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2004 Joint Research Thesis
Theme: "International Finance of the New Euro Currency and the Impact on Each Nation's Economy"

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Chapter I　Current Situation and Future of the Euro as an International Currency

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(1) Introduction

Approximately seven years have passed since the euro was introduced as the common currency for 11 nations in Europe in 1999. Currently, 12 independent states have relinquished currency sovereignty and an attempt is being advanced to accept the common currency issued by the European Central Bank (ECB). Also, the European Union (EU), which is the euro's political foundation, has expanded to 25 nations with the addition of 10 new entries in May 2005. Furthermore, when this expansion was being debated, future expansion of the euro area was also naturally foreseen. Here, consideration will be given to the current situation of the euro, which is backed by an economy of a size which has surpassed that of the United States, as an international currency ranked second to the US dollar, as well as what kind of role the euro should play in the future.

(2) Economic Trends

As for growth rates of economies in the euro area, low growth in the large countries (particularly, Germany, France and Italy in recent years) has dragged down the high growth of smaller and medium-sized nations and pushed down overall growth. The gap was reduced by a decline in the growth rate of smaller and medium-sized nations, but in recent years, the stagnation of particularly the three largest nations has widened this gap somewhat. In forecasts by the OECD, the growth rate within the EU has been estimated to be 1 to 2% in 2005 and with a slight recovery to 2% in 2006.

Table 1-①

Growth rate (real GDP) % by year, 2005 OECD estimates, predicted value for 2006

Year	G	F	I	EURO	UK	US	J
1998	1.7	3.6	1.7	2.8	3.1	4.2	-1
1999	1.9	3.2	1.7	2.8	2.9	4.4	-0.1
2000	3.1	4.2	3.2	3.7	3.9	3.7	2.4
2001	1	2.1	1.7	1.7	2.3	0.8	0.2
2002	0.1	1.1	0.4	0.9	1.8	1.9	-0.3
2003	-0.1	0.5	0.4	0.6	2.2	3	1.5
2004	1	2.3	1	1.8	3.1	4.4	2.6
2005	1.2	1.4	-0.6	1.2	2.4	3.6	1.5
2006	1.8	2	1.1	2	2.4	3.3	1.7

The rate of inflation has stabilized with a range of 1~2.5% as aimed for by the ECB, but this result also reflects the low growth in the large countries, and the somewhat high inflation rates in a few small and mid-sized nations during the period from 2000 to 2002 have constricted to lower values.

With respect to fiscal revenue and expenditure, the deterioration of the large nations has naturally been highlighted, exceeding the upper limit of a 3% ratio to GDP, and moreover, the situation is not improving soon. Furthermore, the unemployment rate is hovering at a high 9~10% for the entire euro area with high rates in the four largest nations including Spain being prominent. There are also practical restrictions on the movement of labor within the EU, but whatever those may be an economic recovery lead by the larger nations is desirable. Monetary policy is the exclusive work of the ECB and nations are only able to rely on fiscal policy, but are also constrained by the EU's Stability and Growth Pact (Fiscal deficits of 3% are only acceptable when there has been a decline 2% in GDP. Recently, a number of monetary easing measures have been adopted.) The ECB, in taking into account the economic situation, had lowered the operational interest rate down to 2% by June 2003, but in the approximately two and a half years since that time, there has been no improvement in the situation. The rate was not lowered, but left at that level. Then, in November 2005, with the rise of prices for crude oil and other items in the backdrop, it was raised to 2.25% to guard against inflation.

Policy responses for the EU or euro area are asymmetrical between periods of economic overheating and economic stagnation, and responding is particularly difficult during a period of subtle recovery as is being seen at the moment. Also, there is the possibility of converging economic trends where the large nations could lead to a convergence into a bad slide.

To make reliability in the euro as an international currency unwavering, it is probably necessary for more experience to be acquired through the aforementioned types of policy responses.

(3) Euro in Foreign Exchange Markets

At intervals of three years, the Bank for International Settlements (BIS) releases a report on the status of transactions on the foreign exchange market. Taking a look at the status of the euro in global markets from the March 2005 publication, there is the following.

The volume of foreign exchange transactions increased 57% (34% when exchange rate fluctuations are taken into account) from a daily average of US$1.2 trillion in April 2001 to US$1.8 trillion in April 2004. This contrasts with an approximately 20% reduction due to the impact of the introduction of the euro and other factors from 1998 through 2001. If the cause of this is surmised, it would be desirable to regard it as due to surplus funds demanding international asset choices, moving around the market and increasing the transaction volume while the global economy was confined to low growth. The increased fluctuation of the foreign exchange market is such a cause

and also such a result. In response to this, there has been a substantial increase in so-called derivative transactions and the ratio of transactions that banks make with non-bank financial institutions such as hedge funds also increased considerably.

Of all these transactions, transactions where the euro was a currency on one side of the transaction (euro-related transactions) rose 50% to US$660 billion in 2004, but as a percentage of all transactions, there was almost no change in the figure of 37%. Transactions related to the US dollar were US$1.573 trillion, or an increase of 49%, and this ratio was 89% or almost the same as when the previous survey was conducted. The increase in the market for the euro against the US dollar has increased the volume of US dollar conversion transactions. However, when consideration is given to the fact that the 2001 figures had substantially declined with the introduction of the euro in 1999 from the time of the 1998 survey on euro-related transactions, it appears that the subsequent substantial euro-related transaction volume increase was due also to factors other than the market.

Next, the currency combination with the largest amount of transactions is the US dollar and euro, but that the ratio to all currency transactions was 28%, which is not a significant change either (previously, it was 30%). Also, euro transactions as a percentage of all US dollar-related transactions were 32% (33%), showing no notable change.

