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Next Month: An Early Rally in Commodities

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Looking Ahead to 2003

Although GDP growth in the first half of the year will be stronger than we had anticipated, we still expect the second half to feature a sluggish recovery in the US, moderate growth in Euroland and a bleak picture in Japan. 2003 looks better, but growth will remain largely in line with trend, which is well below the rate typically associated with economic recoveries

Upward revisions to our 2002 GDP growth forecasts since the start of the year have been mainly triggered by events in the US, where the recession now appears to have been short-lived. Unlike those who argue that there was no recession, we note that three of the four variables used by the National Bureau of Economic Research to assess a US economic downturn—industrial output, nonfarm payrolls and real manufacturing and trade sales—suffered significant setbacks in 2001. Only real sales has reached any sort of bottom, although we estimate that industrial output and payroll employment both rose in February. If so, that could make January the official bottom of the cycle.

The bright spot has of course been consumer spending, which has been much sturdier than we had expected, supported by tax cuts, lower energy prices and improving labor-market conditions. The sturdy real income growth that has marked the downturn is not only uncharacteristic of recessions, but is also the chief reason why consumers have been able to increase their real outlays.

There is no sign of inflationary pressures, as goods prices remain very soft. With intermediate goods costs trending lower, and import prices (excluding petroleum) down 5% year-on-year thanks to a strong dollar, the competitive forces on factory pricing still appear to be mostly downward.

Despite this, we still expect a sluggish recovery this year, and our full-year GDP growth forecast is for just 1.9%. Most of the pickup will be seen in the first half; the sustainability of the upswing in the second half will depend on the strength of final demand as a substitute for inventory restocking. The prospects here are not very encouraging, given the persistent drag exerted by the adjustment of large financial imbalances in the corporate and household sectors.

- On the investment side, although technology investment appears to be bottoming, there is unlikely to be sufficient demand to support a strong recovery. Historically, tech investment has rebounded strongly only in the later stages of US economic recoveries.
- On the consumer side, the risk is that consumers may yet still raise their saving rate after two years of stock-market setbacks. Personal saving remains some two to three percentage points below the level we see as consistent with households' current net worth.

This subdued outlook, along with our inflation forecast of just 1.2% for 2002, means there is no pressing reason for the Federal Reserve to raise interest rates. We think the money markets, which have discounted some 100-125 basis points of interest-rate tightening by December, are too bearish. But if consumer spending remains on its current robust pace, then the Fed may feel compelled to raise rates this summer.

Euroland: Recovery Is In the Air

Signs of economic recovery in Euroland are mixed. Although business surveys show a clear improvement in optimism, this has not yet been reflected in any significant pickup in economic activity. The fourth quarter of 2001 was the worst quarter for industrial production growth since the trough of the last serious recession, in the first quarter of 1993.

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Goldman Sachs Key Economic Forecasts															
% change	GDP (year-on-year)			GDP (quarter-on-quarter annualized)											
	2001	2002	2003	2001				2002				2003			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
US	1.2	1.9	3.0	1.3	0.3	(1.3)	1.4	2.5	4.0	2.0	2.5	3.0	3.5	3.5	3.5
Euroland	1.5	1.1	2.3	2.2	0.3	0.4	(0.6)	0.6	2.4	2.8	2.8	2.2	1.6	2.4	2.5
Japan	(0.5)	(1.4)	0.9	4.1	(4.8)	(2.1)	(4.5)	(0.1)	0.0	0.1	0.5	1.0	1.6	1.6	1.0

A Weaker Yen Does Not Threaten Asia

The yen's decline highlights Japan's poor economic fundamentals, but it is not a solution for the country's structural deflationary pressures. We do not expect yen weakness to disrupt Asia's economic recovery. A moderate acceleration in global demand or modest local currency adjustments would be sufficient to offset the yen shock in Asia, but in the absence of a global recovery, the impact of a weaker yen would be much stronger

Despite the yen's recent rally, its 9% decline against the dollar since September has come to dominate macroeconomic headlines yet again. While yen depreciation partly reflects domestic policies such as increased liquidity through the Bank of Japan's quantitative monetary expansion, as well as official support for a weaker currency, the sustained weakness in the yen mainly points to Japan's poor economic fundamentals.

Japan's soft trade performance strongly suggests that the depreciation stems from the country's weak export competitiveness. The OECD estimates that Japanese export competitiveness fell 9% in 2001, to its lowest level since 1994. In contrast, China's competitiveness gained 12%. On the basis of our trade-weighted model that assesses the optimal equilibrium exchange rate, the yen is still overvalued by 15%.

Declining Japanese competitiveness calls into question efforts by Asian, US and European manufacturers, among others, to persuade authorities to resist yen depreciation. Export data indicate that this depreciation appropriately reflects the Japan's significant loss in market share of exports.

