0	2	0	2	0	0	0
5. Local	53.3	0.0	0.0	0.0	37.5	0.0	8	0	0	0	3	0
6. Others	6.7	0.0	0.0	0.0	12.5	0.0	1	0	0	0	1	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	15	5	2	3	8	2

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 14. Invoice Currency Choice in Intra-Firm Trade: Imports from Japan

	Imports from Japan (Percent)						Imports from Japan (Number of Transactions)					
	Asia		China		ASEAN-6		Asia		China		ASEAN-6	
	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014
1. From Japanese Head Office												
1. JPY	58.8	54.4	53.0	43.8	57.5	58.6	293	167	70	42	154	99
2. USD	38.0	39.7	45.5	44.8	37.7	38.5	189	122	60	43	101	65
3. Euro	0.4	0.0	0.0	0.0	0.7	0.0	2	0	0	0	2	0
4. Renminbi	0.2	3.6	0.8	11.5	0.0	0.0	1	11	1	11	0	0
5. Local	2.2	2.3	0.0	0.0	3.7	3.0	11	7	0	0	10	5
6. Others	0.4	0.0	0.8	0.0	0.4	0.0	2	0	1	0	1	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	498	307	132	96	268	169
2. From Group Company												
1. JPY	51.9	43.9	36.1	33.3	47.8	53.6	67	29	13	9	33	15
2. USD	46.5	48.5	58.3	51.9	52.2	42.9	60	32	21	14	36	12
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	0.8	4.5	2.8	11.1	0.0	0.0	1	3	1	3	0	0
5. Local	0.8	3.0	2.8	3.7	0.0	3.6	1	2	1	1	0	1
6. Others	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	129	66	36	27	69	28
3. From Japanese <i>Sogo Shosha</i>												
1. JPY	56.9	54.5	41.5	61.5	59.5	47.9	78	60	17	16	50	34
2. USD	38.7	40.0	53.7	26.9	35.7	47.9	53	44	22	7	30	34
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	1.5	2.7	4.9	11.5	0.0	0.0	2	3	2	3	0	0
5. Local	2.9	2.7	0.0	0.0	4.8	4.2	4	3	0	0	4	3
6. Others	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	137	110	41	26	84	71
4. From Other Company												
1. JPY	53.4	52.0	44.4	0.0	52.5	55.6	31	13	4	0	21	10
2. USD	32.8	44.0	33.3	100.0	35.0	44.4	19	11	3	2	14	8
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	3.4	0.0	22.2	0.0	0.0	0.0	2	0	2	0	0	0
5. Local	6.9	4.0	0.0	0.0	7.5	0.0	4	1	0	0	3	0
6. Others	3.4	0.0	0.0	0.0	5.0	0.0	2	0	0	0	2	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	58	25	9	2	40	18

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 15. Invoice Currency Choice in Intra-Firm Trade: Exports to Japan

