

Balance of Payments from a Comparative Perspective: China, India, and Russia under Globalization

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Introduction

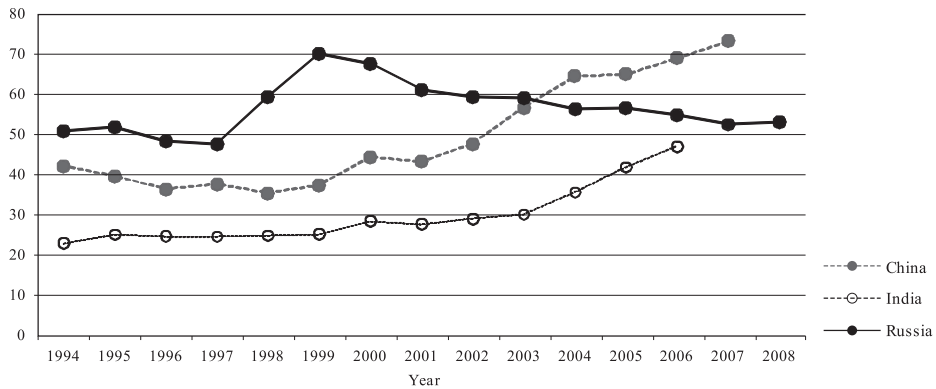
The three regional powers of China, India, and Russia have been actively participating in international trade and international financing recently, although they have large populations, huge territories, and abundant natural resources,¹ which would enable them to be independent and autarkic. The globalization movement especially since the '90s has undoubtedly made their attitudes possible, but on the other hand, the fact that the three regional powers have sailed out on the world market itself has made today's globalizing trend as a whole stronger and faster. The purpose of this paper is to clarify each country's similarities and peculiarities in their international financing in a globalizing economic situation by using balance of payments statistics.

Weight of External Economic Transactions in Each Economy

Before analyzing balance of payments statistics, we must examine the size of the external economic transactions of each economy. The simplest way to calculate this is to research the ratio of "openness."² According to Fig. 1, the ratio of China and India has been increasing rapidly in the new century, whereas the Russian ratio has stagnated recently after reaching its highest point in 1999. However, we must not exaggerate this contrast because the ratio has always been relatively higher in China and Russia than in India. Table 1 compares the ratio of the three countries with other developed industrial countries. Here, we can see that China and Russia are different from another huge country, the USA, from the viewpoint of "openness." While the USA is a rather autarkic country, China and Russia are as highly involved in the international economy as Germany. As for India, it is unique in the sense that it has recently been rapidly strengthening its involvement in the world economy.

¹ As for natural resources, it is difficult to say whether a certain resource is abundant in a country when considering its population and domestic demand. Abundance depends on the resource and the region.

² Here, openness means the sum of exports and imports of goods and services divided by the GDP. To calculate the ratio, the author used the data of *IFS* of the IMF. If we use the data of each country's SNA data, the ratio would be slightly different; this, however, would not change the general trend.

Fig. 1 Openness of the Economies [(Exports + Imports) / GDP] (%)

Sources: Calculated by the author using the data of various issues of *IFS*.

Table 1 Comparison of Openness¹ (%)

	2000 ²	2002	2005	Sources)
China	43.22	48.11	69.80	China: <i>CSY</i> (2008).
India ³	27.38	29.97	42.61	India: <i>INNAS</i> (2008)
Russia	68.09	59.65	56.67	Russia: <i>NSR</i> (2008).
Germany	66.40	66.89	76.24	Germany: OECD (2007a).
Japan	20.52	20.75	27.30	Japan: OECD (2007a).
USA	26.34	23.39	23.95	USA: OECD (2007b).

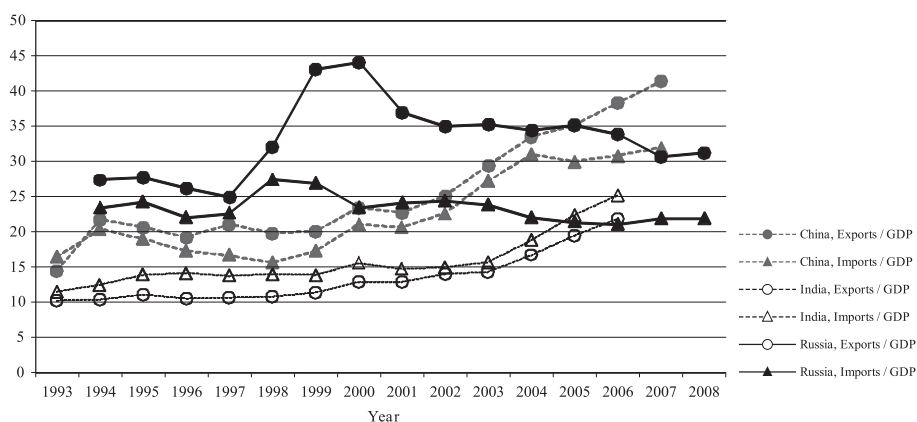
Notes: ¹ = Openness means (exports of goods and services + imports of goods and services) / GDP

² = Selection of years is depends on availability of data.

³ = The year begins in April and ends in March.

Where lies the difference between China and Russia? Another set of data concerning exports and imports would make this problem clear. Figure 2 shows that exports (in percentage of GDP) have increased hand in hand with imports in China, whereas Russia's exports have always been much greater than its imports. From the viewpoint of the use side of GDP, Russia's exports have acted as strong pulling power to raise its GDP,³ while this power has been offset by many imports in China. From the viewpoint of the intra-industrial relations of each economy, however, the degree of economic openness in China seems to be much higher than in Russia, because China's two lines in Fig. 2 reveal a situation where many imported raw materials and half-finished goods are processed by using imported high-tech machines and then exporting the finished goods. In this sense, China, as the factory of the world, is more deeply involved in the world economy. On the other hand, Russia's involvement is superficial because most of Russia's exports consist of oil, gas, and other natural resources, which do not necessarily have close connections with domestic production networks in Russia.

³ The growth of Russia's exports is mainly due to high oil prices instead of volume growth. Therefore, how the "real" amount of exports is related to the "real" GDP growth in Russia is an interesting theoretical problem. See Kuboniwa (2007).

Fig. 2 Exports and Imports per GDP (%)


Sources: Same as Fig. 1.

Table 1-a Index of Power of Dispersion and Index of Sensitivity of Dispersion: China
 (from IO tables of 2002)

	Share of Export (%)	Index of Sensitivity Dispersion	Index of Power of Dispersion
Agriculture	1.53	1.16	0.643
Mining and Quarrying	1.45	1.62	0.712
Foodstuff	2.89	0.448	1.016
Textile, Sewing, Leather and Furs Products	17.76	0.676	1.349
Other Manufacturing	6.72	0.933	1.112
Production and Supply of Electric Power, Steam and Hot Water	0.17	0.824	0.797
Coking, Gas and Petroleum Refining	0.85	0.696	1.148
Chemical Industry	7.03	2.009	1.288
Building Materials and Non-metal Mineral Products	1.35	0.32	1.093
Metal Products	4.93	1.755	1.316
Machinery and Equipment	33.75	2.452	1.452
Construction	0.34	0.133	1.327
Transportation, Post and Telecommunications	4.69	1.047	0.883
Commerce and Catering Trade	9.33	1.218	0.792
Real Estate, Leasing and Business Services	3.24	0.751	0.719
Banking and Insurance	0.07	0.620	0.547
Other Services	3.89	0.333	0.806

Source: CSY, 2007, pp. 89-91.