Depreciation Is No Panacea . . .

Yen depreciation is by no means a long-term solution to Japan's economic problems. Without structural reforms, Japan's productivity growth is set to remain weaker than that of other industrialized countries. At the corporate level, sales volumes are declining and price margins are steadily shrinking owing to deflation. Corporate earnings have become more dependent upon progress in restructuring, particularly in the wholesale, retail and construction industries.

At the government level, serious policy efforts are crucial to resolve the overhang of bad debt, specifically through progress

in non-performing loan disposal. Expanding quantitative easing measures and accelerating the deregulation process are also necessary to reduce structural deflationary pressures.

. . . and Is Unlikely to Derail Asia's Recovery

Market fears that the weak yen will push non-Japan Asia into a competitive devaluation are overstated. The key to our view is that the negative price effect on Asian exports from yen weakness should be outweighed by the positive volume effect from the improving global manufacturing cycle. Two points are worth noting:

- Stronger demand has a much greater impact on Asian export volumes than does the contractionary effect from lower competitiveness due to exchange-rate appreciation. For most Asian countries, the elasticity response of exports is three to four times larger for global demand than for real exchange rates. In Korea, for example, we estimate that a 1% acceleration in global growth boosts export volume growth by 3.6%, while a 1% appreciation in the real exchange rate compresses export volume by 0.8%.
- The bilateral impact of a weaker yen is considerably less than suggested by the headline number. At 15%-20%, Japan's weight in Asian trade is relatively low. For example, as Japan accounts for 16% of Chinese exports, a 10% depreciation of the yen would result in less than 2% decline in export volume—far less than the market generally believes. In addition, the degree of export overlap between Asia and Japan is relatively small, on both an absolute and a relative basis.

Even in the most pessimistic case with a sharp fall in the value of the yen, modest currency adjustments would be sufficient to

OECD Export Competitiveness for Goods								
%	1995	1996	1997	1998	1999	2000	2001E	2002E
US	3	1	4	(1)	(2)	(1)	(5)	(5)
China	(7)	6	17	9	2	12	12	9
Japan	(7)	7	1	(3)	(8)	(7)	(9)	(3)
Germany	(3)	0	0	(3)	0	0	2	1
France	1	(4)	2	0	(2)	2	(1)	(1)
UK	1	2	2	(7)	(3)	3	2	1

The OECD calculates what a country's share of total exports would have been if a country had been able to maintain its market share in the foreign goods markets. It then compares that result with actual (or expected) performance. The difference (expressed in percent) is the OECD measure of export competitiveness.

Source: OECD

offset the yen shock in Asia. The economies most at risk would be those unwilling or unable to let their own currencies decline. The currencies whose values are closely tied to the dollar (China, Hong Kong and Malaysia) have relatively low exposure to competition from Japan.

Our Improving Outlook for the Yen

The near-term risks to the yen remain high. In addition to fears about productivity and growth, increased foreign selling of Japanese assets will result in reduced demand for the yen. If Prime Minister Koizumi's government falls, concerns about escalating government debt and a banking collapse could depress the yen even further.

Yet we expect the yen to strengthen to 138 against the dollar in six months and to 128 in 12. This reflects our expectation that the dollar, which is currently 19% overvalued on a trade-weighted basis, will weaken against all major currencies. A global cyclical recovery will also help Japan. And because financial markets are discounting a negative Japanese outlook, moderate positive surprises on domestic growth or policy could reignite capital inflows into the country, lending further support to the currency. ■

Can Germany Raise Its Speed Limit?

Germany's inability to stimulate internal growth highlights the need for more rigorous structural reform. The key issue in September's elections will not be the choice of Chancellor, but whether the elections strengthen the market-liberalization forces in a new coalition government

Germany's disappointing economic performance of 0.6% GDP growth last year (against our 2001 GDP growth forecast of 1.5% for Euroland), and just 1.5% per year during the past ten years, cannot be explained by an unfavorable external economic environment. Instead, it reflects an inability to generate robust internal growth. Two factors underlie Germany's economic malaise:

First, the economic policy mistakes made at unification, which have resulted in eastern Germany acting as a drag on the overall economy. These included:

- the one-for-one exchange of East German marks for Deutsche marks, which boosted inflation and forced the Bundesbank to raise rates dramatically;
- the transfer of western labor-market regulations to eastern Germany, which had a much lower productivity rate;
- the fact that most of the money transferred from west to east (about 50 billion euros) went toward consumption, not investment; and
- legal quarrels over land ownership, which discouraged investment.

Second, the failure to adjust economic policies to a rapidly changing external and internal economic environment reflected many years of policy paralysis during the Kohl government, the initial mistakes of the Schröder/Lafontaine government, and the timid reforms of the Schröder government since 1999. These policy failures mainly took the form of insufficient labor-market deregulation, tax reform and social-welfare system restructuring.

