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Trends in Japan's Direct Overseas Investments and their Impact on Asian Workers

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Asia Monitor Resource Centre

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***Yokohama Action Research** is a Japan-based organization focusing on TNCs, labour issues, and international solidarity levy.*

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By Kaneko Fumio and Tono Haruhi

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Introduction

The Japanese economy has remained in a slump since the 1990s, and the number of employees in the manufacturing sector is decreasing. The rate of part-time, irregular workers is on the rise, sharply decreasing the number of full-time or regular workers. Under these circumstances, Japanese companies are steadily increasing direct overseas investments, resulting in an increase in the number of employees overseas as a whole. As compared with this, direct domestic investments were small in scale and did not contribute much to the increase in employment although they did show an increase.

We are going to survey the trends in Japan's direct overseas investments, and study how they are interconnected with the employment and business management situation. In particular, we will take up discussion of investments in Asia by automobile and electronics companies, which are the central industries in investments in the manufacturing sector. First, then, we will examine mid-term trends in the amount of investments, the number of employees, and sales. Secondly, we will look at their short-trends before and after financial crisis, and thirdly, at the business trends in the leading automobile company, Toyota Motor Corporation, and the big electronics company, Panasonic Corporation. Lastly, we address the financial crisis and its influence on employment.

1. A survey of direct overseas investment trends

Japan's direct overseas investments, when seen from the international balance of payments, net and flow trends, continued to increase yearly from 2004 to 2008, and the total amount of US\$31.0 billion investments in 2004 jumped to US\$130.8 billion investments in 2008, more than four times. In particular, increase in 2008 was noticeable (Table 1). In 2009 direct investments shifted to a decrease, which was caused by the global depression after the 'Lehman Shock' (the common Japanese term for the collapse of Lehman Brothers that provoked the following financial crisis) in September 2008.

Let's take a look at the increase in investment up to 2008 by region. Increase in Japan's direct investment was observed in all the regions, and the investments in the North American and Latin American markets recorded a remarkable increase.

According to the regional ranking, the investments in Asian markets came first in 2004, followed by investments in North America, Europe and then Latin America. North America came first, however, in 2008, followed by Latin America, Asia and then Europe. By country, a lot more investments were made on the USA and the Cayman Islands. Investments in Asia by country varied year by year. Investments in China were high constantly, and Thailand had a record of steady investments. It is to be noted, however, that some countries enjoyed a soaring investment increase in a specific year, such as Malaysia in 2006, Singapore in 2007 and Korea in 2008. This may be because large-scale investment projects were set in such countries. Table 1 shows the net flow base, and withdrawal of investments might have led to a minus record, but it rarely happened. An actual minus record was found in Mexico in 2006, but as a whole, it is clear that Japan's direct overseas investments continue to increase.

Let's turn to Table 2 now and examine the trends by industry. We largely classify the industries into manufacturing and non-manufacturing sectors. Steady investments are made on the manufacturing sector while the non-manufacturing sector clearly shows a rising tendency. The core industries are finance and insurance, followed by wholesale and retail, and mining. A huge amount of investments were made in 2008 on these three industries, which must have resulted in a sharp increase in the total amount of investments. It can be said that such a sharp increase in investment in the finance and insurance industry were due to an increase in speculative and liquid investment, against the background of a financial technology boom. Investments in these businesses were heavily reduced in 2009.

In contrast to the speculative movement in the non-manufacturing sector, relatively steady investment activities are being made in the manufacturing sector, mainly in the field of transportation equipment. The industries following transportation equipment in order of size are electric machinery, chemicals and food. A sharp increase in investment was recorded in the industries of electric machinery in 2006, food in 2007, and chemicals in 2008. This could be because large-scale projects were contracted.

Combine the amount of investments by region with that of investments by industrial classification, and the actual conditions of Japan's direct overseas investments can be understood more clearly (Table 3). Investments in Asia are featured by the fact

that more investments were made on the manufacturing sector than the non-manufacturing sector, as seen in 2005 and 2008. More investments in the manufacturing sector were made than any other region. With the exception of transportation equipment in North America, a large part of the manufacturing sector enjoyed the highest investments in Asia. There is a tendency that investments in the North American, Latin American and European markets were made as a rule more on the non-manufacturing sector than on the manufacturing sector. Although a lot of investment was on the transportation equipment, electric machinery and chemicals industries in North America and Europe, the scale of investments in finance and insurance, and wholesale and retail, has been high. What draws attention the most is that the scale of investments in the finance and insurance businesses in Latin America left North America both in 2005 and 2008. The fact simply reflects a recent pattern of behaviour of transnational corporations of concentrating investment funds in the Cayman Island, a tax haven, from which they distribute funds to every part of the world.

2. Trends in the number of employees and profits of Japanese companies overseas

More influence on employment by Japan's direct overseas investments is seen in the manufacturing sector than the non-manufacturing sector. According to a survey conducted by the Ministry of Economy, Trade and Industry, the number of employees of Japanese companies overseas (not including finance and insurance) came to 4.14 million in 2004 (82% of them, namely 3.4 million, working in the manufacturing sector).

The number went up in 2007 to 4.75 million (3.95 million employees in the manufacturing sector, reaching 1% higher, at 83%; Table 4).

The number of employees in the domestic manufacturing sector, in comparison, reached its peak in 1992, with 15.69 million employees. In 2007, the number decreased by 4 million to 11.65 million. This suggests that work sites were exported abroad.

Take a look at the number of overseas employees by region. The number of employees working in Asia came to 2.47 million in 2003 (accounting for 65%),

reaching 3.37 million (71%) in 2007, an increase of 0.9 million employees, or 6%. The number of employees in North America and Europe is not as high as Asia, recording almost no increase. In Asia where investments are made mainly on the manufacturing sector, as investment increases, the number of employees will go up. In other regions where more investment is made on the non-manufacturing sector, an increase in investment does not produce much increase in the number of employees.

Table 4 shows how the number of employees in Asia changes by region. China (including Hong Kong) has a large number of employees, followed by the so-called ASEAN 4 (these four members of the Association of Southeast Asian Nations: Thailand, Malaysia, Indonesia and the Philippines). As compared with this, the number of employees is low in the so-called NIEs 3 (Korea, Taiwan and Singapore) and in other Asian countries (such as Viet Nam and India). While the number of employees in ASEAN4 and NIEs 3 has stopped going up, that of employees in China and other Asian countries still continues to increase. This may be because investment is shifting from the labour-intensive to the capital technology intensive sector in ASEAN 4 and NIEs 3 as the amount of investments in each region goes on increasing. In contrast, investments in China, Viet Nam and India seem to be centring on the labour intensive sector.

The domestic economy remained in recession while Japanese companies overseas marked a high rate of profits. Table 5 shows a steady increase in ordinary profits both in the manufacturing and non-manufacturing sectors from 2004 to 2007.

By region, the highest rate of ordinary profits was recorded in Asia, followed by North America and Europe. The trends from 2004 to 2007 indicated that the rate of ordinary profits has been increasing in Asia and Europe, but has been stagnant in North America. It is certain that the rate of profits as calculated according to accumulated investments is the highest in Asia.

We can indicate that the ordinary profits by sales amounts are on the rise as a whole, that the rate of profits in the manufacturing sector is always higher than in the non-manufacturing sector, and that the rate of profits in the non-manufacturing sector has rocketed, almost catching up with that in the manufacturing sector. Nonetheless, we can say that under the world financial crisis or global slump,

originating in America in and after 2008, the rate of ordinary profits of Japanese companies overseas has been reduced.

3. Mid-term trends in investments in Asia

The international balance of payments as published by the Ministry of Finance indicates that Japan's direct overseas investments in 2005 amounted to 5,045.9 billion yen, soaring in 2008 to 13,232 billion yen, i.e. by 2.6 times. Because the Lehman Shock caused the financial crisis and simultaneous global recession, however, the amount of investments was reduced in 2009 to half, that is, 6,989.6 billion yen. The investments in the manufacturing sector reduced to 3,083.1 billion yen in 2009 from 4,651.2 billion yen in 2008 while 8,580.8 billion yen in 2008 reduced to 3,906.5 billion yen in 2009 in the non-manufacturing sector, with a higher reduction rate than the manufacturing sector. Let's take a look at the main industries in the manufacturing sector. The automobile industry (including other transportation equipment) marked a sharp reduction to 64.7 billion yen from 1,132.2 billion yen, and the electronics industry (including other electric machinery) went down to 242 billion yen from 586 billion yen. The total amount of investments by region is such that Asia recorded a relatively small reduction to 1,942.7 billion yen from 2,379 billion, yen contrary to expectation. This shows that more importance has been attached to Asia.

