



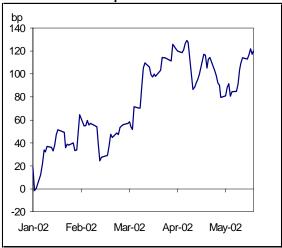
## **Emerging Markets Strategy**

**Bonds, Currencies, and Interest Rates** 

## The "Lulameter"

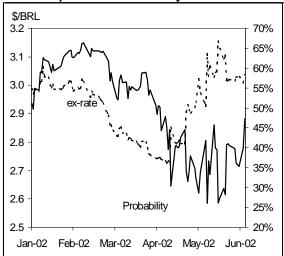
- Our **Overview** (p. 1) revisits activity and monetary trends in the G7. We maintain the view that activity will recover gradually and major central banks will stay on hold. In spite of the weakening of EDM and ELM markets, we maintain a cautious overall attitude. Our EDM portfolio generally avoids exposure to Latin America, and maintains small deviations against the index. On the local currency front, we remain short the major currencies in Latin America, and generally favor interest rate plays.
- In EDM (p. 5), we maintain a cautious attitude in general. However, given concerns about rollover risk and election uncertainty, we have reduced even further the allocation to Brazil, moving it to a 3% underweight. We maintain our allocation to Latin America constant, however, moving to marketweight both Colombia and Peru from their previous underweights.
- In **ELM** (p. 7), given the risks facing Brazil and Argentina, we recommend entering long CLP-puts. We suggest unwinding long KRW/JPY but holding long \$/SGD. In Mexico, we recommend paying 6-month TIIE swaps. In South Africa, we still like receiving on 10-year vs. paying on 5-year swaps.
- Our **Focus** (p. 10) introduces a new tool to follow currency market perception of a Lula victory in Brazil's upcoming presidential elections. The model estimates a market-implied probability of a Lula victory and where the BRL trade would be following the elections. We maintain the view that investors should protect against BRL exposure into the elections period.

#### Model Portfolio Outperformance in 2002



Source: Goldman Sachs estimates.

#### Brazil: Implied 'Lula' Probability and FX-rate



Source: Goldman Sachs.

#### **Trade Recommendations**

- Enter long \$-calls in Chile.
- Unwind long KRW/JPY.
- Stay underweight in Argentina and Brazil vs. overweight in Russia and Turkey.

Alberto Ades, Rumi Masih, Demian Reidel, Daniel Tenengauzer, Pablo Morra, and Malachy Meechan This publication draws on the work and views of the entire Economics Group. Issue No: 02/10 June 06, 2002

## **Contents**



OVERVIEW: - GS-ESS AND OPTIMAL PORTFOLIOS	
G3 IN A NUTSHELL	
OUTLOOK FOR EMERGING ASSETS	1
2 STRATEGY	•
MODEL PORTFOLIO	5
LOCAL MARKETS	7
FOCUS ARTICLE - INTRODUCING THE "LULAMETER"	
THE EROSION OF BRAZILIAN ASSET PRICES	10
DEFINING THE "LULAMETER"	10
RESULTS	11
WHAT TO DO	12
EDM ANALYTICS	
PERFORMANCE MONITOR	13
VALUE MONITOR	14
RISK MONITOR	18
TECHNICAL MONITOR	19
5 ELM ANALYTICS	
PERFORMANCE MONITOR	21
VALUE MONITOR	23
RISK MONITOR	25
TECHNICAL MONITOR	27
6 STATISTICAL APPENDIX	
G-3 IN A NUTSHELL	29
MAIN ECONOMIC FORECASTS	30
EMERGING MARKETS LEADING INDICATORS	31
CURRENCY ALLOCATION	32
EXCHANGE RATE FORECASTS	33
INTEREST RATE FORECASTS	34

Emerging Markets Strategy June 6, 2002



# **Overview** *GS-ESS and Optimal Portfolios*



#### G3 in a Nutshell

Evidence of an economic upturn remains the key focus in major markets. In the United States, the latest ISM survey reported strong growth in demand, with the new orders index rising to 63.1% in May. The wider gap between orders and inventory points to a continued decline of stock-to-sales ratios, which bodes well for future production. As strains in production mount, there will be increased pressure for businesses to utilize new resources—hiring will eventually follow.

Meanwhile, in Euroland, the European Commission surveys of consumer confidence are improving. The diffusion index rose to -8 in May 2002 from -10 in April, retracing all of the weakness that occurred after the September 2001 terrorist attacks. By contrast, Japan's leading index dipped slightly in April, but remained above the 50% nogrowth threshold for the second straight month.

Such activity conditions remain consistent with our view that monetary policy will likely become tighter in the United States and Europe, but not before the fourth quarter of 2002. Better activity trends and relatively easy monetary conditions appear hard to reconcile with the recent behavior of major equity markets, which have extended losses every day of the past 20 days. In turn, this is driving debt and currency movements across the major markets.

The Goldman Sachs G7 strategists believe that there are three potential explanations for this apparent disconnect between macro data and equity market performance. First, equity weakness is indicative of investors that are reluctant to extrapolate recent improvements in profitability to future gains. No doubt, corporate executives are also cautious judging by profit warnings. In May, our diffusion index of US profit warnings stood very close to balanced (50.7%). Second, the equity risk premium is arguably too low, given the global political instability and significant financial imbalances in the US economy. A third explanation is that the rise in short risk being taken by speculative traders is temporarily holding back equity markets.

For emerging asset markets, one important question is whether the recent behavior of major equity markets could be reflective of a deterioration in risk appetite. If so, as in the past, weaker risk appetite could lead to additional widening of EDM spreads among the weaker credits and further currency weakness in Brazil, Mexico, Argentina, Chile, and Colombia.

