Section 2 European economy in chaos intensified by debt crisis

The European economy had been recovering modestly from a slump triggered by the global economic crisis in 2008, but business sentiment plunged reflecting the emergence of the European debt crisis and demand declined mainly due to tight fiscal policy of the governments of many countries to achieve fiscal soundness, resulting in an evident slowdown in the economy. In contrast, in Germany the economy has been relatively steady compared with other major countries; for example, there have been signs of recovery in some economic indicators. In this section, the current status of the European economy, which has recently been polarized as pointed out above, will be reviewed and its background will be examined. In addition, the intensification of chaotic trends in the European debt crisis and future challenges that the European economy is going to confront will be organized.

1. Overview (The European economy facing a business downturn)

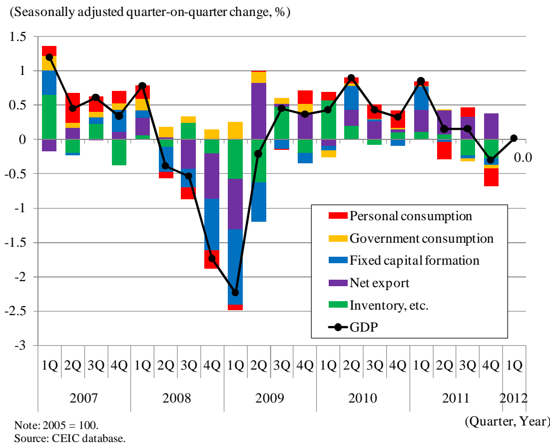
First, recent economic trends will be studied with a focus on major euro area economies hit by the European debt crisis.

(1) GDP

The seasonally adjusted real GDP growth rate in the 4th quarter of 2011 in the euro area recorded –0.3% quarter-on-quarter, falling to the first negative quarter-on-quarter growth in ten quarters since the 2nd quarter of 2009. By category of demand, each item of domestic demand, which are personal consumption (–0.4%), government consumption (–0.2%), and facility investment (–0.7%), decreased quarter-on-quarter, showing the seriousness of the decrease in domestic demand in the euro area (Figure 1-2-1-1). Although net exports appeared to support the argument for growth, its positive contribution was simply the result of the greater decreases to imports (-1.2%) when compared to exports (-0.4%), and it has become clear that there isn’t any single factor that will drive the economy in the euro area. Also, though the real GDP growth rate throughout 2011 managed to avoid negative growth thanks to the recovery by the time of the 1st quarter, it marked +1.5% year-on-year, slowing from +1.9% in 2010.

Figure 1-2-1-1

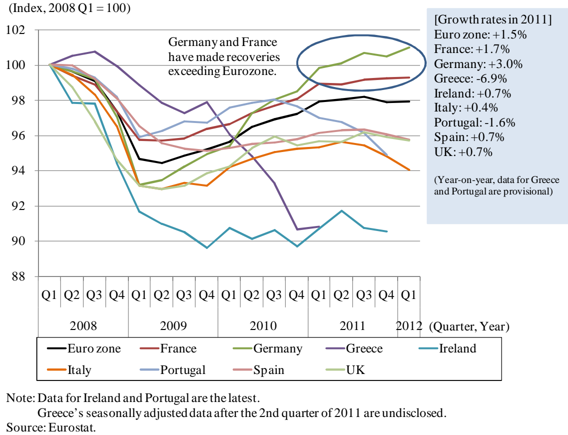
Real GDP growth rate in euro area



Many countries' economies have been sluggish.[24] For example, Belgium, Italy, and Holland marked negative growth quarter-on-quarter for the second consecutive quarter, which is considered to be a recessionary phase, and Portugal recorded negative growth quarter-on-quarter for the fifth consecutive quarter since the 4th quarter of 2010. In contrast, reflecting comparatively firm domestic demand centering on personal consumption, France was the only country that maintained positive growth (+0.2%) among the major countries. Looking at the trends in the indexes calculated against the real GDP in the 1st quarter of 2008 of major countries (set as the benchmark of 100%), France, along with Germany, exceeded the level of the euro area as a whole (Figure 1-2-1-2). According to the above figure, Germany, which recorded the first negative growth (–0.2%) quarter-on-quarter in eleven quarters since the 1st quarter of 2009, has exceeded France and has been the only major country at a high level beyond 100, markedly different from other major countries. In addition, Germany's real GDP growth rate throughout 2011 was 3.0%, far exceeding the 1.5% of the euro area average.

Figure 1-2-1-2

Real GDP growth rate of major euro area economies and the UK



Note: Data for Ireland and Portugal are the latest.
Greece's seasonally adjusted data after the 2nd quarter of 2011 are undisclosed.
Source: Eurostat.

(2) Production

The euro area's industrial production was recovering modestly after having bottomed out in the first half of 2009. However, in 2011, the European debt crisis was worsening partly because of the questions raised about Greece's debt restructuring, which brought the worsening of business sentiment and the lowering corporate demand for equipment investments. Thus, the pace of recovery became sluggish and the growth rate in 2011 year-on-year recorded +3.5%, slowing markedly from +7.4% in 2010. Reflecting the slight easing of market tensions caused by the refinancing operation for the banks with a maturity of 3 years implemented by the European Central Bank from the end of 2011 and the implementation of policy measures such as the strengthening of fiscal discipline and the organization/strengthening of the emergency response framework at the EU/euro area level (refer to

24 Incidentally, Greece's seasonally adjusted real GDP growth rates for each quarter have been undisclosed since the 2nd quarter of 2011.

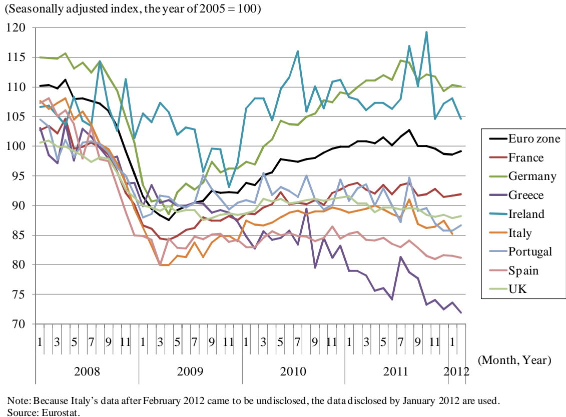
Chapter 3), recent production activities have again shifted towards a moderate recovery. However, they remain at the level of about 11% below the peak before the world economic crisis.

Though Germany has been stagnant lately reflecting a growing sense of the slowing of the world economy, it has almost recovered to the peak level of before the world economic crisis, owing to the strong exports to emerging economies including China. Ireland is steady as well, thanks to the multiple establishments of major foreign enterprises and strong exports of medical products, organic chemicals, etc.[25]

In contrast, southern European countries such as Greece, Spain, Portugal, and Italy have been slow to recover from the slump after the world economic crisis. In particular, Spain has remained at its lowest level comparable to immediately after the onset of the financial crisis, and Greece's production activities have been shrinking since the beginning of the financial crisis (Figure 1-2-1-3).

Figure 1-2-1-3

Industrial production index of major euro area economies and the UK



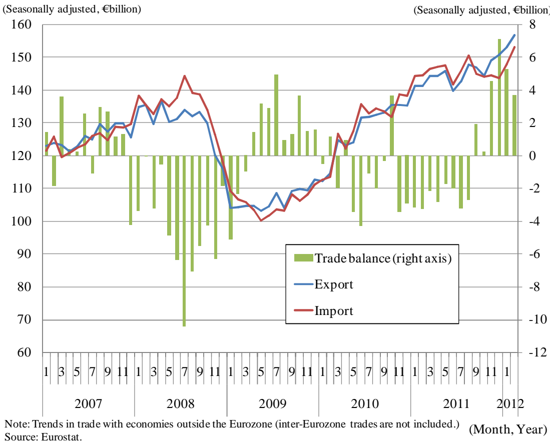
(3) Trade

The euro area's exports (outside of the region) have been accelerating mainly through firm demand of emerging economies including China and increasing export competitiveness due to the continuing weak euro in 2011, far exceeding the peak level before the beginning of the world economic crisis. Meanwhile, there is a comparable decrease in domestic demand mostly due to economic downturn and the implementation of austerity measures by major countries, centering on heavily indebted countries. Thus, recent trade balances have been recording surpluses (Figure 1-2-1-4).

25 Ireland's exports in 2011 showed a steady growth of +8.9% because the exports of medical products and organic chemicals, accounting for more than 50% of the total exports, were strong enough to record +15.8% and +10.8% year-on-year respectively.

Figure 1-2-1-4

Euro area trade balance with non-euro regions

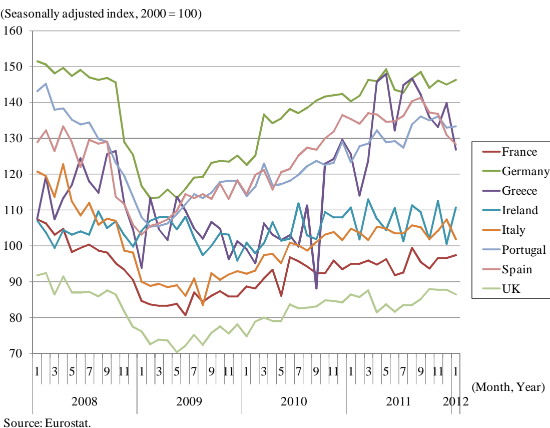


Note: Trends in trade with economies outside the Eurozone (inter-Eurozone trades are not included.)
Source: Eurostat.

Looking at the trends in trade of individual countries (Figure 1-2-1-5), while Germany has remained at a high level, supported by the exports of capital goods and transport equipment such as automobiles, the recoveries of France and Italy (refer to Chapter 2), which are highlighted for their deteriorating export competitiveness in comparison to Germany, have been slowing. Incidentally, Greek exports have increased remarkably since the latter half of 2010. This is attributed to the recent sharp export increases[26], in the context of worldwide growing demand for resources of petroleum products, accounting for about 30% of Greece's total exports, and aluminum, iron and steel and copper products, accounting for 15%. However, these industries have limited effects on inducing domestic production, and are unlikely to completely restore domestic production activities, which are shrinking due to the sharp decline in domestic demands.

Figure 1-2-1-5

Exports of major euro area economies and the UK



Source: Eurostat.

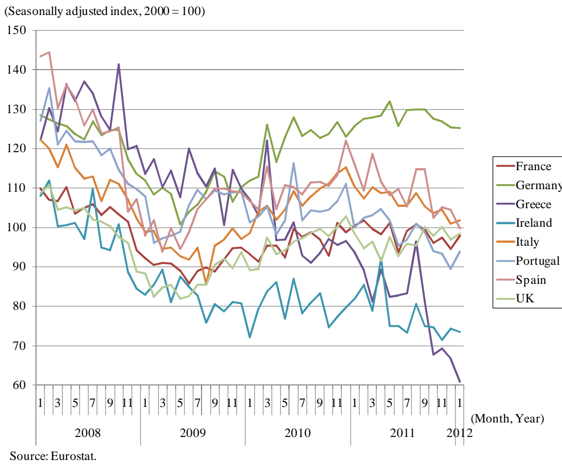
Exports have mostly recovered to the level before the world economic crisis. Imports (Figure

26 Greece's exports of petroleum products (HS Code Section 27) from January to November, 2011, increased dramatically by 337% compared to the same term in 2010.

1-2-1-6), in comparison, have been recovering with a slower pace and southern European countries like Greece, Ireland, and Portugal have been experiencing decreases. In contrast, Germany's imports remain at a high level in tandem with the increasing exports because, in addition to the relatively steady domestic demand, production networks were established with neighboring countries including Central and Eastern Europe in strong export sectors such as transport equipment.

Figure 1-2-1-6

Imports in major euro area economies and the UK



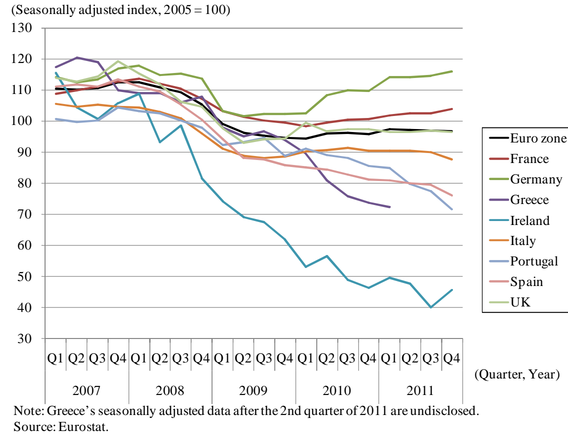
(4) Equipment investment

Reflecting the steady production activities, Germany's equipment investments have recovered nearly to its peak level before the world economic crisis. France as well, though with a slower pace compared to Germany, is on the track to recovery. By contrast, equipment investments of Ireland, Greece, Portugal, and Spain have been decreasing steadily since the financial crisis (Figure 1-2-1-7). In Ireland and Spain, corporations' debt balances swelled through the housing/real estate bubble in the 2000s (refer to Section 3), and remained high at about 190% and 140% of GDP[27] respectively, as of 2010 (Figure 1-2-1-8). Under these circumstances, the strong pressure to balance budgets seems to be discouraging investment.

27 In this section, "ratio to GDP" indicates ratio to nominal GDP.

Figure 1-2-1-7

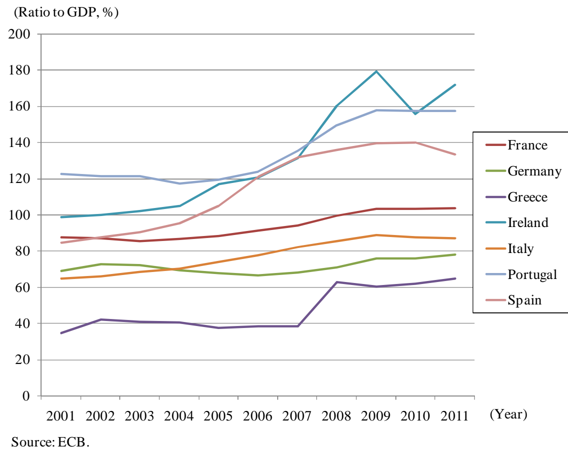
Equipment investment in the major euro area economies and the UK



Note: Greece's seasonally adjusted data after the 2nd quarter of 2011 are undisclosed.
Source: Eurostat.

Figure 1-2-1-8

Corporate debt balance in major euro area economies



Source: ECB.

Looking at the euro area as a whole, equipment investment, after dropping significantly, mirroring the world economic crisis, have been at a near standstill for about three years.

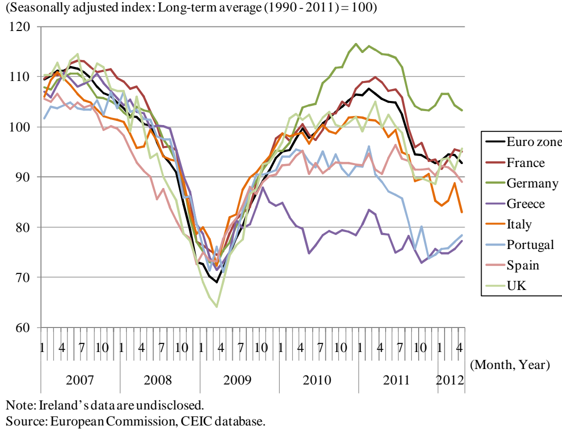
(5) Business sentiment

The euro area's business sentiment index fell sharply in the latter half of 2011 as the European debt crisis became more serious. In 2012, though having been kept from further losses, it has not shown signs of improvement.

Looking at the trends of individual countries, triggered by the emergence of the European debt crisis due to the exteriorization of Greece's public finance statistics in October, 2009, business sentiments in major countries, which were strongly linked until then, have varied widely (Figure 1-2-1-9). Greece and Portugal, both of which require strict finance reconstruction under the support program of the EU and the IMF fell terribly (refer to Section 3). Italy's drop is also evident, in which, under the Monti administration, financial reconstruction and labor market reforms are in progress (refer to Section 3).

In contrast, though the German economy fell substantially in the latter half of 2011, when the European debt crisis got more serious, and has recently grown at a sluggish pace, it is the only country among major euro countries that is at a level exceeding the long-term average.

Figure 1-2-1-9
Business sentiment in major euro area economies and the UK



Note: Ireland's data are undisclosed.
Source: European Commission, CEIC database.

(6) Employment

The euro area's unemployment rate reached 10.8% as of February 2012, the worst ever since the launch of the euro (Figure 1-2-1-10). Among these, the unemployment rates of Spain and Greece have sharply risen in 2011, and, in 2012 as well, the situation remains where it is practically impossible to stop the deterioration of employment conditions. In both countries, youth unemployment is a serious problem. The youth unemployment rate under the age of 25 was 50.5% as of February 2012 in Spain and 50.4% as of December 2011 in Greece, which means more than one in every two youths are unemployed (Figure 1-2-1-11). The factors contributing to Spain's high unemployment rate include the fact that unemployment of non-regular employees has been mirroring the economic slowdown, as a consequence of the increased percentage of non-regular employment[28] (limited time employment) by enterprises responding to peak labor cost resulting from inflexible labor practices, and also that the construction industry, which drove the robust economy in the 2000s, has been shrinking severely[29] because of the collapse of the housing bubble and the decreasing public works due to fiscal austerity. In the present circumstances, where the European debt crisis is escalating, the Spanish government is forced to further tighten fiscal expenditure, and, therefore, there is no hope of increased employment opportunities through public works. As described above (2), production activities are stalling and it is unlikely that the employment situation will improve for the time being. The unemployment rates of Portugal and Italy are also exhibiting a rising trend, both of which can be explained by tight fiscal

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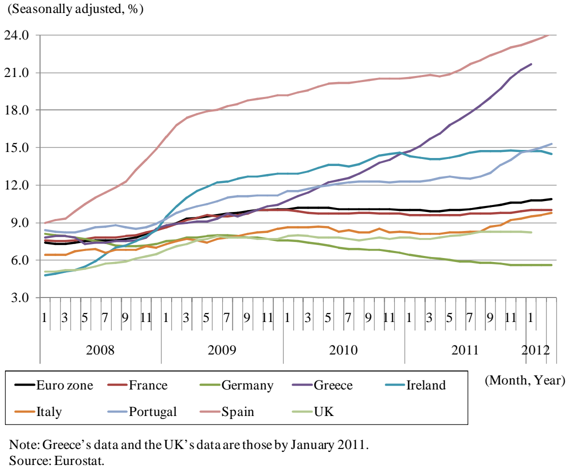
28 According to the Statistical Office of the European Communities, the share of limited term employees in all employees in Spain between 15 and 64 years of age was 21.4% as of the 2nd quarter of 2011, at a higher level compared to 13.4% of the euro area as a whole.

29 According to the Statistical Office of the European Communities, the number of employees in Spain's construction businesses was 1.37 million as of the 3rd quarter of 2011, decreasing by nearly half of those (2.66 million) as of the 1st quarter of 2008, before the world economic crisis.

restraints for the fiscal reconstruction that is leading to further deterioration of the employment situation.

Figure 1-2-1-10

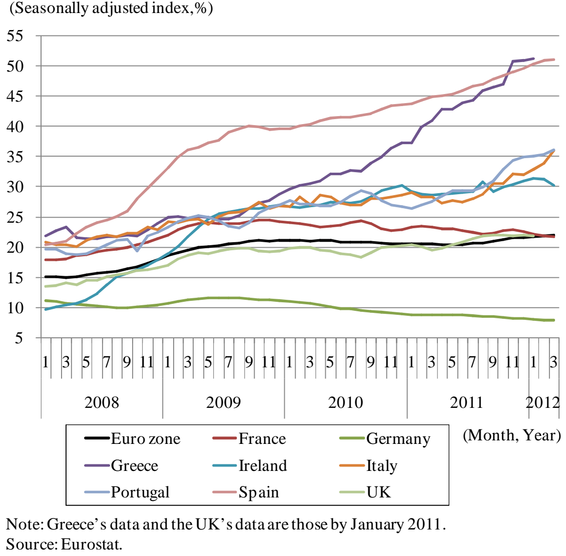
Unemployment rate in major euro area economies and the UK



Note: Greece's data and the UK's data are those by January 2011.
Source: Eurostat.

Figure 1-2-1-11

Unemployment rate of young people (under the age of 25) in major euro area economies and the UK



Note: Greece's data and the UK's data are those by January 2011.
Source: Eurostat.

In contrast, the employment situation in Germany alone (where production activities are strong -- centered on manufacturing) has been improving, remaining at the lowest level since the reunification of East and West Germany in 1990, while the unemployment rates of other major countries increased in 2011.

(7) Personal consumption

The indexes of the euro area's retail sales showed slower improvements as a consequence of the

emergence of the European debt crisis at the end of 2009, and have continued to decline since 2011 when the debt issue became more serious. Especially in Greece, Spain, Portugal, Italy, and others, the downward trend is evident. Contrastingly, France and the UK have been showing steady increases exceeding the level before the outset of the world economic crisis in 2008, and Germany has been recovering modestly after bottoming out in the first half of 2009 (Figure 1-2-1-12).

Observing the trends in car sales in each country, new car registrations in 2011 in Germany were 3.17 million units, representing an 8.8% year-on-year increase, and Germany was the only country among major countries that recorded positive growth year-on-year along with Ireland (90 thousand units, increasing by 1.6% year-on-year). Those of France and the UK remained nearly level. Meanwhile, those of Greece and Spain dropped dramatically, decreasing by 65% and 50% respectively from 2007 before the outset of the world economic crisis (Figure 1-2-1-13).