Furthermore, when the distribution by market for foreign exchange transactions is viewed, the British market continued to maintain a ratio of 31%, and the United States extended its percentage slightly to 19%. The euro area showed no change at 14%, but when the EU countries that are not participating in the current euro area (excluding the United Kingdom) are added, that ratio ranks with the United States. If the United Kingdom is also entered into this group, the percentage is 50%, accounting for precisely half of the world market. This may be the future potential euro distribution region or the euro-related foreign exchange transaction market.

Even with derivative transactions (foreign exchange transactions), the central position of the US dollar and euro has not changed with the substantial increase in transaction volume. This is likely due to the fact that demand for hedging and covering has increased in response to the augmentation of conventional foreign exchange transactions as mentioned above.

What should be given special mention about the euro is interest-rate future transactions. The total volume increased twofold form the time of the previous survey (daily volume of US$1.2 trillion), and of that, euro transactions were US$461, or 45% of the total, surpassing the US dollar's 34%. Even at the time of the last survey, it was 49%, which was already the lead position. This shows that the euro as an international financial investment currency is continuing to stave off the US dollar with the support of large-scale economies included within the EU as well.

(4) Euro in International Current Transactions

Review of the International Role of the Euro (January 2005), which was published by the ECB, analyzes the current status of the euro's use in each area.

First, in trade outside of the euro area, the extent to which many countries utilize the euro as an invoicing or settlement currency has continued to increase annually.

As for exports, with the traditional principle of using an export nation's currency, the degree of euro usage has originally been high, but that figure also in recent years has risen from the 40% range to the 50% range in some countries with others even rising up the 60% level. In 2003, Germany was at 63%, and the other major nations also had levels exceeding 50%. Even Greece, which is the latest entrant, is already close to 50%. Of the exports to non-euro area countries, those headed to EU member nations that are not participating in the euro were approximately 35%. If a considerable portion of that is euro-denominated, then euro-denomination in other areas is short of 20%, and that can be estimated to further increase in the future.

On the other hand, in imports from non-euro areas as well, the rate of euro usage is growing and in the major nations, it is the same as for exports, reaching 50~60%. Although there are some countries where the figures for exports are somewhat higher, the situation on the whole cannot be said to accord with the principle of using an export nation's currency. Of non-euro area imports, the ratio from non-euro area EU countries is approximately 30%, and accordingly, euro-denominated imports from other areas are close to 30%, which is larger than in the case of exports. In many cases the settlement currency for international products and charges is determined by custom, but even so, the use of the euro is slowly expanding.

In regard to selected non-euro area countries, the ECB publishes figures for exports to the euro area as a percentage of total exports as well as for those that are invoiced in euro. If non-euro area EU countries are viewed, in the case of many member countries that joined the Union in 2005 as well as EU candidate countries, such as Bulgaria, the ratio for euro use in exports was higher than the percentage for exports to the euro area, making this already a pre-euro area type of system. In the case of these nations, the euro is also utilized quite often in transactions with third-party countries, and in that sense, the euro will come to perform the traditional function of the US dollar.

However, while in the case of the United Kingdom and Denmark, which joined the EU earlier, although the percentage is high for euro area exports (51.40% for each), the ratio for euro use is lower than that (21.35%). Although there are no figures, the situation appears to be similar for Sweden. The economies in this group are also large, so how they accommodate the euro will be important for the euro's future (Hereinafter, these three countries will be called the "non-euro EU three countries.").

(5) Euro in International Financial and Capital Markets

The scale of procurement of the euro in global markets and investments in the euro are increasing. Let's take a look at the status of international debt markets from data released by the ECB and BIS.

Here, the reference to international debt includes all marketable long-term bonds and notes

as well as short-term money market instruments (commercial paper, etc.). In the case of the ECB, this refers only to issues in a currency other than the currency of the borrower's home country. Such examples are euro-denominated bonds issued by the Japanese government or US dollar-denominated corporate debentures issued by a German company. BIS releases statistics on international debentures in a broad sense by including the amount that non-residents invest in bonds denominated in the home currency of the borrower, and the amount twice exceeds that of the ECB method.

The ECB is focusing on understanding how the euro is being utilized as a capital procurement currency for non-residents, so the following ECB figures will be used. According to those, the amount of outstanding debt securities a the end of March 2004 was approximately US$5 trillion, of which those denominated in US dollars were 42% and euro denominations were 31%. The US dollar has the main position here as well. However, in comparison to the ratio for the euro which has steadily increased from the 20% at the time of its introduction, the US dollar has decreased its it ratio somewhat during the same period.

In the long-term area, the ratio for euro-denominated issues has risen, and according to the ECB, it exceeded 35% in 2004. The US dollar was approximately 40%, but is gradually decreasing its percentage.

In the short-term area also, the ratio for euro-denominated securities has increased to reach 35%. On the other hand, the US dollar has conversely lowered its ratio over a trend exactly the same as in the case for long-term debt mentioned above. Euro-denominated short-term commercial paper (some of this is asset-backed commercial paper) is particularly popular with those requiring capital outside the region.

The following points are noteworthy when one looks at outstanding issues of international debt by currency and location of the issuer. The total balance of US$4.635 trillion at the end of March 2004 as indicated by the ECB is an increase of 84% compared to when the euro was introduced (March 1999). Of that amount, US dollar denominations were 44%, and euro denominations were 31%. Areas with a high percentage of euro denominations are the non-euro EU three countries (53%), EU new member states (75%), non-EU developed Europe (such as Switzerland, Norway, etc.) (41%), and the United States (68%). As matter of course, many of these are related to the euro area or are neighboring developed countries, but the United States also has rapidly increased use of the euro as a currency for capital procurement in recent years. In other regions, the relative ratio of the US dollar is high, and the percentage for the euro is declining in Central and South America as well as in Middle and Near Eastern countries, but in Japan, Asia, Africa and the so-called offshore centers, the ratio for the euro has continued to increase.

