

## Chapter 16 – The International Economy and Business Cycles

### U.S. Trade and Tariffs

Period	IMG/GNP	EXG/GNP	NSER/GNP	NX/GNP	TAR/IMG
1869-76	7.7	6.6	-0.8	-2.0	35.1
1877-86	5.9	7.4	-0.9	0.7	29.8
1887-96	6.0	6.5	-1.3	-0.8	25.5
1897-1906	4.4	6.8	-0.8	1.7	26.3
1907-14	4.5	5.9	-0.8	0.7	19.7
1915-19	4.7	9.6	0.2	5.1	8.1
1920-29	4.4	5.6	0.4	1.6	13.0
1930-39	2.9	3.5	0.2	0.8	17.0
1940-49	2.3	3.8	0.0	1.5	9.7
1950-69	3.1	3.8	0.3	1.0	6.6
1970-73	4.6	4.5	0.7	0.5	5.9
1974-77	7.1	6.7	1.3	0.8	3.8
1978-83	8.4	7.2	1.7	0.4	3.5

Data is expressed as % of GNP for imports of goods (IMG), exports of goods (EXG), net exports of services (NSER), and net exports (NX). The last column shows tariff proceeds as a % of total imports of goods. “The Open Economy: Implications for Monetary and Fiscal Policy” by Rudiger Dornbusch and Stanley Fischer in *The American Business Cycle*, 1986, NBER, The University of Chicago Press.

The most striking point of this table is the extent to which the U.S. economy is still closed (at least in trade). Despite the doubling of imports and exports as a % of GNP since the 1950's, the U.S. economy is still the most closed of the industrialized nations.

The next point is that the U.S. merchandise trade deficit that began in the mid-1970's has continued to this day. In fact, the total current account balances for the U.S. are as follows:

	\$ billion	% GDP
1985	-122.3	-3.0
1986	-145.4	-3.4
1987	-162.3	-3.6
1988	-128.9	-2.6
1989	-110.0	-2.1
1990	-97.0	-1.8

U.S. Current account balance projected in 2002 –4.9%.

A large trade or current account deficit is not necessarily a bad thing. Many times it depends on the relative strength of the various countries' economies.

Source: OECD *Main Economic Indicators*. The OECD (The Organization for Economic Co-Operation and Development) is an excellent source for trade data for the 30 member countries. The OECD is based in Paris, France. [www.oecd.org](http://www.oecd.org).

The average rate of tariffs has fallen substantially over the past century.

Table 16.1

U.S. Exports and U.S. Imports – Average of four cycles 1970-1991.

	Expansion <u>Amplitude</u>	Contraction <u>Amplitude</u>
Imports	30.4	-7.8
Exports	30.2	-0.4
Net Exports	-0.2	7.4

U.S. imports are pro-cyclical and are a function of U.S. income. The correlation coefficient between the year-to-year rates of real GNP and the year-to-year growth rate of real imports is from 1954 to 1993 is .492.

U.S. exports are only indirectly related to the U.S. business cycle. U.S. exports are based on the economic health of the rest of the world and fluctuate pro-cyclically only to the degree that other countries' cycles are synchronous with the U.S. business cycle in timing and amplitude.

Net exports tend to be counter-cyclical. In an expansion, the demand for imports and the demand for exports rise at roughly the same speed. Therefore, the net export demand declined only slightly in the expansions. In a contraction, the demand for imports declines rapidly and quickly while exports continue to rise for a while (i.e. they lag imports in a contraction). Therefore, net exports rose in the contractions.

The most recent business cycle has been more synchronized than previous business cycles.

OECD 2<sup>nd</sup> Quarter Data from PDF file.

### Synchronization of Business Cycles

#### **Amplitudes of Industrial Activity by Country – Average of 4 cycles 1970-1991**

Country	Expansion <u>Amplitude</u>	Contraction <u>Amplitude</u>
U.S.	21.1	-7.8
Canada	18.3	-7.1
Japan	25.6	-6.0
OECD	13.9	-3.7
Germany	14.6	-4.0
United Kingdom	8.9	-3.5

Italy	17.8	-6.9
France	12.8	-3.1

The dates used to compute these amplitudes are the U.S. expansions and contractions.