To assess such a possibility, we have used our usual measure of risk appetite, calculated as the ratio of the annualized three-month expected excess return of holding a basket of 27 emerging-market currencies (calculated under the assumption that those currencies will gradually converge to GSDEEMER) to the average GS-WATCH crisis probability. Such a measure provides an estimate of the required compensation that investors demand for holding a basket of "risky" currencies, holding risk (measured by GS-WATCH) constant. Presumably, the higher such a ratio, the lower the appetite for risk. We find that, after peaking in January at 450bp (low appetite for risk), the compensation per unit of risk declined dramatically to 172bp in April. reflecting more investors risk appetite. However, the compensation per unit of risk, or riskadjusted return, rose to 222bp in May, breaking three consecutive months of increasing riskappetite.

## **Outlook for Emerging Assets**

For some time now, we have maintained the view that following the strong rally of the last few weeks of 2001 and the first quarter of 2002, debt and currency markets have become substantially less attractive as a value story. Such a conclusion was based on comparing the valuation of external bonds against Adjusted GS-ESS and of emerging currencies against GSDEEMER.

According to those models, external debt markets had hovered quite close to fair value (excluding Argentina) since approximately February, **justifying** cautious stance. a Meanwhile. GSDEEMER suggested that, on average, and consistent with the weak state of the global economy and capital flows, major emerging currencies have lost substantial a



portion of the overvaluation they had exhibited in early 2000, becoming on average quite close to fair value. Based on the results of these two models, and on global as well as country-specific concerns, we have maintained a fairly cautious attitude towards both EDM and ELM.

Although spreads have widened in the past two weeks and currencies have weakened in Latin America, we would still maintain a cautious attitude. In EDM, we would hold a portfolio exhibiting small deviations against the benchmark, and generally biased away from Latin America. In emerging local markets, we would still generally favor holding short positions on Latin currencies against long positions on currencies in CEE and South Africa. We also generally like curve flatteners, especially in Mexico, South Africa, and Poland.

We remain pessimistic regarding prospects for asset prices in Argentina. The government is now convinced that an IMF negotiating mission will arrive in Buenos Aires in the next couple of weeks, and that an agreement would be struck before the end of June. We, by contrast, believe that the Fund will: (1) examine in detail what the government claims to have achieved, likely opposing some of the features of the recently announced plan to end the *corralito* (especially considering that foreign oppose it), and requiring additional guarantees from some of the bigger provinces regarding their fiscal tightening plans, given concerns that they just signed on to get disbursements but are not serious about cutting wages or reducing headcount; and (2) require changes to the 2002 budget and monetary program, demand a reform of tax legislation; and possibly include in its conditions some of the structural reforms that have been delayed in recent years (health-care, labor market, and possibly, Coparticipation). For all these reasons, we believe that negotiations will take substantially longer than the government hopes. Such an environment could be conducive to renewed calls for early elections, which we forecast to take place in March 2003 at the latest, but quite possibly before year-end 2002. Such conditions should keep the currency weak and interest rates volatile. We therefore continue to recommend a 2% underweight in external debtdedicated portfolios and shorting 3M interest rates, three or six months forward.

We have reduced to a 3% underweight the allocation to Brazil in our model portfolio, and continue to recommend hedging BRL exposure in offshore markets. Brazilian external debt has underperformed the market by almost 150bp in the We anticipate such past two weeks weeks. underperformance to continue throughout the summer. This hinges on our assessment that while the official candidate, José Serra will eventually win the presidential elections, the political battle through the first round (October 6) will be uphill. addition, we believe that while Lula is not likely to obtain enough votes in the first round to win, he will secure the most number of votes by a significant margin. Such a result is not fully priced in, in our view. Furthermore, the results in recent domestic auctions suggest that local investors may become increasingly reluctant to finance, at favorable rates, some of the rollovers that the government faces in the next four months. For example, after failing in its first attempt Tuesday to sell and repurchase currency swap contracts, BACEN sold only half of the 1.5 million LTNs it was trying to place to the markets, at an average interest rate which was almost 50bp higher than that paid the week before. We believe such behavior of local financial markets is likely to continue in coming months, placing both external as well as local currency instruments under pressure.

In Colombia, we expect the victory by Mr. Alvaro Uribe will lead to a short-lived honeymoon in asset prices, including the peso justifying our move to marketweight for the credit. However, we remain concerned about the prospects for Colombian debt and for the currency beyond the next couple of months due to the government's expansionary fiscal plans. Over the weekend, President-elect Uribe named economist Roberto Junguito as his future Minister of Finance. Mr. Junguito, a PhD in economics from Princeton University and a member of President Andrés Pastrana's Conservative party, was Minister of Finance in 1982-1986 during the administration of President Belisario Betancourt and Director of the Central Bank between 1991-1999. More recently, Mr. Junguito was Colombia's delegate to the IMF. He has also served as ambassador to the European



Union. In an interview with the local press, Mr. Junguito said that he is already organizing a meeting with multilateral organizations, including the World Bank, IADB, and the IMF. He also confirmed that President-elect Uribe would seek additional funds from multilateral organizations to finance higher social and military spending, but said that his administration would continue with the fiscal adjustment started by president Andrés Pastrana while increasing social expenditure. We continue to believe, however, that increased social expenditure and military outlays will lead to a wider fiscal deficit and rising country spreads. In addition, we continue to anticipate that the Central Bank would accommodate the government with some additional monetary easing. Such an environment should be conducive to wider spreads and a weaker peso. We continue to recommend long positions on \$/COP. We forecast 6M \$/COP at 2,450, compared to 2,390 for the forwards.

Ecuador bond prices are likely to remain volatile in coming weeks, reflecting further uncertainty surrounding the approval of a program with the IMF and growing jitters in Brazil. Relatively better prospects on the IMF program front could support bond prices going forward, but such benefits likely will be overridden by ever-widening spreads An IMF mission in now in Quito in Brazil. discussing possible ways to close existing loopholes in the fiscal law recently approved by congress. This is likely to be a difficult task and further setbacks are quite likely. Nonetheless, the odds that Ecuador will secure a program with the IMF have improved in recent days but remain below 50%, in our view. Ecuador is likely to de link from Brazil only if a program with the IMF is agreed upon, otherwise it will continue to trade in tandem with the rest of the market. We maintain for now our 2% Overweight in the recommended portfolio.