What about the percentage for the euro in the area of loans and deposits that are not market based? The percentage of non-euro area fundraisers (excluding banks) who borrowed from banks within the area was approximately 40%, and conversely, when fundraisers within the area (excluding banks) borrow from non-euro area banks, the euro accounts for 50~60% of that volume. In the case

of deposits, the euro is more than 50% of transactions going in both directions. Although there has been no significant change in these percentages, it can be seen that, while small, the ratio for the euro is rising and that for the US dollar is falling.

In finance between third countries, that is the relationship for deposits and loans between non-euro area fundraisers and similarly non-euro area banks, it cannot be denied that the US dollar has overwhelming superiority, and in the balance on March 2004, this figure was estimated to be approximately two-thirds of loans and 62% of deposits. The euro fell far short at 6% and the JPY at 10%, and in deposits, such figures were less than 10%. However, in the case of these kinds of loans, the relative ratio for banks in the United Kingdom was very large at 36%. In particular, 67% of loans were executed using the euro. British banks have the highest relative percentages for euro-denominated transactions with the above-mentioned euro area also, and appear to be contributing to the internationalization of the euro.

(6) Euro as an Anchor Currency and Public Reserves

Outside the euro area, countries that have linked their own currency in some form to the euro or are using the euro as an anchor currency number 40, according to the ECB, and besides those, there are also nations for which the relative percentage of the euro usage is set at a high ratio in a basket of currencies linked to their own currency.

The specific fine points will be omitted here, but other than euro area neighboring countries (non-euro EU member states, non-EU Eastern European nations), many are former French colonies in places such as Africa. It is precisely in these regions where the euro is being used as the main foreign currency in many areas, and at the same time, the euro is the intervention currency for foreign exchange policy, and the core of public reserves.

If other areas are included in this view, the percentage for which the euro accounts in the world's public reserves was slightly less than 20% at the end of 2003, with the US dollar at 64% (IMF figures), and during the four year period, the former has increased somewhat, and the latter has declined somewhat. However, when fluctuations in the foreign exchange rate are considered, there has essentially been no change. Yet, in some discreet way, a shift is said to be taking place from the former to the latter, but this is not numerically well-defined. This point will be touched on later.

(7) Euro Foreign Exchange Trends

The diagram shows changes in the euro against the US dollar exchange rate since the euro was first introduced. If movements during this seven year period are broadly classified, the 1st period was a time where the trend was a decline from introduction until October 2000, and during this period, the euro fell 31% from US$1.1895 at the beginning of 1999 to US$0.8228 on 25 October 2000 (the lowest value in the 7 year period). The 2nd period was a time of instability lasting after the end of the 1st period until the first quarter of 2002. The 3rd period was a time of the rising euro and

continued up to the first quarter of 2005, and during this period the highest value to date was reached, US$1.3667, at the end of 2004 (the percentage increase from the rock bottom value: 66%). The 4th period was a time of falling back and has lasted up to the present (December 2005) where the current level of US$1.20 is somewhat higher than the level when the euro was first introduced.

As has already been stated, the US dollar-euro exchange rate is the central foreign exchange market, and is considered to have a strong influence on the exchange rates of other currencies against the US dollar.

So, what has moved this market? First, let's look at the ECB's policies concerning foreign exchange. The ECB's main objective is price stability, and foreign exchange policy is also for that purpose and must not be something that impedes that in any way. The ECB intervenes when the exchange rate of the euro falls and there concerns about inflation, but it does not intervene to confront a rise in the euro when hopes are hanging on exports in a stagnant economy (to be discussed later). At the most, it lets things be without raising the interest rate.

In foreign exchange markets of recent years, a trading strategy known as "carry trading" has become main stream, and the aim is that by borrowing a low-yielding currency and investing in a high-yielding one, the interest rate difference will top any loss due to exchange rate fluctuation, so future prospects for the market must be certain. Consequently, the interest rate differential is important. However, with regard to future market prospects, predicting economic trends (buying if a rise is projected) in the short-term, information concerning official countermeasures to those trends is fundamental; and in the long term, the healthiness of the corresponding state's economy and the confidence in the government that handles that economy all become the foundation for decisions. However, it must not be forgotten that underlying the market for the US dollar, which is currently the principal international currency, and the euro, the new regional common currency supported by an even bigger economic bloc, are problems with the institutions themselves, issues pertaining to the US dollar which are related to such problems, as well as expectations and uneasiness about the new system of the euro.

