

## Working Paper

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# Has Europe moved out of the American economic slipstream?

**A much-worked piece of economic wisdom says: “If the United States sneezes, the rest of the world catches a cold”. This implies that even a slight economic setback in the US has distinctly negative fallout on business elsewhere. To what extent can this correlation be empirically demonstrated?**

At the beginning of the present decade, this correlation seemed to be borne out when the US economy briefly slipped into slight recession following the bursting of the “New Economy” bubble and the events of September 11, 2001. However, America emerged rapidly from this, while Europe and Germany in particular remained mired in several years of sluggish business activity, and indeed stagnation in some cases.

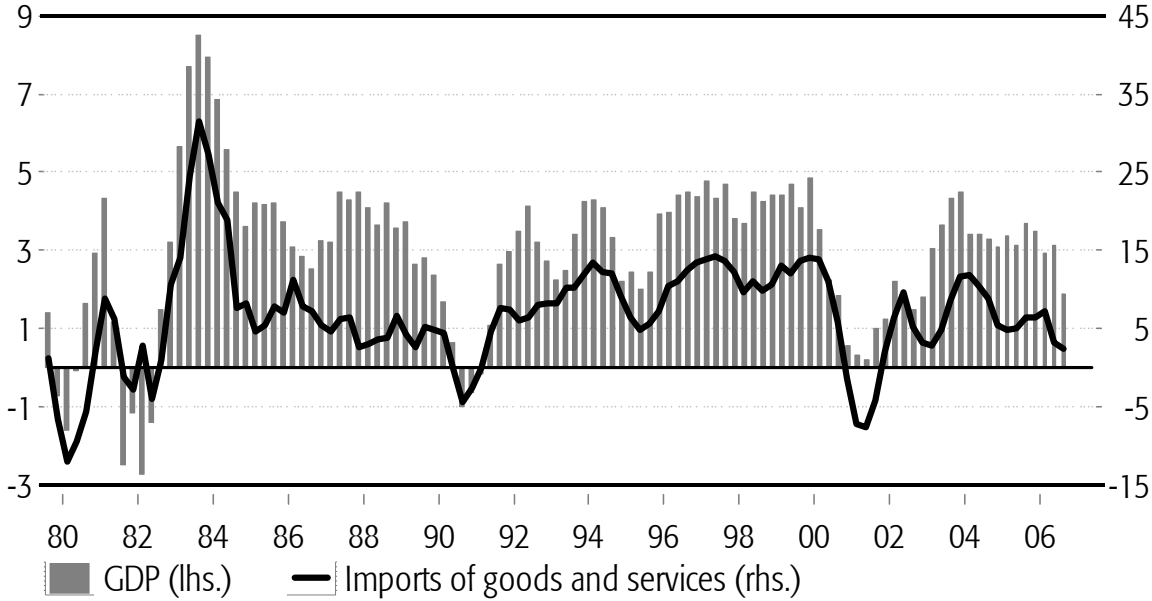
Since mid-2006 the situation has been quite the reverse, at least at first sight. The US economy is showing signs of weakness, and in the first quarter of 2006 growth even slumped below 1 %. Unfazed by this, the European rebound continues unchecked. So has Europe become more immune to fluctuations in the business cycle stateside?

To address this question more closely, we must first consider some basics. There are several reasons for international cyclical synchronization. First, co-movement can be caused by transmission effects from a very big economy to smaller ones. The US is frequently assigned such global economic dominance. Second, global shocks and disruptions can trigger parallel economic downswings. Examples of this are oil price shocks, synchronous stock market crashes, world political crises, and wars and terrorist attacks. Finally, the implementation of similar economic policies in the major economies – such as the disinflation policy seen in the 1980s – can also give rise to co-movement in business cycles.

In a broadly-based empirical analysis the IMF (World Economic Outlook April 2007) concludes that the global economic downswings of latter decades were not primarily the result of transmission effects from big economies but were due mainly to global shocks and disturbances. However, this does not conversely mean that the US economy is irrelevant to the global economic cycle. Indeed, the study identifies significant growth-damping effects on the industrial countries and the emerging markets from US recessions. It is also probable that spillovers from the American economy onto other economies have tended to intensify over time as the process of global economic integration has continued in both trade and on the financial markets.