Table 6 shows changes of direct investments from 2005 to 2009 in Asia consisting of ASEAN4, NIEs3, China (including Hong Kong) and other nations (such as India and Viet Nam). The changes from 2008 to 2009 show that the automobile suffered a rather small reduction in China and electronics met with a higher reduction, while the latter marked an increase in other Asian nations. Trends from 2005 to 2009 suggested that investments in automobiles are to be noted in ASEAN4 and China, and China came first where investments in electronics were made in Asia.

With reference to the 'Current Status of Japanese Companies Abroad' issued by the Ministry of Economy, Trade and Industry, we will follow the trends in Japanese automobile and electronics companies in Asia from 2002 to 2009.

Table 7 shows changes in the number of employees of Japanese companies in Asia. The number of employees of automobile companies in the whole Asian region has

been on a constant increase from 180 thousand in 2002 to 620 thousand in 2009.

1.17 million Employees worked in 2008 in the domestic transport equipment industry, and more than half of them worked in Asia. Of the Asian nations, ASEAN4 was the most important region, but the number of employees in China has recorded a sharp increase, almost equal to ASEAN4. The number of employees in NIEs3 is of a small scale and tends to be in stagnation. The number of employees in other Asian nations is on the increase.

Take up electronics companies. A total of 190 thousand employees decreased from 2007 to 2008 in the whole Asian region, but an increase of 150 thousand employees was recorded in 2009. The financial crisis exerted more influence on employment in electronics than in automobiles. In Asia, China maintains the most important position, replacing ASEAN4. NIEs3 do not have a presence in this regard. Other Asian nations did not suffer a decrease in 2008 but continue to show an increase in the number of employees. In addition, the number of employees in the electric industry in 2008 was 1,760 thousand, and the employees in the industry in Asia accounted for more than half.

Table 8 shows sales of Japanese companies in Asia. A sharp increase in sales in automobiles was recorded, from US\$20.3 billion in 2002 to US\$143.8 billion in 2009 in the whole Asian region. ASEAN4 is the biggest market in Asia, but it seems that China is just behind them. Similar trends of the number of employees are seen to those of sales. Sales in NIEs3 are sluggish, but sales in other Asian nations are on the increase. Sales of electronics in the whole Asian region are on the increase as ever, but with a lower rate of increase. As to sales by region, China has marked the highest since 2005, followed by ASEAN4 and NIEs3. Sales in other Asian nations are at a low level.

To sum, Japan's recent investments in the manufacturing sector in Asia are more in electronics than automobiles in terms of the number of employees, but the difference is getting smaller and smaller. The fact that higher sales were recorded in automobiles than electronics suggests that the centre of gravity is moving from electronics to automobiles. When we synthesize the number of employees and sales by region, we can see that the centre of gravity is shifting from ASEAN4 to China. A slackening in exportation from Japan to Asia and a decrease in domestic

employment, that is, a so-called industrial hollowing, is ongoing behind the scenes.

4. Business conditions before and after the financial crisis

With the above in perspective, we turn our attention to the business conditions before and after the global financial crisis which the Lehman Shock ignited in September 2008. Let us study the changes every quarter from April 2008 to June 2010.

Table 9 shows changes in the number of employees, pointing out a little different tendency. The number of employees suffered a reduction of approximately 40 thousand in the automobile industry in the whole Asian region, that is, from 594 thousand at the end of September 2008 to 556 thousand at the end of June 2009. After this, employees started to increase in number, reaching 647 thousand, more than before financial crisis. We see a similar tendency by nation. The number of employees in electronics in the whole Asian region recorded a reduction of no less than 250 thousand from 1.147 million at the end of September 2008 to 0.9 million at the end of March 2009. Workforce reduction has been more remarkable in electronics than automobiles. Soon after, the conditions of employment began recovering but the number of employees has not reached the level of before financial crisis. An almost similar tendency is observed by nation.

Table 10 comes next. It shows how sales have changed. Sales of automobiles in the whole Asian region amounting to \$34.27 billion marked in the quarter July to September 2008 went down to \$26.32 billion in the quarter April to June 2009. They recovered soon after, and in the quarter October to December 2009, they exceeded the level before the financial crisis. By nation, ASEAN4 showed intense changes, but China and other Asian nations did not see much change. The amount of sales in electronics in the whole Asian region came to \$30.5 billion in the quarter July to September 2008, but decreased to \$18.45 billion in the quarter January to March 2009. Although it turned better soon after, it did not reach the level before the financial crisis until the quarter of April to June 2010. Roughly speaking, an almost similar tendency is seen by nation.

To sum, the following are the points at issue: First, automobiles did not touch bottom after the financial crisis at the same time as electronics did. Automobiles

reached the bottom in the quarter April to June 2009 in terms of the number of employees and sales. Electronics did so earlier, in the quarter January to March 2009.

Second, there was a difference in changes and conditions between automobile and electronics before and after financial crisis. Although automobile reduced the number of employees and sales, it has recovered strongly, recording higher results than before financial crisis. In contrast, electronics went through a sharp reduction of employees and sales, and it is recovering without much force. It has not reached the level before financial crisis until in the quarter April to June 2010.

Third, there was a difference in changes before and after the financial crisis between ASEAN4 and China. China showed a greater magnitude in the reduction of employees and sales and recovery in electronics, in particular, than ASEAN4. Such difference was not found in automobiles. Because not much capital investment was in NIEs3 or other Asian nations from the beginning, there was no big change indicated before and after the financial crisis.

5. Business trends of automobile and electronics companies

While we examined the business trend on a macro level as discussed above, we would like to consider the trend on a company-level basis, before and after the financial crisis. Japanese major automobile and electronics companies had huge internal reserves because they did not fairly distribute their profits to the workers. As of the end of March 2008, Toyota, Honda and Panasonic had reserves of 14 trillion yen, 7 trillion yen and 4.5 trillion yen respectively, which were several times larger than their annual profits.

Because of such huge internal reserves, they did not have to depend on financial capital at the height of the financial crisis. Instead, by reducing their employment and adjusting the production, they were able to hammer out the new strategies. One was to strengthen the environment-related business. The other was to expand business to newly emerging countries. We can see typical examples in Toyota and Panasonic, which are the largest in the respective industries in Japan.

5.1 Automobile companies – the case of Toyota Motor Corporation

Trends in the automobile business world

The Japanese automakers have put more emphasis on overseas production, shifting their production bases from home to overseas, achieving better business results, in the face of strong yen trends in and after the 1990s, and saturating domestic markets. Competitiveness has sharpened; however, among automakers all over the world because they needed a lot more of investments in R&D to address environmental issues, and automakers in developing countries have been marking higher profitability. Under the circumstances, they had no choice but to undergo large-scale mergers and corporate reorganization.

Corporate reorganization went on worldwide while Japanese automakers formed closer tie-ups with strong foreign automakers: Nissan with Renault, Mazda with Ford, Mitsubishi Motors with Chrysler, and Suzuki Motor and Fuji Heavy Industries with GM. In contrast, Toyota did not tie up with overseas makers but they preferred to bring Hino Motors and Daihatsu Motor under their control to expand business. Honda Motor chose to survive on its own.

Although Japanese automakers were respectively different from each other, as seen from above, they were successful in achieving an almost steady profitability till 2007. The major factors in such a higher profitability were enlarged overseas production, use of irregular workers with low wages at home, and compulsory cost reduction of parts produced by sub-contract makers. The world financial crisis or global recession triggered by the Lehman Shock which happened in September 2008 caused the automobile markets, including those of advanced countries, to decrease in size, and suffer worsened business results.

Table 11 shows the business conditions from 2007 to 2009 of the major five automakers. Each automaker marked a decrease in sales till 2009, and the operating income of each automaker except Honda went into the red in 2008. They were improving in business results gradually in and after 2009, mainly driven by the 'Eco-car subsidy' system. The system started in April 2009, ending September 2010, with an aim to bail out the automobile industry. Suppose you bought a new car which meets the environmental standards such as gas mileage; you would be

subsidized by 100,000 yen. And you would be subsidized by 130,000 yen if you renew your car which has passed 13 years after registration. Car taxes are also reduced or exempted. About 600 billion yen was spent for one and a half years, which was very effective to enable the domestic car market to recover.