Table 1-②

Major Currencies Long-term Interest Rate %

Year	US Dollar	Euro	Yen	Aus. Dollar	NZ Dollar	UK Pound
1998	5.3	4.8	1.5	5.5	6.3	5.5
1999	5.6	4.7	1.7	6.1	6.4	5.1
2000	6	5.4	1.7	6.3	3.9	5.3
2001	5	5	1.3	5.6	6.4	4.9
2002	4.6	4.9	1.3	5.8	6.5	4.9
2003	4	4.1	1	5.4	5.9	4.5
2004	4.3	4.1	1.5	5.6	6.1	4.9
2005	4.5	3.5	1.4	5.8	5.9	4.6

Diagram (Graph)

"Euro quotes (US Dollar per €1)" and "Interest rate (%)"

(January 1999 through January 2006)

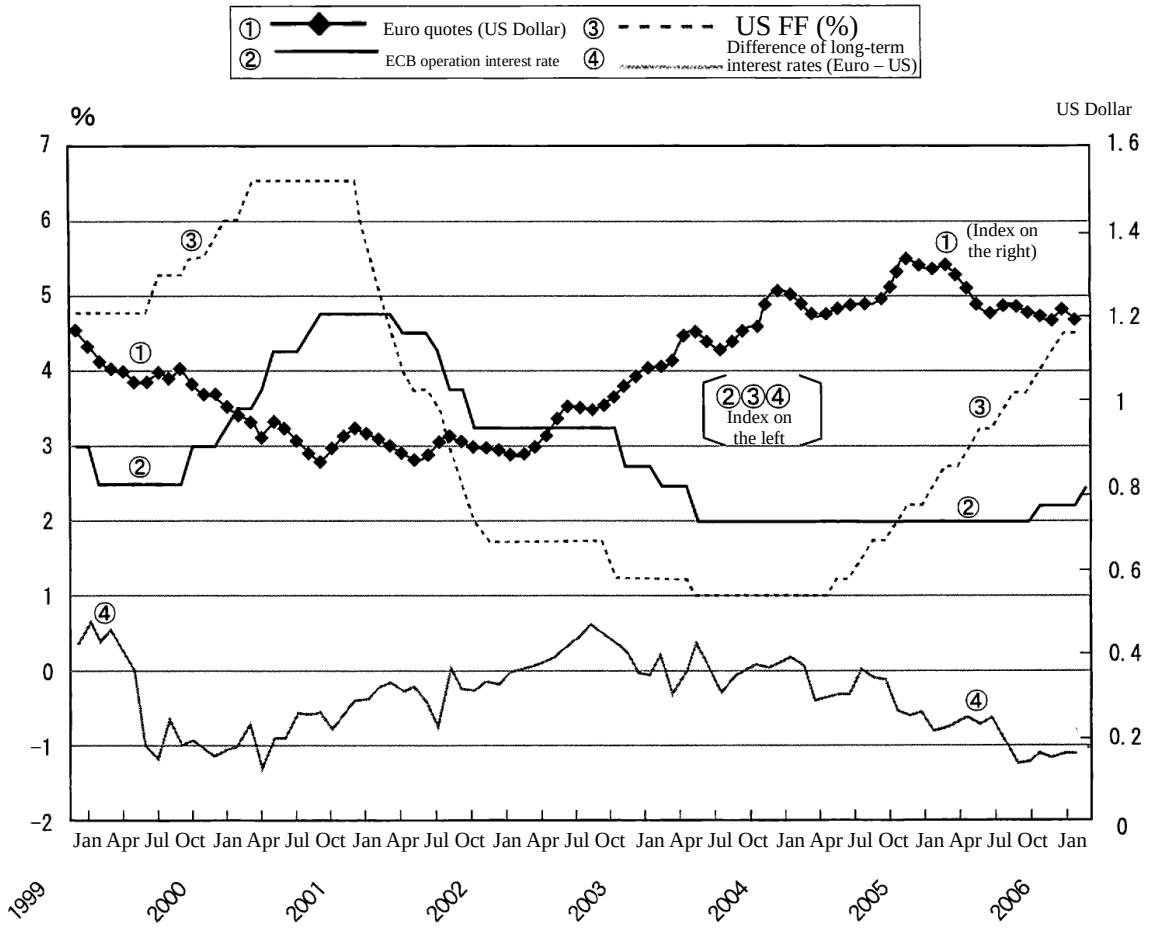

Table 1-③

Market trends of major currencies. US Dollar is in effective market index, others are indexed against the US Dollar. (Year 2000 = 100)

Year	US Dollar	Euro	Yen	Aus. Dollar	NZ Dollar	UK Pound
1998	98	110.8	80	107.4	114.3	97
1999	97.6	109.9	91.9	107.6	110.3	97.4
2000	100	100	100	100	100	100
2001	105.3	102.5	92.3	93.7	98.7	99
2002	105.8	106.4	88.4	97.2	106.8	100.2
2003	99.6	119.4	91.4	108.6	121.6	96.3
2004	95.1	123.8	95.3	117.2	129.7	700.8
2005	91.8	123.8	95.9	119.7	137.5	100.4

In the aforementioned 1st period, economic stagnation in the euro area, to which high hopes had been attached, widened the gap in interest rates, moving capital from the euro area to US investments, and with the impact of the situation in Kosovo, the euro continued its declining trend, generally speaking, for about a year and a half. However, the ECB intervened on its own and on the occasion of the 11 September 2000 collaboration to reverse the euro's fall. During the 2nd period, in response to the slowing down of the US economy in the first half of 2001, the FRB lowered the interest rate rapidly, and the difference in interest rates reversed, but the market was concerned about stagnation in the euro area, and the euro tended to weaken. As for the US dollar, the strong dollar trend that had continued up to that point diminished due to economic issues but also because of the September 11th terrorist attacks, uneasiness about the situation in the Middle East and other factors, so the market lacked stability. In the 3rd period, negative factors on the US dollar side induced the euro to strengthen starting in the second half of 2002. In addition to the economy, the issue with Iraq as well as Worldcom's problems and other factors pushed the euro's recovery to the US$1 level in July of the same year. The rise further continued over 2003, and although Germany and France hoped for a check on the euro's rise due to economic stagnation, the ECB did not intervene. The momentum for securities investment in the United States at the outset of this period had already reversed, and capital was flowing in the opposite direction. The undercurrent during this time was the issue of the US dollar's bearing on the foundation of the international currency system, namely, as has often been repeated, the US dollar crisis, and factors weakening the US dollar, which were tangible and latent. This point will be touched on later. During this time, the euro continued to rise and reached its highest level of US$1.342 in March 2005. In the 4th period, the market reached a turning point due to circumstances on the euro area side. The economies of France and Germany did not get on track easily, and while the ECB put off interest rates for close to two years, the United States showed a growth rate near 4% at the start of 2005. The FRB continued to raise the FF interest rate starting in the middle of the previous year. The difference in the operational interest rate

reversed and the difference in long-term interest rates (a euro disadvantage) also expanded. (Diagram) This contrasts with the ECB which left the operational interest rate at 2% for more than two years and did not undertake to lower it out of consideration for the economy.