Klein and Moore (1985) constructed an international composite coincident index from the coincident indexes for seven countries (the G-7) and tallied how many months each country was in phase with the international cycle.

Japan	86% of the time
Canada	88%
France	83%
U.K.	78%
U.S.	77%
Netherlands	77%
Belgium	68%
Italy	66%
Sweden	48%.

### **How is the U.S. Economy Linked to the Rest of the World?**

Flows of goods and services in international trade.

The demand for domestic goods is determined by real disposable income, the profitability of investment, the real exchange rate and real wealth. Exports depend on the real exchange rate and domestic and foreign income and wealth. A rise in foreign income and spending raises the demand for our goods. A rise in domestic income and spending raises the demand for imports. This is a shift in the aggregate demand curve. Note that these effects are cumulative time lags.

Governments may impose trade barriers that lessen trade between countries in order to protect its own industry (especially in a contraction).

### **Factor Price Linkages**

A rise in import prices (which may result from exchange depreciation or increased foreign prices, will shift both the demand and supply curves. If there is sufficiently large price elasticity, a shift to domestic goods will occur and output and home prices will rise. This is a shift in the demand curve. If the domestic and foreign goods are not substitutes (i.e., raw material prices), a price increase in imported raw materials reduces domestic real disposable income (less real income is available for domestic factors of production).

The increase in competitor's prices may also lead to a price increase in the home country as domestic firms increase their markups. As domestic prices increase, we would expect to see output expand (a supply effect). The split between real

and price effects from a foreign price increase depends on whether wage rates in the U.S. rise and whether the monetary authorities accommodate the increase in prices. There is also an indirect and lagging effect of foreign competition on labor rates in industries exposed to foreign competition (with a significant lag).

Exchange-rate disturbances also act as change in price level for imported goods (and, of course, for exported goods). The feed-through to price inflation in the domestic economy is particularly rapid and powerful if exchange rates rise (i.e. the domestic currency declines). For example, consider a depreciation in the domestic currency. The first effect would be to raise prices for imported goods, and the lagging effect would be to raise domestic wage rates in the domestic economy for substitutes.

To the extent that monetary and fiscal policy affects exchange rates, a flexible exchange rate regime provides another linkage of policy variables to prices. Most of the developed nations (and the Asian tigers) now have flexible exchange rates (with the huge exceptions of Hong Kong and China). This largely results from the experiences of the 1980's and 1990's that currency pegs do not work well.

The real price of commodities is also affected by short- and long-term supply conditions such as OPEC shocks.

