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The Financial Crisis: Impact on and Response by The European Union

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Summary

The European Union (EU) and the United States have taken unusual and extraordinary steps to resolve the financial crisis while stimulating domestic demand to stem the economic downturn. These efforts appear to have been successful, although the economic recovery remains tepid. The economic recession and the financial crisis became reinforcing events, causing EU governments to forge policy responses to both crises. In addition, both the United States and the EU have confronted the prospect of growing economic and political instability in Eastern Europe, Greece, and elsewhere over the impact of the economic recession on restive populations. In the long run, the United States and the EU likely will search for a financial regulatory scheme that provides for greater stability while not inadvertently offering advantages to any one country or group. Throughout the crisis, the European Central Bank and other central banks assumed a critical role as the primary institutions with the necessary political and economic clout to respond effectively. Within Europe, national governments, private firms, and international organizations varied their responses to the financial crisis, reflecting differing views over the proper policy course to pursue and the unequal effects of the financial crisis and the economic downturn. Initially, some EU members preferred to address the crisis on a case-by-case basis. As the crisis has ebbed, coordination among European capitals and between Europe and the United States has become more elusive and growing differences threaten the adoption of a coordinated long-term solution to regulatory reform and coordination of financial policies.

Within the United States, Congress appropriated funds to help recapitalize financial institutions, and adopted several economic stimulus measures. In addition, Congress has been involved in efforts to reshape institutions and frameworks for international cooperation and coordination in financial markets. European governments also adopted fiscal measures to stimulate their economies and wrestled with failing banks. The financial crisis has demonstrated that financial markets are highly interdependent and that extensive networks link financial markets across national borders, which has pressed EU governments to work together to find a mutually reinforcing solution. Unlike the United States, however, where the federal government can legislate policies that are consistent across all 50 states, the EU process gives each EU member a great deal of discretion to decide how they will regulate and supervise financial markets within their borders. The limits of this system have been tested as the EU and others have searched for a regulatory framework that spans a broad number of national markets. Governments that have expended considerable resources utilizing fiscal and monetary policy tools to stabilize the financial system and to provided a boost to their economies may be required to be increasingly more inventive in providing yet more stimulus to their economies and face political unrest in domestic populations. Attention likely will also focus on those governments that are viewed as not expending economic resources commensurate with the size of their economies to stimulate economic growth.

Contents

Tables

Appendixes

Contacts

Overview

Some members of the European Union[1] (EU) initially viewed the financial crisis as a purely American phenomenon. That view has changed as economic activity in the EU declined at a fast pace over a short period of time. Making matters worse, global trade declined sharply following the financial crisis, eroding prospects for European exports providing a safety valve for domestic industries that are cutting output. In addition, public protests, sparked by rising rates of unemployment and concerns over the growing financial and economic turmoil, increased the political stakes for EU governments and their leaders. The global economic crisis has strained the ties that bind together the members of the EU and presented a significant challenge to the ideals of solidarity and common interests. In addition, the longer it takes to regain economic growth, the greater are the prospects that international pressure will mount against those governments that are perceived as not carrying their share of the responsibility for stimulating their economies to an extent that is commensurate with the size of their economy. According to Dennis Blair, Director of U.S. National Intelligence, the global financial crisis and its geopolitical implications pose, "the primary near-term security concern of the United States." In addition, he said, "The longer it takes for the [economic] recovery to begin, the greater the likelihood of serious damage to U.S. strategic interests. Roughly a quarter of the countries in the world have already experienced low-level instability such as government changes because of the current slowdown."[2]

Various EU governments expended public resources to rescue failing banks, in addition to protecting depositors and utilizing monetary and fiscal tools to support banks, to unfreeze credit markets, and to stimulate economic growth. These efforts have born modest progress so far. The economic recession and the financial crisis had become reinforcing events, which were forcing EU governments to forge policy responses to both crises. As the loss of real and financial wealth persisted EU governments worked both independently and in concert to address the immediate requirements of protecting financial institutions and improving access to credit by households and businesses. The differential effects of the economic downturn, however, have divided the wealthier countries of the Eurozone[3] from the poorer countries within the EU and in East Europe and has compounded efforts to respond to the financial crisis and the economic recession. At the G-20 summit in Pittsburgh in September 2009, the participants agreed to coordinate their actions on a number of financial reform issues. As the financial crisis has eased, however, coordination has proved to be more elusive. EU banks have been slower than U.S. banks to meet higher capital standards and less forthcoming in detailing their financial condition. The United States, Britain, and continental European regulators also have forged different policies regarding the issue of executive compensation.[4] EU finance ministers also disagree over strict new regulations that would have imposed restrictions on American hedge funds operating in Europe. U.S. Treasury Secretary Geithner has called the new rules protectionist. The measure would have barred foreign hedge funds from operating in Europe unless standards similar to those that are enforced in

[1] Members of the European Union are: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

[2] Blair, Dennis C., *Annual Threat Assessment of the Intelligence Community for the Senate Select Committee on Intelligence*, February 12, 2009.

[3] Members of the Euro area have adopted the Euro as their common currency. Member countries are: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.

[4] Schneider, Howard, U.S. Europe at Odds Over Financial Reform, *The Washington Post*, March 13, 2010, p. A1.

Europe were enforced in the home countries. British, in particular, has opposed the rules that are favored by the French and the Germans, in part because nearly 80% of European hedge funds operate out of Britain and are a major source of income.[5]

For the United States and the members of the European Union the stakes are high. Over the short run, both the EU and the United States attempted to stop the downward spiral in the financial system, improve the financial architecture, and restore balanced economic growth. Over the long run, they likely will search for a regulatory scheme that provides for greater stability while not inadvertently offering advantages to any one country. The financial crisis and the economic downturn had become global events and dominated the attention of policymakers. Governments that expended considerable resources utilizing fiscal and monetary policy tools to stabilize the financial system and to provide a boost to their economies may yet be required to be more inventive in providing more stimulus to their economies and face political unrest in domestic populations.

EU members have been concerned over the impact the financial crisis and the economic recession have had on the economies of East Europe and prospects for political instability[6] as well as future prospects for market reforms. Worsening economic conditions in East European countries could compound the current problems facing financial institutions in EU members. While mutual necessity dictated a more unified position among EU members and led to increased efforts to aid East European economies, some observers are concerned over the long-term prospects of the East European economies. Governments elsewhere in Europe, such as Iceland and Latvia, collapsed as a result of public protests over the way their governments handled their economies during the crisis, and the International Monetary Fund issued emergency loans to Hungary ($15.7 billion) and Ukraine ($16.4 billion). In addition, the IMF has issued loans to Belarus (2.48 billion), Bosnia and Herzegovina ($1.52 billion), Iceland ($2.1 billion), Latvia ($2.35 billion), Moldova ($118.2 million), Poland ($20.58 billion), Romania ($17.1 billion), and Serbia ($4.0 billion). The World Bank in a joint effort with the European Bank for Reconstruction and Development and the European Investment Bank announced on February 27, 2009, that they were providing $31 billion over two years to assist ailing banks and businesses in Eastern and Central Europe.[7]

East European countries have experienced a sharp depreciation in their currencies relative to the Euro and the economic crisis is causing their government deficits to rise, undermining the efforts of some of the countries to join the Eurozone.[8] Banks in the EU have nearly $1.5 trillion in assets potentially at risk in Central and Eastern Europe. The data in **Table 1** include the exposure of the major Western European banks for East European countries and the Russian Federation. Despite this exposure to banks in Eastern Europe, EU leaders, at a meeting on March 1, 2009, reportedly could not agree on a common approach to the financial crisis and rejected a call by Hungary for financial support for Eastern Europe. Even the East European participants could not bridge their differences and present a unified approach to the EU. Some East European countries pushed for

[5] Faiola, Anthony, E.U. Finance Officials at Impasse on Global Reform, *The Washington Post*, March 17, 2010, p. A16.

[6] Pan, Phillip P., Economic Crisis Fuels Unrest in E. Europe, *The Washington Post*, January 26, 2009, p, A1.

[7] Shin, Annys, World Bank to Offer Aid to Eastern Europe, *The Washington Post*, February 27, 2009, p. A10.

[8] To join the Eurozone, countries must keep their government budget deficits, their overall level of government debt, and the rate of price inflation below specified fixed ceilings and hold their currencies within a preset range to the Euro for two years.

substantial financial assistance from the EU, while other countries expressed little interest in receiving financial assistance.[9]

Table 1. Major Western European Banks' Claims on Central and Eastern Europe

(in billions of U.S. dollars)

	Austria	Belgium	France	Germany	Italy	Nether-lands	Sweden	Total
Belarus	$2.1	$0.1	$0.2	$0.9	$0.2	$0.1	$0.0	$3.6
Bulgaria	5.7	2.0	3.6	2.8	8.1	0.7	0.0	22.9
Czech. Rep.	65.1	56.7	38.6	12.7	19.0	6.2	0.2	198.5
Estonia	0.3	0.1	0.1	1.1	0.4	0.0	32.7	34.7
Hungary	38.3	18.7	11.9	37.9	29.3	5.6	0.3	142.0
Latvia	0.8	0.0	0.4	4.8	1.4	0.0	25.0	32.4
Lithuania	0.3	0.1	0.4	3.8	0.7	0.0	28.9	34.2
Poland	17.2	25.2	22.9	55.4	54.4	41.2	8.1	224.4
Romania	46.5	1.2	17.6	3.8	12.9	11.0	0.2	93.2
Russian Fed.	23.9	10.3	34.7	49.5	25.7	25.5	9.9	179.5
Slovakia	33.2	10.9	6.4	4.1	23.6	6.7	0.2	85.1
Ukraine	12.9	0.8	10.6	5.0	4.9	3.7	5.4	43.3
Total	246.3	126.1	147.4	181.8	180.6	100.7	110.9	1,093.8

Source: Lemer, Jeremy, Steven Bernard, and Helen Warrell, Eastern Exposure, *Financial Times*, February 25, 2009.

The crisis has underscored the growing interdependence between financial markets and between the U.S. and European economies. As such, the synchronized nature of the current economic downturn probably means that neither the United States nor the EU is likely to emerge from the financial crisis or the economic downturn alone. The United States and the EU share a mutual interest in developing a sound financial architecture to improve supervision and regulation of individual institutions and of international markets. This issue includes developing the organization and structures within national economies that can provide oversight of the different segments of the highly complex financial system. This oversight is viewed by many as critical to the future of the financial system because financial markets generally are considered to play an indispensible role in allocating capital and facilitating economic activity.

Congress and the Obama Administration are considering a number of proposals to restructure the supervisory and regulatory responsibilities over the broad-based financial sector within the United States. At the same time, such international organizations, as the G-20, the Financial Stability Forum, the International Monetary Fund, the Organization for Economic Cooperation and Development, and the Bank for International Settlements have offered their own prescriptions for the international financial markets.

[9] Forelle, Charles, EU Rejects a Rescue of Faltering East Europe, *The Wall Street Journal*, March 2, 2009.

Financial Architecture

As policymakers address the issue of financial supervision, they likely will weigh the costs and benefits of centralizing supervisory responsibilities into a few key entities, such as the Federal Reserve, or dispersing them more widely across a number of different entities. A centralized approach may avoid the haphazard way in which certain complex financial markets and transactions went largely unregulated. On the other hand, a broader dispersion of supervisory responsibilities may yield a more specialized approach to market supervision. In the United States, the Federal Reserve holds a monopoly over the conduct of monetary policy, mainly as a means of keeping such policy-making independent of political interests. The Federal Reserve also shares regulatory and supervisory responsibilities with a number of different agencies that are more directly accountable to elected officials and are subject to change. The EU system, however, is different from the U.S. system in ways that may complicate efforts at coordination. For instance, the European Central Bank is not strictly comparable to the Federal Reserve in both scope of its regulatory role and its role in supervising banks. In the EU system each EU member has its own institutional and legal framework for regulating its banking market, and national supervisory authorities are organized differently by each EU country with different powers and accountability.