We recommend unwinding long KRW/JPY positions and staying square the cross for now. At present, JPY/KRW is trading at around 9.75, inside the 9.8 level that we had set on April 25 as our target for the recommendation to go long the won against the yen. The currency is now trading well inside our 3M forecast against the US\$, at 1,275, but still has room to go against the yen according to our forecasts, which we still show at 9.20 on a 3M view. This forecast has however

become strongly dependent on the behavior of the \$/JPY, while Korean authorities appear increasingly uncomfortable about the strength of the currency. This past week we saw additional verbal intervention, while the Bank of Korea left its overnight call rate unchanged at 4.25%. The decision was underpinned by prevailing uncertainty regarding the pace of US recovery and by the drive to avoid additional KRW appreciation.

have eliminated Underweight our recommendation on Peruvian debt on the back of improved capital inflows. Colombian electricity company ISA won the concession of ETECEN and ETESUR - the electricity transmission companies of the center and south of Peru. ISA paid US\$261 million or US\$11 million above the minimum price. The government has collected almost US\$420 million in privatization/concession proceeds so far this year. This is clearly good news. With this latest concession, the government is approaching its US\$500 million baseline privatization revenue target in 2002. If the privatization of EGASA and EGESUR (two electricity generation companies in the South of Peru) on June 15 is successful, the government will be quite close to its US\$700 million alternative target, which will allow it to run a fiscal deficit of 2.2% of GDP instead of 1.9% of GDP in 2002.

In Poland, we continue to support long positions on three-year interest rates, two years forward. Our recommendation hinges on the view that the central bank will continue to ease monetary policy on the back of a still elusive economic recovery. Easier money, combined with benign inflation trends and expectations of EU entry should support a decline of three-year interest rates, currently trading at 8.45%, towards our two-year forward estimate of GSDERBY, around 5.5%-6.0%. Given the tight spreads at which external debt trades, we continue to use Poland as a funding vehicle for our EDM model portfolio, and hence continue to recommend an -0.75% underweight.

In Turkey, we maintain the overweight recommendation in our model portfolio, but would remain flat on local currency instruments. We remain optimistic about the upcoming IMF disbursement. A critical condition for this is the completion of bank recapitalization. In a press interview this past week, BRSA (Banking

Emerging Markets Strategy 3 June 6, 2002



Regulatory and Supervisory Agency) head Engin Akcakoca said that the letters to the banks—quantifying the need for capital increases on the basis of the audits—will go out within the next five to ten days. Also, the health of PM Bulent Ecevit seems to be improving. According to the local press, he will attend Friday meeting with the President on EU-related issues, and will begin to work normally from his office by no later than next week.

Alberto Ades

Thanks to Federico Kaune and Pablo Morra for their contributions.



The process of moving to a more conservative portfolio has worked after the weakness in Brazil. Despite the recent strong selloff, we feel that the situation will continue to worsen and so we move Brazil to a 3% underweight. In Colombia, the new president could fuel a short-lived rally, so we reduce our underweight. Finally, in Peru, on the back of better-than-expected capital flows we move to marketweight.

#### **Performance Monitor**

Clearly, the most dramatic event in the market during the past few weeks has been the continued weakness in Brazil. Investors remain concerned about politics and about the sustainability of the debt. Our last move to marketweight reflected these concerns. Because we have been steadily reducing risk in our portfolio for the last two months, the sharp correction has not had such a negative impact, despite our long-beta exposure.

#### **Model Portfolio Outperformance**



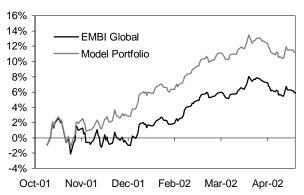
Source: Goldman Sachs estimates.

As of June 5, the model portfolio has outperformed the EMBI Global by 100bp since the beginning of

2002. Total return for the index since then has been 4.75%, and the model portfolio has returned 5.85%.

The chart on the left shows relative performance, measured in basis points of outperformance by our portfolio with respect to the index.

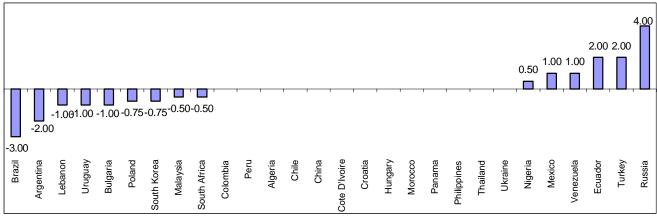
#### **EMBI Global performance**



Source: Goldman Sachs estimates.

Uruguay is the single largest negative contributor to the performance of our portfolio. Due to the rally enjoyed by this credit in the past two weeks, our underweight there did not work well. We believe that the ongoing weakness in the region will likely continue to put pressure on the credit.

#### EDM Model Portfolio - Over/underweight with respect to EMBI Global (%)



Source: Goldman Sachs.



#### **Individual Country Contributions in 2002**

	contribution (bp)	old weight
Russia	56	4.00%
Argentina	50	-2.00%
Lebanon	13	-1.00%
Peru	6	-1.00%
Colombia	4	-1.00%
Ecuador	3	2.00%
Mexico	3	1.00%
Poland	3	-0.75%
China	3	0.00%
Nigeria	2	0.50%
Uruguay	1	-1.00%
South Korea	1	-0.75%
Panama	-1	0.00%
Turkey	-1	2.00%
South Africa	-2	-0.50%
Malaysia	-2	-0.50%
Brazil	-4	0.00%
Bulgaria	-10	-1.00%
Venezuela	-24	1.00%

Source: Goldman Sachs estimates.

