

UBS Investment Research
Global Economic Perspectives**Outlook 2007****■ Sub-trend global growth**

We expect the global macroeconomic environment in 2007 to be characterised by sub-trend global growth and ebbing profitability with a shift in the composition of growth away from the US and away from consumer spending. These shifts, in turn, should help narrow interest differentials between the US, Europe and Japan, also producing a weaker US dollar.

■ Below consensus

Our global growth forecast is below the current consensus, primarily due to a cautious view on the US. And our forecast for 100 basis points of Fed easing next year - by extension - is more aggressive than is now discounted in the US forward curve. As a result, US and global yield curves are likely to remain flat or even inverted for longer. Courtesy of low policy rates, the JGB curve remains the exception.

■ The risks

Upside risks to our view of a synchronous global slowdown in 2007 stem from the possibility of stronger growth in Europe and Japan. Downside risks stem from the possibility of resurgent energy prices and higher inflation outcomes which in turn could prompt a tighter global monetary policy stance. A sudden withdrawal of liquidity in global capital markets or a precipitous dollar decline might also increase uncertainty premiums and the cost of capital, leading to a slump in global investment spending and aggregate demand.

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- Coping with policy restraint
- Corporate profits, end of an era
- Imbalances unresolved

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Outlook 2007

Summary

We expect the global macroeconomic environment in 2007 to be characterised by sub-trend global growth and ebbing profitability, with a shift in the composition of growth away from the US and away from consumer spending. These shifts, in turn, should help narrow interest differentials between the US, Europe and Japan, also producing a weaker US dollar.

Sub-trend global growth, ebbing profitability and a weaker US dollar

Our global growth forecast is below the current consensus, primarily due to a cautious view on the US. And our forecast for 100 bp of Fed easing next year—by extension—is more aggressive than is now discounted in the US forward curve. As a result, US and global yield curves are likely to remain flat or inverted as 2007 unfolds. Courtesy of low policy rates, the Japanese yield curve remains the exception.

Our global forecast is sub-consensus

The conviction we have in the global view is fairly strong. We have a high conviction, for example, that US demand will become more handicapped by housing-related weakness over the months ahead, outcomes that are not, in our view, fully discounted by some US forecasters and policymakers. To the extent that our sub-consensus views will have reverberations for US interest relative to elsewhere, we are equally convinced about our forecast for a weaker US dollar.

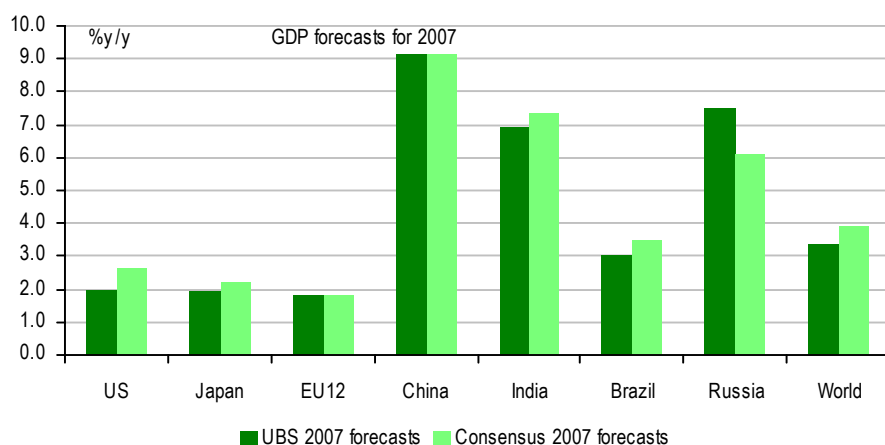
High conviction toward our US call

We are also convinced that the rest of the world will feel some impact from this US slowdown though our conviction in *sub-consensus* outcomes for other major regions and economies is less strong than it is for the US (see chart below). The current strength of underlying productivity growth in much of the emerging economy complex, combined with more appealing productivity potential in Japan and Europe, suggests that the rest of the world is in a reasonably solid position to weather the US slowdown. Still strong corporate balance sheets hold out promise for a partial offset to weaker US consumption in the form of capital spending. And still accommodative monetary policy in many parts of the world (eg, Japan) and ample underlying liquidity conditions suggest that a wrenching global downturn can probably be avoided.

Less convinced in sub-consensus outcomes elsewhere

The irony here, though, is that simple growth and interest-differential mathematics suggest – under these circumstances – that a weaker outcome for the US dollar is even more likely during the course of next year. And this, in turn, might – with a lag – generate softer growth outcomes in Europe, Japan and the emerging economy complex as 2007 matures.