On various occasions over the past several months, EU leaders have discussed the need to develop a common set of rules that could help regulate financial markets and prevent another financial crisis. What has emerged, however, is a lack of consensus over the details of such a regulatory scheme. On February 22, 2009, leaders and Finance Ministers from Germany, the United Kingdom, France, Italy, Spain, the Netherlands, Czech Republic, and Luxembourg met in Berlin to map out a common approach to overhauling financial rules in preparation for the G20 meeting in London on April 2, 2009. A position paper prepared by German Finance Minister Peer Steinbruck set out five areas of discussion for the European leaders: (1) transparency and accountability; (2) enhancing "sound regulation; (3) promoting integrity in financial markets; (4) strengthening international cooperation; and (5) reforming international financial institutions. Beyond these vague goals, the group has not been able to provide a detailed roadmap of how to achieve a new financial architecture, or to gain a unified approach within the broader membership of the EU.

The European leaders also considered proposals for the G20 meeting that would require banks to increase their capital resources in periods of faster economic growth. Reportedly, the Ministers also discussed the growing economic problems in Eastern European countries, tax havens, trade protectionism, and a $500 billion fund for the International Monetary Fund to deal with economic crises. Following the formal talks, German Chancellor Merkel spoke in favor of adopting global regulations for financial markets and hedge funds. In a statement released on behalf of all of the leaders, Chancellor Merkel said, "All financial markets, products, and participants, including hedge funds and other private pools of capital which may pose a systemic risk must be subjected to appropriate oversight or regulation."[10]

Since the fall of 2008, the European Union has moved to address the long-term needs of the financial system. As a key component of this approach, the EU commissioned a group within the EU to assess the weaknesses of the existing EU financial architecture. It also charged this group with developing proposals that could help guide the EU in fashioning a system that would

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[10] Bryant, Chris, EU Leaders Push Sweeping Regulations, *Financial Times*, February 22, 2009.

provide early warning of areas of financial weakness and chart a way forward in erecting a stronger financial system. As part of this way forward, the European Union issued two reports in the first quarter of 2009 that address the issue of supervision of financial markets. The first report,[11] issued on February 25, 2009, and commissioned by the European Union, was prepared by a high-level group on financial supervision headed by former IMF Managing Director and ex-Bank of France Governor Jacques de Larosiere and is known as the de Larosiere Report. The second report[12] was published by the European Commission to chart the course ahead for the members of the EU to reform the international financial governance system.

The de Larosiere Report recommends that the EU create a new macro-prudential level of supervision called the European Systemic Risk Council (ESRC) chaired by the President of the European Central Bank. A driving force behind creating the ESRC is that it would bring together the central banks of all of the EU members with a clear mandate to preserve financial stability by collectively forming judgments and making recommendations on macro-prudential policy. The ESRC would also gather information on all macro-prudential risks in the EU, decide on macro-prudential policy, provide early risk warning to EU supervisors, compare observations on macroeconomic and prudential developments, and give direction on the aforementioned issues.

Next, the Report recommends that the EU create a new European System of Financial Supervision (ESFS) to transform a group of EU committees known as L3 Committees[13] into EU Authorities. The three L3 Committees are: the Committee of European Securities Regulators (CESR); the Committee of European Banking Supervisors (CEBS); and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). The ESFS would maintain the decentralized structure that characterizes the current system of national supervisors, while the ESFS would coordinate the actions of the national authorities to maintain common high level supervisory standards, guarantee strong cooperation with other supervisors, and guarantee that the interests of the host supervisors are properly safeguarded.

"Driving European Recovery," issued by the European Commission, presents a slightly different approach to financial supervision and recovery than that proposed by the de Larosiere group, although it accepts many of the recommendations offered by the group. The recommendations in the report were intended to complement the economic stimulus measures that were adopted by the EU on November 27, 2008, under the $256 billion Economic Recovery Plan[14] that funds cross-border projects, including investments in clean energy and upgraded telecommunications infrastructure. The plan is meant to ensure that, "all relevant actors and all types of financial investments are subject to appropriate regulation and oversight." In particular, the EC plan notes that nation-based financial supervisory models are lagging behind the market reality of a large number of financial institutions that operate across national borders.

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[11] *Report*, The High-Level Group on Financial Supervision in the EU, Chaired by Jacques de Larosiere, February 25, 2009.

[12] *Driving European Recovery*, Communication for the Spring European Council, Commission of the European Communities, April 3, 2009.

[13] Level 3 committees represent the third level of the Lamfalussy process the EU uses to implement EU-wide policies. At the third level, national regulators work on coordinating new regulations with other nations. and they may adopt non-binding guidelines or common standards regarding matters not covered by EU legislation, as long as these standards are compatible with the legislation adopted at Level 1 and Level 2.

[14] *A European Economic Recovery Plan*: Communication From the Commission to the European Council, Commission of the European Communities, COM(2008) 800 final, November 26, 2008. The full report is available at http://ec.europa.eu/commission_barroso/president/pdf/Comm_20081126.pdf

The current financial and economic crises, however, have exposed deep philosophical differences among EU members over the most effective policy course to pursue to address these two crises. EU members have addressed the financial crisis independently and in concert through the EU organization, reflecting the dual nature of the EU system. Unlike the United States, where the Federal government can implement policies that are applied systematically across all 50 States, EU-wide actions reflect compromise among national authorities. As a result, the national authorities exercise considerable freedom in implementing EU Directives and in charting their own response to the crisis. For instance, EU members agreed to support an EU-wide fiscal stimulus to counter the economic downturn. The worsening economic conditions in Europe, however, have not been felt evenly across all EU members, and their response has exposed differences in economic philosophies that have blunted a coordinated approach. EU members also have responded differently to helping banks reduce their exposure to so-called toxic loans, because in the current environment their market value cannot be determined. The efforts by some EU members to address this issue has pushed the EU to consider an EU-wide approach.

Within the EU, however, integration of the financial services sector across borders has been uneven, with integration progressing faster in the money, bond, and equity markets, and slowest in the banking sector where many of the policy changes likely will be focused. According to the European Central Bank,[15] retail banking services remain segmented along national lines as a result of differences in national tax laws, costs of national registration and compliance, and cultural preferences. Nevertheless, cross-border mergers and acquisitions within Europe have played an important role in internationalizing banking groups, which has led to significant cross-border banking activity. Integration within the banking sector in Europe also has increased since the European Community adopted the euro as the EU's single currency.

The EU response to the two crises has been complicated further by a number of factors, including the need to mesh new proposals with such existing EU Directives as the Stability and Growth Pact,[16] the Lisbon Principles,[17] and the Financial Services Action Plan.[18] The EU structure gives the individual members considerable latitude to formulate their own policies in response to crises. In some cases, this has meant that the EU has had to adopt policies that have been implemented by some of its members to prevent a sort of EU-wide competition. For instance, EU members

[15] *EU Banking Structures*, European Central Bank, October 2008.

[16] The Stability and Growth Pact (SGP) is an agreement by European Union members to conduct their fiscal policy in a manner that facilitates and maintains the Economic and Monetary Union of the European Union. The Pact was adopted in 1997 and is based on Articles 99 and 104 of the European Community Treaty, or the Maastricht Treaty, and related decisions. It consists of monitoring the fiscal policies of the members by the European Commission and the Council so that fiscal discipline is maintained and enforced in the Economic and Monetary Union (EMU). The actual criteria that members states must respect are: (1) an annual budget deficit no higher than 3% of GDP, and (2) a national debt lower than 60% of GDP, or approaching that value.

[17] The Lisbon Strategy for Growth and Jobs is a plan adopted by EU members to improve economic growth and employment among the EU members by becoming the most competitive knowledge based economy in the world by 2010. The comprehensive strategy includes adopting sustainable macroeconomic policies, business friendly regulatory and tax policies and benefits, improved education and training, and greater investment in energy efficient and environmentally friendly technology. Two major goals include total public and private investment of 3% of Europe's GDP in research and employment by 2010, and an employment rate of 70% by the same date. A comprehensive report on the Lisbon Strategy is available at http://ec.europa.EU/growthandjobs/pdf/kok_report_en.pdf.

[18] The Financial Services Action Plan replaced the Investment Services Directive and contains a set of measures that are intended to remove the remaining formal barriers in the financial services market among EU members and to provide a legal and regulatory environment that supports the integration of the EU financial markets. *The EU Financial Services Action Plan: A Guide*, HM Treasury, the Financial Services authority, and the Bank of England, July 31, 2003.

were pressed to support a broad set of measures to increase the guarantees on bank accounts for depositors in response to actions by Ireland, Greece, and Germany. Some EU members are also considering procedures to deal with the bad loans of banks within their jurisdictions, which has pushed the EU as a whole to follow suit and consider the best approach to deal with the toxic loans of EU banks. This and other issues have exposed sharp differences among the EU members over the best approach to deal with financial market reforms and economic stimulus measures. These differences may well become more pronounced as multilateral discussions shift from addressing the general goal of containing the financial crisis to the more contentious issues of specific market reforms, regulations, and supervision.

Economic Performance

Estimates developed by the International Monetary Fund in January 2009 provide a rough indicator of the impact the financial crisis and an economic recession have had on the performance of major advanced countries. Economic growth in Europe slowed by nearly 2% in 2009 to post a 0.2% drop in the rate of economic growth, while the threat of inflation has lessened, as indicated in **Table 2**. Economic growth, as represented by gross domestic product (GDP), was projected to register a negative 1.6% rate for the United States in 2009, while the euro area countries were projected to experience a combined negative rate of 2.0%, down from a projected rate of growth of 1.2% in 2008. The sharp drop in the prices of oil and other commodities in the later part of 2008 likely helped improve the rate of economic growth, but the length and depth of the economic downturn means that the IMF projections have proven to be too optimistic. In mid-February, the European Union announced that the rate of economic growth in the EU in the fourth quarter of 2008 had slowed to an annual rate of negative 6%.[19]

Table 2. Projections of Economic Growth in Various Countries and Areas

(real GDP growth, in percent change)

	Actual	Projected		
	2007	**2008**	**2009**	**2010**
World	5.2	3.4	0.5	3.0
United States	2.0	1.1	-1.6	1.6
Advanced Economies	2.7	1.0	-2.0	1.1
Emerging Economies	8.3	6.3	3.3	5.0
European Union	3.1	1.3	-1.8	0.5
Euro Area	2.6	1.0	-2.0	0.2
France	2.2	0.8	-1.9	0.7
Germany	2.5	1.3	-2.5	0.1
Italy	1.5	-0.6	-2.1	-0.1
Spain	2.4	-0.3	-2.6	0.6
United Kingdom	3.0	0.7	-2.8	0.2

[19] Flash Estimates for the Fourth Quarter of 2008, Eurostat news release, STAT/09/19, February 13, 2009.

	Actual	Projected		
	2007	2008	2009	2010
Non-EU advanced	4.6	1.9	-2.4	2.2
Japan	2.4	-0.3	-2.6	0.6
Canada	2.7	0.6	-1.2	1.6

Source: *World Economic Outlook, Update*, the International Monetary Fund, January 2009.

The Financial Crisis and the European Union

The cause and effects of the current financial crisis likely will be debated for years to come. This report does not attempt to provide a complete explanation of the causes of the financial crisis, since other CRS Reports address these issues.[20] While different individuals and organizations view the crisis from different perspectives, one way to view the crisis is as a series of policy events proceeding through four periods where the policy responses differed.[21] The periods are not necessarily discretely identifiable, because they overlap with other periods, or the policy responses have been repeated as the financial crisis has persisted. This has been especially true as the financial crisis has deepened over time and as the economic downturn and the financial crisis have become reinforcing events, compounding efforts to resolve either crisis.

The first phase of the crisis represents the early build-up to the crisis in which policymakers responded in an *ad hoc* manner to assist individually troubled banks and financial institutions. In the second phase, national governments, primarily through central banks, moved to address issues of liquidity that arose from wide-spread concerns over the viability of the financial system, rather than the more narrow concerns of individual institutions. In the third phase, government finance ministries adopted policies to address issues of solvency as banks and other financial firms attempted to deleverage their positions by reducing their holdings of troubled assets and as credit markets essentially shut down. In the fourth phase, governments, through finance ministries and legislative bodies, shifted to address growing concerns over the economic downturn that has worsened the financial crisis.