Table 1-b Index of Power of Dispersion and Index of Sensitivity of Dispersion: Russia (from IO tables of 2003)

	Share of Export (%)	Index of Sensitivity Dispersion	Index of Power of Dispersion
Electric and Heat Energy	0.34	1.787	0.919
Products of Oil and Gas Industry	46.53	1.665	0.799
Coal	1.14	0.470	1.222
Oil Shale and Peat	0.01	0.028	1.346
Ferrous Metal	7.14	1.257	1.223
Precious Metal	9.87	1.437	1.112
Chemical and Oil-chemical Industry	5.71	1.276	1.388
Machines and Equipment, Metal-Processing Products	8.77	1.738	1.286
Products of Wood, Timber-Processing and Cellulose and Paper Industry	3.50	0.796	1.169
Construction Materials	0.31	0.455	1.129
Products of Light Industry	0.82	0.778	1.387
Products of Food Industry	2.96	0.634	1.311
Other Industrial Products	1.15	0.377	1.188
Buildings	1.20	0.563	0.898
Agricultural Products, Services for Agriculture and Products of Forestry	0.95	0.888	0.737
Services of Transportation and Communication	4.32	2.624	0.773
Commerce-Intermediary Services	1.38	3.678	0.466
Products of Other Types of Activities	0.32	0.275	0.648
Services of Housing and Public Economy and Non-Productive Type of People's Welfare	0.08	0.328	0.752
Services of Health, Sports, Social Security, Education and Culture and Art	0.14	0.041	0.627
Services of Sciences, Geology, Investigation of Underground Resources, Surveying and Meteorological Water-Supply Work	0.20	0.538	0.906
Services of Financial Intermediary, Insurance, Administration and Social Associations	0.21	0.367	0.671

Source: *STZV*, 2003, pp. 14-19; pp. 112-114.

This difference can be testified by the data of input-output tables of China and Russia. Table 1-a and 1-b show the index of power of dispersion (IPD) and the index of sensitivity of dispersion (ISD) calculated from their IO tables with data on exports. IPD_j is defined as,

$$IPD_j = \frac{\sum_i B_{ij}}{\left\{ \frac{1}{n} \left(\sum_i \sum_j B_{ij} \right) \right\}}$$

where B_{ij} is an ij factor of the Leontiev inverse matrix in an $n \times n$ input-output table. ISD_i is also defined as,

$$ISD_i = \frac{\sum_j B_{ij}}{\left\{ \frac{1}{n} \left(\sum_i \sum_j B_{ij} \right) \right\}}$$

The IPD is an index showing how much the economy as a whole would increase when industry j increases its production by one unit. The index is shown in the form of a ratio to the average of all the industries listed. Therefore, if IPD_i is higher than 1, “the ripple effect” of industry i on the whole economy is stronger than average. On the other hand, the ISD is an index showing how much industry i would increase its production when every industry listed increases its production by one unit. It is also shown as a ratio to the average. According to Table 1-a, in the case of China, the leading exporting industry (machinery and equipment) and the second-leading export industry (textile, sewing, leather, and fur products) have high IPDs. It means that these industries have a close connection with the domestic economy and that an increase in exports would lead to an increase in the whole production of the country. As for the machinery and equipment industry in China, we must note that its ISD is also high. This means that high growth of the Chinese economy as a whole would, in turn, lead to growth of its machinery and equipment industry. We see here a virtuous circle of the Chinese economy. On the other hand, in the case of Russia, the leading exporting industry (oil and gas products⁴) has a very low IPD, much lower than the national average (Table 1-b).⁵ The export of oil and gas has a very small “ripple effect” in Russia and its increase would not result in strong power to raise the whole economy. It is natural that the IPD of the oil and gas products industry is small, but the problem lies in the fact that this industry is the leading exporting industry of Russia.⁶

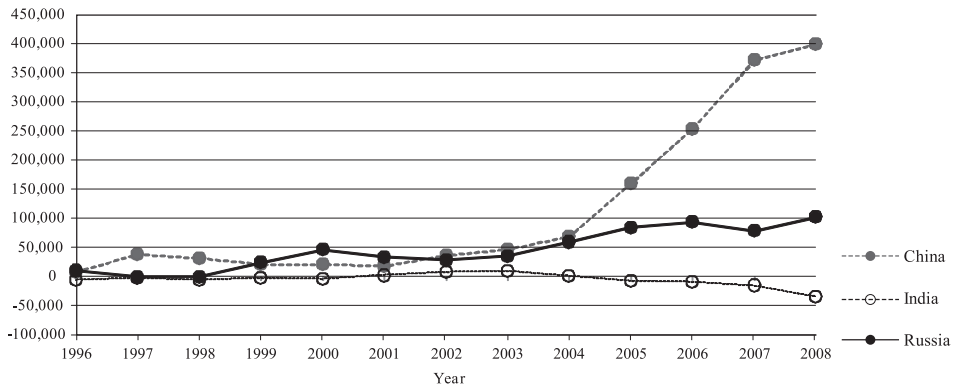
Current Account in a Macro Economy

Among the many figures in balance of payments statistics, the most fundamental is the current account balance, which represents one country’s total resultant effect of international trade and financial transactions. Figure 3 shows interesting different trends of the current accounts of the three countries. China’s current account has been in surplus in the last fifteen years and it has grown rapidly since 2005 reaching a historically high level, about US\$ 400 billion. Russia’s current account also recorded surplus in almost all the years since 1994, but it has relatively stagnated since 2005 compared to the trend of China, although Russia’s absolute current account surplus is still large enough to merit attention. Showing another trend, India’s current account balance has been fluctuating around zero indicating a recent downward trend.

⁴ This includes extracting of oil and gas.

⁵ We must not compare the IPD of one of Russia’s industries (for example, the oil and gas products industry) with the IPD of another of China’s industries (the machinery and equipment industry) directly. Comparison of IPDs (and ISDs) is meaningful only when it is done in the framework of one national economy.

⁶ Kuboniwa (1999, pp. 100-101) found this fact for the first time by using Russia’s IO tables of 1995.

Fig. 3 Current Account of China, India and Russia (millions of US\$)

Sources: India 2007-2008, China 2008 = Economy Watch Website, Other = Various Issues of *IFS*.

In the framework of a macroeconomy, the current account balance is the increase in financial claims of the residents against the rest of the world and equals the sum of fiscal surplus and excess of residents' savings over investment. Therefore, we get

$$CA = (T - G) + (S - I) \quad [1]$$

where CA = current account balance, T = tax revenue, G = government expenditure, S = private savings, I = investment including government investment.