UBS GDP forecasts for 2007 versus consensus



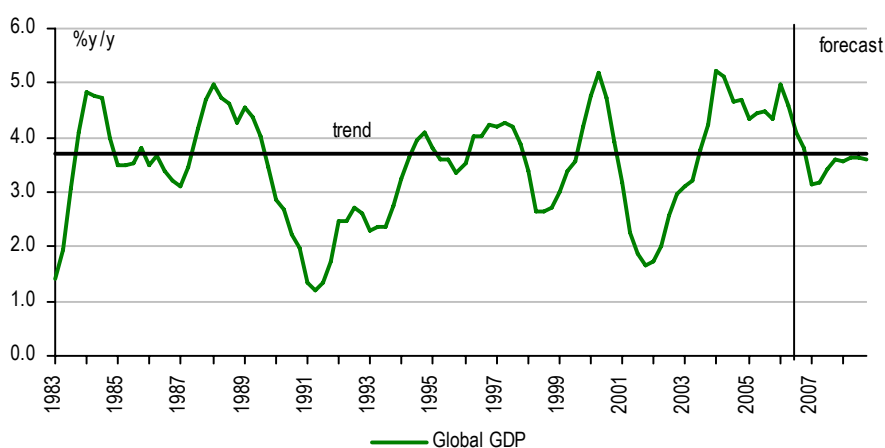
Source: UBS/Consensus Economics

Global growth

We forecast that global growth will slow to a 3.4% pace in 2007, about 1 percentage point below this year's estimated growth of 4.5%, and about a quarter of a percentage point below the world economy's underlying trend (see chart below). If we are right, this outcome will break the four-year run of above-trend growth that the world economy has experienced over 2002-2006, incidentally the strongest four-year span of global growth for at least 30 years. Insofar as this run of growth resulted in double-digit gains in corporate profitability, soaring commodity prices, rising interest rate trajectories and narrower corporate bond spreads, the downshift in global growth that we are forecasting will probably be of some significance for the path that many financial markets will take during the course of next year.

Global growth forecast of 3.4% in 07

Global GDP growth



Source: UBS

The domestic and global fallout from the US housing market recession remains pivotal to our global forecast. In the US housing market, there is a large inventory overhang of unsold and vacant single-family homes and apartments at

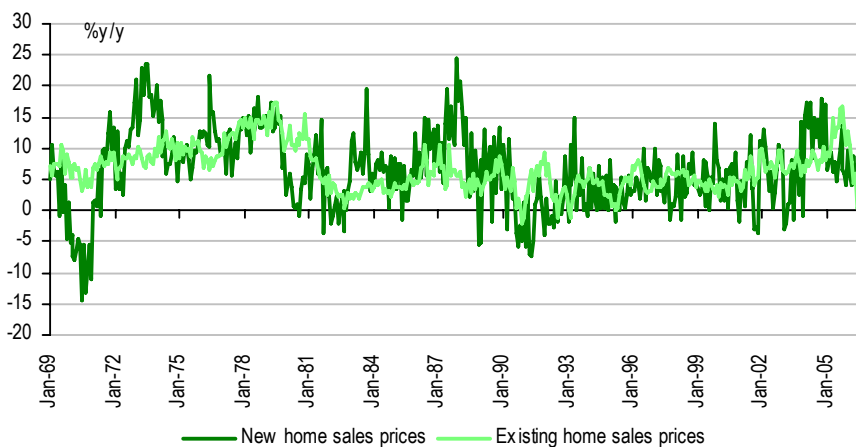
Domestic and global fallout from US housing market recession pivotal

present that will continue to depress home prices and production (ie, housing starts) over the quarters ahead.¹ Aside from the likely direct effects of this inventory overhang on residential investment and construction activity, our US team believes there will be significant additional indirect effects on the economy via some weakening in the spending propensity of US consumers. The most obvious indirect effect should emerge from slower furniture and household equipment consumption, which recent retail sales statistics incidentally already suggest has begun to unfold. A less obvious – but by far the more important – effect should emerge via a reduction in home equity withdrawal, the impact on consumption from which that has yet to manifest itself in any visible way. It will do over the coming quarters, however, in our view.

As for specific forecasts, our US team expects annualised GDP growth of just 2% in H4 06 and Q1 07, about half a percentage point below the current consensus. Our US GDP forecast for 2007, meanwhile, at 2.0%, is also about half a percentage point below the current consensus. A relatively soft pace of US consumer spending growth largely explains the shortfall.

**US GDP forecast of 2% in 2007,
about half a point below consensus**

Falling US house prices - of new homes and existing homes



Source: Haver

The key question against this backdrop is whether growth conditions in the rest of the world will be sufficiently robust to offset the consumer-induced slowdown in the US that we forecast. Or to put the question another way, will the rest of the world decouple from the US? We doubt it. The share of US consumption in global GDP is currently close to a record high. And we know that the expansion in the US trade deficit over recent years has been driven in large part by stronger imports of consumer goods and services from other parts of the world. Simple trade accounting identities – by extension – suggest that the world economy is more exposed to a US consumer slowdown than it has ever been. The prospects for growth decoupling, in other words, are not great.