If Germany is to avoid further economic decline relative to its European peers, it must comprehensively reform the tax, regulatory, social security and education systems, as well as fully deregulate the labor market. Such reforms will only be successful if they allow market forces to

play a much greater role in all areas of the economy.

2000 Tax Reforms: Just a First Step

Germany's July 2000 tax reforms were initially praised as a breakthrough in structural reform. While they do represent a major achievement compared with the past, the table shows that the tax reforms did not eliminate—although they did reduce—Germany's disadvantage relative to other European countries.

A lingering flaw in the tax system is that privately owned companies continue to pay, on average, lower taxes than corporations. This gap has actually widened in the wake of the 2000 reforms.

The broader question is whether the reforms have made the German tax system more compatible with other systems in Europe. In this respect, the reforms are a step in the right direction, because they have helped to narrow differences in the taxation of distributed dividends across Europe. And foreign and domestic dividends are now treated equally.

Searching for a Market-Oriented Reformer

Both the incumbent Chancellor Schröder and his challenger in September's elections, Bavarian Prime Minister Stoiber, have expressed enthusiasm for structural reforms that will strengthen the economy. But their economic-policy track records show a significant tilt toward interventionist industrial policies and a rather conservative approach to social policy and labor-market reforms.

Both contenders' middle-of-the-road, gradualist approaches to economic-policy reform target the average voter, who wants improved economic performance but is loath to give up social benefits. A more radical approach to economic reform is likely only if smaller political parties

European Tax Rates			
%	Tax Rate	Effective Average Tax Rate	Effective Marginal Tax Rate
Germany 2000	52	39	32
Germany 2001	39	36	30
France	37	36	35
Ireland	10	11	13
Italy	40	29	(6)
Netherlands	35	33	29
Spain	35	32	26
UK	30	29	28
Sweden	28	24	17

Source: Sachverständigenrat, Jahresgutachten 2001/2002

committed to market liberalization policies succeed in exerting a disproportionate influence over a future coalition government.

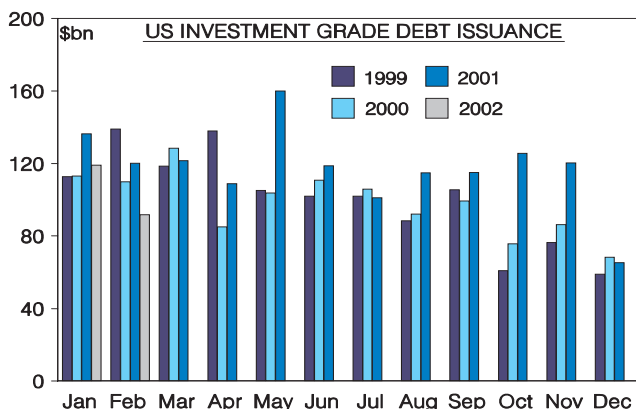
Among the smaller parties, the Free Democratic Party (FDP) seems to favor the most rigorous market-oriented economic reforms. A stronger FDP share of the vote and heightened influence in a future coalition could accelerate more comprehensive economic reform after the elections.

A Reform Wish List

In the early years of the incoming government, we would like to see concrete reform efforts in three areas: labor-market deregulation; health care reform; and welfare reform. In addition, we hope to see further progress in reforming the tax system to simplify and reduce remaining distortions, and in restructuring the pension system to strengthen the private provision of pensions. ■

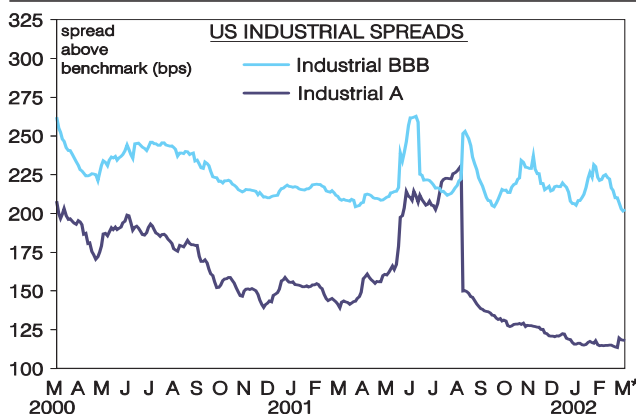
Further information on the topics in this report is available on the GS Financial Workbenchsm. For access, please go to www.gs.com/ceoconfidential