Another factor in recovery was the reduction of irregular workers. As shown in Table 11, many more irregular workers were dismissed than regular workers. Toyota was the first in November 2008 to lay off (due to economic or industrial environment) dispatched workers or fire them (due to personal performance), as described later. This was called the 'Toyota Shock', and it became a big social issue because it occurred in the manufacturing sector.

In addition, expanded car markets in developing countries including China influenced the recovery of domestic automakers a lot. The number of cars sold all over the world in 2010 was estimated to be about 72 million units. Of them, 34 million cars were sold in advanced industrialized countries while 38 million cars in developing countries. It was for the first time that more cars were sold in the latter than in the former. In particular, China alone marked sales of 18 million cars, almost double the market size of America.

Toyota's business trends

We would like to examine how Toyota, a leading Japanese TNC, took a new turn in their business before and after the financial crisis. First of all, let us see Table 12, showing the business results of Toyota Motor Corporation. These data are the consolidated accounts, including those of affiliated companies. The net sales of each fiscal year (from April to March in the following year) continued to increase every year. It reached to 26,289.2 billion yen. However, the business results rapidly got worse since the latter half of the 2008 fiscal year and decreased to 18,951 billion yen in 2009. It means the net sales returned to the level of the 2004 fiscal year. The sales amount as recorded in 2010 is expected to be 19,200 billion yen, and recovery is not fast.

After the net income of the 2007 fiscal year increased to 1,717.9 billion yen, it went into the red by 436.9 billion yen in the 2008 fiscal year. In the 2009 fiscal year, it went into the black only by 209.5 billion yen. It is expected that Toyota recovers in

2010 to the extent that they mark a net income of 490 billion yen, but are still a long way off from the level prior to financial crisis.

Due to their continuous high profits in the past years, Toyota still has financial capability. They need not depend on financial institutions. Because of the huge amount of their internal reserves, they are usually called 'Toyota Bank'. Table 12 shows that the cash flows always exceed 1 trillion yen. It is noteworthy that they were able to retain more than 2 trillion yen cash flow even in 2008, when the financial crisis broke out and they suffered red in net income.

The production, both domestic and overseas, peaked in the 2007 fiscal year, but considerably decreased in the 2008 fiscal year because of the shrinkage of the world automobile market as an effect of the financial crisis. In the 2009 fiscal year, the overseas production increased while the domestic production further decreased. As a result, the ratio of overseas production exceeded 40% in 2009. On the other hand, the number of regular employees did not change very much, but rather trod on the increasing tendency. It can be analyzed that they adjusted the labour forces by reducing the number of irregular workers. The overseas regular employees have been increasing in number. The ratio of overseas employees exceeded 45% of the total employees.

Meanwhile the reduced production seriously damaged the suppliers. The subcontractors were forced to reduce their workers in a flurry, because they had just invested in the equipment and increased the number of workers in order to meet the prospective production increase of Toyota. This immediately led to the dismissal of irregular workers of subcontractors, which were in a vulnerable position.

Table 13 is the data of Toyota's production results by region and country. Due to the differences in totaling basis, the figures do not coincide with those of table 12. When it comes to production results by region, North America used to be the biggest production base, but Asia replaced it in 2008. While the production ratio of Asia was 23.6% in 2004, it increased to 41.9% in 2009. Where is the production base in the Asia region? It is Thailand that has been maintaining an annual production of 400,000 to 500,000 automobiles. Meanwhile China has been rapidly increasing its production number. It never decreased since 2004 until 2009, when China became

the biggest production base in Asia by replacing Thailand. Regarding other countries, all the countries remain less than 100,000 automobiles in production, except Indonesia, where more than 100,000 automobiles have been produced annually.

The number of Toyota's overseas employees by region and country is shown at table 14. Unlike the number of production, there have been constantly a bigger number of employees in Asia than North America. In addition, the employee number continued to increase in Asia, while it has not changed much in North America. Consequently, the ratio of employees in Asia increased considerably among the total overseas employees from 33.9% in 2005 to 54.4% in 2009. In Asia, Thailand and China account for the majority. Since 2006, the number of employees in China became the biggest. The difference in number between China and Thailand has been widening since then. Regarding Indonesia and Malaysia, the number of employees rapidly increased because they absorbed subsidiaries of other companies.

How does the production trend discussed above reflect the income? Table 15 shows the change of Toyota's net revenues and operating income by region. Regarding the share of net revenues by region, Japan, earning the biggest revenue, has stayed almost the same of 40~50%, followed by North America, which has dropped from above 25% to below 25%. On the contrary, Asia increased from 7% to 11%. We can observe a clearer difference by region in the operating incomes than in the net revenues. Before the financial crisis, Japan and North America occupied 80% of the total operating incomes. However, Japan, North America and Europe got into the red in the 2008 fiscal year. Japan and Europe suffered red in the operating incomes also in 2009. On the other hand, Asia and others, including Latin America, Africa and Oceania, played the role of compensating for the loss as a whole, without incurring a loss.

Toyota's business strategy

In the process of recovering from the global recession, Toyota is gradually disclosing their new business strategies. One way is to develop environmentally considerate automobile manufacturing, such as hybrid and electric vehicles. On the other hand, Toyota attaches importance to newly emerging countries, including China, India and

Brazil.

To meet the environmental requirements strategically, Toyota proceeded in developing hybrid cars equipped with a combination of gasoline engine with electric motor. They marketed 1 million hybrid cars all over the globe from 1997 to May 2007. The number of such cars sold was on a sharp increase, reaching 2 million by August 2009, and 3 million by February 2011. Of the cars sold, 185 million cars were sold overseas, mainly in the U. S. market.

Such a good record prompted Toyota to announce in November 2010 their strategy of developing diversified hybrid cars that meet the environmental requirements. The strategy shows that they double hybrid cars to 11 models by the end of 2012 to have a good selection of hybrid cars. Furthermore, they will market plug-in hybrid vehicles in the U. S. and Europe as well as Japan in 2012, which can be charged at home. They aim at selling 50,000 units per year. On top of this, Toyota is going to launch electric vehicles, which have taken them much time to be developed, on the domestic and overseas markets, such as the U.S. and Europe markets. It is aimed at achieving a sales target of some thousand units per year. Fuel cell vehicles are also being developed, and Toyota is planning to market them in 2015 at a price of not higher than 5 million yen per vehicle.

Following this strategy, Toyota officially announced in May 2009 that they would withdraw from the auto manufacturing plant New United Motor Manufacturing, Inc. (NUMMI) which was under the joint management of Toyota with GM. NUMMI was closed in April 2010. Tesla Motor, another American venture business decided to produce electric vehicles jointly with Toyota at the NUMMI site. Toyota invested \$50 million to purchase the site. Hybrid vehicles are being produced not only in the U.S. and China, but also in Australia, where they started production in December 2009, and in Great Britain, where they started production in June 2010. Toyota did a technical supply to Nissan, Ford, Mazda, and Daimler as well, intending to gain the initiative in the field of environmental technology.

What is their strategy for developing or newly emerging countries like? Toyota temporarily froze in December 2008 the plant construction being planned in China and Brazil to carry out production adjustment when they were faced with financial crisis. They resumed the construction of the plant in China in December 2009 soon

after production adjustment came to the end of the first stage. They also resumed the construction of the plant in Brazil in June 2010. In May 2010, they disclosed a new business policy to make much of newly emerging countries, in particular, China, India and Brazil, revising their production system which put too much emphasis on North America.

In China Guangzhou Toyota Motor Co. (GTMC) began production of the 'Camry Hybrid' in April 2010. Sichuan FAW Toyota Motor (SFTM) has announced the construction of a second factory in Changchun City, Jilin Province, scheduled to begin operation in 2012. The new factory constructed by SFTM in Chengdu began operations the following May. It is planned to increase their production capacity to approximate 1 million vehicles by 2012.

Toyota started production and sales of Etios, a low-priced sedan at a price of lower than 1 million yen, at the end of 2010 in India. They started the construction of the second plant as planned in Sorocaba to the west of San Paulo Brazil. The plant is going to start operations later in 2012, producing vehicles of the same model as Etios. They are planning to export such vehicles from India to Middle East and Thailand and from Brazil to other Latin America countries.