**We don't believe the rest of the world
can decouple from the US slowdown**

¹ See *Will Empty Homes Translate to Empty Prices?* UBS Investment Research, 6 November, for further details.

Record high share of US consumption relative to global GDP



Source: Haver

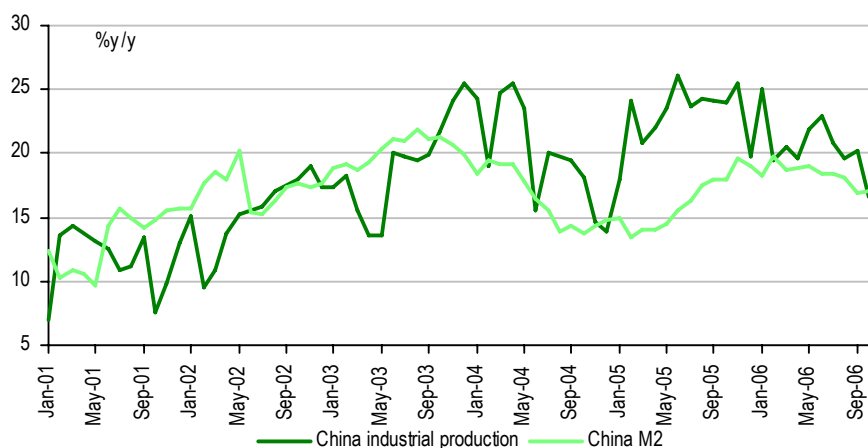
Domestic demand fundamentals in many parts of the world, moreover, are not particularly auspicious. To be sure, Europe's domestic demand growth has gained traction over recent months. But monetary tightening from Europe's central banks (most notably the ECB), combined with the promise of tighter fiscal policy next year (in Germany and Italy, but possibly in France as well) are likely to rein back regional demand growth somewhat in the early part of 2007.

Domestic demand fundamentals in Europe are not especially auspicious

In Asia, meanwhile, China's economy has already embarked on a slower growth trajectory (see chart below), the consequence of the tightening initiatives that have been put in place by the policy authorities in China over the past few months. We expect growth will continue to slow over the coming months. Japan's economy, meanwhile, has been weak, dragged down in particular by soft consumption. The recent data on Japan's machinery orders hints at little business investment spending upside in the near term. When combined with a likely slowdown in export demand, the *near-term* prospects in Japan remain modest. To be sure, much of the bad news about Japan has already been discounted in markets.

China is already slowing and Japan likely to be weak in the near term

China's economy has been decelerating

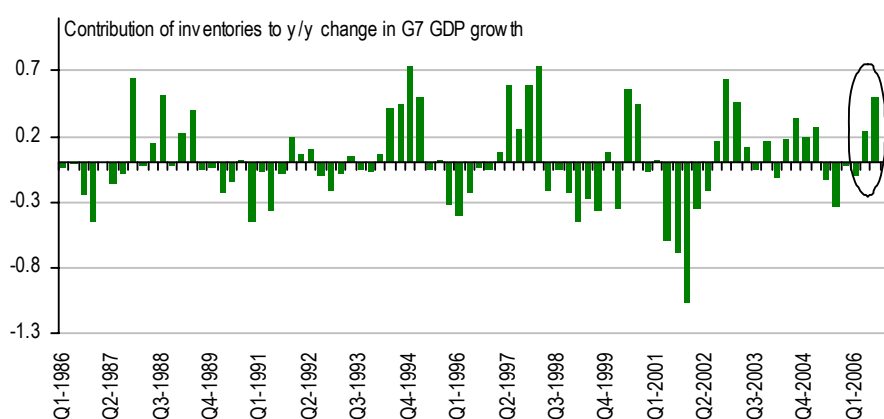


Source: Haver/UBS

One of the more ominous aspects to the current economic climate that is hinting at softer global growth ahead is the strong level of inventory accumulation that has been unfolding in many parts of the world over recent months, and most notably in the US. Over the past 12 months, the US, Japan, Germany, France and the UK have seen rising inventories relative to GDP, so that the contribution of inventory accumulation to G7 GDP growth in the year to Q3 could be as high as 0.5 percentage points. This would be the biggest inventory contribution for nearly four years. A similar message can be gleaned from the latest array of manufacturing inventory data from many major industrialised economies.²

Evidence of excess inventory in some corners of the world

Growing contribution from inventory accumulation to G7 GDP growth



Source: UBS. Data for Q3 2006 has been partially estimated.