#### **Country Selection**

After a couple of months of steadily reducing risk and moving toward a more conservative portfolio, we are now shifting our exposure within Latin America. The main change is Brazil. Despite the extreme weakness, we believe that the deterioration will continue and might accelerate in these coming weeks, as the market feels more and more uncomfortable. Not only will politics increasingly

#### **Changes to the Model Portfolio**

	Change (bp)	new weight (%)
Brazil	-300	-3.00%
Colombia	200	0.00%
Peru	100	0.00%

Source: Goldman Sachs estimates.

become more complex, with Lula obtaining a significant amount of voter intentions (although not enough to win in the first round), but also the difficulties in rolling debt over in the local market are likely to continue, generating pressure on rates and spreads. We move to a 3% underweight.

In Peru, the privatization process is developing better than expected. So far this year, the government managed to privatize roughly \$400mm, compared to the \$500mm projected for the year as a whole. Also, the economy is showing signs of recovery, as real growth in April reached 7.5%, mainly driven by domestic demand. Therefore, we move it to markeweight.

Finally, we are eliminating our underweight in Colombia, after Mr. Uribe's victory. Although we maintain a negative bias on spreads due to promised higher social and especially military spending, in the short run there might be a honeymoon period. On the back of this, we are moving Colombia to marketweight.

Demian Reidel



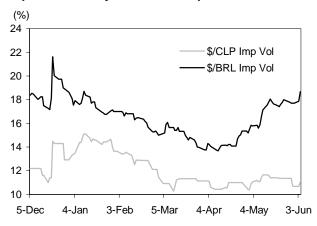
#### Local Markets

In Chile we recommend entering long \$/CLP, through \$-calls. The premium seems to be cheap given the political risk in Brazil and the low likelihood of Central Bank intervention. In Korea, we recommend unwinding long KRW/JPY positions. However, we would recommend holding long \$/SGD. Recent ZAR weakness supports an entry point to long interest rate positions. Finally, in Mexico we would enter curve steepeners at the very short end of the curve. In particular, we would pay 6-month to 9-month TIIE swaps.

## In Chile, we recommend entering long \$-calls

The CLP currently offers an attractive option to hedge Latin currency risk. This is due to low implied volatility in FX options, its sensitivity to the BRL, and a combination of still weak activity and low inflation. Implied volatility in 3-month \$/CLP options stands at 11.1%, against 14.2% in January. By contrast, implied volatility in \$/BRL options reached 18.6%, from 16.9% in the corresponding period. The correlation between the CLP and the BRL however has increased during the past two months. It declined to 0.35 in March from 0.55 in December as the Argentine crisis unfolded and the BRL rallied, but it rose back to 0.55 in May. As the BRL continues to weaken into the elections, and the crisis in Argentina continues to unfold, the CLP should weaken somewhat.

#### Brazil and Chile Implied Volatility in 3m ATM Options



Source: Goldman Sachs estimates.

Such a view on the CLP is also consistent with recent economic developments in Chile. Activity remains weak in spite of the monetary easing. Growth was 1.6% in the first quarter against 3.6% in the first quarter of 2001, and the coming months may see some additional weakness on the back of heavy rains associated to the El Niño current.

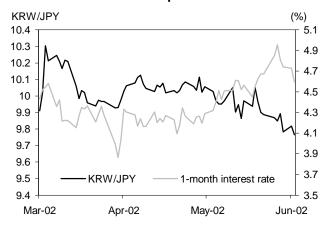
Meanwhile, there are no signs of a spike on inflation in spite of the CLP weakness. Indeed, inflation will likely reach 2.5% in the second quarter, against 2.6% for December 2001. This suggests that the BCCh may cut rates again in the coming months.

We therefore recommend holding long 3-month \$calls. Current spot is at 660 and implied volatility at 11%. The price for this option would be 2.2% and the breakeven for this trade would be 678 by September, just before the elections in Brazil. Thus, it would allow investors to take exposure to an increase in risk related a Lula victory in Brazil.

#### In Korea, take profits in long KRW/JPY

We have been recommending this trade as a top trade for the quarter. It hit the target late last week and the BoK verbally intervened in the FX market. Strong domestic demand has been supporting a bright outlook to the KRW. As a result, the local stock market has outperformed the region, rallying 12% since January, compared to 7% for the Nikkei. However, KRW strength could have a negative impact in exports. Export growth recently started showing signs of recovery.

#### **Korea: Interest rate and Spot**



Source: Goldman Sachs estimates.

Emerging Markets Strategy 7 June 6, 2002



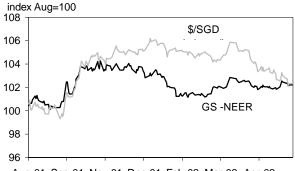
According to the latest Industrial Production data, export shipments have been accelerating, overtaking the growth in domestic shipments for the first time since April 2001. Our colleagues in Hong Kong think this is a positive sign. The sequential momentum in domestic demand may be beginning to stabilize, with external demand increasingly taking the lead in driving growth. Therefore, the BoK could start to intervene more frequently. Earlier this week, the finance ministry issued a statement saying that it was concerned with the KRW steep rise and was "ready to take action."

#### In Singapore, hold long \$/SGD

The trade weighted nominal exchange rate has remained roughly stable so far this year. The chart below shows the performance of the \$/SGD and our trade-weighted estimated nominal effective exchange rate (GS-NEER). While the SGD has appreciated against the USD during the past three months, the NEER weakened about 1% in the corresponding period. This has left room for MAS to stay in the sidelines. Going forward, and given the gradual recovery in exports, we believe the MAS could intervene to keep \$/SGD at around This is because further SGD current levels. strength could hurt the incipient recovery of exports. The average year on year non-oil exports growth between January and February was -13.8% and -17.3% in March. However, it recovered to +6.4% in April with the key engine of growth being non-electronic products.

We recommend holding long positions on \$/SGD. We also suggest short-dated exposure given that the SGD yield curve still too steep.

#### \$/SGD and SGD GS - NEER



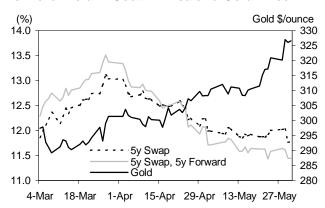
Aug-01 Sep-01 Nov-01 Dec-01 Feb-02 Mar-02 Apr-02

Source: Goldman Sachs estimates.