Under such circumstances, the President Mr. Toyoda Akio announced on March 9, 2011 their 'global vision' for the first time after his assumption of presidency of the company. The vision says that Toyota aims at increasing the rate of sales in developing countries from 40% at the moment to 50% by 2015, by delegating some power to its overseas production basis and reinforcing development and production. It also shows that Toyota sets a strategic vehicle per market. They do not divert car models for advanced countries to markets in newly emerging countries, but develop regionally unique strategic models. Along with this line, Toyota already started to produce and market Etios in India. This is the starting point of their strategy to exploit markets in newly emerging countries through common use of platforms and reciprocal supply of parts.

For this strategic purpose, IMV (Innovative International Multipurpose Vehicle) strategy has already proceeded. The IMV strategy is to develop multipurpose vehicles to be exported to newly emerging countries, and to promote common parts and effective production & adjustment. Thailand, Indonesia, South Africa and Argentina

were designated as the global manufacturing bases for finished vehicles. At the same time, Toyota has established the manufacturing bases for major parts and the system making it possible to effectively supply them to the plants located in different countries, such as diesel engine in Thailand, gasoline engine in Indonesia, manual transmission in the Philippines and India. Such a cross-border trade of parts became feasible after the entry into force of the ASEAN Free Trade Area (AFTA). Among the ASEAN members, Thailand, in particular, accommodates many parts makers, and the finished vehicles are also exported. Since Toyota placed Thailand as a hub in Southeast Asia, they set up a regional production centre and workers' skill training centre.

The mutual parts distribution network symbolized by IMV is not only practiced by Toyota's overseas subsidiaries. More parts are supplied by main Toyota group companies and their overseas subsidiaries, such as DENSO and Aisin Seiki, resulting in establishing the consolidated supply chain. The number of overseas subsidiaries in main Toyota group companies increased from 213 companies in 2005 to 244 in 2010. Many of the subsidiaries are located in different Asian countries. The number in China has been remarkably increasing among Asian countries. Since these main Toyota group companies also produce different kinds of parts in their overseas subsidiaries, they export those parts by taking advantage of AFTA.

5.2. Electronics companies- the case of Panasonic

Trends in the electronics industry

We would like next to examine the business trend of electronics companies. After the bubble economy burst, Japanese electronics companies which were enjoying their golden days in the 1980s have declined in the international status, because of the cool-down of the domestic market and the revival of American companies, in addition to the intensified competition with Korean and Taiwanese companies in overseas markets. Big Japanese electronics companies recorded a great loss without exception in 2001 and 2002 after the IT bubble collapse, and have been trying to reorganize the production structure by transferring plants producing mass-produced products which are low-value added to other countries, and

recruiting middle-aged and elderly workers for voluntary retirement. They also reorganized the semi-conductor and liquid crystal sections for structural reform. After this, partly thanks to weak yen, the companies recorded a continuous increase in profit, not so high though, till they suffered a big loss in and after the second term of 2008, adversely affected by the global recession. Table 16 indicates that the sales of the major manufacturers went down in 2008 and 2009 as well, and got into the red except Mitsubishi Electric Corp. Following the Lehman Shock, the U.S. dollar and the euro suddenly dropped because of creditability, while the yen became strong. This was another blow to the electronics industry.

Considering the data, we can easily imagine that they must have reduced the workers. However, we cannot confirm the remarkable decrease only with table 16, which shows only the number of regular employees. As a matter of fact, media reports suggest that after the 'Toyota Shock', each company enforced the closure of plants in addition to reduction of the workers, particularly targeting irregular workers, as counter-recession measures. For example, in December 2008, Sony announced that they would close five to six production bases in Japan and overseas, and would reduce its workforce by 14,000 workers, of whom 8,000 workers were working in Japan. In January 2009, Toshiba disclosed that it was planning to dismiss 4,500 irregular workers. In February 2009, Panasonic announced that it had a plan to reduce 15,000 workers by March 2010. The total number of workers to be reduced among the major electronics companies reportedly exceeded 66,000 workers at that time.

Such a reduction will cause the reduction of workers and the closure of plants in the electronics parts sector. We have no data to know how employment adjustment was actually made in the sector, including domestic and overseas supply chains. However, newspapers repeatedly reported the conditions of the local economy where supply chains were established. The current large-scale closure plants have seriously damaged the local economy. In the rural areas of Japan, the closure increased the number of the unemployed because there are only few employment opportunities. To make matters worse, many local companies providing the plants with various goods and services are also damaged. As a result, local governments suffer a big loss because they are no longer able to receive tax from the plants. Some of the local governments which subsidized to invite them to set up the plant started to demand the return of the subsidies to those companies which closed the factories

contrary to the incentives provided by the local governments.

According to newspapers, seven leading companies posted a consolidated net profit in the black from April 2010 to December 2010. This owed much to the restructuring, 'Eco-point' for home appliances, and demand from newly emerging countries. The 'Eco-point' system was a subsidy system sponsored by the Japanese government like 'Eco-car subsidy'. The system started in May 2009, ending in March 2011. Suppose you buy an air conditioner, refrigerator or television set which is regarded as energy-saving product, and you will be given a gift coupon or local promotion coupon in the amount of 5 to 10% of the product you purchase. Subsidies paid reached approximate 600 billion yen at the end of March 2011. The system helped each electronics company mark a prompt increase in sales.

As we discussed above, each electronics company first reduced the employment of workers and closed the unprofitable factories under the global recession. As the next steps in their management strategies, the first one is to strengthen the environmental and energy sector, and the second is to attach importance to newly emerging countries. Those strategies have been clearly reflected in Panasonic, the largest company in the industry. They also accelerated business tie-ups with leading electronics companies in Korea, Taiwan and China for production. What they aim at is to have higher cost competitiveness and collect their business resources into their favourite fields such as highly value-added products.

Panasonic's business trends

Matsushita Electric Industrial Co., Ltd. (predecessor to Panasonic) had been in a slump in the 1990s. Mr. Nakamura assumed the presidency and took the initiative to carry out a structural reform in and after 2001. The company closed domestic and overseas production bases and cut off 13,000 workers. They also affiliated seven companies belonging to their group, and switched Matsushita Electric Works, Ltd. (predecessor to Panasonic Electric) to a consolidated subsidiary for the reorganization of the group. This was the first time that Matsushita did such employment adjustment. They had kept lifelong employment, deemed as the embodiment of Japanese-style management. This shocked Japanese society a lot. Because of this restructuring which was followed by the payment of retirement allowance, Matsushita got into the red in the amount of 427.8 billion yen for the

first time in 2001 after foundation. They made a rapid recovery in business after this, and some even said, 'Matsushita is a symbol of revival in the electronics industry.'

As is seen from Table 17, Panasonic recorded sales of nine trillion yen in 2006 and 2007 with an increase in net income. They disclosed in October 2008 the business result of the first term of 2008, which was the highest one in the black. Mr. President Nakamura was replaced with Mr. Otsubo in 2006, and the new president launched a three-year project, 'GP 3 Project', starting in 2007 for Global Panasonic. Their target was to increase sales to 10 trillion yen or more and raise the rate of overseas sales to 60% or higher in three years. According to the plan to increase sales by one trillion yen, 70% depends on overseas business, mainly in newly emerging countries. It was also planned to continue restructure domestic and overseas production bases.

Matsushita mobilized capital in March 2007 from home to overseas unprofitable AV equipment sections and white goods appliances sections, and requested not less than 5,000 middle-aged employees to retire voluntarily. In addition, they closed unprofitable overseas production bases. No details of actual capital mobility are known due to lack of data, but Table 17 shows that the number of employees decreased by 30,000 (domestic: 10,000; overseas: 20,000) from 2005 to 2007. Matsushita Electric Industrial Co., Ltd. was at the middle point of their GP 3 project in October 2008, when they celebrated their 90th anniversary. They unified three company brands, Matsushita Electric, National and Panasonic, to Panasonic. Ironically, they were attacked by the global financial crisis immediately before such unification.

Panasonic's profitability, which was high till summer 2008, took a turn for the worse. As seen from Table 16, with the sales amounting to 7,766 billion yen, they recorded current net income of 379 billion, getting into the red, and the number of employees decreased to 290,000. In February 2009, Panasonic announced that they planned to close 13 plants in Japan and 14 plants overseas by March that year. They added that they would close a total of 50 plants within and outside Japan, and reduce 15,000 workers (7,500 at home and another 7,500 overseas) by March 2010. As of 2008, Panasonic had 230 production bases or plants at home and overseas, so 50 plants accounted for 20% of them.