Figure 1-2-1-12

Retail quantity index in major euro area economies and the UK

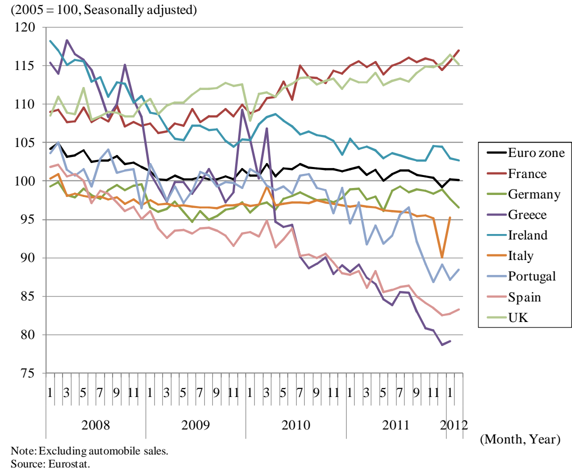
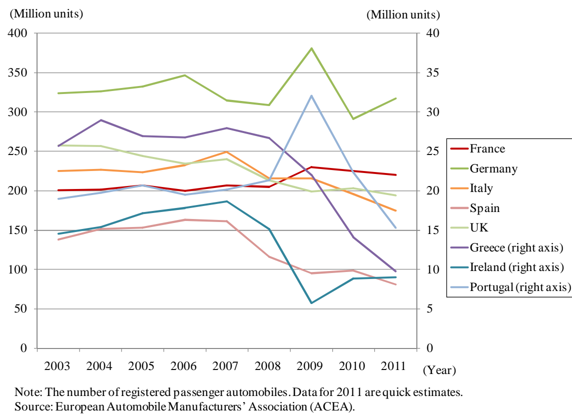


Figure 1-2-1-13

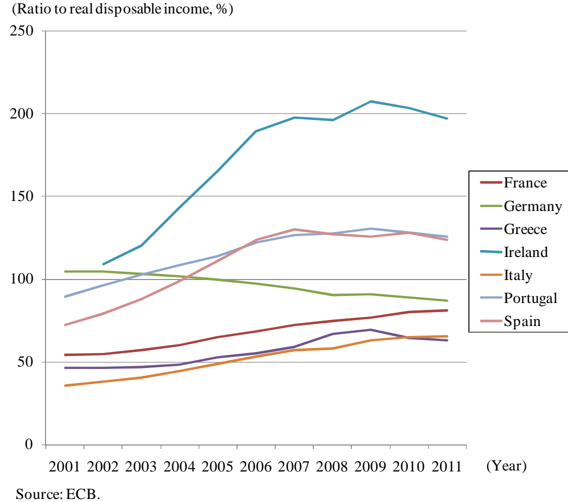
New car registration in major euro area economies and the UK



One reason why the trends in personal consumption vary with individual countries is that there is a

large difference of households' debt balance between the countries. Debt balance remains at 90% or below of the real disposable income in countries where personal consumption is comparatively steady. In contrast, that of Ireland is at over 200% and those of Portugal and Spain are at about 130% each, which have attained a level exceeding that of U.S. households[30] similarly holding a large amount of debt due to the collapse of the housing bubble. These numbers tell that the households of these countries face the high pressure of balance sheet adjustments. (Figure 1-2-1-14).

Figure 1-2-1-14
Household debt balance of major euro area economies



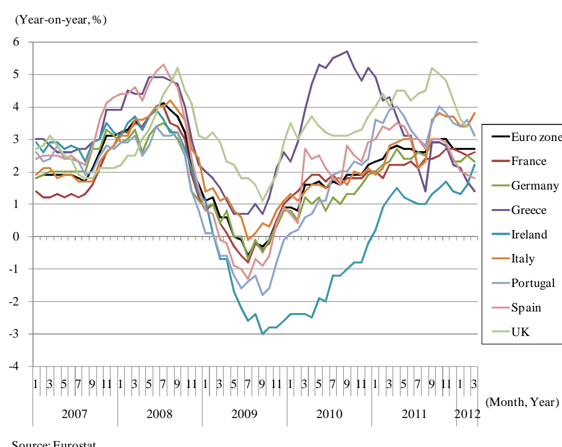
(8) Price

Consumer price (Figure 1-2-1-15) is on an upward track after bottoming out in 2009, and the increase in consumer price index rate in the euro area at one point showed a 3% year-on-year increase, after the fall in 2011, far exceeding the 2% that the European Central Bank set as a numerical target . Thereafter, since the end of 2011, inflationary pressure has been controlled, mainly reflecting the backlash to the increase in commodity prices in the first half of 2011 and the decreasing demand due to the escalation of the European debt crisis. In each country, inflationary pressure has also been controlled as a whole, but the increasing rate in consumer price indexes in the UK, Italy, and Portugal is about 3.5%, a high level compared to other major countries.

30 According to the U.S. Federal Reserve Board (FRB), the debt balance of U.S. households as of the end of 2011 were at 118.7% to GDP.

Figure 1-2-1-15

Consumer price growth rate of major euro area economies and the UK



Source: Eurostat.

(9) Economic outlook of various institutions

According to the Interim Forecast[31] published by the European Commission in February 2012, after entering a recessionary phase from the 4th quarter of 2011 through the 1st quarter of 2012, the euro area economy is expected to begin to recover from the latter half of 2012 underpinned by the increase of internal demand. It is also expected that, in addition to the growth in external demand, the increase of real income due to the decreasing prices of commodities and the decline in interest rates due to the ECB's monetary easing and other measures will shore up internal demands. Meanwhile, the pace of recovery is expected to be moderate because of growth inhibiting factors including the banks' reluctance to lend, reflecting the escalation of the European economic crisis, the fiscal restraint of each country, and, moreover, the continuing balance sheet adjustments in the private sector. On a full-year basis, the European Commission and the IMF forecast that the euro area's real GDP growth rate in 2012 will exhibit year-on-year negative growth of –0.3%. In 2013, according to the IMF and OECD, it will recover to 0.9% and 1.4% respectively (Figure 1-2-1-16).

Table 1-2-1-16

Economic outlook of various institutions for major euro area economies and the UK

(Real GDP growth rate, Year-on-year change, %)

		European Commission (February 2012)		IMF (April 2012)		OECD (November 2011)	
		2012	2013	2012	2013	2012	2013
Euro zone		-0.3	-	-0.3	0.9	0.2	1.4
	France	0.4	-	0.5	1.0	0.3	1.4
	Germany	0.6	-	0.6	1.5	0.6	1.9
	Greece	-4.4	-	-4.7	0.0	-3.0	0.5
	Ireland	0.5	-	0.5	2.0	1.0	2.4
	Italy	-1.3	-	-1.9	-0.3	-0.5	0.5
	Portugal	-3.3	-	-3.3	0.3	-3.2	0.5
	Spain	-1.0	-	-1.8	0.1	0.3	1.3
UK		0.6	-	0.8	2.0	0.5	1.8

Note: IMF's forecasts for Ireland, Greece, and Portugal were those as of September 2011.
European Commission's forecasts didn't include the data for 2013.
Source: Materials published by various institutions.

31 The European Commission publishes a detailed economic forecast every spring and autumn, and also publishes a simplified forecast once a year as an "Interim Forecast" between the publications of the detailed economic forecasts.

However, these recovery scenarios are based on the premise that the European debt crisis will not worsen, and if the situation becomes more serious as occurred in the spillover of market concern over Italy and Spain, there is concern that the pace of economic recovery will slow further. By country, it is also necessary to note that there is a large gap in the pace of recovery between France, Germany, and the UK, which are expected to continue to show positive growth in 2012 as well, and the heavily indebted countries such as Italy, which are expected to exhibit negative growth for two consecutive years in 2012 and 2013.

Reviewing the economic trends in major countries above, Germany's stability is distinguished in many sections such as production, export, employment, and consumption, and the gap between Germany and other countries, which are exhibiting stagnation as a whole despite a few exceptions depending on indexes referenced, is becoming distinct. What is behind this recent trend of polarization of economies within the euro area? In the following section, verification will be conducted from medium- and long-term viewpoints, using annual data of France, Germany, Italy, and Spain, the four biggest countries[32] composing the majority of the euro area.

2. Background of spreading economic gaps in the euro zone

(1) Overview of industrial structure

First, as a prerequisite for verifying the international competitiveness of France, Germany, Italy, and Spain (hereinafter referred to as "the four countries"), the current shape of industrial structures will be reviewed. In Figure 1-2-2-1, the X axes represent the share of each industry to the total employees and the Y axes represent added values per employee by major industry of the four countries, based on the figures relating to national economic accounts of EU member countries prepared by the Statistical Office of the European Communities.

Germany's manufacturing industry is larger in general than those of the other three countries, demonstrating the high proportion of the manufacturing industry to added values in its overall economy.

Compared to that of Germany, the areas allocated to the service industry in France and Spain are larger. In particular, France is characterized by the high proportion of the employees in the real estate business and remarkably high added values per employee. The added values per employee in the service industry[33] in France is generally higher than that of Germany and, the added values of its manufacturing business are as high as those of Germany's manufacturing businesses, suggesting the comprehensively high productivity of France's industries. Spain is marked by its high-impact construction business and hotel/restaurant business and significantly high added value per employee in the finance industry compared to that of the other three countries. While the proportion of the

32 According to the Statistical Office of the European Community, the share of France, Germany, Italy, and Spain to the nominal GDP of the euro area in 2010 was 77% and the share of these four countries to the population of the euro area was 76%. Thus, these four countries represent the majority of the euro area in terms of both economic size and population.

33 In Figure 1-2-2-1, the "Service industry" refers to the section from "Wholesale, Retail" to (moving to the right) "Other Services," and "Manufacturing industry" refers to the section from "Food manufacturing" to "Other Manufacturing."

employees in Italy’s manufacturing business is as high as that of Germany, its added value per employee is, as with the case of Spain, lower than those of Germany and France. The added value per employee in the service industry is higher than that of Germany in general but, at the same time, inferior to that of France. Thus, it is hard to find a prominent industry to drive the economy.

(2) Major indexes of competitiveness

Next, the four countries’ changes in international competitiveness will be examined based on the various indexes of competitiveness.

Looking at the trends in the labor cost per unit, examining the labor cost it takes to produce a unit of GDP in order to compare the four countries’ cost competitiveness (Figure 1-2-2-2[34]), while having risen 20–40% in the other three countries, in Germany, labor costs have been relatively constant since 2000. This containment of the labor cost increase deserves special attention in light of Germany’s history as well as from an international perspective[35]. Germany has been suffering from a chronic economic slump and a high unemployment rate in excess of 10% since the reunification of East and West Germany in 1990. Factors affecting unemployment were the fact that incentives for employment were discouraged by high costs for the enterprises, such as strict restrictions on dismissal, rigidity of wages, and handsome employment insurance and unemployment benefits[36]. The Schröder administration, which came to power in 1998, accelerated labor market reforms after his reelection in 2002, implementing a series of reforms underpinning a flexible labor market, including shortening the periods of unemployment benefits (shortening the period from the previous 32 months to 12 months for those 55 years old or younger, to 18 months to those over 55 years old), the partial introduction of limited term employment, and the authorization of private employment placement businesses[37]. Also, the business community, mindful of the progress of globalization and intensifying international competition caused by the launch of the euro[38] since 1999, have advanced employment flexibility[39] by the introducing a “working hour corridor model” that allows a certain range of extension/reduction of working hours in line with the economic conditions and a “working hour accounting system” that can variably redistribute set working hours previously decided in a labor agreement. Thereafter, in Germany, labor costs were contained especially in manufacturing (Figure 1-2-2-2), and its export

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34 For use in relation to the European debt crisis as well discussed below in this chapter 3, this figure, Figure 1-2-2-5, Figure 1-2-2-17, and Figure 1-2-2-19 diagrammatize the figures of seven countries consisting of the four major countries in the euro area and added Greece, Ireland, and Portugal where the debt crisis is escalating.

35 OECD (2012)

36 Ito (2003)

37 Tanaka and others (2011)

38 Euro, the single currency, had been introduced in non-physical form as the currency for settlement among the original 11 member countries (Germany, France, Belgium, Holland, Luxembourg, Austria, Finland, Ireland, Italy, Spain, and Portugal), and, from January 2002, was put into circulation as cash currency.

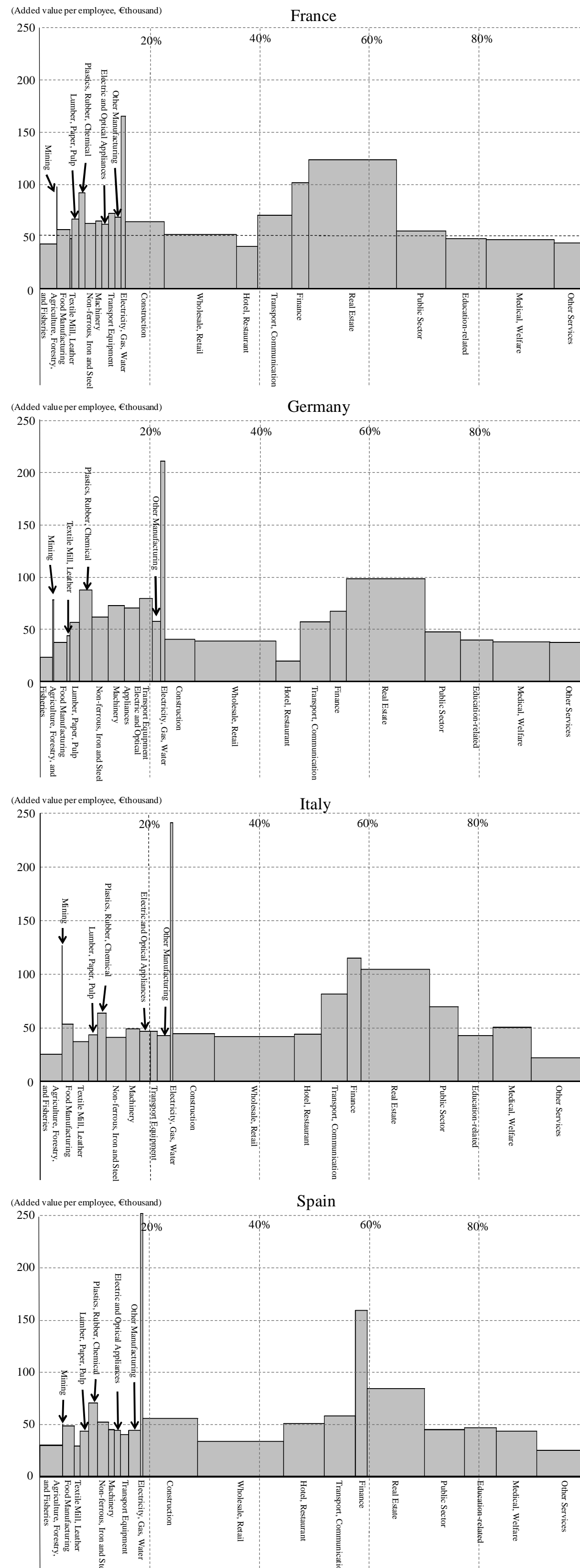
39 As to the “working hour corridor model”" and the “working hour accounting system,” their detailed information can be found on the website of The Japan Institute for Labour Policy and Training (http://www.jil.go.jp/).

competitiveness has continued to increase[40]. Concerning the increased ratio of consumer prices, comparing the averages of the four countries between 2000 and 2007, which is just prior to the shrinking of gaps between major countries due to the recession caused by the onset of the world economic crisis, Germany recorded only a 1.6% increase, the most manageable figure recorded.

40 That the rise in unemployment rate remained slight at the time of the world economic crisis from 2008 to 2009 is believed to be a result of the labor market reforms (OECD (2011), OECD (2012)).

Figure 1-2-2-1

Per-capita added value and number of employees by major industry of four major euro area countries

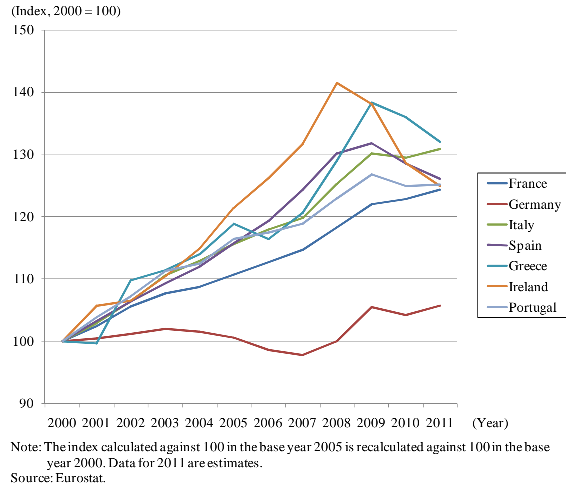


Note: France's data and Germany's data are based on figures from 2008, and Italy's data and Spain's data are based on figures from 2009.

Source: Eurostat .

Figure 1-2-2-2

Unit labor cost in major euro area economies



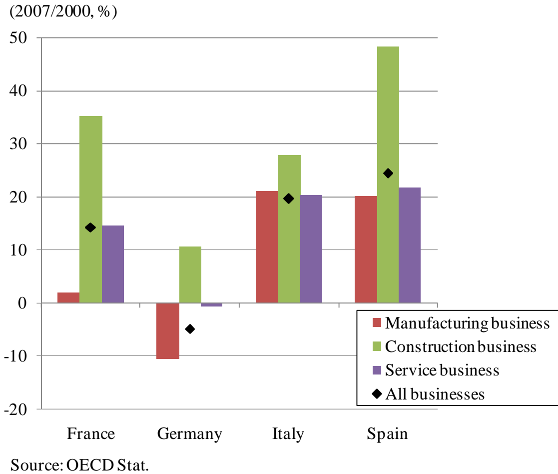
Note: The index calculated against 100 in the base year 2005 is recalculated against 100 in the base year 2000. Data for 2011 are estimates.
Source: Eurostat.

In contrast, France, Italy, and Spain have left prior and existing employment protection systems untouched, and have maintained a minimum wage level. In terms of the change in the rates of unit labor costs by industry (Figure 1-2-2-3), in France, though the rise in cost in the manufacturing industry is relatively contained, those in the construction industry and service industry are pushing up the overall cost. In Italy and Spain, labor costs are largely increasing in all industries. Comparing the increased ratio of consumer prices in the same way as with Germany above, France is 1.9%, Italy is 2.4%, and Spain is 3.2%.

"Unit labor cost" is the index calculated by dividing increases in wages by the increases in rates of productivity, and, therefore, even if wages increase, as long as the increase in productivity exceeds the increase in wages, the unit labor cost decreases. Because the increased rates of productivity of France, Italy, and Spain are well below their increases in wages (Figure 1-2-2-4), the gap between them and Germany, where the increase in productivity exceeds the increase in wages, has been steadily increasing. Incidentally, comparing labor productivity at the absolute level, according to the survey by the Statistical Office of the European Communities in 2010, the labor productivity per hour of France was the highest at €46.3, followed by Germany's €41.5, Italy's €32.4, and Spain's €30.2, making it clear that Italy and Spain were far behind France and Germany (Figure 1-2-2-5).

Figure 1-2-2-3

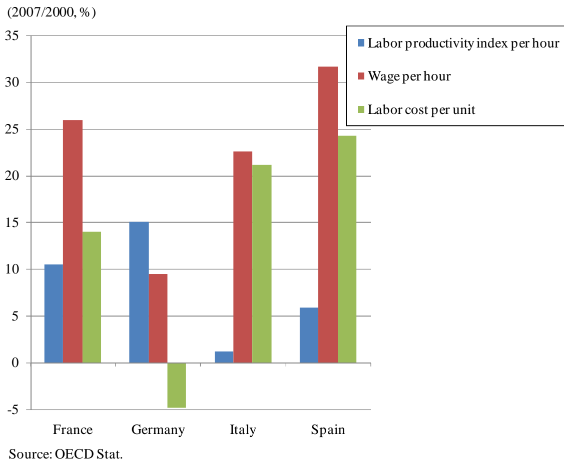
Change in the unit labor cost by industry in the four major euro area countries



Source: OECD Stat.

Figure 1-2-2-4

Change in the wages and productivity in four major euro area countries



Source: OECD Stat.

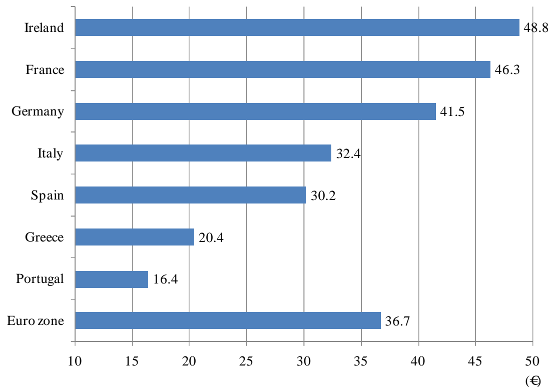
In the theory of "optimum currency area,"[41] it is a requirement that the disparities in the region are automatically corrected through the movements of labor across national borders, if the labor markets of the participating countries in the single currency are flexible. If the movements of labor within the region had taken place as smoothly as interstate movements in the U.S., or ultimately the inter-prefectural movements in Japan, the widening disparity of wages would have been contained by

41 On the precondition that "It is desirable for the countries with close economic relationships to share a single currency to hedge the influences of exchange rate fluctuations, " The theory of optimum currency area is the theory that endeavors to find the measures to supplement the function of the currency exchange adjustment and the optimum geographical size when multiple countries are united under a single currency and a strictly fixed exchange rate and when the member countries let go of that function. As main preconditions of "optimum currency area," economic openness (degree of integration of goods markets), mobility of production factors, homogeneity of economic structure, and others are discussed (The Ministry of Economy, Trade and Industry (2011)).

the movements of labor into the countries with higher wages. However, as seen in Figure 1-2-2-6, the unemployment rates of 17 countries in the euro zone vary widely centering on geographically distant countries with a small economic size, and no major changes had been seen in this trend throughout the 2000s[42]. This forms a contrast to Japan where the disparity of unemployment rates among all prefectures is within the range of 4%. Although the free movement of workers within the EU were possible by law[43], little progress was actually made in the movements of workers within the region[44] mainly due to language barriers, and social security systems and labor regulations differing from one country to another, failing to contain the widening disparity of labor cost among all countries.

Figure 1-2-2-5

Per-hour labor productivity in the four major euro area countries (2010)



Source: Eurostat.