Moreover, the EU institution had proceeded comparatively smoothly until then, but at the end of May and on June 1st, France and the Netherlands, respectively, rejected in national referendums the draft for a new constitution for the EU, and the euro continued its fall. Adverse factors continued, such as the unstable political situation in both Germany and France, Germany's general election, the riots in Paris and so on, and on November 16th, the euro fell to US$1.166. In December, the ECB raised interest rates, the EU budget problems which had been haggled over were also settled, so that, by the end of the year, the euro made a slight comeback.

Through the aforementioned periods, fluctuation in the exchange rate was rather large. If the volatility of the exchange rates is viewed for the major currencies against the US dollar during the period from 1999 to the end of 2005, we have the following table, and the euro has the highest rate. The rate for the yen (JPY) is low due to the large scale market intervention being conducted. Also, in the same table, a simple correlation coefficient is shown for the exchange rate of other currencies vis-a-vis the US dollar against the euro-US dollar rate. The Swiss franc (CHF) is extremely close to the euro, and the yen is at the greatest distance, but for both, the relationship has become even stronger over this period.

Table 1-④

Correlation between the volatility of major currencies against the US dollar and other exchange markets against the Euro.

(Based on daily New York market close quotes)

	Euro	UK Pound	Swiss Franc	Japanese Yen
Volatility	14.08	9.31	12.7	6.75
Standard deviation (1999 – 2005) (%)				
Correlation coefficient				
1999		0.5599	0.9843	0.2661
2005		0.9231	0.9854	0.8704

(8) Future of the Euro

The euro has come to have an international importance that has clearly surpassed that which the German mark used to have. If the euro area (EMS) expands further and the United Kingdom in particular participates, it is possible that in terms of transaction volume and degree of usage, it will rank close to equaling the US dollar. Even if that is not the case, the role expected for the euro from the standpoint of international currency institutions is important.

Although it has already been mentioned, the United States' current account deficit is growing larger annually, and in 2005, it is certain to exceed 6% of GDP, which is being covered by

an influx of foreign capital. Net external debt at the end of 2004 was approximately US$3.45 trillion, reaching 30% of GDP. According to the BIS, US dollar-denominated net debt is said to exceed US$7 trillion. This is already a factor weakening the US dollar, threatening the market, and US deficits of recent years are being covered in a large part by increases in public reserves. While carrying twin deficits, the United States is developing its grand strategy abroad, and its domestic economy is in good condition, so whatever the case may be, an improvement in the balance of payments cannot be hoped for immediately. Assuming that, there is no other choice but to gradually shift the huge US dollar debt into debt denominated in another currency. Switching public reserves and private assets to the euro is desirable in that it can be done without having a great impact on foreign exchange markets, but it is difficult to do in reality. First, the euro area's current transactions with the United States are said to be in equilibrium. Also, at the end of 2004, although outstanding securities investments in the United States were US$1.3 trillion, it would be desirable to have an expansion of the euro. At the very least, it would be desirable for new US debt to be dispersed in currencies with a central focus on the euro, and for the dispersion of existing debt also to proceed gradually along with a weakening of the dollar, which will also require international cooperation as well as the response of US industry so that the lower US dollar will adjust the deficit.

With regard to the external US dollar balance, there is still the idea that the United States is leading the global economy with the so-called dollar area approaching a ratio of economic scale accounted for by whole world, but in a matter of time, a crisis will come. To avoid that, there is only the positive approach of the euro area.

(Reference)

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BIS ; BIS 75th Annual Report V. Foreign Exchange Market 2005
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Chapter II Function and Policy of the European Central Bank and Characteristics of Financial and Capital Markets

Hidehiro Kikuchi

(1) Establishment and Functions

Economic Scale of the Euro Area (Comparison Using Figures for 2000)

If viewed according to the share (ratio) for each region of nominal GDP as an indicator of economic size, the euro area is 16%, the United States is 22%, and Japan is at 7.3%. GDP for the euro area is 70% of that of the United States and 2.2 times the size of Japan's. Also, if viewed by per; Review of the International Role of EURO 2005capital GDP, the euro area is almost on the same level as Japan. Additionally, if viewed according to share of exports, the euro area is 19%, the United States is 15%, and Japan is 9.2%. The euro area can be said to be the most open region in the world. If, in this area, there is a common currency, exchange risk is eliminated and stable growth can be expected, it would be a significant positive factor for the global economy.

Establishment and Characteristics of Functions

What decided that the euro would be the common currency of Europe was the Maastricht Treaty (signed in February 1992, taking effect in November 1993). In appended protocols, there was the "Statute of the European System of Central Banks and of the European Central Bank," which assumes participation by all EU member states. The European System of Central Banks (ESCB) was determined to be the single central bank institution for the euro to cover the central banks of the EU 15 member states. However, because the United Kingdom, Denmark and Sweden did not participate in the euro in 1999, the single central bank system was made into the Eurosystem, and this term is used in distinction from the ESCB.