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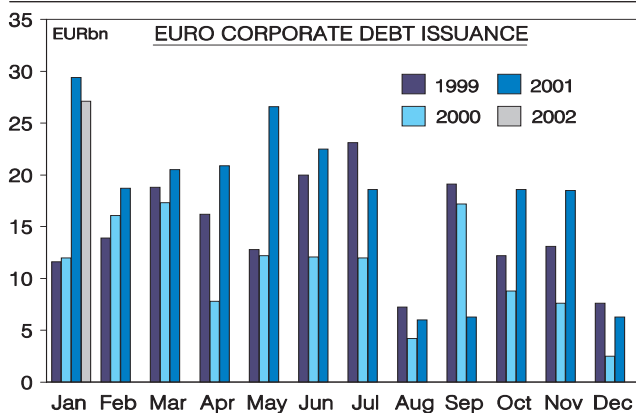
US Investment Grade Debt Issuance

- Corporate issuance has been relatively light this year. February's investment grade corporate issuance, at \$92 billion, was down 24% from February 2001 levels.
- While fundamentals have been reasonably strong for most issuers and sectors, issues of deteriorating credit quality and liquidity have taken center stage for both issuers and investors. The collapse of Enron, concerns about exposures from asbestos to Argentina, and, perhaps most drastically, 'questionable' accounting have focused the market's attention on specific issuers and even entire sectors.



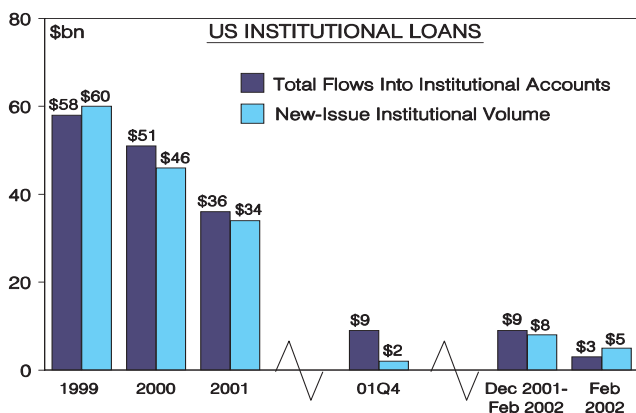
US Investment Grade Debt Spreads

- Strong credits and names continue to have good access at good rates, but the market has begun to differentiate starkly among issuers. Volatility in credit spreads is not surprising, given concerns about credit quality and liquidity as well as overall economic uncertainty.
- Some sectors have experienced dramatic widening from the start of the year, including telecom (+75bp wider on average), autos (+40bp) and banks and finance (+25bp). Hard-hit individual names have widened up to several hundred basis points.



European Corporate Debt Issuance

- European corporate debt issuance has benefited from expectations that issuance this year will be below last year. The latest GM deals were relatively small in size (\$1 billion each) and Telecom Italia's new issues were received by strong demand (upsized to Eur2.5 billion).
- Moody's and S&P's outlook and watch composition remains negatively skewed, with 39% of Euro bonds now candidates for further downgrades, against 35% and 33% in September.



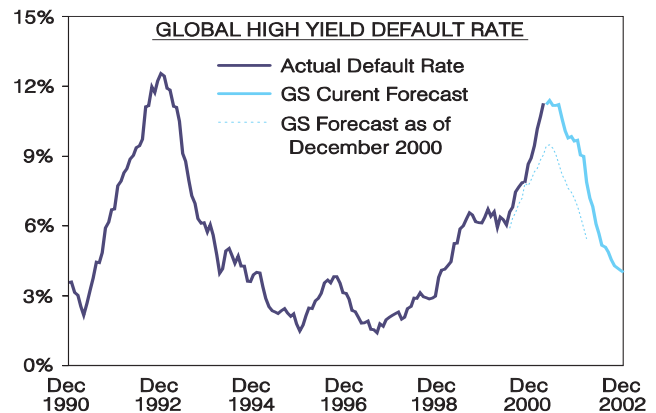
US Institutional Loans: Encouraging New Issue Volume

- New issue volume in the syndicated loan market exceeded inflows into institutional investor accounts in January 2002 for the first time since last summer, although the margin was just \$900 million. In February 2002, the margin grew to \$1.6 billion.
- While this is a positive development for the loan market, it hardly dents the pool of cash that swelled institutional coffers in the fourth quarter of 2001, when inflows topped new loan issuance by \$6.9 billion.

* Data through 6 March. Source: Bondware Data; Standard & Poor's PMD; Thomson Financial Securities Data; Goldman Sachs.