So what are the most important transmission channels of US business activity? Trade immediately springs to mind as a direct avenue for the transmission of cyclical fluctuations. Experience has shown US imports to react very procyclically. Recessions lead to marked declines in US purchases from abroad, placing a damper on American trade partners' export business. Another potential factor is that a US

**US imports strongly procyclical**  
real percentage change over previous year



downswing puts pressure on the dollar, further dimming US trade partners' export prospects. America is still the world's major importer, absorbing almost 20 % of global merchandise imports. However, its share of world trade, on both the import and export side, has dropped appreciably since 2000.

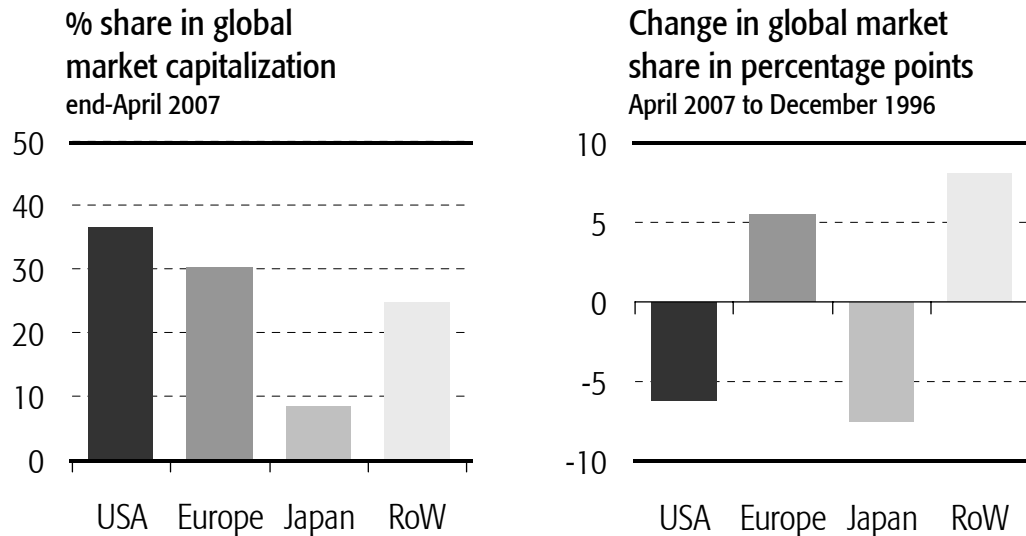
## Relative size of the US and European economy

		1990	2000	2006
GDP in % of world GDP	USA	25.5	30.9	27.5
	EU15	23.2	25.3	28.2
Share of global exports (ex Intra-EU15)	USA	15.9	15.6	10.9
	EU15	21.4	17.4	17.3
Share of global imports (ex Intra-EU15)	USA	20.1	23.9	19.6
	EU15	22.5	18.1	18.3

At current prices and exchange rates.  
Source: IMF, WTO, own estimates.