Table 2 Structure of Macro Economy (Annual average)

	CA ¹ / GDP (%)	(T-G) ² / GDP (%)	(S-I) ³ / GDP (%)
China			
2000-2003	2.13	-2.84	4.97
2004-2006 ⁴	7.04	-1.66	8.69
India			
2000-2003	0.64	-2.07	2.71
2004-2007	-0.99	-2.63	1.64
Russia			
2000-2003	10.69	2.34	8.36
2004-2007	8.73	6.74	2.00

Notes: ¹ = CA = Current account surplus. The CA in national currency is calculated by using market (or official) exchange rate in *IFS*.

² = T - G = Fiscal surplus as "cash surplus" in *IFS*.

³ = S - I = Net lending = Calculated not by original data, but as a residual of CA - (S - I).

⁴ = As for China, the fiscal data for 2007 are not available in *IFS* at the time of writing.

Therefore only a three-year average is shown here.

Source: Various issues of *IFS*.

Table 2 shows how each item of Equation [1] is recently co-related. It concisely indicates the differences among the macroeconomic structures of the three countries. Here, let us consider the current account surplus (deficit) as financial outflow (inflow), which is produced by domestic

surplus (deficit) of the T-G balance and S-I balance, instead of the result of excess exports of goods and services over imports. It is a standpoint that lays stronger emphasis on the financial aspects rather than the physical aspects of international transactions.⁷ According to this standpoint, the whole picture can be depicted as follows.

In China, the surplus of the S-I balance (“net lending” according to the new SNA terminology) has been too great to cover the fiscal deficit; therefore, the remaining financial resources have been pushed out of the country, which has resulted in a large current account surplus. These financial outflows, which include the central bank’s reserve assets, have been growing more rapidly in the last several years. In fact, in 2007, the current account surplus reached a level of 11.34 percent of the GDP.⁸

On the other hand, in India, the S-I balance slightly exceeded the fiscal deficit in the first four years, but more recently, it is insufficient to cover the fiscal deficit and the shortage is being covered by foreign capital. India is now showing the features of a typical capital-shortage developing industrial country, in which investment is actively conducted and fiscal spending is growing to cover social needs in a rapidly changing society.

The most striking point of Russia’s structure is that it has been producing a large fiscal surplus in the last several years. This means too many tax payments have been made causing a reduction in private savings. In fact, in 2007 solely, the S-I balance was negative.⁹ As for the current account surplus, it is still large though symptoms of decline have appeared. Russia has been a large capital provider for the world financial market. It is true that after the financial crisis in 2008, Russia’s current account surplus decreased suddenly. The current account surplus in the third quarter of 2008 was US\$ 29.5 billion and it decreased to US\$ 8.6 billion in the fourth quarter. Notwithstanding, we must note that the surplus in the fourth quarter of 2008 is almost the same as in the fourth quarter of 2003.¹⁰ It is ironic that a considerable part of the accumulated fiscal surplus, which the government poured into the depressed economy after the crisis, has left the country.¹¹ Russia is still a provider of capital in the world even after the financial crisis.

Figure 4 shows the situation more graphically for the years 2004-7. It reveals that the structure of China is not fundamentally different from that of Russia. In both countries, a large amount of unspent financial resources, whether in the form of private savings or governmental savings, are produced and they are pushed out of the country as financial claims¹² against the rest of the world.

⁷ This standpoint asserts that the USA is so attractive that foreign investors are eager to invest their capital in the US market and that the incoming financial resources cover the deficits of the T-G balance and the S-I balance, which results in current account deficit. Richard Cooper says that “it would be more nearly correct to say that the desire of foreigners to invest in the U.S. economy results in the U.S. current account deficit” (Cooper, 2008, p. 96). This does not contradict the conventional standpoint that Americans are too extravagant to be satisfied with what they can produce domestically, which would result in current account deficit. These two standpoints are the two sides of the same coin. Of course, we need not expect that this attraction of the US market will continue forever.

⁸ Calculated using the data of CSY. These data are not included in the calculation of Table 2 (see Note 4 of Table 2).

⁹ It is not explicitly shown in Table 2.

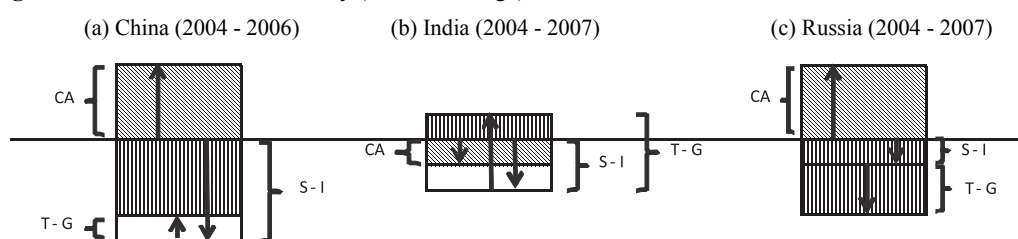
¹⁰ Website of the Central Bank of Russia.

¹¹ See Konno (2009).

¹² Including the central bank’s reserves.

This structure has been stable until recently. Looking back at the data of 1994-9, we can see that the structure, in which $(S - I) + (T - G)$ was in surplus, had been established in Russia even before oil prices skyrocketed (Uegaki, 2004). Of course, a decline in oil prices would lead to curtailment of Russia's exports, budgetary revenue, and private savings at the same time. This, however, would reduce every item of Fig. 4 proportionally, keeping the whole structure unchanged. As for China, the structure, which would produce a large current account surplus, seems to be stable at least until 2008.¹³ Therefore, we can conclude that China and Russia have had the same problem: how to deal with a large current account surplus. The structure of India is totally different from that of China and Russia in the sense that it needs inflows of financial resources to cover the current account deficit.

Fig. 4 Structure of Macro Economy (Annual average)



Notes: S - I, T - G = A downward arrow means surplus of the balance; an upward arrow means deficit.

CA = A downward arrow means deficit of the balance; an upward arrow means surplus.

▨ balances with ▤

Source: Same as Table 2.

Foreign Direct Investment

In the following sections, we will discuss the financial aspects of the balance of payments in detail. First of all, we take the example of foreign direct investment (FDI). FDI plays an important role between the real and financial economy, because FDI must be fixed on a certain place of an economy and it cannot be uprooted easily. How has FDI functioned in the balance of payments of the three countries? It would be reasonable to think that much of the current account surplus of China and Russia is “used”¹⁴ for FDI abroad. However, this is not the case. Table 3 shows that FDI in China has been overwhelmingly inward. Since the first year of publishing of FDI data in 1982, inward FDI has always been larger than outward FDI in China. In the case of China, a large amount in the current account has not been “used” by the outward FDI route. What is the main route of “using” the current account of China? This problem will be examined in the following sections. Here, we emphasize that China has been receiving a large net inflow of FDI, though China has accumulated current account surplus, which could have been “used” for outward FDI.

¹³ The last year that China recorded current account deficit was 1993.

¹⁴ This word does not necessarily mean a cause and effect consequence, that is, it does not mean that what was once obtained is used afterwards. Instead, it expresses the resultant situation from the viewpoint of accountant records.