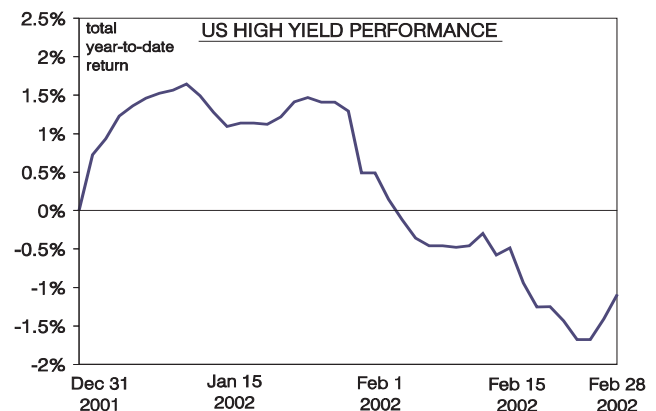
Global High Yield: Default Rates and Forecasts

- We calculated a 2001 default rate of 11.6% for the global high yield universe, slightly above our 11.4% forecast. On a quarterly basis, the default rate for the fourth quarter of 2001 was flat from the third quarter.
- We expect that the global high yield default rate peaked in December 2001 and will fall in 2002 to 7.5%-7.8%, but it will remain above 11% through the first quarter of 2002. Further ahead, we expect the default rate to subside to 4% in 2003.



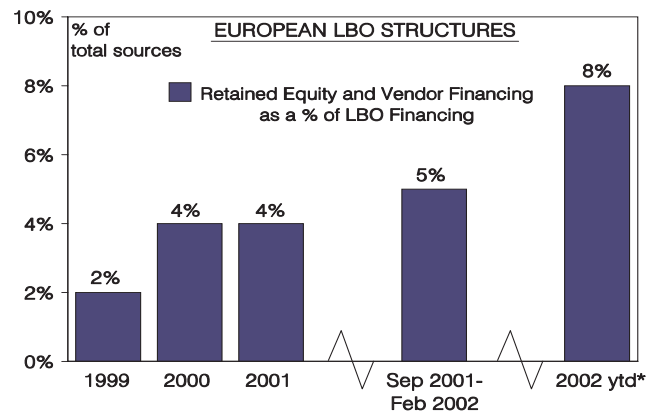
US High Yield: A Challenging Environment

- Despite an early rally in January, credit events, defaults and downgrades have weighed on the high yield market. The market has returned to negative territory with a -1.09% year-to-date return through February.
- While the macroeconomic environment has become somewhat more sanguine for credit investors, the spotlight on the rating agencies will reinforce the sense of caution. We still see selective opportunities in the energy, utilities and metals and mining sectors.



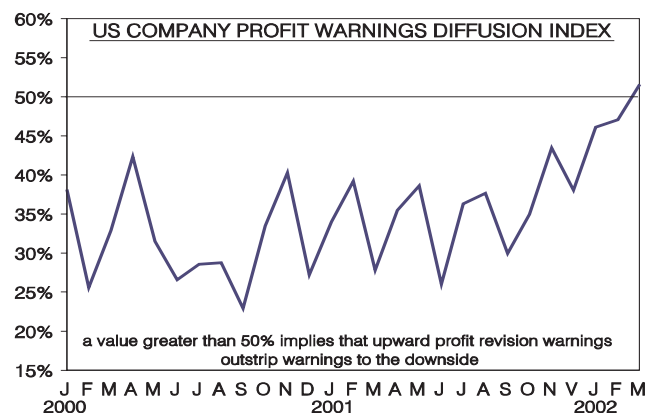
European LBOs: Creative Financing

- Europe saw eight LBOs launched in February, worth Eur2.3 billion in new loans and Eur3.6 billion in total funding, with an average loan size of Eur299 million and average deal size of Eur450 million. This is a sharp contrast to 2001, where the average LBO loan was Eur551 million, with an average deal size of Eur818 million.
- Sellers are facilitating LBOs in Europe by providing increasingly large slices of seller paper and even vendor financing. Over the past three months, these sources of funds accounted for 8% of total LBO funding in Europe, up from the 2001 average of 4%.



Shifting US Financing Needs

- US corporate sector capital needs are falling sharply. Excess capacity is depressing business investment, while corporate cash flows are stabilizing. This is seen through the rise in our diffusion index of company profit warnings to 52% in the first half of March from a cyclical low of 23% in September 2001.
- Given the lack of the corporate sector capital needs, this year's expected rise in the US current account deficit will be driven instead by the household and public sectors.



* Data through February. Source: Standard & Poor's PMD; Moody's Default Database; Goldman Sachs.