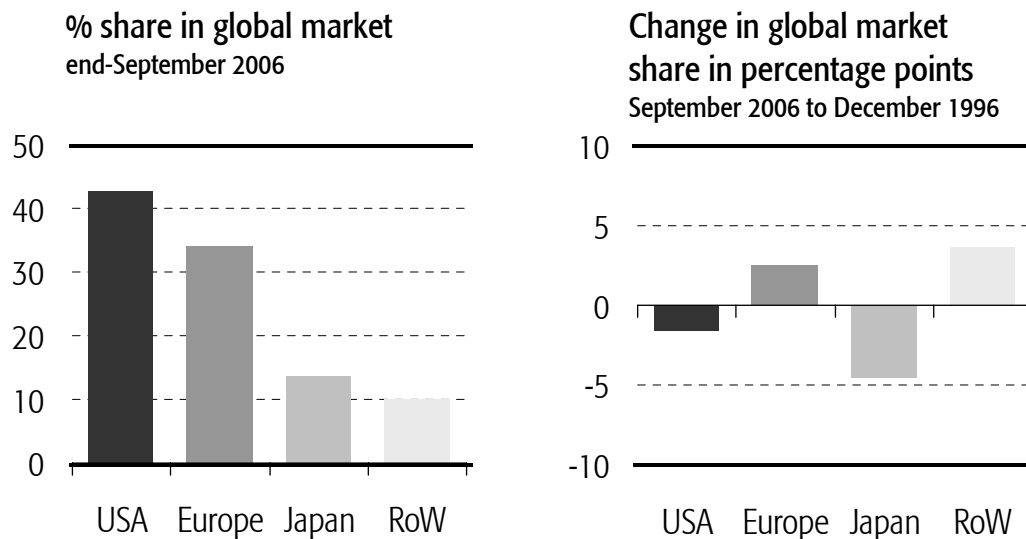
Aside from trade flows, financial market connectivity is certainly the second big transmission channel of cyclical fluctuations between economies. Developments on the American and European stock and bond markets are closely correlated. Fluctuations in these markets impact investors' and consumers' financial status and financing possibilities. Given that the US stock and bond markets are still the biggest in the world, it follows from this "market leadership" that they will also exert a significant influence on the behavior of European consumers and investors. Meanwhile, however, the European equity and bond markets are steadily approaching the size of their counterparts stateside. As a result, transmission is no longer a one-way street from the US to Europe, and the reverse process has presumably also gained in importance.

## Global equity markets



Source: WFE, own calculations; current exchange rates.

## Global bond markets



Source: BIZ, own calculations; current exchange rates.

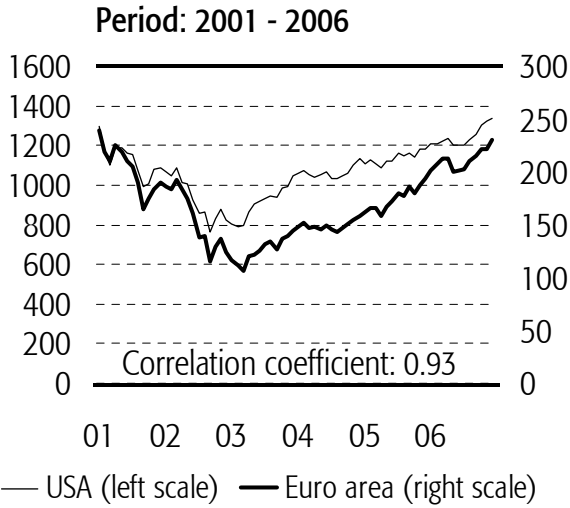
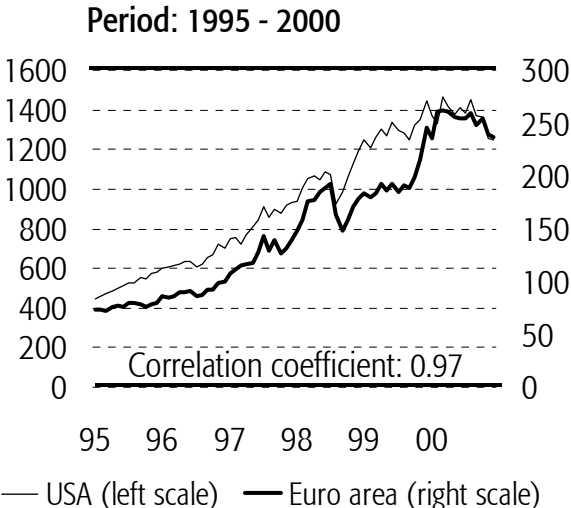
In view of the large number of financial innovations, transmission channels via the financial markets are now extremely complex. These days the transmission of financial market stimuli between economies is driven not only by correlation between market levels, but also by the correlation of market volatilities, as the latter are very important to the valuation of many financial derivatives. The low volatilities on both sides of the Atlantic in recent years have been a major contributive factor in low global risk premiums.