## Asset Markets

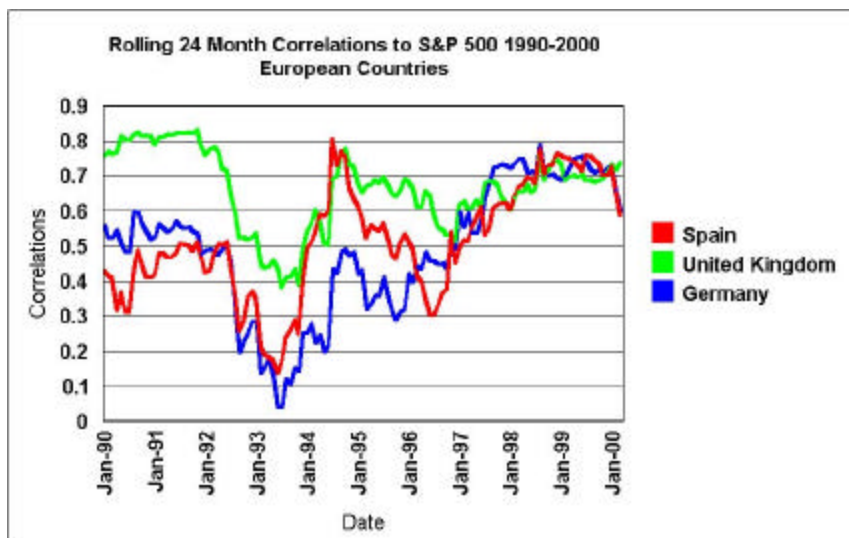
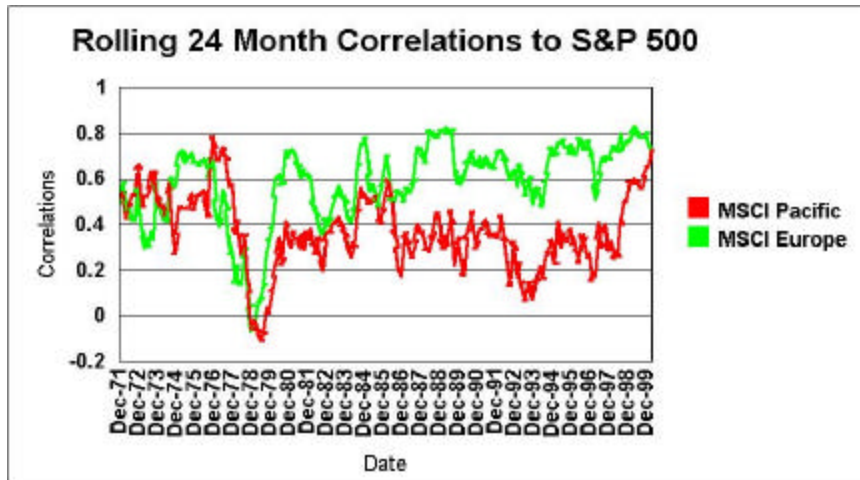
International capital mobility has dramatically increased, but specifying the form of asset markets in econometric equations is still an open issue. The increased capital mobility raises the issues of an increase in the power of businesses to shift their production to other countries and the decrease in the power of governments to control their own economies. For example, a country raises interest rates to try to dampen inflation expectations. The higher interest rates result in attracting foreign capital to the country, raising the exchange rate and increasing the money supply – thus stimulating the economy. Monetary and fiscal policies are transmitted by real interest rates, real changes in output and real exchange rates.

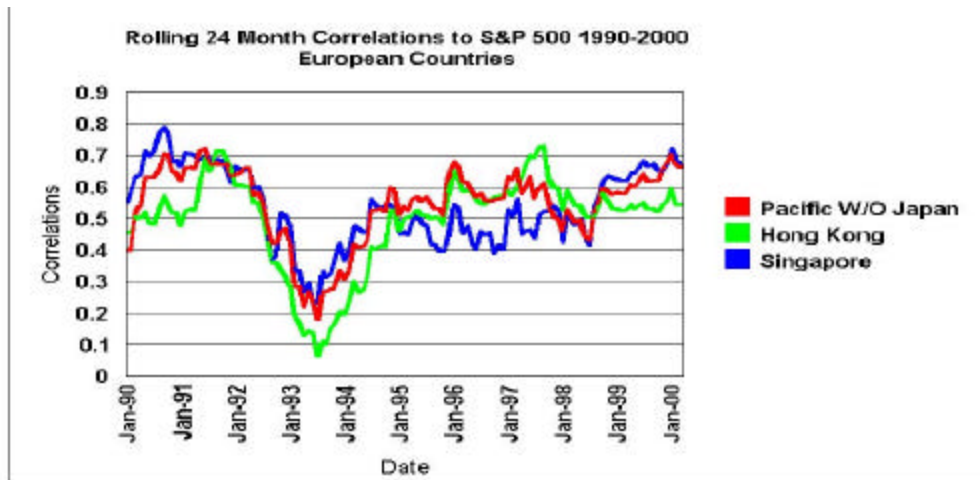
Price movements in the exchange rate and stock markets are largely random (or at least not subject to forecasts). Economists have so far been unable to extract the systematic components of price movements from either of these markets.