The discussion above suggests that global growth is unlikely to decouple from a US slowdown during 2007. But we do not envisage a hard landing. For despite our reservations outlined above, there are some fundamental features of the world economy that should help to cushion the impact of slower US consumption. We believe, for example, that productivity potential in Europe and Japan may be improving, thanks to structural reforms of domestic product markets and labour markets.³

No hard landing

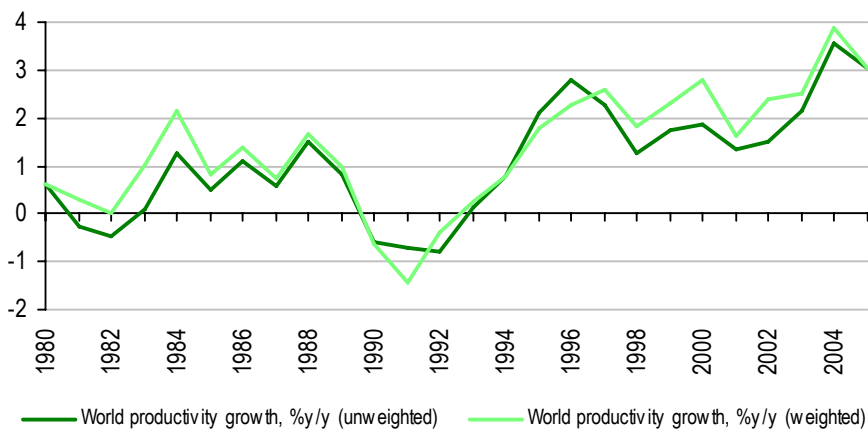
The underlying health of productivity growth in many other parts of the world economy is another offsetting feature. On our calculations, the world's labour productivity growth rose by about 3% in 2005, after growth of about 3.5% in 2004. This two-year performance is the strongest global productivity performance since our records began 25 years ago (see chart below).

Productivity arithmetic in many parts of the world is solid

² See *Global Economic Comment, Inventories: Early Warning Sign*, 14 November 2006.

³ See *European Economic Perspectives, The Hidden Productivity Boom*, 2 November 2006 and *Japan Economic Perspectives, Low inflation with improved potential*, 21 September 2006.

Strong global productivity growth



Source: UBS calculations/Groningen Growth and Development Centre (GGDC)

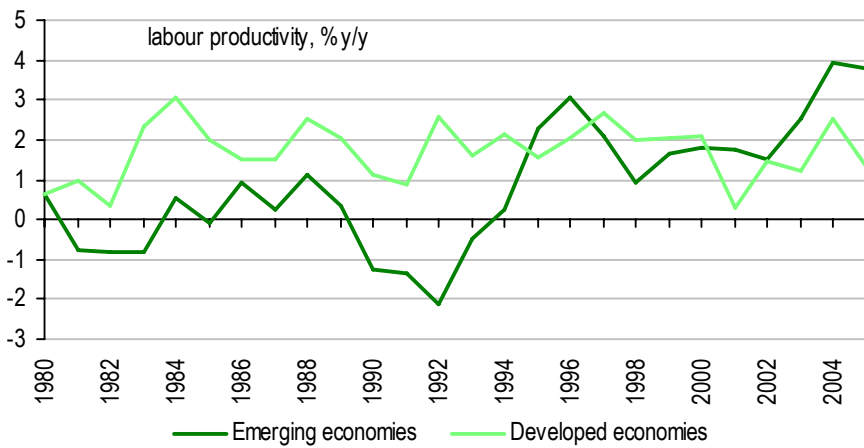
When we drill down into the regional details of these calculations, the emerging economy group stands out as being the main driver behind this global trend. Our estimates suggest that the pace of labour productivity growth in the emerging world has averaged around 4% over the past two years – a stunning improvement compared with the norms of the past. It compares, for example, with the 1980s when average labour productivity growth in the emerging world was roughly zero. And it compares with the 1990s when emerging economy productivity growth averaged just 0.5%.

Especially in the emerging economy complex

This improvement in the emerging world, moreover, contrasts with the performance from the developed world. On our estimates, the underlying trend pace of productivity growth in developed economies has, on average, shown little change from the 1-2 percentage point range that has characterised its performance for much of the past 25 years. The relative improvement in the US economy's productivity trend has been offset by an underlying deterioration in Europe and, to a lesser extent, in Japan.

Tracing the improvement in emerging economy productivity growth to its fundamental roots is not easy. Many factors have probably been at play, among them the increased deployment of ICT (information and communications technology), the rationalisation of global supply chains, and more transparent and independent fiscal and monetary policy regimes.