## Hold long interest rate positions in South Africa

Developments in two commodities have been supporting lower yields and inflation: gold and oil. Gold prices have jumped 17% so far this year, mainly as a result of uncertainty over the conflict in the Middle East and the war on terrorism. The resulting rise in risk aversion led investors to buy stocks in mining companies. As a result, South African stocks have jumped 12% so far in 2002. In particular, the metals and mining sectors have rallied 45% and 37%, respectively. On the oil front, our own econometric work has shown that inflation in South Africa is strongly dependent on oil prices and the exchange rate. Following a 38% rally between January and mid-May, oil prices have declined \$4/barrel (bbl) since then, to \$25/bbl now. Meanwhile the rand appreciated to 9.95, from 12.5 in early January. In sum, the outlook for both commodities, oil and gold will likely support lower vields in the near future.

#### Forward Yield in South Africa and Gold Price



Source: Goldman Sachs estimates.

The five-year yield, five years forward has declined from 11.7% to 11.4% since we started recommending this trade. We would keep receivers on the 10-year sector, against the 5-year, with a target for the forward yield below 11.0%.

## In Mexico, enter curve steepeners through short dated swaps

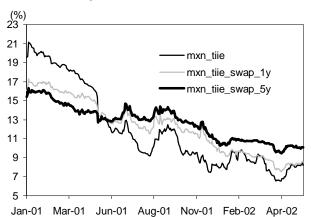
In the Mexican swap curve, we still recommend carry trades using long-dated instruments. However, recent MXN weakness has raised inflation concerns and the fear that Banxico could act to avoid additional currency depreciation. We



#### Local Markets

expect a smooth decline in year-on-year inflation to 4.5% and 4.3% by the end of the third and fourth quarters, respectively. This forecast is based on \$/MXN reaching 9.6 and 9.7, respectively. If currency volatility were to spike much above current levels, Banxico could tighten monetary policy in order to reach the 4.5% inflation target for the end of the year. The short end of the curve offers an attractive option to hedge against such a risk.

#### **Mexican Swap Rates**



Source: Goldman Sachs estimates.

As seen in the chart, there is still a wide carry in long dated interest rate positions. Five-year TIIE swaps trade at 10%, against 8.9% for the two-year sector. However, the short end of the curve is flat. The inter-bank TIIE rate trades at 8.2%, against 8.45% for the 9-month rate. In other words, the short end of the curve is pricing a 50bp rise in the three-month rate, in six months. We believe that if \$/MXN rises substantially from here, Banxico may raise the *corto*, forcing the TIIE above 9%, back to where it stood in mid-March.

Daniel Tenengauzer

#### **Recommended Local Market Trades**

Date	Core Trades	Current		Exp. excess
		6-Jun-02	Target	Return
11-Apr-02	In Brazil, enter long 6-month \$-call, vs. 1-year \$-call	2.64	2.5-2.3	1160bp
12-Apr-02	Buy EUR 5y5y vs. CZK 5y5y	nil	+30bp	90bp
closed	Buy KRW/JPY at 10.3	9.76	9.80	280bp
9-Apr-02	Receive 5-year TIIE swaps in Mexico, vs. 2-year	11.0%	10.00%	360bp
21-Mar-02	In Singapore, receive 2-year swaps, against 1-year	2.23%	2.0%	45bp
Date	Tactical trades	Current		Exp. excess
		6-Jun-02	Target	Return
44 4 00	_			
11-Apr-02	Enter 5y Swaps in Poland, against the 2y	8.18%	7.50%	385bp
11-Apr-02 10-May-02	Enter 5y Swaps in Poland, against the 2y Receive 10y Swap rates, against 5y	8.18% 11.44%	7.50% 11.00%	385bp 225bp
·				
10-May-02	Receive 10y Swap rates, against 5y	11.44%	11.00%	225bp
10-May-02 6-Jun-02	Receive 10y Swap rates, against 5y Buy CLP-puts	11.44% 660	11.00% 680-700	225bp 290bp

<sup>\*</sup> Expected returns in derivative trades are delta-adjusted

<sup>\*\*</sup> In 'closed' positions the exp. Excess return shows the relalized profit/loss



We have developed a model that quantifies the probability of a Lula victory that is currently being priced in by currency markets. Assuming that the currency would stabilize at around 2.52 following a victory by Serra, the model currently prices a 47% chance of a Lula victory. If Lula wins, the model finds that the exchange rate would weaken to 3.04 by October 28, right after the second round of the elections. Assuming instead a stronger exchange rate (2.35) after a Serra victory, the model prices a 69% chance of a Lula victory, and finds that the exchange rate would weaken to 2.95. We believe the market is overoptimistic about the exchange rate in the event of a Lula victory and would keep our recommendations to hedge exposure during the elections. Below we suggest a new strategy to profit from this view.

An increase in political risk going into the presidential elections in Brazil raised BRL volatility. Higher risk suggests that markets are now less certain about the election's outcome. Below, we develop a model that estimates how much risk is being priced in Brazilian FX markets.

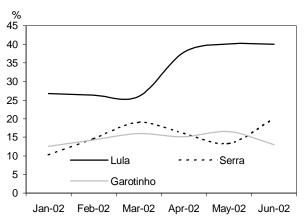
#### The Erosion of Brazilian Asset Prices

The BRL has weakened 11.7%, to 2.59 since January, and the EMBI+ Brazil spread over UST widened 266bp, to 1,072bp, in the corresponding period. Two issues triggered assetprice weakness in Brazil: a drop in inflows, and a rise in the voter intentions for Lula (PT). According to Paulo Leme, as political risk increased, net capital flows declined, and will probably decline further. It is through this drop in capital inflows and the deterioration in expectations that the Real has and will likely continue to weaken. Maturities of local debt will remain high through August. Specifically, maturities scheduled for June, July and August 2002 amount to BRL 17.5 billion, BRL 16.6 billion, and BRL 13.9 billion, respectively, more than half corresponding to \$-linked debt. Maturities are scheduled to drop in September to BRL 10.2 billion, declining further to BRL 7.1 billion in October, then more than doubling in November and December, to about BRL 14.4 billion per month.