It is not clear how restructuring was actually carried out. Newspapers reported, however, that a restructuring plan of laying off 15,000 employees was announced in February 2009 at the electronic parts plant in Beijing, and 600 employees shut three executives into the plant for six hours in opposition to the plan, while in Japan, the semi-conductor production plant located in Kumamoto was closed, to shift production to China and Malaysia. This is just an example. Panasonic closed and integrated some more domestic plants. It was reported that 21,000 domestic and overseas regular workers were laid off by the end of March 2009. In addition, it is assumed that a lot of irregular workers and other workers working in the supply chains were laid off. They constructed a plant in Amagasaki City, on the other hand, to produce panels for plasma display TVs and another plant to produce liquid crystal panels in Himeji City in response to higher demand for thin-screen TVs, as the 'Eco-point' system served as a tail wind. The plants are supposed to be the centrepiece of increase in production of thin-screen TVs.

Table 16 shows that sales in 2009 amounted to 7,418 billion yen, with a current net loss of 103 billion yen. It also shows that the number of workers employed by Panasonic increased to 380,000 in spite of restructuring on a large scale. This is because Panasonic made Sanyo Electric one of their subsidiaries, which had been weak in management capability, and remained in the red. The company in 2008 asked three big financial companies, the Mitsui Sumitomo Bank, Goldman Sachs and Daiwa Securities, to purchase preferred stock, which made them lose their virtual right of management. After the global financial crisis, these financial institutions needed cash, and they approached Panasonic for acquisition. Panasonic offered to Sanyo a takeover bid (TOB) in December 2009, and made the company a subsidiary.

At the same time, Panasonic made Panasonic Electric one of their wholly owned subsidiaries, which had been one of its consolidated subsidiaries. They reportedly spent 1,200 billion yen on making them wholly owned subsidiaries. Although Panasonic had been strong in financing - it used to be called 'Matsushita Bank' since the time of Matsushita Electric - they have issued commercial paper because they needed a huge amount of money for a wave of restructuring, TOBs and construction of new plants.

Panasonic went into the red for two consecutive years, 2008 and 2009, but as

shown in Table 17, their sales reached 6,653 billion yen, a 27.5% increase over the previous year with a final profit of 115 billion yen in the black during the term from April to December 2010. The consolidated settlement of accounts including Sanyo Electric's shows us clearly their recovery in business. The factors of such recovery include restructuring at home and abroad, the 'Eco-point' system supporting higher demand, and a sharp increase in sales of home appliances in newly emerging countries.

Panasonic's business strategy

Panasonic announced in May 2010 an interim plan covering 2010 to 2012, where they intend to increase sales to 10 trillion yen in 2012. Of the sales, it is expected that environment-related business accounts for 840 billion yen. In addition, it is aimed at expanding overseas business which markets screen TV and white goods, and upping the rate of overseas sales to 55% over the whole sales amount. By January 2012, they intend to integrate or close production bases of the three companies, and reorganize their group business by dividing it into three fields, 'Consumer' which handles home appliances, 'Devices' including solar batteries, and 'Solutions' which proposes energy-saving plans.

Panasonic spent a tremendous amount of expense on making Panasonic Electric and Sanyo Electric their wholly owned subsidiaries because they had to hasten to expand business in the energy and environment sector and unify management, to get markets in newly emerging countries in order to survive fierce competitiveness among rival companies in Korea, Taiwan and China. Panasonic is planning to take Sanyo Electric's solar cell and battery sections and make use of Panasonic Electric's solar energy utilization section and combine them with its energy-saving home appliances to implement an energy-saving system business, proposing optimal power consumption in houses and buildings.

As to the markets in newly emerging countries, Panasonic makes much of not only China, India, Brazil and Russia, but also Indonesia and Vietnam. In particular, they presume that people belonging to the middle-class layer of each country are gaining a higher purchasing power, and they are in the course of developing products targeting at the middle layer. They disclosed in November 2010 a plan to construct a new plant to produce white goods in Brazil and in India, expecting to put each plant

into operation in 2012. They are planning to build a plant in Minas Gerais, Brazil to produce refrigerators and washing machines, while in Haryana, India, they plan to build a plant to produce air conditioners and washing machines. In addition, Panasonic markets white goods and AV equipment including thin-screen TVs, and has participated in a large-scale energy-saving housing project in Tianjin, Dalian and Shenzhen, China.

Panasonic started tie-up businesses with leading manufacturing companies. For the production of high-performance car batteries, they entered into a capital tie-up with Tesla Motors, a U.S. electric vehicle venture business, in November 2010. They agreed to jointly develop cells for EV. Panasonic also established a jointly invested company with Toyota, which invested on Tesla, and started to produce cells for EV. Panasonic announced in September 2010 that they would cooperate to create an IT-based 'Smart Grid' business, a next-generation power transmission network to realize more efficient use of electric power, along with Hitachi. To dominate global races to get orders, Hitachi is engaged in building infrastructure such as power lines connecting power stations with houses and office buildings, and Panasonic is to build home energy control systems for illumination devices, home-use electric appliances and solar power generators.

The strategies of environment-related business and emphasis on newly emerging countries are common in the automobile and electronics companies. Based on these strategies, reorganization of global production bases has been initiated. At this moment, we should keep in mind that compared to the automobile industry, the electronics industry is smaller in the investment of factory facilities and the size of products, in addition to having a shorter development cycle for new products with more kinds of products. Due to this circumstance, the electronics industry is prone to higher possibility of plant closures and transfer of production bases. The mobility of capital is higher in the electronics industry than in the automobile industry.

6. The Financial Crisis and Toyota workers

In Japan the first response to the financial crisis by Japanese TNCs was to dismiss the most vulnerable of irregular workers, dispatched workers. On November 6, 2008 Toyota announced 'the planned dismissal of 3,000 fixed-term workers as a response to decreasing profits.' This came to be known as the 'Toyota Shock'.

Following this announcement, automobile and electronics TNCs carried out a storm of '*hakengiri*', firing dispatched workers with little or no notice, often in the midst of their contracts. The national government released an estimate stating that by June 2009, 216,408 irregular workers and 26,602 regular workers were to lose their jobs, whereas industry group reports estimated that 400,000 dispatched and sub-contracted workers would be fired.

To understand how workers in the automobile and electronics companies were affected by the financial crisis, we shall look at the case of Toyota workers in domestic plants and overseas subsidiaries as well as the resistance constituted by the respective workers movements. Toyota already began cutting down on the number of domestic irregular employees in the face of decreasing exports to North America, prior to the financial crisis. From confirmed reports alone, approximately 7,000 irregular workers were let go by the end of 2008 in Toyota's main plant and domestic subsidiaries such as Toyota Motor Kyushu. It is known that a substantial number of workers at parts-suppliers also lost their jobs but the exact numbers remain unclear.

Overseas subsidiaries also either cut down or stopped production temporarily, but when the consolidated financial results for 2010 fiscal year reported in the black in business profits in two years, Toyota initiated a new strategy as outlined above.

Let us first examine the cases of Toyota subsidiaries in Europe and North America. In both regions, sales had remained low for a considerable period. In the aftermath of the financial crisis, Toyota Motor Manufacturing UK (TMUK) cut down production to a single shift. Workers who had lost their work did 'work-sharing' or performed tasks voluntarily for local government. In March 2010 TMUK ended production adjustment and called on workers in both factories in the UK (3,500 employees) to accept voluntary retirement, eliminating 750 jobs. In addition, Toyota Motor Europe (TME) in Belgium which supervises Toyota companies in Europe implemented in 2011 an early retirement program targeting 1,200 employees working in a sales managerial position from among 2,000 employees in the head office. In response to the program 160 employees retired.

Apart from such labour reduction, Toyota Motor Manufacturing France (TMMF) had been steadily reducing work days. In response, 400 workers, most of whom were

members of the CGT (General Confederation of Labour) and FO (Workers' Force), respectively the first and the third of the five major confederations of trade unions, went on strike demanding 100 percent compensation for the days cut. The strike lasted from April 6 to 20, 2009 stopping production in parts of the plant. The event marked the first large-scale strike at Toyota France and was covered extensively by the media. In the end the workers succeeded in winning large concessions from TMMF.