Fastest productivity growth in emerging economies for 25 years

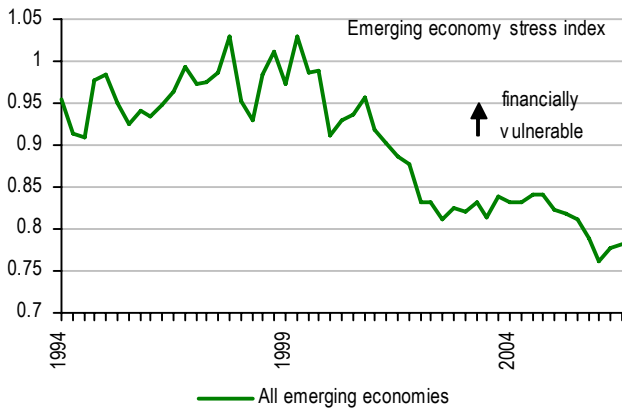


Source: UBS calculations/Groningen Growth and Development Centre (GGDC)

More generally, a widespread trend towards economy-wide balance sheet consolidation and debt repayment initiatives over recent years has rendered the emerging economy group – as a whole – much less vulnerable to financial shocks. Our emerging economy macroeconomic stress indices – a function of payment pressures from debt and imports relative to revenue gains from exports, transfers and credit – are at decade lows at present, most notably in Latin America, as evidenced by the charts below.

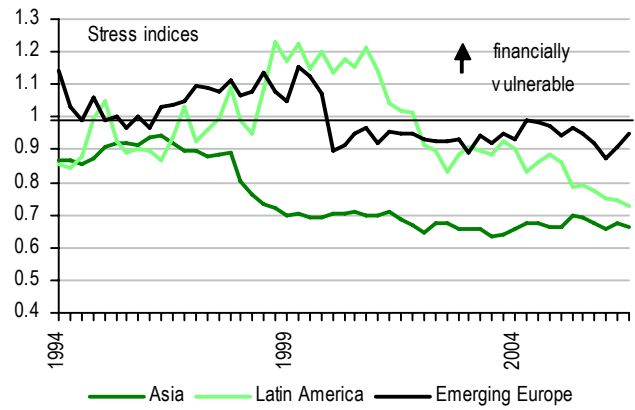
Little evidence of financial stress in the emerging world

UBS emerging economy stress index



Source: UBS

UBS emerging economy stress indices by region



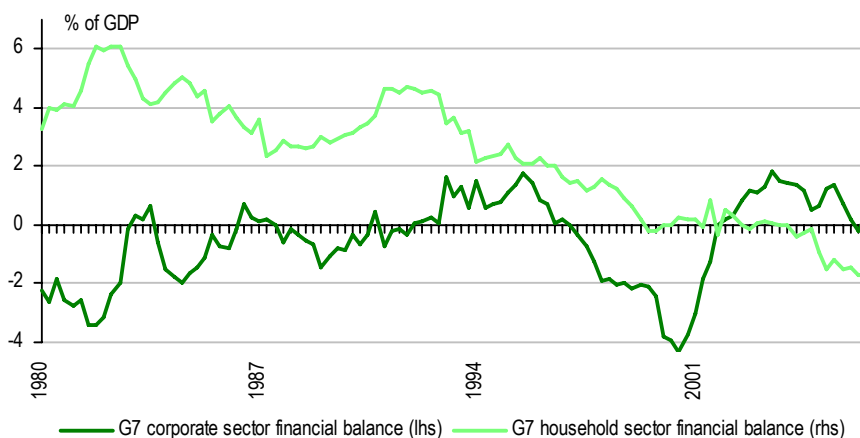
Source: UBS

Against this positive productivity backdrop, there is some chance that corporate sectors globally will embark on more capital spending initiatives. Tight capacity utilisation rates and the relative health of corporate sector balance sheets certainly offer the promise of resilient business investment spending next year. It certainly makes sense, in our view, to anticipate a stronger *relative* contribution from capital equipment demand (compared with consumption) over the coming months and quarters. A bigger medium-term contribution from capex in Asia

Some chance that capex will partially offset a consumer downturn

(excluding China) in 2007 is certainly a theme that our Asian economists have been exploring for some time.⁴

Healthy G7 corporate sector balance sheets relative to household sector

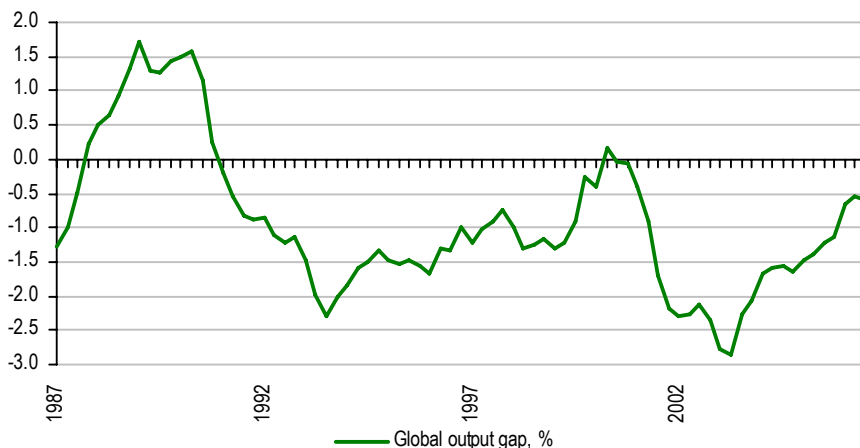


Source: UBS

The implication, along with our forecast of ebbing global aggregate demand, is that global inflationary pressures will remain in check through the course of next year. In other words, output gaps should start widening again and the upward pressures on core inflation that have been unfolding as output gaps narrowed over the past few years, most notably in the US, should start to dissipate.