Table 3 Flows of FDI (Foreign Direct Investment)¹ (millions of US\$)

		1994	1995	1996	1997	1998	1999
China	Outward FDI	-2000 ¹	-2000	-2114	-2563	-2634	-1775
	Inward FDI	33787	35849	40180	44237	43751	38753
	Net FDI	13786	33849	38066	41674	41117	36978
India ²	Outward FDI	-83	-117	-239	-113	-48	-79
	Inward FDI	973	2144	2426	3577	2635	2169
	Net FDI	890	2027	2187	3464	2587	2090
Russia	Outward FDI	-101	-357	-922	-3185	-1270	-2208
	Inward FDI	638	2016	2579	4865	2761	3309
	Net FDI	537	1659	1657	1680	1491	1101
		2001	2002	2003	2004	2005	2006
China	Outward FDI	-6884	-2518	152	-1805	-11306	-21160
	Inward FDI	44241	49308	47077	54936	79127	78095
	Net FDI	37357	46790	47229	53131	67821	56935
India ²	Outward FDI	-1390	-1049	-1934	-2274	-5867	-13512
	Inward FDI	6131	4660	4322	5987	8901	21991
	Net FDI	4741	3611	2388	3713	3034	8479
Russia	Outward FDI	-2533	-3533	-9727	-13782	-12900	-22657
	Inward FDI	2748	3461	7958	15444	15151	30827
	Net FDI	215	-72	-1769	1662	2251	8170

Notes: ¹ = Positive and negative signs are put according to the system of balance of payments statistics.

² = Since 2000, every recording year begins April and ends March.

Sources: Since 2000 for India: Reserve Bank of India, *Annual Report*, various issues, Since 2005 for Russia: Website of Central Bank of Russia.

The structure of Russia's FDI trend shows different features from that of China. A salient characteristic of Russia's FDI is that the amount of outward FDI has been relatively large from 1997. Table 4 shows which Russian companies have conducted M&A in the world recently. It reveals that outward FDI from Russia has been carried out mainly by natural resource-related companies and telecom companies. Such phenomena are not observed in the case of China or other developing countries. Commonly observed phenomena are that a developing country absorbs FDI from abroad in the earlier stages of development after opening-up of its financial market. In particular, we must pay attention to the fact that the Russian oil and gas companies, which earned a lot of financial resources in the situation of high energy prices, have been using some of their accumulated resources to conduct FDI abroad. From the viewpoint of the national economy as a whole, however, Russia has not "used" its current account surplus for outward FDI, because inward FDI has also been large enough to counterbalance the outward amount. Russia's peculiarity lies in the fact that a considerable amount of outward FDI and inward FDI occurred on the same scale from the early stages of financial opening of the country.

Table 4 Large M & A Projects with Russian Corporates as Purchaser¹ by the Data of Deutsche Bank

Purchaser	Sector	Target	Country ²	Millions of US \$
2005				
Alfa Group	Telecom	Turcell	Turkey	3,300
Lukoil	Fuel & energy	Nelson Resources	Bermuda, Kazakhstan	2,130
Severstal	Metallurgy	Lucchini	Italy	511
Evrast Group	Metallurgy	Vitkovice Steel	Czech Republic	287
VimpelCom	Telecom	URS	Ukraine	231
Amtel	Chemical	Vredestein Banden	New Zealand	201
2006				
Evrast Group	Metallurgy	Oregon Steel	United States	2,300
Novolipetsk Steel	Metallurgy	Duferco	United States, Brazil	806
Evrast Group	Metallurgy	Highvelt Steel	South Africa	678
VimpelCom	Telecom	Armentel	Armenia	498
Rusal	Metallurgy	Eurallumina SPA	Italy	420
Norilsk Nickel	Metallurgy	OMG nickel assets	Austria, Finland	408
Rusal	Metallurgy	Alscon	Nigeria	250
Interros	Fuel & energy	Plug Power Inc.	United States	241
VimpelCom	Telecom	Unitel	Uzbekistan	207
2007 ³				
Norilsk Nickel	Mining	LionOreMining	Canada	5,234
Rusal	Metallurgy	SUAL, Glencore	Switzerland	3,600
Gazprom	Fuel & energy	Beltransgas	Belarus	2,500
Renova	Energy	Energetic Source SPA	Italy	700
Titan Acquisition Sub Inc. (Evrast Group)	Metallurgy	Claymont Steel Holdings Inc.	United States	564
Lukoil	Fuel & energy	Jet Petrol Stations	Czech Republic, Poland, Hungary	560
Global Information Services Holding	Machinery	Altis Semiconductor	France	449
Mirax Group	Hotels	Sungate Port Royal	Turkey	340
Severstal	Mining (gold)	Celtic Resources Holdings Pic	Ireland	315
Evrast Group	Metallurgy	Vanadium	South Africa	238
Novolipetsk Steel	Metallurgy	Winner Steel INC	United States	212

Notes: ¹ = Only stakes above 10 % and deals over US\$ 200 million included.

² = Minor amendments were put on the data of the countries by Uegaki.

³ = The deal between Gazprom and Sakhalin Energy over 7 billion US dollar is not recorded in the table,

As for India, the net FDI has been always positive (inward FDI > outward FDI) since 1994,¹⁵ and a part of the current account deficit has been covered by the net inflow of FDI since 1995 except the years 2001-2004 when the current account was in surplus.¹⁶ This is a typical structure of a developing country. In this sense, India is different from Russia and China.

Examining the relationship between inward FDI and the domestic economy, we can see another aspect. Table 5 shows that inward FDI in the manufacturing industry in China has been much

¹⁵ It is the first year that the FDI data were published in *IFS*.

¹⁶ The total net inflow of FDI has been larger than the total net current account deficit since 1994 through 2007 (author's calculation using the data of *IFS* and *RBI Monthly Bulletin*).

Table 5 Inward FDI by Sector

	China (2000 - 07 Annual Average)		India (2002 - 2009 ¹ Annual Average)		Russia ² (2000 - 08 Annual Average)	
	Millions of US\$	%	Millions of US\$	%	Millions of US\$	%
Manufacturing	37112	73.18	2715	22.98	3934	32.13
Real Estate	6536	12.89	1011	8.56	2914	23.80
Leasing and Business Services	1851	3.65	784	6.63	1574	12.86
Services to Households and Other Services	1566	3.09	770	6.52	1456	11.89
Production and Supply of Electricity, Gas and Water	1509	2.97	701	5.93	660	5.39
Transport, Storage and Post	1347	2.66	390	3.30	591	4.82
Wholesale and Retail Trades	1290	2.54	370	3.14	305	2.49
Agriculture, Forestry, Animal Husbandry and Fishery	870	1.72	321	2.72	288	2.35
Construction	677	1.34	277	2.35	188	1.54
Information Transmission, Computer Services and Software	561	1.11	274	2.32	142	1.16
Mining	519	1.02	271	2.29	23	0.19
Hotels and Catering Services	409	0.81	135	1.14	17	0.14
Scientific Research, Technical Service and Geologic Prospecting	336	0.66	63	0.53	11	0.09
Culture, Sports and Entertainment	204	0.40	27	0.22	8	0.07
Financial Intermediation	184	0.36	4	0.04	0	0.00
Management of Water Conservancy, Environment and Public Facilities	110	0.22				
Health, Social Security and Social Education	79	0.16				
Public Management and Social Organization	15	0.03				
	1	0.00				
Total	50713	100.00	11812	100.00	12243	100.00

Notes) ¹ = April - March² = The classification of sectors until 2003 is different from that after 2004. The author reconstructed the data until 2003 according to the newer classification.

