# Section 2 Movements in the world economy by region

# 1. Current status and issues of the US economy

As a slowdown of the US economy begins in the face of the subprime mortgage problem, there are risks of a further downturn due to rising inflation concerns caused by the turmoil of the US financial system, which has spilled over into the international financial and capital markets, and by the soaring prices of crude oil and primary commodities. The following clarifies the current status and issues of the US economy from both the aspect of the real economy and the aspect of the financial and capital markets.

# (1) Overview of the US economy

# (The slowing US economy)

Looking at the trends of the real GDP growth rate in the United States for 2007, broken down by demand component, while housing investment contributed significantly to a decrease in the growth rate, positive contributions were made by household consumption and net exports. Overall, growth of 2.2% was achieved. Up until then, growth in the United States had continued, supported by increases in household consumption (which accounts for approximately 70% of nominal GDP); but in 2007, the subprime mortgage problem and other factors caused the deterioration of housing investments to come to light, and in the first quarter of 2008, there have been growing concerns about an economic slowdown, including the effects the housing investments will have on household consumption (see Figure 1-2-1).

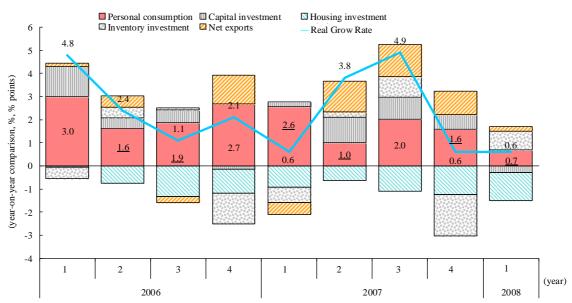


Figure 1-2-1 Changes in the real GDP growth rate

Note: Seasonally adjusted figures. Annualized percentage change from the preceding period. First quarter figures for 2008 are preliminary figures. Source: Bureau of Economic Analysis website, United States Department of Commerce.

# Housing sales, housing starts and the house price index

Housing sales had been increasing since 1992, peaked in July 2005, and have since turned downward. The number of housing starts peaked in February 2006, and has since continued on a downward trend. The house price index has continued to be negative since December 2006, and there are concerns of a further deterioration of housing investments, which is already forcing down the growth in GDP.

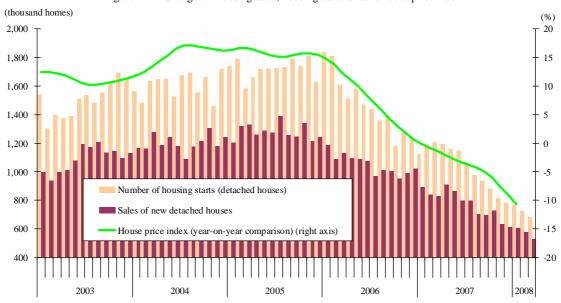


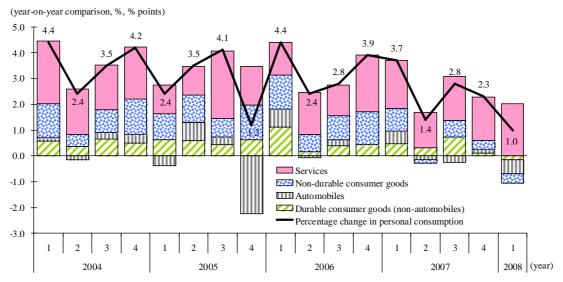
Figure 1-2-2 Changes in housing sales, housing starts and the house price index

 $Source: \ Bureau\ of\ the\ Census,\ United\ States\ Department\ of\ Commerce,\ S\&P/Case-Shiller\ Home\ Price\ Indices.$ 

# **Personal consumption**

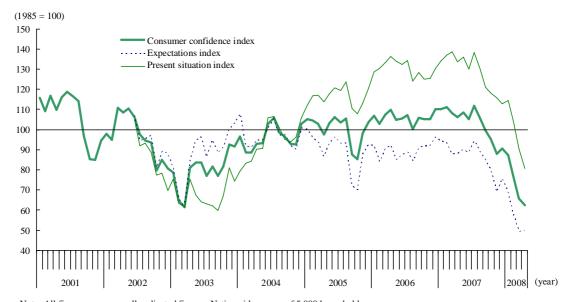
The worsening of housing-related factors is also extending to household consumption. Looking at the trend of personal consumption, during 2007, personal consumption in the United States was affected by flagging housing and stock markets exacerbated by the subprime mortgage problem, and bearish tendencies continued, especially for automobiles and other consumer durables. In the first quarter of 2008, growth of personal consumption had only reached 1.0% (see Figure 1-2-3). The consumer confidence index, which shows consumer sentiment, worsened considerably due to the pessimistic view taken toward the present and future prospects for business and employment, based on rising energy prices and the turmoil of the financial and capital markets. The expectations index, which shows consumer sentiment for six months into the future, is at its lowest level since 1973 (see Figure 1-2-4).

Figure 1-2-3 Contribution of personal consumption by item



Source: Bureau of Economic Analysis website, United States

Figure 1-2-4 Changes in the United States national consumer confidence index

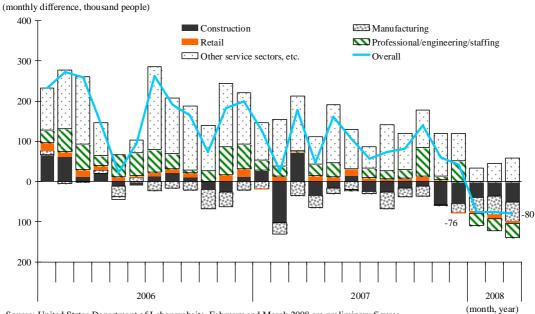


Note: All figures are seasonally adjusted figures. Nationwide survey of 5,000 households. Source: Conference Board website.

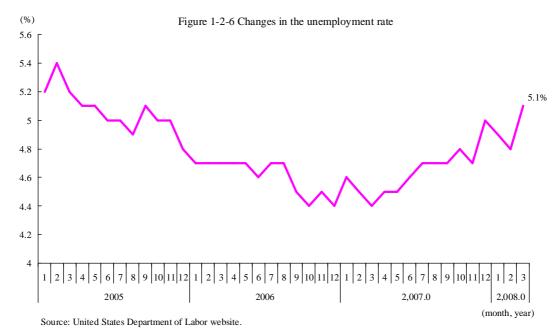
#### **Employment**

Housing-related effects are also extending to employment, especially in the construction industry. During 2007, the number of employees at companies was on an upward trend, albeit a weakening one, but since January 2008, the number has taken a sudden downward turn. Decreases are apparent in a wide range of industries. The largest decrease has been in the construction industry, but the number of employees in the professional/engineering/staffing industry has also turned downward (see Figure 1-2-5). In the wake of decreases in employee numbers, the unemployment rate has also been trending upward (see Figure 1-2-6).

Figure 1-2-5 Changes in the number of non-agricultural employees (by industry)



Source: United States Department of Labor website. February and March 2008 are preliminary figures.



# **Business activity**

Since February 2008, the ISM business index<sup>1</sup> has dipped below 50, which is regard as the expansion-contraction turning point for total production activity. In addition to the sluggish growth in consumption since 2007, this has been caused by rising energy costs and by financial institutions tightening their lending standards. Business confidence also continues to demonstrate a course of contraction. Furthermore, capital investment, which accounts for approximately 20% of nominal GDP, has also taken a downward turn since February 2008 due to the decline in business activity (see Figure 1-2-7).

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<sup>&</sup>lt;sup>1</sup> The ISM business index is a leading indicator of business cycle fluctuations which collectively reflects business's new orders, production, employment, deliveries and inventory conditions.

(ISM index) (year-on-year comparison, %) 65 1.5 60 1.0 55 0.5 50 -0.5 45 Percentage change of capital investment (right axis) -10 ISM index (manufacturing) 40 ISM index (non-manufacturing) -1.5 35 -2.0 2000 2001 2002 2003 2004 2005 2006 2007 2008

Figure 1-2-7 Changes in the ISM business index and capital investment

#### **Trade**

Looking at the balance of trade, in 2007, the trade deficit decreased for the first time in the 16 years since 1991. This was due to an increase in exports attributable in part to the effects of a weaker US dollar, and a decrease in the growth of imports attributable in part to the effects of weaker household consumption. However, looking at the breakdown by partner countries and regions, a large proportion of the trade balance was accounted for by China and the oil producing countries. Even in 2007, the trade deficit with China and the oil producing countries increased while the overall US trade deficit declined (see Figure 1-2-8).

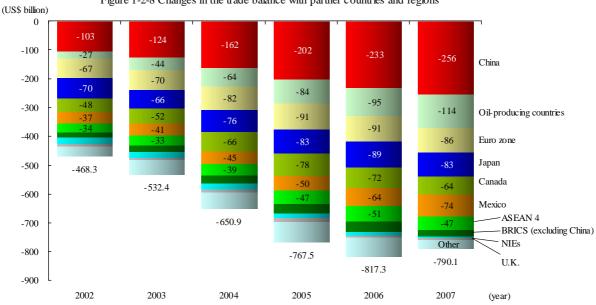


Figure 1-2-8 Changes in the trade balance with partner countries and regions

Sources: Bureau of Economic Analysis website, United States Department of Commerce; Bloomberg.

Notes: 1. Customs- cleared basis. Nominal.

2. "Oil-producing countries" refers to the value of OPEC member countries as of 2007 (excluding Indonesia).

Source: Bureau of the Census website, United States Department of Commerce.

# Commodity prices and interest rates

This final section looks at the trends of commodity prices and interest rates. Lower energy prices meant that the consumer price index had remained stable from September 2006, but since September 2007, it has shifted to an upward trend following the steep rises in energy and food prices (see Figure 1-2-9).

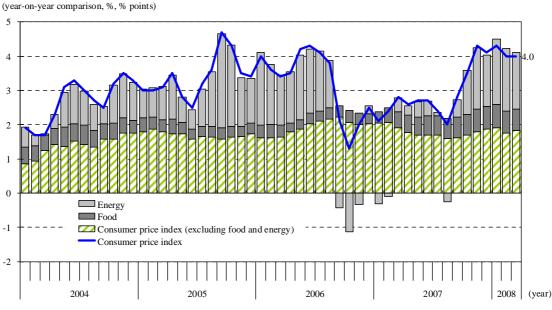
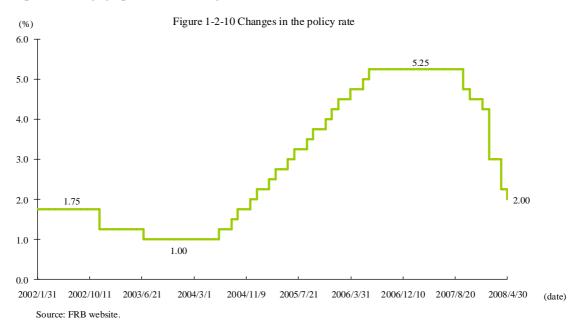


Figure 1-2-9 Contribution to consumer price index (year-on-year comparison) by item

Source: Bureau of Labor Statistics (BLS) website, United States Department of Labor.

Amid economic expansion, the Federal Reserve Board (hereinafter referred to as the "FRB") had been progressively raising interest rates, but since September 2007, it has been gradually cutting the policy rate (federal funds rate target) based on concerns of an economic slowdown in the context of the subprime mortgage problem (see Figure 1-2-10).



# (2) Turmoil of the US economy stemming from the subprime mortgage problem (The subprime mortgage problem)

Subprime mortgages refer to housing loans targeted at low-income earners and other individuals with low credit ratings, who are called "subprime borrowers." Basically, a subprime mortgage is a loan made on the expectation that housing prices will rise, and on the presumption that it will be refinanced to a prime loan or other superior loan in the future, thereby avoiding any subsequent surges in the burden of debt repayments.

A characteristic of the subprime mortgage problem is that, despite the fact that the market size for these mortgages is small, accounting for approximately 10% of all housing loans, the surfacing of this problem caused turmoil in the US financial market, and quickly spilled over into all the countries of the world via the securitization market.

The following summarizes the effects that the subprime mortgage problem has had on financial markets and the responses taken by each country, against a backdrop of the spread and increase of subprime mortgages in the United States.

# (Background to the surge in the balance of subprime mortgages)

The following factors have been pointed out as being behind the rapid increase in the balance of outstanding subprime mortgages.

# (a) Decline in the quality of loan screening brought about by securitization (lender-related factors)

First, the decline in the quality of loan screening brought about by securitization can be given as a factor on the part of lenders. By effecting a separation between the entities that decide on the suitability of housing loans (housing loan companies) and the entities that bear the credit risk of the housing loans (investors), the securitization of housing loan bonds based on residential mortgage-backed securities (hereinafter referred to as "RMBS"<sup>3</sup>) generated a moral hazard for the housing loan companies, and by lowering the quality of loan screening, brought about an increase in the number of loan agreements.

# (b) Anticipated price rises (borrower-related factors)

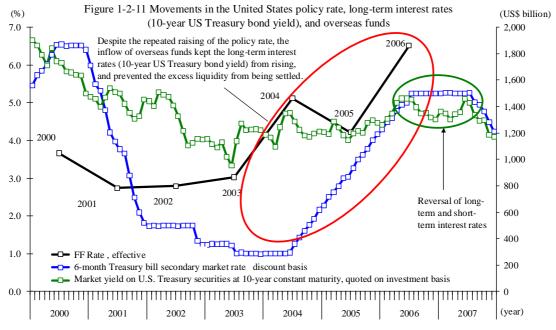
There were many cases of home loan borrowers who were spending money having refinanced a larger portion of their mortgages after lightheartedly taking out variable-rate housing loans with the expectation of further rises in housing prices, or using the price rises of their houses that they had provided as collateral.

<sup>&</sup>lt;sup>2</sup> Subprime mortgages began to become widespread in about 2004, and are said to be the result of an overheated demand for housing. At present, they are used by approximately 15% of people who take out housing loans in the United States. It is claimed that the outstanding balance of subprime mortgages is US\$1.4 trillion (as of the end of 2006), or approximately 10% of all housing loans. Approximately 80% of subprime mortgages are products with variable interest rates, the repayments for which are reduced for the first few years.

<sup>&</sup>lt;sup>3</sup> Residential mortgage-backed securities (RMBS) are securities that are issued by bundling together a large number of mortgages.

#### (c) Low interest rate policy and the inflow of funds from overseas

Apart from these supply and demand aspects, the effects on the mortgage market by the low interest rates that continued from 2001 to about 2006 are also pointed out<sup>4</sup>. The FRB, which was faced with a serious recession following the bursting of the IT bubble and the September 11 terrorist attacks in 2001, lowered the policy rate to 1% (June 2003), which it maintained for the next year. In addition to this long-term low interest rate policy, the massive inflow of funds from overseas gave impetus to the lowering of interest rates in the market. It is claimed that this expanded the market and caused the housing market to overheat<sup>5</sup>. Alarmed by the overheated housing market, the FRB raised long-term interest rates, and in order to put a curb on housing loans, raised the policy rate in June 2004. Eventually, the rate was raised to 5.25%. Under normal circumstances, a rise in the policy rate should have caused the long-term interest rates to rise, and should have increased the 30-year long-term mortgage interest rates, causing the loan market to contract. However, due to the fact that enormous amounts of funds continued to flow into the country from overseas, and due to the fact that investment had not been curbed, supported by the ample funds from overseas, long-term interest rates did not rise, and the overheated housing market was not cooled (see Figure 1-2-11).



Sources: FRB; IMF, Global Financial Stability Report, October 2007.

<sup>&</sup>lt;sup>4</sup> On this point, John Taylor, former Under Secretary at the United States Department of the Treasury comments: "During the period from 2003 to 2006, the federal funds rate was well below an appropriate level given commodity prices and the growth rate. If it had been at an appropriate level, most of the housing boom would not have occurred, and the housing busts would not have been that severe. In some respects, the low interest rate policy was maintained in order to deal with the risk of deflation." ("Nihon Keizai Shimbun," September 7, 2007).

<sup>&</sup>lt;sup>5</sup> For example, Greg, I.P. and J.E. Hilsenrath (2007), "How Credit Got So Easy and Why It's Tightening," The Wall Street Journal, August 7, 2007. Also see Chapter 1 of the White Paper on International Economy and Trade 2006 regarding the inflow of overseas funds into the US housing market.

# (Slowdown of housing prices and an increase in delinquency rates)

In 2006, as rising house prices in the United States shifted into slowdown as a result of a decrease in demand, subprime mortgage borrowers found themselves unable to refinance as they had initially expected. Delayed loan repayments and the number foreclosed houses increased rapidly (see Figures 1-2-12 and 1-2-13).

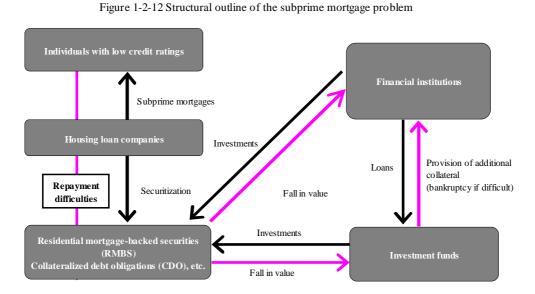
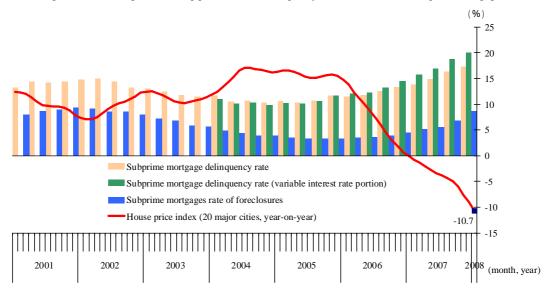


Figure 1-2-13 Changes in housing prices and the delinquency/foreclosure rates for subprime mortgages



Note: The subprime mortgage delinquency rate (variable interest rate portion) has been published since 2004. Source: Standard & Poor's, Mortgage Bankers Association website.

#### (Effects of the subprime mortgage problem on financial and capital markets)

Subprime mortgages were securitized and resecuritized into RMBS, collateralized debt obligations (hereinafter referred to as "CDO")<sup>6</sup> and other instruments, and were purchased by various investors

<sup>&</sup>lt;sup>6</sup> Collateralized debt obligations (CDO) are securities that are issued by combining several obligations such as RMBS and corporate bonds as collateral. A feature of CDOs is that combining such obligations allows

from around the world, including investment funds and financial institutions (see Figure 1-2-12). As a result, while the risks of subprime mortgages were dispersed widely and thinly to the international financial and capital markets, at the same time, a problem arose in that the true location and status of the risks became unclear.

#### (a) Increased investment fund losses, and tighter credit and short-term money markets

The increasing concern over some subprime mortgages being defaulted led to significant drops in the value of RMBSs and CDOs, and enormous losses being realized on investment funds that held these securities.

SIV<sup>7</sup> and other investment funds affiliated with banks borrowed funds 10-20 times more than their own capital, and invested them in high-risk high-return CDOs and other securities which incorporated RMBS. Funds were procured by issuing commercial papers (ABCP<sup>8</sup>) backed by the CDOs, etc. The fall in the value of the RMBSs and CDOs led to decreases in their surety value, and so many of these investment funds found it difficult to procure funds through issuing ABCP.

As a result, the large volume and the dramatic downgrading of securitized and resecuritized products which incorporated subprime mortgage obligations caused the prices of these products to begin to fall. Further, providers of funds disappeared from the credit and short-term money markets, and liquidity contracted suddenly<sup>9</sup>.