Global inflationary pressures expected to remain in check

Global output gap



Source: UBS

Profits

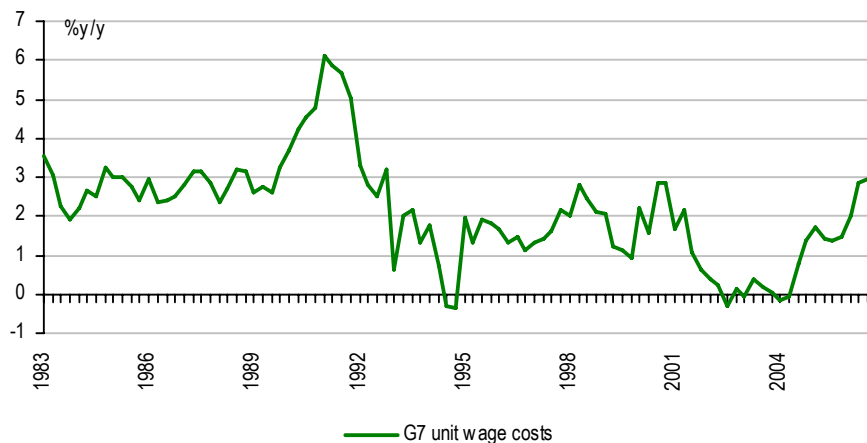
We expect that global profits growth will slow somewhat in 2007 as softer nominal GDP growth depresses headlines sales growth. Various unit labour cost measures have been edging higher in recent months, evidenced in the chart below, which should further depress profit margins. Interest expense in the US

Profitability expected to ebb

⁴ See *The Return of Asia (Part 1)*, 'Investment comes home', Jon Anderson, 17 August 2006.

and Europe has been on the rise, owing to somewhat higher borrowing costs as companies assume more debt. Overall, we expect US S&P500 operating earnings to slow from an 11-12% pace this year to 4-5% in 2007. This would mark the first year in four where earnings growth slips into single digits.

G7 unit wage cost inflation



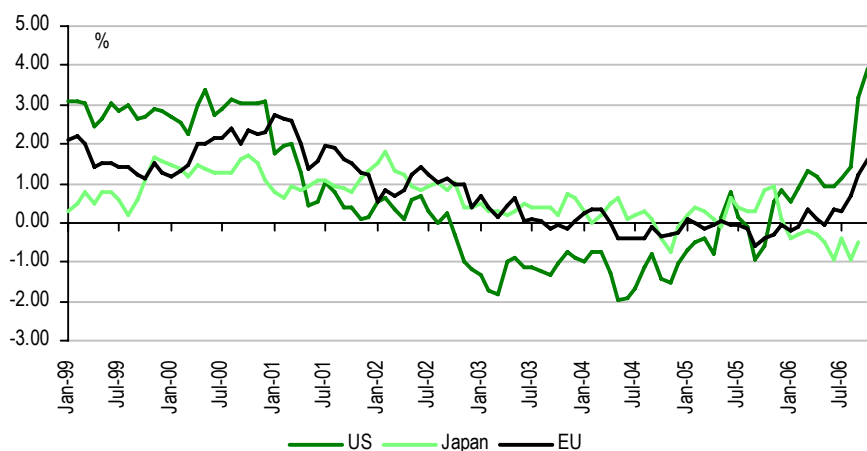
Source: UBS

Monetary policy

We expect the Fed to initiate a campaign of monetary easing next March with a 25bp reduction in the Fed funds target rate. And we are forecasting a further 75bp of easing over the remainder of the year, yielding a total of 100bp of policy rate reductions in 2007. Sub-trend US growth and a higher unemployment rate, along with some associated ebbing of inflationary pressures, provide the principal rationale for this forecast. To the extent that such easing is not fully discounted in the forward curve, we believe that 10 year Treasury yields will remain supported, suggesting a continued flat or inverted yield curve.

Fed to deliver 100bps of easing in 2007

Real policy rates



Source: UBS. Defined as respective policy rate minus headline inflation.

In Europe, we expect the ECB to continue on a course of monetary tightening over the immediate months ahead, with a cumulative policy rate increase of 50bp – one 25bp step is expected in December and a final 25bp step is expected in February. This forecast remains consistent with the recent rhetoric from ECB officials who have continued to stress the need for ‘strong vigilance’ on inflation. It further remains consistent with the idea that the economy will remain relatively resilient over the immediate months ahead, before the impact of slower US growth and tighter European monetary and fiscal policy effects kick in. Our forecast is roughly in line with the implied rates discounted in the forward curve. Bond yields, however, are unlikely to decouple from the directional moves characterising the US Treasury market, though we do expect some further narrowing of the yield differential between Europe and the US.