THE GLOBAL ECONOMY

	Outlook	Key Issues
United States	Recent inventory data substantially raises the upside risk to our 2.5% forecast for first-quarter GDP growth. January's 0.2% rise in business inventories suggests that the turn in the inventory cycle, which we expected to take two to three quarters, is happening more quickly. Inventory changes affect the timing and not the pace of growth, so the early rise could lead to downside risk in later quarters. However, higher production and higher incomes could offset this risk.	We are raising our forecast for the nominal current account deficit (which determines the economy's need for capital inflows) to 6.5% of GDP by 2006. First, crude oil prices are rebounding. Second, net foreign debt service is set to rise significantly. These unsustainable balance-of-payments dynamics will, sooner or later, lead to a sharp dollar depreciation. We believe that a sharp and disorderly dollar decline remains a key risk to the world economy.
Japan	We ascribe a 50% probability to a 'muddling through' scenario, in which productivity growth will stagnate and the potential growth rate will decline. In the 'deflationary tailspin' scenario (25%) external changes will cause a deflationary spiral. In the 'phoenix from the ashes' scenario (25%), accelerated structural reform will accelerate long-term growth, despite a rise in near-term deflationary pressure.	For a sustained equity-market rebound to occur, we would need to see a combination of the following: a technical equity rebound; an improvement in the inventory cycle; and policy surprises. After improvement in the inventory cycle has been factored in, some type of policy surprise will need to occur in the areas of NPL disposal, integrated fiscal and monetary reflationary policies or tax reform.
Europe	We are growing more optimistic about the Euroland outlook for 2002 and 2003. In 2002, this mainly reflects an early reversal of the last year's collapse in industrial output. Stronger business confidence, greater buoyancy in the world economy and a turn in the inventory cycle will also contribute to growth. In the second half of the year and in 2003, final domestic demand should begin to gain momentum.	Six EU governments, including France and Germany, face re-election this year. Given the lack of progress in structural reform over the past two years, progress will most likely stall until electoral uncertainties are resolved. But for the first time in many years, there is a good chance of a pro-market government in Germany that could help promote a structural reform agenda throughout the EU.
Non-Japan Asia	US and regional indicators suggest solid growth ahead. A stronger-than-expected March could trigger an upward revision of our 5.5% GDP growth forecast for 2002. In China, January-February industrial production rose by 11%, signaling a reversal of last year's slowdown. Greater flexibility in Korea's labor market has accelerated employment growth, contributing to improved consumer sentiment.	A pick-up in Australian and Japanese exports across a wider range of products suggests that Asian domestic demand is improving and that the export recovery may be broadening. Taiwanese tech exports show solid positive growth and there is no sign yet of a slowing in the pace of recovery. US tech orders, the best leading indicator of Asian electronics exports, also showed further improvement in January.
Latin America	We expect 2002 regional GDP growth to be just 0.5%. We are positive about Brazil, but the second quarter will be volatile due to uncertainty about the October presidential elections. Growth in Chile could recover in the first half and rise to 3.6% in the second half of 2002. In Argentina, without coherent policy, the government could end up financing the crisis through credit expansion and inflation.	The political and financial crisis in Venezuela has intensified, along with increased capital flight and reserve losses, forcing the government to float the currency and cut spending to reduce a widening fiscal gap. The president is under growing pressure; he may change his cabinet and implement deeper adjustment measures, but this may be too little, too late. We forecast -4% GDP growth for 2002.
Transition Economies	We expect growth to remain below potential in Eastern Europe this year at roughly 2.5% on the back of a still relatively weak outlook for Euroland and the negative impact of low oil prices on growth in Russia. Next year should see a substantial pickup in growth to around 4% as the domestic cycle turns in some countries and the global economy continues to recover.	It is highly likely that Poland, Czech Republic, Hungary, Slovenia, Slovakia and the three Baltic countries will enter the EU by 2005. The main risks for these countries include unresolved issues about agricultural and regional support and the common budget. These issues should be resolved by early 2003, paving the way for approval by the applicants' parliaments in the following 12-18 months.

KEY FORECASTS

	GDP (%)	Consumer Prices (%)	3M Rate Forecasts* (%)	Bond Yields** (%)	Exchange Rate Forecasts	Equity Market		
						Index	Current***	12m Target
US	2002: 1.9 2003: 3.0	2002: 1.2 2003: 2.0	3m: 2.0 12m: 2.0	Current: 5.3 12m: 5.0	-- --	S&P 500	1166	1300-1425
Japan	2002: (1.4) 2003: 0.9	2002: (0.9) 2003: (0.7)	3m: 0.1 12m: 0.1	Current: 1.4 12m: 1.6	3m \$/Yen: 138 12m \$/Yen: 128	Topix	1097	1200
Euroland	2002: 1.1 2003: 2.3	2002: 1.8 2003: 1.5	3m: 3.3 12m: 3.5	Current: 5.2 12m: 5.2	3m EUR/\$: 0.91 12m EUR/\$: 1.03	Dax CAC40	5401 4588	5800 5000
UK	2002: 1.6 2003: 2.7	2002: 2.7 2003: 2.6	3m: 4.1 12m: 4.9	Current: 5.2 12m: 5.1	3m GBP/\$: 1.42 12m GBP/\$: 1.45	FTSE 100	5293	5600
Non-Japan Asia	2002: 5.5 2003: 6.3	2002: 1.9 2003: 2.5	3m: 4.9 12m: 5.0	Current: 7.7	3m \$/KRW: 1310 12m \$/KRW: 1205	Hang Seng KOSPI	11210 860	-- 950
Latin America	2002: 0.5 2003: 3.2	2002: 12.6 2003: 15.1	3m: 8.5 12m: 9.1	Current: 10.1 12m: 10.1	3m \$/MXN: 9.25 12m \$/MXN: 9.75	Mexico IPC BOVESPA	7273 14365	9100 17600
Central and Eastern Europe	2002: 2.6 2003: 4.0	2002: 8.3 2003: 8.1	3m: 8.5 12m: 7.5	Current: 9.3 12m: 7.5	3m EUR/PLN: 3.62 12m EUR/PLN: 3.63	-- --	-- --	-- --