#### (b) Increased financial institution losses and credit crunch concerns

At the same time, the business conditions worsened for financial institutions which had been aggressive in financing these investment funds.

The ABCPs that investment funds use in procuring funds mature between one and three months. Therefore, in cases where a refinancing issue of ABCPs was not able to be achieved between financial institutions, the investment funds affiliated with banks were instead entering agreements (commitments) to have liquid funds supplied. European banks in particular, which started later in the securitization business, were providing commitments to affiliated funds which were larger than they could endure, and this made their losses larger<sup>10</sup>.

them to be configured to meet the needs of buyers, from high-grade senior bonds to mid-range mezzanine bonds and high-risk high-return equity bonds.

<sup>&</sup>lt;sup>7</sup> SIV (Structured Investment Vehicles) are a type of special purpose company established for investment purposes. They are management firms established outside the scope of consolidation for the purpose of a bank or asset manager financing the management of various types of asset-backed securities (ABS). They work by major banks or investment funds sponsoring the provision of funds, and by investments being made as off-balance sheet transactions. It is said that, at present, there are approximately 30 SIVs in the world, and they have total assets amounting more than US\$300 billion.

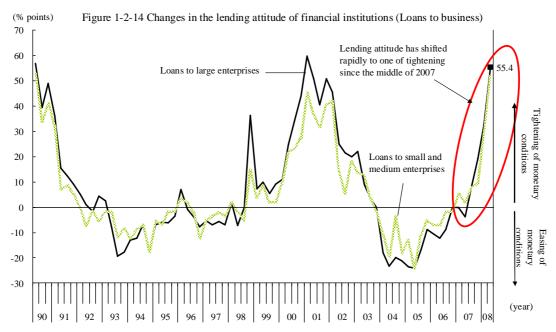
<sup>&</sup>lt;sup>8</sup> Asset-Backed Commercial Paper.

<sup>&</sup>lt;sup>9</sup> Turmoil was observed: the commercial paper interest rate rose sharply, and the federal funds interest rate also moved well in excess of the FRB's target rate. However, subsequent rate cuts by the FRB and the aggressive supply of liquidity has meant that, recently, signs of a cooling can be seen. In spite of this, the TED spread, which shows interest rate premiums of interbank markets, remains well above the level prior to the emergence of the subprime mortgage problem.

<sup>&</sup>lt;sup>10</sup> In Europe, bank restructuring was carried out later than in such places as the United States. The fact is pointed out that, against a backdrop of enormous losses surfacing at European financial institutions,

Banks, which incur valuation losses due to falls in the prices of securities they hold, try to increase their capital on the one hand, and on the other, try to improve their capital adequacy ratio by reducing their risk assets. As long as this is kept to a problem of individual banks, the impact on the real economy is minor. But if there is a shortage of equity capital across the whole banking sector, then financial institutions will frequently tighten their lending standards, be reluctant to lend, and recover loans; and concerns of a credit crunch will grow<sup>11</sup>.

In fact, in order to reduce their risk assets, financial institutions in Europe and the United States began to tighten their lending attitude for loans to businesses. In the United States, institutions have tightened their lending standards for loans to small and medium enterprises since the beginning of 2007, and for loans to large enterprises since the second half of 2007 (see Figure 1-2-14).



Note: Ratio = (banks that claim to have tightened lending standards since the previous survey - banks that have claimed to relax them) / all banks. Source: FRB, Senior Loan Officer Opinion Survey on Bank Lending Practices.

#### (c) Increase in the market preference for risk-free assets (flight to quality)

There was some concern caused by not understanding the full picture of the subprime mortgage problem described below, and some investors were cautious in their evaluation of so-called risk assets, including shares, corporate bonds and currencies that essentially had no direct relationship with subprime mortgages. Various events were observed, including falls in stock prices, greater credit

including at the German mid-sized bank, IKB Deutsche Industriebank, the major French banking group, BNP Paribas Group, and the Swiss firm, UBS, large numbers of regional-level banks remain, such as the German state banks, and they were inclined toward the management of the high-risk, high-return and complex mechanisms of subprime mortgage products, demanding high yields amid increased competition accompanying globalization while lacking the risk management know-how to prepare for market turnarounds (Takigawa Y. (2007)).

<sup>11</sup> Under these circumstances, even companies and households that are not troubled by repayments are confronted with rising capital costs (borrowing rates) and credit rationing, and are forced to control their expenditure. As a result, funds stop flowing to areas of growth, and not only is total demand dampened, but potential growth rates fall on the supply side as well.

spreads, and an appreciation of the yen<sup>12</sup>. Meanwhile, investments concentrated in safer assets, such as Japanese, US and European government bonds, and government bond interest rates trended downward. Furthermore, in recent years, supply and demand have tended to tighten, and large amounts of funds have been seen to flow into the futures market, which deals in products with a low price elasticity of demand, such as crude oil, gold and grain (see Section 1 of this chapter).

# (Responses to the subprime mortgage problem)

# Responses by each country

The governments of each country have adopted the following measures in response to the turmoil of the international financial and capital markets (see Table 1-2-15).

Table 1-2-15 Responses of each country to the subprime mortgage problem (as of May 2008)

	FRB
	Has continuously cut interest rates and supplied funds to the short-termmoney market.
	Decided to create a receiving company to separate non-performing loans, and to lend US\$29.0 billion of buy-out capital.
	In March 2008, advanced an emergency loan of US\$30 billion to JP Morgan, which is rescuing the cash-strapped major US securities
	company, Bear Stearns (Federal Reserve Bank of New York).
	Congress and government
	Implemented an emergency economic package of US\$168 billion, the centerpiece of which is a tax rebate that will refund to households
	part of their income tax payable. (However, while it is hoped that the tax rebate will contribute to increasing personal consumption,
	doubts have been raised over the effectiveness of this, given that it is a temporary measure, and given that it is anticipated that the rebate
	will be applied to repaying debts and the amount directed toward spending will be limited.)
U.S.	Department of the Treasury
0.5.	Announced financial regulatory reforms.
	The opinions covered a broad range of topics. Those with a close connection to the subprime mortgage problem include: (a) Promptly
	examine the pros and cons of a system for lending to primary dealers; (b) With respect to home loans that are primarily regulated by state
	law, establish a committee with presidential representation, and increase the involvement of the federal government, such as for decisions
	on basic principles; and (c) Expand the supervisory authority of the FRB beyond just the conventional limited area (banks), to include
	commercial banks, investment banks, in surance companies, hedge funds, and commodity operators.
	Financial institutions
	Decided to expand the debt guarantee to subprime mortgage obligors provided by the United States Federal Housing Administration,
	and to freeze lending rates for five years.
	The six leading financial services firms reached accord with the government by deferring foreclosures for borrowers who were in arrears
	with home loan pay ments.
	Bank of England (BOE)
	Has continuously cut interest rates and supplied funds to the short-termmoney market.
U.K.	Implemented a special liquidity scheme (maximum of 50 billion pounds) to exchange high-grade residential mortgage-backed securities
	held by banks with UK government bonds.
	United Kingdomgovernment
	Temporarily nationalized the mid-sized UK bank, Northern Rock.
	European Central Bank (ECB)
EU	Has left policy rate unchanged (as of May 2008).
	Has continuously supplied funds to the short-term money market.

 $Source: Investigation \ by \ the \ Ministry \ of Economy, Trade \ and \ Industry \ based \ on \ various \ media \ reports, etc.$ 

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<sup>&</sup>lt;sup>12</sup> Prior to the subprime mortgage problem occurring, the so-called "yen carry trade" was actively practiced. Based on the assumption that economies would expand favorably and that exchange rates would remain stable, market participants aimed for income from interest rate differentials by selling Japanese yen and other low-interest currencies and buying euro and other high-interest currencies while receiving provisions of credit. It is said that the credit crunch which accompanied the subprime mortgage problem put pressure on the market participants who had been conducting these trades to conduct offsetting transactions (buy low-interest currencies and sell high-interest currencies), and this caused further appreciation of the yen.

# Capital increases by financial institutions

Some banks ventured to increase capital in order to avoid further asset reductions, and since the end of 2007, capital increases from sovereign wealth funds (SWF) and the like in regions such as Asia and the Middle East have been announced one after the other (see Table 1-2-16). However, amid concerns that the losses of financial institutions will increase further, there is no telling what will happen.

Figure 1-2-16 Estimated losses and capital increases of major financial institutions (as of April 30, 2008)

(unit: US\$100 million)

Financial institution	Investor	Amount of investment	Amount of loss
	Kuwait Investment Authority	76	
Citigroup (U.S.)	Abu Dhabi Investment Authority (UAE)	75	459
Crugroup (O.S.)	Government of Singapore Investment Corporation (GIC)	69	439
	Preferred stock issue, common stock issue	105	
	Kuwait Investment Authority, Mizuho Corporate Bank, etc.	66	
Merrill Lynch (U.S.)	Temasek (Singapore)	50	321
	US investment companies	12	
Bank of America (U.S.)	Preferred stock issue	130	172
Morgan Stanley (U.S.)	China Investment Corp	50	133
JPMorgan Chase (U.S.)	Capital increase through public offering, etc.	105	109
Washington Mutual (U.S.)	Buyout fund TPG, etc.	70	83
Lehman Brothers (U.S.)	Preferred stock issue	40	33
Bear Stearns (U.S.)	CITIC Securities (China)	10	26
UBS (Switzerland)	Government of Singapore Investment Corporation (GIC), etc.	115	371
ODS (SWILLCHARD)	JP Morgan, Morgan Stanley, etc.	240	371

Note: Shaded areas indicate sovereign wealth funds, and solid white letters indicate sovereign wealth funds of oil producing countries in the Middle East. Only institutions conducting capital increases have been listed.

Source: Compiled by METI based on KINYUU SHIJOU MANSURII (Mizuho Financial Group) 2008/1/16, Nihon Keizai Shimbun, Bloomberg, and various media reports.

In the past, a large number of estimated losses related to subprime mortgages have been announced by public and private organizations (see Figure 1-2-17). The problem is that estimated losses tend to increase over time<sup>13</sup>. Possible reasons for this include: (a) the US housing market is still flagging (declining housing prices, worsening loan delinquency rates); and (b) identifying losses has become difficult due to the increased complexity of the securitization market (advancement of resecuritized products and associated derivatives).

<sup>&</sup>lt;sup>13</sup> Attention needs to be given to the fact that the scope of estimated losses related to subprime mortgages is different depending on the person making the estimation (announcement). The "First Report of the Financial Markets Strategy Team (November 30, 2007)" (Financial Services Agency) also claims that, at this point in time, it is difficult to predict the final extent of the losses related to subprime mortgages given that: (a) there are no precise statistics for measuring the scale of and the estimated losses from subprime mortgage-related products; (b) the amount of losses from subprime mortgage-related products fluctuate significantly depending on such things as the valuation method; and (c) the losses incurred in the actual settlement process, including the auctioning of homes pledged as collateral for subprime mortgages, are expected to be impacted significantly by future price trends in the US housing market.

(US\$100 million) 18,000 Goldman Sachs IMF 16.000 FRB Chairman Ben Bernanke US\$1,200 billion 14.000 (including US\$460 billion in the United 12,000 US\$964 billion 10,000 US\$800 billion 8,000 OECD US\$5000 6.000 billion max US\$200-300 4,000 US\$170-200 billion US\$150 US\$50-100 billion billion billion 2.000 07/7/20 07/9/24 07/11/8 07/11/21 08/1/17 08/3/7 08/3/24 2008/4/8 (date of release) Source: Compiled by METI from various media

Figure 1-2-17 The growing estimated losses

### (3) Effects of the subprime mortgage problem on the real economy

As was pointed out in part 1 of the previous section, in countries and regions such as the United States where market-oriented finance is flourishing and the originate-to-distribute business model is mainstream, the business cycle and fluctuations in the prices of real estate and other assets has a considerable impact on personal consumption and business activity. The following looks at the types of effects that this subprime mortgage problem is actually having on households and businesses in the United States.

# (The subprime mortgage problem and personal consumption in the United States)

Personal consumption expenditures in the United States account for approximately one third of global personal consumption expenditures and one quarter of global GDP<sup>14</sup>. The slowdown in personal consumption, which had been the driving force behind the US economy, has been intensifying since the second half of 2007 when the subprime mortgage problem occurred.

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<sup>&</sup>lt;sup>14</sup> This is equivalent to more than three times personal consumption expenditures in Japan. In the article "How Real was the Prosperity?" (Business Week, February 4, 2008), it is purported that, in the 1960s, personal consumption in the United States (adjusted for inflation) basically tracked the overall growth of the economy, and there was never any divergence between the two growth rates over the long term; but in the 1990s, changes appeared in this relationship. The ten-year growth rate for personal consumption expenditures up until the third quarter of 2007 was 3.6%, whereas growth of real GDP had been kept to 2.9%. The article goes on to suggest that, if personal consumption expenditures had grown at the same rate as the economy, then personal consumption expenditures would be US\$600 billion per year less than they are now.

It has been pointed out that underlying this slowdown is the "negative wealth effect" that accompanies falls in asset prices<sup>15</sup>. The following examines: (a) the circumstances of the wealth effect; (b) the effects of financial and housing assets on consumption; and (c) the effects on consumption as a consequence of the effect dissipating.

#### (a) The wealth effect and the composition of household assets

In the United States, a distinct positive correlation can be seen between personal consumption and the prices of assets such as stocks and houses (see Figures 1-2-18 and 1-2-19).

The following examines the mechanism by which fluctuations in housing assets and stock prices affect personal consumption, by focusing on the balance sheet structure of US household budgets and the effect of the mechanism on their cash position.

During the recession immediately following the March 2001 collapse of the IT and stock price bubbles, the consumption expenditure of US households remained strong. Underlying this, we can see that the rapid and substantial easing of monetary conditions by the FRB was having a significant influence. In other words, it is believed that, amid the easing of monetary conditions: (a) as stocks, houses and other assets, the prices of which fluctuate greatly according to interest rate levels, increased their weight on the balance sheet of the household budget, and as the wealth effect attributable to declining interest rates strengthened (a decline in interest rates has the effect of forcing up household consumption expenditure through increases in the market value of assets held); (b) debt increased further as the ratio of deposits to household assets decreased, interest-bearing liabilities exceeded interest-bearing assets, and a structure was being reinforced whereby declines in interest rates would improve the interest paid and received situation (see Figure 1-2-20).

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<sup>&</sup>lt;sup>15</sup> For example, Minegishi, M. and H. Ishizaki (2002), "BEIKOKU KAKEI SHISHUTSU WA NAZE KENCHOU KA: SHISAN KAKAKU IZONGATA SHISHUTSU KOUDOU NO HIKARI TO KAGE" *The Bank of Japan Monthly Bulletin*, August 2002.

<sup>&</sup>lt;sup>16</sup> According to the FRB, as of the end of 1998, real estate held by US households amounted to US\$10.6 trillion, and shares (including indirect holdings via stock investment trusts and pension funds) amounted to US\$13.8 trillion; and as of the end of 2007, these had increased to US\$22.5 trillion and US\$16.8 trillion respectively.

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Figure 1-2-18 Increase rate of real stock prices and the growth rate of real personal consumption

Note: The periods covered are from the first quarter of 1981 to the fourth quarter of 2007. Figures within the parentheses under the estimate formula in the graph are t values. Stock prices are real values based on core CPI (seasonally adjusted). Real stock prices are the moving average for three quarters.

-5.0

-15.0

-10.0

Source: Stock prices are from S&P500; core CPI is from the United States Department of Labor; personal consumption (seasonally adjusted) is from each of the Bureau of Economic Analysis websites, United States Department of Commerce.

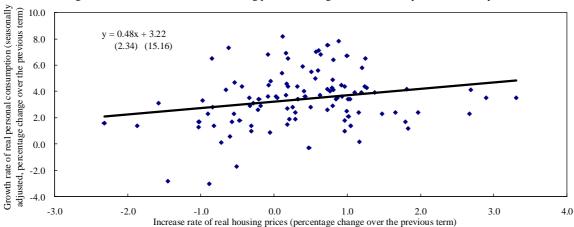


Figure 1-2-19 Increase rate of real housing prices and the growth rate of real personal consumption

0.0

Increase rate of real stock prices (percentage change over the previous term)

5.0

10.0

15.0

Note: The periods covered are from the first quarter of 1981 to the fourth quarter of 2007. Figures within the parentheses under the estimate formula in the graph are t values. Housing prices are real values based on core CPI (seasonally adjusted).

Source: Housing prices are from the United States Office of Federal Housing Enterprise Oversight (OFHEO); core CPI is from the United States Department of Labor; personal consumption (seasonally adjusted) is from each of the Bureau of Economic Analysis websites, United States Department of Commerce.

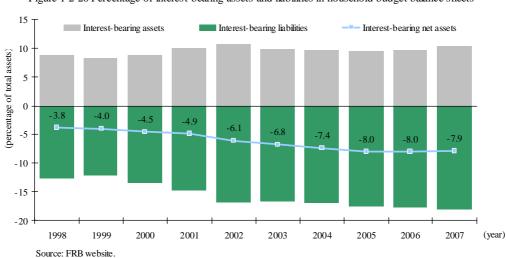


Figure 1-2-20 Percentage of interest-bearing assets and liabilities in household budget balance sheets

#### (b) Differences between the wealth effect from financial assets and from housing

With respect to the effects of the subprime mortgage problem on US households, as mentioned above, given that US households have a considerable amount of stocks and other financial assets, supposing that stock prices were to rise significantly, it is conceivable that any negative wealth effect caused by falling housing prices would be offset by the wealth effect attributable to the increases in stock prices.

Accordingly, in addition to disposable income, if we look at the effects of housing assets (housing prices) and financial assets (stock prices) on personal consumption<sup>17</sup>, we can see that, whereas a 1% increase in housing prices results in consumption increasing by 0.2%, a similar increase in stock prices results in only a 0.05% increase, that is, the effect is only one quarter that of housing prices (see Figure 1-2-21).



Figure 1-2-21 Estimation of the effects of rising housing asset prices on United States personal consumption

Note: Estimates have been calculated as follows:

In real personal consumption =  $5.24 + 0.24 \times$  ln disposable income  $+0.20 \times$  ln housing prices  $+0.05 \times$  ln SP500-0.02  $\times$  ln WTI (9.10) ( 2.21) (3.58) (2.03) (-0.80)

Figures within the parentheses are t values. Revised R2 = 0.99, D.W. ratio = 1.84, estimate period = first quarter of 1990 - fourth quarter of 2007. Sources: United States Department of Commerce, United States Office of Federal Housing Enterprise Oversight, Standard & Poor's,

New York Board of Trade.

A possible reason that the wealth effect caused by housing exceeds the wealth effect caused by stocks is that the imbalance of owners is smaller for housing. In fact, looking at ownership per income bracket based on the results of the latest US survey on household budgets (as of 2004), we can see that just under 70% of all households own a house, and moreover, more than 40% of households in the lowest income group own a house. Meanwhile, in addition to the fact that the ratio of all households that hold stocks is low, at just under 50%, there is a strong bias toward high-income groups. Furthermore, given that high-income groups generally have a low propensity to consume, even if stock prices were to rise a certain amount, macroscopically, it is likely that falling house prices would have a stronger apparent effect.

<sup>&</sup>lt;sup>17</sup> In making the estimates, the effect on household budgets by gasoline prices, which have risen markedly in recent years, was considered significant, and so was added to the explanatory variables.