Likewise, there had been no dismissals at the Toyota subsidiary in North America, where the company had chosen instead to adjust production levels by stopping production and reducing the number of shifts to a single shift. However in June 2009 GM made its decision to withdraw from NUMMI, which was then a joint operation with Toyota. Toyota decided the following month to also end production at the plant by 2010 and to dismiss 4,500 employees. NUMMI was the single Toyota subsidiary plant in North America where the UAW had been successful at organizing. Because the plant had produced a larger number of Toyota vehicles compared to GM vehicles, the UAW continued protesting the closure of the plant. In January 2010 the union held a demonstration and rally in front of the Japanese embassy in Washington D.C. protesting the closure of the plant.

This coincided with the massive recall of Toyota vehicles which had made daily news headlines throughout the U.S. On February 24, the president of Toyota Motor Corporation Toyoda Akio appeared before Congress for questioning. On March 3, Toyota announced it would pay a total of \$250 million (an average of fifty thousand dollars per person) in special benefits towards its employees. Following a vote by union members, Toyota made a final agreement with UAW to close the plant, thus ending the 26-year history of NUMMI, on April 1. Toyota closed the NUMMI plant, which was a unionized workplace, and switched to taking part in the production of Green Cars. Two Japanese parts suppliers located in California also decided to end operations following the closure of NUMMI. The total number of workers dismissed from related firms is estimated at 25,000. The UAW issued a statement declaring that organizing efforts targeting Japanese automobile companies such as Toyota would be initiated.

Toyota started early in 2011 to look for those employees working for sales companies who retire early, and adjustment of the workforce is still going on.

As already mentioned above, there has been no change in the number of workers at Toyota subsidiaries in Asia. Thai Auto Works (TAW) stopped production in May of 2010 however, and approximately 960 employees were transferred to other Toyota subsidiaries. Production facilities have been maintained in order to resume operations when demand shifts favorably. At Toyota Motor Philippines (TMP) there have not been layoffs although production was decreased from six days a week to five without overtime. However in August 2010 four TMPCWA activists including the vice-president were given punitive dismissals. The reason given was that supervisors were forced to stop the final segment of the production line for eighteen minutes when TMPCWA approached the line to discuss a grievance. This was presumably a way of getting rid of union activists before the next certification election scheduled for 2011. TMPCWA is holding a campaign to protest the recent repression in addition to the illegal dismissal of 233 workers in 2001.

It was in May 2010, as Toyota was aggressively expanding into China, when workers at a Honda components factory went on strike demanding wage increases. In June, workers at two factories of Tianjin Toyota Gosei, a Toyota sub-contractor's plant located in Tianjin, went on strike. This was followed by strikes at Denso Guangzhou Nansha, a subsidiary of Denso Corporation (DENSO). The strikes lasted only briefly but caused a delay in production at both SFTM and GTMC factories. The strikes were caused by wage disparities between components factories and assembly factories. Japanese components manufacturers carried out a raise in wages following the strike. Toyota Chairman Cho Fujio stated that wage increases are part of a natural development. The rise in labour costs will not deter us from continuing local production. This indicates that Toyota is willing to respond flexibly to strikes in China due to the importance of the Chinese market.

As demonstrated above, the individual struggles being carried out in Toyota subsidiaries are each divided by geography, language, the fact that unions are lacking altogether or that there are only company-side unions. These are among the many difficulties faced by workers struggling for justice and to overcome division to form a global coalition against Toyota, a TNC whose movement of capital crosses national borders freely. And yet such a global coalition against Toyota is indeed emerging.

7. Postscript

A great earthquake attacked Japan on March 11, 2011 with a magnitude of 9.0, once in 1,000 years. The earthquake gave heavy damage to the infrastructure such as roads and electric power, and plants such as Kashima Ironworks, Sumitomo Metal Industries and Kamaishi Ironworks, Nippon Steel. Many a plant in the automobile and electronics industries and a lot of parts makers were also tremendously broken and damaged. It will take them many months or years to resume production activities. For example, the Tohoku district is Toyota's third production base after Aichi and Kyushu. It will be inevitable for Toyota to suffer a great reduction of their production capacity, not to mention the state-of-the art Miyagi plant of Central Auto, a subsidiary of Toyota. Panasonic is not an exception. Their Fukushima plant and Sendai plant are left inoperative. Japan's manufacturing sector which has been on the way to recovery from the Lehman Shock may slump again.

TABLES

Table1: Japan's Direct Investment Abroad by Region and Country (\$ million)

	2004	2005	2006	2007	2008	2009
Asia	10531	16188	17167	19388	23348	20636
China	5863	6575	6169	6218	6496	6899
Hong Kong	491	1782	1509	1131	1301	1610
Taiwan	473	828	491	1373	1082	339
R.Korea	771	1736	1517	1302	2369	1077
Singapore	138	557	375	2233	1089	2881
Thailand	1867	2125	1984	2608	2016	1632
Indonesia	498	1185	744	1030	731	483
Malaysia	163	524	2941	325	591	616
Philippines	6	442	369	1045	705	809
Viet Nam	128	154	467	475	1098	563
India	139	266	512	1506	5551	3664
North America	7601	13168	10188	17385	46046	10889
U.S.A.	7559	12126	9297	15672	44674	10660
Central & South America	3120	6402	2547	9482	29623	17393
Mexico	191	629	-2603	501	315	211
Brazil	-65	953	1423	1244	5371	3753
Cayman Islands	2726	3915	2814	5838	22550	12903
Oceania	1856	943	723	4204	6060	7629
Australia	1651	640	466	4140	5232	7136
Western Europe	7097	7509	18029	20456	22418	17073
Germany	645	270	1128	880	3905	2089
U.K.	1649	2903	7271	3026	6744	2126
France	25	541	842	479	1703	1161

Netherlands	3337	3315	8497	12440	6514	6698
Belgium	664	-195	133	796	2196	423
Luxembourg	-82	25	-478	2291	527	3279
Eastern Europe	439	721	367	509	650	757
Middle East	-63	542	242	958	1138	575
Africa	378	25	899	1101	1518	-301
World	30962	45461	50165	73483	130801	74650

Source: JETRO, Website

Note: Based on international balance of payments, net, flow

Table 2: Japan's Direct Investment Abroad by Industry (¥ 100 million)

	2005	2006	2007	2008	2009
Manufacturing (total)	28866	40166	46722	46512	30831
Food	1873	1189	15246	3717	8257
Textile	455	212	440	751	452
Lumber & pulp	953	488	859	761	1145
Chemicals	3755	5134	4410	11815	6831
Petroleum	552	3404	-283	675	35
Rubber & leather	925	1288	987	797	421
Glass & ceramics	270	3174	999	1470	1926
Iron & metals	1480	2092	2582	3261	3493
General machinery	1454	1935	3102	3801	4114
Electric machinery	4809	8220	5538	5860	2420
Transportation equipment	9461	10022	10172	11312	647
Precision machinery	1552	1649	1507	950	572
Non-manufacturing (total)	21593	18293	39885	85808	39065
Farming & forestry	25	48	108	62	9
Fishery	-51	33	76	120	34
Mining	1507	1835	4780	10720	6036
Construction	166	-69	572	403	467
Transportation	916	1757	2467	2363	2707
Communications	1954	-3937	-400	1697	3614
Wholesale & retail	5340	6353	5688	13395	7838
Finance & insurance	10145	6533	22826	51978	14564
Real estate	-936	-946	184	170	419
Services	1194	226	1630	2775	2054
Total	50459	58459	86607	132320	69896

Source: Ministry of Finance, Website;

Note: Based on international balance of payments, net, flow

Table 3: Japan's Direct Investment Abroad by Region and Industry (¥ 100 million)

	Asia	North America	Latin America	Western Europe	Total
2005					
Manufacturing (total)	12170	9642	1400	4011	28866
Food	1042	356	206	91	1873
Textile	418	60	89	-117	455
Lumber & pulp	724	52	13	25	953
Chemicals	1504	1073	56	690	3755
Petroleum	-384	117	-30	642	552
Rubber & leather	412	391 *		83	925
Glass & ceramics	421	-159		-245	270
Iron & metals	855	299	-39	300	1480
General machinery	893	289	70	200	1454
Electric machinery	2007	1298	-2	1433	4809
Transportation equipment	2350	5299	811	224	9461
Precision machinery	948	272	10	321	1552
Non-manufacturing (total)	5810	5145	5633	4234	21593
Mining	-8	33	364	565	1507
Construction	49	24	28	80	166
Transportation	-3	1	833	-29	916
Communications	1347	559	-247	570	1954
Wholesale & retail	780	3645	-175	642	5340
Finance & insurance	2821	347	4792	1464	10145
Real estate	110	-536	-9	-336	-938
Services	551	825	-124	283	1194
Total	17980	14788	7032	8245	50459