* 3-Month Rates: Euroland: average of Germany and France; Non-Japan Asia: Korea; Latin America: Mexico; Emerging Central Europe: Poland.
 ** Bond Yields: US: 10-year Treasury note; Japan: 10-year JGB; Euroland: market-weighted average of Germany, France and Italy; UK: 10-year Gilt;
 Non-Japan Asia: Korea 8 7/8 2008 sovereign; Latin America: Mexican 5-year sovereign; Emerging Central Europe: Polish 5-year sovereign.
 *** Equity-market close as of 15 March 2002.

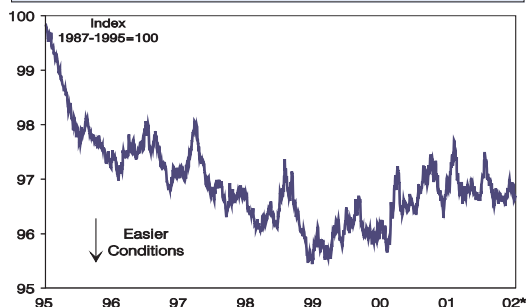
Looking Ahead to 2003

Continued from page 1

Private consumption, which stagnated in the fourth quarter, is still sluggish. And while consumer confidence is rising (and is in fact above its average level during the 1990s), we still see downside risks to consumer confidence and spending, given the weakness in the labor market.

Euroland's recovery should gain momentum throughout the year, however, helped by improving confidence and easier monetary conditions. Annual inflation, which we now estimate at 1.8% for 2002, has been pushed higher by tax hikes, food prices, base effects and some rounding-up of prices associated with the euro changeover. Yet the European Central Bank (ECB) does not appear to see significant risks to price stability. We expect the ECB will leave rates unchanged

We Expect More Accommodative US Financial Conditions



* Data through 14 March. Source: Goldman Sachs.

for an extended period. If growth were to accelerate more dramatically than we currently expect, an earlier tightening of monetary policy could be implemented by yearend.

Japan's Gloomy 2002

Japan's economic prospects remain bleak, with 2002 GDP growth likely to fall 1.4%. Although an earlier-than-expected recovery in the US and Euroland, along with recent yen weakness, would help to stimulate Japan's external sector, there is still considerable risk that domestic demand will fall short of expectations. Rising unemployment and falling real wages are hurting consumer confidence and spending; we expect private consumption to be flat this year, after a 0.3% rise last year. On the investment side, there are tentative signs that the decline in IT spending has begun to slow, and the inventory cycle is improving in both production goods and final goods. Nonetheless, capex is falling sharply; private capex looks set to decline by nearly 11%.

Looking Ahead to 2003

Our initial forecasts for 2003, while still tentative, are striking for one reason: they envision little more than a return to 'trend' GDP growth, which is well below what is usually seen in a recovery. We are particularly cautious on our US and Japanese forecasts,

given the significant imbalances that remain unresolved in both countries.

Our 3.0% US GDP growth forecast anticipates more accommodative financial conditions in the US—something we have seen little of so far, despite the sustained Fed easing last year. We expect easier financial conditions to come through a decline in long-term yields (with 10-year Treasury notes falling to about 4.5% and corporate spreads narrowing somewhat), along with a 10% fall in the trade-weighted dollar; our equity strategists also project a further 15% increase in returns by yearend.

Euroland's GDP growth in 2003 will be supported by robust consumption growth, firmer investment growth and a positive contribution from net trade. But restrictive monetary and fiscal policies are likely to restrain growth, possibly pushing it below the pace we expect for the second half of 2002. Our 2003 forecast is 2.3%, in line with the trend growth rate.