Sources) China: Various issues of China Statistical Yearbook; India: Website of Industrial Policy & Promotion, Ministry of Commerce and Industry, India;

Russia: *SEP* various issues and the Website of Rosstat.

larger than inward FDI in India and Russia. It reveals that the following structure has been established in China: FDI inflows into the manufacturing industry → strengthening of the manufacturing industry → development of other sectors of the economy → increase in exports as a whole – accumulation of current account surplus.

Each country's quantitative relationship between FDI and the current account has its own style, and the qualitative relationship between FDI and the domestic economy is also diverse. The most impressive case is that of China, where FDI, exports, and the domestic economy are closely interconnected and the national economy has strong dynamism for development.

Current Account and Financial Accounts

Using the definition of the system of balance of payments statistics (IMF, 1993), we get the following equation:

$$\text{Current Account} + \text{Capital Account} + \text{Direct Investment} + \text{Portfolio Investment} + \text{Other Investment} + \text{Reserve Assets} + \text{Errors and Omissions} = 0. \quad [2]^{17}$$

Table 6 shows how these items except the capital account¹⁸ have been correlated since 1994. A remarkable feature in the table is that India has always been a net recipient of every item of foreign investment until recently. It is noteworthy that the sum of net inflows of the three kinds of investment has been much larger than the current account deficit.¹⁹ The shortage of financial resources in India, which is shown in Fig. 4, has been sufficiently compensated for by foreign capital. This is a result of the financial liberalization policies after a balance of payments crisis occurred in 1991. In September 1992, foreign institutional investors were allowed unrestricted entry in terms of volume of investment in the securities market of India. In March 1993, the exchange rate transitioned from a basket-linked managed float to a market-based system via a transitional phase of the dual exchange rate regime. These were accompanied by many stabilization and liberalization measures concerning the domestic financial market (Moore, 2007, pp. 31-36). In fact, the net inflow of portfolio investment increased by 382 percent in 1993 from the previous year and that of direct investment, by 128 percent in 1995 (data of *IFS*). A consequence of this structure is a growing amount of reserve assets of the central bank.²⁰

¹⁷ The figures on “financial derivatives” are now separately recorded in *IFS*.

¹⁸ The item “capital account” includes “capital transfers” and “acquisition/disposal of non-produced, non-financial assets.” Capital transfers include “debt forgiveness for general government,” “migrants’ transfers,” and others (IMF, 1993, pp. 83-85, p. 134). Table 6 does not show data on capital accounts (or of financial derivatives), and the sum of the figures in every column does not make zero.

¹⁹ Except the years 2002-2004 when the current account balance was in surplus.

²⁰ In the balance of payments statistics, the increase in reserve assets is recorded in minus figures.

Table 6 Current Account and Financial Accounts (Annual Average, Millions of US \$)

	1994 - 96	1997 - 98	1999 - 01	2002 - 04	2005 - 07
China					
Current Account	5256	34217	19679	49985	260839
Direct Investment (Net)	34567	41396	37272	49050	83168
Portfolio Investment (Net)	2026	1605	-11543	6925	-17940
Other Investment (net)	603	-35620	-11732	9306	-20132
Net Errors and Omissions	-14384	-20489	346	17754	-4414
Reserve Assets	-28217	-21075	-22126	-132965	-305262
India ¹					
Current Account	-4398	-3502	-2502	3462	-12234
Direct Investment (Net)	1701	2972	3393	3487	9019
Portfolio Investment (Net)	3680	1244	2522	7195	16272
Other Investment (Net)	3686	4670	3532	8604	27955
Net Errors and Omissions	176	-762	162	639	-773
Reserve Assets	-3319	-4233	-7910	-24853	-43485
Russia					
Current Account	8551	70	35130	41039	84890
Direct investment (net)	1175	1587	285	-60	6301
Portfolio investment (net)	662	27197	-3978	-321	3833
Other investment (net)	-3435	-20421	-13631	-690	24576
Net Errors and Omissions	-5604	-9527	-9563	-7494	-6050
Reserve Assets	-1883	1685	-8667	-27658	-105952

Notes: ¹ = For India, every recording year begins April and ends March.

Sources: China: Since 1994: Website of State Administration of Foreign Exchange, and China Statistical Yearbook.

India: RBI Annual Report.

Russia: Website of Central Bank of Russia.

Supplemented by *IFS*.

As for China, the structure is different in the sense that portfolio investment and other investment have not been necessarily in surplus. However, even in the years 2005-7, when portfolio investment and other investment were in deep deficit (outward investment > inward investment), the current account surplus and FDI inflow were too large to be counterbalanced by these deficits. Therefore, there must have been another route of “using” the surplus, which was the increase in reserve assets. Like India, one of the most striking features of Chinese international financing recently is the rapid growth of its reserve assets. In 1994, China pegged its currency to the US dollar and since then, a large current account surplus and large capital inflows (mainly FDI) have resulted in strong pressure to increase reserve assets under relatively strong capital account regulations, but unrecorded capital outflows (capital flight) largely occurred at the same time, which kept the increase in reserve assets modest. Since 2001-2, unrecorded capital flows began to be reversed from outward to inward and reserve assets increased extraordinarily (Branstetter and Lardy, 2008, p. 665; Qi, 2006, p. 98).²¹

Russia began to have a large current account surplus from 1999 and in the period 2005-7,

²¹ This reversal occurred mainly because of increasing expectation of revaluation of the yuan (Qi, 2006, p. 98).

large-scale financial inflows occurred by the route of “other investment.”²² The way to “use” these financial resources changed year by year. Here, we must note that the item “errors and omissions” has always recorded a considerable amount of negative figures. It reveals that much capital flight has occurred since the opening of the national economy until recently.²³ Capital flight has been one important item that counterbalances the credit side of the balance of payments of Russia. We must also pay attention to the fact that since 1999, Russia has had as many reserve assets as India and China. After the financial crisis of 1998, Russia introduced a managed floating exchange system and since then, the currency authorities of Russia are supposed to have kept the ruble rate against the US dollar within certain limits, which has resulted in the accumulation of reserve assets in dollars (Konno, 2009, pp. 71-72).²⁴

In the cases of the three countries, the credit side of the balance of payments has been made by current account surplus (China, and Russia except the crisis years 1997-98), net inflows of FDI (China, and India to a lesser extent), portfolio investment (India), and other investment (India, and Russia in the years 2005-07). A common feature of the structure of the balance of payments of the three countries is that the main route to counterbalancing the credit side has been to increase reserve assets except in Russia in 1994-98. This has been made possible by the exchange rate policies of the three central banks.