	Exports to Japan (Percent)						Exports to Japan (Number of Transactions)					
	Asia		China		ASEAN-6		Asia		China		ASEAN-6	
	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014
1. To Japanese Head Office												
1. JPY	46.3	31.3	51.8	30.9	42.4	25.9	171	71	58	25	84	29
2. USD	45.8	60.4	46.4	53.1	45.5	69.6	169	137	52	43	90	78
3. Euro	0.3	0.0	0.0	0.0	0.5	0.0	1	0	0	0	1	0
4. Renminbi	0.5	5.7	1.8	16.0	0.0	0.0	2	13	2	13	0	0
5. Local	6.8	2.6	0.0	0.0	11.1	4.5	25	6	0	0	22	5
6. Others	0.3	0.0	0.0	0.0	0.5	0.0	1	0	0	0	1	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	369	227	112	81	198	112
2. To Group Company												
1. JPY	50.8	38.1	45.5	41.2	44.7	37.5	32	16	5	7	17	9
2. USD	46.0	50.0	54.5	47.1	50.0	50.0	29	21	6	8	19	12
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	0.0	2.4	0.0	5.9	0.0	0.0	0	1	0	1	0	0
5. Local	1.6	9.5	0.0	5.9	2.6	12.5	1	4	0	1	1	3
6. Others	1.6	0.0	0.0	0.0	2.6	0.0	1	0	0	0	1	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	63	42	11	17	38	24
3. To Japanese <i>Sogo Shosha</i>												
1. JPY	8.3	64.3	33.3	100.0	0.0	55.6	1	9	1	3	0	5
2. USD	91.7	28.6	66.7	0.0	100.0	33.3	11	4	2	0	7	3
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
5. Local	0.0	7.1	0.0	0.0	0.0	11.1	0	1	0	0	0	1
6. Others	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	12	14	3	3	7	9
4. To Other Company												
1. JPY	42.1	22.2	40.0	0.0	50.0	40.0	8	2	2	0	6	2
2. USD	42.1	55.6	60.0	100.0	33.3	20.0	8	5	3	4	4	1
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
5. Local	5.3	0.0	0.0	0.0	8.3	0.0	1	0	0	0	1	0
6. Others	10.5	22.2	0.0	0.0	8.3	40.0	2	2	0	0	1	2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	19	9	5	4	12	5

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 16. Invoice Currency Choice in Intra-Firm Trade: Imports from Abroad

	Imports from Abroad (Percent)						Imports from Abroad (Number of Transactions)					
	Asia		China		ASEAN-6		Asia		China		ASEAN-6	
	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014
1. Foreign Company												
1. JPY	3.0	1.1	2.7	0.0	2.7	1.5	7	2	1	0	4	2
2. USD	80.5	88.8	78.4	100.0	81.9	88.8	186	159	29	21	122	119
3. Euro	8.7	6.1	16.2	0.0	8.7	6.0	20	11	6	0	13	8
4. Renminbi	0.9	0.0	2.7	0.0	0.0	0.0	2	0	1	0	0	0
5. Local	5.2	2.2	0.0	0.0	4.7	1.5	12	4	0	0	7	2
6. Others	1.7	1.7	0.0	0.0	2.0	2.2	4	3	0	0	3	3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	231	179	37	21	149	134
2. Group Company												
1. JPY	7.2	3.4	4.5	0.0	6.3	5.4	11	4	1	0	6	4
2. USD	80.3	85.3	77.3	93.1	80.2	82.4	122	99	17	27	77	61
3. Euro	2.6	4.3	9.1	3.4	1.0	5.4	4	5	2	1	1	4
4. Renminbi	0.0	0.9	0.0	3.4	0.0	0.0	0	1	0	1	0	0
5. Local	2.6	1.7	4.5	0.0	3.1	1.4	4	2	1	0	3	1
6. Others	7.2	4.3	4.5	0.0	9.4	5.4	11	5	1	0	9	4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	152	116	22	29	96	74
3. Others												
1. JPY	2.4	2.3	0.0	16.7	3.2	0.0	2	1	0	1	2	0
2. USD	80.0	88.6	83.3	33.3	79.4	96.8	68	39	15	2	50	30
3. Euro	4.7	0.0	11.1	0.0	1.6	0.0	4	0	2	0	1	0
4. Renminbi	0.0	6.8	0.0	50.0	0.0	0.0	0	3	0	3	0	0
5. Local	4.7	0.0	0.0	0.0	6.3	0.0	4	0	0	0	4	0
6. Others	8.2	2.3	5.6	0.0	9.5	3.2	7	1	1	0	6	1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	85	44	18	6	63	31

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 17. Invoice Currency Choice in Intra-Firm Trade: Exports to Other Countries