In general, the ever closer networking of regional financial markets would point to a further increase in synchronicity. But in fact correlation between the US and Europe, particularly on the bond market, has if

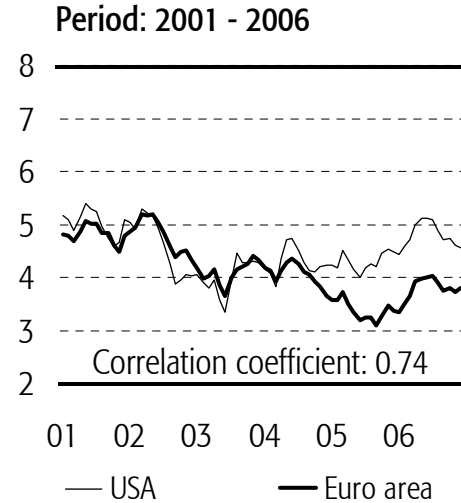
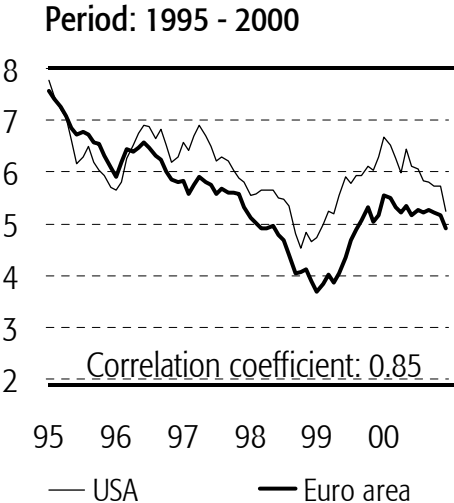
anything decreased a little in recent years. Between 1995 and 2000 the correlation coefficient between the American and European stock markets was still 0.97, but in the period 2001 to 2006 it slipped a touch to 0.93. In contrast, correlation between the bond markets in the two regions declined from 0.85 in the first period to 0.74 in the second.

In addition to the transmission of US economic fluctuations through trade and the financial markets, the globalization of economic expectations is arguably another very rapid route. Corporate surveys, and some consumer polls too, have revealed reactions to important international events as well as to purely national economic developments. For example, US economic data presumably have a direct impact on European companies' business and export expectations.