The increase in the reserve assets of the central banks and other currency authorities, especially in the newly emerging market,²⁵ is a distinctive feature of recent international financing. In February 2006, the European Central Bank published a document entitled “The Accumulation of Foreign Reserves.” The document divides nine main emerging market countries into four types as follows (ECB, 2006, p. 14):

- a. Current account driven, in conjunction with a drop in domestic investment after the 1997-98 Asian crises: Malaysia and Singapore
- b. Current account driven, in conjunction with domestic savings growing more than investment: Russia, Brazil, and Algeria
- c. Driven both by the current account and the financial account, in conjunction with a drop in domestic investment after the 1997-98 Asian crises: Korea and Taiwan
- d. Driven both by the current account and the financial account in conjunction with domestic savings growing more than investment: China and India

This classification corresponds with the analyses above (Table 2, Fig. 4, and Table 6) except the case of India since 2005, where we found some current account deficits (see Fig. 3) though the

²² Mainly loans to private enterprises including banks.

²³ Concerning capital flight from Russia, see Uegaki (2006).

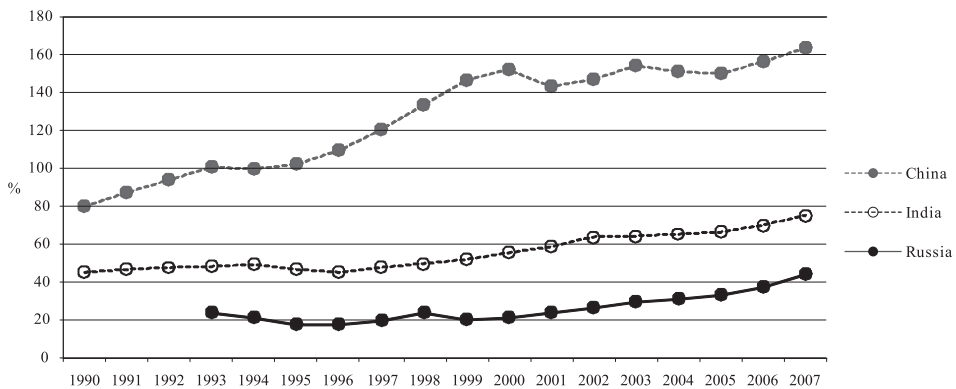
²⁴ February 2005, the reference rate of the ruble against the currency basket (consisting of the dollar and euro) began to be used for the decision to intervene in the market (Konno, 2009, p. 71).

²⁵ Here, the emerging market includes China, Taiwan, Russia, Korea, India, Malaysia, Singapore, Algeria, Brazil, and others. Among advanced countries, Japan, Norway, Denmark, and Australia have accumulated large reserve assets (ECB, 2006, p. 9, p. 11).

document classified India as “driven both by the current account and the financial account.” An important point here is that the document and the author together assert that domestic savings have been more than investment in China, India,²⁶ and Russia. It is important because “given the inability of their financial markets to channel private savings into investment, either domestically or abroad, in certain countries, the public sector may have endeavored to direct residual savings abroad, thus leading to reserve accumulation” (ECB, 2006, p. 15).

Figure 4-a indicates that this assertion of the ECB applies best to the case of Russia. Financial depth is generally recognized as the scale of modern development of the financial sector of a country. According to this standard, the financial sector of Russia is not yet well developed, and we can therefore surely maintain that in Russia, the excess savings of some of the national economy cannot be smoothly channeled into another part of the economy lacking in capital as investment through domestic financial networks. In this case, excess financial resources cannot find any place to go in the domestic market, and will go abroad. The increase in reserve assets in Russia means that the currency authorities of Russia have been functioning as one of the main intermediaries in this financial movement. Especially in the period 2005-07, the private sector in Russia was a net receiver of foreign capital, although there was much excess savings in the domestic market (see Table 2 and Table 6). While it is true that the direct reason for this increase in reserve assets is the central bank’s policy of buying foreign currency in order to keep the rate of the ruble low, this financially inefficient structure lies behind the policy.

Fig. 4-a Ratio of Financial Depth¹



Note: ¹ = (Money plus Quasi-Money at the end of period) / GDP

Sources: Various issues of *IFS*.

As for China, excess savings have been “used” too much by budgetary deficits, resulting in a large current account surplus (see Table 2), which in turn resulted in rapidly growing reserve assets. How can we evaluate the relationship between this phenomenon and the high ratio of the financial

²⁶ Recently, in the case of India, the excess of savings over investment could not compensate for fiscal deficits.

depth of China? Why did the excess savings of China not result in outward foreign investment of the non-central bank sector?

These problems can be resolved by understanding the characteristics of the Chinese financial system. The banking system dominates the financial system in China, though the securities market has recently developed. The leading role of the banking system is played by state-owned commercial banks (SCBs), which have larger branch networks than are economically justified. The government has been pursuing intentionally a high deposit rate policy to collect excess savings from households and enterprises and pump them into inefficient enterprises. Therefore, SCBs have massive non-performing loans (Hope and Hu, 2006, pp. 33-34; also see Maswana, 2008, pp. 89-96). This has led to a high ratio of financial depth in China. Although a too-low ratio compared to developed industrial countries means underdevelopment of the financial system of a country, a high ratio does not necessarily mean an efficient, modern financial system. As for official policies, the Chinese government and the central bank have managed to support fixed low rates of the yuan against the US dollar in order to maintain an export-led growth strategy, which has resulted in the accumulation of reserve assets.²⁷ Relatively stricter capital account control²⁸ than Russia has made it difficult for the non-central bank sector to accumulate its financial claims abroad.

Owing to these conditions, a high ratio of financial depth coexists with a large amount of reserve assets of the central bank in China.

In India, it is noteworthy that there were excess savings in the period 2004-7, but that the current account was in deficit because of budgetary deficit (see Table 2). The main source of the increase in the reserve assets of India was the large amount of incoming foreign financial resources (see Table 6). The foreign financial resources were exchanged into rupees at exchange markets. The currency authorities of India intervened in the market buying dollars in order to keep the rate of its currency stable.²⁹ One of the reasons that the private sector did not accumulate credit against foreign countries is the relatively restrictive capital account control of India (*AREAER*, 2008, pp. 623-645). As for financial depth, it has been said that India was among the lowest in the world, but we can recently see signs of financial deepening. However, the level of depth is still very low compared to other developed countries like the UK, France, and Germany (Mohan, 2006, p. 5). One of the main characteristics of the financial system in India is dominance of non-institutional credit sources in rural areas (Mohan, 2006, p. 4), which would have lowered the ratio of financial depth. Therefore, an inefficient financial system in this sense is another factor in India that has made it difficult for the private sector to accumulate assets abroad.

²⁷ The central bank of China has been obliged to resort to a sterilization policy to prevent inflation since the late '90s. This policy helped to enlarge the securities market in China (Maswana, 2008, p. 94).

²⁸ However, we must admit that "recent experience suggests that their efficiency (of capital control in China) may be waning" (Prasad, Rumbaugh, and Wang, 2006, p. 192).

²⁹ The real effective exchange rate of the Indian rupee had been stable since 1991 through 2004 within a range of about -5 percent to +5 percent (website of the RBI). The Indian currency authorities have had to resort to sterilization since the early '90s.