According to reports by the International Monetary Fund (IMF) and the European Central Bank (ECB), many of the factors that led to the financial crisis in the United States created a similar crisis in Europe.[22] Essentially low interest rates and an expansion of financial and investment opportunities that arose from aggressive credit expansion, growing complexity in mortgage securitization, and loosening in underwriting standards combined with expanded linkages among national financial centers to spur a broad expansion in credit and economic growth. This rapid

[20] See CRS Report R40173, *Causes of the Financial Crisis*, by Mark Jickling; CRS Report R40007, *Financial Market Turmoil and U.S. Macroeconomic Performance*, by Craig K. Elwell; CRS Report RL34412, *Containing Financial Crisis*, by Mark Jickling; CRS Report RS22963, *Financial Market Intervention*, by Edward V. Murphy and Baird Webel; and CRS Report RL34742, *The Global Financial Crisis: Analysis and Policy Implications*, coordinated by Dick K. Nanto.

[21] Fender, Ingo, and Jacob Gyntelberg, Overview: Global Financial Crisis Spurs Unprecedented Policy Actions, *BIS Quarterly Review*, Bank for International Settlements, December 2008.

[22] *Regional Economic Outlook: Europe*, International Monetary Fund, April, 2008, pp. 19-20; and *EU Banking Structures*, European Central Bank, October 2008, p. 26.

rate of growth pushed up the values of equities, commodities, and real estate. Over time, the combination of higher commodity prices and rising housing costs pinched consumers' budgets, and they began reducing their expenditures. One consequence of this drop in consumer spending was a slowdown in economic activity and, eventually, a contraction in the prices of housing. In turn, the decline in the prices of housing led to a large-scale downgrade in the ratings of subprime mortgage-backed securities and the closing of a number of hedge funds with subprime exposure. Concerns over the pricing of risk in the market for subprime mortgage-backed securities spread to other financial markets, including to structured securities more generally and the interbank money market. Problems spread quickly throughout the financial sector to include financial guarantors as the markets turned increasingly dysfunctional over fears of under valued assets.

Phase I – Build-up

The first phase of the financial crisis is identified with a loss of confidence in credit markets that was associated with a downturn in the U.S. housing market caused primarily by rising defaults in subprime mortgages. In this stage, EU governments generally responded on a case-by-case basis, without a role for the broader Community. A sharp downturn in mortgage markets generally would be expected to have a negative impact on parts of the economy, but the current financial crisis quickly evolved into a more general liquidity crisis that spread well beyond the sub-prime mortgage market. Initially, only highly leveraged banks, investment firms, and other financial services providers seemed to be affected by the credit problems. During this phase in the United States, the Federal Deposit Insurance Corporation took control of IndyMac Bank.

The financial crisis that began in the United States as a result of a downturn in residential property values quickly spread to European banks through effects felt in the market for asset-backed commercial paper (ABCP).[23] European banks were either directly holding the securities or they were holding them indirectly through conduits and structured investment vehicles with similar holdings. As the ABCP market collapsed, banks holding such securities were forced to step in with additional funding, which squeezed liquidity in the global financial market through the interbank market. Over time, banks and other financial firms found that it was impossible to price the value of assets that were being used to back commercial paper. During this phase, the British government nationalized housing lender Northern Rock and Bradford & Bingley, a mortgage lender. Belgium, France, and Luxembourg governments and shareholders provided capital to Dexia, the world's largest lender to municipalities, and Belgian, Dutch, and Luxembourg governments injected $16.4 billion into banking and insurance company Fortis to head off the first major bank crisis in the Euro area.

Phase II – Liquidity Issues

In the second phase, policy shifted from an *ad hoc* focus on the fate of individual firms to concerns over troubled markets as central banks intervened to lower interest rates, to provide liquidity, and to provide foreign currency. In the United States, as generally is the case in most

[23] Commercial paper is a short-term unsecured money market security with a fixed maturity issued by large banks and corporations to get money to meet short-term debt obligations and is only backed by an issuing bank or corporation's promise to pay the face amount on the maturity date. Asset-backed commercial paper is a form of commercial paper that is collateralized by other financial assets.

countries, the Federal Reserve, or the central bank, holds a monopoly over the conduct of monetary policy, mainly as a means of keeping such policy-making independent from political pressure. Normally, it is not the role of the central bank to be the main provider of liquidity, but that role falls to the central banks as lenders of last resort during periods of financial crisis. In addition, central banks generally share regulatory and supervisory responsibilities, including providing assistance to individual firms or helping banks deleverage, with a number of different agencies that are more directly accountable to elected officials and are subject to change.

During this phase, governments attempted to stabilize the financial markets by expanding insurance on guarantees for depositors and, in some cases, guarantees for banks. Central banks also engaged in direct injections of capital to support the balance sheets of banks and removed some distressed assets from banks by acquiring the assets. Efforts to acquire distressed assets from the banks, however, raised questions concerning the value of the assets, since, in most cases, the value of the assets had fallen below the value indicated on the balance sheets of the banks. The Bank for International Settlements (BIS) indicates that governments in Europe varied their responses to the financial crisis, as indicated in **Table 3**. In addition, the BIS indicates that there are considerable differences in the design and implementation of the rescue efforts and in the way foreign depositors are treated in the case of a bank failure.

Table 3. Elements of Banking System Rescue Plans in European Countries

Country	Expansion of retail deposit insurance	Guarantee of wholesale liabilities		Capital injections	Asset purchases
		New debt	Existing debt		
Austria	X	X		X	
Belgium	X	X			
Denmark	X	X	X		
Finland	X				
France		X		X	
Germany	X	X		X	X
Greece	X	X		X	
Ireland	X	X	X		
Italy		X		X	
Netherlands	X	X		X	
Norway					X
Portugal	X	X			
Spain	X	X		X	X
Sweden	X	X		X	
Switzerland				X	X
United Kingdom	X	X		X	X

Source: Fender, Ingo, and Jacob Gyntelberg, Overview: global financial Crisis Spurs Unprecedented Policy Actions, *Quarterly Review*, Bank for International Settlements, December 2008, p. 11.

In this phase, Iceland was especially hard hit by the financial crisis, with major Icelandic banks completely shutting down for a period of time.[24] On November 19, 2008, Iceland and the International Monetary Fund (IMF) finalized an agreement on an economic stabilization program supported by a $2.1 billion two-year standby arrangement from the IMF.[25] Following the IMF decision, Denmark, Finland, Norway, and Sweden agreed to provide an additional $2.5 billion. On January 26, 2009, public protests against the Icelandic government's handling of the crisis and the economy caused Iceland's Prime Minister Haarde to resign and the coalition government to fall.

Central Bank Operations

During this phase, U.S. mortgage markets continued to deteriorate, prompting the U.S. Treasury and Federal Reserve to engineer the acquisition of Bear Stearns by JPMorgan Chase and to announce that it was taking over the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac). Soon after this takeover, Lehman Brothers filed for bankruptcy, which led to a more wide-spread crisis of confidence, and which, in turn, led credit markets to freeze up and led to a lack of liquidity. Given Lehman's far-reaching exposure in the financial markets, its collapse likely would have had a negative impact on the financial markets under normal circumstances, but the impact was magnified by underlying weaknesses in the markets that had been building over time. In particular, Lehman was heavily involved in the $57 trillion credit default swap (CDS)[26] market. Lehman's bankruptcy triggered clauses in CDS contracts that referenced Lehman, and it terminated contracts that Lehman had entered into as a counterparty.[27] Lehman also originated commercial paper and other forms of short term debt that a number of European banks held through Lehman's global presence. As investors scrambled to redeem commercial paper, the Federal Reserve stepped in to the money markets and purchased commercial paper and other short term money market securities. Particularly hard hit by the Lehman bankruptcy was AIG (American International Group), which had been closely tied to the CDSs offered by Lehman. The Federal Reserve arranged for a $85 billion credit facility in exchange for an 80% equity stake in AIG.

Various governments, through their central banks, injected capital directly into banks and other financial firms during this phase to keep firms from failing and to arrange mergers by providing liquidity. The British government arranged for Halifax Bank of Scotland (HBOS) to be acquired by the Lloyds Banking Group. In the United States, the Office of Thrift of Supervision seized Washington Mutual Bank from Washington Mutual, Inc. and arranged for its sale to JPMorgan Chase. The Federal Reserve also approved the transformation of Goldman Sachs and Morgan Stanley into bank holding companies.

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[24] CRS Report RS22988, *Iceland's Financial Crisis*, by James K. Jackson.

[25] Anderson, Camilla, Iceland Gets Help to Recover From Historic Crisis, *IMF Survey Magazine*, November 19, 2008.

[26] Credit default swaps are insurance-like contracts that promise to cover losses on certain securities in the event of a default. They typically apply to municipal bonds, corporate debt and mortgage securities and are sold by banks, hedge funds, and others. The buyer of the credit default insurance pays premiums over a period of time in return for peace of mind, knowing that losses will be covered if a default happens. They are supposed to work similarly to someone taking out home insurance to protect against losses from fire and theft.

[27] *Regional Economic Outlook: Europe*, International Monetary Fund, November,2007, p. 6.; and *Quarterly Review*, Bank for International Settlements, December 2008, p. 4.

According to a paper prepared by staff at the International Monetary Fund (IMF),[28] one of the key issues facing central banks during the crisis has been distinguishing between troubled markets and troubled institutions. Troubled institutions can be dealt with on a case-by-case basis, as was done in the initial stages of the financial crisis. Troubled markets, however, require a more coordinated approach since the effects can span a range of countries and financial markets. The authors also concluded that central banks were able to respond quickly to the financial crisis as a result of various aspects of their operational framework that allowed them to respond without fundamentally changing their basic monetary policy. While it is important for central banks to be flexible when responding to a crisis, the study emphasized, central banks, "cannot come to be seen as the market maker of last resort in all markets nor the lender of last resort for all institutions." The authors concluded that central bank policies should strike a balance between supporting the financial system during times of crisis and setting in motion the seeds of future crises. Also, the study indicated that certain types of central bank mechanisms proved to be more effective in providing liquidity and in coping with significant turbulence in the financial markets.

The European Central Bank provided large quantities of reserves through routine short-term open-market operations and through longer-term open market operations. Unlike the Federal Reserve, which normally conducts open market operations with a small set of primary dealers against a narrow range of highly liquid collateral, the ECB routinely conducts open market operations with a wide range of counterparties against a broad range of collateral. The ECB extended this strategy during this phase of the financial crisis with a longer term refinancing operation.[29] This greater flexibility, compared with the Federal Reserve, reportedly made it possible for the ECB to provide liquidity within its existing framework without resorting to extraordinary measures.[30] During this phase, the UK's Financial Services Authority arranged for the sale of a large part of Bradford & Bingley to the Spanish bank Grupo Santander, while Fortis, a banking and insurance company received a capital injection from the Belgian, Dutch, and Luxembourg governments.

During this phase, the British Government announced a $850 billion multi-part plan to rescue its banking sector from the financial crisis, known as the Stability and Reconstruction Plan. The key feature of the plan, as promoted by British Prime Minister Gordon Brown, has the central government acquiring preferred shares in distressed banks for a specified amount of time, rather than acquiring the non-performing loans of the banks. The announcement of the Plan followed a day when British banks lost more than $25 billion on the London Stock Exchange. The biggest loser was the Royal Bank of Scotland, whose shares fell 39%, representing $15 billion, of lost value. In the downturn, other British banks lost substantial amounts of their value, including the Halifax Bank of Scotland which was in the process of being acquired by Lloyds TSB. The British plan is comprised of four parts:

- First was a coordinated cut in key interest rates of 50 basis points, or one-half of one percent (0.5) with the Bank of England, the Federal Reserve, and the European Central Bank all participating.

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[28] Chailloux, Alexandre, Simon Gray, Ulrich Kluh, Seiichi Shimizu, and Peter Stella, *Central Bank Response to the 2007-08 Financial Market Turbulence: Experiences and Lessons Drawn.* IMF Working Paper wP/08/210, International Monetary Fund, September 2008.

[29] Bernanke, Ben S., *Liquidity Provision by the Federal Reserve*, May 13, 2008.

[30] Borio, Claudio, and William Nelson, Monetary Operations and the Financial Crisis, *Quarterly Review*, March 2008, Bank for International Settlements.