# (c) Slowdown in personal consumption caused by the dissipation of the wealth effect

The subprime mortgage problem in the United States has exposed the potential risks to US household consumption, which is heavily dependent upon the financial environment. In other words, with respect to the wealth effect, and in particular, the high degree of dependence on the financial environment by way of housing assets, concerns have been realized that the dissipation of the housing asset effect could lead to an even greater impact on household expenditure should the financial environment deteriorate.

The fall in housing prices has not only made it harder for households to borrow new capital, but the consequential decline in surety value has also made refinancing housing loans more difficult. As a result, delinquency rates have risen rapidly, especially among subprime borrowers whose repayment burdens increased with the conclusion of their fixed interest rate period. The rise in delinquency rates has given rise to a vicious circle, that is, through the increase in the number of foreclosures on delinquent properties, the rise has further accelerated the fall in housing prices, and has further tightened the already tight loan screening standards practiced by financial institutions. The trend for financial institutions to tighten their lending standards for housing loans has spread from subprime borrowers to prime borrowers (see Figure 1-2-22), and there is an increasing risk that the flagging US housing market will become prolonged and more acute.

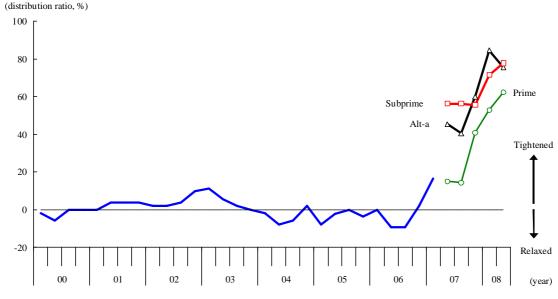


Figure 1-2-22 Tightening of lending standards for housing loans

Note: Figures up until the first quarter of 2007 are total credit ratings. Figures from the second quarter of 2007 are broken down by credit rating. The order of credit ratings is: prime > Alt-a > subprime.

Source: FRB website.

Furthermore, in the past, many households had been using the funds borrowed against their homes at low interest rates to repay their consumer loans, such as credit cards and car loans. However, the fall in housing prices has made it difficult for them to procure funds, and so the delinquency rates for these consumer loans have also been progressively rising. At the same time, lending standards for these consumer loans have also been tightening (see Figure 1-2-23), and there are concerns that the effects on the sales of automobiles and other consumer durables will push down personal consumption even further.

Figure 1-2-23 Tightening of lending standards for consumer loans (%) (% points) 35.0 6.0 Credit card delinquency rate (right axis) 30.0 Credit card lending standards 5.0 25.0 Other lending standards for consumers (car loans, etc.) 20.0 4.0 15.0 Tightened. 10.0 3.0 5.0 2.0 0.0 -5.0 1.0 -15.0 0.0 Relaxed. (year) 03 0 4 0 5 0 6 0 7 08

Note: The credit card delinquency rate has been calculated by Bloomberg as the aggregate of the delinquency rates for AMEX and the other five major companies.

Source: FRB website, Bloomberg.

# (Excessive debt burden of households in the United States)

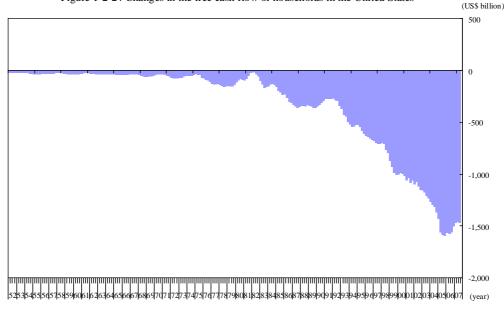
As a result of households having easily borrowed funds on the back of rising house and other asset prices, the balance of household debt in the United States has rapidly worsened in recent years, and they have fallen into a situation where they cannot actually make repayments within the confines of their income. It must also be pointed out that, in these circumstances, subprime mortgages, by their very nature as a "scheme," bore a considerable risk of default.

Looking at the free cash flow<sup>18</sup> of the US household sector: up until the 1980s, it virtually hovered in the vicinity of zero; but then the negative range increased suddenly, and has subsequently not improved (see Figure 1-2-24). We can surmise that, during this time, households in the United States compensated for the negative free cash flow by convert the value of their assets into cash by way of home equity loans and the like.

As a result, since 2005, the number of years over which US households are repaying their debt has shot up drastically, and in theory, people will not be able to repay their debts within their lifetimes (see Figure 1-2-25). It appears that further restructuring of household debt in the United States is inevitable.

<sup>&</sup>lt;sup>18</sup> Free cash flow cash flow - expenditure on housing and other consumer durables. Cash flow wages - (expenses + consumption goods expenditure) - tax.

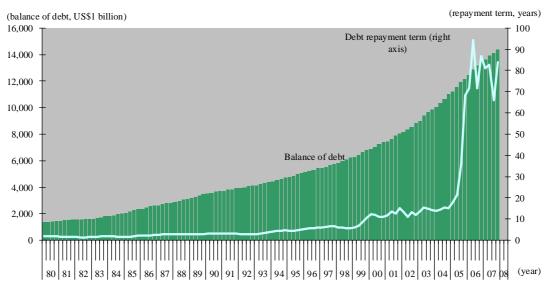
Figure 1-2-24 Changes in the free cash flow of households in the United States



Note: Household free cash flow  $\approx$  cash flow - expenditure on housing and other consumer durables Cash flow  $\approx$  wages - (expenses + consumption goods expenditure) - tax.

Source: FRB website.

Figure 1-2-25 Balance of debt and the debt repayment term for households in the United States



Notes: The debt repayment term has been calculated as follows:

 $Four-quarter\ cumulative\ value\ of\ balance\ of\ household\ debt\ /\ household\ cash\ flow.$ 

Cash flow » wages - (expenses + consumption goods expenditure) - tax.

Source: FRB website.

# (Business activity and the subprime mortgage problem)

As has already been shown (see Figure 1-2-14), since the second half of last year when the subprime mortgage problem surfaced, the lending standards practiced by financial institutions in the United States for loans to businesses has shifted dramatically toward a tightening stance. Consequently, there are concerns that businesses in the United States will be hampered in their procurement of funds,

such as for capital investments. Meanwhile the finance gap<sup>19</sup> of businesses in the United States shows that corporate debt has been trending upward since last year (see Figure 1-2-26). Under these circumstances, a withdrawal of finance and tighter lending by financial institutions would worsen the cash position of US businesses and cause a fall in business activity, such as a decline in capital investment. In turn, it is expected that this would give rise to the deterioration of the employment environment, and the economic slowdown in the United States would become even graver. In addition, business conditions in the construction industry are deteriorating rapidly. For example, employment is plummeting against a background of declining housing starts and a rising housing inventory ratio (see Figures 1-2-2 and 1-2-5)<sup>20</sup>.



Figure 1-2-26 The growing finance gap for companies in the United States

Note: Finance gap = capital investment + inventory investment - internal reserves. Moving average values for three quarters. Source: United States Department of Commerce, United States FRB website.

# (4) Rising risk of inflation

On the other hand, amid the economic slowdown backed by the uneasiness of financial systems, there are also concerns for the risk of inflation caused by the soaring prices of resources and food.

# (Effects of soaring resource and food prices)

In response to the recent soaring prices of internationally traded resources and food, the consumer price index has gradually risen within the United States as well, and there are increasing concerns that the slowdown in consumption attributable to the subprime mortgage problem will be further

<sup>19</sup> In this section, "finance gap" is defined as "capital investment + inventory investment - internal reserves." A positive finance gap indicates that business debt is increasing.

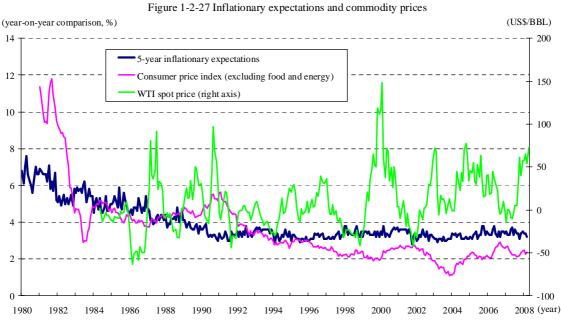
reserves." A positive finance gap indicates that business debt is increasing.

20 According to the above-mentioned Business Week (2008), while the overall ten-year average of corporate profits as a percentage of GDP has increased from a low of 6.5% in the early 1990s to 8% in the third quarter of 2007, outside the financial sector, corporate profits as a percentage of GDP has remained at virtually the same level of about 5.3% since the middle of the 1980s. This suggests that the financial sector has been supporting the favorable corporate profits of recent years.

exacerbated<sup>21</sup>. There is potential for the soaring prices of internationally traded resources and food to further curb selective expenditure by consumers through steep increases in energy and food prices, and to cause overall personal consumption to slow<sup>22</sup>.

On the other hand, looking at inflationary expectations, we can see that, in about 1980, inflationary expectations rose as a consequence of rises in the price of crude oil, and the rises extended as far as consumer prices (excluding food and energy); but in recent years, despite rises in crude oil prices, inflationary expectations have not risen, and consumer prices (excluding food and energy) have remained relatively stable compared to the period around 1980 (see Figure 1-2-27).

One of the reasons for this is that, in the midst of a fierce competitive environment, businesses have been unable to fully impute the rises in material and labor costs into the prices of products and services. As a result, businesses have suppressed rises in output prices by cutting profitability (see Figure 1-2-28).



Sources: Bloomberg; University of Michigan; United States Department of Commerce website.

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According to the results of a public opinion poll published by the CNN, on May 2, 2008, in response to the question "What is the largest economic issue?" 47% of respondents answered "inflation." In contrast, only 19% responded "falls in housing prices," and 13% responded "unemployment." In response to the question, "What worries you the most about inflation?" 68% responded "gasoline," far exceeding "food" (23%).

<sup>&</sup>lt;sup>22</sup> According to data released by the American Farm Bureau Federation (AFBF), flour recorded the biggest rise during the first quarter of 2008 at 41%, followed by eggs (34%), apples (10%), and bread (10%). Furthermore, the national average price of regular gasoline in the first quarter of 2008 was US\$3.1 per gallon, an increase of 5.3% compared to the previous period. This is close to three times the price compared to the 1990s (average price US\$1.1) when gasoline prices were stable at a low level.

5.0 Unit profit 4.0 Unit non-labor costs (year-on-year comparison, %, % points) Unit labor costs 3.0 Output price of non-financial domestic companie 2.0 1.0 0.0 -1.0 -2.0 -3.0 01 07

Figure 1-2-28 Analysis of factors affecting fluctuations in output price

Note: "Unit labor costs," "unit non-labor costs" and "unit profit" refer to the labor costs (employee remuneration, etc.), capital costs (depreciation expenses, interest payments, etc.) and profit respectively per unit of added value. Source: United States Department of Commerce website.

# (Inflation risk and the US economy)

If anything, sharp rises in energy and material prices have had a significant impact on business activity, and there are concerns about the effects of this on decreases in business capital investment and employment.

There is also concern about stagflation, where recession (increases in unemployment) and inflation develop simultaneously<sup>23</sup>. In fact, prices of crude oil and other resources have remained at extremely high levels, and this has been a factor in higher costs for business.

However, given that the growth rate of business output prices has slowed since 2006 (Figure 1-2-28) due to decreases in profits and to the inhibited growth<sup>24</sup> of unit labor costs<sup>25</sup>, and given that, up until now, there have been no signs that inflationary expectations will rise, it could be argued that, at present, the risk of stagflation in the US economy is not high.

If the US economy was to slide into stagflation, the FRB would find itself under daunting pressure to achieve the two objectives of job security and stable prices.

As mentioned above, faced with financial and inflationary risks, the US economy is approaching an adjustment phase.

<sup>&</sup>lt;sup>23</sup> For example, in a statement to the House of Representatives on May 14, 2008, Paul Volcker, former chairman of the Federal Reserve Board, warned, "The financial situation that the United States currently finds itself in closely resembles the 1970s when the United States had slid into stagflation, and there is a danger that the US economy will once again return to stagflation like the 1970s." He remarked, "The FRB should vigorously promote measures to counter inflation."

<sup>&</sup>lt;sup>24</sup> In "The Return of Two Recession Fighters" *Business Week*, May 15, 2008, it is also pointed out that inflation is being suppressed by the fact that productivity increases are still observable in business activity, and the fact that businesses are keeping unit labor costs under control.

<sup>&</sup>lt;sup>25</sup> Unit labor costs are defined as the labor costs per unit of output. They are calculated by dividing employee remuneration by the real amount of added value.

It can also be calculated by dividing wages by labor productivity. In other words, if wages exceed the growth in productivity and rise, then unit labor costs will increase.

# 2. Current status and issues of the European economy

# (1) Current status of the European economy

# (Consumption and investment driving the European economy)

Driven by growth in personal consumption and fixed capital formation, the real GDP growth rate of the EU27 (hereinafter referred to as the "EU") in 2007 was 2.9%, representing a sustained moderate recovery (see Figure 1-2-29). On the other hand, variations in the growth rates of each of the EU countries can be observed, with rapid growth in the United Kingdom and Spain, and low economic growth in Italy and Portugal<sup>26</sup>.

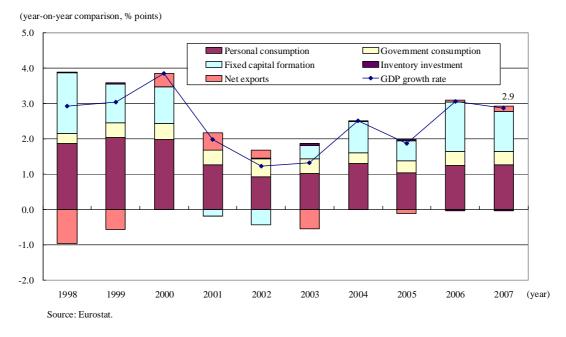


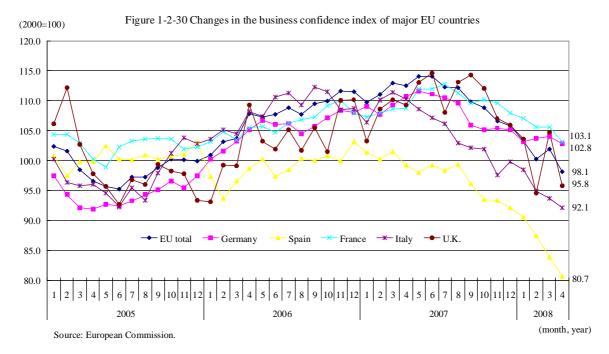
Figure 1-2-29 Changes in real GDP growth rate in the EU by demand component

Financial institutions falling into financial difficulties as a result of the US subprime mortgage problem have also appeared one after the other in the EU. Amid concerns of the effects of the dysfunction of financial systems on the real economy, during the fourth quarter of 2007, growth in personal consumption slowed dramatically, and construction investment, which had been overheating in countries such as Spain, entered an adjustment process. As a result, during the fourth quarter of 2007, the real GDP growth rate in the EU, had slowed 0.5% compared to the same period of the previous year, and it is thought that, if personal consumption and fixed capital formation continue to flag, the likelihood of growth in the EU becoming unstabilized will increase.

Looking at recent business trends in the EU, the April 2008 business confidence index for the whole of the EU had decreased 14.4 points from the previous year. On a country-by-country basis, recent business trends have been varied among individual countries. For example, the business confidence indexes of Germany and France have been above the EU-wide index since the second half

<sup>&</sup>lt;sup>26</sup> In the United Kingdom, there was rapid growth exceeding 3% for the first time in the 3 years since 2004; in Spain, rapid growth in excess of 3% has continued since 2003; whereas in Italy and Portugal, low growth of less than 2% has continued since 2001.

of 2007, while the business confidence indexes of Italy and Spain have been well below the EU-wide index (see Figure 1-2-30)<sup>27</sup>.



# (Economic trends of each major country and region)

The following describes the trends in Germany, France, and the United Kingdom<sup>28</sup>, which play large parts in the European economy, as well as the trends in Central and Eastern European countries<sup>29</sup>. where the economies are continuing to expand.

#### Germany

From the collapse of the IT bubble in 2000 and until 2003, the German economy had been sluggish. However, backed by the "Agenda 2010" under the Schröder administration, by the labor market reforms based on the "Hartz laws," and by the accession of Central and Eastern European countries to the EU, progress was made in the international division of labor<sup>31</sup> by German businesses, and through reduced labor costs and improved production efficiencies, the international competitiveness of German businesses recovered.

<sup>27</sup> Business confidence in both Italy and Spain deteriorated dramatically in the year to April 2008, dropping 18.2 points and 18.6 points respectively.

28 On a basis of real GDP, in 2007, Germany accounted for approximately 25%, France for 17%, and the

United Kingdom for about 13% of the overall EU economy.

29 The 12 countries of: Cyprus, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Malta, Poland,

Slovenia, Slovakia, Bulgaria, and Romania. Structural reform plan related to the labor market, tax system and social security system, proposed by the then German chancellor, Gerhard Schröder, in his March 2003 policy address.

<sup>&</sup>lt;sup>31</sup> Progress has been made in the trend of transferring the low-value-added portion of production to other countries, including Central and Eastern European countries, while keeping the high-value-added portion within Germany.

As a result, while personal consumption continued to struggle, significant positive contributions were made by growth in net exports and fixed capital formation, backed by increases in exports to Poland, Russia and China, and by increases in private capital investment. Consequently, in 2007, Germany achieved growth in real GDP of 2.5% (see Figure 1-2-31). On the other hand, amid rising concerns of an economic slowdown, there is an increasing possibility that the unemployment rate, which had previously been trending downward, will rise again as corporate performance is strained by wage hikes<sup>32</sup> on the back of increases in commodity prices (see Figure 1-2-32).

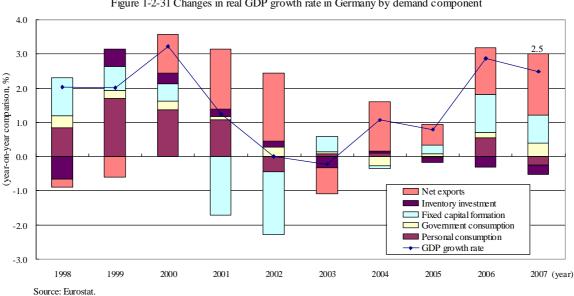
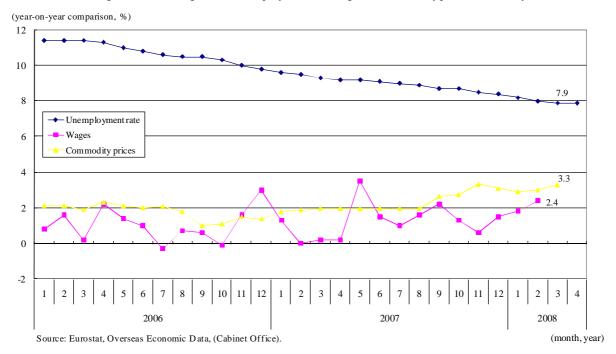


Figure 1-2-31 Changes in real GDP growth rate in Germany by demand component

Figure 1-2-32 Changes in the unemployment rate, wages and commodity prices in Germany



<sup>&</sup>lt;sup>32</sup> With local elections imminent in 2008, and a general election in 2009, negotiations for wage increases have become a political tool in Germany. As a result, there has been a succession of negotiations agreeing to substantial wage increases, for example: national rail (11%), steel (5.2%), and salt mines (4.2%).