	Exports to Foreign Countries (Percent)						Exports to Foreign Countries (Number of Transactions)					
	Asia		China		ASEAN-6		Asia		China		ASEAN-6	
	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014	2010	2014
1. To Customers												
1. JPY	7.3	9.6	20.0	18.8	3.9	7.4	14	13	6	6	5	6
2. USD	82.9	86.0	70.0	81.3	87.4	85.2	160	117	21	26	111	69
3. Euro	1.6	0.0	0.0	0.0	2.4	0.0	3	0	0	0	3	0
4. Renminbi	1.6	0.0	6.7	0.0	0.0	0.0	3	0	2	0	0	0
5. Local	4.7	3.7	0.0	0.0	3.9	6.2	9	5	0	0	5	5
6. Others	2.1	0.7	3.3	0.0	2.4	1.2	4	1	1	0	3	1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	193	136	30	32	127	81
2. To Group Companies												
1. JPY	6.0	5.0	3.5	0.0	8.1	6.4	14	7	2	0	12	5
2. USD	77.2	75.7	78.9	72.7	74.3	78.2	179	106	45	32	110	61
3. Euro	4.3	5.7	5.3	11.4	4.1	3.8	10	8	3	5	6	3
4. Renminbi	1.3	3.6	5.3	11.4	0.0	0.0	3	5	3	5	0	0
5. Local	7.3	7.1	3.5	2.3	9.5	9.0	17	10	2	1	14	7
6. Others	3.9	2.9	3.5	2.3	4.1	2.6	9	4	2	1	6	2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	232	140	57	44	148	78
3. To Distributors												
1. JPY	0.0	2.8	0.0	0.0	0.0	0.0	0	1	0	0	0	0
2. USD	88.4	88.9	91.7	85.7	84.2	95.5	38	32	11	6	16	21
3. Euro	0.0	2.8	0.0	0.0	0.0	4.5	0	1	0	0	0	1
4. Renminbi	0.0	5.6	0.0	14.3	0.0	0.0	0	2	0	1	0	0
5. Local	9.3	0.0	0.0	0.0	15.8	0.0	4	0	0	0	3	0
6. Others	2.3	0.0	8.3	0.0	0.0	0.0	1	0	1	0	0	0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	43	36	12	7	19	22
4. To Others												
1. JPY	11.8	0.0	0.0	0.0	18.2	0.0	2	0	0	0	2	0
2. USD	64.7	100.0	0.0	100.0	72.7	100.0	11	7	0	1	8	6
3. Euro	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
4. Renminbi	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
5. Local	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
6. Others	23.5	0.0	0.0	0.0	9.1	0.0	4	0	0	0	1	0
TOTAL	100.0	100.0	0.0	100.0	100.0	100.0	17	7	0	1	11	6

Source: RIETI Questionnaire Survey 2010 and 2014.

Table 18. Invoice Currency Share in Subsidiary's Exports to Other Countries

Production Subsidiary's Exports to:		Share			Number of transactions		
		Asia	Greater China	ASEAN6	Asia	Greater China	ASEAN6
1. To U.S.	1. JPY	0.0	0.0	0.0	0	0	0
	2. USD	93.3	94.1	91.7	28	16	11
	3. Euro	0.0	0.0	0.0	0	0	0
	4. RMB	3.3	5.9	0.0	1	1	0
	5. Local	3.3	0.0	8.3	1	0	1
	6. Others	0.0	0.0	0.0	0	0	0
	TOTAL	100.0	100.0	100.0	30	17	12
2. To EU	1. JPY	4.5	11.1	0.0	1	1	0
	2. USD	59.1	33.3	70.0	13	3	7
	3. Euro	36.4	55.6	30.0	8	5	3
	4. RMB	0.0	0.0	0.0	0	0	0
	5. Local	0.0	0.0	0.0	0	0	0
	6. Others	0.0	0.0	0.0	0	0	0
	TOTAL	100.0	100.0	100.0	22	9	10
3. To Others	1. JPY	0.0	0.0	0.0	0	0	0
	2. USD	86.7	100.0	75.0	13	3	6
	3. Euro	6.7	0.0	12.5	1	0	1
	4. RMB	0.0	0.0	0.0	0	0	0
	5. Local	0.0	0.0	0.0	0	0	0
	6. Others	6.7	0.0	12.5	1	0	1
	TOTAL	100.0	100.0	100.0	15	3	8
4. To Asia	1. JPY	8.2	7.9	7.3	16	5	9
	2. USD	82.6	79.4	85.5	161	50	106
	3. Euro	0.0	0.0	0.0	0	0	0
	4. RMB	2.6	7.9	0.0	5	5	0
	5. Local	4.6	3.2	5.6	9	2	7
	6. Others	2.1	1.6	1.6	4	1	2
	TOTAL	100.0	100.0	100.0	195	63	124