- Second was an announcement of an investment facility of $87 billion implemented in two stages to acquire the Tier 1 capital, or preferred stock, in "eligible" banks and building societies (financial institutions that specialize on mortgage financing) in order to recapitalize the firms. Under the financial plan, eight British banks – Abbey, RBS, Barclays, Hallifax Bank of Scotland, HSBC (Hong Kong and Shanghai Banking Corporation), Lloyds TSB, Standard Chartered, and Nationwide Building Society – signed up to participate in the recapitalization effort.
- Third, the British Government agreed to make available to those institutions participating in the recapitalization scheme up to $436 billion in guarantees on new short- and medium-term debt to assist in refinancing maturing funding obligations as they fall due for terms up to three years.
- Fourth, the British Government announced that it would make available $352 billion through the Special Liquidity Scheme[31] to improve liquidity in the banking industry.[32]

In addition to this four-part plan, the Bank of England announced that it had developed three new proposals for its money market operations. First, was the establishment of Operational Standing Facilities that are aimed at addressing technical problems and imbalances in the operation of money markets and payments facilities, although they did not provide financial support. Second, the establishment of a Discount Window Facility which allows banks to borrow government bonds or, at the Bank's discretion, cash, against a wide range of eligible collateral to provide liquidity insurance to commercial banks in stress. Third, a permanent open market for long-tem repurchase agreements (securities sold for cash with an agreement to repurchase the securities at a specified time) against broader classes of collateral to offer banks additional tools for managing their liquidity.[33] The plan was quickly implemented with the UK government taking a controlling interest in the Royal Bank of Scotland (RBS) and Hallifax Bank of Scotland (HBOS).

At the euro area summit on October 12, 2008, the euro area countries, along with the United Kingdom, urged all European governments to adopt a common set of principles to address the financial crisis.[34] The measures the nations supported were largely in line with those that had been proposed by the United Kingdom and included

[31] The Special Liquidity Scheme was launched by the Bank of England on April 21, 2008, to allow banks to temporarily swap their high-quality mortgage-backed and other securities for UK Treasury bills. A number of features of the program are: the swap of government securities will be for one year, but renewable at the Bank of England's discretion for up to three years; the Treasury securities will be available with a fee based on the spread between the LIBOR (the London Interbank Offer Rate) rate and the rate on certain government bonds; risks on the mortgage securities remains with the banks and the banks are required to use only rated assets as collateral; the swaps are available only for assets that were on the bank's balance sheets at the end of 2007 and cannot be used to finance new lending, and the assets of the banks are subject to valuation by the Bank of England; securities provided by the Bank of England are to be marketable Treasury securities that the banks can choose to hold, use as part of the Bank of England's standard market operations, or swap them for cash; the scheme will be closed down by October 2011 with all Treasury securities returned to the Bank of England; and the scheme will not be independent of the Bank of England's monetary policy actions.

[32] *Financial Stability Report,* April 2008, Bank of England, p. 10

[33] Ibid., p. 31.

[34] *Summit of the Euro Area Countries: Declaration on a Concerted European Action Plan of the Euro Area Countries,* European Union, October 12, 2008.

- Recapitalization: governments promised to provide funds to banks that might be struggling to raise capital and pledged to pursue wide-ranging restructuring of the leadership of those banks that are turning to the government for capital.
- State ownership: governments indicated that they will buy shares in the banks that are seeking recapitalization.
- Government debt guarantees: guarantees offered for any new debts, including inter-bank loans, issued by the banks in the euro zone area.
- Improved regulations: the governments agreed to encourage regulations to permit assets to be valued on their risk of default, instead of their current market price.

In addition to these measures, EU leaders agreed on October 16, 2008, to set up a crisis unit and they agreed to a monthly meeting to improve financial oversight.[35] Jose Manuel Barroso, President of the European Commission, urged EU members to develop a "fully integrated solution" to address the global financial crisis, consistent with France's support for a strong international organization to oversee the financial markets. The EU members expressed their support for the current approach within the EU, which makes each EU member responsible for developing and implementing its own national regulations regarding supervision over financial institutions. The European Council stressed the need to strengthen the supervision of the European financial sector. As a result, the EU statement urged the EU members to develop a "coordinated supervision system at the European level."[36] This approach likely will be tested as a result of failed talks with the credit derivatives industry in Europe. In early January 2009, an EU-sponsored working group reported that it had failed to get a commitment from the credit derivatives industry to use a central clearing house for credit default swaps. As an alternative, the European Commission reportedly is considering adopting a set of rules for EU members that would require banks and other users of the CDS markets to use a central clearing house within the EU as a way of reducing risk.[37]

Interest Rates

On October 8, 2008, central banks in the United States, the Eurozone, the United Kingdom, Canada, Sweden, and Switzerland staged a coordinated cut in interest rates to improve liquidity, and they announced that they had a plan of action to address the ever-widening financial crisis.[38] Soon after, the U.S. Treasury, in coordination with the Federal Reserve, announced its Capital Purchase Program as part of its Troubled Asset Relief Program and arranged for an injection of capital in exchange for equity shares into eight major U.S. banks.[39] On October 29, 2008, the U.S. Federal Reserve cut key interest rates by half a percentage point, a move that was matched by

[35] *EU Sets up Crisis Unit to Boost Financial Oversight*, Thompson Financial News, October 16, 2008.

[36] Ibid.

[37] Bradbury, Adam, EU Eyes Next Step on Clearing *The Wall Street Journal Europe*, January 7, 2009, p. 21.

[38] Hilsenrath, Jon, Joellen Perry, and Sudeep Reddy, Central Banks Launch Coordinated Attack; Emergency Rate Cuts Fail to Halt stock Slide; U.S. Treasury Considers Buying Stakes in Banks as Direct Move to Shore Up Capital, *The Wall Street Journal*, October 8, 2008, p. A1.

[39] The original eight banks are: Bank of America, Bank of New York Mellon Corporation, Citigroup Incorporated, Goldman Sachs Group Incorporated, JPMorgan Chase & Company, Morgan Stanley, State Street Corporation, and Wells Fargo and Company. Since this initial injection, nearly 50 banks have participated in the Capital Purchase Program.

China and Norway.[40] In response to these cuts, on November 6, 2008, the Bank of England cut its key interest rates by 1.5 percent points to 3%. The cut was three times larger than any seen since the central bank's monetary policy committee was established in 1997.[41] At the same time, the European Central Bank (ECB), which sets interest rates for the 16 members of the Eurozone, cut its interest rates by half a percentage point to 3.25%.[42] The Czech Central Bank also cut its rates by a larger than expected three-quarters of a percentage point, while the Swiss National Bank lowered its rates by one-half of a percentage point. The cut in rates came as the IMF published an emergency update of its economic forecasts, predicting that the economies of the developed countries would shrink by 0.3% in 2009, down from a projection released in October that growth among the most developed economies would increase by 0.5%.

Currency Swap Facilities

In addition to reducing interest rates and providing liquidity by injecting capital directly into banks, the Federal Reserve and other central banks in Europe and elsewhere expanded short-term bilateral currency swap facilities by $180 billion to compensate for a dollar liquidity crisis. The dollar is used widely in international trade transactions and as a reserve currency by other central banks. The dollar is also used by many financial institutions outside the United States that have substantially increased their dollar investments, including loans to nonbanks and purchases of asset-backed securities issued by U.S. firms. Most financial institutions outside the United States have relied on interbank and other wholesale markets to obtain dollars. As credit markets seized up, however, these institutions found they did not have access to short-term dollar financing. European banks, in particular, had difficulties obtaining US dollar funding. Preceding the financial crisis, European banks had vastly expanded their accumulation of dollars in the interbank market and from official monetary authorities that had acquired dollar-denominated assets. In essence, European banks borrowed dollars short term in the interbank market in order to finance a rapid growth in investments in dollar-denominated assets with varying maturities in assets held by non-banks, such as asset-backed commercial paper, which left European banks with large short-term US dollar funding requirements. Such constant refinancing contributed to the squeeze in liquidity and to problems in obtaining dollars in the foreign exchange market and in cross-country currency swap markets.[43]

The principal tool the Federal Reserve and the European Central Bank used to counter the currency shortage is a temporary currency swap, which allows central banks to borrow currency from each other in order to relend the currencies to banks in their jurisdictions. Typically, inter-central bank foreign exchange swap arrangements are used to support foreign exchange market intervention, rather than to alleviate shortages of foreign exchange in the short-term funding market. Prior to September 2008, the Federal Reserve had established inter-central bank currency swap lines with the Swiss National Bank and with the European Central Bank to deliver U.S. dollar funds, complimenting the Federal Reserve's Term Auction Facility. Between September

[40] Hilsenrath, Jon, Joellen Perry, and Liz Rappaport, Fed Steps up Assault on Slump; U.S. is Joined in Rate Cuts by China, Norway; Doubts Linger on Easing's Impact, *The Wall Street Journal*, October 30, 2008, p. A1.

[41] Atkins, Ralph, and Chris Giles, Deep Rate Cuts in Europe, *Financial Times*, November 7, 2008, p. 1.

[42] Atkins, Ralph, ECB Acts and Hints at More to Come Soon, *Financial Times*, November 7, 2008, p. 2.

[43] *78th Annual Report*, Bank for International Settlements, pp. 104-105.

2008 and November 2008, the Federal Reserve established such arrangements with more than a dozen other central banks.[44]

In addition to shortages of dollars, there have also been shortages of euros and Swiss francs. During the period when the European Central Bank was concluding swap arrangements with the Federal Reserve, it was also establishing currency swaps with the Czech central bank, the National Bank of Denmark, and the National Bank of Poland. Central banks in Europe responded to the currency shortage by providing currency from their own foreign exchange reserves and by borrowing from other central banks, principally from the central bank that issued the currency.

Depositor Guarantees

Ireland, Greece, and Germany also increased their guarantees to deposit holders to improve liquidity in the financial system, a move that was adopted by the EU as a whole to curtail a form of regulatory competition for depositors. The International Monetary Fund also approved a short-term liquidity facility to assist banks facing liquidity problems. The G-7[45] group of countries met to discuss a coordinated approach to the crisis,[46] followed by the Euro area summit, at which the Euro area countries urged all European governments to help recapitalize banks, to have governments buy shares in banks, if needed, to guarantee the debt of banks, and to improve bank regulations.[47]

On December 4, 2008, European central banks initiated another round of cuts in interest rates. The ECB cut its key rate by three-quarters of a percentage point to 2.5%, representing the largest one-day rate move in the bank's 10-year history. In turn, the Bank of England cut its key rate by a full percentage point to 2%. Sweden's central bank also cut interest rates by 1.75 percentage points to 2%, the largest single cut in rates in 16 years.[48] On January 8, 2009, the Bank of England reduced its Official Bank Rate by 0.5 percentage points to 1.5%.[49] In addition, on February 5, 2009, the Bank of England announced an additional cut in its official bank rate by 0.5% to 1.0% to stimulate economic growth.[50] On January 15, 2009, the ECB President Jean-Claude Trichet announced that the bank had cut its rates by 0.5% to 2.0% as a result of lower inflationary pressures and weakening economic prospects due to reduced exports and lower

[44] The central banks include Swiss National Bank, European Central Bank, Bank of England, Bank of Japan, Bank of Canada, Reserve Bank of Australia, Sveriges Riksbank (Sweden), National Bank of Denmark, Central Bank of Norway, Reserve Bank of Norway, Reserve Bank of New Zealand, Central Bank of Brazil, Bank of Mexico, Bank of Korea, Monetary Authority of Singapore, Swiss National Bank, and National Bank of Poland.

[45] The G-7 is comprised of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

[46] *G-7 Finance Ministers and Central Bank Governors Plan of Action*, press release HP-1195, October 10, 2008, United States Department of the Treasury.

[47] Summit of the Euro Area Countries: Declaration on a Concerted European Action Plan of the Euro Area Countries, European Union, October 12, 2008.

[48] Perry, Joellen, and Marcus Walker, Europe's Central Banks Deliver Sweeping Rate Cuts, *Financial Times*, December 5, 2008. p. 1.

[49] Bank of England Reduces Bank Rate by 0.5 Percentage Points to 1.5%, Bank of England news release, January 8, 2009.