#### France

Despite a slight slowdown in the real GDP growth rate in 2007, France achieved positive growth of 1.9%, backed by strong domestic demand centered around personal consumption (see Figure 1-2-33). The unemployment rate has trended downward, and the employment environment is improving (see Figure 1-2-33). However, the effects of the slowing world economy have gradually begun to surface, and according to a government organization<sup>33</sup>, during the fourth quarter of 2007, exports fell 0.6% overall, with large falls in exports to developed countries, including a 4.1% drop in exports to the United States and a 0.9% drop in exports to Japan. It goes onto to remark that there is a chance that, in 2008, real wages will decline and the purchasing power of households will decrease. This is based on such facts as household income, which had shown growth in 2007 of 4.7% nominally and 3.1% in real terms, is expected to slow in 2008, and that consumer prices have increased dramatically since the end of 2007. Therefore, in the short term, it will be necessary to carefully observe any movements in personal consumption which has supported the French economy thus far.

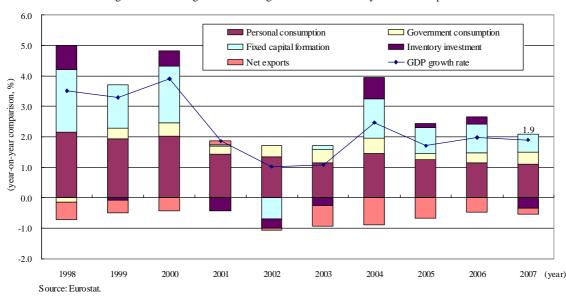


Figure 1-2-33 Changes in real GDP growth rate in France by demand component

# **United Kingdom**

The UK economy has shown positive growth for 16 years straight since 1992, and in 2007, growth was 3.1% (see Figure 1-2-34). Significant contributions to economic growth in the United Kingdom have been made by the added value which is generated by the highly developed market-oriented financial systems<sup>34</sup>. Despite the United Kingdom being a net debtor nation, its balance on income is in surplus (see Figure 1-2-36). This is said to be because, seeing as many oil producing countries and regions, such as Russia, the Middle East and Norway, have opened accounts with banks in the United Kingdom for the settlement of their proceeds from oil, the United Kingdom has used real estate

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<sup>&</sup>lt;sup>33</sup> INSEE (2008), "The Euro Zone: Between Resilience and Inflation Risk."

<sup>&</sup>lt;sup>34</sup> See Chapter 1-1-2.

investments, stock investments and the like to effectively manage the oil money flowing into the country, and has reaped enormous asset management profits (see Figure 1-2-37)<sup>35</sup>.

The unemployment rate, which had risen to 5.3% in 2006, has since remained stable at between 5% and 6%.

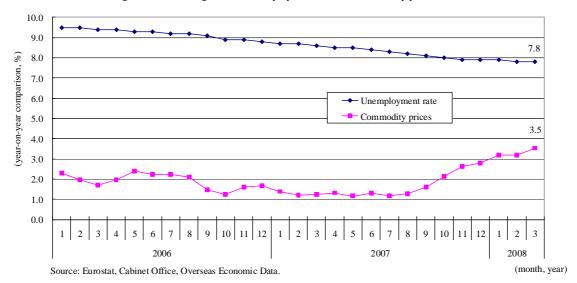
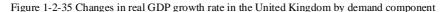
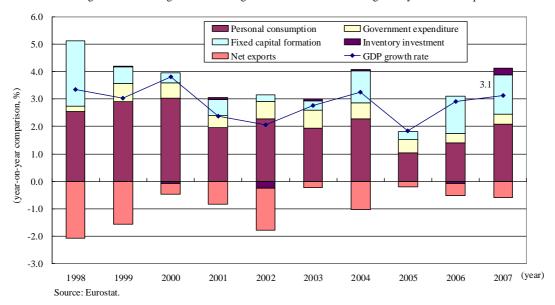


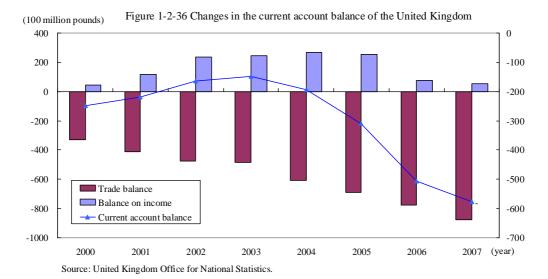
Figure 1-2-34 Changes in the unemployment rate and commodity prices in France

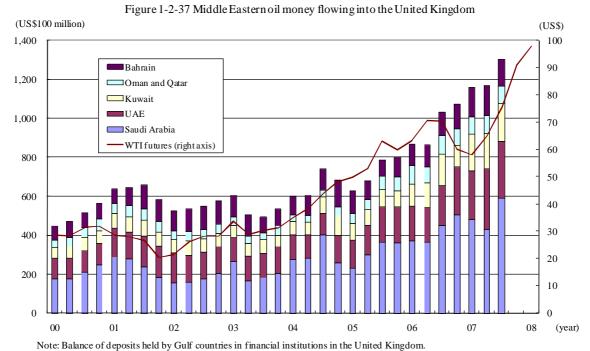




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<sup>&</sup>lt;sup>35</sup> In fact, as shown in Figure 1-2-37, looking at the statistics published by the Bank of England on country-by-country deposit balances at UK financial institutions, we can see that the movements in the total of deposit balances for the six Middle Eastern oil-producing countries (Saudi Arabia, UAE, Kuwait, Oman, Qatar, and Bahrain) are virtually in unison with the movements in the price of crude oil (WTI).





#### Central and Eastern European countries

Source: Bank of England, New York Mercantile Exchange

For the very reason of their economic magnitude, the Central and Eastern European countries that have joined the EU since 2004 account for only a small proportion (5%, 2007) of the real GDP in Europe. However, the 12 Central and Eastern European countries have achieved rapid growth at a rate of 6.3%, which is more than double the EU15 (see Table 1-2-38).

With their accession to the EU as a turning point, and against a background of high levels of education and linguistic ability, but wage levels lower than Western Europe; Central and Eastern European countries have vigorously accepted direct investments from companies and loans from financial institutions in the EU15 and other such countries. The enhancement of production capacity, the transfer of technology, the introduction of efficient production control techniques, and the

procurement of the funds necessary for these activities have all been achieved smoothly, and this has contributed greatly to the rapid growth of these countries. As a result, the productivity of Central and Eastern European countries has improved drastically in recent years, and they have succeeded in expanding their exports of products to Western European, Northern European and other such markets.

Table 1-2-38 Real GDP growth rate of Central and Eastern European countries

(year-on-year comparison %)

					(year-on-	-year comp	arison, 70)
	2001	2002	2003	2004	2005	2006	2007
Latvia	8.0	6.5	7.2	8.7	10.6	11.9	10.5
Lithuania	6.6	6.9	10.3	7.3	7.9	7.7	8.8
Slovakia	3.4	4.8	4.8	5.2	6.6	8.5	8.7
Estonia	7.7	8.0	7.2	8.3	10.2	11.2	7.8
Poland	1.2	1.4	3.9	5.3	3.6	6.1	6.5
Bulgaria	4.1	4.5	5.0	6.6	6.2	6.1	6.3
Romania	5.7	5.1	5.2	8.5	4.2	7.9	6.0
Slovenia	3.1	3.7	2.8	4.4	4.1	5.7	6.0
Czech Republic	2.5	1.9	3.6	4.5	6.4	6.4	5.8
Cyprus	4.0	2.1	1.9	4.2	4.0	4.0	4.4
Malta	-1.6	2.6	-0.3	0.2	3.3	3.4	3.1
Hungary	4.1	4.4	4.2	4.8	4.1	3.9	1.4

Source: Eurostat

# (2) Factors in the development of the European economy

As mentioned above, the sustained strength of the European economy in recent years has been supported by a number of factors that are as a consequence of the expansion of the EU: (a) greater intra-European trade and direct investment; (b) the inflow of labor from outside the region; (c) expansion of the intra-regional consumer market; and (d) increased exports to China and Russia. The following clarifies how the European economy, including Central and Eastern European countries, is integrating and expanding within the region.

#### (Invigorated intra-regional trade and direct investment)

In the EU, intra-regional trade accounts for approximately two thirds of the trade value<sup>36</sup>, and since 2004, when the Central and Eastern European countries acceded to the EU, the value of intra-regional exports has increased significantly<sup>37</sup>. The trade intensity index expresses the degree of closeness of trade between two countries (or regions). For most countries, especially the EU15 countries, this index is greater than one, suggesting that intra-regional trade is active. In particular, while trade has been active between the EU15 countries, a comparison of the trade intensity indexes in 2000 and 2006 shows that the trade intensity index of many of the Central and Eastern European countries<sup>38</sup> is rising, with a focus on exports from EU15 nations to Central and Eastern European countries (see Table 1-2-39). Underlying this is the increase in direct investment by the EU15 in Central and Eastern European countries. The balance of direct investment from the EU15 to Central and Eastern European countries has increased approximately 13-fold in ten years, from €28.6 billion in 1997, to €371.1 billion in 2007 (see Figure 1-2-40).

<sup>37</sup> The value of intra-regional exports in the EU27 has increased favorably. The year-on-year increase was 8.2% in 2004, 6.9% in 2005, and 12.5% in 2006.

<sup>&</sup>lt;sup>36</sup> See Figure 1-1-18.

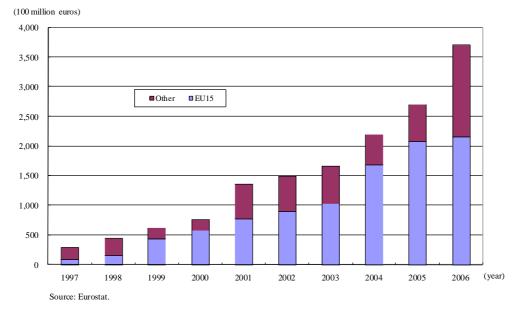
<sup>&</sup>lt;sup>38</sup> Cyprus, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, and Slovakia joined the EU in May 2004, and Bulgaria and Romania joined in January 2007.