The Eurosystem is constituted on the model of a federation, and the ECB, a superior agency, decides financial policy for the euro. The national central banks (NCB) of the nations participating in the euro, which are a subsidiary body, implement the decisions of the ECB. There is a General Council, which is an ESCB institution, and it is also the place where collaboration and coordination are conducted regarding the euro for nations not yet participating in the euro area as well as financial and foreign exchange markets. This is not a body that debates and makes decisions on fiscal policy for the euro area.

In June 1998, the ECB was established at Frankfurt am Main, a financial market in Germany. Its executive organ is the Executive Board, which is comprised of the ECB president, vice-president and the other four members of the Executive Board. The highest organ for policy-decision making at the ECB is the Governing Council, which is made up of 18 people, the six

members of the six members of the Executive Board plus the governors of the NCBs from the 12 euro area countries. It deliberates with the president presiding as chairman, and makes its decisions based on a simple majority. Matters decided by the Executive Board are conveyed to the NSBs, and the Executive Board monitors their implementation. The ECB's capital is set at 5 billion euros. The method for assigning subscription shares is based on a standard using the nation's share of the EU population and its share of the GDP, and because non-participating countries contribute only 5% of the allotted amount, currently, the ECB's capital is approximately 4.1 billion euros.

Settlement Body for the Euro

At the time of the Euro's start, a settlement institution called the Trans-European Automated Realtime Gross Settlement Express Transfer System or TARGET was established for the euro area. Namely, when funds are transferred from country A to country B, they are sent from the bank in country A via country A's central bank, then through the ECB's TARGET by way of country B's central bank to the bank in country B.

(2) Monetary Policies and Characteristics of Short-Term Financial Markets

Objective of the Central Bank

Generally speaking, there are two polices of central banks: the stabilization of prices and the promotion of employment and economic growth. The Federal Reserve System, which is the central bank for the United States, regards both of these to be the central bank's objectives. In Japan, the central bank's objective is only price stability, and the ECB also considers its objective to be only price stability. The ECB observes the basic policy of Germany's central bank, and has inherited the doctrine of German fiscal policy, which has practiced stability of commodity prices and stability of the German mark as it most important task during the 50 years since World War II. Even in visits today, ECB executives declare, "The ECB regards only price stability as its policy objective."

Provision of Short-Term Funds

On January 2, 1999, the ECB integrated and pumped funds into the overnight market, and the euro embarked on a successful note. The short-term interest rate (up to 1 year) floated by the central banks of the 12 states participating in the euro was at exactly the same level, and there was no difference in short-term interest rates. Long-term interest rates are determined by market price for that nation's finance ministry securities. Currently, some differences do exist for countries (0.1-0.2% p.a. degree). This is largely due to differences in that country's financial matters.

In the present system, the ECB circulates short-term euro funds to the central banks of member states, and at this stage, the short-term interest rates are at the same level. The central banks of the member states send these funds to ordinary banks at the interbank interest rate, and later when

each bank makes loans to its customers, the loan rate is determined by adding a spread (fee tacked on to the interest rate) to the interbank rate. The spread is determined by the credit rating of the borrower. Here, any risk according to country is eliminated. This is the distinguishing feature of adopting the euro as the common currency.

Movement as an International Currency

In the future, with regard to how the euro will develop as an international currency, the head of the ECB has stated, "There is no policy to intentionally develop the euro as an international currency. Currently, there has been an increase in cases where the euro is being utilized in invoice transactions between European countries and East European countries. In the future too, such actual transactional demand will likely increase." In fact, actual demand for transactions in Europe is overwhelmingly for the euro, and when one considers the fact that, in capital markets as well, most bond floatations in Europe are in euro, one might say that an awareness of a stable "our euro currency" for Europe is ripe. If the weight of the euro is increased in capital markets, then, the extent of its utilization and importance as an international currency will likely also increase.

(3) Changes in Financial and Capital Markets

In capital markets, euro-denominated bond issues are increasing, and many of these are being floated on the London market to be later sold to individual investors through financial institutions in the capital markets of each nation. Of all bond issues, 90 percent are sold on the London market with the relative ratio for Frankfurt at about 10%. During the days of the German mark, there was rule that "mark-denominated bond issues were limited to German domestic banks," so all of these were floated in Frankfurt. However, because this rule was abolished with the start of the euro, euro-denominated bond issues have shifted overwhelming to London. With the start of the euro also, it was thought the euro issues would be floated in Frankfurt, and in the expectation of having businesses related to capital markets, many buildings were constructed in Frankfurt. However, these are said to have been emptied and become nonperforming loans for the banks.

Securities issued in London are ordinarily sold on each nation's market and individual investors can accept these. The capital markets in each country are retail markets (markets aimed at small investors), and the international markets have moved to London. Moreover, in the markets of each country, tax systems, which have a major effect on securities, are not unified, and these also have become a factor hindering national markets. From out of this, a new movement has emerged to attempt to renationalize initial bond issues in the markets of the participating countries. By displaying the distinctive features of each market, a movement to revive the home nation has strengthened. Within Europe, Deutsche Bank is tending toward decline, and the banks of Spain and France are flourishing. These banks are the result of the corresponding country having obtained great

advantages due to the introduction of the euro. By introducing the euro here, member nations' markets are making an effort to revitalize from a new perspective.