From a Comparative and Historical Perspective

Geoffrey Crowther, Charles Kindleberger, and others once presented a “balance of payments stages hypothesis” that asserted that “the current account evolves according to a cycle and that capital flows move essentially from developed to underdeveloped countries” (Razgallah, 2004, p. 1). Therefore, according to this hypothesis, the structure of balance of payments shows a specific pattern in a specific historical stage, and the development of one pattern to another is commonly observed in most countries in the world. Many theoretical investigations and empirical tests have found that this hypothesis cannot be verified (Hitiris, 1988; Razgallah, 2004) as a theory of history. That is, if we observe, for example, Stage II in one country at a point in history, we would not necessarily see Stage III next. It is a matter of course, because violent fluctuations in natural resource prices, freely floating exchange rates, intermittently occurring technical breakthroughs, politically decided trade policies, frequent movement of short-term capital, and other factors undermine the straightforward “development” of this pattern.

Table 7 shows Crowther’s hypothesis. The examples indicate that the verity of the hypothesis cannot be asserted. If we adapt Russia in 2007 to the table directly, it would be placed in Stage III because of its large current account surplus, much larger goods and service surplus, investment income deficit, and capital and financial account deficit. It is not acceptable that Canada and Korea in the late ’90s are placed in the same stage as Russia in 2007.

Table 7 Crowther’s Balance of Payments Stages “Hypothesis”

		Balance of payments (debt (-) or credit(+))				Examples (1996 - 2000)
		Current account	Goods and services	Investment income	Capital and financial account	
Stage II	Immature Debtor Countries	-	-	-	+	Cambodia, Mongolia, India, Brazil
Stage II	Mature Debtor Countries	-	+	--	+	Germany
Stage III	Debt Repayment Countries	+	++	-	-	Canada, China, South Korea
Stage IV	Immature Creditor Countries	++	+	+	--	France, Japan, Switzerland
Stage V	Mature Creditor Countries	+	-	++	-	
Stage VI	Credit Disposing Countries	-	--	+	+	United Kingdom, United States

Note: Examples are selected by Bank of Japan. The item “Capital and ...” is not exactly what Crowther proposed.
Sources: Bank of Japan, 2005, pp. 20 - 22.

Notwithstanding, if we take the notion of “balance of payments stages” not as a theory of history, but as a standard for reference, we will gain interesting insight into the international financing of the three countries. It means that the composition of the items of balance of payments could be a standard for reference in comparative studies from a historical perspective. For example,

if we find a large amount of a certain item in the balance of payments of a country, we can tell whether it is unique in history or not so unique from a longer historical perspective from the data discovered by the “balance of payments stages” theorists.

First, we must investigate the volume of the current account. Let us examine Table 2 again. In the table, we find a large current account surplus in China and Russia. In 1986, Japan recorded the highest current account surplus in percentage of the GDP (4.24 percent) after World War II, but this is no match for Russia’s and China’s record. The researchers who developed the “hypothesis” have found much historical data on the balance of payments. In the case of the United Kingdom, the current account surplus was 3.8 percent of the nominal “GNP” in 1851-1890, and 3.4 percent in 1891-1925 when the United Kingdom is thought to have moved from Stage III to Stage IV according to the hypothesis. As for the USA, it was 0.4 percent of nominal GDP in 1851-1920 (Stage III) and 2.4 percent in 1911-1940 (Stage IV). In Germany, it was 1.3 percent of nominal GDP in 1951-1970 (Stage III) (Uchimua, Tanaka, and Okamoto, 1998, p. 41). Considering all these data, the current account surplus of China and Russia since 2000 is exceptionally large in modern economic history.

A recent IMF publication explores the reasons for the divergence of current account balances across emerging economies (*WEO*, 2008). According to this document, “less open capital accounts” and a lack of “liberalization of the domestic financial market” “explain a substantial part of the current account surpluses” in emerging Asia (*WEO*, 2008, p. 228). This assertion corresponds to our analysis above concerning China and Russia.

As for India, because of deficits in the current account, deficits in the goods and services trade, and net receipt of capital and financial accounts, it seems to be correct to put India at Stage I. We must, however, pay attention to the fact that the deficits in the goods and services trade have been much larger than those in the current account as a whole since the 1980s (various issues of *IFS*). It means that there must have been an item that has mitigated the deficits in the current account, that is, the net receipt of “current transfers.” The current transfers mainly include governmental subsidies (cash transfer, gift of food, clothing, other consumer goods, medical supplies, etc., gifts of certain military equipment, and regular contributions paid to international organizations) and workers’ remittances (IMF, 1993, paragraphs 298-302).³⁰ According to the statistics of the Reserve Bank of India, since the late ’80s, a large net receipt of “private transfers” has been recorded in the balance of payments (*RBIAR*, various issues). It means that the workers’ remittances have relaxed the difficulties arising from current account deficits in India for many years. This phenomenon can also be observed in Turkey and new EU member states like Romania and Bulgaria. Although advocates of the balance of payments stages hypothesis overlook the item of transfers,³¹ we must consider a country with many current transfer receipts as showing a new type

³⁰ Workers’ remittances are different from “compensation for employees,” which is wages earned by workers temporarily (not longer than one year) working abroad.

³¹ The fifth edition of the balance of payment manual divides the old category of “unrequited transfers” (according to the fourth edition) into two categories, current transfers and capital transfers. The former is included in the current account and the latter is included in the capital and financial account (IMF, 1993, pp. 133-134).

of international financing. In particular, it is worth noting that the net receipt of current transfers was larger than the net deficits of goods and services trade in India in 2001-04, and that the overall current account was in surplus at that time (various issues of *IFS*).

Lastly, we examine the trend of investment income of China, India, and Russia. Table 7 indicates that the item “investment income” plays a pivotal role in the last stages of the “hypothesis.” As for attracting and offering of capital, the hypothesis asserts that a country at Stage V exports capital and obtains much investment income and that it will then “develop” into the last stage, when it again begins to import capital again though maintaining positive investment income. It is very hard to prove the verity of this assertion because the definition of capital is ambiguous in the hypothesis.

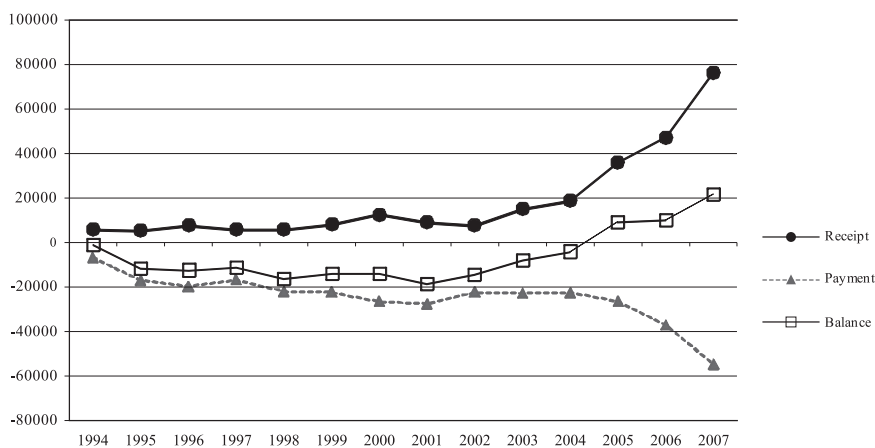
Strictly speaking, by today’s standard, investment income is “property income in the SNA” and “covers income derived from a resident entity’s ownership of foreign financial assets. The most common types of *investment income* are income on equity (dividends) and income on debt (interest)” (IMF, 1993, paragraph 274). This definition leads us to the conclusion that the investment income can be considered as a scale for structural and institutional development of a country’s overall international financing. If receipt of investment income of a country is larger than payment, it reveals that the financial structure of the country is well developed and “productive” in the context of the world financial market. Such a developed financial structure indicates that the country as a whole has reached a relatively high level of economic development.