Note: The data obtained from the 2014 survey is presented.

Source: RIETI Questionnaire Survey 2014.

Appendix: Internationalization of the Japanese Yen

Related to the historical change in the choice of invoicing currency, we briefly reviews the revision of Japanese foreign exchange and foreign trade law in 1998 and Japanese government attempt to internationalize the yen. In the context of the internationalization of the yen, the main deregulations of foreign exchange and capital controls taken to make the yen fully convertible currency include the establishment of 1960 of Free Yen Accounts for Nonresidents, the amendment of Foreign Exchange and Foreign Trade Control Act (FEFTCA) in 1980, the abolition of the real demand principle and US-Japan Yen Dollar Committee in 1984, and the amendment of Foreign Exchange and Foreign Trade Act (FEFTA) in 1998. According to the following table, this section overviews the above four events and draws some lessons from the events.

- **Liberalization and deregulation of foreign exchange controls in the 1960s and the 1980s**

At first, we summarize the details of the liberalization and deregulation of foreign exchange controls in the 1960s and the 1980s.

(1) Establishment of 1960 of Free Yen Account for Nonresidents

In the post-war Japan, the foreign exchange and trades were strictly controlled by the government, but after becoming a member of the IMF in 1952 on the Article 14 status, Japan accepted in 1964 the obligations under the Article 8 of the Agreement which requires no restrictions on current transactions. Prior to this transition to Article 8 status, Japan started in July 1960 to liberalize the yen-denominated transactions by nonresidents. The Ministry of Finance took measures to authorize the residents to use the yen in overseas settlement of transactions and at the same time permitted foreign banks and other nonresidents to open in Japan the Nonresident Free Yen Accounts through which they can settle the yen-denominated transactions.

Although this measure gave the yen a kind of convertibility, albeit limited, marked the starting point for the internationalization of the yen, exports and imports denominated in yen accounted for only 0.1% of the totals respectively in 1960, and remained almost unchanged through 1960s without showing any meaningful improvement. It is because the foreign exchange and capital controls were basically very restrictive for making international transactions. In addition, the incentives to make yen-denominated contract were not so strong as the yen was fixed to the US dollar and Japan's presence in the world economy was still limited despite its high-growth period

of 1960s.

Table A-1. Developments toward Internationalization of the Yen

Jul. 1960	Use of Yen permitted for overseas settlements Introduction of nonresidents' free-yen account
Apr. 1964	Japan accepts the obligations under the Article 8 of the IMF Agreements
Dec. 1979	Foreign Exchange and Foreign Trade Control Act (New Foreign Exchange Act) amended on a broad range (to be implemented in Dec. 1980)
Nov. 1983	Establishment of US-Japan Yen Dollar Committee (to facilitate further liberalization of Japanese exchange rate system)
Apr. 1984	Abolition of real demand principle on which forward exchange transactions were permitted only when they were based on the real demands such as exports and imports
May. 1984	Ministry of Finance publishes the report of US-Japan Yen Dollar Committee titled "Present Situation and the Future Developments for Financial Liberalization and Internationalization of the Yen"
May. 1997	Enactment of amended Foreign Exchange and Foreign Trade Act (to be implemented in April 1998) to liberalize outward and inward capital transactions, completely liberalize the foreign exchange business, etc)
Apr. 1998	Amended Exchange Act put into force
Jul. 1998	Ministry of Finance establishes Subcouncil on Internationalization of the Yen under the Council on Foreign Exchange and Other Transactions
Apr. 1999	Council on Foreign Exchange and Other Transactions releases recommendations titled "Internationalization of the Yen for the 21st Century" that include improving financial and capital market environments and reviewing the yen's role in Asian countries' exchange system
Jun. 2000	Study Group for the Promotion of the Internationalization of the Yen releases Interim summarization of their discussion