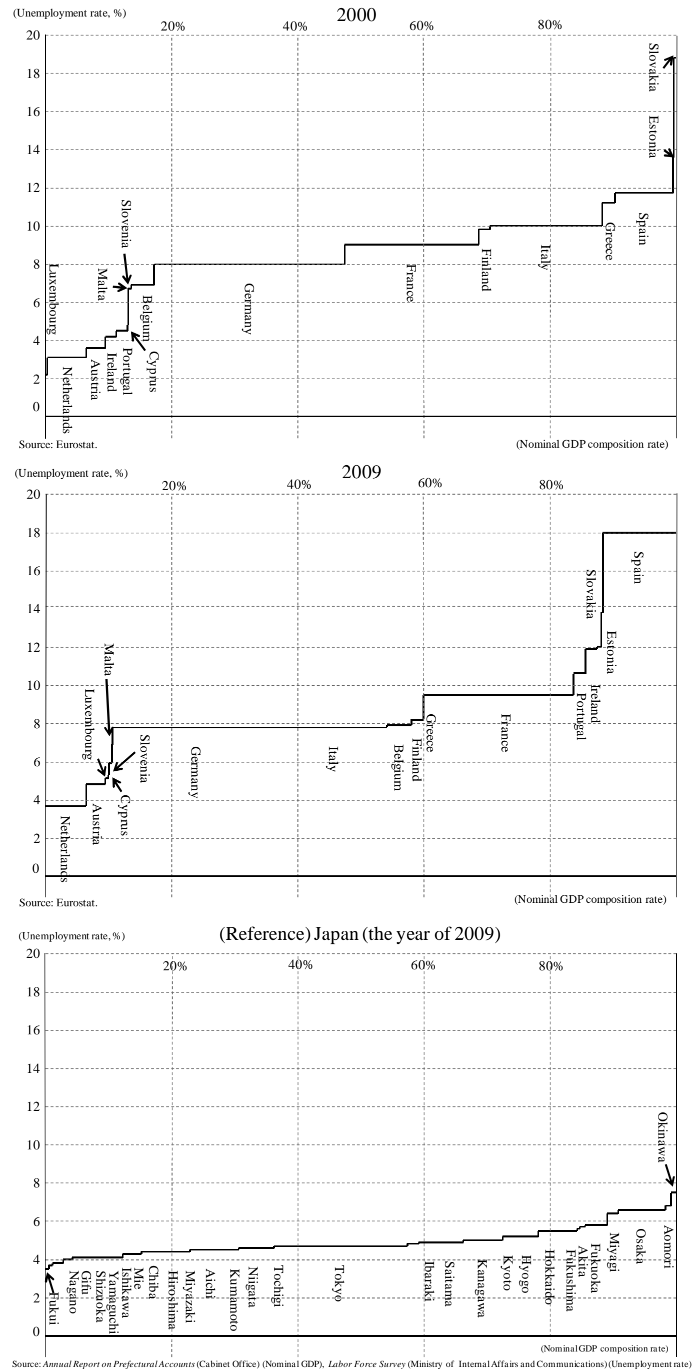
42 However this figure shows one-year, territorial distributions, and it is necessary to note that the variable factors which depend on economic conditions in that year and the policy responses like employment adjustment subsidies, are included.

43 Article 45 of the Treaty on the Functioning of the EU (Treaty of Lisbon) guarantees "The securing of freedom of movement for workers."

44 The European Commission (2012b). According the EU's research, in the working-age population (15–64 years of age), the ratio of those who live in EU member countries outside their home country remained at 2.8% as of 2010.

Figure 1-2-2-6

Ratio of unemployment rate and nominal GDP in 17 euro area economies



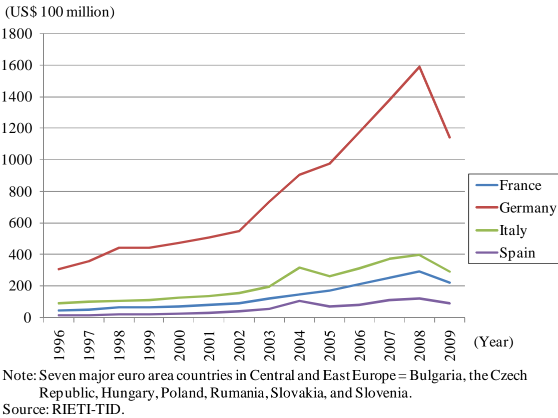
Furthermore, towards the improvement of the cost-competitiveness of Germany, with the EU's expansion to the East (refer to this section 4.(1)) in mind, the development[45] of a construction network centering on automobile industries and the field of electric and electronic equipment in Central and

45 In the euro area, as a pan-European production network, the enterprises of Western Europe countries centering on Germany made an advance into Eastern Europe countries and have come to form the production network at a low cost, which is developing as all-Europe economic area.

Eastern Europe where low-cost production is possible[46] has also been an advantage. Looking at the trends in intermediate goods trade (total amount of export and import) between the four major euro area countries and seven major euro area countries in Central and East Europe, while Germany's value of trade has swiftly expanded from the early 2000s, though those of France and Italy have also been on an increasing trend, they trail Germany by a wide margin in total value.

Figure 1-2-2-7

Intermediate goods trade between four major euro area countries and seven major euro area countries in Central and East Europe



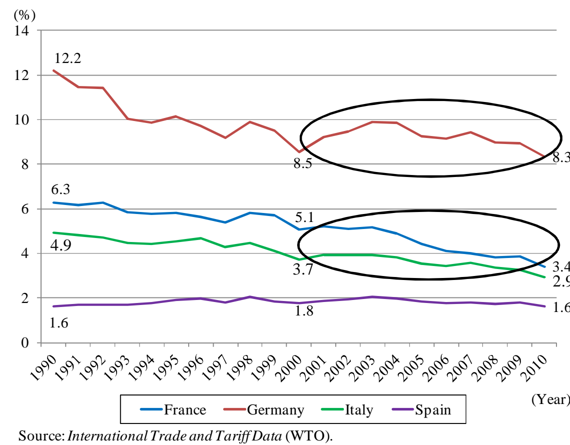
Note: Seven major euro area countries in Central and East Europe = Bulgaria, the Czech Republic, Hungary, Poland, Rumania, Slovakia, and Slovenia.
Source: RIETI-TID.

The discrepancy in export competitiveness between the four countries above throughout the 2000s is reflected in their respective share of the world's total export values. France's share and Italy's share declined from 5.1% and 3.7% in 2000 to 3.4% and 2.9% in 2010 respectively, but Germany's share maintained almost the same level (Figure 1-2-2-8).

46 According to the 2007 data compiled by the Statistical Office of the European Communities, while Germany's labor cost per hour was €27.8, the average labor cost of the seven major countries in Central and Eastern Europe (Bulgaria, Czech, Hungary, Poland, Romania, Slovakia, and Slovenia) was €6.5.

Figure 1-2-2-8

Ratio of exports of goods to world exports of goods of four major euro area countries



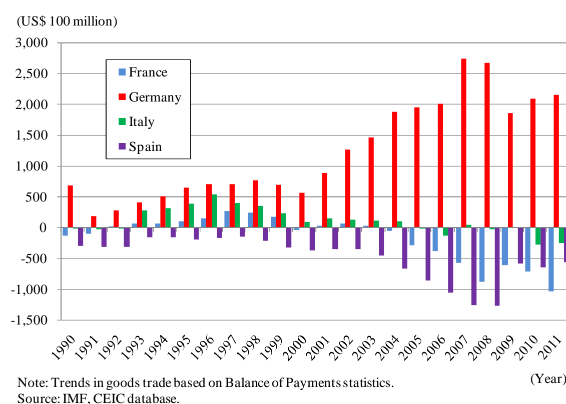
Source: *International Trade and Tariff Data* (WTO).

(3) Growing imbalances in trade balance/current account balance

The discrepancy in export competitiveness among the four countries heavily colors the changes in the trade balance. While Germany, which maintained a constant trade surplus, had sharply increased the surplus margin until 2007 before world demand suddenly dropped due to the world economic crisis in 2008, France, which had similar surpluses in 1999 as in the case of Germany, fell into the red in 2004 and its deficit margin increased until 2007. Italy's trade surpluses shrank in the 2000s and its trade deficits have been level in recent years. Spain had been posting deficits regularly and, in the 2000s, quickly expanded their deficit margins (Figure 1-2-2-9). Changes in the trade balances were reflected in the current account balances. Germany, having recorded deficits in the 1990s, shifted to surpluses in the 2000s and the surplus margin steadily increased until 2007, but France and Italy fell into the red and Spain's deficit rapidly expanded until 2007. In recent years, Germany's current account surpluses and the other three countries' current account deficits have nearly balanced each other out (Figure 1-2-2-10).

Figure 1-2-2-9

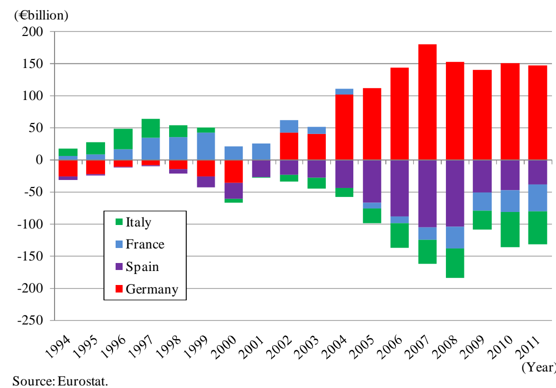
Trade balance of goods of the four major euro area countries



Note: Trends in goods trade based on Balance of Payments statistics.
Source: IMF, CEIC database.

Figure 1-2-2-10

Current account balance of the four major euro area countries



Source: Eurostat.

Generally, under the floating rate system, if current account deficits expand, export competitiveness will be improved by a devaluation of the currency, leading to the recovery of the current account balance. But, since euro members delegate exchange policies and financial policies to the European Central Bank, individual members may not make exchange rate adjustments independently. In the early days of the euro, it was expected that the account imbalances between euro members would be improved by the progression of reforms strengthening international competitiveness by current account deficit countries, while they bought time using financing from current account surplus countries to make up their deficits, which had become easier thanks to the disappearance of the risk of exchange rate fluctuations within the region due to the introduction of the euro as a single currency. Although it was also expected that the introduction of common rules[47] such as fiscal discipline would encourage the convergence of economic fundamentals among participating members, because the introduction of the euro enabled current account deficit countries to be easily financed [48]from abroad when needed. The incentives for structural reform, on the contrary, were greatly weakened. As the current account imbalance among major countries widened, it has become apparent that, contrary to expectations, the introduction of the euro contributed to the widening of the gap between countries. Since the improvement of export competitiveness due to currency depreciation can no longer occur in

47 In the introduction of the euro as a single currency, under the Maastricht Treaty, the following four criteria should be fulfilled: (1) Stable prices (the inflation rate of the applicant country is no more than 1.5 percentage points higher than the average of the three best performing member states of the EU), (2) Proper level of interest (the yield rate of long-term government bonds of the applicant country must not be more than 2 percentage points higher than in the three lowest inflation member states), (3) Exchange rate stability (an applicant country should be a member of the European Monetary System (EMS) and should have maintained a proper fluctuation range and should not have devalued its currency in the latest two years, (4) Balanced budget (the ratio of the annual government deficit to GDP must not exceed 3% and the ratio of gross government debt to GDP must not exceed 60%) (The Ministry of Economy, Trade and Industry (2011)).

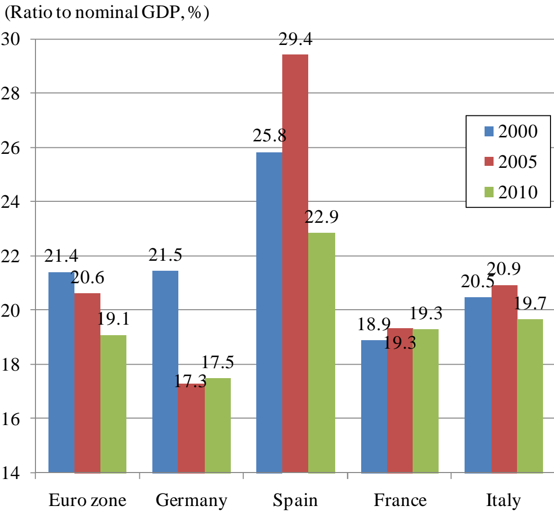
48 Mainly reflecting that it became possible to invest without exchange risks thanks to the introduction of the euro, the financial institutions of core countries headed by Germany increased credit to neighboring countries, all of which are current account deficit countries, such as Greece. Refer to this section 3.(1) for more details.

this environment, current account deficit countries in the euro area were required to expand their exports through further promotion of economic structural reform and the strengthening of industrial competitiveness, and to minimize the deficit margin.

Incidentally, the swift expansion of Germany's current account surpluses was attributed to, other than those factors mentioned above, the historical high household savings rate[49], the containment of wage increases through reform of the labor market, and the expansion of excess savings throughout the country, meaning that investment/consumption grew slowly mainly because organizations restrained domestic investment while accelerating investment in Central and Eastern Europe. Comparing the ratio of fixed capital formation of the four countries to nominal GDP in 2000, 2005, and 2010 (Figure 1-2-2-11), Germany marked 21.4% in 2000, exceeding France and Italy and was at about the average level in the euro area, but, in 2010, declined to 17.5%[50], the lowest among the four countries. Germany's surplus increase in trade balance/current account balance due to the slow increase in investment/consumption is considered a factor for the widening trade balance/current account imbalance within the euro area, and, at a finance ministers meeting of the euro zone held in March 2010 - even though the name of the country was not directly mentioned - a report[51] was compiled stating that any current account surplus country in the euro area had to promote structural reform for the strengthening of domestic demand.

Figure 1-2-2-11

Ratio of the fixed capital formation of the four major euro area countries to GDP



Source: European Commission database (AMECO).

49 By a survey of the European Commission, the average of Germany's household saving rates from 2000 to 2010 was 16.3%, far exceeding 14.1%, the average of the euro area. For comparison, those of France and Italy were 16.3% and that of Spain was 12.1%.

50 However, the year-on-year increasing rate of the total amount of the fixed capital formation (nominal value) has been improving since the latter half of the 2000s, and it recorded +5.9%, largely increasing from 0.7% in 2005.

51 European Commission (2010).

(4) The decomposition of trade balance by country and by item

Next, let us verify the changes of international competitiveness of the four major countries from the aspect of trade structure. As a prerequisite, export items and export counterparts of the four countries as of 2011 will be identified. Looking at main export items (Figure 1-2-2-12), machinery, automobiles, and electric appliances comprised 44.4%, nearly half of Germany's exports, and the share of chemical goods such as medical and organic chemical goods and optical appliances was high. Additionally, by categorizing all goods exports into five groups by production process, the share of capital goods, which are considered the most skill-intensive, was 19.2 as of 2010 in Germany, the highest among the four countries (France was 16.4%, Italy was 16.6%, and Spain was 9.2%) [52]. The share of machinery, automobiles, and electric appliances was 28.7% in France, the lowest in the four countries, and its structures of export items ranged widely from industrial products like chemical goods and aircraft to processed food, cereal, and dairy goods. In Italy, the share of machinery, automobiles, and electric appliances was 33.6%, second only to Germany, and the exports of furniture, leather products, and footwear were prosperous, while the share of machinery was as high as 20.1%. The share of automobiles was the highest in Spain among the four countries, and the exports of processed food, fruits, vegetables, and others were also prosperous.

In terms of major export counterpart countries/regions (Figure 1-2-2-13), Spain's export dependency on the EU was the highest at 69.6%. This is seemingly because the enterprises of other major EU countries actively advanced and developed a production network after the 1980s, reflecting the cheaper production cost compared to other major EU countries such as Germany and France and the advancement of infrastructure construction utilizing an EC subsidy[53], which was granted to Spain, having been late to enter the European Community (EC) in 1986. Many of the exports to emerging economies were to neighboring regions such as Morocco and Algeria, and its exports to Latin America were prosperous as well because of the depth of the historical relationships as a former colonial power. Italy's export dependency on the EU was the lowest among the four countries and, compared to Spain, it promoted its exports to emerging economies like Asia, Latin America, the Middle East, and Africa. However, its share of exports to China, the biggest emerging market, was low, relative to Germany and France. The share of Germany's exports to the U.S. and China was the highest among the four countries and industrial countries accounted for a relatively large portion of its exports. Additionally, its exports to emerging economies seemed to be centered on markets with big populations like the BRICs nations and South Africa. France, as with Germany, exported a relatively large portion to industrial countries and actively exported to emerging economies such as Algeria, Morocco, and the UAE in the Middle East and Africa.

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52 Calculated based on the Rieti-Tid 2011 database.

53 Beginning with the European Agricultural Guidance and Guarantee Fund (accepted after joining in 1986) under the Common Agricultural Policy, the Structural Fund (European Regional Development Fund and European Social Fund) structured in 1987, responding to the accession of Spain and Portugal in the 1980s, and the Cohesion Fund established in 1994 along the lines with the Maastricht Treaty that set its eyes on the expansion of Eastern Europe. The net average of money received from these Funds from 1996 to 2003 reached 1.1% of GDP (Kusunoki (2011)).

Table 1-2-2-12

Major export items of the four major euro area countries (2011)

(%)

France		Germany		Italy		Spain	
Items	Share	Items	Share	Items	Share	Items	Share
Chemical Goods	19.8	Machinery	17.6	Machinery	20.1	Automobiles	17.0
Machinery	11.4	Automobiles	16.7	Base Metal Products such as Iron and Steel	10.8	Chemical Goods	13.9
Automobiles	9.1	Chemical Goods	15.9	Chemical Goods	12.7	Base Metal Products such as Iron and Steel	9.6
Aircraft	8.6	Electric Appliances	9.9	Automobiles	7.2	Machinery	7.5
Electric Appliances	8.2	Base Metal Products such as Iron and Steel	8.7	Fabricated Textile Products	7.1	Mineral Fuel	6.8
Base Metal Products such as Iron and Steel	8.0	Optical Appliances	4.5	Electric Appliances	6.2	Electric Appliances	6.0
Processed Food	6.5	Lumber, Pulp, and Paper Products	2.9	Mineral Fuel	4.8	Processed Food	4.8
Mineral Fuel	4.6	Processed Food	2.8	Processed Food	4.4	Fabricated Textile Products	4.5
Optical Appliances	3.2	Other Not Classifiable Goods	2.8	Precious Stones	3.2	Lumber, Pulp, and Paper Products	3.0
Fabricated Textile Products	2.8	Fabricated Textile Products	2.5	Furniture	2.7	Fruit	2.6
Lumber, Pulp, and Paper Products	2.6	Aircraft	2.5	Leather Products	2.4	Rubber Goods	2.0
Cereal	1.9	Mineral Fuel	2.5	Lumber, Pulp, and Paper Products	2.4	Vegetables	1.8
Rubber Products	1.7	Precious Stones	1.5	Optical Appliances	2.3	Precious Stones	1.7
Dairy Goods	1.4	Rubber Goods	1.3	Footwear	2.2	Meat	1.6
Others	10.4	Others	7.9	Others	11.4	Others	17.2

Note: The classification is based on the two-digit HS Code. Processed Food is from Chapters 16 to 24, Chemical Goods is from Chapters 28 to 39, Leather Products is from Chapters 41 to 43, Lumber, Pulp, and Paper Products is from Chapters 44 to 49, Fabricated Textile Products is from Chapters 50 to 63, and Base Metal Products such as Iron and Steel is from Chapters 72 to 83.

Source: Global Trade Atlas.

Table 1-2-2-13

Major export counterpart countries/regions of the four major euro area countries (2011)

(%)

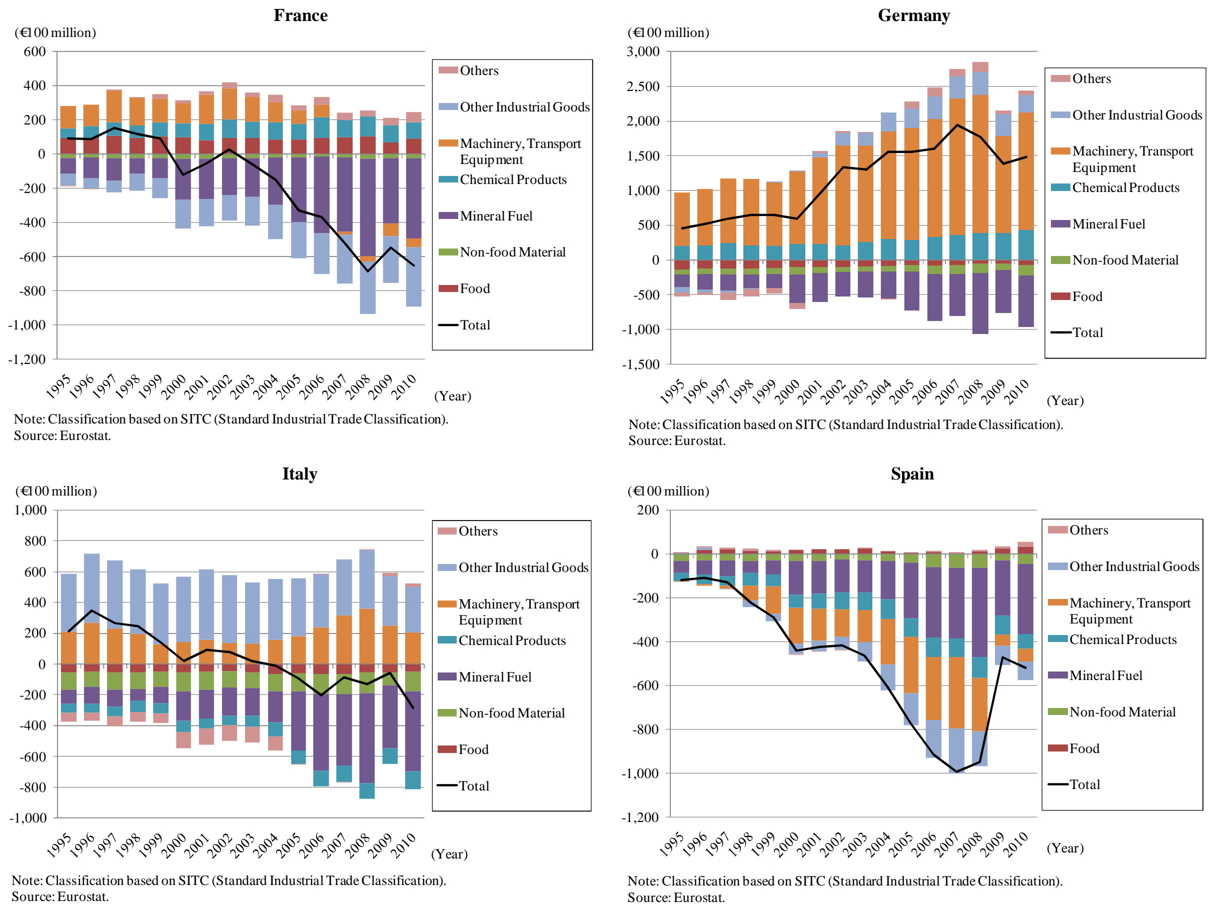
Germany		France		Italy		Spain	
Counterparts	Share	Counterparts	Share	Counterparts	Share	Counterparts	Share
EU27	58.6	EU27	60.5	EU27	55.5	EU27	69.6
U.S.	6.9	U.S.	5.4	U.S.	6.1	U.S.	3.5
China	6.1	China	3.1	Switzerland	5.5	Turkey	1.7
Switzerland	4.4	Switzerland	3.1	China	2.7	Switzerland	1.6
Russia	3.3	Russia	1.7	Turkey	2.5	Morocco	1.9
Turkey	1.9	Turkey	1.6	Russia	2.5	China	1.2
Japan	1.4	Japan	1.5	Brazil	1.3	Mexico	1.5
South Korea	1.1	Algeria	1.4	Japan	1.3	Brazil	0.8
Brazil	1.1	Singapore	1.2	UAE	1.3	Russia	0.9
India	1.0	Hong Kong	1.0	Hong Kong	1.1	Algeria	1.3
South Africa	0.8	Morocco	1.0	Saudi Arabia	1.0	Japan	0.7
Australia	0.8	South Korea	1.0	India	0.9	Gibraltar	0.5
Norway	0.7	Brazil	0.9	Mexico	0.9	Australia	0.5
Mexico	0.7	Australia	0.9	Tunisia	0.8	Norway	0.5
UAE	0.7	UAE	0.9	Algeria	0.8	Venezuela	0.3
Others	10.5	Others	14.8	Others	16.1	Others	13.5

Source: Global Trade Atlas.