Table 1-2-39 European intra-regional trade intensity index

Victor   V	intensity inde	exes of 27 EL	J countries	(2000) (e	MULICIS)																							
U.K.   Austa   Berling   Corneral   France   Corneral   Berling   Corn		_				_	_	_	T	M. de .				Imp	orting cou	ntry				Court								_
Second Column   14   10   10   10   10   10   10   10		U.K.	Austria	Belgium	Denmark	France	Germany	Italy			Sweden	Finland	Greece	Ire land	Portugal	Spain	Malta	Cyprus	Bulgaria		Slovakia	Estonia	Latvia	Hungary	Lithuania	Slovenia	Poland	Ro
selection   300   0.66   0.37   6.03   6.05   2.17   2.49   6.08   0.22   0.23   0.31   0.32   1.41   0.01   0.00   0.01   0.01   0.02   0.00   0.01   0.00   0.00   0.01   0.00   0.00   0.01   0.00   0.00   0.01   0.00   0.00   0.01   0.00   0.00   0.01   0.00   0.00   0.01   0.00   0.00   0.01   0.00   0.00   0.01   0.00			0.11				An Art																					Ĺ
Tempor 1 178 139 138 138 138 138 139 148 159 159 159 159 159 159 159 159 159 159	ustria			0.28		0.84	6.28			0.45	0.22		0.09	0.06	0.10	0.51	0.01	0.01	0.06	0.52	0.20	0.01	0.01	0.94	0.01	0.32		L
Harder 200 0.11 1/7 0.14 2/7 1.29 1.89 1.80 0.80 0.77 0.10 0.17 0.33 1.87 0.84 0.07 0.07 0.07 0.07 0.07 0.07 0.08 0.08	elgium	3.90	0.40		0.32	6.93	6.62	2.17	2.17	4.94	0.61	0.22	0.25	0.31	0.32	1.41	0.01	0.02	0.02	0.16	0.05	0.01	0.01	0.19	0.02	0.04	0.31	1
Serior M. 10 0.71 0.67 0.21 1.52 1.01 101 0.86 0.00 0.5 0.10 0.08 1.14 0.07 0.01 0.00 0.02 0.28 0.07 0.01 0.01 0.02 0.02 0.00 0.00 0.02 0.02	enmark					8.08																						1
substrates: 37 7-20 6031 76 0-22 5351 4-22 50 75 0-28 0-28 0-28 0-28 0-28 0-28 0-28 0-28							2.79																					1
See Register   1937   779   6931   374   Diesel   Paul   2200   2305   245   245   247   278   350   1409   007   607   607   131   333   231   005   624   247   633   0407   515   646   640   246   640				0.0.				1.01	1.01			0.10		0.00						0.20		0.0.				0.00	0.00	4
whether 290 042 344 041 042 290 733 168 143 477 448 065 029 056 039 256 020 001 002 002 012 000 001 002 001 002 013 002 001 028 038 038 038 039 039 039 039 039 039 039 039 039 039	aly																											4
Section   S.7   O.89   3.76   S.96   4.59   C.85   S.34   S.41   S.75   C.86   O.82   C.86   O.82   C.86   O.82   C.86   O.82   O.82   O.82   O.83   O.83   O.84   C.87   O.84   O.81   O.84   O.84   O.85   O.84   O.85										25.95																		1
hinded   1508   227   389   448   909   2200   700   769   606   6372   158   009   111   543   001   006   018   038   028   542   105   128   026   018   231   237   248   248   238   248   248   238   248   248   238   248   248   238   248   248   238   248   248   238   248	e ther hands										0.65																	3
Series   1200   150   211   128   221   2385   1715   1715   531   238   275   0.05												4.86																5
cland 2508   277   504   072   504   072   504   072   505   507													1.56															4
marget   16.772   17.24   91.6   191   191.5   27.20   181.6   61.8   64.77   25.5   0.77   0.61   0.80   0.80   0.80   0.92   0.01   0														0.59														1
See   Property   See   See   17.0   See   S	eland														0.38													į
Helsh   102.08   1038   2736   224   11308   33.565   476.5   476.5   476.5   1557   266   1238   1036   587.5   287   11308   574   848.5   228   1022   1770   000   154   8051   682   0068   88.2   278   576.5   586.4   577   587.5   588.4   11308   587.5   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   588.5   488.5   277   488.5   278   288.5   278																29.90												4
																	0.06											4
State   1985   1986   1986   1986   1986   1986   1986   1986   1987																		0.34										4
Table   Property   P																		L	5.36									4
Intensity indexes   100    4429   1107   243   2456   14176   4887   4																			H	4.03								4
Street   17.5																					15.91							1
Internity indexes of 27 EU courres; (2006) (exports)    VIK.   Austria   Beglum   Demant   France   Germany   Internity   Inte																						0.18						4
Intensity indexes of 27 EU curries (2000) (exports)																							87.53					4
titempris   79.55   A.14   16.19   49.90   44.70   16.47   73.00   73.																								1.64				4
Decision   175   1853   722   6.01   45.09   175.10   87.08   77.08																									0.33			4
comminis   2,065   2,18   7,33   1,528   6,66   40,46   5,14   2,318   9,143   142,39   0,60   1,45   1,55   3,26   2,06   1,64   0,11   0,89   0,29   3,79   3,28   1,657   0,06   3,44   0,07													0.27	2.45	2.69	12.21	0.05						153,46	2.42		0.22	55.83	ш
Section   Committee   Commit													1.00	101														. 1
intensiv indexes of 27 EU countries (2000) (exports)    U.K.   Austria   Belgium   Dermark   France   Germany   Inaly   Lineary	love nia	13.75	48.35	7.22	6.01	45.69	175.19	87.68	87.68	11.08	4.50	1.67															16.67	4
U.K.   Austin   Belgim   Demark   Frame   Cermany   Ind.   Line   Notes   Frame   Notes   Fr	lovenia oland	13.75 6.31	48.35 2.84	7.22 4.16	6.01 3.81	45.69 7.31	175.19 49.09	87.68 8.93	87.68 8.93	11.08 7.11	4.50 3.83	1.67 1.03	0.44	0.40	0.88	2.25	0.06	0.20	0.36	5.33	1.95	0.40	0.92	2.89	2.50			
Visible   Visi	bvenia okud omania	13.75 6.31 20.65	48.35 2.84 2.18	7.22 4.16 7.33	6.01 3.81 15.28	45.69 7.31	175.19 49.09	87.68 8.93	87.68 8.93	11.08 7.11	4.50 3.83	1.67 1.03	0.44	0.40 1.45	0.88	2.25 3.26	0.06	0.20	0.36	5.33	1.95	0.40	0.92	2.89	2.50			,
Section   Color   Co	bvenia okud omania	13.75 6.31 20.65 exes of 27 EU	48.35 2.84 2.18 J countries	7.22 4.16 7.33 (2006) (e	6.01 3.81 15.28 xports)	45.69 7.31 6.66	175.19 49.09 40.46	87.68 8.93 5.14	87.68 893 5.14	11.08 7.11 23.18	4.50 3.83 91.43	1.67 1.03 142.39	0.44	0.40 1.45	0.88 1.53 orting cou	2.25 3.26	2.06	0.20 1.64	0.36	5.33 0.89	1.95 0.29	0.40 37.91	0.92 3.28	2.89 16.57	2.50 0.06	3.44	0.07	
elsum 285 0.37	bvenia okud omania	13.75 6.31 20.65 exes of 27 EU	48.35 2.84 2.18 J countries	7.22 4.16 7.33 (2006) (e	6.01 3.81 15.28 xports)	45.69 7.31 6.66	175.19 49.09 40.46	87.68 8.93 5.14	87.68 893 5.14	11.08 7.11 23.18 Nether-	4.50 3.83 91.43	1.67 1.03 142.39	0.44	0.40 1.45	0.88 1.53 orting cou	2.25 3.26	2.06	0.20 1.64	0.36	5.33 0.89	1.95 0.29	0.40 37.91	0.92 3.28	2.89 16.57	2.50 0.06	3.44	0.07	<u> </u>
Normal   1288   114   227	lovenia oland omania omania intensity inde	13.75 6.31 20.65 exes of 27 EU	48.35 2.84 2.18 J countries	7.22 4.16 7.33 (2006) (e	6.01 3.81 15.28 xports)	45.69 7.31 6.66	175.19 49.09 40.46 Germany	87.68 8.93 5.14 Italy	87.68 8.93 5.14	11.08 7.11 23.18 Nether- lands	4.50 3.83 91.43	1.67 1.03 142.39	0.44 0.60 Greece	0.40 1.45 Imp	0.88 1.53 orting cou	2.25 3.26 ntry Spain	0.06 2.06 Malta	0.20 1.64 Cyprus	0.36 0.11 Bulgaria	5.33 0.89 Czech Republic	1.95 0.29 Slovakia	0.40 37.91 Estonia	0.92 3.28 Latvia	2.89 16.57 Hungary	2.50 0.06	3.44 Slovenia	0.07	,
Barbon   178   1	lovenia okand omania intensity inde	13.75 6.31 20.65 exes of 27 EU U.K.	48.35 2.84 2.18  J countries  Austria 0.15	7.22 4.16 7.33 (2006) (e Belgium	6.01 3.81 15.28 xports)	45.69 7.31 6.66 France 2.30 0.83	175.19 49.09 40.46 Germany	87.68 8.93 5.14 Italy 0.82	87.68 8.93 5.14 Luxem- bourg 0.11	7.11 23.18 Nether- lands 1.38 0.40	4.50 3.83 91.43 Sweden 0.46 0.22	1.67 1.03 142.39 Finland 0.17 0.12	0.44 0.60 Greece 0.13	0.40 1.45 Imp Ire hnd 1.56 0.07	0.88 1.53 orting cou Portugal 0.19	2.25 3.26 ntry Spain 1.00 0.61	0.06 2.06 Malta 0.03	0.20 1.64 Cyprus 0.07	0.36 0.11 Bulgaria	5.33 0.89 Czech Republic 0.11	1.95 0.29 Slovakia 0.02	0.40 37.91 Estonia 0.03	0.92 3.28 Latvia 0.01	2.89 16.57 Hungary 0.08	2.50 0.06	Slovenia 0.02	0.07 Poland 0.20	,
Series V 999 073 075 072 131	bve nia oland omania intensity inde	13.75 6.31 20.65 U.K.	48.35 2.84 2.18  J countries  Austria 0.15	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35	6.01 3.81 15.28 xports)	45.69 7.31 6.66 France 2.30 0.83 6.10	175.19 49.09 40.46 Germany 2.40 6.64 7.12	87.68 8.93 5.14 Italy 0.82 1.99	87.68 893 5.14 Luxem- bourg 0.11 0.04 0.68	Nether- hnds 1.38 0.40 4.33	4.50 3.83 91.43 Sweden 0.46 0.22 0.53	1.67 1.03 142.39 Finland 0.17 0.12 0.23	0.44 0.60 Greece 0.13 0.12 0.23	0.40 1.45 Imp Ire land 1.56 0.07 0.29	0.88 1.53  orting cou Portugal 0.19 0.09 0.22	2.25 3.26 stry Spain 1.00 0.61 1.33	0.06 2.06 Malta 0.03 0.04	0.20 1.64 Cyprus 0.07 0.01	0.36 0.11 Bulgaria 0.02 0.12 0.03	5.33 0.89 Czech Republic 0.11 0.70 0.26	1.95 0.29 Slovakia 0.02 0.38 0.08	0.40 37.91 Estonia 0.03 0.02 0.03	0.92 3.28 Latvia 0.01 0.03 0.02	289 16.57 Hungary 0.08 0.75 0.17	2.50 0.06 Lithuania 0.02 0.03 0.04	3.44 Skwenia 0.02 0.41 0.05	0.07 Poland 0.20 0.51	,
are left and by the left and b	bvenia ohand omania intensity inde	13.75 6.31 20.65 U.K. 0.84 2.85 12.88	48.35 2.84 2.18  J countries  Austria 0.15 0.37 1.14	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35	601 3.81 15.28 xports) Dermark 0.30 0.16	45.69 7.31 6.66 France 2.30 0.83 6.10	175.19 49.09 40.46 Germany 2.40 6.64 7.12 25.40	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11	87.68 893 5.14 Luxem- bourg 0.11 0.04 0.68 0.08	Nether- hads 1.38 0.40 4.33 7.57	4.50 3.83 91.43 Sweden 0.46 0.22 0.53 20.73	1.67 1.03 142.39 Finland 0.17 0.12 0.23 4.41	0.44 0.60 Greece 0.13 0.12 0.23 1.15	0.40 1.45 Imp Ireland 1.56 0.07 0.29 1.91	0.88 1.53  orting cou  Portugal 0.19 0.09 0.22 1.13	225 3.26 stry Spain 1.00 0.61 1.33	0.06 2.06 Malta 0.03 0.04 0.01	0.20 1.64 Cyprus 0.07 0.01 0.02	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16	Czech Republic 0.11 0.70 0.26	1.95 0.29 Slovakia 0.02 0.38 0.08	0.40 37.91 Estonia 0.03 0.02 0.03 0.48	0.92 3.28 Latvia 0.01 0.03 0.02 0.50	2.89 16.57 Hungary 0.08 0.75 0.17	250 0.06 Lithuania 0.02 0.03 0.04 0.79	3.44 Skwenia 0.02 0.41 0.05 0.17	0.07 Poland 0.20 0.51 0.46 3.01	
Number   450   1.66   2.42   2.32   2.45   7.45   0.30   0.55   1.41   1.39   1.01   1.65   1.50   1.55   1.50   1.55   1.50	byenia okand omania intensity inde  .Kustria elgium enmark	13.75 6.31 20.65 U.K. U.K. 0.84 2.85 12.88	48.35 2.84 2.18  J countries  Austria 0.15 0.37 1.14 0.20	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35	601 381 15.28 xports) Dermark 0.30 0.16 0.29	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16	175.19 49.09 40.46 Germany 2.40 6.64 7.12 25.40	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11	87.68 893 5.14 Luxem- bourg 0.11 0.04 0.68 0.08	Nether- hnds 1.38 0.40 4.33 7.57	4.50 3.83 91.43 Sweden 0.46 0.22 0.53 20.73	1.67 1.03 142.39 Finland 0.17 0.12 0.23 4.41	Greece 0.13 0.12 0.23 1.15 0.18	Imp Ire hnd 1.56 0.07 0.29 1.91	0.88 1.53  Porting cou  Portugal 0.19 0.09 0.22 1.13 0.26	225 3.26 stry Spain 1.00 0.61 1.33 4.46 207	0.06 2.06 Malta 0.03 0.04 0.01 0.07	0.20 1.64 Cyprus 0.07 0.01 0.02 0.26	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16	Czech Republic 0.11 0.70 0.26 1.41	1.95 0.29 Slovakia 0.02 0.38 0.08 0.31	0.40 37.91 Estonia 0.03 0.02 0.03 0.48	0.92 3.28 Latvia 0.01 0.03 0.02 0.50	2.89 16.57 Hungary 0.08 0.75 0.17 0.77	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79	3.44 Skwenia 0.02 0.41 0.05 0.17	0.07 Poland 0.20 0.51 0.46 3.01	
ctebrands 242 038 377 036 223 688 139 010 - 0.04 023 022 024 027 098 001 002 030 377 006 001 002 020 004 005 041 082 027 082 034 027 034 0	lovenia okand omania intensity inde  i.K. ustria elsium enmark tance	13.75 6.31 20.65 U.K. 0.84 2.85 12.88 1.78 0.99	48.35 2.84 2.18 J countries Austria 0.15 0.37 1.14 0.20 0.74	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 2.27 1.55	0.01	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16	Germany 2.40 6.64 7.12 2.5.40 3.36	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11	87.68 8.93 5.14 Luxem- bourg 0.11 0.04 0.08 0.08 0.10	Nether- hads 1.38 0.40 4.33 7.57 0.85	4.50 3.83 91.43 Sweden 0.46 0.22 0.53 20.73 0.28 0.29	1.67 1.03 142.39 Finland 0.17 0.12 0.23 4.41 0.10 0.14	Greece 0.13 0.12 0.23 1.15 0.18 0.10	Imp Ire hnd 1.56 0.07 0.29 1.91 0.15	0.88 1.53  Porting cou  Portugal 0.19 0.09 0.22 1.13 0.26 0.11	2.25 3.26 3.26 Spain 1.00 0.61 1.33 4.46 2.07 0.64	0.06 2.06 Malta 0.03 0.04 0.01 0.07 0.03 0.01	0.20 1.64 Cyprus 0.07 0.01 0.02 0.26 0.02	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16 0.04	Czech Republic 0,11 0,70 0,26 1,41 0,17	1.95 0.29 Slovakia 0.02 0.38 0.08 0.31 0.06	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01	0.92 3.28 Latvia 0.01 0.03 0.02 0.50 0.01	2.89 16.57 Hungary 0.08 0.75 0.17 0.77 0.15	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03	3.44 Skwenia 0.02 0.41 0.05 0.17 0.07	0.07  Poland 0.20 0.51 0.46 3.01 0.38	
Seekar   S	bvenia oland omania intensity inde  .Kustria elgium e emank tance ermany	13.75 6.31 20.65 U.K. 0.84 2.85 12.88 1.78 0.99	48.35 2.84 2.18 J countries Austria 0.15 0.37 1.14 0.20 0.74	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 2.27 1.55 0.79	001 3.81 15.28 xports) Denmark 0.30 0.16 0.29 0.29 0.22	45.69 7.31 6.66 France 230 0.83 6.10 7.16 1.31	175.19 49.09 40.46 Germany 2.40 6.64 7.12 25.40 3.36	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11 1.92 0.91	87.68 8.93 5.14 Luxem- bourg 0.11 0.04 0.08 0.08 0.10	Nether- hnds 1.38 0.40 4.33 7.57 0.87 0.85	4.50 3.83 91.43 Sweden 0.46 0.22 0.53 20.73 0.28 0.29	1.67 1.03 142.39 Finland 0.17 0.12 0.23 4.41 0.10 0.14	Greece 0.13 0.12 0.23 1.15 0.18 0.10 0.55	0,40 1,45 Imp Ire hnd 1,56 0,07 0,29 1,91 0,15 0,09 0,14	0.88 1.53  Portugal 0.19 0.09 0.22 1.13 0.26 0.11 0.30	2.25 3.26 3.26 Spain 1.00 0.61 1.33 4.46 2.07 0.64 1.98	Malta 003 004 0.01 0.03 0.01 0.07	Cyprus 0.07 0.01 0.02 0.02 0.01 0.02	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03	Czech Republic 0.70 0.26 1.41 0.17 0.34	1.95 0.29 Slovakia 0.02 0.38 0.08 0.31 0.06 0.12	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02	0.92 3.28 Latvia 0.01 0.03 0.02 0.50 0.01 0.02	2.89 16.57 Hungary 0.08 0.75 0.17 0.17 0.15	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03	3.44 Skwenia 0.02 0.41 0.05 0.17 0.07 0.05 0.25	0.07  Poland 0.20 0.51 0.46 3.01 0.38 0.44	
hind   1011   118   3.56   3.30   5.16   17.52   4.04   0.10   7.98   16.57   0.81   0.58   0.59   0.38   0.50   0.38   0.04   0.13   0.16   0.82   0.27   2.5   1.9   1.05   0.04   0.28   3.7	bvenia oland omania intensity inde  .K.  ustria elejum e mark tance ermany aly use mboure	13.75 6.31 20.65 U.K. 0.84 2.85 1.288 1.78 0.99	48.35 2.84 2.18  Austria 0.15 0.37 1.14 0.20 0.74 0.67	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 2.27 1.55 0.79 42.42	601 3.81 15.28 xports) Denmark 0.30 0.16 0.29 0.16 0.29 0.22 8.24	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 1.31 3.20 74.56	175.19 49.09 40.46 Germany 2.40 6.64 7.12 25.40 3.36 93.02	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11 1.92 0.91	87.68 8.93 5.14 Luxem- bourg 0.11 0.04 0.68 0.08 0.10 0.07	Nether- hnds 1.38 0.40 4.33 7.57 0.87 0.85	4,50 3,83 91,43 Sweden 0,46 0,22 0,53 20,73 0,28 0,29 0,29	Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.13	Greece 0.13 0.12 0.23 1.15 0.18 0.10 0.55	Imp Ire had 1.56 007 0.29 1.91 0.15 0.09 0.14	0.88 1.53  Portugal 0.19 0.09 0.22 1.13 0.26 0.11 0.30 15.29	2.25 3.26 3.26 Spain 1.00 0.61 1.33 4.46 2.07 0.64 1.98 2.533	Malta  003 004 001 007 003 001 006	0.20 1.64 Cyprus 0.07 0.01 0.02 0.02 0.01 0.06 4.99	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03	Czech Republic 0.11 0.70 0.26 1.41 0.17 0.34 0.27	1.95 0.29 Slovakia 0.02 0.38 0.08 0.31 0.06 0.12 0.13	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.03	0.92 3.28 Latvia 0.01 0.03 0.02 0.50 0.01 0.02 0.03	2.89 16.57 Hungary 0.08 0.75 0.17 0.77 0.15 0.24 0.27	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05	3.44 Skwenia 0.02 0.41 0.05 0.17 0.07 0.05 0.25	0.07  Poland 0.20 0.51 0.46 3.01 0.38 0.44 0.58	
Record   16.50   421   1735   2.66   3314   39.88   1.06   8.07   4.90   1.98   0.92   0.75   1.72   1.410   0.01   0.15   0.04   1.17   0.48   0.12   0.08   0.80   0.21   0.85   3.75   0.21   0.2	bvenin ohnd omania intensity inde  .K. ustria elgium e mmark tance ermany a k use mbour g et terhands	13.75 6.31 20.65 U.K. U.K. 0.84 2.85 12.88 0.99 1.66 45.50 45.50 2.42	48.35 2.84 2.18  Austria 0.15 0.37 1.14 0.20 0.74 0.67 11.61 0.38	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 2.27 1.55 0.79 42.42 3.77	601 3.81 15.28  xports)  Dermark 0.30 0.16 0.29 0.16 0.21 0.22 8.24 0.34	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 1.31 3.20 74.56 2.32	Germany 2.40 6.664 7.12 2.5.40 3.36 9.302 6.88	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11 1.92 0.91	87.68 893 5.14 Luxem- hourg 0.11 0.04 0.68 0.08 0.10 0.07 0.05	Nether- huds 1.38 0.40 4.33 7.57 0.87 0.65 21.41	4,50 3,83 91,43 Sweden 0,46 0,22 0,53 20,73 0,28 0,29 0,29	I.67 I.03 I4239 Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14	Greece  0.13  0.12  0.23  1.15  0.18  0.10  0.55  2.07	Imp Ire land 1.56 0.07 0.29 1.91 0.15 0.09 4.156 0.24	0.88 1.53  Porting cou  Portugal 0.19 0.22 1.13 0.26 0.11 0.30 15.29 0.20	225 326 326 Spain 1.00 0.61 1.33 4.46 2.07 0.64 1.98 2.5.33 0.98	Maha  0.03  0.04  0.01  0.07  0.03  0.01  0.06  0.33  0.01	Cyprus 0.07 0.01 0.02 0.26 0.02 0.01 0.06 4.99	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03 0.13 0.17	Czech Republic 0.11 0.70 0.26 1.41 0.17 0.34 0.34 0.37	1,95 0,29 Slovakia 0,02 0,38 0,08 0,31 0,06 0,12 0,13 1,39	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.03 0.29	0.92 3.28 Latvia 0.01 0.03 0.02 0.50 0.01 0.02 0.03	2.89 16.57 Hungary 0.08 0.75 0.17 0.77 0.15 0.24 1.82 0.20	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05 0.52	3.44 Slovenia 0.02 0.41 0.05 0.17 0.07 0.05 0.25 1.24	0.07  Poland 0.20 0.51 0.46 3.01 0.38 0.44 0.58 7.88	
cland 233 0.71 2217 101 8.56 11.46 416 0.26 5.76 1.88 0.77 0.63 1.07 0.05 0.06 0.00 0.00 0.00 0.00 0.00 0.00	bvenia ohnd omania intensity inde  i.K. ustria elejtium e mmark sance eier many a k use mbour e ei ther hads weden	13.75 6.31 20.65 U.K. 0.84 2.85 12.88 1.78 0.99 1.666 45.50	48.35 2.84 2.18 J countries Austria 0.15 0.37 1.14 0.20 0.74 0.67 11.61 0.38	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 0.75 0.79 42.42 3.77 4.40	001 3.81 15.28 20 20 20 20 20 20 20 20 20 20 20 20 20	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 1.31 3.20 74.56 2.32 4.75	Germany 2.40 6.64 7.12 2.5.40 3.36 9.302 6.888 9.45	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11 1.92 0.91	87.68 893 5.14 Luxem- bourg 0.11 0.04 0.68 0.08 0.10 0.07 0.05	Nether- hards 1.38 0.40 4.33 7.57 0.887 0.65 21.41	4,50 3,83 91,43 Sweden 0,46 0,22 0,53 20,73 0,28 0,29 0,29 1,291	I.67 I.03 I4239 Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14 0.10 0.14	Greece 0.13 0.12 0.23 1.15 0.18 0.10 0.55 0.07 0.20 0.50	Imp Ire hnd 1.56 007 0.29 1.91 0.15 0.09 0.14 1.56	0.88 1.53  Porting cou  Portugal 0.19 0.09 0.22 1.13 0.26 0.11 0.30 15.29 0.20 0.48	225 326 326 Spain 1,00 0,61 1,33 4,46 2,07 0,64 1,98 25,33 0,98 2,97	Ma ha 0.03 0.04 0.01 0.07 0.03 0.01 0.06 0.33 0.01 0.02	Cyprus 0.07 0.01 0.02 0.26 0.02 0.01 0.06 0.09 0.002 0.005	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03 0.17 0.03	Czech Republic 0.11 0.70 0.26 1.41 0.17 0.34 0.27 4.31 0.37	Sovakia 0.02 0.38 0.08 0.31 0.06 0.12 0.13 1.39 0.06 0.18	Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.03 0.29 0.04	0.92 3.28 Latvia 0.01 0.03 0.02 0.50 0.01 0.02 0.03 0.02	2.89 16.57 Hungary 0.08 0.75 0.17 0.15 0.24 0.27 1.82 0.20 0.41	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05 0.04	3.44 Shvenia 0.02 0.41 0.05 0.17 0.07 0.05 0.25 1.24 0.012	Poland 0.20 0.51 0.46 3.01 0.38 0.44 0.58 7.88 0.41	5
Official Control   139   087   5.30   116   204   204   6.73   0.17   6.20   189   115   0.61   0.84   4.525   0.04   0.09   0.07   0.02   0.23   0.08   0.13   0.06   0.15   0.06   0.05   0.14   0.10   0.00   0	bvenia ohnd omania intensity inde  intensity i	13.75 6.31 20.65  U.K.  0.84 2.85 1.288 0.99 1.66 4.509 2.42 6.88	Austria  Q.15  Q.37  1.14  Q.20  Q.74  Q.67  Q.38  Q.18  Q.19	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 0.75 0.79 42.42 3.77 4.40 3.56	Dermark  Dermark  0.16 0.29 0.16 0.21 0.22 8.24 0.34 6.66 6.330	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 3.20 74.56 2.32 4.75 5.16	Germany 2.40 6.64 7.12 2.5.40 3.36 9.302 6.88 9.455 17.52	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11 1.92 0.91 45.94 1.32 3.23 4.94	87.68 893 5.14 Luxem- bourg 0.11 0.04 0.68 0.08 0.10 0.07 0.05	Nether- hards 1.38 0.40 4.33 7.57 0.887 0.65 21.41 4.57 7.98	383 91.43 91.43 Sweden 0.46 0.22 0.53 20.73 0.28 0.29 0.29 1.291 0.49	Finland  0.17 0.12 0.23 4.41 0.10 0.14 0.13 4.65 0.29 5.80	Greece 0.13 0.12 0.23 1.15 0.18 0.10 0.55 0.07 0.20 0.50	0.40 1.45  Imp Ire hnd 1.56 0.07 0.29 1.91 0.15 0.09 0.14 1.56 0.24 0.55 0.58	0.88 1.53  Porting cou  Portugal 0.19 0.09 0.22 1.13 0.30 15.29 0.20 0.48 0.50	225 326 Spain 1,00 061 1,33 446 207 0,64 1,98 25,33 0,98 297 3,86	0.06 2.06  Malta 0.03 0.04 0.01 0.07 0.03 0.01 0.06 0.33 0.01 0.02 0.04	Cyprus 0.07 0.01 0.02 0.06 0.02 0.01 0.06 499 0.02 0.015 0.013	0.36 0.11 0.11 0.02 0.12 0.03 0.13 0.17 0.04 0.03 0.11 0.11	Czech Republic 0,11 0,70 0,26 1,41 0,17 0,34 0,27 4,31 0,35 0,58	1,95 0,29 Slovakia 0,02 0,38 0,08 0,31 0,06 0,12 0,13 1,39 0,06 0,18 0,08	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.03 0.29 0.04 0.07 6 4.52	0.92 3.28 0.01 0.03 0.02 0.50 0.01 0.02 0.03 0.29 0.02 0.03	2.89 16.57 Hungary 0.08 0.75 0.17 0.75 0.24 0.27 1.82 0.20 0.41	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05 0.52 0.04 0.05	3.44  Shvenia 0.02 0.41 0.05 0.17 0.07 0.05 0.25 1.24 0.05 0.12 0.28	Poland 0.20 0.51 0.46 3.01 0.38 0.44 0.58 7.88 0.41 1.97 3.17	
min 285 0.31 107 0.29 6.62 4.01 3.16 0.04 12.1 0.36 0.16 0.41 0.23 3.25 0.02 0.04 0.05 0.26 0.09 0.01 0.02 0.18 0.04 0.01 0.40 0.10 1.00 1.00 1.00 1.00	bvenia ohnd omania intensity inde in	13.75 6.31 20.65  U.K.  0.84 2.85 12.88 1.78 0.99 1.66 45.50 2.42 6.688 10.11	Austria  Austria  0.15  0.37  1.14  0.20  0.74  0.67  11.61  0.38  0.91  1.18  4.21	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 0.75 0.79 42.42 3.77 4.40 3.56 17.35	601 3.81 15.28  Denmark 0.30 0.16 0.29  0.16 0.29 8.24 0.34 6.66 3.30 2.64	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 3.20 74.56 2.32 4.75 5.16 3.314	Germany 2.40 6.64 7.12 2.5.40 3.36 9.302 6.88 9.45 17.52 39.88	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11 1.92 0.91 45.94 1.39 3.23 4.94 1.406	87.68 8.93 5.14 Luxem- hourg 0.11 0.04 0.68 0.08 0.10 0.07 0.05	Nether-hards 1.38 0.40 4.33 7.57 0.87 0.85 2.141 4.57 7.98 4.90	3.83 91.43 91.43 Sweden 0.46 0.22 0.53 20.73 0.28 0.29 1.291 0.49	Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.13 4.65 0.29 5.80	0.44 0.60 0.13 0.12 0.23 1.15 0.18 0.10 0.25 0.25 0.25 0.20	0.40 1.45  Imp Ire hnd 1.56 0.07 0.29 1.91 0.15 0.09 0.14 1.56 0.24 0.55 0.58	0.88 1.53  Porting cou  Portugal 0.19 0.09 0.22 1.13 0.26 0.11 0.30 0.529 0.20 0.48 0.50 0.50 1.72	225 326 326 1.00 0.61 1.33 4.46 2.07 0.64 1.198 2.533 0.98 2.97 3.86 1.405	Maha 003 0,04 0,01 0,07 0,03 0,01 0,06 0,33 0,01 0,002 0,04 0,01	Cyprus 0.07 0.01 0.02 0.26 0.02 0.01 0.02 0.06 4.99 0.02 0.03 0.15	0.36 0.11 0.02 0.12 0.03 0.16 0.04 0.03 0.13 0.17 0.03 0.11 0.16 0.04	Czech Republic 0,11 0,70 0,26 1,41 0,27 4,31 0,37 0,58 0,82 1,47	1,95 0,29 Slovakia 0,02 0,38 0,31 0,06 0,12 0,13 1,39 0,06 0,18 0,07 0,08	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.03 0.29 0.04 0.76 4.52 0.12	0.92 3.28 0.01 0.03 0.02 0.50 0.01 0.02 0.03 0.29 0.02 0.30 1.19 0.08	2.89 16.57 Hungary 0.08 0.75 0.17 0.77 0.15 0.24 0.27 1.82 0.20 0.41 1.05 0.80	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.03 0.05 0.52 0.04 0.35 0.05	3.44  Skwenia  0.02  0.41  0.05  0.17  0.07  0.05  1.24  0.05  0.12  0.28  0.58	Poland 0.20 0.51 0.46 3.01 0.38 7.88 0.44 1.97 3.17 2.37	5