A major problem in the global bond markets is the high level of debt in the developing countries that is due to the international lending institutions (the World Bank).

The U.S. has been running a perennial current account deficit. This is a form of redistribution of wealth in the world. Do sustained deficits build up a “dollar overhang” that eventually will force exchange depreciation?

Should global stock markets be given a more prominent role in modeling international asset markets? Global stock markets have become more closely correlated (especially in down market periods).





The combination of flexible exchange rates and a high degree of capital mobility have created a climate in which macroeconomic shocks may be transmitted rapidly from one country to another. For example:

1991 -- Bursting asset bubble in Japan

1995 -- Mexican currency crisis and Argentina severe recession and crisis

1997 – Thailand devalues the baht and starts the Asian tiger crisis. It resulted from the fact that a large part of their investment was financed with debt denominated in dollars and yen. When a crisis of confidence started in their currencies, the currency value of these foreign debts exploded and the balance sheets of local companies collapsed.

1998 -- The entire Russian economy implodes.

We are seeing the emergence of “crises of confidence”. Loss of confidence leads to a plunging currency and rising interest rates, which lead to a slumping economy, which leads to problems for the financial sectors, which leads to a further loss of confidence. The panic itself makes the panic justified.

### Foreign Direct Investment (FDI)

This generally arises when a foreign corporation decides to locate a production, office or marketing facility in the domestic economy (or vice-versa). An example of this has been the Japanese auto manufacturers who decided to locate their production plants for North American sales in North America. Foreign direct investment is generally for a longer time period than investing in asset markets.

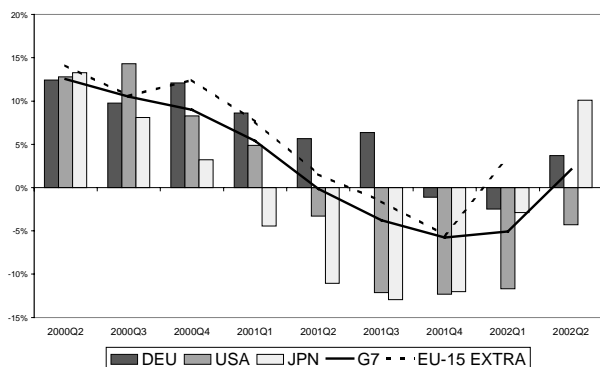
Foreign investments fluctuate widely because of difficulties in management owing to long communication and transportation lines, inadequate legal

protections, ignorance of language or customs, risk of transfer restrictions on profits (or confiscation). Many developing nations (including China) restrict foreign ownership in certain key industries.

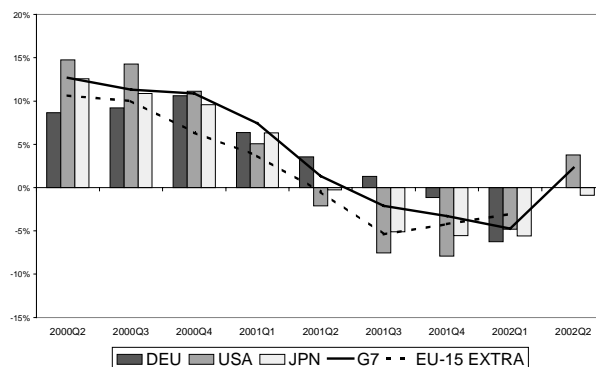
Foreign direct investment creates investment income from the portfolio of real assets, and it has become an important way for high savings countries to recycle their cash reserves to low-savings countries.