As seen above, comparing only the amounts of exports in 2011, there were great divergences between the four countries in the degree of centralization towards high technology/capital-intensive exports, the dependence on the EU, the form of advancement into emerging markets, and other attributes. And, by looking at the secular change in trade balances broken down by major region/item, the four countries' characteristics and transitions from the perspective of international competitiveness are clearer.

Figure 1-2-2-14

Trade balance of the four major euro area countries by item



Examining the trends in trade balance broken down by item (Figure 1-2-2-14), since 2000 in Germany, the trade surpluses of machinery/transport equipment, chemical products, and other industrial goods sharply increased. The increase between 2000 and 2010 of machinery/transport equipment was 62%, that of chemical products was 83%, and that of other industrial goods was 2346%. Other industrial goods include medical equipment, optical appliances, measurement instruments, furniture, textile products, and footwear, and, taking into account Germany's export item composition, the surpluses of medical equipment, optical appliances, and measurement instruments were thought to have been on a rising trend.

In contrast, in France, it is notable that the surplus margin of machinery/transport equipment that had constantly recorded surpluses since the first half of 2000 began to fall after peaking in 2002, and the trade balance of machinery/transport equipment has been in the red since 2007. The surplus margin did not increase despite a certain number of surpluses consistently recorded in chemical goods and food, and, meanwhile, since the deficit margin of mineral fuels and other industrial goods largely increased after 2003, the total deficit margin increased quickly until 2008. Other industrial goods include high value-added products in which France had held a strong competitive edge - like medical equipment and furnishings - holding premium "Made In France" brand image and the increase in the deficit margin in these sections, together with the fall into the red in the machinery/transport

equipment sectors, can be seen as an indication of the decline in international competitiveness of French products.

In Italy, as with Germany, machinery/transport equipment and other industrious goods recorded surpluses, but the increase of the surplus margin in machinery/transport equipment between 2000 and 2010 was lower than with Germany at 44%, and the surplus margin in other industrial goods were on a decreasing trend.

Spain's situation was the most serious among the four countries. All items recorded deficits except food and others made slim surpluses. Moreover, the deficit margin of each item expanded[54] on the whole from around 2003 to 2008 when the housing bubble collapsed.

Figure 1-2-2-15

Trade balance by counterpart country/region of the four major euro area countries

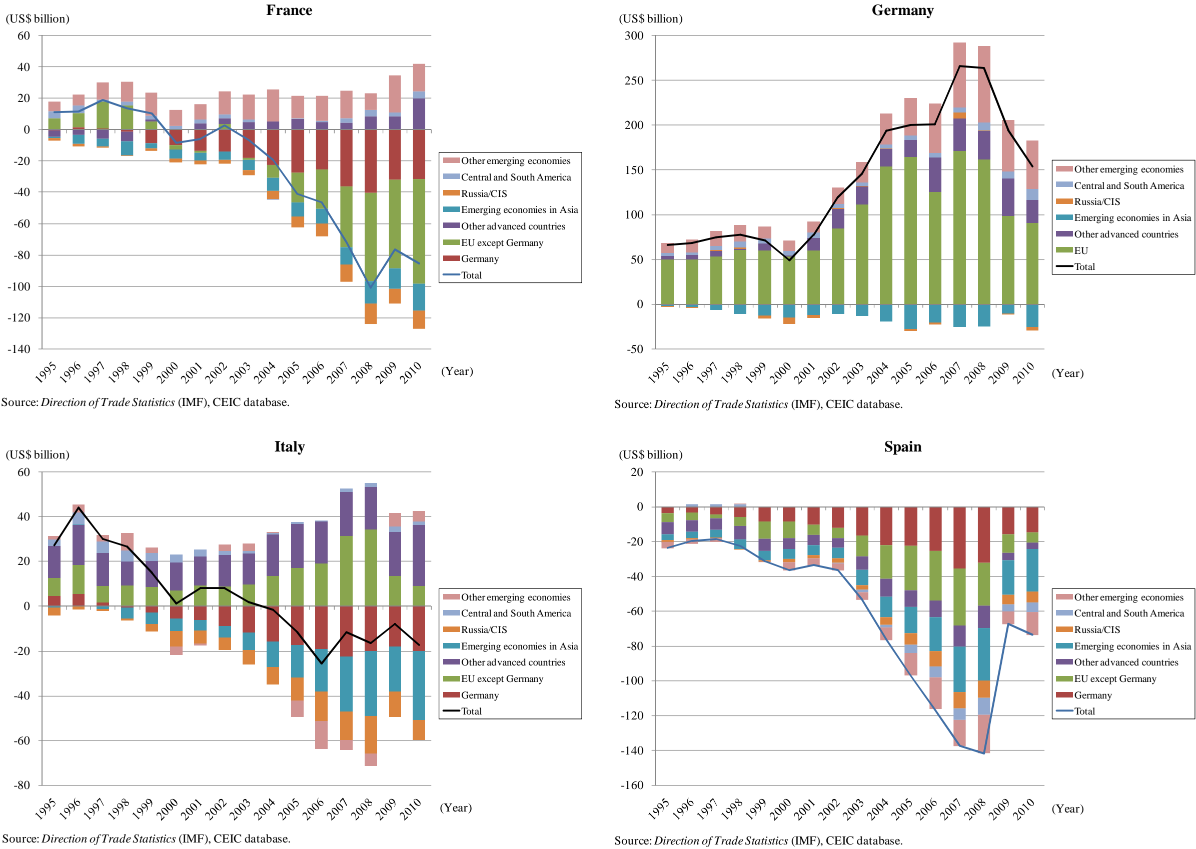


Figure 1-2-2-15 illustrates the trade balance broken down by major counterpart/region[55]. Germany

54 As an index of international competitiveness of each item, the "Trade Specialization Index" (Competitiveness Index) that is calculated by dividing the trade balance of the current item by the total value of exports and imports can be used. According to this index, the international competitiveness of many items of Spain, where the trade deficits of many items had been expanding, could be considered decreasing.

55 Incidentally, while Figure 1-2-2-14 (Trade balance of the four major euro area countries by item) uses the data of trade balance compiled by the Statistical Office of the European Communities, the data of trade balance used in Figure 1-2-2-15 (Trade balance by counterpart country/region of the four major euro area countries) is, for convenience sake, the difference between the data of export (fob basis) and

sharply expanded the trade surpluses within the EU area in the 2000s. By contrast, France and Spain steeply increased their deficits with EU countries in the 2000s, and each country's trade deficit values within the EU area compared to 2000 swelled to 5.8 times and 3.8 times respectively. Although Italy marked deficits with Germany, it made surpluses with other EU countries. As a result, while Germany had increased its surpluses with EU countries in the 2000s, the other three countries had increased their deficits with Germany, resulting in an evident trade imbalance between Germany and the other three countries.

In terms of the balance with countries outside the EU, Germany made surpluses with all regions except emerging economies in Asia, and its surplus margin expanded until 2008. Spain, in contrasted to Germany, recorded deficits with all regions and its deficit margin sharply increased until 2008. France recorded surpluses with industrial countries outside the EU, Latin America, and other industrial countries, but these surpluses were not enough to offset the increases of deficits with the EU and emerging economies in Asia, and, thus, the net deficit steadily increased. Though the surpluses of Italy with EU countries other than Germany had increased in the 2000s, these surpluses fell short of making up for the deficits with emerging economies in Asia and with Russia/CIS, and therefore, the net balance was on a deficit trend[56].

As the visible difference in the deficits in relation to China among the four countries shows, the reason the export competitiveness of the other three countries decreased while Germany's export competitiveness increased overall, was the effect of contained labor costs due to the implementation of the labor market reforms and other measures described in this Chapter (1), and the contrast to the competitive situation with emerging economies including China was thought to have a certain influence on that.

Giovannetti (2011), based on the Revealed Comparative Advantage Index (RCA)[57], compared the four countries'' international competitiveness and secular change by major industry from the perspective of the competition with China. Looking at the change between 1999 and 2009, the indexes of Italy and Spain generally show a tendency of lowering or stagnation in the industries in which China's index was increasing. It is pointed out that while Germany was lightly affected by China's export increases thanks to the pursuit of the shift to more competitive fields, Italy was the most affected by China's export increases among the four countries because its competition with China intensified due to the delay of the advancement of technological level.

The discrepancy of export competitiveness can also be confirmed from the recovery conditions of exports immediately after Lehman's fall. Looking at the changes of export values by major item

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the data of import (cif basis) compiled by IMF, and therefore, a slight error is observed in the total balances of these 2 Figures.

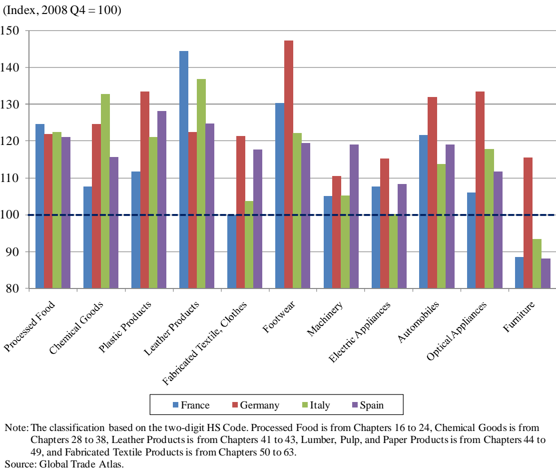
56 Additionally, most of the deficits with emerging economies in Asia were with China: the ratio of France's deficit with China was 88%, Germany's was 82%, Italy's was 81%, and Spain's was 67%.

57 RCA = (((the current country's exports of the current goods / the current country's total exports) / (the world's exports of the current goods / the world's total exports)) - 1) × 100. If RCA > 0, because the export share of the current goods is bigger than the average share of the whole world, the current country is thought to have a comparative advantage in this export.

calculated against export values, which is set at 100, in the 4th quarter of 2008 when trades bottomed out due to the worldwide economic recession (Figure 1-2-2-16), there seem to be differences by item and by country.

Figure 1-2-2-16

Recovery of exports of the four major euro area countries by major item (4th quarter of 2011)



Note: The classification based on the two-digit HS Code. Processed Food is from Chapters 16 to 24, Chemical Goods is from Chapters 28 to 38, Leather Products is from Chapters 41 to 43, Lumber, Pulp, and Paper Products is from Chapters 44 to 49, and Fabricated Textile Products is from Chapters 50 to 63.

Source: Global Trade Atlas.

In addition, though Germany's exports improved in all major items, in France, Italy, and Spain, some items maintained about the same level, or fell below the value of the 4th quarter of 2008. Particularly in Italy, little improvement in furniture and electric appliances was seen and the recovery of fabricated textile/clothes, machinery, electric appliances, optical appliances, and others fell behind Germany.

As explained above, from the perspective of trade structure as well, not only had the trade imbalance between Germany and the four countries been widening through the 2000s (while Germany's trade surpluses with the other three countries were increasing, the other three countries' trade deficits with Germany were increasing), but while the other three countries were losing their presence in the export market due to strong pressures of price competition with emerging economies including China, Germany maintained its advantage by specializing in very technologically-intensive and high value-added manufacturing products for export items, giving the impression that the discrepancy of competitiveness was arising between Germany and the other three countries. In the situation where domestic demand in the euro area economy made a significant drop, resulting in negative growth in the 4th quarter of 2011 (refer to this Section 1.(1)), the expectation for external demand has been raised as a factor for underpinning the economy, and therefore the discrepancy of export competitiveness necessary for the acquisition of external demands has directly resulted in the difference of the steps towards economic recovery.

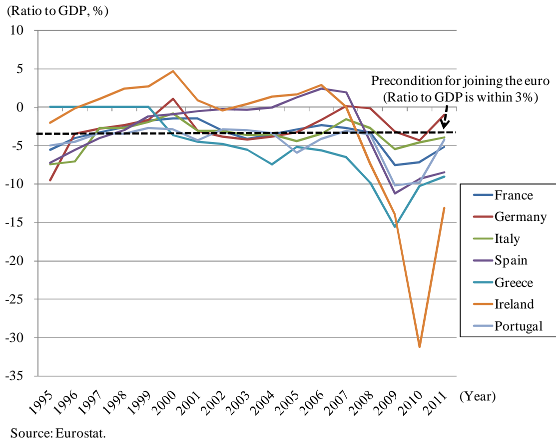
(5) Public Finance

The discrepancy of international competitiveness among major countries in industry/economy rose throughout the 2000s and has been a remote cause of the difference of fiscal situations among major

countries. In Germany, in the first half of the 2000s, a sluggish economy was brought about by a number of factors including the end of economic boost effects caused by the special demands for the reconstruction of the defunct East German region after German reunification and the decline in domestic demand influenced by structural reforms including labor market reform, also resulting in a decrease in tax revenues. In addition, since a large amount of the fiscal transfer[58] put pressure on public finance, Germany recorded fiscal deficits exceeding "3% to nominal GDP," a criteria for joining the euro, for five years from 2001 to 2005, but, in the latter half of the first decade of the 2000s, the economy picked up due to the latent effects of the structural reforms and the substantial improvement of the fiscal situation (figure 1-2-2-17). In 2007, The Merkel Administration, inaugurated in September 2005, took measures toward sound public finance[59] by raising the value-added tax rate from 16% to 19% and the highest income tax rate from 42% to 45%, and in 2009, by revising the constitution, obliged that any structural fiscal deficits[60] after 2016 should be restrained to within 0.35% to GDP. Due to the onset of the world economic crisis in 2008, Germany's real GDP growth rate sharply declined to -3.5% year-on-year, but Germany escaped from an extremely deteriorating fiscal condition because of several factors including the successful control of unemployment thanks to the abovementioned working hour account system, etc., and the quick achievement of economic recovery based around exports to emerging economies and others leveraged by a high degree of international competitiveness.

Figure 1-2-2-17

Fiscal balance of the major euro area countries



In contrast to Germany, the country whose fiscal condition had been worsening most rapidly since

58 Although it is difficult to calculate the total values of the fiscal transfer to the defunct East German region because it took various forms such as infrastructure construction and unemployment benefits, for example, the subsidies from the German Federal Government to the defunct East German region reached €12.8 billion and the interstate subsidies from the defunct West German region to the defunct East region reached €5.8 billion, amounting to €18.6 billion in total (Arai (2003)).

59 Meanwhile, in order to strengthen the international competitiveness for the establishment of new businesses, the corporate tax rate was reduced from 25% to 15% in 2008.

60 Fiscal deficits removing the effects of economic fluctuation

the onset of the world economic crisis in 2008 was Spain. In Spain, after the introduction of the euro, the average growth rate from 2000 to 2007 was 3.6% due to an unprecedented boom in the housing/real estate industries, resulting in a 167% increase to nominal GDP during this period. Tax revenues increased reflecting the economic growth, and fiscal surpluses were recorded from 2005 to 2007. However, Spain's economic boom was excessively dependent on housing/real estate industries, and, reasonably, the collapse of the housing bubble accompanied by the onset of the world economic crisis in 2008 suddenly put Spain into a serious recession. The increase of social security benefit expenditures, such as unemployment benefits, the implementation of economic measures centering on large-scale public works as large as 2.3% to GDP, and others, caused the rapid expansion of Spain's fiscal deficits. The fiscal deficits to GDP in 2009 amounted to as much as 11.2%.

France and Italy, though not as sharply as Spain, increased their fiscal deficits considerably, mainly due to the decrease of tax revenue reflecting the economic recession after the world economic crisis and the implementation of public spending to boost the economy[61]. These three countries lack the capacity to restore their finances. For example, they are, due to their deteriorating export competitiveness, without a good prospect for the increase of external demand that can make up for the sagging domestic demand as a result of the world economic crisis, and have also been slower compared to Germany in recovering their production activities (refer to this Section 1.(2)). Furthermore, since 2010 when the European debt crisis was emerging, these three countries have been forced to implement austerity measures (Table 1-2-2-18) under the increasing market pressure toward sound public finance, which increases the risk of further depressing the economy. For instance, Italy had already fallen into negative real growth rates to GDP since the 3rd quarter of 2011 and Spain fell into negative growth in the 4th quarter of 2011 (refer to this Section 1.(1)). In this way, the differences in fiscal conditions are thought to have significant impacts on the disparity in the relative economic situations of Germany and the other three countries.

61 In France, in December 2008, the implementation of a comprehensive economic stimulus package totaling €26.5 billion was decided. Also, in October 2008, it was decided that €320 billion would be injected to guarantee interbank lending as a comprehensive bailout package for financial institutions and €40 billion would be injected to help recapitalize banks in financial crisis. In Italy, in November 2008, the implementation of an economic measure totaling €80 billion was decided and, in February 2009, the cash injection of €12 billion to banks was decided as well (JETRO (2009)).

Table 1-2-2-18

Austerity measures of the four major euro area countries

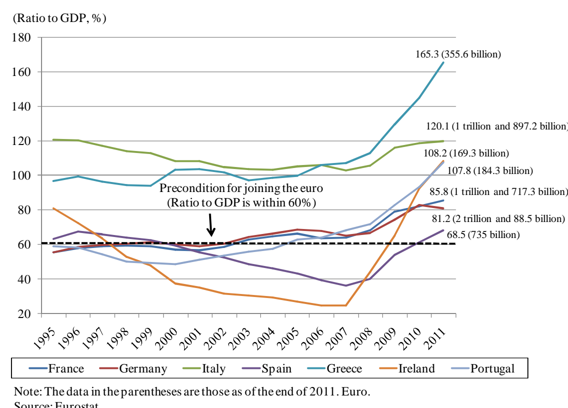
France	The deficit reduction of a total of €64.7 billion over the five years from 2012 to 2016 mainly by the following measures: • In expenditures, the suppression of the increases of health insurance expenditures and the review of special taxation measures related to housing. • In revenues, the additional tax on corporate tax for large enterprises (additional tax of 5% on current corporate tax of 33.3%) and the increase of the reduced tax rate of value-added tax (an increase to 7.0% from 5.5% excluding food goods, etc.)
Germany	The deficit reduction of €82 billion over the five years from 2010 to 2014 mainly by the following measures: • The reduction of special preferential taxation measures for enterprises and the increase of the burden ratio of environmental tax, the reduction of unemployment allowance, the reduction of the allowance for public servants, the reorganization of the federal troops, new taxation on financial institutions.
Italy	The implementation of deficit reduction measures of a total of € 59.8 billion in 2012 and 2013 mainly by the following measures. In addition, the implementation of additional austere measure up to a maximum of €25 billion in order to achieve a balanced budget in 2013. • Increase in fuel tax, solidarity tax on high income earners, increase in value-added tax, the reactivation of real estate tax
Spain	The deficit reduction of a total of €15 billion over the five years from 2010 to 2014 mainly by the following measures. Furthermore, the commitment, at a European finance ministers meeting in March 2012, to the implementation of additional austere measures that will restrain expenditures to about 0.5% of GDP. • Hiring freeze of new public servants, salary freeze of pubic servants, increase in income tax and fixed property tax as a temporary measure in 2012 and 2013.

Source: Made by Ministry of Economy, Trade and Industry based on various materials.

However, the government debt balances of all the four countries had steeply increased since 2009 (Figure 1-2-2-19), and Germany's government debt balance to GDP marked 81.2%, which far exceeds "60% to GDP," a criteria for joining the euro, and was at the same level as that of France (85.8%). In July 2010, the German government released a fiscal plan spanning from 2010 to 2014, which said that expenditure cuts totaling €80 billion would be made during this period, and it, as well as the other three countries, needs to make constant efforts toward fiscal reconstruction.

Figure 1-2-2-19

Government debt balance of major euro area economies



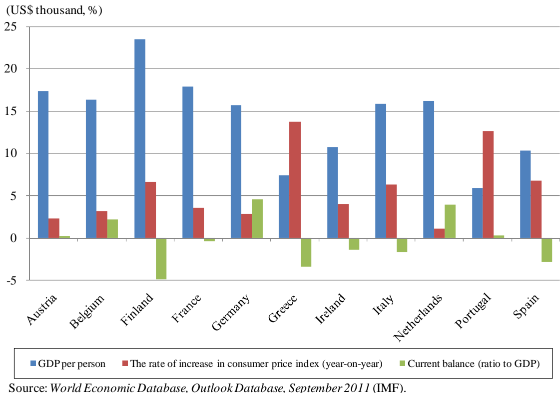
Note: The data in the parentheses are those as of the end of 2011. Euro.
Source: Eurostat.