From this standpoint, the trend of China indicates its violent structural changes in international financing under rapid economic growth. In 1994³²-2004, the current account recorded large surpluses, and under the situation of excess savings, reserve assets of the Chinese Central Bank have been accumulated year by year. It is also noteworthy that large capital flight occurred at least until the end of the last century (Branstetter and Lardy, 2008, p. 665; Oohashi, 2003, pp. 176-182). During this period, the Chinese economy stepped into the world economic system more deeply by joining the IMF (1996) and the WTO (2001), which made China very active in receiving capital from abroad and at the same time investing abroad. As for receiving and investing capital, until 2004, the former was larger than the latter, so interest and dividends always have been in excess of payment. The negative balance of investment income in China reached a peak in 2001, but then it began to decrease and finally became positive in 2005 (see Fig. 5).

On the other hand, India and Russia are characterized by rapidly growing deficits in investment income until today. India’s balance in investment income reached -6573 million US dollars in the 2006-07 fiscal year. It is larger than the trade balance deficit in the same year (*RBIAR*, 2008). As for Russia, both receipt and payment of investment income has increased rapidly since 2003 under high oil prices, but payment has increased more rapidly than receipt and the minus balance has become larger. In 2008, the net balance of receipt and payment reached -35,094 million US dollars,³³ the absolute value of which equals 19.5 percent of the surplus of the goods trade in the

³² The first year that detailed balance of payments data were open.

³³ The data are “on schedule.” The amount not paid by the due date is included. The largest amount of unpaid debt was about 1.5 billion US dollars (2001).

Fig. 5 Investment Income of China (Millions of US \$)

Sources: CSY various issues.

same year.³⁴ It means that 19.5 percent of the foreign currencies and financial values, mainly earned by oil and gas export, were used for (net) payment of interest and dividends (website of the CBR).

Let us look at this situation from a comparative and historical perspective. Table 8 shows the trend of investment income of selected countries. In the table, Germany and the UK show very a complicated data trend, but it does not have the same meaning as China's trend. Frequent fluctuations reflect the rapid movement of capital among the EU countries and also that between Europe and the USA. Japan and the United States show a typical feature of developed financial states. It is true that each country has its own historical background and the meaning of the formula "receipt > payment" is different according to the country. For example, Japan has created a large goods and services trade surplus as well as much larger investment income surplus at the same time at least until 2007. This is not the same situation as that of the "mature" financial state of the UK. The status in the international financial market of Japan and the USA is different from that of China, India, and Russia. Thailand is a typical developing country, which recently opened its doors to the free international financial market. Even after the Asian financial crisis, the main features of the financial structure of Thailand have not changed.³⁵

Figure 5 and Table 8 show the unique structure of China, which seems to have attained the status of a net capital-exporting country. Of course, considering the complicated movement of the situation in Germany and the UK, the balance of payments stages hypothesis here again cannot be verified from the viewpoint of investment income, and we therefore cannot necessarily assert that China has entered "Stage IV." However, we must not overlook the difference between China and India/Russia. India and Russia have been experiencing net investment income deficits like Thailand as a typical developing country. Therefore, in a sense, China can be regarded as a financially

³⁴ The average figure since 1999 through 2007 is 16.1 percent.

³⁵ After the Asian financial crisis, the current account of Thailand turned into surplus.

Table 8 Trend of Investment Income in Selected Countries

	Period	Receipt or Payment	Notes
China	1994-2004	Receipt < Payment	The deficit reached the peak in 2001 but then decreased.
	2005-2007	Receipt > Payment	
India	1994-2008	Receipt < Payment	The deficit gradually increased year by year reaching the peak of 2006-07 fiscal year (- 6573 millions of US \$).
Russia	1994-2008	Receipt < Payment	The deficit increased year by year reaching the peak in 2008 (-35,094 millions of US \$).
Germany	1972-1982	Changing	
	1983-1994	Receipt > Payment	
	1995-1996	Changing	
	1997-2003	Receipt < Payment	
	2004-2008	Receipt > Payment	
Japan	1977-2006	Receipt > Payment (except in 1981)	The balance was 118.5 billions of US\$ in 2006, which was much more than the surplus of goods trade in the same year (81.3 billions of US\$)
Thailand	1976-2006	Receipt < Payment	The balance was -7.4 billions of US\$ in 2007, absolute value of which was a half of the current surplus in the same year (14.0 billions of US\$).
United Kingdom	1948-1976	Receipt > Payment	
	1977-1993	Receipt < Payment	Except 1986
	1994-1999	Changing	
	2000-2008	Receipt > Payment	
United States	1960-2008	Receipt > Payment	

Sources: China: CSY various issues.

India, RBI Annual Report, various issues.

Russia: Website of Central Bank of Russia.

Germany: Website of Deutsche Bundes Bank Website (Statistics-Time series-External sector-balance of payments).

Japan: Website of Bank of Japan.

Thailand: Website of Bank of Thailand.

United Kingdom: Website of Office for National Statistics.

USA: Website of Bureau of Economic Analysis.

“developed country.” It is, however, not easy to say whether this setting is stable and will continue for the foreseeable future. For example, the main factors that have made this difference are relatively strict control over capital movement by the Chinese government and its strategic activities³⁶ in the international financial market. Therefore, a revision of the policies of the Chinese government would reshape the situation easily. Notwithstanding, we must keep our eyes on the trend of investment income of China carefully in the future.

Concluding Remarks

China, India, and Russia have a common feature in their macroeconomic structure in the new century, that is, the excess of savings over investment,³⁷ which resulted in current account

³⁶ The Chinese SWF “China Investment Corporation” was set up in September 2007 (see its website).

³⁷ Russia in 2007 is an exception.

surpluses.³⁸ At the same time, the three countries have actively introduced foreign financial resources through various routes.³⁹ Consequently, their financial claims against the rest of the world have been increasing rapidly, especially in the form of reserve assets of the central banks. These phenomena reflect weak financial networks in their domestic markets, which would have functioned as financial intermediaries and added to domestic investment.

Of course there are different characteristics among the three countries. India seems to be a typical developing industrial state, because of its relatively small current account surplus (sometimes, deficit), and active introduction of many kinds of foreign financial resources, which have spurred domestic economic development. On the other hand, Russia is unique because both the I-S balance and fiscal balance have been in large surplus, which resulted in a large amount of reserve assets. At same time, it is noteworthy that its foreign economic transactions have been isolated from domestic economic circulation. China's international finances, especially in the sphere of FDI, have close connection with its domestic economy. The net receipt of investment income is also an important point in China's future.

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³⁸ As for India in the years 2004-07, the excess was not large enough to compensate for its fiscal deficit; therefore, the current account was in deficit.

³⁹ Russia has also "exported" capital at the same time.

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