**Annual Volume Growth in Merchandise Trade**  
*Percentage change on the same quarter of the previous year*

**Exports**



**Imports**



**Merchandise Trade: Annual Export Volume Growth**  
*Percentage change on the same quarter of the previous year*

	2000Q2	2000Q3	2000Q4	2001Q1	2001Q2	2001Q3	2001Q4	2002Q1	2002Q2
<b>G7</b>	12.5	10.5	9.0	5.4	-0.2	-3.8	-5.8	-5.1	2.1
Canada	11.3	8.3	5.0	-1.5	-2.5	-6.3	-5.4	-1.4	0.2
USA	12.8	14.3	8.3	4.9	-3.3	-12.1	-12.3	-11.7	-4.3
Japan	13.3	8.1	3.2	-4.4	-11.1	-12.9	-12.0	-2.9	10.1
France	14.2	10.2	13.2	13.0	7.3	6.1	-0.8	-1.2	4.0
Germany	12.4	9.8	12.1	8.6	5.6	6.3	-1.1	-2.5	3.7
Italy	9.6	15.1	12.6	10.5	4.1	-6.3	-3.2	-7.2	-0.1
United Kingdom	12.4	4.9	7.2	6.2	-0.6	1.6	-0.8	-5.2	2.8
<b>EU-15 Extra EU</b>	14.1	10.6	12.4	7.6	1.5	-1.6	-5.5	3.4	n.a.

**Merchandise Trade: Annual Import Volume Growth**  
*Percentage change on the same quarter of the previous year*

	2000Q2	2000Q3	2000Q4	2001Q1	2001Q2	2001Q3	2001Q4	2002Q1	2002Q2
<b>G7</b>	12.7	11.3	10.9	7.4	1.3	-2.1	-3.3	-4.7	2.3
Canada	11.5	9.8	3.3	-3.6	-4.0	-7.2	-8.5	-6.0	0.3
USA	14.7	14.3	11.1	5.1	-2.1	-7.5	-7.9	-4.8	3.8
Japan	12.6	10.9	9.6	6.3	-0.3	-5.1	-5.6	-5.6	-0.9
France	16.4	7.4	22.2	28.4	17.6	16.8	8.9	-6.5	4.8
Germany	8.6	9.2	10.6	6.3	3.5	1.3	-1.1	-6.2	0.0
Italy	9.8	13.8	9.0	8.3	0.5	-4.8	-4.5	-3.4	-0.9
United Kingdom	13.0	8.3	8.3	7.5	0.5	3.0	2.3	0.5	5.9
<b>EU-15 Extra EU</b>	10.6	10.0	6.4	3.7	-0.5	-5.4	-4.2	-3.0	n.a.



**Merchandise Trade: Quarterly Export Volume Growth***Percentage change on the previous quarter*

	2000Q2	2000Q3	2000Q4	2001Q1	2001Q2	2001Q3	2001Q4	2002Q1	2002Q2
<b>G7</b>	3.6	-0.9	5.8	-3.0	-1.9	-4.4	3.6	-2.3	5.5
<b>Canada</b>	3.8	-5.0	4.2	-4.1	2.7	-8.8	5.2	0.0	4.4
<b>USA</b>	3.8	4.5	-1.8	-1.6	-4.3	-5.0	-2.0	-0.9	3.8
<b>Japan</b>	3.2	1.8	0.1	-9.2	-3.9	-0.3	1.2	0.2	8.9
<b>France</b>	2.5	-6.2	15.8	1.5	-2.7	-7.2	8.3	1.0	2.4
<b>Germany</b>	2.7	-3.2	11.5	-2.1	-0.1	-2.6	3.7	-3.4	6.2
<b>Italy</b>	11.0	-0.5	7.5	-6.9	4.6	-10.5	11.1	-10.7	12.5
<b>United Kingdom</b>	1.2	-2.3	9.0	-1.5	-5.2	-0.1	6.4	-5.9	2.8
<b>EU-15 Extra EU</b>	7.3	-0.5	10.8	-9.1	1.2	-3.5	6.5	-0.5	<b>n.a.</b>