3. Background of the debt crisis in Europe and solutions

When (former) European Commission President Jacques Delors announced the monetary union project for the European economy in 1989, which led to the present euro, there were large disparities among the economic fundamentals of the present euro member countries; for example, the GDP per capita of Finland ($26,000), which was the highest, was more than four times larger than that of Portugal ($6,000), which was the lowest (Figure 1-2-3-1). Although it was expected that the economic disparities among the member counties would be mitigated through promotion of economic growth thanks to vitalization of trade and investments within the ezone and of competition between companies resulting from elimination of exchange risks with the introduction of the euro, and through the advance of mutual surveillance of financial aspects based on common rules, the economic imbalance has in fact continuously expanded since the euro was introduced, as described above.

Figure 1-2-3-1

Major economic indicator on major euro area economies (1989)



Source: *World Economic Database, Outlook Database, September 2011* (IMF).

The economic imbalance spreading among the euro member countries is one of the factors that have made the debt crisis in Europe so serious that it has not been resolved despite two years having passed since the underestimation of the Greek financial balance surfaced. The following section will clarify the structural distortion faced by the euro zone by thoroughly verifying the background of the problem mainly in Greece, Ireland and Portugal, which have requested financial support of the EU and IMF, as well as Italy and Spain, over which market concern is increasing as their potential need for financial support increases (Greece, Ireland, Portugal, Italy and Spain are hereafter referred to as "major heavily-indebted countries"), and outline a series of countermeasures taken by the authorities of the EU and the euro zone and the necessary steps toward a solution.

(1) Background of the fact that the countries supported by the EU and the IMF have requested further financial support

(A) Greece, which became the epicenter of the debt crisis in Europe

The direct trigger of the manifestation of the debt crisis in Europe was the discovery of the underestimation of the financial deficit of Greece, which emerged in October 2009. The Papandreou administration inaugurated in that month judged that the financial deficit announced during the

previous administration had been understated, and drastically raised the financial deficit for 2008 from 5% to 7.7%, and the outlook of the deficit for 2009 from 3.7% to 12.7% of GDP, and submitted a revised report to EUROSTAT[62]. Even after that, revisions of the financial balance continued, and the figure for 2008 was finally raised to 9.8%, and that for 2009 rose from the initial estimate of 11.9% to 15.6%. Therefore, the market concern over the financial situation of the Greek government rapidly increased, and the government bond yield rose steeply. Having difficulty in obtaining financing from the market, the country finally received support of €110 billion from the EU and the IMF in May, 2010. Following that move, the market scrutinized the financial conditions of other major euro zone countries, and on the financial institutions that hold government bonds of heavily-indebted countries including Greece, leading to an expansion of the debt problem.

As the market concern over the debt problem increased, it gradually became evident that the revisions of this huge financial deficit were just the tip of the iceberg of problems faced by Greece. Figure 1-2-3-2 shows the transition of long-term government bond yields of major heavily-indebted countries, and it indicates that the large financial disparity between Germany and other European countries before the introduction of the euro rapidly decreased after the introduction of the Euro. Thanks to the credibility of the euro zone, which became a market with a population of approximately 300 million[63] people through the introduction of the euro, and of the euro, which became a currency with a monetary supply comparable to that of the US dollar[64], the credibility of the euro member countries also increased, and Greece and other countries, which previously obtained financing at high interest rates, became able to gain financing at interest rates comparable to that of Germany. As financial market integration within the EU progressed, the financial institutions of the core countries of the euro zone such as Germany supported the financing for these neighboring countries as new markets. As a result, the economies of countries with vulnerable economic fundamentals continued to grow, driven by excessively generous investment and consumption. As seen in the transition of the real GDP growth rate of Greece regarding important items, personal consumption always represented a high contribution rate between 2001 and 2008, and fixed capital formation also contributed considerably to growth until the 2004 Athens Olympics were held (Figure 1-2-3-3).

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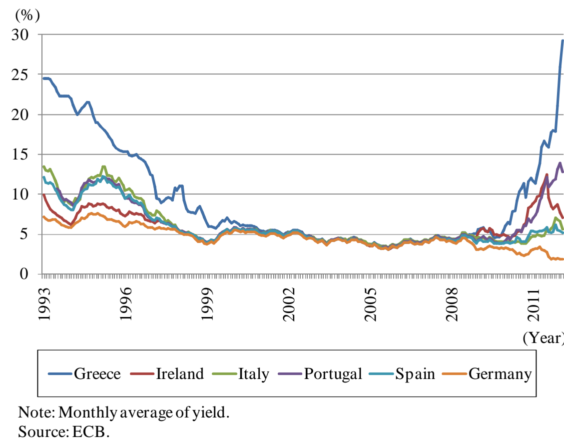
62 Even after that, revisions of the financial balance were repeated, and the figure for 2009 finally rose to 15.6% of GDP.

63 According to EUROSTAT, the population of the initial 12 member countries in 1999, when the Euro was introduced for the first time as a currency for settlement, was 292 million.

64 According to International Financial Statistics of IMF, the monetary supply of the Euro in 2000 was €4,700 billon, surpassing €4,600 billion of the U.S. dollar.

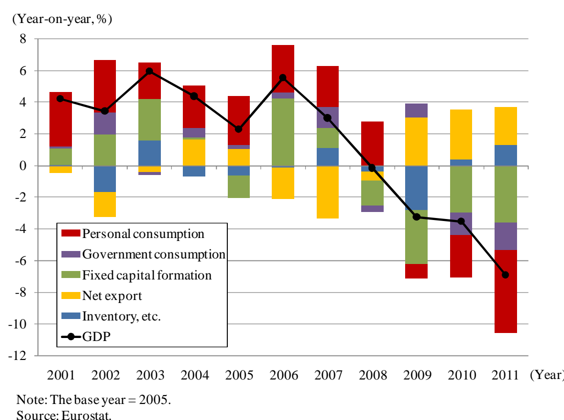
Figure 1-2-3-2
10-year government bond yields of major heavily-indebted countries in euro area



Note: Monthly average of yield.
Source: ECB.

Since Greece was blessed with high growth as a result of vitalization of public and private investment and consumption, incentive for financial reconstruction were weaker in Greece, and structural reforms such as pension reform and improvement of the tax collection capacity were ignored. As a result, the reduction of government debt did not progress smoothly despite the reduced burden of interest payment thanks to the lowered government bond yield, and the balance of government debt remained at over 100% of GDP (Figure 1-2-2-19 shown above). While reform in the public sector did not progress, neither did cost control through labor market reform, etc. in the private sector, and the labor cost per unit mentioned in 2 (1) of this section substantially increased in comparison to other major euro zone countries until 2009 (Figure 1-2-2-2 shown above). Since Greece was able to raise the necessary funds from foreign countries at low costs after the introduction of the euro despite its lagging international industrial competitiveness, its current-account deficit began to rise steeply in the 2000s (Figure 1-2-3-4). The balance of foreign debt also expanded from 93.9% of GDP in 2003, from which time data acquisition is available, to 138.5% of GDP in 2007[65].

Figure 1-2-3-3
Real GDP growth rate of Greece

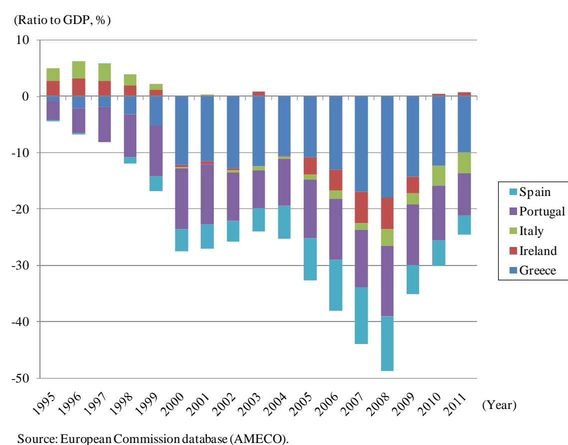


Note: The base year = 2005.
Source: Eurostat.

65 At the end of 2001, it rose to 170.1% of GDP.

Figure 1-2-3-4

Current account balance of major heavily-indebted countries in the euro area



Source: European Commission database (AMECO).

Thus, the problem faced by Greece not only reflects the increase in the government debt in Greece alone and the loss of reliability of its financial system, but also clearly demonstrates the structural distortion faced by the euro zone in the form of expanded economic imbalance between major countries after the introduction of the euro as described in "2" of this section. Since Greek aid of totaling €130 billion was approved at a meeting of euro zone finance ministers held on March 12, 2011, the immediate concern over the financing of Greece was resolved (see (3) of this item). However, to actually solve the problem, it is essential to strengthen Greece's debt-paying ability. Therefore, it is necessary not only to strengthen the international competitiveness of industry by boldly implementing economic structural reforms such as labor market reform, but also for the whole euro zone to narrow the disparities in economic fundamentals between the member countries through mutual surveillance of their economic policies.

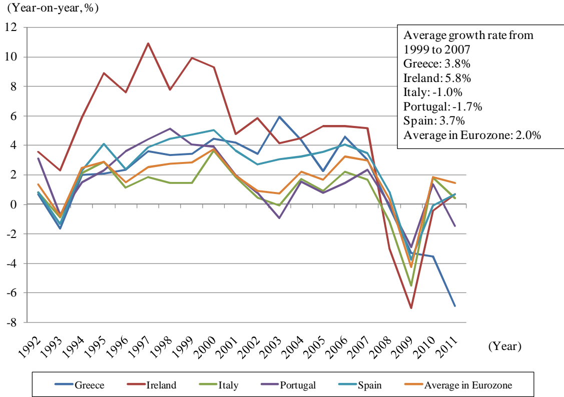
(B) Ireland pressing ahead with its efforts to recover from the collapse of its bubble economy

Ireland had enjoyed especially high growth among major countries - far above the euro zone average - until the world economic crisis occurred in 2008 (Figure 1-2-3-5). The biggest reason is the housing and real estate bubble. As seen in the transition of the index against the 1995 figure of 100, the housing prices in the country went on increasing after 1995, and the mean price in 2007, which was the peak period, was 4.6 times that in 1995 (Figure 1-2-3-6). In comparison to the United States, which experienced a similar housing bubble, the pace of price increases in Ireland was much more rapid. As indicated by the fluctuations of added values per industry in the country, the financial/insurance, real estate and construction industries mainly drove the growth between 2003 and 2007, during which the rise of the housing prices substantially accelerated (Figure 1-2-3-7). With the introduction of the euro, policy interest rates were unified, enabling households and companies in Ireland - where the inflation rate was higher than other euro member countries - to gain financing at

lower interest rates than before[66], and therefore, the demand for funds became stronger. Since the combination of the stronger demand for funds and the government's promotion of domestic investment by the finance industry[67] accelerated the influx of foreign investment into Irish financial institutions, the financial institutions expanded credit lending in response to active demand in the country. The balance of housing loans in Ireland (Figure 1-2-3-8) steeply increased from €43.8 billion in January 2003, from which time data acquisition is available, to €127.3 billion in May 2008, by approximately three times in slightly more than five years to account for 70% of Ireland's nominal GDP in 2008 (approximately €180 billion).

Figure 1-2-3-5

Real GDP growth rate of major heavily-indebted countries in the euro area



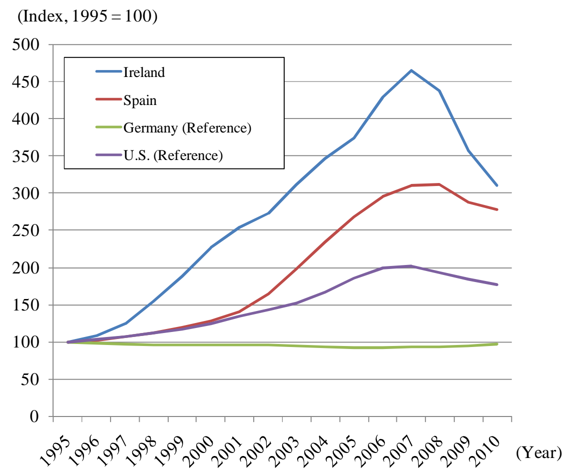
Source: *World Economic Database, April 2012* (IMF).
Note: Greece's data, Portugal's data, and Spain's data are estimates.

66 The average of the consumer price inflation rates in Ireland between 1999, when the Euro was introduced, and 2007, was 3.4%, while that of the Euro zone was 2.0%. Since policy interest rates that corresponded to the average inflation rate in the Euro zone were adopted after the introduction of the Euro, this lead to the lowering of the bank loan interest rates and the actual interest rate of Ireland.

67 To create a major base of the international financial service industry in Ireland, the Irish government established the International Financial Services Centre (IFSC) in Dublin in 1987. Financial companies employing financial services at IFSC can use a tax incentive, and currently over 370 international financial companies reside in the center (website of the Irish embassy in Japan: http://www.embassy-avenue.jp/ireland/ireland/economy_02.html).

Figure 1-2-3-6

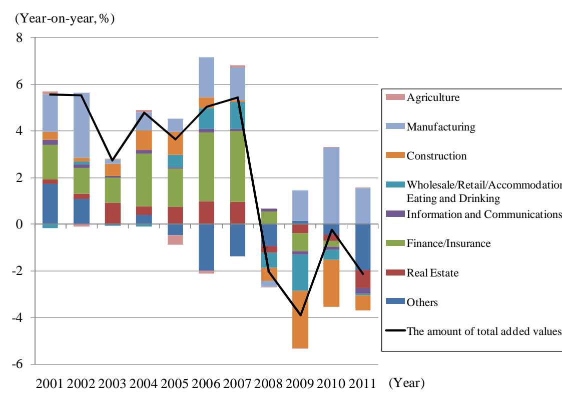
Housing price in Ireland and Spain



Note: The indexes calculated by multiplying 100 in the base year 1995 to increase rate year-on-year.
Source: *Economic Outlook, November 2011* (OECD).

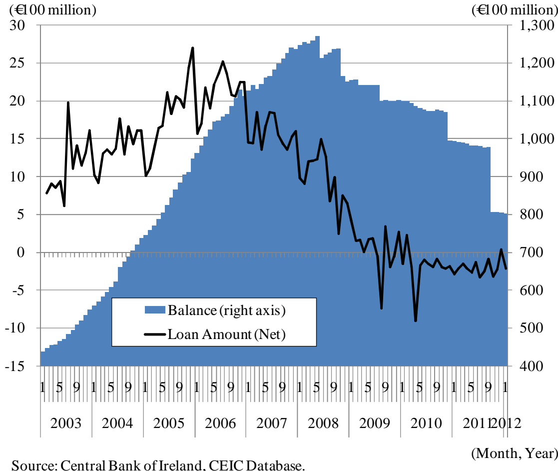
Figure 1-2-3-7

Contribution of total added value in Ireland by industry



Note: Real values in the base year 2005.
Source: Eurostat.

Figure 1-2-3-8
Housing loans in Ireland



Source: Central Bank of Ireland, CEIC Database.

Since tax revenues also increased thanks to favorable economic conditions, the fiscal balance of Ireland mostly maintained surplus figures (Figure 1-2-2-17 shown above), and the government debt balance continued to decrease (Figure 1-2-2-19 shown above). However, with the occurrence of the world economic crisis, the housing and real estate bubble, which had brought about this favorable cycle, collapsed. Households and companies whose asset values were decreased due to the fall of real estate prices were left with huge debts, and the financial institutions were saddled with massive bad loans. As of 2009, the debts of households and companies exceeded 200%, in proportion to disposable income, and in proportion of GDP (Figures 1-2-1-8 and 1-2-1-14 shown above)[68]. The economy shrank at once through adjustment of the balance sheets of households and companies, and fiscal deficits sharply increased due to the rise of the expenditures to dispose of increasing bad debts of the financial institutions in addition to the fall of tax revenues owing to recession. As a result, partly driven by the increase of the government bond yields associated with growing market concern[69], the country requested support from the EU and IMF, in November, 2010.

Meanwhile, the Irish government worked on financial reconstruction at an early stage after the collapse of the housing bubble, and implemented a restrictive fiscal policy initiative at 6.3% of GDP for two years encompassing 2009 and 2010, during which time other euro zone countries actively implemented fiscal stimuli in order to boost their economies[70]. According to a medium-term fiscal plan announced in November 2011, the country will cut its fiscal deficit to 3% or less of GDP by 2015 by implementing an austere budget policy aimed at curtailing the deficit by a total of €12.4 billion in four

68 The household debts of the United States, which similarly experienced housing bubble, were 138% of disposable income even in 2007, which was the peak year (calculated based on data by FRB and U.S. Department of Commerce). This suggests how significant the impact of credit granting expansion in Ireland and the collapse of it was.

69 The yields of 10-year government bonds of Ireland drifted at 4 to 5% until the middle of the 2010s. However, they started to steeply rise in late 2010s, and reached the 6% mark in September, and 8% in November, of the same year (Figure 1-2-39).

70 IMF (2010)

years from 2012 to 2015, including raising the VAT rate[71] and reducing the number of public employees and wages[72]. In addition, the country is also working to radically strengthen the structure of the banking sector by pressing ahead with an injection of public funds into major banks and the nationalization of others[73], as well as purchasing banks' toxic assets through The National Asset Management Agency (NAMA), etc. Furthermore, its export competitiveness, which had been weakened due to soaring labor costs resulting from the increased inflationary pressure associated with the increase in real estate prices, has been recovering since 2009 through implementation of policies such as wage cutting, which have been successful. The labor cost per unit of Ireland in 2001 was approximately 12% lower than in 2008, when the labor cost was the highest (Figure 1-2-2-2 shown above), and the current account, which had been in the red from 2000 to 2009 (except for 2003), has entered the black since 2010 (Figure 1-2-3-4 shown above). Households and companies are still in the midst of painful balance sheet adjustments, and domestic demand remains sluggish due partly to fiscal restraint and wage cuts. Having said that, Ireland is the only country among those supported in the euro zone whose structural reform is favorably evaluated, and its long-term government bond yield has recovered to the level of before it requested support from the EU and IMF (Figure 1-2-3-2 shown above). The recovery of the country is significantly suggestive also to other heavily indebted countries in that it has been able to almost dispel the market concern over its long-term ability to pay its debts by boldly implementing painful structural reform at an early stage.

(C) Portugal faced with low growth and a heavy debt burden

Since 1999, when the euro was introduced, Portugal has not been blessed with an economic boom and its economy has been sluggish, unlike Greece, Ireland and its neighbor Spain. Its GDP growth rate since the introduction of the euro has always been below the average growth rate of the euro zone (Figure 1-2-3-5 shown above), and the average growth rate from 1999 to 2007, before the world economic crisis occurred was -1.6%. The country's labor productivity has been far behind other major countries in the euro zone due partly to the rigidity of its labor market, and furthermore, to increases in its labor cost per unit (Figure 1-2-2-2 shown above). Therefore, with the eastward expansion of the EU, the country was directly impacted by the competition with emerging countries in areas including Central and Eastern Europe. This is the major reason for the low growth of the country. While exports to the EU accounted for 77% as a share of all exports from Portugal on average from 2000 to 2011, indicating extremely high dependence on the EU, the growth of exports to the EU is notably low in comparison to that of emerging countries in the EU (Figure 1-2-3-10). In terms of export items, the country's dependence on traditional items such as agricultural products and fibers and clothes is still high[74].

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71 The standard tax rate was raised from 21% to 23%.

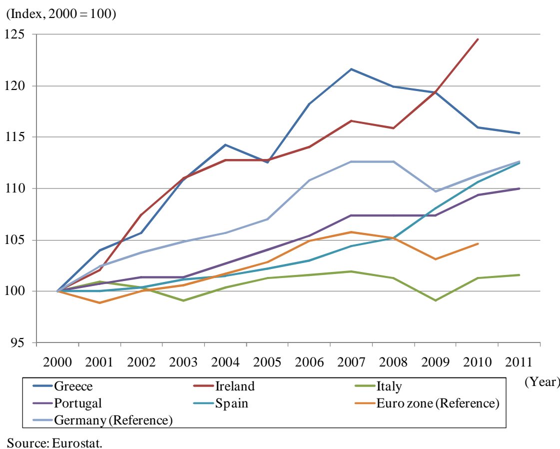
72 Such as a 5% reduction in the number of public employees and a 14% reduction of their wages (IMF [2010])

73 Anglo-Irish Bank was nationalized in January 2009.

74 Exports of agricultural products and foods (Chapters 1 to 24 of the HS Code) as a share of all exports in 2011 accounted for 11%, and that of fibers and clothes (Chapters 50 to 63 of the HS Code) accounted for 10%. Thus, exports of traditional products represent high shares.

Figure 1-2-3-9

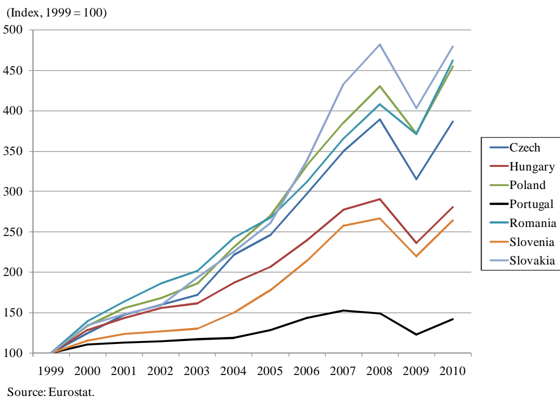
Per-hour productivity of major heavily-indebted countries in the euro area



Source: Eurostat.

Figure 1-2-3-10

Exports to the EU interior by Portugal and major countries in Central and Eastern Europe



Source: Eurostat.