ht   1859   19   196   794   2857   1812   694   000   1867   548   3484   222   151   544   1268   2856   1851   130   077   071   070   170   072   072   072   073   075	byenia ohnd omania intersity inde  .K. ustria elejum enmark anne ermany a b usemboure eitherhads weden intend	13.75 6.31 20.65  U.K.  0.84 2.85 1.288 0.99 2.42 6.888 10.11 15.62 2.633	4835 284 218  Austria 0.15  0.37 1.14 0.20 0.74 0.67 1.63 0.91 1.18 0.21 0.71	7.22 4.16 7.33 (2006) (e Belginm 1.15 0.35 0.75 0.79 42.42 3.77 4.40 3.56 17.35 22.17	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 1.31 3.20 7.456 2.33 4.75 5.16 3.314 8.566	Germany 2.40 6.64 7.12 2.5.40 3.36 3.60 9.302 6.88 9.45 17.52 3.988 11.46	Italy 0.82 1.99 1.87 5.11 45.94 1.39 3.23 4.94 1.40.6 6.16	87.68 893 5.14 Luxem- hour 0.11 0.04 0.68 0.08 0.10 0.05 0.10 0.10 0.10 0.10 0.10	Nether- hards 1.38 0.40 4.33 7.57 0.85 0.65 21.41 457 7.98 4.90 5.76	383 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43 91.43	Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.13 4.65 0.29 5.80	0.44 0.60 0.60 0.13 0.12 0.23 1.15 0.18 0.10 0.55 2.07 0.20 0.81	0.40 1.45  Imp Ire land 1.56 0.07 0.29 1.91 0.15 0.09 0.14 1.56 0.24 0.55 0.58 0.75	0.88 1.53  Porting cou  Portugal 0.19 0.09 0.22 1.13 0.26 0.11 0.30 0.529 0.20 0.48 0.50 0.50 1.72	225 326 326 Spain 1.00 0.61 1.33 4.46 2.07 0.64 1.98 2.53 3.098 2.97 3.86 1.405 5.52	Ma ka  003 004 001 007 003 001 006 033 001 002 004	Cyprus  0.07 0.01 0.02 0.06 0.02 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.0	0.36 0.11 Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03 0.11 0.11 0.16 0.04	Czech Republic 0.11 0.70 0.26 1.41 0.17 0.34 0.27 4.31 0.37 0.58 0.82 1.47 0.60	1,95 0,29 0.29 0.38 0.08 0.31 0.06 0.12 0.13 0.06 0.18 0.27 0.48 0.08	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.03 0.49 0.04 0.76 4.52 0.04	0.92 3.28 0.01 0.03 0.02 0.50 0.01 0.02 0.03 0.29 0.02 0.30 0.119 0.08	2.89 16.57 Hungary 0.08 0.75 0.17 0.15 0.24 0.27 1.82 0.20 0.41 1.05	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05 0.05 0.04 0.35 0.94 0.21	3.44  Skvenia 0.02 0.41 0.05 0.17 0.07 0.05 0.25 1.24 0.05 0.12 0.28 0.08	0.07  Poland 0.20 0.51 0.46 3.01 0.38 0.44 0.58 7.88 0.41 1.97 3.17 2.37 0.70	5
Property   1150   105   107   129   131   132   133   132   132   133   132   132   133   132   132   133   132   133   132   133   132   133   132   133   132   133   132   133	bve nii ohnd omania  intensity inde  intensity	13.75 6.31 20.65 U.K.  U.K.  0.844 2.855 12.88 1.78 0.99 1.66 45.50 45.50 1.1.39 11.36 2.2.6 3.3 11.35	Austria  Austria  0.15  0.37  1.14  0.20  0.74  0.38  0.91  1.18  0.19  0.38	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 0.75 0.79 42.42 3.56 17.35 22.17 5.30	0.01 (0.00 to 1.00 to	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 6.232 74.56 2.32 3.314 8.566 2.045	Germany 2.40 6.664 7.12 2.5.40 3.36 9.302 6.88 9.45 17.52 39.88 11.46 2.2.04	87.68 8.93 5.14 Italy 0.82 1.99 1.87 5.11 1.92 0.91 45.94 1.39 3.23 4.94 1.406 6.166 6.616 6.673	87.68 893 5.14 Luxem- bourg 0.11 0.04 0.68 0.08 0.10 0.05 0.05 0.10 0.06 0.10 0.10 0.10 0.10 0.10 0.10	Nether- hads 0.40 4.33 7.57 0.85 0.65 21.41 4.57 7.98 4.90 5.76 6.20	4.50 3.83 91.43 91.43 91.43 91.43 91.43 20.73 0.28 0.29 0.29 0.29 1.291 0.49 16.27 1.98 1.85 1.85	Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.13 4.65 0.29 5.80 0.92 0.77 1.15	0.44 0.60 0.13 0.12 0.23 1.15 0.19 0.55 2.07 0.20 0.81	0.40 1.45  Imp Ire hnd 1.56 0.07 0.29 1.91 0.15 0.09 0.14 1.56 0.24 0.55 0.58 0.75	0.88 1.53  Porting cou  0.119 0.09 0.22 1.13 0.26 0.11 0.30 15.29 0.20 0.48 0.50 1.72	225 326 326 Spain 1.00 0.61 1.33 4.46 2.07 0.64 1.98 2.53 3.098 2.97 3.86 1.405 5.52	0.06 2.06  Ma ha 0.03 0.04 0.01 0.07 0.03 0.01 0.06 0.33 0.01 0.02 0.04 0.01 0.02 0.04	0.20 1.64 Cyprus 0.07 0.01 0.02 0.02 0.01 0.06 4.99 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0	0.36 0.11 0.12 0.02 0.12 0.03 0.16 0.04 0.03 0.11 0.17 0.03 0.11 0.16 0.04 0.06 0.06	Czech Repubic 0.11 0.70 0.26 1.41 0.17 0.34 0.27 4.31 0.37 0.58 0.82 1.47 0.60	1,95 0,29 0,02 0,38 0,08 0,12 0,13 1,39 0,06 0,18 0,27 0,48 0,08	0.40 37.91 Estoria 0.03 0.02 0.03 0.48 0.01 0.02 0.03 0.49 0.01 0.05	0.92 3.28 0.01 0.03 0.02 0.50 0.01 0.02 0.03 0.29 0.30 1.19 0.08 0.01 0.01	289 1657 Hungary 0.08 0.75 0.17 0.77 0.15 0.24 0.27 1.82 0.20 0.41 1.05 0.80 0.40 0.69	250 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05 0.52 0.94 0.35 0.94	3.44  Skwenia  0.02  0.41  0.05  0.17  0.07  0.05  0.25  1.24  0.05  0.12  0.28  0.58  0.04  0.14	0.07  Poland 0.20 0.51 0.46 3.01 0.38 0.44 0.58 7.88 0.41 1.97 3.17 2.37 0.700 1.10	1
dami 1462   1103   3721   175   2376   5479   5733   032   784   263   246   4521   052   246   1873   360   417   385   305   313   053   318	byenia ohnd omania intensity inde  intensity i	13.75 6.31 20.65  U.K.  0.84 2.85 1.28 1.78 0.99 1.66 4.50 4.50 1.011 1.50 2.633 11.39 2.85	Austria  Austria  0.15  0.37  1.14  0.20  0.74  0.38  0.91  1.18  4.21  0.71  0.37  0.31	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 2.27 1.55 0.75 0.79 4.242 3.77 4.40 3.56 17.35 2.21 3.56 17.35	0.01 (0.00 to 0.00 to	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 3.20 74.56 2.32 4.75 5.16 33.14 8.566 20.455 6.92	Germany 240 40.46  Germany 240 664 7.12 25.40 3.36 3.60 9.302 6.88 9.45 17.52 3.988 11.46 2.04 4.01	Italy  0.82 1.99 1.87 5.11 1.92 0.91 4.594 1.39 3.23 4.94 4.06 6.16 6.73 3.16	87.68 89.3 5.14 Luxem- hours 0.11 0.04 0.68 0.10 0.07 0.05 0.10 0.10 0.10 0.10 0.10 0.10 0.10	Nether- hnds. 1.38 0.40 4.33 7.57 0.85 21.41 4.57 7.98 4.90 5.76 6.20 1.21	4.50 3.83 91.43 91.43 91.43 91.43 0.22 0.23 0.29 0.29 1.291 0.49 1.627 1.98 1.85 1.89 0.36	Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.13 4.65 0.29 5.80 0.92 0.77 1.15	Greece 0.13 0.12 0.23 1.15 0.18 0.10 0.50 0.63 0.61 0.41	0.40 1.45  Imp Ire had 1.56 0.07 0.29 1.91 0.15 0.09 0.14 1.56 0.24 0.55 0.58 0.75	0.88 1.53  Porting cou Portugal 0.19 0.09 0.22 1.13 0.26 0.11 0.30 1.529 0.20 0.48 0.50 1.72 0.72	225 3.26 Spain 1.00 0.61 1.1.33 4.46 2.07 0.64 1.98 25.33 0.98 2.97 3.86 14.05 5.52 45.25	0.06 2.06  Ma ha 0.03 0.04 0.01 0.07 0.03 0.01 0.06 0.33 0.01 0.02 0.04 0.01 0.02 0.04	020 1.64 Cyprus 0.07 0.02 0.26 0.02 0.01 0.01 0.02 0.01 0.01 0.05 0.05 0.05 0.05 0.05	0.36 0.11 0.11 0.02 0.12 0.03 0.16 0.04 0.03 0.17 0.03 0.11 0.16 0.04 0.04 0.06 0.07 0.07	Czech Republic 0,11 0,12 0,26 1,41 0,17 0,37 4,31 0,37 0,58 0,82 1,47 0,60 0,60 0,60	1,95 0,29 0,29 0,32 0,38 0,31 0,06 0,12 0,13 1,39 0,06 0,18 0,18 0,27 0,48 0,08 0,08 0,08	0.40 37.91 0.03 0.02 0.03 0.48 0.01 0.02 0.03 0.29 0.04 0.76 4.52 0.12 0.04 0.05	0.92 3.28 0.01 0.03 0.02 0.50 0.01 0.02 0.03 0.29 0.03 0.01 1.19 0.08 0.01 0.13	289 1657 008 0.75 0.17 0.27 0.15 0.24 0.20 0.41 1.05 0.80 0.40 0.40 0.69	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05 0.05 0.04 0.05 0.04 0.05 0.04 0.05 0.04	3.44  Slovenia  0.02  0.41  0.05  0.17  0.05  1.24  0.05  0.12  0.28  0.58  0.04  0.14	0.07  Poland 0.20 0.51 0.46 3.01 0.38 7.88 0.41 1.97 3.17 2.37 0.70 0.40	1
zeel Remelle 646 689 388 133 752 1245 657 187 22 127 12 12 12 12 12 12 12 12 12 12 12 12 12	by enial obtaind or an analysis of the state	13.75 6.31 20.65 U.K. 0.84 2.85 12.88 1.78 0.99 1.66 45.50 2.42 2.63 1.11 15.62 2.63 1.139	Austria  Austria  0.15  0.37  1.14  0.20  0.74  0.38  0.91  1.18  4.21  0.71  0.37  0.31	7.22 4.16 7.33 (2006) (e Belgium 1.15 0.35 0.75 0.79 42.42 3.56 17.35 22.17 5.30 17.35	0.01	45.69 7.31 6.66 France 2.30 0.81 6.131 3.20 74.56 5.16 3.314 8.56 2.045 2.045 2.05.97	Germany 2.40 40.46 3.66 3.60 9.302 6.688 9.45 17.52 3.988 11.46 22.04 4.01 218.12	87.68 8.93 5.14 0.82 1.99 5.11 1.92 0.91 45.94 1.39 3.23 4.94 1.40.6 6.16 6.73 3.16	87.68 893 5.14 Luxem- hourg 0.11 0.04 0.08 0.10 0.07 0.05 0.10 0.10 0.10 0.10 0.10 0.10 0.10	Nether- hards 1.38 0.40 4.33 7.57 0.85 0.65 21.41 4.57 7.98 4.90 0.5.76 6.20 1.21 1.5.67	4.50 3.83 91.43	1.67 1.03 142.39 Finland 0.17 0.12 0.23 4.41 0.13 4.65 0.29 5.80 0.92 0.77 1.15 0.16 3.645	0.44 0.60 0.13 0.12 0.23 1.15 0.18 0.10 0.55 207 0.20 0.81 0.63 0.61 0.61 0.61	040 1.45 Impl Irehnd 1.566 0077 1.91 1.156 024 0.151 0.558 0.755 0.844 0.233 1.51	0.88 1.53  Portugal 0.19 0.09 0.22 1.13 0.26 0.11 0.30 1.529 0.20 1.72 0.72	225 3.26 Spain 1.00 0.61 1.33 4.46 2.07 0.64 1.98 2.533 0.98 2.97 3.52 4.525 12.63	Ma ka  0.03 0.04 0.01 0.07 0.03 0.01 0.06 0.03 0.01 0.02 0.04 0.01 0.02	020 1.64 Cyprus 0.07 0.02 0.26 0.02 0.01 0.01 0.02 0.01 0.01 0.05 0.05 0.05 0.05 0.05	0.36 0.11 0.12 0.02 0.12 0.03 0.16 0.04 0.03 0.11 0.17 0.03 0.11 0.06 0.04 0.06 0.07	Czech Republic 0.26 1.41 0.17 0.34 0.27 4.31 1.43 0.37 0.58 0.60 0.62 0.62 0.62 0.62	1,95 0,29 0,38 0,08 0,31 0,06 0,12 0,13 1,39 0,06 0,18 0,27 0,48 0,08 0,09 0,09 0,09 0,09 0,09 0,09 0,0	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.04 0.76 4.52 0.12 0.04 0.03 0.03	0.92 3.28 0.01 0.03 0.02 0.50 0.01 0.02 0.03 0.09 0.02 0.03 0.01 0.01 0.01 0.01 0.01 0.01 0.01	289 1657 0.08 0.75 0.17 0.15 0.24 0.27 1.82 0.20 0.41 1.05 0.80 0.40 0.69 0.18	2.50 0.06 Lithuania 0.02 0.03 0.04 0.72 0.02 0.03 0.05 0.52 0.04 0.35 0.94 0.21 0.03	3,44  Sbvenia  0,02  0,41  0,05  0,17  0,07  0,05  1,24  0,05  0,12  0,25  0,12  0,28  0,14  0,10  0,14  0,10  0,29	0.07 Poland 0.20 0.51 0.46 3.01 0.58 0.44 0.58 7.88 0.41 1.97 3.17 2.37 0.70 1.10 0.40 6.81	7
hishia 1091 1700 526 346 1224 6671 1839 028 1882 012 2140 500 20 1939 0130 20752 2071 1940 01 1827 179 0.60 165 267 109 502 238 1850 346 122 4671 0130 2148 2148 2148 2148 2148 2148 2148 2148	byenin ohnid omania  .Kustria elsium e mark ance e mark ance e ther hads we den inhad siesee eland onusal	13.75 6.31 20.65 U.K.  0.844 2.85 1.288 0.99 1.566 4.5.00 4.5.00 1.1502 2.633 1.139 2.85 16499 118.09	Austria  Austria  0.15  0.37  1.14  0.20  0.74  0.38  0.18  4.21  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38  0.11  0.38	7.22 4.1610) (2006) (e Belgium 1.155 (2007)	0.00 Dermark 0.381 0.1528 0.00 Dermark 0.300 0.161 0.29 0.166 0.666 0.666 0.666 0.794 0.794 0.794 0.794 0.794	45.69 7.31 6.66 France 2.30 0.83 6.10 7.16 1.31 3.20 7.45,6 2.32 4.75 5.16 3.14 8.20 4.55 6.01 9.66 9.66 9.66 9.66 9.66 9.66 9.66 9.6	Germany 2.40 6.64 7.12 2.5.40 3.360 9.3.02 6.88 11.46 12.20 4.01 4.01 3.84,3 3.84,3	87.68 8933 5.14 8932 1999 1.87 5.11 1.92 9.91 45.94 1.39 3.31 6.16 6.16 6.17 3.31 6.09 4.09 4.09 4.09 4.09 4.09 4.09 4.09 4	87.68 893 5.14 Luxem- hours 0.11 0.04 0.68 0.08 0.07 0.05 0.10 0.00 0.10 0.10 0.10 0.10 0.10	Nether- hinds 1.38 0.40 4.33 7.57 0.85 0.65 21.41 4.57 6.620 1.21 1.56 6.20 1.21 1.20 1.20	4.50 3.83 91.43 91	1.67 1.03 142.39 Finland 0.17 0.12 0.23 4.41 0.10 0.14 0.13 4.65 0.29 5.80 0.92 0.77 1.15 0.16 3.645 1.665	Greece 0.13 0.12 0.23 1.15 0.18 0.10 0.55 0.55 0.50 0.50 0.50 0.61 0.41 0.22 111.94	040 1.45 Imphal 1.56 0.00 1.45 1.56 0.00 1.45 1.56 0.00 1.45 1.56 0.00 1.45 1.56 0.00 1.45 1.56 0.00 1.45 1.56 0.00 1.45 1.56 0.00 1.45 1.56 0.00 1.55 1.55 1.55 1.55 1.55 1.55 1.55	0.88 1.53  Porting cou  Portugal 0.19 0.09 0.20 1.13 0.30 0.26 0.11 0.30 0.20 1.72 0.72 3.25 5.344 0.56	2.25 3.26 Spain 1.00 0.61 1.33 4.46 2.07 0.64 1.198 2.533 0.98 2.27 3.86 14.05 5.52 45.25	Ma ka  0.03 0.04 0.01 0.07 0.03 0.01 0.06 0.33 0.01 0.02 0.04 0.01 0.02 0.04 0.02	020 1.64 007 001 002 001 006 499 0.02 0.01 0.05 0.05 0.05 0.05 0.05 0.05 0.05	0.36 0.11 0.12 0.02 0.12 0.03 0.16 0.04 0.03 0.11 0.17 0.03 0.11 0.06 0.04 0.06 0.07	5.33 0.89 Czech Republic 0,11 0,70 0.26 1.41 0.17 0.34 0.27 4.31 0.37 0.58 0.82 1.47 0.60 0.62 0.62 0.62 0.63	1.95 0.29 0.38 0.02 0.38 0.08 0.31 0.06 0.12 0.13 0.06 0.18 0.07 0.48 0.08 0.27 0.48 0.09 0.09	0.40 37.91 Estonia 0.03 0.02 0.03 0.48 0.01 0.02 0.04 4.52 0.12 0.04 4.52 0.12 0.03 0.03 0.03 0.03 0.03 0.03 0.04 0.05 0.0	0.92 3.28 0.01 0.03 0.02 0.50 0.03 0.29 0.02 0.03 0.119 0.08 0.01 0.01 0.01 0.03	289 1657 0.08 0.75 0.17 0.15 0.24 0.27 1.82 0.20 0.41 1.05 0.80 0.40 0.18 1.792	2.50 0.06 Lithuania 0.02 0.03 0.04 0.79 0.02 0.03 0.05 0.52 0.94 0.21 0.03 0.05 0.05 0.05 0.04	3,44  Skwenia 0,02 0,41 0,05 0,17 0,07 0,05 0,25 1,24 0,05 0,01 0,05 0,01 0,05 0,01 0,01 0,01	0.07 Poland 0.20 0.51 0.46 3.01 0.58 0.44 1.97 3.171 2.237 0.70 0.110 0.40 0.681	
storia 27,90 3.52 10.32 25,71 9.48 49,27 6.50 0.02 19.39 104,30 207,52 207 3.36 1.16 5.87 0.12 0.34 0.21 3.01 0.69 69.61 17.86 3.646 0.26 9.15 arxia 71.36 3.96 12.92 45.67 15.78 9.16 1882 0.12 21.40 5.90 26.74 0.91 13.27 17.9 10.60 1.65 2.67 10.9 5.92 2.38 11.65 3.44 134.20 0.64 22.11	beenin ohnd omania  .K.  .K.  .K.  .K.  .K.  .K.  .K.  .	13.75 6.31 20.65 U.K.  0.84 2.85 1.288 1.78 0.99 1.66 4.55 2.42 6.888 1.011 1.562 2.638 1.139 1.139 1.139 1.1899 1.1809	4835 284 218 Austria 0.155 0.377 1.144 0.667 0.378 0.918 0.9	7.22 4.1610 (2006) (e Beginm 1.155 0.357 0.757 0.797 4.4242 4.242 4.377 4.306 1.735 2.217 1.736 2.177 1.736	0.00 Dermarks  Dermarks  Dermarks  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	45.69 7.313 6.666 2.300 8.313 6.100 7.166 2.323 4.774 5.650 7.314 8.565 2.323 2.504 5.509 6.000 6.000	Germany 2.40 40.46 3.66 3.60 9.302 6.688 9.45 17.52 3.988 11.46 22.04 4.01 218.12 38.43 54.79	87.68 803 5.14 1.09 1.87 5.11 1.92 1.39 1.33 1.33 1.34 1.406 6.16 6.094 1.30 1.31 1.32 1.33 1.34 1.34 1.34 1.34 1.34 1.34 1.34	87.68 8933 5.14  Lixembourg 0.11 0.06 0.05 0.05 0.10 0.06 0.07 0.05 0.10 0.06 0.07 0.05 0.07 0.05 0.07 0.06 0.07 0.07 0.07 0.07 0.07 0.07	11.08 7.11 23.18.  Nether-lands 1.38 4.33 4.33 7.57 0.87 7.98 4.90 5.76 6.12 1.1567 1.20 8.784	4.50 3.83 91.43 91	Finhrd 017 012 023 441 010 014 013 465 029 077 115 016 3645 166 246	0.44 0.60 0.13 0.12 0.23 1.15 0.18 0.10 0.20 0.20 0.30 0.81 0.63 0.61 0.41 1.222 111.94 45.21	040 145   Implemental Ireland   1.56   0077   029   0141   1.56   0078   009   0144   055   058   075   0844   023   1.51   59   089	0.88 1.53 1.53 1.53 1.53 1.53 1.53 1.53 1.53	225 326 Spain 100 061 1.33 446 207 064 233 386 386 1405 552 4526 1263	Mala 003 004 001 007 007 007 007 007 007 007 007 007	020 1.64 Cyprus 007 001 002 01 026 04 09 002 005 01 01 01 01 02 01 01 02 01 01 02 01 01 02 01 01 01 01 01 01 01 01 01 01 01 01 01	0.36 0.11  Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03 0.11 0.11 0.04 0.06 0.07 0.05 1.35 2.84	5.33 0.89 Czech Republic 0,11 0,70 0.26 1.41 0.17 0.34 0.27 4.31 0.37 0.58 0.82 1.47 0.60 0.62 0.62 0.62 0.63	Sovaka 002 038 008 031 139 006 0112 048 008 027 048 009 077 274 305	040 37.91 8 Estoria 003 002 003 048 001 004 076 4.52 004 045 004 005 005 007 007 007 008 008 009 009 009 009 009 009 009 009	092 328 001 001 002 002 002 002 003 003 002 002 003 003	289 1657 0088 0755 0177 015 024 020 040 040 040 069 069 069 078 078 078 078 078 078 078 078 078 078	2.50 0.06 Lihuanin 0.02 0.03 0.04 0.07 0.02 0.03 0.05 0.05 0.05 0.05 0.05 0.05 0.05	3.44  Skvenia  0.02  0.41  0.05  0.17  0.07  0.05  0.25  1.24  0.05  0.12  0.28  0.58  0.04  0.14  0.10  0.29  1.05  4.25	0.077  Poland 0.20 0.511 0.4661 3.01.01 0.38 0.444 1.97 1.317 2.377 0.70 0.4688	
atvia 71.36 3.96 12.92 45.67 15.78 92.16 18.82 012 21.40 59.02 26.74 0.91 13.27 1.79 10.60 1.65 2.67 1.09 5.92 2.38 116.50 3.94 134.20 0.64 22.11	by enin other intensity inde other intensity intensity inde other intensity intensi	13.75 6.31 20.65  U.K.  0.84 2.85 1.78 0.99 1.66 4.50 2.42 6.88 1.13 1.13 2.85 1.13 1.13 2.85 1.13 1.13 2.85 2.85 2.85 2.85 2.85 2.85 2.85 2.85	Austria 0.155 Austria 0.157 Au	7.22 4.1616) (2006) (e Belgium 1.155 (2006) (e 2.277	0.00 Dermarks  Dermarks  Dermarks  0.300 (1616) 0.229  0.166 0.230 (1616) 0.221 0.2224 0.330 (1616) 0.290 (16	45.699 7.311 6666  France 2.30,3838 6.1016 7.166 7.4566 2.323 5.166 6.202 6.0191 6.0191 7.320 7.320 7.320 7.320 7.320 7.320 7.320 7.320 7.320 7.320 7.320	175.19 49.09 40.46 Germiny 2.40 6.64 7.12 25.40 3.36 9.30 9.30 2.54 17.52 3.88 11.46 2.20 4.40 11.28 12.38 12.48 14.48 1	87.68 803 5.14 lnaly 0.82 199 1.87 1.87 1.92 0.91 1.40 4.59 4.94 1.40 6.66 6.73 3.16 6.09 4.82 2.82 2.82 2.82 3.62 4.62 4.62 4.62 4.62 4.62 4.62 4.62 4	87.68 803 5.14  Luxem-houre 004 008 000 001 001 000 001 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 000 001 00	11.08 7.11 23.18 Nether-lands 0.40 4.33 0.87 0.87 0.87 7.98 4.90 0.52 1.21 1.567 1.208 1.38 4.40 1.38 4.40 1.38 4.40 1.38 4.40 1.38 4.40 1.38 4.40 4.40 4.40 4.40 4.40 4.40 4.40 4.4	450 383 91.4	Finhrd 0.17 0.12 0.23 0.10 0.10 0.10 0.10 0.10 0.10 0.10 0.1	044 060  Greece 013 0122 023 1.15 018 081 061 063 061 041 2222 11194 4521	040 1.45 Impr Irehad 1.566 0077 0.29 1.91 0.144 0.558 0.244 0.558 0.258	0.88 1.53 1.53 1.53 1.53 1.53 1.53 1.53 1.53	225 326 Spain 100 061 133 446 207 07 386 253 38 297 386 252 1263 327 1837	006 206 206 003 004 001 001 006 033 004 001 001 002 004 002 004 002 004 002 004 002 004 005 006 007	Cyprus 007 001 002 002 002 002 003 003 003 003 003 003	0.36 0.11  Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03 0.11 0.16 0.04 0.06 0.07 0.05 1.35 2.84	Czech Republic 11	Sovaka 002 038 008 031 139 006 0112 048 008 027 048 009 077 274 305	Estoria 003 002 004 005 004 005 003 003 003 004 005 005	092 3283  Larvin 001 0033 002 002 0030 001 1199 0131 001 0133 001 061	2.89 16.57 0.08 0.755 0.177 0.177 0.155 0.244 0.277 1.82 0.240 0.40 0.69 0.40 0.69 0.40 0.69 0.179 0.1	2.50 0.006 0	3.44  Slovenia 0.02 0.41 0.05 0.177 0.07 0.05 0.255 0.192 0.11 0.12 0.28 0.88 0.04 0.14 0.10 0.29 0.50 0.25 0.25 0.25 0.25 0.25 0.25 0.25	0.077 Poland 0.20 0.511 0.466 3.01 0.388 0.411 1.97 3.17 2.377 0.70 1.101 6.818 1.066 8.422 7.69	
	bye nin other of the control of the	1375 631 2065 U.K. 0.84 2.85 12.88 17.8 10.11 15.62 2.63 11.13 11.15 15.62 2.63 11.13 11.15 15.62 2.63 11.13 11.15 15.62 2.63 11.13 11.15 15.62 2.63 11.13 11.15 15.62 2.63 11.13 11.15 15.62 2.6	4835 2844 218   Austria   0.15   0.17	7.22 4.1610(2006) (e Beginm 1.15510(2006) (e 0.2527) (2006) (e 0.2527) (2006) (e 0.2527) (2006) (e 0.2527) (2006) (e 0.2527) (e 0.25	60101 3811 1528 0300 0400 0400 0400 0400 0400 0400 040	45.696 7.31 6.666  France 2.30 0.838 0.838 1.31 1.31 1.33 2.03 2.33 2.33 4.75 6.092 2.35 6.092 2.376 6.01 2.37	175.191 49.09 40.46 Germany 2.40 664 7.12 2.5.40 3.36 9.302 3.88 9.45 1.46 4.01 2.8.12 2.204 4.01 2.8.12 3.8.3 5.479 4.293 4.203 6.677	87.68 803 5.14 189 0.82 1.99 1.87 5.11 1.92 0.91 45.94 1.39 3.23 4.94 4.94 4.94 1.406 6.16 6.16 6.16 6.16 6.16 6.16 6.16 6.	87.68 803.5.14  Luxem-hour 0111 00404 0.688 0.080 0.007 0.006 0.006 0.006 0.007 0.006 0.007 0.00	11.08 7.11 23.18.  Nether-hinds 1.38 0.433 7.57 0.855 0.655 21.41 4507 1.208 1.21 1.208 1.	450 450 450 450 450 450 450 450 450 450	1.67 / 1.03   142.39   Finhad   0.17   0.12   0.14   0.13   0.14   0.14   0.15   0.14   0.15	044 060 012 012 023 1.15 0.18 0.10 0.55 0.61 0.61 0.61 0.61 0.61 0.61 0.61 0.61	040 1.45 Implemental Inventor	0.88 1.53 1.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2	225 326 Spain 100 061 133 446 207 064 198 2533 386 1405 552 4525 1263 327 1837 362 873 873 873 873 874 875 875 875 875 875 875 875 875 875 875	Maha  003  004  001  007  001  001  002  004  001  002  004  004	Cyprus 007 007 002 008 007 009 009 009 009 009 009 009 009 009	0.36 0.111  Bulgaria 0.02 0.12 0.03 0.16 0.04 0.03 0.13 0.11 0.04 0.06 0.07 0.05 0.35 0.385	Czech Republic Czech Republic Czech Republic Czech Republic Czech Republic Czech Czech Republic Czech	1.95 0.29 38 0.08 0.08 0.01 0.06 0.12 0.06 0.13 0.06 0.06 0.12 0.06 0.06 0.07 0.07 0.07 0.07 0.07 0.07	Estoria 003 002 004 005 004 005 003 003 003 004 005 005	092 3.28  Latvia 001 003 002 003 000 003 001 002 003 003 001 003 003 003 003 003 003 003	289 1657 088 098 017 017 024 027 041 105 069 040 040 040 040 040 040 040 040 040 04	2.50 006 Lithuania 002 003 003 004 004 005 003 005 004 004 005 004 005 004 005 004 005 004 005 005	3.44  Slovenin 0.02 0.41 0.05 0.07 0.07 0.05 1.24 0.05 1.24 0.05 0.14 0.10 0.10 0.10 0.10 0.10 0.10 0.10	0.07  Poland 0.20 0.51 0.466 3.01 0.388 7.88 0.41 1.97 0.70 0.10 0.400 0	
	byenin ohnd omania intensity inde omania intensity inde omania intensity inde omania intensity inde omania olicium oli	13.75 631 2065  U.K.  0.844 1.78 1.288 1.288 1.189 1.66 4.540 2.42 2.633 1.1.39 2.88 1.1.180 2.88 1.1.191 2.88 1.1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88 1.191 2.88	Austria  OLS  Austria  OLS  Austria  OLS  Austria  OLS  OLS  OLS  OLS  OLS  OLS  OLS  OL	7.22 4.1610/102 4.1610	6010 381 1528   Demark   0.300 0.000   0.200   0.166 0.000   0.210 0.220   0.2	45.696 France 230383 61013 3.202 475 5.1616 232 237 74.556 602 237 75.2 237	175,191 49,092 40,466 Germany 2,40 664 7,12 2,5,40 3,66 6,88 9,455 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 3,9,88 4,9,45 17,52 4,9,45 17,52 4,9,45 17,52 18,9,45	87.68 803 5.14 1082 1999 1877 5.11 192 931 4594 1.39 4.34 4.49 6.16 6.67 3.31 6.69 4.28 2.19 8.73 8.73 8.73 8.73 8.73 8.73 8.73 8.73	87.68 803 5.14  Luxem-houre 0.111 0.04 0.08 0.00 0.00 0.00 0.00 0.00 0.00	11.08 7.11 23.18 Nether-linds 0.40 4.33 0.85 21.41 4.57 7.98 4.57 6.20 1.21 1.56 7.84 4.82 1.18 5.76 6.20 1.21 1.20 1.20 1.20 1.20 1.20 1.20 1	450 450 450 450 450 450 450 450 450 450	1.67 (1.03	Grecce 013 012 023 013 012 023 033 1.15 05 081 041 222 11491 058 152 058	Marie   Mari	0.88 1.53 1.53 2.53 2.53 2.53 2.53 2.53 2.53 2.53 2	225 326 - - - - - - - - - - - - - - - - - - -	Maha  003  004  001  007  001  001  002  004  001  002  004  004	Cyprus 007 001 002 002 001 002 001 002 001 002 001 005 005 005 005 005 005 007 007 007 007	0.36 0.111 0.02 0.03 0.03 0.04 0.04 0.03 0.01 0.04 0.04 0.04 0.04 0.04 0.04 0.04	Czech Republic 111 071 011 011 011 011 011 011 011 011	1.95 0.29 Slovakia 0.02 0.38 0.08 0.01 0.13 1.39 0.06 0.12 0.13 0.13 0.07 0.13 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.0	Estoria 003 002 003 048 001 022 003 048 001 022 004 452 012 004 005 003 031 031 031 021 025	092 3.28  Latvia 001 003 002 003 000 003 001 002 003 003 001 003 003 003 003 003 003 003	289 1657 1657 1657 1057 1077 1075 182 220 109 109 109 109 109 109 109 109 109 10	2.50 0.06 1. Lithuania 0.02 0.03 0.05 0.05 0.05 0.05 0.05 0.05 0.05	3.44  Slivenia 0.02 0.411 0.07 0.05 0.05 0.05 0.05 0.05 0.05 0.05	0.07 Poland 0.20 0.51 0.466 0.301 0.388 0.444 0.588 0.41 0.700 0.4	7