2008					
Manufacturing (total)	16676	14483	1831	10071	46512
Food	671	289	113	1830	3717
Textile	106	314	13	80	751
Lumber & pulp	198	154	70	26	761
Chemicals	5548	5374	125	77	11815
Petroleum	16	11 *		464	675
Rubber & leather	391	288	14	125	797
Glass & ceramics	593	815		42	1470
Iron & metals	1091	933	284	584	3261
General machinery	1375	853	164	1226	3801
Electric machinery	2546	1006	84	2230	5860
Transportation equipment	3063	4026	873	2276	11312
Precision machinery	371	40	-6	559	950
Non-manufacturing (total)	7114	31562	28139	12801	85808
Mining	260	2202	3127	1901	10720
Construction	18	111	72	75	403
Transportation	416	56	1507	283	2363
Communications	899	214	90	492	1697
Wholesale & retail	1628	8130	417	2820	13395
Finance & insurance	2268	19657	22550	5446	51978
Real estate	363	-108	6	-4	170
Services	513	636	236	1340	2775
Total	23790	46045	29970	22872	132320

Source: Ministry of Finance, Website

Note1) Based on international balance of payments, net, flow

2) * means less than 3 cases.

**Table 4: The number of employees of Japanese companies abroad
(ten thousand)**

	2003	2004	2005	2006	2007	2008
North America	67	65	63	65	67	63
Asia	247	277	306	318	337	321
ASEAN4	108	119	124	124	125	120
NIEs3	22	23	23	24	24	25
China, H.K.	104	119	141	148	161	150
others	13	16	18	23	27	26
Europe	41	44	44	49	45	42
other region	22	27	24	25	26	26
World	377	414	436	456	475	452
(Manufacturing)		340	362	379	395	357

Source: METI, Basic Research on Japanese Business Abroad

Table 5: Profits of Japanese companies abroad (¥ 10 billion, %)

	2004	2005	2006	2007	2008
Ordinary profit					
Manufacturing	356	395	471	552	270
Non-manufacturing	256	366	489	583	459
All industries	612	761	960	1135	728
North America	208	241	276	240	53
Asia	220	250	312	381	296
Europe	78	94	119	167	75
Ratio of ordinary profit to net sales					
Manufacturing	4.9	4.8	5	5.2	3
Non-manufacturing	2.9	3.7	4.5	4.7	4.2
All industries	3.9	4.2	4.7	4.9	3.6

Source: METI, Basic Research on Japanese Business Abroad

Table 6: Japan's FDI in Asia (¥ 100 million)

	2005	2006	2007	2008	2009
Automobile					
Asia total	2,350	3,144	3,402	3,063	2,218
A S E A N 4	847	1,358	1,661	1,087	638
N I E s 3	42	35	188	67	23
China, HK	1,147	1,340	890	1,023	913
Others	314	410	662	887	645
Electronics					
Asia total	2,007	5,721	3,695	2,546	1,651
A S E A N 4	286	3,218	598	426	243
N I E s 3	338	647	1,296	488	411
China, HK	1,398	1,736	1,065	1,423	755
Others	(16)	128	785	208	242

Source: Ministry of Finance, Website

Note1) Based on international balance of payments, net, flow

2) Automobile includes other transportation equipment industry.

3) Electronics includes other electric machinery.

Table 7: The Number of Employees of Japanese Companies in Asia (person)

	2002	2003	2004	2005	2006	2007	2008	2009
Automobile								
Asia total	179,217	236,124	283,189	365,535	445,474	538,038	558,385	618,843
ASEAN4	109,837	127,659	155,233	171,784	203,512	227,306	241,372	270,136
NIEs3	11,192	12,914	16,335	17,539	15,986	16,063	13,997	13,779
China, HK	29,346	58,369	68,380	123,258	157,670	212,591	219,264	242,841
Others	28,842	37,182	43,241	52,954	68,306	82,078	83,752	92,087
Electronics								
Asia total	646,524	842,168	930,758	1,044,782	1,050,990	1,091,325	899,743	1,052,490
ASEAN4	331,039	383,172	398,753	419,950	408,628	401,781	331,612	386,236
NIEs3	54,040	63,663	62,031	64,207	61,866	64,774	54,059	56,300
China, HK	251,928	375,595	446,289	531,536	548,193	580,173	465,495	557,226
Others	9,517	19,738	23,685	29,089	32,303	44,597	48,577	52,728

Source: METI, Current Status of Japanese Companies Abroad

Table 8: Sales of Japanese Companies in Asia (\$ 10 million)

	2002	2003	2004	2005	2006	2007	2008	2009
Automobile								
Asia total	2,035	3,568	4,774	6,305	7,969	11,262	12,865	14,385
ASEAN4	1,320	1,990	2,684	3,521	3,963	5,377	6,057	6,237
NIEs3	318	368	477	565	489	523	368	454
China, HK	80	661	946	1,530	2,566	4,047	5,159	6,031
Others		548	666	788	952	1,315	1,281	1,663
Electronics								
Asia total	5,515	7,409	8,599	9,153	9,408	10,372	10,402	11,076
ASEAN4	2,532	3,188	3,543	3,687	3,674	3,852	3,992	4,194
NIEs3	1,313	1,601	1,619	1,545	1,588	1,711	1,352	1,584
China, HK	1,637	2,552	3,348	3,819	4,035	4,676	4,907	5,136
Others		67	89	102	111	133	152	161

Source: METI, Current Status of Japanese Companies Abroad

Table 9: The Number of Employees of Japanese Companies in Asia (2008-2010) (persons)

	6/2008	9/2008	12/2008	3/2009	6/2009	9/2009	12/2009	3/2010	6/2010
Automobile									
Asia total	576,539	594,459	580,007	558,385	556,262	567,672	598,561	618,843	646,804
A S E A N 4	259,142	263,756	254,895	241,372	243,506	249,368	262,054	270,136	282,780
N I E s 3	14,725	14,905	14,526	13,997	13,526	13,673	13,615	13,779	13,224
China, HK	220,440	229,986	225,790	219,264	221,383	223,175	236,058	242,841	249,032
Others	82,232	85,812	84,796	83,752	77,847	81,456	86,834	92,087	101,768
Electronics									
Asia total	1,137,532	1,146,567	1,019,468	899,743	975,347	1,019,764	1,023,925	1,052,490	1,103,345
A S E A N 4	409,843	418,954	373,656	331,612	349,827	366,629	369,922	386,236	406,553
N I E s 3	64,995	63,964	60,503	54,059	54,020	58,287	57,145	56,300	57,408
China, HK	605,178	602,436	530,086	465,495	520,542	542,439	544,594	557,226	578,946
Others	57,516	61,213	55,223	48,577	50,958	52,409	52,264	52,728	60,438

Source: METI, Current Status of Japanese Companies Abroad

Table 10: Sales of Japanese Companies in Asia (2008-2010) (\$ 10 million)

	4-6/2008	7-9/2008	10-12/2008	1-3/2009	4-6/2009	7-9/2009	10-12/2009	1-3/2010	4-6/2010
Automobile									
Asia total	3,379	3,427	3,313	2,746	2,632	3,333	4,037	4,383	4,572
A S E A N 4	1,712	1,686	1,529	1,130	1,158	1,399	1,754	1,926	2,061
N I E s 3	119	89	81	79	90	101	131	132	128
China, HK	1,203	1,323	1,415	1,217	1,048	1,436	1,711	1,835	1,903
Others	345	330	288	320	336	396	441	490	479
Electronics									
Asia total	2,935	3,050	2,573	1,845	2,372	2,851	3,023	2,831	3,204
A S E A N 4	1,133	1,161	982	715	881	1,056	1,147	1,111	1,225
N I E s 3	344	442	335	231	300	400	451	433	394
China, HK	1,418	1,401	1,217	870	1,156	1,353	1,381	1,247	1,532
Others	40	45	38	28	36	42	44	40	54