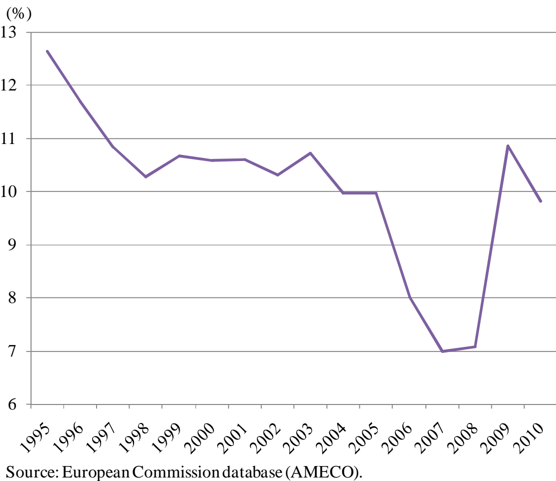
Portugal is similar to Greece in that its international competitiveness has been weakened due to delayed structural reform. However, Portugal is singular in the scale of debts owed by households and companies. Examining the debt balance as of 2010, that of households was 129% of disposable income, and that of companies was 154% of GDP, exceeding that of Spain (households 129%, companies 139%), which also experienced a housing bubble and its collapse. The reasons behind this were the decrease in the interest burden due to the fall of long-term interests after the introduction of the euro, and the expansion of credit provision through financial inflow mainly from foreign countries. The savings rate of households, which had been 13% until 1995, dropped to 7% in 2007, far below the euro zone average of 14% (Figure 1-2-3-11). The balance of foreign debt consistently increased from 1996, from which time data acquisition is available, and the net balance of foreign debt excluding foreign credit as of the end of 2010 was 107% of GDP, the highest level among major heavily-indebted counties in the euro zone (Figure 1-2-3-12).

With a low growth, a heavy debt burden and vulnerability to foreign economic pressure, as well as the occurrence of the world economic crisis in 2008, the fiscal balance of the government rapidly

deteriorated due to a decrease in tax revenues caused by recession and a fiscal stimulus intended to boost the economy. In May 2011, a support program of a total of €78 billion by the EU and the IMF was initiated, and thus, immediate financing was in sight. However, to return its economy to a sustainable growth track, it is necessary for Portugal to strive to increase its international competitiveness by forging ahead with structural reform and raise its long-term debt-paying ability as with Greece.

Figure 1-2-3-11

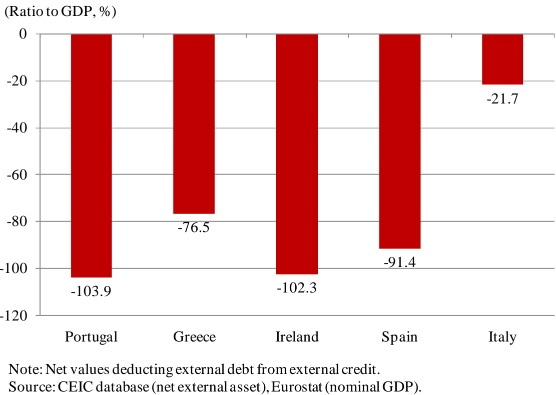
Household savings rate in Portugal



Source: European Commission database (AMECO).

Figure 1-2-3-12

Net external debt of major heavily-indebted countries in the euro area (as of the end of 2011)



Note: Net values deducting external debt from external credit.
Source: CEIC database (net external asset), Eurostat (nominal GDP).

(2) Growing concern over Italy and Spain

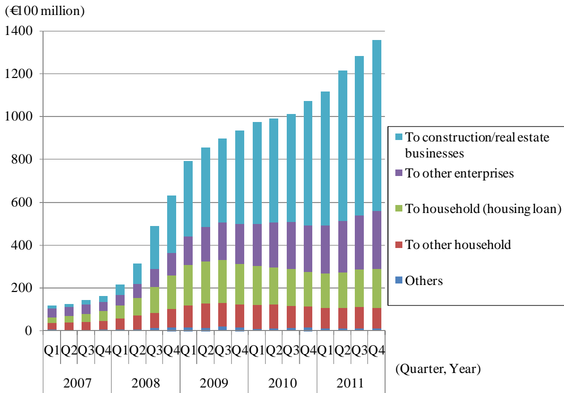
The market concern over the ability to repay government bonds in the euro zone, which had begun with Greece, spread not only to Ireland and Portugal, but also to Italy and Spain. The long-term government bond yields of Italy and Spain steeply rose in the second half of 2011, and temporarily reached the 7% mark, a level at which it is generally thought to be difficult to maintain debt payments in the long term.

As described in 2 of this section, there is a noticeable lowering of international competitiveness of

both countries throughout the 2000s (Figure 1-2-2-2 shown above). In particular, Spain is losing its competitiveness as a production base in the EU together with Portugal, which was also a lagging member of the EU, and has been having difficulty in attracting long-term external demand since Central and Eastern European countries joined the EU (Figures 1-2-2-14 and 1-2-2-15 shown above). In addition, the aftereffects of the collapse of the housing bubble are still casting a shadow over the recovery of the private sector of the country, and the bad debts owed by financial institutions still continue to rapidly increase mainly in the construction and real-estate industries (Figure 1-2-3-13). The pace of private sector reform and mitigation is slower than in Ireland, which has similarly experienced a housing bubble and owes huge debts (Figures 1-2-1-8 and 1-2-1-14 shown above), and it seems that it will take considerable time to revive domestic demand. Stringent fiscal restraint aimed at fiscal reconstruction is also depressing its economy. The fiscal 2012 budget, which the Rajoy administration announced in March 2012, contained a revenue increase and expenditure reduction of €27 billion, which accounts for 2.5% of GDP. However, due to a possible vicious cycle of fiscal reconstruction and economic slowdown, its economy may stay sluggish for the long term, and the concern over the medium- to long-term debt-paying ability may further grow in the future as a result of further decreases in tax revenues.

Figure 1-2-3-13

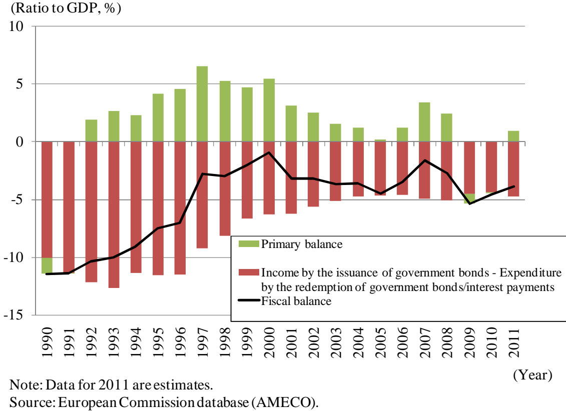
Total amount of nonperforming loans of financial institutions in Spain



Note: Balance basis at the end of each quarter.
Source: Bank of Spain, CEIC database.

Figure 1-2-3-14

Primary balance and fiscal balance of Italy



Note: Data for 2011 are estimates.
Source: European Commission database (AMECO).

Italy has a huge governmental debt balance of approximately €1.9 trillion[75], which serves as the biggest factor for market concern. The country's fiscal balance on a single year basis is -3.9%[76] of GDP, which is better than other heavily indebted countries (Figure 1-2-2-17 shown above), and its primary balance remains near a surplus. However, government bond redemption and interest payment always strain the financial situation of the country (Figure 1-2-3-14). To reduce the government debt balance of GDP, it is necessary for the country to achieve an economic growth rate that exceeds the government bond yield with the primary balance remaining constant. However, the economy of Italy has been in a slump as with Portugal through the 2000s. The average of the growth rate between 1999 and 2007 is -0.8%, the second lowest after Portugal among the major heavily indebted countries in the euro zone. The reasons for the suppressed growth seem to be that structural problems such as an inefficient government, a rigid labor market and tax evasion have been preserved, and the improvements in productivity have lagged far behind other major Euro countries (Figure 1-2-3-9 shown above). The Monti administration, inaugurated in November 2001, announced a comprehensive package consisting of a fiscal soundness policy amounting to a total of €63 billion in three years from 2012 to 2014, and a policy for promoting economic growth by spending €40 billion (Table 1-2-3-15). In addition, in March 2012, at a cabinet meeting, the administration approved a labor market reform plan consisting mainly of the creation of an employment insurance system to substitute the existing unemployment benefit scheme, and submitted the bill to the parliament. Now, attention will focus on whether the government can dispel the market concern by achieving both fiscal soundness and economic growth through a series of these measures.

75 As of the end of 2011
76 As of the end of 2011

Table 1-2-3-15

Outline of measures by the Monti administration of Italy to achieve fiscal soundness and promote economic growth

(€million)

		Main points	Size		
			2012	2013	2014
Fiscal deficit reduction	Revenue increase	The revision of local fixed asset tax, the increase of fuel tax, the increase of pension premium, and the raising of value-added tax rate	19,366	16,962	14,891
	Revenue decrease	The raising of pension eligibility age to 68, the suspension of price-sliding system for pension payment, the reduction of subsidy to local governments	879	4,358	6,540
	Total		20,245	21,320	21,430
Economic growth policy	Revenue increase	The expansion of corporate tax/state business tax breaks, employment promotion measures for youth/women	7,270	9,844	11,605
	Revenue decrease	The contribution of financial resources for regional economic growth, the exemption of fuel tax increase for transport operators, the maintenance of local public transport	4,564	3,609	3,647
	Total		11,834	13,453	15,252

Source: various materials.

(3) Responses made by the EU and euro zone authorities so far

Since the debt problem emerged, the EU and euro zone authorities have taken measures to stabilize the financial markets in sequence including the establishment of a relief fund system amounting to a total of €500 billion (raised to €700 billion in March, 2012) (Table 1-2-3-16). However, market concerns have not been completely eliminated. The following introduces the measures to stabilize the financial markets taken by the EU and euro zone authorities, and outlines the tasks required to further stabilize the markets.

Table 1-2-3-16

Measures by regulatory authorities in the EU/euro area to stabilize major financial institutions

Policy issues	Main countermeasures
Assistance to individual countries	[Greece] • In May 2010, the EU and the IMF agreed to provide the first assistance loan (totaled to €110 billion) • In March 2012, the EU and the IMF agreed to provide the second assistance loan (totaled to €130 billion) • In February 2012, private creditors holding Greece bonds agreed to waive 53.5% of the face value of their claims by debt swap (implemented in March 2012) [Ireland] • In November 2010, the EU and the IMF agreed to provide an assistance loan (totalling €85 billion) [Portugal] • In May 2011, the EU and the IMF agreed to provide an assistance loan (totalling €78 billion)
	[ECB] • In May 2010, the ECB launched "the Security Markets Programme (SMP)" and started to purchase government bonds of heavily indebted countries such as Greece. (* Although the program's purpose was stabilization in financial markets, it was rather intended as buying support of government bonds of individual countries.)
Development of emergency response fund	• In May 2010, an emergency response fund totalling €500 billion was launched, composed of "European Financial Stability Mechanism (EFSM)" (totalling €60 billion) and "European Financial Stability Facility (EFSF)" (totalling €440 billion, interim institution by June 2013). • In July 2011, a treaty to establish "European Stability Mechanism (ESM)" (totalling €500 billion) taking over EFSF as a permanent institution was signed. • In February 2012, a treaty to bring forward the launch of ESM in July 2012 (originally scheduled to be launched in July 2013) was signed. • In March 2013, it was agreed to raise the combined loan ceiling of EFSF and ESM to €700 billion.
Strengthening of fiscal discipline/ Correcting of imbalances of macroeconomics	• In December 2011, "Economic Governance Strengthening Package (six-pack)" took effect, which strengthened fiscal discipline based on the "Stability and Growth Pact" and a macroeconomic policy surveillance mechanism. • In March 2012, 27 EU members except the UK and the Czech Republic signed a "Fiscal Compact" that obliged them to incorporate a balanced budget in their Constitutions, and so on.
Strengthening of banking sector	• In July 2010 and July 2011, stress tests were conducted for the banks of EU members. • In October 2010, it was agreed that the banks of EU members would be required to implement capital reinforcement by raising their core capital ratios to 9% by the end of June 2012. • In December 2011, conclusive core capital shortfalls of individual members/banks were published after the data had been examined that had been submitted for the stress test in July 2011. The banks found with core capital shortfalls had to submit and publish their capital reinforcement plans by January 2012.
	[ECB] • The expansions of enhanced liquidity to the banks (In March 2008, ECB offered a long-term refinancing operation with a 6-month maturity instead of the usual 3-month maturity. In May 2009, ECB introduced a long-term refinancing operation with a 1-year maturity. In December 2011, ECB introduced a long-term refinancing operation with a 3-year maturity. In June 2009, ECB started to purchase covered bonds (by June 2010).)

Source: Various materials.

(A) Implementation of support programs for individual countries

(a) Greece

As finances for countries in need of financial support, first at a meeting of euro zone finance ministers held in May, 2010, it was agreed that euro member countries would provide finances for Greece that would amount to a total of €110 billion in three years combining a bilateral financing of €80 billion with €30 billion in financing based on a structural adjustment program by the IMF (first support). This financing was intended to be based on a plan formulated by the Greek government concerning fiscal reconstruction and economic structural reform, and implemented after a mission, consisting of the European Commission, IMF and ECB, assesses the progress of the plan on a quarterly basis. And, it was assumed in the initial plan that the fiscal reconstruction would bear fruit and the fiscal deficit would be reduced to below 3% of GDP by 2014, that market confidence would be restored through the progress of the reform and that financing based on issuance of long-term government bonds would resume in the first quarter of 2012. However, the economy declined

considerably due to harsh fiscal restraint[77], and other factors, and it gradually became evident that it would be difficult for the government to achieve its fiscal reconstruction goals with the reduced tax revenues. Subsequently, there was a fast-growing concern in the market that not only would it be difficult for Greece to achieve its financing through issuance of long-term government bonds in 2012, but also that the €110 billion support would result in shortages of funds sooner or later, forcing that country to restructure its debts.

Given this situation, frequent discussions concerning additional support for Greece were held in the euro zone, and finally, at a meeting of euro zone finance ministers in March, 2012, implementation of a second plan of a total of €130 billion was approved, including IMF financing for four years until 2016. It was also agreed that the interest on the loan already implemented as a first support would be retroactively reduced, and that interest receipts from Greek government bonds held by central banks of the member countries would be provided. In addition, it was also decided to implement debt swaps (cutting the face value of government bonds held by 53.5%) for credit held by private creditors[78].

(b) Portugal and Ireland

Subsequent to the situation in Greece, it was decided to implement an Ireland support program of a total of €85 billion at the Economic and Financial Affairs Council in November, 2010, and a Portugal support program of a total of €78 billion in May, 2011. As with the Greece support, finance in the support programs for both countries was also implemented after the European Commission, IMF and ECB assessed the progress of fiscal reconstruction and structural reform on a quarterly basis. The programs have so far been successfully implemented; the sixth loan was provided to Ireland in February, 2012 and the fourth loan to Portugal in April, 2012.

(B) Establishment and expansion of a crisis response framework – from EFSF to ESM –

When the necessity of financial support for Greece emerged, there had been no framework for relieving countries facing debt crisis in the EU and the euro zone, and there was an urgent need to establish a crisis response framework. Although it was too late for the first support for Greece (finance for Greece was implemented in the form of bilateral loans by euro zone member countries), it was agreed to establish frameworks for support of a total of €500 billion as an immediate measure at an extraordinary Economic and Financial Affairs Council meeting held in May, 2010. The frameworks consist of a "European Financial Stabilization Mechanism (EFSM)," which was based on the EU's existing system "International Balance of Payments Facility" (finance for supporting EU member counties facing an international balance of payments crisis) with its finance capacity increased to €60 billion, and a "European Financial Stabilization Facility (EFSF)" with €440 billion, which is a special-purpose entity consisting of euro member countries. The new framework EFSF is intended to provide loans to countries in need of financial support by conducting financing through issuance of

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77 It was planned to reduce expenditures by €6 billion accounting for 2.5% of nominal GDP of the country in 2010, and €9.2 billion accounting for 4.1% nominal GDP in 2011, and implement measures related to the increase of revenues.

78 The government bonds subject to this scheme were privately held government bonds amounting to approximately €206 billion.

bonds on the market based on a guarantee that euro zone member countries will grant finance by pro rata allocation according to the ratio of investment in the ECB. However, since the EFSF was established on the condition that it would be effective until June 2013, it was basically agreed at a European Council meeting held in October, 2010 to establish a "European Stabilization Mechanism (ESM)," which would take over the functions of the EFSF and the EFSM, as a permanent measure. Subsequently in July 2011, the leaders of the euro zone member countries signed an ESM establishment treaty in which the ESM would be established in July, 2013, finance of the ESM would be provided based on capital of €700 billion in total contributed by the euro zone member countries, and the upper limit of the financeable amount would be €500 billion.

The crisis response frameworks established this way were forced to be frequently modified and strengthened from the initial stage of planning as the debt crisis became serious. Although the support through the EFSF was initially limited to loans for countries in need of financial support and underwriting newly issued government bonds, it was agreed at a meeting of euro zone leaders in July, 2011 that a buy-up of already-issued government bonds and fund injection into financial institutions would also be acceptable (Table 1-2-3-17). In response to a criticism that scale of the fund is too small to dispel market concern, the participants in an unofficial meeting of euro zone leaders held in February, 2012 signed a revision of the ESM establishment treaty so that both organizations would coexist until the dissolution of the EFSF at the end of June, 2013 to enable the funds to be combined by advancing the establishment of the ESM to July, 2012[79]. In addition, it was also agreed at a meeting of euro zone finance ministers in March, 2012 to raise the scale of support of the EFSF and the ESM combined from €500 billion to €700 billion. A credit line of €150 billion via IMF through additional contributions to the IMF by euro zone member countries, etc. has separately been provided[80], and the total amount of the funds including the bilateral loans earmarked for the first support for Greece is approximately €950 billion[81].

79 At a meeting of Euro zone leaders in October 2011, it was agreed to raise the guaranteed amounts of the Euro zone member countries by utilizing "leverage" such as attracting funds from emerging counties to the investment fund that would be established based on the fund of the EFSF. Although a consensus on the details of the leverage was reached at a meeting of Euro zone finance ministers in November, 2011, it has been difficult to attract investment funds due partly to the deterioration of the world economic situation. As of April 2012, there has been no progress in this bill.

80 Based on the consensus at a meeting of Euro zone leaders on December 9, 2011, an additional contribution of €200 billion to the IMF was initially assumed. However, the contribution was corrected to €150 billion at a meeting of the EU finance ministers on December 19, 2011.

81 At a meeting of G20 finance ministers and central bank governors in April, 2012, a statement that the financial capacity of the IMF would be strengthened by $430 billion in order to prevent and solve international financial crises was approved. This included $60 billion from Japan, and $15 billion from South Korea, Saudi Arabia and the United Kingdom, in addition to the $15 billion from the Euro zone indicated above.

Table 1-2-3-17

Outline of a framework for relief to countries requiring support in the EU/euro area

	European Financial Stability Mechanism (EFSM)	European Financial Stability Facility (EFSF)	European Stability Mechanism (ESM)
Legal status	EU's existing system	Enterprise owned by Euro members	Intergovernmental organization under the treaty ratified by Euro members
Capital composition	Guarantee by EU budget	Guarantee by Euro members	Paid-in capital is €80 billion, callable capital is €620 billion (borne by EU members)
Size of fund	€60 billion	€440 billion	€500 billion
Assistance measures	Loan, Credit line	Loan (including contingency credit), underwriting newly issued government bonds, purchasing existing government bonds at distribution markets, and cash infusion to financial institutions.	Loan (including contingency credit), underwriting newly issued government bonds, purchasing existing government bonds at distribution markets, and cash infusion to financial institutions.
Time frame	By June 2013	By June 2013	Permanent from July 2012
Decision-making bode	Economic and Financial Affairs Council (ECOFIN)	Euro group (European finance ministers meeting)/EFSF Council	Euro group (European finance ministers meeting)/ESM Council

Source: *Monthly Bulletin July 2011* (ECB), etc.

(C) Strengthening of fiscal discipline and economic governance

In parallel with the establishment of the frameworks of financial arrangements for countries in need of financial support, measures to improve the debt repayment of the euro member countries and strengthen the fiscal discipline and economic governance for raising market confidence were also introduced in succession. In September 2010, an agreement on a procedure called the "European Semester," which is a strengthened version of the policy surveillance framework under the stability and growth treaty, was reached at the Economic and Financial Affairs Council, and the procedure has been implemented since 2011. The European Semester is intended to improve policy coordination on and fiscal discipline, macro-economic stability, etc. by having the Economic and Financial Affairs Council preliminarily review economic policies and budget bills, which were previously reported by the respective EU member countries after they submitted them to their parliaments, and make necessary recommendations. In addition, a Euro Plus Pact, under which the member countries would make policy coordination in a wide range of areas such as the strengthening of competitiveness, promotion of employment, strengthening of fiscal sustainability and strengthening of financial stability, was approved at a meeting of the euro zone leaders in March 2011. A total of 23 countries, consisting of the euro member countries and six other countries (Bulgaria, Denmark, Latvia, Lithuania, Poland and Rumania) have joined this pact.

Furthermore, an agreement on the introduction of a "package of six legislative acts to strengthen economic governance ('six-pack')" was reached in October 2011 in order to respond to the worsening of the debt problem and to strengthen the surveillance and execution of fiscal discipline, and the six-pack came into effect in December 2011. This set consists of four regulations concerning the strengthening of the fiscal discipline and two regulations concerning the correction of macroeconomic imbalances. The former stipulate the introduction of baseline values for fiscal expenditures, and the semi-automatic imposition of sanctions against those euro member countries not meeting the criterion of "fiscal deficit within 3% of GDP" or "governmental debt balance within 60% of GDP" in

accordance with the “reverse qualified majority voting” system[82], while the latter stipulate, for example, that the European Commission shall conduct evaluations based on the economic indexes of the respective countries and demand those EU member countries assessed as having excessive imbalances to adopt the corrective action plan[83]. At a European Council meeting in March 2012, a Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (Fiscal Compact), which is a strengthened version of the six-pack, was signed by 25 EU countries, which excluded the United Kingdom and the Czech Republic. The counties joining this treaty are obliged to stipulate in their constitutions or equivalent domestic laws that the structural fiscal deficit excluding economic fluctuation factors shall be controlled to below 0.5% of GDP[84] within one year after the treaty becomes effective. This treaty will become effective after 12 out of the 17 euro member countries domestically ratify it. It is expected that the treaty will become effective at an early stage for recovering the market confidence in the debt repayment abilities of the euro member countries.

(D) Strengthening of the structure of the financial sector

Since the European debt crisis was not simply a fiscal problem, but was also the financial sector’s problem in which financial institutions as lenders incurred latent losses, leading to a deterioration of the euro zone’s financial status. Therefore, it became urgent also to take measures to stabilize the financial sector and restore market confidence in addition to responding to the worsening of the debt problem.