**Merchandise Trade: Quarterly Import Volume Growth***Percentage change on the previous quarter*

	2000Q2	2000Q3	2000Q4	2001Q1	2001Q2	2001Q3	2001Q4	2002Q1	2002Q2
<b>G7</b>	4.9	-0.6	6.2	-2.9	-1.1	-3.9	4.9	-4.4	6.2
<b>Canada</b>	4.5	-6.6	3.3	-4.3	4.0	-9.7	1.9	-1.7	10.9
<b>USA</b>	4.7	3.2	-0.4	-2.4	-2.4	-2.5	-0.8	0.9	6.3
<b>Japan</b>	3.5	1.5	6.9	-5.4	-2.9	-3.4	6.4	-5.4	1.9
<b>France</b>	9.3	-5.3	24.4	-0.3	0.1	-6.0	16.0	-14.4	12.2
<b>Germany</b>	2.8	-1.6	10.1	-4.6	0.1	-3.7	7.5	-9.5	6.8
<b>Italy</b>	10.4	-8.2	10.5	-3.4	2.4	-12.9	10.9	-2.3	5.1
<b>United Kingdom</b>	3.0	0.3	4.8	-0.6	-3.8	2.8	4.1	-2.4	1.3
<b>EU-15 Extra EU</b>	2.4	-1.2	4.4	-1.8	-1.7	-6.1	5.7	-0.6	<b>n.a.</b>

## EDITORIAL: A HESITANT RECOVERY

This *Outlook* is published at a time when the world recovery appears more hesitant and less widespread than expected. Activity bounced back early in 2002 but then lost momentum, in a context of weakening consumer and business confidence. This pattern of fits and starts is not unusual in the initial stages of a recovery but it has been associated with a further deterioration of equity and financial markets, which marks a clear departure from past business cycle experience.

The continuation of an already protracted phase of financial correction is not, however, a complete surprise. It underscores the very singular nature of the cycle currently unfolding, with its large initial capital overhang and financial imbalances.

With hindsight, it appears, indeed, that developments over the course of 2002 featured both normal and unique cyclical characteristics:

- The rebound at the beginning of the year was very much a technical recovery in the usual sense, signalling the end of a period of abrupt destocking.
- The subsequent slowdown came as confirmation that sound economic and financial “fundamentals” had not yet been completely restored. The capital overhang had not yet been fully worked through and equity valuations were perhaps still too high.

Recent developments have also featured large growth differences between North America, Continental Europe and Japan, prompting worries that stabilisation policies were not appropriately fine-tuning global demand in certain OECD areas.

A closer examination of available evidence does not point, however, to a marked “cyclical divergence” across OECD countries. To the contrary, the recent cycle seems to have been highly synchronised. What we are witnessing might rather be a phenomenon of “structural divergences”, with potential growth in North America far exceeding what can be observed and expected in other OECD regions.

Looking forward, world economic prospects hinge on the answers to three fundamental questions:

- How far are OECD economies from the restoration of healthy financial fundamentals?
- Do stabilisation policies provide the appropriate cushion to prevent economic activity from undershooting in the short run, in the form of a double-dip?
- Have sufficient structural reforms been undertaken for other parts of the OECD area to resume the catch-up process with North America?

The recent spate of corporate scandals and the fears it raised among investors should not mask the progress already realised towards sound stock market evaluations. Price/earnings ratios, for instance, have moved back closer to their historical “confidence band”. In the United States, net household wealth relative to income is now close to its historical average, indicating a return to normality.

However, economic agents, both businesses and households, are likely to adjust their spending behaviour to these changing parameters with a lag. This is why the present *Outlook* incorporates a period of sluggish spending in most of the OECD until mid-2003, followed by a progressive strengthening at the 2004 horizon.

This scenario is not without downside risks. In the short run, economies can easily undershoot their medium-term path, especially when confidence is weak. In countries, such as the United States, where strong personal consumption may run out of steam, the recovery of investment may come too late to take over as the main engine of demand. In other countries, where personal consumption remains sluggish, such as Germany or Japan, current problems have an important structural and therefore longer-lasting dimension, with negative consequences for confidence and the strength of the expected recovery.