[50] *Bank of England Reduces Bank Rate by 0.5 Percentage Points to 1.0%,* Bank of England news release, February 5, 2009.

domestic demand within the EU countries.[51] In summing up, Trichet indicated that the reasoning behind the ECB's decision was based on a number of factors:

> This takes into account the latest economic data releases and survey information, which add clear further evidence to the assessment that the euro area is experiencing a significant slowdown, largely related to the effects of the intensification and broadening of the financial turmoil. Both global demand and euro area demand are likely to be dampened for a protracted period. All in all, the level of uncertainty remains exceptionally high.[52]

Phase III – Solvency and Deleveraging

In the third phase, the lack of confidence in credit markets and a lack of liquidity also sparked concerns over the adequacy of capital provisions of financial institutions and concerns over the solvency of banks and other financial firms. During this phase, financial firms attempted to deleverage by reducing the amount of troubled assets they held on their balance sheets. At the same time, the stocks of most financial firms in the United States and in Europe dropped markedly, and the value of their assets deteriorated, which weakened the financial position of an even larger number of firms. In this phase, intervention by central banks continued, but national governments also began to intervene, typically through their respective Treasury departments, to take control of insolvent banks or otherwise to provide financial assistance. The U.S. Congress passed the Troubled Assets Relief Program as part of the Emergency Economic Stabilization Act (P.L. 110-343) initially intended to acquire up to $700 billion in troubled mortgage-related securities.[53] As the financial crisis persisted, U.S. Treasury Secretary Geithner announced on February 9, 2009, that the Financial Stability Plan that was being prepared at that time by the Treasury Department provided a "full arsenal of financial tools and the resources commensurate" to stress test banks; to provide for a public-private investment fund; to provide funds for consumer and business lending; and to ensure greater transparency, accountability, and monitoring of banks.[54]

The "European Framework for Action"

On October 29, 2008, the European Commission released its "European Framework for Action" as a way to coordinate the actions of the 27 members of the European Union in addressing the financial crisis.[55] On November 16, 2008, the Commission announced a more detailed plan that brings together short-term goals to address the current economic downturn with the longer-term goals on growth and jobs that are integral to the Lisbon Strategy for Growth and Jobs that was adopted by the EU in 2000 and recast in 2005. The short-term plan focuses on a three-part approach to an overall EU recovery action plan/framework. The three parts to the EU framework

[51] Perry, Joellen, Nicholas Winning, and Joe Parkinson, Euro-Zone Activity Slows – Large ECB Rate Cut Expected After Data on Inflation, Services, *The Wall Street Journal Europe*, January 7, 2009, p. 2; Statement by Jean-Claude Trichet, European Central Bank, January15, 2009.

[52] Statement by Jean-Claude Trichet.

[53] The TARP funds have been used instead to inject capital directly into banks through purchases of newly-issued preferred stock.

[54] *Financial Stability Plan Fact Sheet*, U.S. Department of the Treasury, news release, February 9, 2009.

[55] *From Financial Crisis to Recovery: A European Framework for Action*, Communication From the Commission, European Commission, COM(2008) 706 final, October 29, 2008.

are: (1) a new financial market architecture at the EU-level; (2) dealing with the impact on the real economy; and (3) a global response to the financial crisis.

- **A new financial market architecture at the EU level**. The basis of this architecture involves implementing measures that EU members have announced as well as providing for: (1) continued support for the financial system from the European Central Bank and other central banks; (2) rapid and consistent implementation on the bank rescue plan that has been established by the member states; and (3) decisive measures that are designed to contain the crisis from spreading to all of the member states. As the financial system is stabilized, the next step is to restructure the banking sector and to return banks to the private sector. Proposals include: deposit guarantees and capital requirements; regulation and accounting standards; credit rating agencies, executive pay; capital market supervision, and risk management.
- **Dealing with the impact on the real economy**. The policy instruments that can be employed to address the expected rise in unemployment and decline in economic growth are in the hands of the member states. Nevertheless, the EU can assist by adding short-term actions to its structural reform agenda, while investing in the future through: (1) increasing investment in R&D innovation and education; (2) promoting "flexicurity"[56] to protect and equip people rather than specific jobs; (3) freeing up businesses to build markets at home and internationally; and (4) enhancing competitiveness by promoting green technology, and overcoming energy security constraints and achieving environmental goals. In addition, the Commission will explore a wide range of ways in which EU members can increase their rate of economic growth.
- The impact of the financial crisis on the real economies of the EU members likely will require adjustments in the fiscal and monetary policies of the EU members. The Stability and Growth Pact[57] of the EU members should serve as the blueprint for members facing higher than expected levels of fiscal or monetary stimulus so that such policies should be accompanied by structural reforms. Such reforms should aim to sustain domestic demand in the short-run, ease transitions within and into the labor market, and increase potential growth by directing investment into areas that will sustain employment and advance productivity. Reforms in the finance sector should focus on enhancing the competitive position of the European industry and finance the needs of small and medium-sized firms. The Commission will also attempt to counter an expected increase in unemployment by using funds provided under the European Social Fund[58] to reintroduce unemployed workers back into the work force.

[56] The combination of labor market flexibility and security for workers.

[57] The Stability and Growth Pact (SGP) is an agreement by European Union members to conduct their fiscal policy in a manner that facilitates and maintains the Economic and Monetary Union of the European Union. The Pact was adopted in 1997 and is based on Articles 99 and 104 of the European Community Treaty, or the Maastricht Treaty, and related decisions. It consists of monitoring the fiscal policies of the members by the European Commission and the Council so that fiscal discipline is maintained and enforced in the European Monetary Union (EMU). The actual criteria that member states must respect are (1) an annual budget deficit no higher than 3% of GDP , and (2) a national debt lower than 60% of GDP or approaching that value.

[58] The European Social Fund, created in 1957, is the EU's main financial instrument for assisting members in implementing their own plans for investing in workers.

- **A global response to the financial crisis**. The crisis has raised questions concerning global governance that are relative to the financial sector and to the need to maintain open trade markets. The EU intended to use the November 15, 2008, multi-nation economic summit In Washington, DC, to promote a series of measures to reform the global financial architecture. The Commission argued that the measures should include (1) strengthening international regulatory standards; (2) strengthening international coordination among financial supervisors; (3) strengthening measures to monitor and coordinate macroeconomic policies; and (4) developing the capacity to address a financial crisis at the national regional and multilateral levels. Also, a financial architecture plan should include three key principles: (1) efficiency; (2) transparency and accountability; and (3) inclusion of representation from key emerging economies.

In concert with the European Framework for action, several European countries, including Germany, France, Italy, Austria, Netherlands, Portugal, Spain, and Norway announced plans to recapitalize banks and to provide government debt guarantees. European leaders agreed to increase the role of the IMF in preventing a future financial crisis, however, they could not agree on precisely what that role should be.[59] As a consequence, the leaders set a 100-day deadline to draw up reforms for the international financial system and asked the Bank for International Settlements (BIS) to develop a set of guidelines to ensure that banks hold enough capital to reduce the risks of a similar financial crisis.

On January 7, 2009, the BIS responded to the request by the G20 by publishing a first draft of its proposed guidelines[60] for "stress testing banks," or assessing the impact of various large shocks on the ability of banks to absorb losses. Stress testing is a risk management tool that is used by banks to assess the financial position of a bank under a severe but plausible scenario to absorb the impact of unexpected risks on the bank's capital position, which is comprised of common stock and retained earnings. Banks do not loan out their capital directly to borrowers, but use it as a cushion to help them absorb losses from loans and other banking activities. Currently, banks are required to engage in periodic stress testing as a risk management tool. The BIS guidelines provide a set of recommendations for bank supervisors as they review the conduct of stress tests within their banks in order to overcome shortcomings in the present system that failed to assess such risks as: the behavior of complex structured products; risks in relation to hedging strategies; pipeline or securitization risk; contingent risk; and funding liquidity risk.

"Bad Banks"

The United Kingdom, the Netherlands, Germany, and the European Central Bank considered proposals to split off the bad assets of banks into a separate "bad bank" to prevent more banks from failing as did Sweden in the 1990s and Switzerland in 2008. The economic downturn eroded the value of the assets that banks are holding as capital, which caused banks to curtail their lending and, in a growing number of cases, threatened the viability of the bank. The United Kingdom created such a bank when it took over Bradford & Bingley by selling off the healthy portion of the bank and holding "bad" assets. A hurdle that faces a bank with bad assets is that

[59] Hall, Ben, George Parker, and Nikki Tait, European Leaders Decide on Deadline for Reform Blueprint, *Financial Times*, November 8, 2008, p. 7.

[60] *Principles for Sound Stress Testing Practices and Supervision*: Consultative Document, Bank for International Settlements, January 2009.

when the bank participates in such a bad asset program they are forced to lower the value they assign to their bad assets before they can move them to a bad bank, which further dilutes the value of the remaining shares of the bank and compounds the efforts by the bank to raise capital.[61]

Germany is considering a plan that would shift bad assets from banks into special-purpose securities with government guarantees. Officials are also considering providing more generous accounting rules that would protect assets that experience a down grade in their value from having a negative impact on the value of the capital a bank uses to support its core business. In response to actions by Germany and the United Kingdom, the European Central Bank is drawing up guidelines for European governments that are considering establishing "bad" banks to forestall a competitive movement by EU governments. The ECB is also considering guidelines for some governments that are developing plans to guarantee the bad assets that remain on the books of banks to head off a move to gain a competitive advantage for some banks.[62]

Phase IV – Fiscal Intervention

In the fourth phase, as the problems in credit markets persisted, the financial crisis spread to those activities in the real economy that are highly reliant on credit markets, and it reinforced concerns over the adequacy of capital provisions. Furthermore, the slowdown in economic growth weakened the capital position of financial institutions so that the financial crisis and the economic downturn have become negatively reinforcing. Governments have responded in this phase of the crisis by adopting macroeconomic stimulus measures to blunt the effects of the economic recession. In February 2008, Congress passed P.L. 110-185, the Economic Stimulus Act of 2008 to provide rebates to individuals on their income taxes in order to provide a fiscal boost to the U.S. economy.[63] Then in July 2008, Congress adopted, and President Bush signed, P.L. 110-289, the Housing and Economic Recovery Act of 2008 to provide an additional fiscal stimulus to the U.S. economy. In February 2009, as the U.S. economy continued to post large monthly losses in jobs, Congress adopted, and President Obama signed, a compromise measure of H.R. 1, the American Recovery and Reinvestment Act of 2009 to provide an additional fiscal stimulus to the U.S. economy. The British, French, and German governments also announced fiscal stimulus packages. Various central banks announced additional cuts in key interest rates as another effort to stimulate economic growth. On March 5, 2009, the European Central Bank and the Bank of England announced a cut in key interest rates by 0.5% to 1.5% and 0.5%, respectively, approaching the Federal Reserve rate of 0.25%. In addition, the Bank of England announced a quantitative easing in monetary policy, or increasing the money supply, by $150 billion over three months to stimulate economic growth.[64]

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[61] Munoz, Sara Schaefer, and Alistair MacDonald, U.K. Weighs "Bad Banks," *The Wall Street Journal Europe*, February 4, 2009, p. 2.

[62] Perry, Joellen, and Marcus Walker, Central Bank Mulls "Bad Banks," *The Wall Street Journal Europe*, February 2, 2009, p. 19.

[63] CRS Report RS22850, *Tax Provisions of the 2008 Economic Stimulus Package*, by Jane G. Gravelle.

[64] Dougherty, Carter, British Central Bank Cuts Its Key Rate, *The New York Times*, March 6, 2009*; March 5, 2009 – Monetary Policy Decisions*, press release, the European Central Bank.

European Economic Recovery Plan

On November 27, 2008, the European Commission proposed a $256 billion Economic Recovery Plan[65] that would fund cross-border projects, including investments in clean energy and upgraded telecommunications infrastructure. In all, the European Economic Recovery Plan is comprised of two parts. First, each EU member is asked to contribute an amount equivalent to 1.5% of their GDP to boost consumer demand. Second, members are tasked to invest in energy efficient equipment to create jobs and save energy, invest in environmentally clean technologies to convert such sectors as construction and automobiles to low-carbon sectors, and to invest in infrastructure and communications. The members of the European Council approved the plan in a meeting on December 12, 2008. As **Table 4** indicates, most European countries have announced some form of an economic stimulus package.