Source: METI, Current Status of Japanese Companies Abroad

**Table 11: Business Results of Japanese Major Automobile Companies
(¥ 1 billion, persons)**

		2007	2008	2009
	Net Revenues	26289	20530	18951
Toyota Motor	Operating Income	2270	-461	148
	Number of Employees	316121	320808	320590
	Number of irregular Workers	87597	80244	59160
	Net Revenues	12003	10011	8579
Honda Motor	Operating Income	953	190	364
	Number of Employees	178960	181876	176815
	Number of irregular Workers	23794	23464	18666
	Net Revenues	10824	8437	7517
Nissan Motor	Operating Income	766	-173	208
	Number of Employees	159227	155659	151698
	Number of irregular Workers	21308	20107	17600
	Net Revenues	3476	2536	2164
Mazda Motor	Operating Income	148	-19	5
	Number of Employees	39364	39852	38987
	Number of irregular Workers	na	na	na
	Net Revenues	2682	1974	1446
Mitsubishi Motors	Operating Income	86	-15	13
	Number of Employees	33202	31905	31003
	Number of irregular Workers	6376	1436	4385

Source: Financial Reports

Table 12: Business Results of Toyota Motor Corporation

		2004	2005	2006	2007	2008	2009
Net Sales	¥ 100 million	185,515	210,369	239,481	262,892	205,296	189,510
Net Income	¥ 100 million	11,713	13,722	16,440	17,179	(4,369)	2,095
Cash Flows	¥ 100 million	14,838	15,694	19,004	16,285	24,443	18,657
Domestic Production	1000 units	4,534	4,684	5,100	5,160	4,255	3,957
Overseas Production	1000 units	2,697	3,027	3,080	3,387	2,796	2,852
Production Total	1000 units	7,232	7,711	8,180	8,547	7,051	6,809
Ratio of Overseas Production	%	37	39	38	40	40	42
Number of Employees	persons	265,753	285,977	299,394	316,121	320,808	320,590
Number of Irregular Workers	persons	59,481	73,701	81,906	87,597	80,244	59,160
Number of Overseas Employees	persons	89,986	98,808	124,137	137,634	146,343	145,522
Ratio of Overseas Employees	%	34	35	42	44	46	45

Source: Toyota Motor, Financial Results, Annual Reports

Note: Consolidated Base

Table 13: Toyota's Production Results by Region and Country (1000 units)

	2004	2005	2006	2007	2008	2009
North America	1,444	1,535	1,519	1,637	1,405	1,189
Latin America	80	139	178	183	195	182
Europe	583	638	809	807	688	507
Africa	109	121	144	146	179	103
Oceania	110	109	112	149	141	97
Asia	717	1,029	1,138	1,387	1,590	1,501
Overseas Total	3,043	3,571	3,899	4,309	4,198	3,579
Ratio of Asia (%)	24	29	29	32	38	42
China	95	134	275	446	547	599
Taiwan	127	140	97	99	66	91
Indonesia	139	154	117	153	198	179
Malaysia	47	90	80	65	74	61
Philippines	19	18	14	19	23	21
Thailand	270	412	464	499	573	435
India	48	45	44	52	54	51
Pakistan	25	25	34	36	29	38

Source: Toyota in the World Data Book

Table 14: Number of Toyota's Overseas Employees by Region and Country (Persons)

	2004	2005	2006	2007	2008	2009
North America	26,589	25,111	28,251	28,851	30,864	26,929
Latin America	4,865	7,002	8,819	11,060	9,049	9,317
Europe	14,156	19,623	19,225	20,601	18,867	17,941
Africa	7,764	9,050	10,117	9,868	10,008	7,597
Oceania	4,693	4,497	4,610	4,903	4,776	4,586
Asia	31,919	33,525	53,115	62,351	72,779	79,152
Overseas Total	89,986	98,808	124,137	137,634	146,343	145,522
Ratio of Asia (%)	36	34	43	45	50	54
China	7,129	7,780	19,239	24,451	26,006	26,682
Taiwan	2,903	2,502	2,545	2,793	2,473	3,361
Indonesia	4,459	3,895	5,143	5,332	14,354	12,859
Malaysia	1,781	3,236	2,992	3,270	2,748	9,699
Philippines	1,775	1,868	2,324	2,974	3,072	2,796
Thailand	9,132	8,763	14,083	16,082	16,174	14,902
India	2,890	3,178	3,955	4,450	5,770	5,483
Pakistan	1,190	1,634	1,695	2,079	816	1,879

Source: Toyota in the World Data Book

Table 15: Toyota's Revenues and Income by Region (¥ 100 million)

		2005	%	2006	%	2007	%	2008	%	2009	%
Japan	Net Revenues	131,115	48.3	148,153	47	153,158	44.9	121,867	46.8	112,203	48
	Operating Income	10,759	57.3	14,572	65.1	14,403	63	(2,375)	-46.8	(2,252)	-253.9
North America	Net Revenues	76,879	28.3	90,297	28.6	94,232	27.6	62,229	23.9	56,705	24.3
	Operating Income	4,956	26.4	4,496	20.1	3,053	13.3	(3,902)	-76.9	854	58.4
Europe	Net Revenues	27,274	10	35,421	11.2	39,934	11.7	30,131	11.6	21,470	9.2
	Operating Income	939	5	1,373	6.1	1,415	6.2	(1,433)	-28.2	(330)	-122.6
Asia	Net Revenues	20,428	7.5	22,256	7.1	31,209	9.1	27,194	10.4	26,554	11.4
	Operating Income	1,455	7.7	1,176	5.3	2,564	11.2	1,761	134.7	2,036	139.2
Others	Net Revenues	16,017	5.9	19,227	6.1	22,941	6.7	18,829	7.2	16,738	7.2
	Operating Income	672	3.6	835	3.7	1,439	6.3	876	117.3	1,155	78.9
Total	Net Revenues	271,713	100	315,354	100	341,474	100	260,250	100	233,670	100
	Operating Income	18,783	100	22,386	100	22,874	100	(5,073)	100	1,463	100

Source: Toyota Motor, Financial Results

Table 16: Business Results of Japanese Major Electronics Companies**(¥1 billion, Persons)**

		2007	2008	2009
	Net Sales	11,227	10,000	8,969
Hitachi	Net Income	(58)	(787)	(107)
	Number of Employees	347,810	361,796	359,746
	Net Sales	9,069	7,766	7,418
Panasonic	Net Income	282	(379)	(103)
	Number of Employees	305,828	292,250	384,586
	Net Sales	8,871	7,730	7,214
SONY	Net Income	369	(99)	(41)
	Number of Employees	180,500	171,300	167,900
	Net Sales	7,665	6,655	6,382
Toshiba	Net Income	127	(344)	(19)
	Number of Employees	197,718	199,456	203,889
	Net Sales	4,050	3,665	3,353
Mitsubishi	Net Income	158	12	28
Electric	Number of Employees	105,651	106,931	109,565
	Net Sales	3,418	2,847	2,756
SHARP	Net Income	102	(126)	4
	Number of Employees	53,708	54,144	53,999
	Net Sales	2,018	1,771	1,595
SANYO	Net Income	29	(93)	(49)
Electric	Number of Employees	99,875	86,016	104,882

Source: Financial Reports

Table 17: Panasonic's Number of Employees and Sales

	2005		2006		2007		2008		2009		2010	
Number of Employees	334,402		328,645		305,828		292,250		384,586		na	
Japan	144,871	43.3%	145,418	44.2%	135,563	44.3%	132,144	45.2%	152,853	39.7%	na	
Overseas total	189,531	56.7%	183,227	55.8%	170,265	55.7%	160,106	54.8%	231,733	60.3%	na	
Sales (¥100 million)	88,943		91,082		90,689		77,655		74,180		66,534	
Japan	46,114	51.8%	46,165	50.7%	45,448	50.1%	40,822	52.6%	39,944	53.8%	33,901	51.0%
Overseas total	42,829	48.2%	44,917	49.3%	45,241	49.9%	36,833	47.4%	34,236	46.2%	32,633	49.0%
N. & S. America	13,874	15.6%	13,811	15.2%	12,507	13.8%	9,967	12.8%	9,179	12.4%	8,414	12.6%
Europe	11,136	12.5%	12,180	13.4%	12,129	13.4%	9,630	12.4%	7,713	10.4%	6,711	10.1%
Asia	11,065	12.4%	10,681	11.7%	11,188	12.3%	8,683	11.2%	8,309	11.2%	8,323	12.5%
China	6,754	7.6%	8,245	9.1%	9,417	10.4%	8,553	11.0%	9,035	12.2%	9,185	13.8%

Source: Panasonic, website

Note: 2010 shows the data from April to December 2010.