Chapter III Influence on Germany's Economy

Hidehiro Kikuchi

Restrictions on Economic Policy due to the Euro Introduction

The introduction of the euro has put significant restrictions on the economic policies that member states are able to adopt in their own countries. Namely, due to the euro's introduction, it has become impossible for a single country to coordinate its foreign exchange market, and short-term interest rates are being decided by the ECB, so that the policies which can be decided by the home country are only fiscal policies, and these are limited by the appended condition that they do not exceed 3% of GDP. This is the Stabilization and Growth Pact (SGP), which is Article 104a of the Maastricht Treaty that decided to establish the euro and configured the conditions so as not to allow excessive fiscal deficits. When each nation's economy after the introduction of the euro is viewed, tow of the three policies were forfeited, and the large nations suffering due to fiscal spending problems are Germany, France and Italy. How each nation will overcome this will likely pose a challenge for the future.

Germany's Economy after Introduction of the Euro

As for the growth rate of Germany's economy when the euro was introduced in January 1999, the real gross domestic product (GDP) after 2001 (January to December) was 0.8%, then for the following years, it was 0.1% followed by a negative 0.1% with the economy continuing to be sluggish. However, 2004 showed the first positive growth in two years, increasing to 1.7%, a figure which surpassed the 1% mark after a four year stretch. Nevertheless, the unemployment rate hovered at a high 10%, and in March 2005, the number of people unemployed reached 5 million. This shocked the populace as it was the same level as in 1933 when Hitler rose to power. The following points are inferred to have been causes leading to the economic downturn since the introduction of the euro in Germany, which accounts for the largest share of GDP in the euro area.

(1) In January 1999, Germany pegged the euro at 1.3 marks in making its conversion to the euro. In the exchange rate market for the mark just prior to that, the mark was strong (decline in value of the US dollar), and the mark was fixed at a relatively high value. Immediately after introduction, the euro interest rate was at almost the same level as the interest rate for the mark, and the euro area overall was able to enjoy the low interest rate of the German mark. Due to this, in countries where interest rates were higher than the mark prior to adopting the euro, the rate of interest dropped suddenly, and this brought about considerable advantage for economic activity. However, for Germany, a country of low inflation, the real interest rate rose, becoming a factor in the slowdown of the domestic economy. Also, due to the adoption of the euro, transactions with East Europe became easier than they had been in the past, and the relocation of factories out of Germany

began to pick up speed as they demanded the low labor costs of Eastern Europe. This hastened a hollowing out of German industry, and is thought to have been a factor in slowing Germany's economy.

(2) When the long desired unification of Germany took place in 1991, it was decided to exchange the West German mark and the East German mark at an equivalent ratio of 1:1, but the effects of this are still continuing to this day. At the time of unification, the economic disparity evaluated using the mark as a yardstick was considered to be a ratio of about 5-6 East German marks to 1 West German mark. Because these were made to have an equal value, the East German mark was overvalued, and that burden has been a heavy weight on the national budget of Germany after unification, creating increases in financial outlays and leading to budget deficits and economic stagnation. For example, when former East German citizens pass the age of 60, they have the right to receive pension payments. However, if the same conditions hold then due to the fact that during the time of the former East Germany, a pension fund had not been amassed, former East German citizens also have the right to pension payments in the same amount as former West German citizens. Consequently, pension payments to former East German citizens have been a factor in budget deficits.

(3) At the time of the euro's introduction, because the mark was set at 1.3 to 1 euro, a sort of illusion concerning commodity prices arose among the people. Taking the example of a commodity, which could have been bought by paying 1.3 marks during the days of the mark, people were thrown into an illusion that the item had become cheaper due the price being converted to "one" euro, so that sellers raised their prices in the euro denomination, and on the other side, buyers, because they lacked any impression to say that prices had been raised on them went ahead and bought items even though they were more expensive. First, sellers raise prices unilaterally on daily necessities. In this way, after the introduction of the euro, a terrible phenomenon arose where prices rose even though Germany was in a recession. This was the commodity price increase in Germany, and such activity was also conspicuous in other nations such as Italy, Spain and Portugal, forming the reason for the ECB's interest rate increase.

When people in Germany were asked, "Which is better the mark or the euro?" the populace at large said, "The mark is. The mark is stronger." Intellectuals answered, "The euro is. Since Germany started using the euro, it has gotten the short end of the stick, but in the long run, the euro is better." That is an interesting phenomenon.

Good Competitiveness as a Manufacturing Nation

Due to the euro's introduction, 90 percent of the capital market in Frankfurt has shifted to London. Germany has primarily been a manufacturing nation and many of its corporate organizations are limited liability companies together with corporations, and it has many famous companies that have not gone public. After the introduction of the euro also, Germany's international

competitiveness in products did not deteriorate. Exports have increased due to the domestic economic stagnation, so that in 2004, they were up 10% over the previous year. This has supported a strong euro. After the euro's introduction, Frankfurt has become the center for commodities from at home and abroad, and the number of Japanese companies with warehouses in Frankfurt has increased. Many goods are also re-exported to Eastern Europe from here. Germany has recently increased transactions with China and Russia.

Financial and Fiscal Issues that Germany is Confronting

In Germany today, fiscal deficits are increasing. With respect to public finance, it is contravening the "3% SGP" and the deficit gap is continuing to surpass 3% of GDP. Because France and Italy are in the same situation, it was announced at the March 20, 2005 EU meeting (ECOFIN, the EU's Economic and Financial Affairs Council) that an understanding had been obtained to the effect that the 3% provision would be treated flexibly vis-à-vis member states. In considering the future development of the euro, this is likely to be an extremely important agreement.

Also, Bundes Bank (Germany's central bank) revealed its frustration in saying, "The ECB's currency subscription amounts, which are provided to each nation, are the same in comparison to the initial amounts. However, there are differences in economic growth depending on the country, so wouldn't it be better to have an increase or decrease in these differences?"