Table 4. Announced and Planned or Proposed Stimulus Packages

Date Announced	Country	$ in billions	Status, Package Contents
12-Dec-08	European Union	256.00	Fund cross-border projects including clean energy and upgraded telecommunications architecture. Each EU member to contribute an amount equivalent to 1.5% of GDP to boost consumer spending. Members asked to boost spending in energy efficient equipment and clean technologies.
13-Jan-09	Germany	65.00	Infrastructure, tax cuts, child bonus, increase in some social benefits, $3,250 incentive for trading in cars more than nine years old for a new or slightly used car.
24-Nov-08	United Kingdom	29.60	Proposed plan includes a 2.5% cut in the value added tax for 13 months, a postponement of corporate tax increases, government guarantees for loans to small and midsize businesses, spending on public works, including public housing and energy efficiency. Plan includes an increase in income taxes on those making more than $225,000 and increase National Insurance contribution for all but the lowest income workers.
5-Nov-08	France	33.00	Public sector investments (road and rail construction, refurbishment and improving ports and river infrastructure, building and renovating universities, research centers, prisons, courts, and monuments) and loans for carmakers. Does not include the previously planned $15 billion in credits and tax breaks on investments by companies in 2009.
16-Nov-08	Italy	52.00	Awaiting final parliamentary approval. Three year program. Measures to spur consumer credit, provide loans to companies, and rebuild infrastructure. February 6, announced a $2.56 billion stimulus package that was part of the three-year program that includes payments of up to $1,950 for trading in an old car for a new, less polluting one and 20% tax deductions for purchases of appliances and furniture.
22-Nov-08	Netherlands	7.50	Tax deduction to companies that make large investments, funds to companies that hire temporary workers, and creation of a program to find jobs for the unemployed.

65 *A European Economic Recovery Plan*: Communication From the Commission to the European Council, Commission of the European Communities, COM(2008) 800 final, November 26, 2008. The full report is available at http://ec.europa.eu/commission_barroso/president/pdf/Comm_20081126.pdf

Date Announced	Country	$ in billions	Status, Package Contents
11-Dec-08	Belgium	2.60	Increase in unemployment benefits, lowering of the value added tax on construction, abolishing taxes on energy, energy checks for families, faster payments of invoices by the government, faster government investment in railroads and buildings, and lowering of employer's fiscal contributions.
27-Nov-08	Spain	14.30	Public works, help for automobile industry, environmental projects, research and development, restoring residential and military housing, and funds to support the sick.
14-Jan-09	Portugal	2.89	Funds to be provided to medium and small-sized businesses, money for infrastructure, particularly schools, and investment in technological improvement.
20-Nov-08	Israel	5.40	Public works to include desalination plants, doubling railway routes, adding R&D funding, increasing export credits, cutting assorted taxes, and aid packages for employers to hire new workers.
21-Dec-08	Switzerland	0.59	Public works spending on flood defense, natural disaster and energy-efficiency projects.
5-Dec-08	Sweden	2.70	Public infrastructure and investment in human capital, including job training, vocational workshops, and workplace restructuring.; extension of social benefits to part-time workers.
26-Jan-09	Norway	2.88	Investment in construction, infrastructure, and renovation of state-owned buildings, tax breaks for companies.

Source: Various news articles.

Notes: Amounts are in U.S. dollars. Currency conversions to U.S. dollars were done in the news articles or by using current exchange rates.

As part of the EC plan, budget rules imposed by the Stability and Growth Pact would be loosened to allow EU members to adopt economic stimulus plans to shore up their declining economic growth rates. The plan is intended to mesh with the goals and objectives outlined in the Lisbon Strategy to improve the rate of economic growth among EU members. This plan also proposes official support measures to increase the rate of employment and to focus investments on such high technology sectors as telecommunications and environmentally safe technologies. In addition to the proposed macroeconomic stimulus plan, various central banks have worked in concert to cut key interest rates in an effort to boost economic growth.

Table 5, developed by the OECD, presents more detailed data on the tax and spending measures that are elements of the fiscal packages adopted by European countries. The data represent the value of the individual tax and spending measures represented as a share of the respective European country. The net effect represents the combination of the tax and spending measures, again represented as share of the respective country's GDP.

Table 5. Composition of Fiscal Packages of European Countries

(Total over 2008-2010 period as % of GDP in 2008)

	Net effect	Tax measures				
		Total	Individuals	Businesses	Consumption	Social contributions
Austria	-1.2	-0.8	-0.8	-0.1	0.0	0.0

		Tax measures				
Belgium	-1.4	-0.3	0.0	-0.1	-0.1	0.0
Czech Republic	-2.8	-2.5	0.0	-0.7	-0.4	-1.4
Denmark	-3.3	-0.7	0.0	0.0	0.0	0.0
Finland	-3.2	-2.7	-1.9	0.0	-0.3	-0.4
France	-0.7	-0.2	-0.1	-0.1	0.0	0.0
Germany	-3.2	-1.6	-0.6	-0.3	0.0	-0.7
Greece	0.8	0.8	0.8	0.0	0.0	0.0
Hungary	7.7	0.2	-0.6	-0.1	2.3	-1.5
Iceland	7.3	5.7	1.0	–	–	–
Ireland	8.3	6.0	4.5	-0.2	0.5	1.2
Italy	0.0	0.3	0.0	0.0	0.1	0.0
Luxembourg	-3.9	-2.3	-1.5	-0.8	0.0	0.0
Netherlands	-2.5	-1.6	-0.2	-0.5	-0.1	-0.8
Norway	-1.2	-0.3	0.0	-0.3	0.0	0.0
Poland	-1.2	-0.4	0.0	-0.1	-0.2	0.0
Portugal	-0.8	–	–	–	–	–
Slovak Republic	-1.3	-0.7	-0.5	-0.1	0.0	-0.1
Spain	-3.9	-1.7	-1.6	0.0	0.0	0.0
Sweden	-3.3	-1.7	-1.3	-0.2	0.0	-0.2
Switzerland	-0.5	-0.2	-0.2	0.0	0.0	0.0
Turkey	-4.4	-1.5	-0.2	-1.1	-0.2	0.0
United Kingdom	-1.9	-1.5	-0.5	-0.2	-0.6	0.0

	Spending measures					
	Total	Final consumption	Investment	Transfers to households	Transfers to businesses	Transfers to sub-national government
Austria	0.4	0.0	0.1	0.2	0.0	0.1
Belgium	1.1	0.0	0.1	0.5	0.5	0.0
Czech Republic	0.3	-0.1	0.2	0.0	0.2	0.0
Denmark	2.6	0.9	0.8	0.1	0.0	0.0
Finland	0.5	0.0	0.3	0.1	0.0	0.0
France	0.6	0.0	0.2	0.3	0.0	0.0
Germany	1.6	0.0	0.8	0.3	0.3	0.0
Greece	0.0	-0.4	0.1	0.4	0.1	0.0
Hungary	-7.5	-3.2	0.0	-3.4	-0.4	-0.5
Iceland	-1.6	–	–	–	–	–
Ireland	-2.2	-1.8	-0.2	-0.1	0.0	0.0

		Tax measures				
Italy	0.3	0.3	0.0	0.2	0.1	0.0
Luxembourg	1.6	0.0	0.4	1.0	0.2	0.0
Netherlands	0.9	0.0	0.5	0.1	0.0	0.0
Norway	0.9	0.0	0.4	0.0	0.0	0.3
Poland	0.8	0.0	1.3	0.2	0.1	0.0
Portugal	–	0.0	0.4	0.0	0.4	0.0
Slovak Republic	0.7	0.0	0.0	0.1	0.6	0.0
Spain	2.2	0.3	0.7	0.5	0.7	0.0
Sweden	1.7	1.1	0.3	0.1	0.0	0.2
Switzerland	0.3	0.3	0.0	0.0	0.0	0.0
Turkey	2.9	0.6	1.2	0.0	0.3	0.6
United Kingdom	0.4	0.0	0.4	0.2	0.0	0.0

Source: *OECD Economic Outlook*, Organization for Economic Cooperation and Development, June 2009, p. 61.

Notes: Net effect represents the combination of tax measures and spending measures.

Germany

In an effort to confront worsening economic conditions, German Chancellor Angela Merkel proposed a package of stimulus measures, including spending for large-scale infrastructure projects, ranging from schools to communications. The stimulus package represents the second multi-billion euro fiscal stimulus package Germany adopted. The plan, announced on January13, 2009, reportedly was doubled from initial estimates to reach more than 60 billion Euros[66] (approximately $80 billion) over two years. The plan reportedly includes a pledge by Germany's largest companies to avoid mass job cuts in return for an increase in government subsidies for employees placed temporarily on short work weeks or on lower wages.[67] Other reports indicate that Germany is has considered an emergency fund of up to 100 billion Euros in state-backed loans or guarantees to aid companies having problems getting credit.[68]

Chancellor Merkel was criticized within her own government and by other leaders in Europe for not moving aggressively enough to address either the financial crisis, or the economic downturn.[69] Initially, Merkel attempted to block and then offered tepid support for the EU plan to provide an EU-wide economic package to stimulate growth. Chancellor Merkel indicated that she has a fundamental disagreement over the effectiveness of such macroeconomic stimulus measures especially given the protracted struggle in Germany to reduce its government deficit spending to meet the guidelines in the EU Stability and Growth Pact. Instead, Merkel has argued in favor of targeted actions taken independently by EU members to tackle their own unique set of

[66] Benoit, Bernard, Germany Doubles Size of Stimulus, *Financial Times*, January 6, 2009, p. 10; Walker, Marcus, Germany's Big Spending Plans, *The Wall Street Journal Europe*, January 13, 2009, p. 3.

[67] Benoit, Bernard, German Stimulus Offers Job Promise, *Financial Times*, December 16, 2008. p. 1.

[68] Walker, Marcus, Germany Mulls $135 Billion in Rescue Loans, *The Wall Street Journal Europe*, January 8, 2009, p. 1.

[69] Benoit, Bernard, A Measured Merkel, *Financial Times*, November 25, 2008, p. 9.

circumstances. Some observers argue that such a plan could come at a high political cost to Merkel, who vowed when she was elected to balance Germany's government budget by 2011.

Overall, Germany's response to the economic downturn changed markedly between December 2008 and January 2009 as economic conditions continued to worsen. In a December 2008 article, German Finance Minister Peer Steinbruck defended Germany's approach at the time. According to Steinbruck, Germany disagreed with the EU plan to provide a broad economic stimulus plan, because it favored an approach that is more closely tailored to the German economy. He argued that Germany is providing a counter-cyclical stimulus program even though it is contrary to its long-term goal of reducing its government budget deficit. Important to this program, however, are such "automatic stabilizers" as unemployment benefits that automatically increase without government action since such benefits play a larger role in the German economy than in other economies. Steinbruck argued that, "our experience since the 1970s has shown that ... stimulus programs fail to achieve the desired effect ... It is more likely that such large-scale stimulus programs – and tax cuts as well – would not have any effects in real time. It is unclear whether general tax cuts can significantly encourage consumption during a recession, when many consumers are worried about losing their jobs. The history of the savings rate in Germany points to the opposite."[70]

France

France, which had lead efforts to develop a coordinated European response to the financial crisis, proposed a package of measures estimated to cost over $500 billion. The French government created two state agencies to provide funds to sectors where they are needed. One entity would issue up to $480 billion in guarantees on inter-bank lending issued before December 31, 2009, and would be valid for five years. The other entity would use a $60 billion fund to recapitalize struggling companies by allowing the government to buy stakes in the firms. On January 16, 2009, President Sarkozy announced that the French government would take a tougher stance toward French banks that sought state aid. Up to that point, France had injected $15 billion in the French banking system. In order to get additional aid, banks would be required to suspend dividend payments to shareholders and bonuses to top management and to increase credit lines to such clients as exporters. France reportedly was preparing to inject more money into the banking system.[71]

On December 4, 2008, President Sarkozy announced a $33 billion (26 billion euros) package of stimulus measures to accelerate planned public investments.[72] The package is focused primarily on infrastructure projects and investments by state-controlled firms, including a canal north of Paris, renovation of university buildings, new metro cars, and construction of 70,000 new homes, in addition to 30,000 unfinished homes the government has committed to buy in 2009. The plan also includes a 200 Euro payment to low-income households. On December 15, 2008, France agreed to provide the finance division of Renault and Peugeot $1.2 billion in credit guarantees and an additional $250 million to support the car manufacturers' consumer finance division.[73] In

[70] Steinbruck, Peer, Germany's Way Out of the Crisis, *The Wall Street Journal*, December 22, 2008.