The political outlook improved slightly, with inflection points favoring Serra (he regained a solid second, and will likely continue to recover in the polls) and Lula marginally softening in the polls. In addition, Serra decoupled with the second place pack of Garotinho and Ciro, who slipped to third and fourth. Next week, PMDB will ratify the coalition with PSDB, validating the Serra/Camata ticket, which could help Serra to gain more support. The PMDB and the PSDB currently form the coalition along with the PFL party. The main

opposition party is Lula's, the Worker's Party (PT). Below we present a model that shows market's perception regarding the chances of each candidate and the possible outcome for the \$/BRL. Of course, this model only shows one possible trajectory of the Brazilian real during the coming months. Several unknown fundamentals could trigger different paths for the currency. For example, an IMF decision regarding a package to Argentina could have an unforeseen positive impact on the BRL ahead of the October elections. These factors are not explicitly taken into account in the estimation on the Lulameter.

#### **Elections Chart**



Source: CNT/Sensus/Vox Populi

### Defining the "Lulameter"

We have developed a model that quantifies the probability of a Lula victory in the October elections that is currently being priced by currency markets. The model has three unknowns: the probability of a Lula victory, where the exchange rate would go if Lula wins the elections, and where the exchange rate would go if Serra wins. We do not need to calculate the probability of a Serra victory because we assume two scenarios only: either Lula wins or Serra wins. Hence, the

Goldman Sachs

## Local Markets

probability of a Serra victory equals one minus the chance of a Lula victory.

We use market instruments to calculate the unknowns, \$/BRL forwards and at-the-money \$/BRL options (options with a strike at the forward). The forwards reflect the weighted average of the two outcomes. The price of an option is the present value of the expected profit of a long \$/BRL position over the forward.

We used the forward level as a weighted-average of each scenario. In other words, the forward equals the exchange rate if Serra wins, multiplied by the probability of a Serra victory plus the exchange rate if Lula wins, multiplied by the probability of a Lula victory. The formula should look like:

$$F = Es * (1-Pl) + El * Pl$$

Where

*Pl* – probability of a Lula victory

Es – exchange rate after the elections, if Serra wins

El – exchange rate after the elections, if Lula wins

This first equation has the three unknowns that we listed above. We add a second equation to reduce the number of unknowns. Namely, we used the atthe-money option price as the expected value of a long \$/BRL position. Here we assume that if Lula wins, the exchange rate would trade weaker than the forward. The option price is the present value of the difference between the exchange rate following a Lula victory and the forward. In other words, the price of an option is equal to the present value of the difference between the exchange rate if Lula wins and the forwards, multiplied by the probability of a Lula victory. The formula should look like:

$$Call = PV(El - F) * Pl$$

Where

Pl – probability of a Lula victory

El – exchange rate after the elections, if Lula wins

PV - Present Value

F – Forward level

This system therefore consists of two equations and three unknowns. To solve the system, we assume two different scenarios for \$/BRL under a Serra

victory, hence eliminating one of the three unknowns. We are therefore left with two equations (the forward and the \$-call price) and two unknowns (*Pl* and *El*). To solve for the unknowns we use market prices for \$/BRL forward and the price of a \$-call BRL-put option. The option was priced with a Black and Scholes formula and market data on implied volatility for at-the-money options. We have been setting a fixed maturity date for the forward and the option, at October 28.

Below we present the results under two scenarios: BACEN's exchange rate forecast, at 2.52 and a slightly more optimistic outlook, with the exchange rate reaching 2.35, 50% of a standard deviation below BACEN forecast. Both exchange rate assumptions are if Serra wins.

#### Results

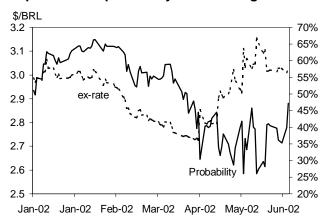
Assuming that the currency would stabilize at around 2.52 following a victory by Serra, the model currently prices a 47% chance of a Lula victory. If Lula wins, the model finds that the exchange rate would weaken to 3.04 by October 28, right after the second round of the elections. Assuming instead a stronger exchange rate (2.35) after a Serra victory, the model prices a 69% chance of a Lula victory, and finds that the exchange rate would weaken to 2.95.

We also solved the model on historical data assuming the exchange rate at BACEN's projection, if Serra wins. This exchange rate projection was included in the latest Inflation Report (March 2002) and assumes a slight real appreciation against the average exchange rate for the past year. The projected exchange rate currently stands at 2.52. We look into the development of the exchange rate and implied probability if Lula wins the elections. We assume that the elections will lead to a second round, where Lula would run against Serra. The model indicates a steady decline in the exchange rate and probability if Lula wins up until early April. Since April the market has been raising the implied probability of a Lula win, from as low as 30%, to 47%. In other words, the market has been adapting expectations for the case of a Lula victory. Meanwhile the expected exchange rate also increased, to 3.04, from 2.73 in early April. As seen in the chart markets have also become much more



volatile on its implied expectations. The probability of a Lula win has been ranging from 25% to 47%.

#### Implied "Lula" probability and exchange rate



Source: Goldman Sachs.

#### What to do

We believe the market is being over-optimistic regarding the exchange rate in the event of a Lula victory and would keep our recommendations to hedge exposure during the elections. The implied exchange rate is 3.04, which seems quite low. This result hints that investors could save on hedging spending with one-year at-the-money \$-calls with a strike at 3.0. Investors could then also buy a risk reversal with strikes at 2.6 and 3.9. The collection of strikes would provide protection between 3.0 and 3.9 (if Lula wins) but also upside if Serra wins, through long \$-put options with a strike at 2.60.