Source: Research paper and Policy Recommendation on "Ways to promote foreign trade settlements denominated in local currencies in East Asia" commissioned by the ASEAN Secretariat. February 2010. Institute for International Monetary Affairs.

(2) Amendment of Foreign Exchange and Foreign Trade Control Act (FEFTCA) of 1980

Following the rapid accumulation of balance of payment surplus since the spring of 1977, avoidance of frictions on international economic relations became an important political issue. The Japanese government announced in early 1979 its intention to change the foreign exchange related laws and regulations from “prohibition in principle” to “permission in principle” and made their comprehensive amendments in

December 1979 which were put into force in December 1980. The main amendments included the followings.

- Explicit stipulation of free principles of external transactions
 - The Act explicitly stipulated that it is the basic principle that external transactions including foreign exchange, foreign trade, etc can be made freely (without authorization).
- Liberalization of capital transactions and introduction of emergency regulation
 - Capital transactions were essentially liberalized under the prior notification system. Emergency regulation can be invoked on such occasions as when the maintenance of the equilibrium of the balance of payment is to be jeopardized, when the capital flows incur volatile changes/fluctuations of the foreign exchange rate, and when massive movements of capital negatively affect the domestic money and capital markets.
 - Liberalization of services transactions and others
 - Payments and receipts of payments were essentially liberalized
 - Exports of means for payments were basically liberalized.

(3) The abolishment of the real demand principle and US-Japan Yen Dollar Committee in 1984

In the autumn of 1983, the increasing trade surplus of Japan against the US raised the questions on closed character of Japanese financial and capital markets and appropriateness of Yen-Dollar exchange rate level that posed big political issues for the two governments. Consequently, an agreement was reached in November 1983 between the two finance ministers of the US and Japan to establish so-called “Yen-Dollar Committee.” On the Japanese side, the Ministry of Finance had prepared its policy report “Current Situation on and Prospects for Financial Liberalization and the Internationalization of the Yen” to be released in April 1984. Accordingly, the report was released in May 1984 along with the release of the “Report of US-Japan Yen Dollar Committee.”

The former report deliberated on such issues as the liberalization of interests on deposits, deregulation of the banks’ business hours and branch locations, creation of Yen denominated BA (bankers’ acceptance) market, and authorization of trust business for foreign banks. It also proposed as a means for the internationalization of the yen such measures as abolition of real demand principles for foreign exchange transactions, liberalization of foreign lending in the yen, abolition of restriction on banks to convert foreign currencies into the yen, abolition of designated securities companies, and

creation of Tokyo Offshore market.

Reflecting these efforts and negotiations, the real demand principle was abolished in April 1984 and the restriction on so-called “yen conversion” was abolished in June 1984, hedging and risk taking foreign exchange transactions by Japanese firms and institutional investors became very active and the transaction volume of spot and forwards transactions in Tokyo Market expanded rapidly.

• **The Amendment of Foreign Exchange and Foreign Trade Act (FEFTA) in 1998**

The revised Foreign Exchange and Foreign Trade Law in April 1998 brought the first major step of the Japanese "Big Bang." The revised law deregulated domestic and foreign capital transactions and foreign exchange operations in principle and affected Japanese firms' exchange rate risk management largely. We overview the major changes related to trade settlement. The revisions included such comprehensive liberalization as:

- Liberalization of foreign exchange business: Authorized foreign exchange banking system through which foreign exchange transactions were to be carried out and authorization and permissions were delivered was abolished and entry into and exit from foreign exchange business can be freely made by any market participants.
- Liberalization of capital and other transactions: Prior authorization and/or notification requirements were essentially abolished so that capital transactions and their settlements can be freely made with the overseas counterparts.
- Upgrading of after the-fact-reporting system; Efforts were made to upgrade the reporting system on the after-the-transaction basis in order to collect data on capital transactions for the compilation of the balance of payments statistics as well as for the accurate monitoring of the market situation.