[71] Parussini, Gabrielle, France to Give Banks Capital, With More Strings Attached, *The Wall Street Journal Europe*, January 16, 2009, p. A17.

[72] Gauthier-Villars, David, Leading News: France Sets Stimulus Plan, *The Wall Street Journal Europe*, December 5, 2008, p. 3.

[73] Hall, Ben, France Gives Renault and Peugeot E.U.R 779m, *Financial Times*, December 16, 2008, p. 4.

an interview on French TV on January 14, 2009, French Prime Minister Francois Fillon indicated that the French government is considering an increase in aid to the French auto industry, including Renault and Peugeot.[74] The auto industry and its suppliers reportedly employ about 10% of France's labor force.

United Kingdom

On November 24, 2008, Britain's majority Labor party presented a plan to Parliament to stimulate the nation's slowing economy by providing a range of tax cuts and government spending projects totaling 20 billion pounds (about $30 billion).[75] The stimulus package includes a 2.5% cut in the value added tax (VAT), or sales tax, for 13 months, a postponement of corporate tax increases, and government guarantees for loans to small and midsize businesses. The plan also includes government plans to spend 4.5 billion pounds on public works, such as public housing and energy efficiency. Some estimates indicate that the additional spending required by the plan will push Britain's government budget deficit in 2009 to an amount equivalent to 8% of GDP. To pay for the plan, the government would increase income taxes on those making more than 150,000 pounds (about $225,000) from 40% to 45% starting in April 2011. In addition, the British plan would increase the National Insurance contributions for all but the lowest income workers.[76]

On January 14, 2009, British Business Secretary Lord Mandelson unveiled an additional package of measures by the Labor government to provide credit to small and medium businesses that have been hard pressed for credit as foreign financial firms have reduced their level of activity in the UK. The three measures are: (1) a 10 billion pound (approximately $14 billion) Capital Working Scheme to provide banks with guarantees to cover 50% of the risk on existing and new working capital loans on condition that the banks must use money freed up by the guarantee to make new loans; (2) a one billion pound Enterprise Finance Guarantee Scheme to assist small, credit-worthy companies by providing guarantees to banks of up to 75% of loans to small businesses; and (3) a 75 million pound Capital for Enterprise Fund to convert debt to equity for small businesses.[77]

Prime Minister Brown has come under sharp criticism from abroad over the stimulus packages and from opposition party leaders at home over his handling of the economy before and during the financial crisis. He is also being criticized over the depreciating pound and the lack of evidence that the British economy is showing signs of responding to the economic rescue plan. German Finance Minister Peer Steinbruck, for one, called the British plan, "crass Keynesianism."[78] At home, the depreciating pound has undermined the credibility of Prime Minister Brown who previously had equated a weak currency with a weak economy and a weak government.[79] Depreciation in the exchange value of the pound puts upward pressure on domestic

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[74] Abboud, Leila, France Considers New Measures to Aid Auto Companies, *The Wall Street Journal Europe*, January 15, 2009, p. 4.

[75] Scott, Mark, Is Britain's Stimulus Plan a Wise Move? *BusinessWee*k, November 24, 2008; Werdigier, Julia, Britain Offers $30 Billion Stimulus Plan, *The New York Times*, November 25, 2008.

[76] Falloon, Matt, and Mike Peacock, UK Government to Borrow Record Sums to Revive Economy, *The Washington Post*, November 24, 2008.

[77] *Real Help for Business*, press release, Department for Business, Enterprise and Regulatory Reform, January 14, 2009; Mollenkamp, Carrick, Alistair MacDonald, and Sara Schaefer Munoz, Hurdles rise as U.K. Widens Stimulus Plan, *The Wall Street Journal Europe*, January 14, 2009, p. 1.

[78] Watt, Nicholas, British Ambassador Responds to German Economic Criticism, *Guardian*, December 12, 2008.

[79] Parker, George, Brown Suffers as Pound Slides, *Financial Times*, December 16, 2008, p. 9.

prices as a result of higher import prices, but it helps boost exports by reducing the cost of British goods in foreign markets.

Outlook

The financial crisis has underscored the growing interdependence between financial centers and has tested the ability of EU members to cooperate in developing an EU-wide response. The financial interdependence between the United States and the European Union means that the EU and the United States share common concerns over the global impact of the financial crisis and the economic downturn. It also means that they both support and hope to benefit from efforts by national governments to stimulate their economies. Such stimulus measures, however, could become a source of friction if some of the larger economies are viewed as not carrying their share of the burden for a global recovery by providing stimulus measures that are commensurate with the size of their economy. The EU and the United States also share common concerns over the stability of East European countries. These common concerns eventually worked to spur EU members to forge a common consensus regarding the necessity of providing financial assistance to East European countries. Some observers are concerned, however, that the financial crisis and the economic downturn may erode economic conditions in the East European economies, with possible implications for negative effects on the economies in Europe and the United States.

In addition to these concerns, the United States and the EU members share common concerns over the organization of financial markets domestically and abroad and seek to improve supervision and regulation of individual institutions and of international markets. Extensive cross-border banking activities by a number of EU countries has demonstrated that serious problems in one country can have a substantial impact on the financial system elsewhere, while governments may face potentially large liabilities that are associated with branches in another country.[80] One solution that is being considered is in developing the organizational structures within national economies that can provide oversight of the different segments of the highly complex financial system. Such oversight is viewed by many as critical, because financial markets are generally considered to play an indispensible role in allocating capital and facilitating economic activity. Some observers argue, however, that the complexity of the financial system has outstripped the ability of national regulators to oversee effectively.

The financial crisis also has revealed extensive interdependency across financial market segments both within many of the advanced national financial markets and across national borders. As a result, the United States and members of the EU share mutual interests in solving both the financial crisis and the economic recession, because the two crises have become negatively reinforcing events. EU leaders are also especially concerned over the impact the economic crisis is having on the political stability and commitment to market reforms among the emerging economies of Eastern Europe. EU leaders are supporting a number of efforts to provide assistance to European economies, but they may have to expend considerably more resources if the economic crisis persists for an extended period of time.

The international nature of financial markets and capital flows likely means that efforts to address the current situation and to prevent future crisis require a coordinated response between the United States and the EU. A coordinated response likely will need to address such issues as

[80] *OECD Economic Surveys: Europe*, January 2009, Organization for Economic Cooperation and Development, p. 47.

financial market regulation, oversight of financial firms and institutions, greater transparency, and the role of independent credit rating and auditing institutions. Significant differences remain, however, among EU members and between some EU members and the United States over issues of financial supervision and regulation that could significantly complicate future efforts to craft a coordinated approach to supervising financial market at an international level. Some EU members favor a strong central authority that can monitor financial markets, while others favor strong national authorities with a weaker role for an international body. EU members recognize that economic integration means that financial and economic crises can spill across national borders, but their efforts to implement a coordinated response are being hampered by very real differences in the impact the economic recession is having on individual EU members.

The financial crisis also raises important questions about how a nation can protect its depositors from financial crisis elsewhere and about the level of financial sector debt that is manageable without risking system-wide failure. In addition, the failure of a number of large banks raises questions about bank supervision, primarily about how national governments should supervise foreign financial firms that are operating within their borders. This issue raises questions about how countries can protect their depositors when foreign-owned firms attempt to withdraw deposits from one market in order to offset losses in another. One approach focuses on broad levels of cooperation between national governments with each government addressing the crisis from its own perspective and in its own limited way. For a number of governments in Europe this approach is appealing, because their economies and their banks have felt little direct effect from the crisis.

An alternative approach argues in favor of a more integrated and coordinated response from national governments and central banks. This approach argues that a coordinated systemic approach is necessary, because financial markets in the United States and Europe have become highly integrated as a result of cross-border investment by banks, securities brokers, and other financial firms. As a result of this integration, economic and financial developments that affect national economies are difficult to contain and are quickly transmitted across national borders, as attested to by the financial crisis of 2008. As financial firms react to a financial crisis in one area, their actions can spill over to other areas as they withdraw assets from foreign markets to shore up their domestic operations. For instance, as Icelandic banks began to default, Britain used an anti-terrorism law to seize the deposits of the banks to prevent the banks from shifting funds from Britain to Iceland.[81] Banks and financial firms in Europe have felt the repercussions of the U.S. financial crisis as U.S. firms operating in Europe and as European firms operating in the United States have adjusted their operations in response to the crisis.

The financial crisis also raises questions about the cost and benefits of branch banking across national borders where banks can grow to be so large that disruptions in the financial market can cause defaults that outstrip the resources of national central banks to address. Such branch banking across national borders has significantly expanded financial opportunities for individual investors and firms alike and is unlikely to disappear as a result of the current financial crisis. Nevertheless, if some financial institutions are deemed to be too big to fail, financial regulators and national governments likely will need to address the issue of who and how such institutions should be supervised when their operations span national borders and they are engaged in a vast array of banking and investment operations.

[81] Benoit, Bertrand, Tom Braithwaaite, Jimmy Burns, Jean Eaglesham, et. al., Iceland and UK clash on Crisis, Financial Times, October 10, 2008, p. 1.

The European Economic Recovery Plan calls for EU members to contribute an amount equal to 1.5% of their respective GDP to stimulate economic growth. Some observers argue, however, that the size of an economic stimulus package should be sufficient to address the size and nature of the relevant economic crisis, instead of being determined as a certain percentage of GDP. The nature of the current economic recession may well call for a larger stimulus package than that dictated by a pre-set percentage of a country's GDP. The ability of individual countries to provide a large economic stimulus, however, may be inhibited by actions they already have taken and by concerns over providing the right balance between sometimes competing goals of implementing policies that have a large and lasting impact but that do not threaten the long-term stability in national finances.

So far, members of the European Union have struggled to implement a coordinated response to the economic crises. In the current context, many argue that an export-led recovery strategy is not an option. Efforts to promote exports or to discourage imports likely will not provide a significant boost to economic growth in any one country and could lead to retaliation by other countries depending on the costs and benefits of implementing such a strategy. The slowdown in economic activity has reduced exports world-wide and banks are balking at providing trade financing to small and medium firms.[82] The financial crisis also has weakened some of the traditional mechanisms through which monetary policy is transmitted. A number of EU countries already have used monetary expansion and cuts in interest rates to provide liquidity during the financial crisis and may have limited ability to provide for additional fiscal measures to stimulate their economies. Furthermore, some EU members disagree over how best to implement a coordinated economic stimulus plan, due in part to deep philosophical differences among EU members over the conduct of macroeconomic policies.

Another important factor that is affecting the EU's response to the economic recession is the need to develop new policies in a manner that meshes with the carefully crafted and highly negotiated Directives that already exist within the EU framework. These Directives act as guiding principles for EU members. In particular, the call for economic stimulus has created a conflict for some EU Members who are politically and philosophically committed to the goals of the Growth and Stability Pact and with the development goals of the Lisbon Strategy. Arguably, these agreements have helped stabilize economic conditions in Europe by bringing down the overall rate of price inflation and by reducing government budget deficits. In addition to the Lisbon Strategy, EU members likely will consider proposals to examine financial supervision and regulation within the context of the EU's Directive on Financial Services and the Financial Services Action Plan (FSAP) when it engages in negotiations with the United States and the G20 later in 2009.

[82] Evans, Kelly, John W. Milner, and Mei Fong, Trade Decline Adds to the Global Slowdown – Major Nations Post Big Export Retreats as Demand Falls Off, *The Wall Street Journal Europe*, January 14, 2009, p. 2; Lyons, John, Trade-Finance Squeeze Hurts the Healthy, *The Wall Street Journal Europe*, December 22, 2008, p. 10.