Daniel Tenengauzer



#### **EMBI** Performance

EMBI Global			Return		6	M	Vola	tility
	Index	YTD	3m	6m	High	Low	3m	6m
Total	208.6	4.9%	-1.1%	4.6%	215.1	197.1	2.8%	3.9%
Latin	178.3	0.6%	-5.1%	-0.5%	191.6	174.9	5.2%	5.4%
Non-Latin	264.6	10.1%	3.5%	10.8%	265.3	235.7	2.3%	2.0%
Argentina	53.1	-12.3%	-23.2%	-36.4%	85.0	52.5	29.1%	15.7%
Bulgaria	493.1	5.5%	4.8%	9.1%	493.2	446.4	4.0%	2.2%
Brazil	223.5	-6.3%	-13.5%	-5.0%	261.9	223.5	6.9%	6.9%
Cote D'Ivoire	76.7	41.4%	7.6%	38.1%	82.3	52.4	11.4%	16.4%
Chile	135.2	4.6%	1.4%	3.9%	136.0	127.5	1.0%	1.0%
China	210.2	3.7%	2.2%	2.9%	210.3	200.6	1.2%	2.2%
Colombia	152.4	2.5%	4.9%	2.9%	152.8	143.5	2.3%	2.7%
Croatia	166.9	2.9%	1.4%	4.1%	167.0	159.8	0.8%	0.7%
Ecuador	256.8	6.4%	-2.8%	8.6%	297.7	226.7	7.1%	7.8%
Hungary	126.4	3.5%	2.6%	3.9%	126.4	121.5	0.5%	1.1%
Korea	191.7	4.3%	2.1%	3.3%	191.7	182.5	0.7%	1.2%
Lebanon	119.9	-7.6%	-3.6%	-5.3%	130.4	117.9	4.4%	3.0%
Malaysia	159.0	5.9%	2.8%	4.7%	159.1	147.6	0.9%	1.3%
Morocco	232.6	5.0%	1.1%	7.8%	233.5	214.6	2.5%	3.3%
Mexico	230.5	5.3%	0.8%	5.5%	231.9	215.4	1.6%	1.5%
Nigeria	398.9	9.5%	1.6%	6.1%	406.7	363.3	2.9%	3.4%
Philippines	222.1	10.6%	3.4%	14.4%	224.6	189.9	3.2%	3.0%
Pakistan	136.1	11.4%	-1.0%	-	140.1	126.1	-	-
Poland	255.0	4.1%	1.6%	3.9%	255.0	243.2	0.5%	0.7%
Panama	367.8	4.2%	-1.1%	4.0%	374.3	350.0	2.8%	2.3%
Peru	321.0	4.4%	-2.6%	5.9%	333.0	299.6	5.5%	4.2%
Russia	305.4	19.3%	5.7%	19.8%	307.6	247.3	4.2%	3.8%
South Africa	242.5	10.0%	4.8%	6.4%	242.8	219.9	1.8%	1.9%
Thailand	161.7	5.6%	4.0%	3.3%	161.7	151.6	1.7%	3.0%
Turkey	193.2	9.8%	2.9%	10.3%	196.1	170.0	4.6%	5.6%
Ukraine	231.1	15.9%	5.9%	16.2%	231.1	192.1	3.7%	4.5%
Uruguay	71.6	-31.6%	-23.5%	-	104.9	65.7	-	-
Venezuela	262.6	11.2%	2.6%	5.9%	287.6	224.3	7.5%	6.6%

Volatility is the standard deviation of 3m and 6m overlapping returns during the last 6 months.

#### **Selected Bond Performance**

		5-Jun-02	Cha	inge	6	m	Std de	viation
		Spread	3m	6m	High	Low	3m	6m
Argentina	Dec-2005	7626	1259	3736	8959	3269	915	1011
	Mar-2010	5779	830	2260	5779	3023	1090	492
	Sep-2027	4718	1201	2408	5258	2020	697	527
Brazil	Apr-2004	1318	735	599	1318	477	246	239
	Oct-2009	1184	404	293	1184	649	174	193
	May-2027	1040	247	157	1040	683	146	175
Mexico	Feb-2006	203	20	-32	265	141	58	56
	Feb-2010	261	14	-53	336	209	53	74
	May-2026	286	4	-56	363	247	49	69
Russia	Jul-2005	337	-19	-191	581	270	89	103
	Mar-2010	391	-91	-336	807	347	107	143
	Mar-2030	459	-112	-381	905	434	115	149
Turkey	Nov-2004	442	-76	-180	661	353	89	170
	Jun-2010	628	-45	-143	809	558	95	159
	Jan-2030	639	-14	-129	797	566	96	146

Std deviation is the standard deviation of 3m and 6m overlapping spread changes during the last 6 months.



#### **GS-ESS – Equilibrium Sovereign Spreads**

				GS-ESS		Ad	justed GS-E	SS	
	Name	Spread							DV01
		05-Jun-02	Current	Sep-02	End-02	-1 s.d.	Central	+1 s.d.	
Argentina	Republic 10	5779	825	819	820	2781	2823	2864	0.4
Brazil	Republic 09	1184	534	529	525	704	755	805	3.9
Bulgaria	IAB 11	312	524	514	504	310	347	385	3.7
China	Republic 08	77	130	130	128	87	112	137	5.8
Colombia	Republic 09	386	465	475	469	335	372	410	2.6
Ecuador	12s	1257	986	1026	1049	1165	1230	1296	3.7
Indonesia	Republic 06	367	768	747	723	446	502	559	3.5
Korea	Republic 08	93	233	223	214	86	112	138	5.5
Malaysia	09	143	259	253	244	152	182	212	6.1
Mexico	UMS10	261	369	378	382	174	213	252	6.3
Peru	PDI 17	506	476	467	454	434	466	497	4.1
Philippines	Republic 10	323	718	703	693	365	409	452	6.1
Poland	PDI 14	180	372	359	341	114	165	216	5.8
South Africa	Republic 09	206	364	361	360	213	255	297	5.9
Turkey	10	628	843	786	728	652	724	796	5.3
Venezuela	Republic 07	979	331	349	348	650	720	790	3.1