ECB expected to deliver a further 50bps of tightening over the coming months

We expect the Bank of Japan to lift rates just once in 2007, by 25bp, probably in January. This is consistent with the emphasis that BoJ officials have been placing on a pre-emptive approach to monetary policy along reflecting their confidence in the medium-term domestic growth and inflation picture. Recent signs of weakness are unlikely to dissuade the central bank from this course of action, in our view. The aim remains the normalisation of monetary policy from its current easy stance. Against this backdrop, we expect 10-year JGB yields to drift a little higher, with our target for mid-2007 at 2.2% and for end-2007 at 2.7%.

BoJ expected to deliver 25bp of tightening in January and no more

The overall picture here is one that suggests 2007 will mark the peak in the global policy rate cycle. Next year should also result in even narrower interest differentials between the US and other advanced economies, with important consequences for the US dollar, the issue to which we now turn.

The US dollar

We expect the US dollar to depreciate further during 2007, continuing the trend established between 2002 and 2004. The past two years have, in truth, been difficult for dollar sceptics, such as us. We did not anticipate the yield support for the dollar that unfolded in recent years. Neither did we anticipate the heavy demand for US dollar assets that has, in general, been maintained from central bank reserve managers and, more recently, from portfolio managers in oil-producing economies.

US dollar depreciation to continue

Trade weighted value of the US dollar



Source: FRB/Haver

The prospect of fading interest rate support and narrower growth differentials between the US and the rest of the world, however, should erode support for the US dollar in 2007. In some respects, this development may have already started to manifest itself – the dollar's trade-weighted value has been re-embarked on a downward trend over the past few weeks, declining by some 2% since early October.

Fading interest rate support and narrower growth differentials

As regards the structural outlook, little has changed. The size of the US current account deficit remains unsustainable, given the associated rise in US dollar asset holdings by non-residents. To be sure, lower oil prices and weaker US demand growth (relative to the rest of the world) may render some partial and temporary improvement in the US deficit over the quarters immediately ahead. But the absence of any improvement in US price competitiveness so far, owing to the intensity of global competition combined with the likelihood that aggregate demand from the rest of the world economy will temporarily weaken as US growth slows, makes a meaningful and lasting improvement in the US current account arithmetic unlikely. The structural fundamentals for the US dollar, in other words, remain fragile.

Structural factors still weighing on US dollar outlook

As regards specific currency pairs, we continue to envisage that the US dollar will come under more downward pressure against the yen and other Asian currencies, relative to the euro. Our estimates of fair value, based on simple purchasing-power-parity-based calculations – suggest that the euro is presently about 10% *over-valued* relative to the dollar. This contrasts with the yen, which, on our estimates, is some 30% *under-valued*.

We expect the yen to advance more than the euro

Of course, deviations from fair value estimates can persist for long episodes, especially when wide interest differentials or other sources of capital flows hinder or prevent reversion to purchasing power parity. But with the US economy slowing into 2007 and the Fed likely to cut rates, a degree of re-adjustment towards fair value on the part of the yen appears likely.

In the case of the euro, some modest further appreciation, leading to some additional overvaluation (albeit not extreme) is likely, given the momentum of

European growth at present and the tightening we anticipate from the ECB. Nonetheless, as the European economy slows in H1 07 and the ECB rate cycle peaks, we suspect that cyclical support for the euro will fade somewhat. The euro will then tend to revert towards our fair value estimates. We therefore forecast a peak of the euro in mid-2007 of 1.40 versus the US dollar, followed by a moderate depreciation back to the 1.35 level by year-end.

Risks

The risks to our view of a synchronous yet moderate slowdown in 2007 are as follows:

- **Upside surprises in Europe, Japan.** Currently, economic momentum is strong in the Eurozone, with higher corporate spending and improving labour market conditions potentially helping to bolster growth into 2007. In Japan, while recent economic data have been soft, household income formation and job prospects are improved. Hence, risks to the view of synchronous slowing in early 2007 include resilience in Europe or recovery in Japan. To the extent that either occurs, however, it is likely that stronger domestic demand would be met by tighter monetary policy, eventually bringing about the global growth moderation we anticipate.
- **Mid-2007 decoupling.** It is quite possible that global growth will decouple somewhat in 2008, as domestic demand in Asia, Japan and Europe recovers from domestic policy tightening, while US consumption remains soft owing to a rising US household savings rate. The risk here is that this could be brought forward to mid-2007, particularly if policy makers in China or India relax their current stances early in 2007.
- **'Hard landing'.** Most worrisome would be a rise in global recession risk, relative to our forecasts. Resurgent energy prices or inflation risks could be one source of macroeconomic instability. A sudden withdrawal of liquidity in global capital markets or a precipitous dollar decline could also increase uncertainty premiums and the cost of capital, leading to a slump in global investment spending and aggregate demand.