Our forecast for Japan comes with the caution that there are as yet few, if any, signs of a domestic-led recovery. But we do expect to see positive growth next year, as private consumption stabilizes and investment picks up due to the recovery in global IT demand. Continuing deflationary pressure from structural reform will rein in the recovery, however, and we forecast only 0.9% GDP growth for 2003. ■

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Tech Outlook: The Worst Is Behind Us

A year ago, we turned negative on the bulk of the technology sector. Now, the worst appears to be over. However, we still expect only a gradual recovery. IT spending remains constrained by weak corporate profits, and managements remain wary about the prospects for a sustained recovery

The latest data continue to signal that the severe cutback in IT spending has reduced excess capital stock sufficiently to set the stage for a resumption in new orders. We expect a gradual, but uninterrupted, pick-up in global IT investment to continue throughout 2002.

Top-Down Numbers Are Positive

US orders for electronic components, which first showed signs of improvement in August 2001, continue to improve, with the year-on-year contraction abating further from -34% in December to -26% in January. Our rolling quarter-on-quarter series, which provides a more timely indication of sequential momentum, has also headed further into positive territory. This improvement reflects volume increases in both semiconductors and other electronic components.

News out of Asia also underscores a tech pickup; Asian tech exports gave us the first signs of a cyclical bottom as early as September of last year, and tech exports have gained further strength since. As of January, the year-on-year contraction of Asian exports (led by ICT exports) had shrunk by 43% from its trough in September 2001. The correlation between US IT investment and Asian exports has been remarkably tight in the recent cycle. Asia has emerged as an even more flexible IT supplier at the margin, so that shifts in final demand in the US feed much more directly into production and shipments in Asia.

Market participants have been concerned that the rebound in orders, along with the improvement in Asian tech exports, might prove short-lived if final demand does not recover globally. Yet, since the fourth quarter of 2001, we have seen that final demand in the OECD, not inventory restocking, has been driving the pickup in ICT exports. This continues to be the case. Despite the rise in new orders, January saw further falls in inventories of both semiconductors and broader electronic components.

Most indicators point to a far less volatile tech sector in 2002. Leading indicators in pipeline-building point to ongoing firmness. Software demand strength—a good leading indicator for tech services—has carried over from the fourth quarter of last year into the first quarter of 2002. Global inventories are low and the pickup in orders to component makers also looks sustainable.

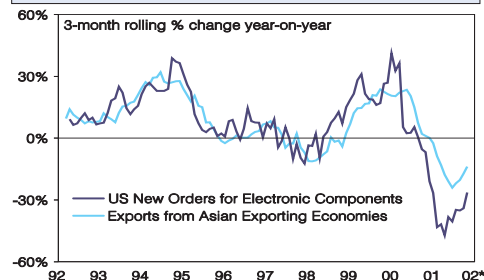
Bottoms-Up Picture is More Mixed

Amid the positive newsflow, we remain cautious about first-quarter corporate data, which is subject to seasonality and spillover from the end of last year. Technology companies report that the environment is still challenging and that closing business remains difficult, notably in financial services and communications. Our latest anecdotal data indicates that spending remains tentative and the pace of recovery remains slow.

The tech sector still needs to see a combination of corporate profit recovery, sequential revenue growth, operating leverage and upward earnings estimate revisions before the sector equity-market outlook can turn solidly positive. The March quarter will provide a strong indicator of demand growth, while sequential growth in the September quarter could be the most important datapoint of the year, since so many estimates and expectations depend on a second-half recovery.

Semiconductors Lead the Way. During our technology conference last month, the semiconductor universe expressed the most confidence in having passed the cycle bottom. Managements saw surprising growth in the first quarter, and they expect business to surpass forecasts for the next few quarters. But they cautioned that while current orders are enough to drive sequential increases in the first half of the year, end demand must improve before they become confident that orders will grow sequentially beyond the next two quarters.

US Tech Orders Gain Momentum



* Data through January. Source: CEIC, Goldman Sachs.

We believe that we are in the early stages of a chip recovery, and that semiconductor capital equipment will be one of the few sectors within the broader tech sector to show significantly improving fundamentals in the first half of this year. In 2002, we anticipate 49% supply growth and 68% demand growth for the DRAM sector, which is highly correlated to the semiconductor and semiconductor capital equipment industries. The bottoming of inventory levels in US DRAM manufacturers also supports the idea that final demand, rather than inventory restocking, is driving semiconductor recovery.

Disaster Recovery Remains a Priority.

September 11 has spurred a meaningful reallocation of IT spending. In our IT spending survey conducted in February, almost 40% of IT managers reported that they expect to increase spending on disaster recovery and business continuance-related projects. The latest survey results suggest that these priority shifts are likely to be long-lasting.

With storage software and disaster recovery services key areas of focus following September 11, we are not surprised to see security software and backup and remote mirroring software near the top of the IT priority list. Network security continues to emerge in our surveys as a key focus area for IT managers. Meanwhile, some of last year's priorities, like application software and enterprise services, have slipped toward the middle of priority lists as vigorous IT infrastructure buildout plans have slowed relative to a year ago. ■