Appendix. Overview of the European Union

The European Union is a political and economic union of 27 member states, formally established in 1993 by the Treaty of Maastricht out of existing structures that had evolved in steps since the 1950s. The EU has worked to develop a single economic market through a standardized system of laws which apply across all member states and which provide the freedom of movement of people, goods, services and capital. This process of economic integration is complicated by a dual system that gives the members of the EU significant independence within the EU and broad discretion to interpret and implement EU directives. The EU maintains common trade, agricultural, and fisheries policies, and a regional development policy. EU economic integration is compounded further by sixteen member states, collectively known as the Eurozone,[83] which have adopted the euro as a common currency and operate as a bloc within the EU. Major institutions and bodies of the EU include the European Commission, the European Parliament, the Council of the European Union, the European Council, the European Court of Justice, and the European Central Bank (ECB). Through various Directives, the EU has moved to increase financial integration within the Union to make the monetary union represented by the Eurozone operate more efficiently and the help the EU members realize the full potential of the EU.

Within the EU, the European Commission operates as the executive branch and is responsible for proposing legislation, implementing decisions, upholding the Union's treaties, and the general day-to-day running of the Union. The Commission operates as a cabinet government, with one Commissioner from each member. One of the 27 is the Commission President (currently José Manuel Barroso) appointed by the European Council, with the approval of the European Parliament, for a term of five years. Relative to the financial sector, the EU process provides for each member to have its own institutional and legal framework, which complicates efforts to coordinate financial policies. Within the EU, there are a number of bodies that bring together the supervisors, finance ministers, and central bankers of the EU members. Within the European Council, the Economic and Financial Affairs Council (ECOFIN) is one of the oldest bodies with the Council. ECOFIN's responsibilities include economic policy coordination, economic surveillance, monitoring of budget policy and preparation of the EU's budget. The key bodies in the EU banking sector include the following:

- **European Banking Committee**. The committee consists of representatives of the ministries of finance of the EU members and advises the EU Commission on policy issues related to banking activities and on proposals in the banking area.
- **Committee of European Banking Supervision**. The committee is comprised of representatives of supervisory authorities and central banks and coordinates on regulatory and supervisory convergence.
- **European Central Bank**. The ECB's main role is financial stability and monitoring in cooperation with national central banks and supervisory agencies.
- **Banking Supervision Committee**. This committee brings together national central banks, banking supervisory authorities, and the ECB. It monitors and assesses developments in the euro area, analyses the impact of regulatory and supervisory requirements on financial system stability, and it promotes

[83] Members of the euro area are: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.

cooperation and exchange of information between central banks and supervisory authorities on issues of common interest.

- **Economic and Financial Committee**. The committee includes representatives of ministries of finance, the European Commission, the ECB, and central banks to promote high-level assessments of developments in financial markets.
- **Financial Stability Table**. This body meets twice a year to discuss financial stability issues.
- **Financial Services Committee**. This committee is composed of representatives of the ministries of finance and the European Commission and discusses and provides guidance on cross-sector strategic and policy issues.

The euro area countries initially sketched out a broad response to the financial crisis. Since then, their response to bank foreclosures and to subsequent issues has been characterized by some as somewhat disjointed. The financial crisis and economic downturn have exposed deep fissures within the EU and even within the euro area countries over the policy course to follow. As a first response to the financial crisis, EU governments and their central banks focused policy initiatives on reassuring credit markets that there was an availability of credit and liquidity, by reducing interest rates, and by providing foreign currency, primarily dollars, through currency arrangements. In addition to continuing efforts to restore the financial markets, EU members also face a worsening economic climate that requires actions by individual central banks, international organizations, and coordinated actions by EU members and other governments.

Investment Services Directive

The EU has adopted a number of directives that provide a basic framework for EU members to coordinate financial regulation across the EU and to integrate financial sectors. One such directive is the Investment Services Directive (ISD) that entered into force on January 1, 1996. The ISD provided general principles for national securities regulations, with the goal of providing mutual recognition of regulations across the EU.[84] The ISD created a "European Passport" that provided for a cross-border right of establishment for non-bank investment firms and the freedom to provide services across borders for investment firms to carry out a wide range of investment business. Under the passport, firms were authorized and supervised by domestic authorities, but could still provide specified investment services in other EU countries. Such cross-border services included: collecting and executing buy and sell orders on an agency basis, dealing, managing and underwriting portfolios, and such additional services as providing investment advice, advising on mergers and acquisitions, safekeeping and administration of securities, and foreign exchange transactions.

The European "passport" provision required member states to dismantle restrictive legislation that prevented cross-border branching and freedom of services. Nevertheless, EU members retained the responsibility for determining their own domestic laws and regulations concerning such issues as fitness, authorization, capital requirements, and protection of client assets. EU members could also impose rules and regulations on investment firms using the European passport as long as the rules and regulations were, "in the interest of the general good," and

[84] Davies, Ryan J., *MiFID and a Changing Competitive Landscape*, July 2008., p. 3. Available at http://faculty.babson.edu/rdavies/MiFID_July2008_Davies15.pdf

applied to the business activities that the firms carried out in their state. The ISD opened up stock exchange membership in all member states to all types of investment firms, whether bank or non-bank entities. Another objective of the ISD was to eliminate the so-called concentration rule in order to allow member states that lacked their own securities trading floor to access electronic terminals with investment firms and banks in other member states, thereby allowing them to be members of the markets on a remote electronic basis.

Financial Services Action Plan

In 1999, the EU replaced the Investment Services Directive with the Financial Services Action Plan. The Plan consists of a set of measures that are intended to remove the remaining formal barriers in financial markets among EU members and to provide a legal and regulatory environment that supports the integration of EU financial markets.[85] Similar to the ISD, the FSAP process supports a two-pronged approach that combines EU directives with national laws. The EU directives provide for a general level of regulation concerning the provision of financial services across borders and the harmonization of national regulations governing cross-border activities. EU members, however, retain the right to regulate firms within their own borders, as long as those firms, whether foreign or domestic, are treated equally. The FSAP contains 42 articles, 38 of which were implemented, that are intended to meet three specific objectives: (1) a single wholesale market; (2) an open and secure retail market; and (3) state-of-the art rules and supervision. Wholesale measures relate to securities issuance and trading; securities settlement; accounts; and corporate restructuring. Retail measures relate to insurance; savings through pension funds and mutual funds; retail payments; electronic money; and money laundering.

Markets in Financial Instruments Directive

The cornerstone of the FSAP's achievement is the Markets in Financial Instruments Directive (MiFID), which became effective on November 1, 2007. The MiFID establishes a comprehensive, harmonized set of rules for Europe's securities markets so financial services firms can provide investment services in each of the EU member states. MiFID retained the principles of the EU "passport" and extended the list of services and financial instruments that are covered by the passport procedures, including investment advice. MiFID also removed the so-called concentration rule that required investment firms to route all stock transactions through established exchanges.

MiFID introduced the concept of 'maximum harmonization' which places more emphasis on home state supervision. This is a change from the previous EU financial service legislation which featured a "minimum harmonization and mutual recognition" concept. Minimum harmonization provides for a law or a regulation that sets a floor, or a minimum standard, that EU countries were expected to meet in developing legislation. Maximum harmonization provides for a maximum level of a law or a regulation that sets the maximum allowable standard that can be adopted in domestic laws or regulations. At times some EU members have been accused of adopting domestic measures that exceed the EU standard in a manner that acted as a protectionist barrier.

Some key elements of the MiFID are:

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[85] *The EU Financial Services Action Plan: A Guide*, HM Treasury, the Financial Services Authority, and the Bank of England, July 31, 2003.

- Authorization, regulation and passporting. Firms covered by MiFID are authorized and regulated in their "home state." Once a firm is authorized, it can use the MiFID passport to provide services to customers in other EU member states. These services are regulated by the "home state" in which the firm is authorized.
- Client categorization. MiFID requires firms to categorize clients as "eligible counter-parties," professional clients, or retail clients, with increasing levels of protection.
- Client order handling. MiFID places requirements on information that needs to be captured when firms accept client orders in order to ensure that a firm is acting in a client's best interests.
- Pre-trade transparency. MiFID requires the operators of various kinds of equity exchanges to make the best bid and offer prices available to potential buyers and sellers.
- Post-trade transparency. MiFID requires firms to publish the price, volume and time of all trades in listed shares, even if executed outside of a regulated market, unless certain requirements are met to allow for deferred publication.
- Best execution. MiFID will require that firms take all reasonable steps to obtain the best possible result in the execution of an order for a client. The best possible result is not limited to execution price but also includes cost, speed, likelihood of execution and likelihood of settlement and any other factors deemed relevant.
- Systematic Internalizer. A Systematic Internalizer is a firm that executes orders from its clients against its own book or against orders from other clients and are treated as mini-exchanges, which makes them subject to pre-trade and post-trade transparency requirements

Capital Requirements Directive

The Capital Requirements Directive, which became effective in January 2007, introduced a supervisory framework within the EU for investment management firms and banks. The purpose of the Directive is to move the EU towards complying with the Basel II[86] rules on capital measurement, adequacy, and related market disclosure disciplines. This Directive promotes a risk based capital management methodology through a "three pillar" structure that includes (1) new standards that set out the minimum capital requirements that firms will be required to meet for credit, market, and operational risk; (2) firms and supervisors will be required to decide whether they are holding enough capital to address the risks realized under Pillar I and act accordingly; and (3) improve market discipline by requiring firms to publish certain details about their risks, capital, and risk management. The Directive also requires firms to make provision for a charge against their capital for operational risks in order to identify, monitor, manage, and report on certain types of external events that may have a negative effect on their capital. The

[86] Basel II is the second of the Basel Accords, which are recommendations on banking laws and regulations issued by the Basel Committee on Banking Supervision. The purpose of Basel II is to create an international standard that banking regulators can use when creating regulations concerning requirements for capital adequacy that banks must meet to guard against the types of financial and operational risks that banks face.

Directive applies not only to internationally active banks, which is the main focus of the Basel II approach, but it also applies to all credit institutions and investment firms irrespective of the size, scope of activities, or levels of sophistication. Under the Directive, firms are required to meet rules governing the minimum amounts of their own financial resources they must have in order to cover the risks to which they may be exposed.

Lamfalussy Process

As the European Commission crafted a coordinated EU approach to the financial crisis, it has done so in accordance with a set of procedures known as the Lamfalussy Process. The Lamfalussy structure provides a framework for updating EU financial regulations and developing similar supervisory practices. While this process can be time consuming, it provides a process for EU members to follow so that policies that are considered through the process ultimately will be acceptable to all EU members and, therefore, will be more likely to be implemented. MiFID is the most significant piece of legislation that has been introduced under this process. Originally developed in March 2001, it is named after the chair of the EU advisory committee that created it, Alexandre Lamfalussy. The process is composed of four “levels,” each focusing on a specific stage of the implementation of legislation. Level 1 is traditional EU decision making, which means that decisions are adopted in the form of Directives or Regulations proposed by the Commission and then approved under the co-decision procedure by the European Parliament and the EU Council. Legislation adopted at this level primarily establishes the core values of a law.

At the second level, sector-specific committees and regulators provide advice on developing the technical details of the principles that were adopted in Level 1 and then bring the measure to a vote by the representatives of each EU member. These measures can be adopted, adapted and updated by the Commission after they have been submitted to the European Securities Committee (ESC), a committee composed mainly of members of Ministries of Finance, and to the European Parliament for their opinion. The Committee of European Securities Regulators (CESR), an independent advisory body made up of securities regulators, also advises the Commission on the technical implementing details to be included in Level 2 legislation. This advice is provided in response to specific “mandates” from the Commission asking for help in particular areas. Level 2 implementing measures do not alter the principles agreed upon at Level 1, but simply provide the technical details that are necessary in order to make the principles operational.

At the third level, national regulators work on coordinating new regulations with other nations. At this stage, CESR may adopt non-binding guidelines or common standards regarding matters not covered by EU legislation, as long as these standards are compatible with the legislation adopted at Level 1 and Level 2.

The fourth level involves compliance and enforcement of the new rules and laws, including initiating proceedings on cases of non-conformity.

The Lamfalussy Process is intended to provide several benefits over traditional lawmaking, including more-consistent interpretation, convergence in national supervisory practices, and a general boost in the quality of legislation on financial services. Nevertheless, the Lamfalussy Process has sparked controversy, because some critics argue that the procedure can effectively bypass accountable oversight by the European Council and the elected European Parliament, thereby embodying a move away from representative democracy towards technocratic and participatory democracy.

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