In July 2010, the Committee of European Banking Supervisors (CEBS: later reorganized to the European Banking Authority [EBA]) conducted stress testing, which was first conducted with banks in 2009, again this time with 91 banks in the euro zone, a substantial increase from 26 banks in the first testing. In this examination, seven out of the tested banks were rejected since their core capital ratios were below 6%. In addition, the examination was conducted again in July 2011, and eight out of the tested banks were rejected under stricter acceptance criteria that required the narrowly defined core capital ratio composed of common stocks, etc. to be 5% of higher. With these examination results and the publication of individual data such as balance of government bond holdings at the banks, it was expected that concern over the fiscal situation of the banks would be eliminated. However, the market criticized that the assessment standards as too lenient, and some financial institutions accepted in the

82 With a mechanism of the previous stability and growth pact, invocation of sanctions against those member countries violating the fiscal discipline had required approval by qualified majority voting (255 votes among a total of 354 votes allotted to the member countries had been required, and total population of the approving counties must be at least 62% of the total population of the EU) and it had been difficult to invoke sanctions. With the introduction of the six-pack, sanctions would be automatically invoked unless at least 75% of all votes of the member countries disapproved the invocation.

83 In addition, in November 2011, the European Commission submitted a proposal that a surveillance mechanism for countries facing a debt crisis should be institutionalized, and the European Council shall be allowed to advise countries in a debt crisis to ask for financial support in accordance with a recommendation by the European Commission. Currently, the issue is being deliberated at the Council of European Union and the European Parliament.

84 1.0% if the governmental debt balance is within 60% of GDP.

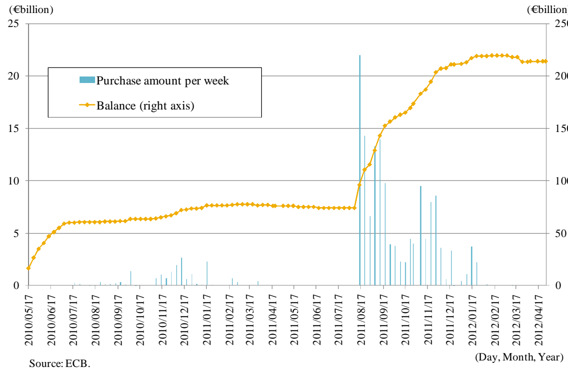
examination were soon pushed into failure[85]. Therefore, doubt about the reliability of the examination arose. For this reason, at a meeting of the EU and euro zone leaders in October 2011, it was agreed to evaluate the government bond holdings as of the end of September 2011, and demand major banks of the EU member countries to enhance their capital by achieving the narrowly-defined core capital ratio of 9% by the end of June 2012. Based on this, the European Banking Authority (EBA) re-evaluated major EU banks in December 2011. The result shows that the total amount of the capital shortages of these banks was approximately €114.7 billion. Currently, the banks are in the process of capital enhancement through capital increases, sales of risk assets, etc.

(E) Non-standard financial policies of the European Central Bank (ECB)

In parallel with responses at an EU level, the ECB has also taken measures to stabilize the financial markets in the euro zone. First, in May 2010, when the first support for Greece was finalized, it created a Securities Markets Programme, and started buying up long-term government bonds of heavily-indebted countries. Although the breakdown of the purchase of government bonds by countries is not publicized, it seems that after August 2011, when market concern spread to Italy and Spain and both countries' government bond yields steeply rose, the purchase mainly of both government bonds was accelerated. The purchase balance as of April 27, 2012 reached €214 billion (Figure 1-2-3-18). The ECB implemented a purchase program for covered bonds (secured bonds) issued throughout the euro zone, which was started in July 2008[86], until June 2010, and purchased covered bonds for a total of €60 billion.

Figure 1-2-3-18

Purchase of government bonds through the ECB securities market program



Source: ECB.

In addition to these measures, the ECB implemented actions such as a relaxation of the security eligibility criteria for bonds subject to the fund supply operation, supply of all of the necessary amount

85 Dexia, a leading Belgian bank, failed in October 2011, three months after it was accepted in the examination conducted in 2011.

86 It was originally introduced with the aim of avoiding credit insecurity of the banking sector saddled with investments in sub-prime related products of the United States after the Paribas shock in August 2007.

(bidding price) of banks at a fixed interest rate through changes in the method of this operation, and extension of its period, in order to expand the liquidity supply to banks. In particular, there was a rush of bids by banks for a 3-year fund supply operation, which was newly introduced in December 2011, and the ECB supplied more than €1 trillion through two tenders conducted in December 2011 and March 2012 (Figure 1-2-3-19). This action proved effective, and the financing environment of banks has substantially been improved. The Euro Interbank Offered Rate (Euribor), which is an inter-bank interest rate in the euro zone, has steeply fallen since December 2011, when this operation was implemented for the first time (Figure 1-2-3-20).

Figure 1-2-3-19

Balance of loans to banks in ECB assets

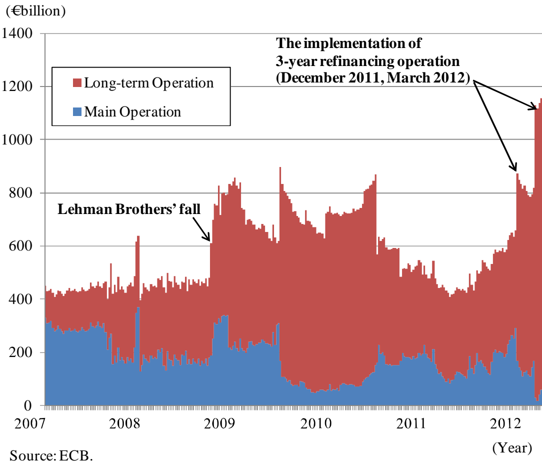
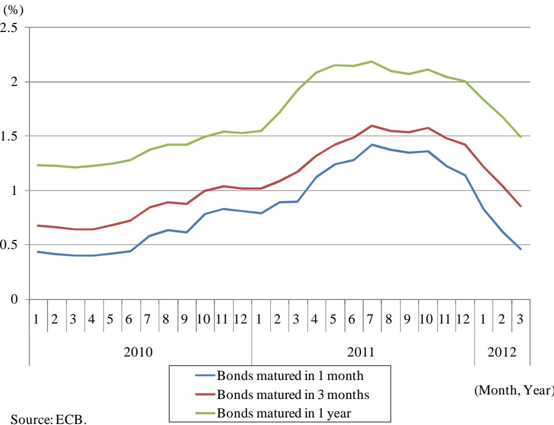


Figure 1-2-3-20

European interbank-offered rate (Euribor)



Thus, the tension around the financial market has been slightly mitigated thanks to a series of measures taken by the EU and euro zone authorities since the debt problem emerged. However, as confirmed above, behind the debt problem there have been disparities in international competitiveness and current account imbalances among the euro member countries, which spread in the 2000s. To

radically solve the problem, it is necessary for the respective countries to show the way to restore their competitiveness by boldly implementing fiscal reconstruction and structural reform while buying time with pain-relief measures by the EU and euro zone authorities. In addition, to dispel market concern, it is also expected that the mutual surveillance system for correcting the excessive fiscal deficit and the macroeconomic imbalance in the EU and euro zone will be smoothly implemented. Additionally, to secure market confidence about the government bonds in the euro zone, the European Commission publicized a proposal document for an open discussion for introducing a stability bond (Euro bond) in November 2011. Attention will be paid to the progress of the discussion in the future[87].

(4) Immediate risk factors

In closing, the following summarizes the immediate risk factors related to the debt problem and the current economy.

(A) Credit crunch associated with capital enhancement of banks

As described in (D) in (3) of this section, the banks of EU member countries are currently required to enhance their capital by raising the narrowly defined core capital ratio by the end of June 2012. Therefore, it is possible that if the credit provision by banks is shrunk in achieving the target, the economy of the euro zone, which has already been in negative growth, may be further slowed down. In its report on international financial stability publicized in April 2012[88], the IMF indicates that if European banks contract lending by $2.6 trillion, which accounts for 7% of the their total assets, by the end of 2013, the credit provision in the euro zone may be reduced by 1.7%[89].

The ECB intends to control the credit crunch by substantially expanding the liquidity supply to banks. According to a report on a survey on bank finances in the first quarter of 2012 prepared by the ECB, the number of banks replying that they made their finance standards stricter in that period significantly decreased[90]. Thus, the measure seems to have proved effective to a certain extent. In a capital enhancement plan as of January 2012, prepared by a bank that was indicated as having a capital shortage by the European Banking Authority in December 2011, 77% of its capital enhancement will be implemented through capital increase measures such as financing from the market by issuing new stocks and accumulation of retained earnings.

Meanwhile, the balances of current deposits that banks in the euro zone hold at the respective national central banks almost reached €790 billion as of the end of March 2012 (Figure 1-2-3-21). This

87 Although there has been no conspicuous progress in the discussion since the publication of the document by the European Commission, efforts to collect opinions of the European Parliament are being made.

88 IMF (2012a)

89 It is an estimate in a scenario with the existing policy. In the worst-case scenario where the European debt crisis becomes further serious, the compression of the assets of banks will reach $3.8 trillion, lowering the GDP in 2013 by 1.4%.

90 This survey was conducted among 131 banks in the Euro zone from March 23 to April 5, 2012. The number of banks replying that they made their finance standards for enterprises excluding financial institutions stricter in the first quarter of 2012 decreased from 35% in the previous term to 9% on the basis of net from which the number of those replying that they relaxed their standards was subtracted.

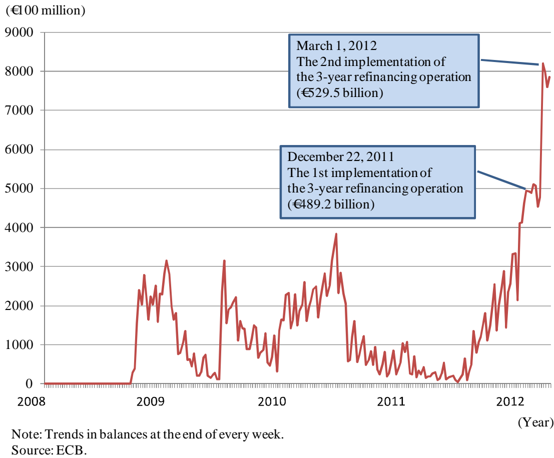
seems to suggest that a majority of the fund exceeding €1 trillion that the ECB supplied to banks in the euro zone through a 3-year fund supply operation has not been used for new loans, but kept at the respective national central banks. It is necessary to pay close attention to whether credit crush will occur as a result of acceleration of capital enhancement.

(B) A vicious circle of fiscal reconstruction and economic growth

As indicated so far, EU countries are forging ahead with fiscal discipline strengthening and fiscal reconstruction. However, the risk of creating a vicious circle where acceleration of fiscal reform causes fiscal austerity to rapidly dampen the economy, leading to a decrease in tax revenues, resulting in fiscal deterioration, is emerging.

Figure 1-2-3-21

Current deposit balance in the euro system

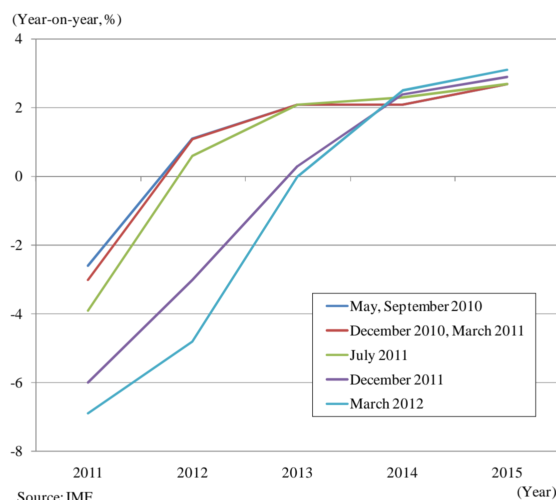


Note: Trends in balances at the end of every week.
Source: ECB.

The support for Greece has been reviewed on a quarterly basis by three bodies, the European Commission, IMF and ECB, since the first financial aid program was implemented in May 2010. However, examining this report in chronological order, it is indicated that the economic situation of the country has gone from bad to worse since the finance program was started, and especially the actual GDP growth rate forecast from 2011 to 2012 has been repeatedly revised downward (Figure 1-2-3-22). In particular, the forecast was revised downward by 3.9 percentage points in total in a short period from the second half of 2011. Thus, the rapid deterioration of the economic situation of the country is clearly shown.

Figure 1-2-3-22

IME forecast for real GDP growth rate of Greece



Source: IMF.

Greece is not the only county faced with such a problem. In Spain, which has similarly been implementing a strict fiscal reconstruction measures, the fiscal deficit in 2011 was 8.5%, far exceeding the target of 6.0%, and the 2012 target was raised from the initial 4.4% to 8.5%. Since it takes a certain amount of time before stable growth is restarted after any economic structural reform takes effect, it is likely that the fiscal uncertainty of these heavily-indebted countries will continue for the time being. In addition to dispelling the market concern by smoothly operating the support network such as the EFSF and the ESM and expanding the support network as necessary, it is necessary to study and introduce an economic growth promotion measure at an EU level.

(C) Revival of the Greece problem, concern over the second support for Portugal

The prospect for the fund raising of Greece looks bright for the time being. However, in the second support plan, the country is required to achieve strict fiscal reconstruction targets such as turning its primary balance into the black from 2013, and reducing is debt balance from 165% of GDP in 2011 to 120.5% of GDP by 2020. In addition, the country assumes it can recover its international competitiveness through structural reforms including labor market reform such as a 22% reduction of the minimum wage, and turning into positive growth from 2014. However, strikes and demonstrations have frequently occurred due to mounting public opinion against the fiscal restraint, and the progress of the fiscal reconstruction in the future is unpredictable. There is still concern that the country may face fund shortages again.

In Portugal, the recent economic slowdown is also significant, and there is growing concern about the possible inability to achieve the fiscal reconstruction targets and the possibility of future fund shortages. According to the EU and IMF support program, the financing on the market through issuance of a long-term government bond will be resumed in 2013. In their report[91] on the verification of the economic and financial situations concerning the fourth support fund for Portugal implemented

91 IMF (2012b)

in April 2012, the EU and the IMF stress that the country's efforts to make its fiscal condition healthier have been successful. However, since the current long-term government bond yield is still high, there is speculation on the market that the country may give up issuing a long-term government bond for 2013 in the future.

As described above, there are still plenty of risk factors about the European debt crisis. Therefore, it is necessary to continue to pay close attention to the circumstances.

4. Tasks to be fulfilled for long-term economic growth of Europe

The year 2012 marks the 10th anniversary of the distribution of the euro as a cash currency[92]. During this decade, while the European economy has enjoyed prosperity thanks to the introduction of the euro and the eastward expansion of the EU, its economy has substantially slowed down since 2008 due to the world economic crisis, and new problems that had not been assumed when the euro was initially introduced have emerged such as the bipolarization of the economy in the area and the emergence of the debt problem. How would the European economy look in 10 years and 20 years from now? The following summarized the problems that the European economy faces from a medium- to long-term perspective, and introduces the efforts of the EU for medium- to long-term economic growth.

(1) Decrease in population and attracting markets from outside the area

As with Japan, major European countries generally face concerns about a decreasing in population and the graying of society, though to differing degrees. In Germany in particular, which has the largest population in the 27 EU countries (hereafter EU27), the fall of potential growth rate resulting from the steep decrease in population has become a large problem.

Figure 1-2-4-1 shows the forecasts of the top five countries in population size among the EU27 for which population forecasts until 2060 were publicized in June 2011 by the Statistical Office of the European Communities[93]. Among the five countries, populations of France and the United Kingdom will continue to increase, while that of Germany will decrease by 20% from 81,740,000 in 2010 to 66,360,000 in 2060, and Germany is forecast to fall from the top position in population in the EU in the 2040s. The birth rate of Germany as of 2009 was 1.36, which was the lowest among the five countries, and far behind 2.0% of France and 1.94 of the United Kingdom. Even the population of the whole EU247 is affected by the decrease in population of Germany, and that in 2060 is forecast at 516,940,000, only a 3.2% increase from 501,040,000 in 2010.

In Germany, graying is also rapidly advancing. According to the Statistical Office of the European Communities, the old-age index, which a ratio of a population aged 65 years and older to a population aged from 15 to 64 years is estimated to increase from 31.3% in 2010 to 69.9% in 2060 (Figure 1-2-4-2). The advance of graying of society and the falling birthrate will decrease the labor force population, and lower the potential growth rate through decreased contribution of the labor input. Therefore, a long-term forecast of the potential growth rate that the European Commission published

92 The Euro was introduced in non-cash sectors such as inter-bank transactions on January 1, 1999, and started to be distributed as a cash currency on January 1, 2002.

93 Eurostat (2011)

in December 2008 based on a population forecast by the Statistical Office of the European Communities[94] indicates that the growth rate of Germany will remain significantly low at around 1%. Even in major countries other than Germany, the growth rate will stay low at approximately 1 to 1.5% until 2060, except the United Kingdom and France, where steady increases in population are expected (Figure 1-2-4-3). To secure the labor force population, it will be necessary, for example, to improve the employment rates of the elderly and women as with Japan.

Figure 1-2-4-1

Outlook for population in 5 major EU countries

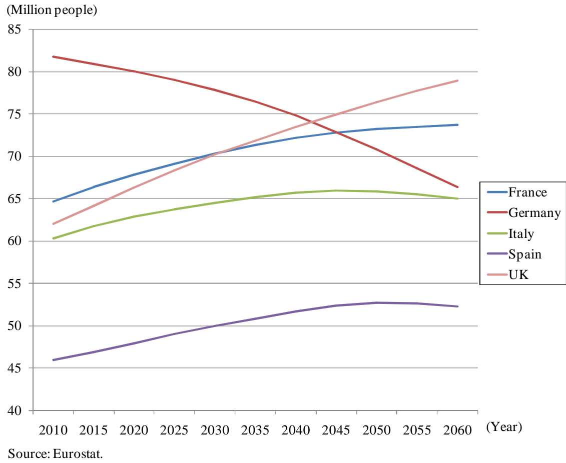
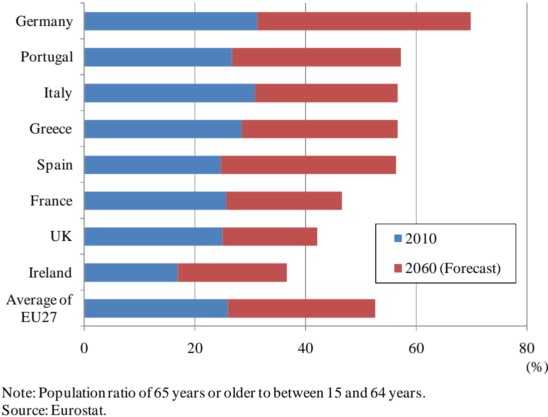


Figure 1-2-4-2

Outlook for population ratio for old people in major EU countries



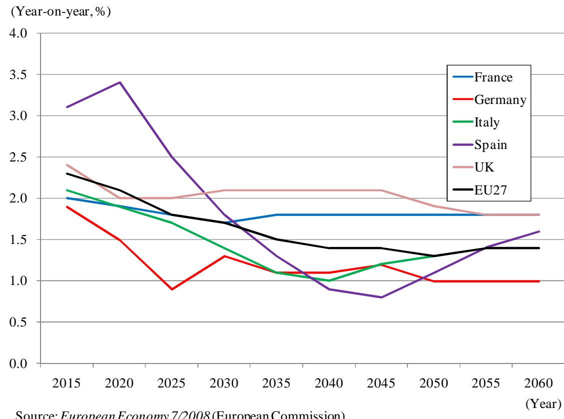
While a large increase in population cannot be expected in major European countries due to factors such as a falling birthrate, Europe has taken advantage of the expansion on the EU as the driving force

94 European Commission (2008). In this forecast, the potential growth rate is estimated based on a forecast of the population in the area that the Statistical Office of the European Communities published in April 2008.

for growth. In particular, its eastward expansion in 2004[95] is said to have brought a large impact on the economy in the area through factors such as the expansion of mutual trade based on formation of a production network linking the EU with Central and East European countries[96]. However, the expansion of the EU after 2007 has quieted down, and the populations of the present new member countries (Iceland, Macedonia, Montenegro, Turkey and Serbia) are between several hundred thousand and several million except Turkey. Therefore, it seems unlikely that these countries will give a boost to economic growth. To achieve growth in the future, it will be important to attract emerging countries outside the area such as rapidly growing Asian countries.

Figure 1-2-4-3

Long-term outlook for potential growth rate of 5 major EU countries



Source: *European Economy 7/2008* (European Commission).

In its monthly report in December 2011, the ECB described the present state of the automobile industry in Germany, France and Italy, showing that while automobile production in Germany was strong and marked a new record in the third quarter of 2011 that in France and Italy were sluggish (Figure 1-2-4-4). The ECB indicated the difference in attracting emerging countries outside the area such as China as the major reason. Table 1-2-4-5 compares major export destinations of passenger cars of Germany, France and Italy using the ECB's indication as reference. While the share of exports from Germany to the EU27 is approximately 50%, that from France and Italy to markets within the EU area is approximately 80% and 70%, respectively. In terms of passenger car exports to China (Figure 1-2-4-6), which is the largest emerging market, that of Germany have steadily increased, and its share of the total imports to China as of 2010 was 37.5%, indicating that Germany is the largest import source for China. By contrast, France and Italy represent only 0.5% and 0.7%, respectively, and have failed to attract the Chinese market. It seems that the way of securing a share by displaying the presence in emerging markets, which are expected to rapidly grow, will determine the growth in the future not only of the automobile industry, but also of other industries.

95 In 2004, ten Central and East European countries (Poland, Czech Republic, Hungary, Slovakia, Slovenia, Estonia, Latvia, and Lithuania) joined the EU. Bulgaria and Rumania joined the EU in 2007, and Croatia will join the EU in July 2012.