With the liberalization of settlements in foreign currencies, individuals were allowed to purchase products abroad and pay through a foreign bank account, as well as purchase merchandise in Japan with dollars. Accordingly, Japanese firms were able to make trade settlements using foreign bank accounts. Especially for trade settlement and foreign exchange risk management, Nakakubo (1998) indicated that the following changes were worth noting for Japanese firms' exchange risk management.

- (1) Companies and individuals with foreign currency deposits overseas were able to pay for imported goods in foreign currency. Similarly, companies were able to perform trade settlements in foreign currencies enabling more efficient foreign exchange management and greatly simplifying procedures.

- (2) The netting transactions, which enabled companies to settle accounts based on the net difference between exports and imports, instead of having to use gross account settlements in which exports and imports are treated separately, became available.
- (3) For big sized trading companies and manufacturing firms, an global treasury center or so-called "in-house bank" in a company's finance department or at an affiliated company, through which internal and external foreign currency settlements could be unified so that foreign exchange risks and costs are efficiently managed.

Related to (3), we introduce the case of SONY. Sony Global Treasury Services Plc. (SGTS) was established in London in December 2000 with the mission of being a global center for the entire Sony Group's foreign exchange management and fund management/raising operations. SGTS is positioned as a shared service center which integrates foreign exchange and cash management operations across the Sony Group, while also coordinating financial risk management services for Sony Group companies worldwide. Recently, SCTS established SGTS Hong Kong in the Hong Kong Special Administrative Region and started commence operations in April 2011 with the aim of managing financial operations for the Sony Group's businesses in the People's Republic of China and coordinating financial risk management services relating to Sony's major ODM/OEM businesses. SCTS Hong Kong also aims to enhance the Sony Group's RMB currency management by adopting RMB as the import/export currency for transactions across many of its subsidiaries in mainland China and consolidating RMB at SGTS Hong Kong.¹²

• **Why the internationalization of the yen did not promote yen invoicing?**

The use of the yen in trade transactions gradually increased its share until 1980s, but in the 1990s, the share stopped rising, and in some cases decreased. There are various arguments and explanations for the reasons behind the less-extensive use of the yen than expected.

First of all, the choice of invoice currency in international trade is usually affected by such factors as the market competitiveness (bargaining power), invoicing currencies in international commodity markets, and trade structure. In the case of Japan's trade, however, it is cited that imports of the raw materials which are traditionally quoted in dollars in international markets account for a high percentage and Japanese parent companies tend to assume the foreign exchange risks in intra-firm trade

¹² Similar to SONY, Panasonic established their Panasonic Global Treasury Center as an overseas intra-group financial subsidiary in Netherland in 2006, which enhances the efficiency of group-wide treasury transactions by introducing a new round-the-clock global treasury system.

with their overseas subsidiaries.

Even in the trade between Asian countries with which Japan has strong economic ties, the yen is not extensively used, especially in imports. This is largely accounted for by such backgrounds as that the yen is not convenient enough because the foreign exchange markets between the yen and Asian currencies remain underdeveloped and that the exchange rates between the yen and Asian currencies were unstable because many Asian currencies were linked to the dollar.

Another background observed for the slow progress of the internationalization of the yen is the declining credibility for the yen reflecting the long stagnation of the Japanese economy in the 1990s and after. Furthermore, the practices and institutional constraints in choosing the currency for international trade and capital transactions are also cited as to make the demand of the yen remain low.