In such a context, it is of course of utmost importance for macroeconomic policies to provide the appropriate cushioning. In this respect, the scenario put forward in the *Outlook* takes into account the recent loosening of US monetary policy as well as the Federal Reserve’s willingness to act again, if necessary. It also incorporates an early 50 basis points cut from the ECB, in a context of weakening inflationary pressures and subdued recovery. Hence, in the near term, monetary conditions are set to remain extremely supportive in the United States and to be broadly accommodative in Europe.

Fiscal policy has been very supportive on both sides of the Atlantic, with Europe relying more on its large automatic stabilisers and the United States on discretionary stimulation. Going forward, it is assumed that, as a general rule, automatic stabilisers are allowed to operate, while discretionary policy errs on the side of caution to preserve the long-term sustainability of public finance, following, in the case of large European countries, a period of ill-timed loosening during the good years of the late 1990s. Indeed, policy-makers in a number of large OECD countries are currently facing a dilemma: because past fiscal policies proved less than principled, there may be, at present, a conflict between the needs of economic stabilisation and the pursuit of long-term sustainability. As a result the task of conjunctural stabilisation may fall disproportionately on monetary policy.

This uneasy outcome presents a number of countries with the challenge of designing better fiscal rules or at least improving their implementation and clarifying their interpretation. The challenge is, indeed, to formulate fiscal rules that are well-designed, transparent, enforceable and likely to work both during upswings and downswings. The perfect rule probably does not exist. But whatever the rule chosen, it should take account of cyclical influences on budget balances, let built-in stabilisers play and focus on achieving long-term sustainability in light of demographic ageing. The present issue of the *Outlook* pays particular attention to this very important question of fiscal rules.

A distinctive feature of the difficulties currently facing a number of large OECD countries is how entangled macro and structural policies are at present. In Japan, decisive structural reform of the banking sector is now overdue in order to restore at least some effectiveness to monetary policy. Deflation will not come to an end without economic reforms, while economic reforms could worsen deflation in the short run if not accompanied by supportive macro policies. Without wholesale implementation, the current plans of the Japanese authorities to restore the fitness of the banking sector will not succeed and potential growth will remain less than modest. In Germany the search for better-functioning labour markets, drawing on the recent successes of other European countries as well as on the findings of the Hartz Commission, will be crucial for lifting potential growth in the medium term. It may also provide a decisive spark for the


recovery by boosting household and business confidence and improving the resilience of the economy in the face of future conjunctural shocks.

From a more general perspective, it seems increasingly likely that structural policies will become an integral part of the policy mix, even in a very short-run sense. As the experience of successful countries amply shows, good structural policies can provide a decisive contribution to short-term stabilisation, thus giving greater room for monetary and fiscal policies to balance more effectively their short and long-run commitments.

Beyond the short run, economic reform remains an essential ingredient for long-term growth. There is, for instance, a strong case for action to raise participation rates among older persons in a large number of European countries. This is important not only for the sake of facing the public finance consequences of ageing but also with a view to raising long-term growth and bringing it closer to the Lisbon objectives. In this area, the printed version of the *Outlook* will show, in a very thorough way, that much needs to be done to provide ageing workers with financial signals that do not discourage them from remaining economically active.

The printed issue of the *Outlook* will also explore in some depth the consequences of increased product market competition on OECD-wide growth and employment, drawing extensively on recent empirical OECD and outside research. Here again, it appears that the importance of good structural policies should not be underestimated.

18 November 2002

A handwritten signature in black ink, consisting of the initials 'JP' followed by the name 'Cotis' in a cursive script. A horizontal line is drawn underneath the signature.