96 Tanaka (2007a)

Figure 1-2-4-4

Automotive production in France, Germany, and Italy

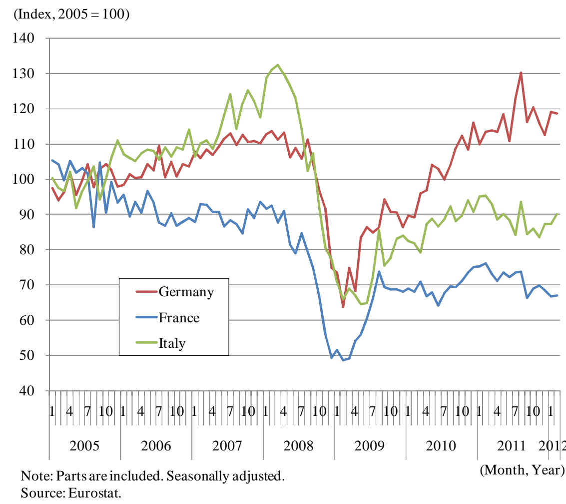


Table 1-2-4-5

Major countries importing automobiles from Germany, France, and Italy (2011)

(%)

	Germany	France	Italy
EU27	49.0	79.9	69.6
U.S.	12.8	0.2	8.1
China	10.7	1.0	3.1
Japan	3.5	0.9	2.1
Switzerland	3.3	3.1	4.8
Russia	2.9	0.6	0.2
Turkey	2.1	2.6	1.9
Canada	1.8	0.1	0.1
Australia	1.7	0.5	1.3
South Korea	1.5	0.3	0.2
Norway	1.4	1.1	0.3
Others	9.3	9.8	8.3

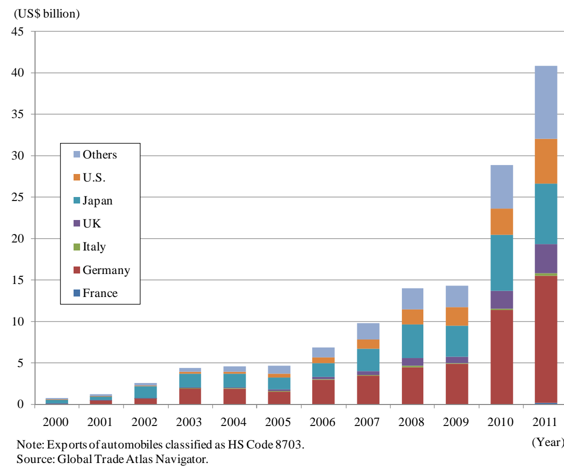
Note: Exports of automobiles classified as HS Code 8703.

Source: Global Trade Atlas Navigator.

(2) Increase in productivity and structural reform of the service industries

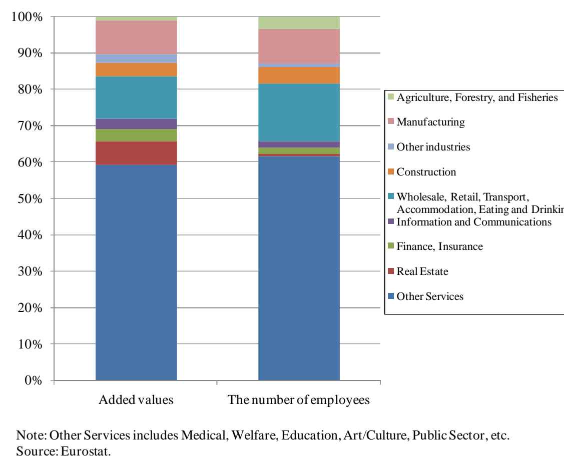
Increases in productivity of the service industries and expansion of service exports, which represent a huge proportion in both economic scale and employment (Figure 1-2-4-7), will be an important key to continuing to promote economic growth, in addition to attracting emerging markets in the manufacturing sector.

Figure 1-2-4-6
China's imports of automobiles by major exporting country



Note: Exports of automobiles classified as HS Code 8703.
Source: Global Trade Atlas Navigator.

Figure 1-2-4-7
Share of EU27 added value and the number of employees by industry (2011)



Note: Other Services includes Medical, Welfare, Education, Art/Culture, Public Sector, etc.
Source: Eurostat.

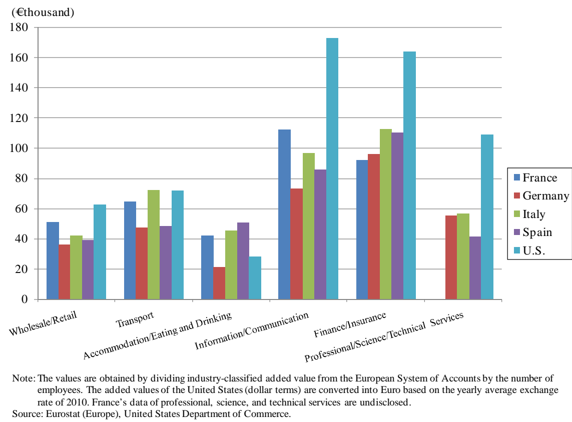
Figure 1-2-4-8 shows the added value per employee in major service industries in major European countries and the United States (data of the United Kingdom are not published). This indicates that the productivity in the service industries of major European countries is generally below that of the United States. In particular, the added value per person in the information and communication, financial and insurance, specialized, science and technical services of European countries is only 30% to 70% of the United States. Therefore, it can be said that there is large room left for raising productivity in the future.

In addition, referring to the trade specialization index (competitiveness coefficient) based on the service trade balance in major service fields on major European countries and the United States from a viewpoint of service export expansion (Table 1-2-4-9), it is found that the coefficients of continental Europe are generally lower than those of the United States and the United Kingdom, indicating that continental European countries lag the United States and the United Kingdom in international

competitiveness. In terms of overall services, the competitiveness of any continental European country is below that of the United Kingdom and the United States except Spain, which has a substantial surplus in the field of travel. And, by field, continental European countries are also far below the United Kingdom and the United States in those fields where the two countries are highly competitive such as financial services, insurance, IT, royalties, and miscellaneous business services (e.g., consulting). For the cause of inferiority of continental Europe in international competitiveness in the service field to the United States and the United Kingdom, it is pointed out that excessive restrictions suppress the increase in productivity. For example, according to an investigation by the OECD, in comparison between major advanced countries in degree of regulation in the specialized services sector such as the legal, accounting and engineering sectors as expressed in the index, the regulations of continental European countries such as Italy and Germany are much stricter than those of the United States and the United Kingdom[97] (Figure 1-2-4-10). It is expected that these countries will grow their exports by striving to increase productivity through structural reforms such as relaxation or abolishment of excessive restrictions while further developing their conventional areas of specialty such as exports in the field of construction related to infrastructure export.

Figure 1-2-4-8

Added value of per employee of major service industries in major European countries and the U.S. (2010)



Note: The values are obtained by dividing industry-classified added value from the European System of Accounts by the number of employees. The added values of the United States (dollar terms) are converted into Euro based on the yearly average exchange rate of 2010. France's data of professional, science, and technical services are undisclosed.
Source: Eurostat (Europe), United States Department of Commerce.

97 For example, a report on the German economy published by the OECD in March 2010 indicates that in the specialized service sector of Germany, there are many regulations such as by-business control, fee control, control of advertizing, and the obligation to join a business organization and complicated affiliation procedures, and that these regulations increases the costs on companies (OECD [2010]).

Table 1-2-4-9

Competitive power coefficient for services of major service sector in major advanced countries (2010)

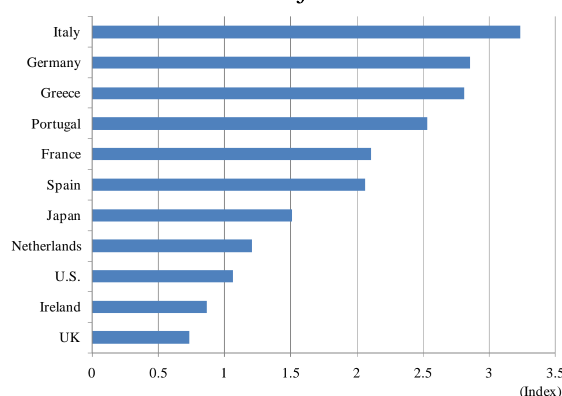
	France	Germany	Italy	Spain	UK	U.S.
Total of service industries	5.1	-5.1	-5.7	17.5	17.0	14.8
Transport	0.3	-4.4	-28.6	-0.4	1.0	-4.4
Travel	8.1	-38.3	17.6	51.6	-23.0	20.4
Communication	7.2	-15.6	1.1	-11.7	3.7	12.0
Construction Service	34.6	19.7	26.3	36.4	2.9	19.5
Insurance	-21.4	20.7	-14.8	-22.0	72.0	-58.1
Finance	8.4	26.3	-21.7	-0.4	68.8	54.2
Computer, Information	-12.7	7.4	-36.6	38.6	30.4	-12.4
Royalty/License	29.6	4.8	-35.6	-49.7	19.6	56.1
Other Business Services	0.5	6.2	-2.1	-2.5	22.5	20.7

Note: Competitive power coefficient = (Trade balance/(Export + Import))×100.
Service trade balance from the Balance of Payment Statistics. The U.S. data data are those from 2009.
Source: OECD stat.

In addition, the service sector is not the only area with high-level regulations. According to a report[98] on the result of investigation conducted among 183 countries by the World Bank on easiness of business operation in the respective countries as of June 2011, in overall evaluation of the business environments of major continental European countries, Germany is ranked 19th and falls behind the United States, ranked 4th, and the United Kingdom, ranked 7th. In particular, Italy is ranked 87th in overall evaluation, almost equal to emerging countries such as China, which is ranked 91st (Table 1-2-4-11). In this report, the World Bank sees factors such as high tax burdens, complexity in tax payment procedures, and long periods required for construction approval and fulfillment of contracts as the reasons for the low evaluation of Italy. However, given that the ranking of Italy is lower than that in overall evaluation (83rd) in the same report in the previous year, the situation has not been improved. It is necessary for Italy to improve its business environment by further pressing ahead with structural reforms not just in the service sector, but in a wider range of industries.

Figure 1-2-4-10

Regulatory level for specialized service sector in major advanced countries (2008)



Note: The indexes are created for the degree of regulation of business startups and operation in legal, accounting, engineering, and construction services. Higher index means stricter regulation.
Source: OECD stat.

98 World Bank (2011)

Table 1-2-4-11

Business environment assessment in major European countries, the UK, and the U.S.

(Ranking)

	France	Germany	Italy	Spain	UK	U.S.
Overall ranking	29	19	87	44	7	4
New business	25	98	77	133	19	13
Construction authorization	30	15	96	38	22	17
Procurement of electricity	62	2	109	69	60	17
Patent grant	149	77	84	56	68	16
Loan	48	24	98	48	1	4
Investor protection	79	97	65	97	10	5
Tax system	58	89	134	48	24	72
Export and import	24	12	63	55	13	20
Contract compliance	6	8	158	54	21	7
Bankruptcy procedures	46	36	30	20	6	15

Source: *Doing Business: 2012* (World Bank).

(3) Promotion of innovations

Together with deregulation, further promotion of innovations will also serve as a key to stimulating medium- to long-term economic growth of Europe. In its economic forecast of the euro zone published in October 2011, the IMF stated in a column with a heading “Why Has Italy Not Grown in the Past 20 Years?” that the reasons for the recent low growth of Italy were a complicated tax system, the rigidity of the labor market, a low participation rate, as well as significant delay in innovations especially in small-to-medium companies. According to a “Global Competitiveness Report” prepared by the World Economic Forum, Italy is ranked 43rd in world ranking of the “innovation index,” which combines seven items such as R&D expenditures at companies, quality of research institutes, and number of acquired patents, close to the lowest among the advanced countries (Table 1-2-4-12). Also in terms of R&D costs in relation to GDP of major advanced countries and investments by venture capitals in relation to GDP, Italy’s position is significantly low (Figure 1-2-4-13 and Figure 1-2-4-14).

Innovation delay occurred not only in Italy. The top five rankers from the 1st to 5th places of the “Innovation” index were Switzerland, Sweden, Finland, Japan and the United States, while Germany, France and Spain were ranked 7th, 17th and 39th, respectively, below the United States and Scandinavian countries. A similar result was found also in the “Technological readiness” index, which combined six items including the easiness in acquiring cutting-edge technologies and the Internet connection environment. Also in terms of R&D costs and investments by venture capitals in relation to GDP, that of France, Germany and Spain was at a low level (Figures 1-2-4-13 and 1-2-4-14 shown above).

Table 1-2-4-12

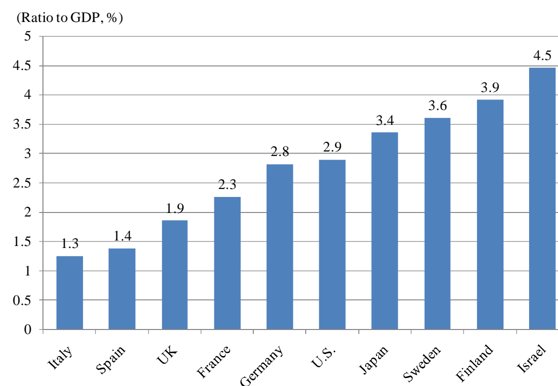
Ranking of “innovation index” in major countries

Rank	Innovation	Rank	Technological readiness
1	Switzerland	1	Switzerland
2	Sweden	2	Sweden
3	Finland	3	Iceland
4	Japan	4	Denmark
5	U.S.	5	Netherlands
6	Israel	6	Hong Kong
7	Germany	7	Norway
8	Singapore	8	UK
13	UK	13	France
17	France	14	Germany
39	Spain	28	Spain
43	Italy	42	Italy

Source: *The Global Competitiveness Report 2011–2012* (WEF).

Figure 1-2-4-13

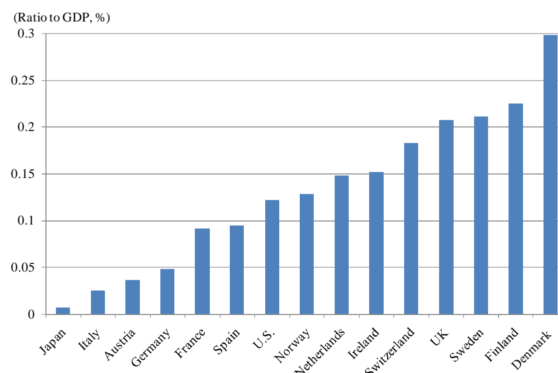
Research and development expenses in major advanced countries (2009)



Source: OECD stat.

Figure 1-2-4-14

Venture capital investments by major advanced countries (2008)



Note: Japan’s data is from the year of 2006.
Source: *Science, Technology and Industry Scoreboard 2009* (OECD).

In the euro zone economic forecast described above, it is indicated that since there is a positive

correlation between these indexes and economic growth, it is necessary for euro zone countries to pursue innovations through promotion of cross-border M&As and investments by venture capitals in creative enterprises in addition to increasing productivity in the IT sector by pressing ahead with human investments and capital investments in the IT sector.

(4) Growth strategy of EU and further deepening of integration

Amid concerns that the potential growth rate may decrease and demand for establishment of a new economic growth model, the EU adopted Europe 2020, a new growth strategy until 2020, at a European Council meeting (leaders meeting) in June 2010. This strategy takes over from the Lisbon Strategy[99], which was a growth strategy for a period between 2000 and 2010, and sets three mutually-complementary most-important tasks: Smart Growth, Sustainable Growth and Inclusive Growth, and is intended to raise the potential growth rate of the EU (Table 1-2-4-15). In the first task, which is aimed at developing the economy based on knowledge and innovations, the EU has introduced measures to prop up the information and communication sector, which has lagged behind the United States, etc. as described earlier. The second task is aimed at not only simply achieving economic growth, but also overcoming the trade-off between the environment and growth, while advocating a low-carbon society and efficient use of resources. The third task is aimed at strengthening the social bond and building an economy with sufficient employment capacity, and consists mainly of measures to secure a labor force population amid concerns that it may decrease in the medium to long term. Each member country is required to set national targets for achieving this strategy, and receive examination by the European Commission about the achievement status for each fiscal year. In addition, the European Commission will submit the results of examining the progress at national and EU levels in the form of an Annual Growth Survey to the European Council so that progress toward achievement of the targets can be mutually observed.

As a means to achieve this strategy, a cross-sectoral effort at an EU level is also required in addition to individual measures for respective sectors, and in particular, pursuit of system harmonization for deepening the integration of a single market is strongly desired. The Single European Act in 1987 clearly states that the integration of markets in Europe shall be completed by the end of 1992, and efforts to establish a system for forming a single market centering on free mobility of humans, materials, capital and services have been made. However, as 2 (1) of this section pointed out that the integration of labor markets has not progressed much, the market integration in reality is still in the middle of the process. At an unofficial meeting of the EU leaders in January 2012, the completion of a single market through steps including (i) simplification of accounting and public procurement rules, (ii) pursuit of electronic commerce and online dispute settlement, (iii) pursuit of cooperation in tax systems, and (iv) agreement on the EU patent/standard package by the end of June 2012 was proposed

99 The Lisbon Strategy was aimed at simultaneously achieving three goals: “creation of a knowledge base-type economy,” “creation of more quality jobs,” and “maintenance and strengthening of a social bond,” and set numerical targets such as an average growth rate of 3% from 2000 to 2010, and an unemployment rate at the 4% mark in 2010. However, due partly to the world economic crisis, most goals were unachieved (Tanaka et al. [2011]).

as an immediate priority task. In April 2012, in its recommendation concerning employment policies, the European Commission demanded the completion of a single market in the labor sector, for example, by enabling reception of unemployment benefits also in other countries in the area. Much attention will be paid to the future development of this area.

In addition, as part of this strategy, the European Commission published a new trade strategy entitled "A Trade Strategy as the Core Element of the Europe 2020 Strategy" in November 2010. This trade strategy is intended to achieve economic growth and employment creation through further liberalization of trade and investments and expansion of consumer benefits, and clearly states priority tasks, specifically, (i) settlement of the Doha Round, (ii) conclusion of an FTA with ASEAN countries and deep and comprehensive free trade agreements with neighboring countries such as Middle Eastern counties (DCFTAs: Deep and Comprehensive Free Trade Agreements), (iii) deepening of relationships with the United States, China, Russia, Japan, India and Brazil, which are strategic economic partners, and (iv) support for global expansion of European countries by setting a mechanism for correcting the imbalance between the EU and other countries concerning non-tariff barriers. According to the European Commission's estimate contained in the strategy, if these are all achieved, almost a half of the EU's trade will be covered by the FTA, the rates of tariffs on exports from the EU will be halved to 1.7% on average, and the rates of tariffs on imports to the EU will be 1.3% on average (lowered by approximately 1/5). And as a result, a benefit of €600 per person will be provided to consumers in the EU, and the growth rate of the EU will be raised by at least 1%.

Table 1-2-4-15

Outline of Europe 2020

<table>
<tr><th colspan="3">The three priorities</th></tr>
<tr><td>Smart Growth
Developing an economy based on knowledge and innovation</td><td>Sustainable Growth
Promoting a competitive economy with an effective use of resources and attaching importance to environment</td><td>Inclusive Growth
Enhancing economical and social territorial cohesion, fostering a high-employment economy</td></tr>
<tr><th colspan="3">The five headline targets</th></tr>
<tr><td colspan="3">• To improve the labor force participation rate of women, middle-aged and older people, and immigrants and to raise the employment rate of the 20–64-year-olds from current 69% to at least 75%.</td></tr>
<tr><td colspan="3">• To continuously set a goal of raising the investment rate to GDP to 3% in R&D, to develop the index showing the intensity of R&D and innovation.</td></tr>
<tr><td colspan="3">• To reduce greenhouse gas emissions by 20% compared to 1990, to raise renewable energy’s share of final energy consumption to 20%, to try to increase energy efficiency by 20%.</td></tr>
<tr><td colspan="3">• To reduce the school drop-out rate below 10% from current 15%, to raise the rate of college graduates of 30–34-year-olds from 31% to at least 40% by 2020.</td></tr>
<tr><td colspan="3">• To reduce the low-income population by 25% whose income are below 60% (poverty level) of median income in disposable income distribution of each member country, and to raise the disposable income of over 20 million population beyond poverty level.</td></tr>
<tr><th colspan="3">Key measures</th></tr>
<tr><th>Innovation</th><th>Climate change/Energy</th><th>Employment/Skill</th></tr>
<tr><td>Flagship initiative:
Innovation Union
Loan and investment programs for research and development aiming at stimulating innovation and investment promotion</td><td>Flagship initiative:
Resource efficient Europe
Low-carbon economy, effective utilization of renewable energy, improvement of transport section, weakening the relationship between economic growth and resource use by the promotion of energy efficiency</td><td>Flagship initiative:
An agenda for new skills and jobs
Equipping people with the right skills for the jobs of today and tomorrow for enabling them to adapt to new circumstances and to change their careers more easily, and ensuring the decrease of unemployment rate and the improvement of productivity</td></tr>
<tr><th>Education</th><th>Competitiveness</th><th>Eliminating poverty</th></tr>
<tr><td>Flagship initiative:
Youth on the move
Promoting overseas education and training, enhancing the outcome and international attractiveness of European higher education institutions, and eventually raising the employment rate of youth

IT
Flagship initiative:
A digital agenda for Europe
Pursuing faster Internet and having individuals/enterprises benefit from it</td><td>Flagship initiative:
An industrial policy for the globalization era
Particularly improving business environment of small and medium-sized enterprises, and supporting the formation of strong industrial infrastructure that can compete in international markets</td><td>Flagship initiative:
European platform against poverty
Securing social and regional cohesiveness in order to widely share the benefits of growth and employment, and for the poor and those socially excluded to live in dignity and actively participate in society</td></tr>
</table>

Source: European Commission press release.

The previous trade strategy published in October 2006 did not mention Japan. However, in the new trade strategy, Japan is regarded as a strategic economic partner to whom special attention should be paid, and mainly the collaboration in the non-tariff barriers sector is considered important. Combined, both markets account for over 30% of the world GDP[100]. The conclusion of an economic partnership

100 The nominal GDPs of Japan and the UE in 2010 were approximately $22 trillion in total, accounting

agreement between the EU and Japan, both of which have high-level economic and technological reserves, would contribute to strengthening the medium- to long-term growth potentials for both parties.

for 34.5% of the world GDP (IMF [2012d]).