Germany at the current point in time (September 2005) finds itself in a predicament. However, Germany's participation in the euro has more advantages than disadvantages, and one could say that this could be thought of as the shell of Germany being broken to let the mark expand to all of Europe.

Chapter IV Influence on Italy's Economy

Hidehiro Kikuchi

Inflation Emerged with the Euro's Introduction

Italy in the 1990s was afflicted by budget deficits and a currency crisis, and it was being said that at the outset that the nation would likely not join as a euro member state initially. But, using various means, policies were adopted to curtail government debt and budget deficits, which were accomplished in time to meet the euro's January 1999 start. The conditions for government debt for participation in the euro were: (1) deficits not exceeding 3% of GDP; and (2) government debt within 60% of GDP. Because the second condition was met, Italy was able to participate in the euro. An Italian economist friend of mine laughed as he said that magic was used to lower the ratio to 2.9% for government debt against GDP.

At the euro's start, it was decided that 1 euro would be 1,936.27 lira. In other worlds, 2,000 lira would be fixed as 1 euro. Immediately after introduction, commodity prices rose, and a lot of money flowed into the stock market. The cause of the commodity price rise was an illusion accompanying the change in the currency unit. In other words, an illusion was running around that items which had four digits in the price during the days of the lira could now be bought with only one digit, and sellers rapidly raised their prices. This is how the inflation in Italy was generated, and in January 2005, currency prices as measured by goods almost doubled in six years, and it was said that "1 euro is equivalent to 1,000 lira." The Italians were saying, "A three figure denomination was implemented using 1,000 lira." During this period, although commodity prices rose, corporate profits did not grow, and conversely, demand decreased. Immediately after the introduction of the euro, the stock market perked up, and the condition of the real estate market livened. However, it could not be said that real demand had increased, so subsequently, market conditions turned toward a slowdown.

Advantages due to the Euro's Introduction

In financial markets on January 2, 1999, the day of the euro's introduction, the short-term interest rate for the euro was set at 3%pa, and the last interest rate for the lira at the end of December was 6%pa, so precisely overnight, the interest rate was reduced by half. Based on free market economics from a historical perspective, it seemed that this sudden of a decline in the interest rate would have been impossible. It was in this way that the euro interest rate became the base for Italy's markets, and the significant drop in the interest rate for borrowing funds was a huge blessing for companies and the government, which were carrying much debt. Within the EU, Italy is probably the country that benefited the most from the introduction of the euro. If the changes after the euro's introduction are summarized, we have (1) the interest rates which declined and stabilized. The primary factor in deciding interest rates is the composition of "the cost of money + the country's & currency's risk premium." Of these, the currency and country risk were very large for Italy and the

lira. Due to the introduction of the euro, a big factor in Italy was the fact that the risk premium for interest became zero. Due to the interest rate decline, banks developed mortgage loans, making it possible for people with low income to have a house with these loans. Consumer loans also became an active product. Bank consolidation moved forward, as the number of banks went from 937 banks in 1996 to 788, improving the stability of the financial system.

Challenges for Italy's Economy

Looking at the economy from both sides, on the demand side, the ECB is the decisive factor for interest rates and interest rates are coordinated not by one country, but because the objective is to hamper inflation throughout the whole region, it cannot be expected that Italy will lower the interest rate on the demand side. Also, it is no longer possible to coordinate exchange rates, and policies for increasing exports by devaluating the lira are not possible anymore. Only fiscal spending is possible by Italy. However, due to the 3% rule, there are limits. In that case, possible methods require that strength be increased on the supply side.

(1) Improving worker productivity, enhancing education and training, raising capacity, and although the labor market has come to recognized part-time workers, it is still not flexible.

(2) Increasing profit through rationalization, reducing expenditures, etc. Investment in the public sector is lacking. Generally speaking, corporate productivity is low. Rationalization is necessary on the supply side. To enhance competitiveness, investment in bio, high-tech and other new fields is necessary. However, under the current situation, it is inadequate.

(3) Due to the disappearance of the "Italian risk," capital flight has decreased. However, unconventional money appears to be as lively as ever (this is a political issue).

(4) Industry's international competitiveness is weak. Textiles and fashion are in a predicament due to cheap imports from China. In the euro area in the future, the challenge will be how Italy will be able to improve its international competitiveness. There is quite a sense of crisis in the government and related institutions. Unless Italian industry improves its international competitiveness, the export capability within the whole of the euro area will fall, bringing down the value of the euro. This is where the future euro crisis lies.

(4) The next problem is that Italy is comparatively expensive in some areas. The problem regards finance when Italian companies borrow from Italian banks ; it is that German companies are able to have a slightly lower interest rate with the same credit rating. Also, for legal fees, Italy is less expensive.

As for these kinds of situations, it can be said that although the introduction of the euro eliminated the country risk, Italy's risk is, however, actually still high. In this respect, there still remain barriers that cannot be resolved just by the currency.

With the introduction of the euro, the law of one commodity, one price has begun to

operate in part across national borders. Products that are the same everywhere, such as taxi fares, train fares, groceries and so on as well as products using simple labor have started to penetrate and level out. However, for knowledge-intensive industries, capital-intensive industries, technology-intensive industries et cetera, true international competitiveness will be reflected in price. This point was made quite clear in this survey.

Conclusion

The remaining great challenges are whether any of the EU states not participating in the euro, United Kingdom, Sweden or Denmark, will or will not participate in the euro, and when the euro reaches nations that desire to become new EU members, what will happen to it? Research on these points will be left for the next joint research project.