**Financial connectivity: Equity market**  
**MSCI, total return**

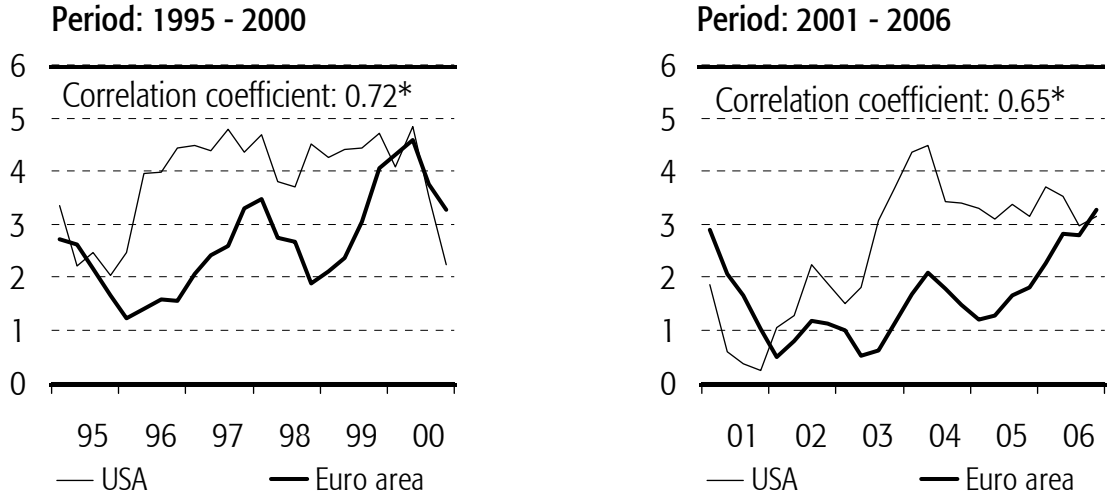


**Financial connectivity: Bond market**  
**Government bond yields, 10yr**



Considering the large number of transmission paths in an ever more global world economy, it seems logical to assume increasing synchronicity between the business cycles in the two biggest economic blocs, the US and EU respectively the euro area. To examine this, we calculated the correlation between economic growth in America and Europe. It emerged that correlation is greatest on the premise of a two-quarter lead for the US economy on the euro area. What does come as a surprise, though, is the slight reduction in correlation in the recent past, between 2001 and 2006, (correlation coefficient 0.65) versus the previous period 1995-2000 (correlation coefficient 0.72).

### Business cycle correlations real GDP (% change y-o-y)



\* calculated with two-quarter time lag in euro area growth.

We achieve a similar result when we estimate growth in the euro area by entering US growth and another two potential determinants of the business cycle – the change in the price of oil and in the term structure of interest rates in the euro area – into a multiple regression equation.

For the period 1995-2006 the three explanatory variables are assured at a significance level of 90 % and preceded by the expected '+' or '-' sign. A rising oil price depresses euro area economic growth, and a flatter interest rate curve, as an indicator of tighter monetary policy, works in the same direction. A one percentage point slowdown in US economic growth causes euro area growth to decrease by 0.42 percentage points. However, for the partial periods 1995 to 2000 and 2000 to 2006 this approach produces rather different results. Whereas in the earlier period the elasticity of European economic growth with respect to American growth worked out at 0.64, it fell to 0.15 in the more recent period.

## US impact on euro area growth: A simple econometric approach

Dependent variable: Growth in euro area  
 Explanatory variable: Growth in US  
 EMU-yield curve  
 Oil price change

	R-squared	US-growth coefficient
1995-2006	0.63	0.42
1995-2000	0.76	0.64
2001-2006	0.53	0.15 (not significant)

The European business cycle has therefore tended to show less synchronicity in recent years than in the second half of the 1990s. But this is only really surprising at first glance. European economic integration has made extremely rapid advances since the mid-1990s and as such it is part of globalization. Indeed, there is much to suggest that it has progressed faster than globalization as a whole. The introduction of a single currency in Europe was a milestone that triggered a whole host of integration measures. Some of the EMU financial markets have already merged into one or are at least going that way. The stability and growth pact places narrower constraints on fiscal policy. A string of product markets have been deregulated. Enlarging the EU through the addition of twelve central and east European countries has also broadened the economic area and raised its potential. All this indicates that factors specific to the region are shaping the European business cycle more strongly than before. Viewed in this light, the lesser co-movement with the US economic cycle in recent years is understandable. Nor is it surprising in this context that the cooling in business activity in America since the middle of last year has not put an end to the economic rebound in Europe, particularly since the fallout on the financial markets – the second major avenue of transmission – has so far been minimal. And anyway, mid-cycle slowdowns in the US like those in 1986 and 1995, for example, do no more than ripple the surface of the world economy, as the IMF analysis already mentioned has established.

But even in the future, matters would look different in the event of a severe US recession, which would in all probability deal a hefty blow to the financial markets. In this case, and notwithstanding Europe's closer economic integration, the European business cycle would presumably be hard hit. In the course of this the correlation in economic growth between the two areas would probably increase significantly again.

We consider it more likely that the US economy will grow moderately for the next two to three quarters and then pick up steam again in the course of 2008 at the latest. In this scenario European business activity should lose but little momentum in 2007 and 2008. The upswing should continue with varying pace from country to country. This does not, of course, mean that there are no risks to the European business cycle. Another oil price surge, an abrupt slide in the dollar or a stock market slump could throw

the upswing into doubt. But even then, the sound state of the corporate sector in many European countries makes a sustained downswing unlikely. At all events, the medium-term growth outlook for Europe is bright.