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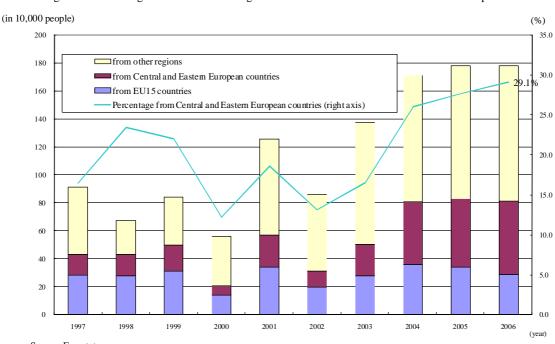
 $Figure\ 1-2-40\ Changes\ in\ direct\ inward\ investment\ into\ Central\ and\ Eastern\ European\ countries\ (stock)$ 



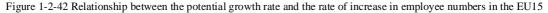
# (Invigorated inflow of labor)

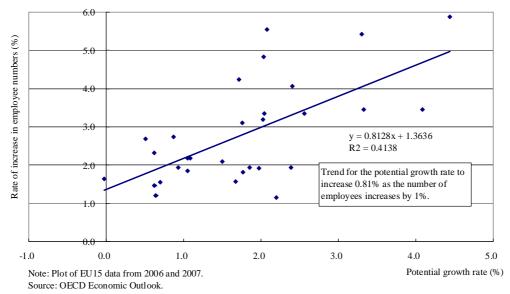
As the direct investment from the EU15 into Central and Eastern European countries expands, the cross-border flow of people into the EU15 is also increasing. Approximately 30% of immigrants accepted into the EU15 nations come from Central and Eastern European countries (see Figure 1-2-41).