Jean-Philippe Cotis  
Chief Economist

---

**Summary of projections<sup>a</sup>**

---

	2002	2003	2004	2002		2003		2004	
				I	II	I	II	I	II
Percentage changes from previous period									
<b>Real GDP</b>									
United States	2.3	2.6	3.6	3.5	2.2	2.2	3.7	3.6	3.5
Japan	-0.7	0.8	0.9	-0.1	1.5	0.4	0.7	1.1	0.8
Euro area	0.8	1.8	2.7	0.8	1.4	1.9	2.2	2.9	3.0
European Union	0.9	1.9	2.7	0.9	1.5	1.9	2.2	2.8	2.9
Total OECD	1.5	2.2	3.0	1.7	2.2	2.0	2.8	3.1	3.0
<b>Real total domestic demand</b>									
United States	2.8	2.7	3.8	4.2	2.5	2.2	3.8	3.8	3.6
Japan	-1.4	0.3	0.6	-1.5	1.3	-0.2	0.1	0.8	0.6
Euro area	0.4	1.8	2.6	0.3	1.4	2.0	2.1	2.7	2.7
European Union	0.7	2.0	2.6	0.6	1.6	2.1	2.2	2.7	2.8
Total OECD	1.6	2.2	3.0	1.9	2.4	2.0	2.7	3.1	3.0
Per cent									
<b>Inflation<sup>b</sup></b>									
United States	1.1	1.3	1.3	0.9	1.1	1.5	1.3	1.3	1.3
Japan	-1.0	-1.6	-1.4	-1.0	-1.5	-1.7	-1.5	-1.4	-1.5
Euro area	2.2	1.9	1.8	2.4	1.9	2.0	1.9	1.8	1.8
European Union	2.4	2.0	1.9	2.7	2.0	2.0	1.9	1.9	1.9
OECD less Turkey	1.5	1.4	1.3	1.6	1.3	1.4	1.3	1.4	1.3
Total OECD	2.2	1.8	1.6	2.6	1.8	1.9	1.6	1.6	1.5
Per cent of labour force									
<b>Unemployment</b>									
United States	5.8	6.0	5.7	5.8	5.8	6.1	6.0	5.8	5.6
Japan	5.5	5.6	5.6	5.3	5.6	5.6	5.6	5.6	5.6
Euro area	8.3	8.5	8.3	8.1	8.4	8.5	8.5	8.4	8.2
European Union	7.6	7.8	7.5	7.5	7.7	7.7	7.8	7.6	7.4
Total OECD	6.8	6.9	6.7	6.8	6.9	6.9	6.9	6.8	6.6
Per cent of GDP									
<b>Current account balance</b>									
United States	-4.9	-5.1	-5.3	-4.7	-5.1	-5.1	-5.1	-5.2	-5.3
Japan	3.2	3.8	4.2	3.1	3.4	3.6	4.0	4.2	4.3
Euro area	0.9	0.9	1.2	0.8	0.9	0.9	0.9	1.1	1.3
European Union	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.6
Total OECD	-1.2	-1.2	-1.2	-1.1	-1.1	-1.1	-1.1	-1.1	-1.2
Per cent									
<b>Short-term interest rate<sup>c</sup></b>									
United States	1.8	1.6	3.4	1.9	1.7	1.4	1.9	3.1	3.7
Japan	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Euro area	3.3	3.0	3.6	3.4	3.3	2.9	3.1	3.4	3.8
Percentage changes from previous period									
<b>World trade<sup>d</sup></b>	2.6	7.7	8.8	4.5	6.7	7.6	9.0	8.9	8.5

Note: Apart from unemployment rates and interest rates, half-yearly data are seasonally adjusted, annual rates.

a) Assumptions underlying the projections include:

- no change in actual and announced fiscal policies;
- unchanged exchange rates as from 4 November 2002; in particular 1\$ = 122.50 yen and 1.003 euros;
- the cut-off date for other information used in the compilation of the projections is 8 November 2002.

b) GDP deflator.

c) United States: 3-month eurodollars; Japan: 3-month CDs; euro area: 3-month interbank rates. See box on Policy and other assumptions underlying the projections.

d) Growth rate of the arithmetic average of world merchandise import and export volumes.

Source: OECD.

---