Upside surprises to growth possible in Europe and Japan

Mid-2007 decoupling a risk

Rise in global recession risk most worrisome

Economic forecasts

Table 1: GDP growth

% y/y	Weight*	2005	2006E	2007E	2008E
US	0.25	3.2	3.2	2.0	2.8
Canada	0.02	2.9	2.8	2.3	2.8
Japan	0.08	2.7	2.7	1.9	2.4
EU	0.25	1.6	2.7	2.0	2.1
of which:					
EU12	0.19	1.5	2.7	1.8	2.0
UK	0.04	1.9	2.6	2.5	2.8
Switzerland	0.01	1.9	2.7	1.9	2.0
Asia **	0.25	8.3	7.9	7.1	7.0
of which:					
China	0.11	10.9	10.2	9.1	8.5
Korea	0.02	4.0	4.9	3.7	4.0
Latin America	0.08	4.2	4.6	3.9	3.7
of which:					
Brazil	0.03	2.3	2.9	3.0	3.0
Mexico	0.02	3.0	4.3	3.6	3.8
Transition economies ***	0.07	5.7	5.8	5.5	5.7
of which:					
Russia	0.03	6.4	7.0	7.5	7.5
WORLD	1.00	4.5	4.5	3.4	3.7

Source: UBS calculations and estimates

* Based on purchasing-power-parity-adjusted GDP levels;

** includes Australia and New Zealand; *** includes Israel and South Africa

Table 2: Inflation

% y/y	Weight*	2005	2006F	2007F	2008F
US	0.25	3.4	3.3	2.4	1.6
Canada	0.02	2.2	2.5	2.7	2.1
Japan	0.08	-0.3	0.1	0.2	0.9
EU	0.25	2.1	2.2	2.2	1.9
of which:					
EU12	0.19	2.2	2.2	2.2	1.9
UK	0.04	2.0	2.3	2.1	2.0
Switzerland	0.01	1.2	1.2	1.4	1.3
Asia **	0.25	3.3	3.5	3.4	3.5
of which:					
China	0.11	1.8	1.6	3.0	3.5
Korea	0.02	2.8	2.5	2.6	2.5
Latin America	0.08	5.8	4.0	4.6	4.9
of which:					
Brazil	0.03	5.7	3.0	4.0	4.3
Mexico	0.02	3.3	3.7	3.3	3.3
Transition economies ***	0.07	6.7	6.3	5.9	4.6
of which:					
Russia	0.03	10.9	9.0	7.5	5.0

Source: UBS calculations and estimates

* Based on purchasing-power-parity-adjusted GDP levels;

** includes Australia and New Zealand; *** includes Israel and South Africa

Table 3: Interest rate forecasts

%	04-Dec-06	Jun-07E	Dec-07E	Dec-08E
US				
3 month rate	5.3	4.7	4.7	4.7
10 year yield	4.5	4.1	4.5	4.5
Canada				
3 month rate	4.2	4.0	3.5	3.5
10 year yield	3.9	4.0	3.9	4.1
Japan				
3 month rate	0.5	0.6	0.9	1.3
10 year yield	1.6	2.1	2.6	3.1
Germany				
3 month rate	3.6	3.8	3.9	4.4
10 year yield	3.7	3.9	3.8	4.1
Sweden				
3 month rate	3.0	4.0	4.0	4.0
10 year yield	3.6	4.1	3.9	4.1
UK				
3 month rate	5.2	5.1	5.1	5.1
10 year yield	4.5	4.7	4.7	4.8
Switzerland				
3 month rate	1.9	2.3	2.3	2.5
10 year yield	2.3	2.7	2.8	3.0
Australia				
3 month rate	6.3	5.9	5.9	6.2
10 year yield	5.5	5.2	5.4	6.0
New Zealand				
3 month rate	7.7	6.6	6.5	6.5
10 year yield	5.8	5.3	5.4	5.8

Source: UBS calculations and estimates

Table 4: Foreign exchange forecasts

	04-Dec-06	Jun-07E	Dec-07E	Dec-08E
EUR/USD	1.32	1.40	1.35	1.30
USD/JPY	116.13	105.00	95.00	90.00
EUR/JPY	153.79	147.00	128.25	117.00
GBP/USD	1.97	2.03	1.96	1.88
EUR/GBP	0.67	0.69	0.69	0.69
USD/CHF	1.20	1.09	1.13	1.15
EUR/CHF	1.59	1.52	1.52	1.50
USD/CAD	1.14	1.05	1.05	1.05
AUD/USD	0.79	0.79	0.77	0.76
NZD/USD	0.68	0.66	0.64	0.63
EUR/SEK	9.04	9.10	9.20	9.20
EUR/DKK	7.45	7.46	7.46	8.46
EUR/NOK	8.17	8.00	7.80	7.80

Source: UBS calculations and estimates

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