This kind of immigrant workforce pushes up the potential growth rates of EU15 nations, and has supported growth in the past. In fact, looking at the relationship between the rate of increase in employees and the potential growth rate in the EU15, we can see a loose correlation in that potential growth rates increase 0.81% for every 1% increase in the number of employees (see Figure 1-2-42).



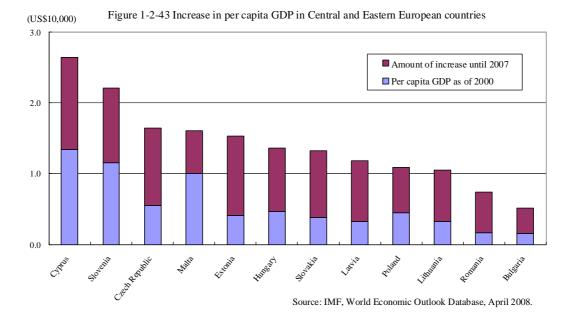
 $Figure 1-2-41\ Changes\ in\ the\ number\ of\ imgrants\ to\ the\ EU15\ from\ Central\ and\ Eastern\ European\ countries$ 





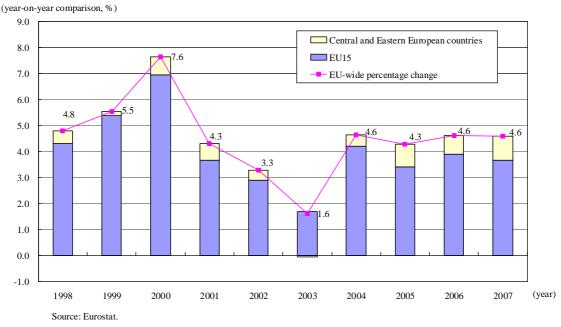
#### (The growing intra-regional consumer market)

With their accession to the EU, the nominal GDP per capita of Central and Eastern European countries has been increasing. As of 2000, only three of the 12 Central and Eastern European countries had a nominal GDP per capita of more than US\$10 thousand; but by 2007, this had increased to ten countries (see Figure 1-2-43).



At the same time, the private final consumption expenditure of Central and Eastern European countries has increased approximately 2.2 times in the ten years from 1998 to 2007. As a result of the Central and Eastern European countries' accession to the EU, the contribution of these countries since 2004 to the overall increase in private final consumption expenditure in the EU has also increased<sup>39</sup>. The entire European region appears to be in the process of forming an enormous consumer market (see Figure 1-2-44)<sup>40</sup>.

Figure 1-2-44 Shifts in the percentage change in private final consumption expenditure in the EU by region



 $<sup>^{39}</sup>$  The Central and Eastern European countries have achieved an annual growth in final consumption expenditure of 12.2%, from €3,192 million in 2003 prior to their accession to the EU, to €5,068 million in 2007.

<sup>&</sup>lt;sup>40</sup> Final consumption expenditure for the whole of the EU has grown at an annual rate of 4.5%, from €8,883 million in 2003 to €70,274 million in 2007.

# (Increased exports to China and Russia)

The expansion of trade within the Eurasian continent, including Russia, China, India, and other Central Asian countries, has also significantly contributed to economic growth in Europe. Until 2006, the United States had been the largest supplier of imports to Europe outside the region, but since then, the value of imports from China has exceeded the value of imports from the United States, making China Europe's largest import trading partner. In 2007, China's imports to the EU increased to US\$313.3 billion (+ 29.6% compared to 2006), meaning that China continues to be Europe's largest supplier of imports.

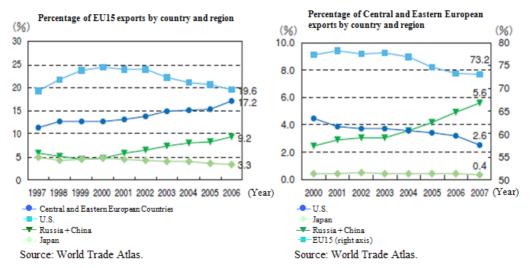
Looking at exports from the EU15 to outside the region, as the proportion of exports to the United States declines, the share of exports to Russia and China are increasing. Exports from Central and Eastern European countries to outside the EU region also show that the proportions of exports to Russia and China are increasing, while the percentage of exports to the United States is decreasing (see Table 1-2-45 and Figure 1-2-46).

Table 1-2-45 The growing trade between the EU and Eurasian countries

Exports from th	e EU				Imports to the	EU	(year-on-year comparison, %)				
	2003	2004	2005	2006		2003	2004	2005	2006		
Russia	29.5	36.0	23.2	29.2	Russia	31.2	32.7	34.6	23.3		
China	40.7	27.9	6.9	25.0	China	41.0	33.0	24.0	23.4		
India	29.7	29.1	24.9	15.7	India	23.8	28.1	16.7	19.4		
Central Asia	27.7	54.5	8.6	36.5	Central Asia	9.9	76.7	39.9	36.3		
U.S.	9.9	13.9	7.1	7.8	U.S.	4.0	11.0	3.3	7.8		
Japan	12.6	16.2	0.8	3.5	Japan	17.7	13.6	-0.7	5.3		

Note: Central Asia refers to: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Source: Eurostat.

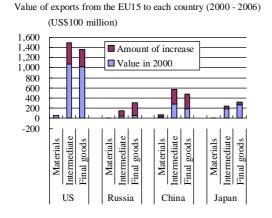
Figure 1-2-46 Percentage of EU15 and Central and Eastern European exports by country and region



Looking at the breakdown in extra-regional trade movements by goods, exports of intermediate goods and final goods to China have been increasing. On the other hand, there has also been an increase in imports from China, especially for final goods. With respect to the Central and Eastern European countries, trade with Russia has been increasing in recent years, and the export of intermediate goods and final goods to Russia has also been increasing (see Figure 1-2-47).

In this way, economic relations within the Eurasian continent, such as the EU's relationships with Russia and China, have been growing closer as a consequence of the expansion of the EU (See Column 1).

Figure 1-2-47 Trend of trade by type of goods in EU15 and Central and Eastern Eropean countries



(US\$100 million) 2.000 1,800 ■ Amount of incre 1,600 ■ Value in 2000 1,400 1,200 1,000 800 600 200 Intermediate Intermediate Intermediate Intermediate Materials spood Materials Final goods Materials Final goods Final goods

Value of exports from each country to the EU15 (2000 - 2006)

Value of exports from Central and Eastern Europe to each country (2000 - 2006)

Value of exports from each country to Central and Eastern Europe (2000 - 2006)

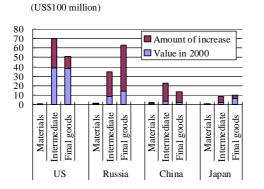
Russia

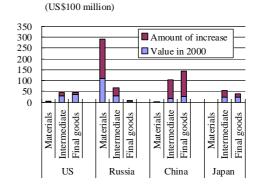
US

Final

Japan

China





Source: RIETI-TID2007, Research Institute of Economy, Trade and Industry (RIETI).

## (3) Risks faced by the European economy

# (Risk of a business downturn caused by financial tightening)

The biggest concern for the risk of a downturn in the European economy is the uncertainty for financial systems which has continued since 2007. Against a backdrop of the subprime mortgage problem in the United States, lending standards have been tightening in European financial institutions as well (see Figure 1-2-48). There are concerns that, if the losses experienced by European financial institutions worsen, then there will be adverse effects on the real economy in Europe, including significant impacts on capital investment by businesses and on the procurement of funds for households to purchase homes.

(%, points) 50 Underlying tendency for 40 financial tightening since the middle of 2007 30 Corporate sector loans 20 Home purchase loans 10 0 -10 -20 -30 2008 (year) 2003 2004 2005 2006 2007

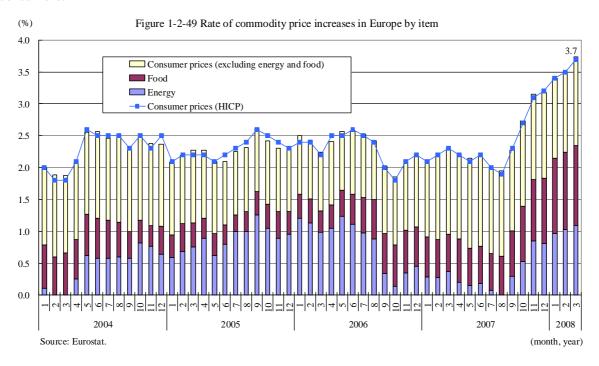
Figure 1-2-48 Tightening lending standards practiced by European financial institutions

Note: (Percentage of banks that have tightened their standards since the previous period) – (percentage of banks that have relaxed their standards since the previous period).

Source: ECB, "The Euro Area Bank Lending Survey".

# (Flagging personal consumption due to accelerating inflation)

In Europe as well, there have been growing concerns in recent years over inflation due to rising food and energy prices (see Figure 1-2-49). Soaring food and energy prices could restrict overall consumption though reduced selective expenditure by consumers. Furthermore, soaring material prices have also become a pressure factor on corporate profits, especially in the consumption goods and other such sectors, where, amid a harsh competitive environment, rising costs are not being passed onto consumers.



# (Widening current account imbalance of Central and Eastern European countries)

While rapid growth is continuing in Central and Eastern European countries, in all 12 countries, the current account deficit is also increasing. The current account deficit as a percentage of nominal GDP is on an upward trend in each of the countries, and in Bulgaria and Latvia in particular, it has surpassed 20% (see Figure 1-2-50). This is due to the fact that, since joining the EU, these countries have achieved economic growth in a manner that is heavily dependent on the inflow of private-sector funds from Western and Northern Europe<sup>41</sup>. According to the IMF (2008), 40% of funds flowing into Central and Eastern Europe are direct investment, and the remaining 60% are finance from Western European banks<sup>42</sup>. Part of these overseas funds flow into real estate and consumer finance, and as a result, it is suggested they gave rise to housing booms in the respective countries<sup>43</sup>.

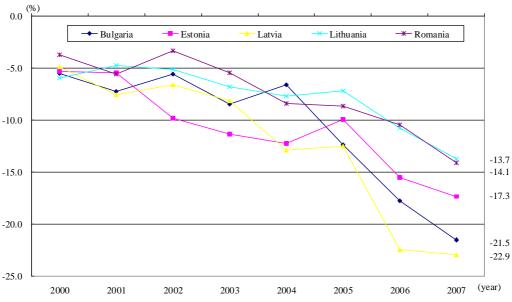


Figure 1-2-50 Current account balance of Central and Eastern European countries (as a percentage of nominal GDP)

Note: Top five Central and Eastern European countries in terms of current account deficits as a percentage of nominal GDP. Source: Eurostat.

In forecasting the future growth of Central and Eastern European countries, the most important issue is the extent to which finance directed at Central and Eastern European countries will be reduced by the turmoil of the financial systems in Western Europe that has been caused by the US subprime mortgage problem, and in particular, by the losses incurred by Western European banks. If loans were all withdrawn at once, this would give rise to a fall in domestic asset prices and a contraction of finance, and it is anticipated that there would be a considerable impact on businesses and households<sup>44</sup>.

<sup>&</sup>lt;sup>41</sup> According to "Financial Globalization" (BIS, 2006), the percentage of total assets held by foreign-owned banks in Central and Eastern Europe is more than 90% in the Czech Republic, and about 70% in Hungary and Poland.

and Poland.  $^{42}$  Until the first half of 2007, assets held by Western European banks in Central and Eastern European countries amounted to US\$1 trillion.

<sup>&</sup>lt;sup>43</sup> Since the end of 2003, housing prices have risen more than three-fold in Latvia, and more than two-fold in Bulgaria, Estonia and Lithuania ("World Economic Outlook April 2008" (IMF)).

<sup>&</sup>lt;sup>44</sup> To date, signs of a contraction in bank financing have been largely confined to the Baltic states of Latvia and Estonia. However, loan conditions to these countries have been tightening since from before August 2007 when the subprime mortgage problem in the United States surfaced (above-mentioned IMF (2008)).

The IMF (2008) lists the following three risks as being faced by the economies of Central and Eastern European countries: (a) the risk of Western European banks withdrawing finance to Central and Eastern European countries in order to compensate the losses arising from the US subprime mortgage problem, or, faced with rising capital costs and risk spreads, reducing the capital or tightening their loan conditions for Central and Eastern Europe; (b) the risk of rapid declines in international competitiveness or decreases in investments from overseas due to wages rising in excess of the rate of productivity growth, or, in cases where much of the finance has been invested in the housing market in the form of mortgages, of credit risks being reviewed as a consequence of a shrinking housing market; and (c) presuming that much of the funds flowing into Central and Eastern Europe are the funds of oil-producing countries and primary commodity exporters, the risk of these funds drying up as the world economy slows. Furthermore, in order to deal with these risks, the IMF (2008) states that it is necessary for Central and Eastern European countries to develop effective fiscal and monetary policies.

As shown above, Europe needs to carefully watch the emerging finance-related and price-related risks, including those in the Central and Eastern European countries which have been the driving force behind growth in Europe to date.

# [Column 1] The flow of trade around the Eurasian continent: the emergence of a new Silk Road

Since 2006, the biggest supplier of imports to the EU has been China<sup>45</sup>. On the other hand, the EU has also become the biggest export destination for China. Viewed from the perspective of China's export destinations, in 2007, the value of exports to the EU exceeded those to the United States, which had previously been China's biggest export destination. In this way, trans-Eurasian trade between the EU and China is expanding.

Trans-Eurasian trade is not limited to just trade between the EU and China.

Reflecting the favorable economic conditions of countries within the EU region, in recent years, the EU has also expanded its imports from resource-rich countries within the Eurasian continent, including Russia, the Central Asian countries<sup>46</sup>, and the GCC countries. Increases in the export of resources to the EU and the dramatic rise in resource prices have meant that those countries, which have enjoyed increased exports, have also achieved rapid economic growth in recent years, and consequently consumption has also increased. As a result of this growth in consumption, these countries have also increased their imports from China, thus creating a flow of trans-Eurasian trade.

<sup>&</sup>lt;sup>45</sup> In 2006, the value of imports from China to the EU amounted to US\$241.8 billion (23.3% increase from 2005), surpassing the United States (US\$217.4 billion in 2006) which had previously been China's biggest export destination. In 2007, the value of imports from China to the EU grew to US\$313.3 billion (29.6% increase from 2006), meaning that China continues to be the EU's biggest supplier of imports.

<sup>&</sup>lt;sup>46</sup> Five countries of: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

First, looking at the value of imports to the EU from Russia, the Central Asian countries and the GCC countries, between 2000 and 2007, imports increased by US\$116.7 billion (3.4 times), US\$15.0 billion (4.7 times), and US\$20.8 billion (2.0 times) respectively. If we include the increase in imports from China (US\$245.5 billion), then approximately 40% of the increases in exports to the EU between 2000 and 2007 were due to the increases in these countries and regions.

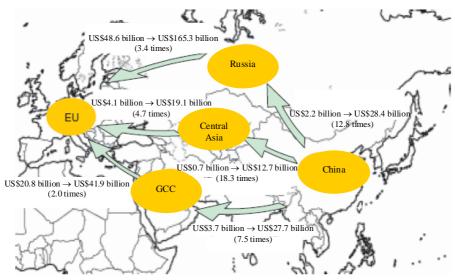
Most of the items imported to the EU from Russia, the Central Asian countries and the GCC countries are resources, such as petroleum and aluminum. It is believed that these have increased, partly on the back the dramatic rises in resource prices.

Next, looking at the value of China's exports to Russia, the Central Asian countries and the GCC countries, between 2000 and 2007, exports increased considerably by US\$26.2 billion (12.8 times), US\$12.0 billion (18.3 times), and US\$24.0 billion (7.5 times) respectively. While the total value of China's exports increased 4.9-fold, from US\$246.2 billion in 2000 to US\$1218.1 billion in 2007, exports to each of the above regions and countries have increased at a rate far in excess of this. Furthermore, although the share of China's total exports in 2007 accounted for by the exports to Russia, the Central Asian countries and the GCC countries is relatively small at 6%, on a year-on-year basis, the rates of increase in the value of exports from China to each of these countries were 79.9%, 64.1%, and 50.9% respectively. Each of these is above their respective rates from 2006, meaning that the trend of expansion is strengthening.

Most of the items exported from China to Russia, Central Asia, and the GCC are clothing, electrical equipment, and machinery. However, other trends can also be seen: for example, the export of passenger cars and other transportation equipment from China to Russia increased dramatically from US\$5 million in 2000 to US\$1,915 million in 2007.

As mentioned above, reflecting the favorable economic conditions of countries within the EU region, in recent years, resource-rich countries within the Eurasian continent which had expanded their exports to the EU, have increased their imports of final goods from China, thus creating a flow of trans-Eurasian trade.

# Column Figure 1-1 Expansion of trade on the Eurasian continent (2000→2007)



Note: EU refers to the aggregate of the 25 EU countries.

Source: World Trade Atlas.

Column Figure 1-2 Changes in export value from China to various countries and regions by item

(unit: US\$ million)

		2000	2001	2002	2003	2004	2005	2006	2007
	Clothing	245	180	279	500	773	1,043	1,739	6,590
	Electrical equipment	93	155	310	515	838	1,422	2,157	3,720
Russia	Machinery	61	98	197	435	537	839	1,541	2,655
	Transportation equipment	5	11	23	57	97	245	585	1,915
	Iron and steel products	2	2	4	5	25	66	254	718
	Clothing	48	7	74	226	496	808	1,612	3,010
Central	Electrical equipment	28	41	61	135	202	321	445	790
Asia	Machinery	54	98	172	281	253	435	642	1,156
Asia	Transportation equipment	11	5	17	23	58	139	286	728
	Iron and steel products	12	13	24	37	42	214	236	437
	Clothing	390	426	575	926	1,083	1,231	1,286	3,145
	Electrical equipment	422	553	815	1,238	1,553	1,996	2,619	3,698
GCC	Machinery	274	309	448	736	1,201	1,891	2,984	4,399
	Transportation equipment	93	109	144	198	306	437	628	1,049
	Iron and steel products	102	151	199	259	363	584	1,017	1,676

Note: "Clothing," "electrical equipment," "machinery," "transportation equipment," and "iron and steel products" refers to HS 61, 85, 84, 86, and 73 respectively.

Source: World Trade Atlas.