GS-ESS represents our preferred model of long-run equilibrium sovereign spreads in emerging market economies based on a theoretically backed model that includes solvency and liquidity variables. The model is estimated using panel econometric techniques. The equilibrium spread reflects a country's capacity to pay. Adjusted GS-ESS represents our preferred model of country-specific short-run equilibrium sovereign spread valuation. The model is estimated individually for each country using econometric techniques and includes global, market and country-specific risk variables to track spread equilibrium over the next 3 months. A misalignment within a single standard deviation interval is considered as 'fair' value. DV01 refers to the approximate change in the security's value for a uniform 100 bp change in the U.S. Treasury zero rates. For securities with floating rate coupons, a uniform 100 bp change in the LIBOR is used to reset coupons. The stripped static spread is held constant in the calculation. For further details, see: Emerging Markets Strategy, July-26, 2001: "Introducing GS-ESS, Second Edition".

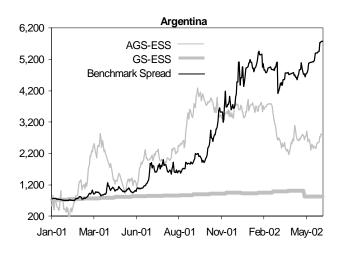
#### **Adjusted GS-ESS Trends**

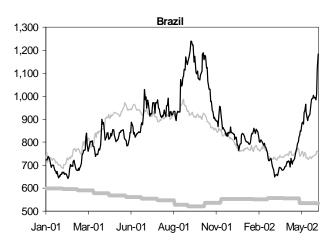
	Current End of				Contribution to AGS-ESS		
	Current 5-Jun-02	Apr-02	Feb-02	Nov-01	Apr-02	change, bp Feb-02	Nov-01
EMBI+ (bp)	680	613	644	821	67	36	-141
AGS-ESS (EMBI+ equivalent) (bp)	548	499	679	801	49	-131	-253
GS-ESS (EMBI+ equivalent) (bp)	378	436	435	498	-9	-32	-44
10y Treasury Swap Spread (bp)	51	54	67	71	-5	-98	-195
GS Leading Indicator (yoy % change)	0.8	0.8	0.1	-2.1	0	-83	-520
Commodity Prices - GSCI (level)	3120	3275	2855	2861	15	-97	-150
High Yield Spread - "B" (bp)	619	659	580	606	4	-16	-8
S&P (level)	1050	1077	1107	1139	5	43	107
High Yield Spread - "BB" (bp)	413	439	503	486	-3	-37	-48
Political Risk					0	1	-41
Weighted GS-WATCH	30.0	25.4	24.4	17.9	41	189	648

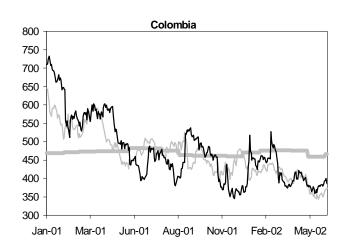
Estimates in column 2 represent current levels of the EMBI+, a measure of the level of market-wide Adjusted GS-ESS constructed as an EMBI-weighted average of country specific Adjusted GS-ESS levels normalized to EMBI+ for compatibility purposes, and the respective levels of each of the global variables that enter into the model. Columns 3 to 5 present the levels of each of these indexes and variables over the past 1, 3 and 6 months. The final three columns report the change in bp of each of the indexes, as well as the bp change in the contribution to Aggregate Adjusted GS-ESS from each of its components over the past 1, 3 and 6 months. For further details, see: Emerging Markets Strategy, July-26, 2001: "Introducing GS-ESS, Second Edition".

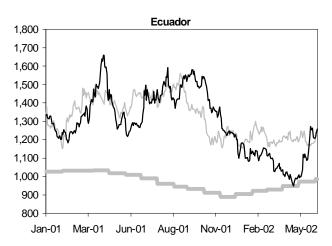


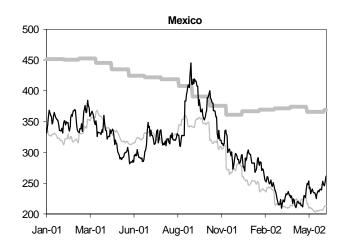
## **Adjusted GS Equilibrium Sovereign Spreads**

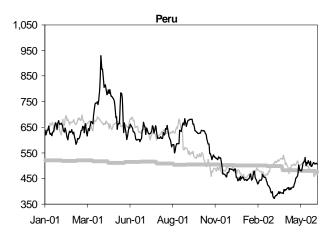








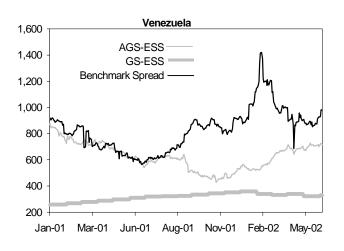


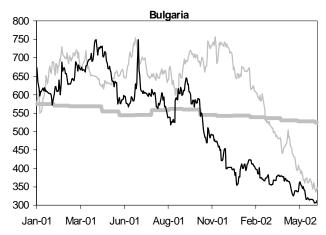


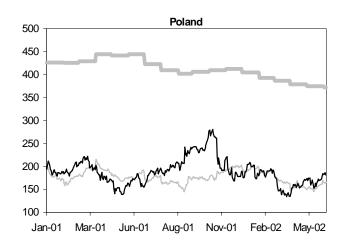
<sup>\*</sup>For a detailed list of benchmark bonds, please refer to the previous page, table GS-ESS - Equilibrium Sovereign Spreads



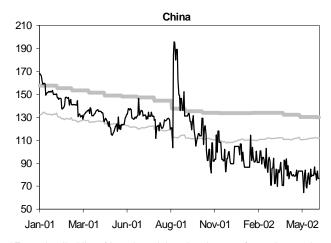
## Adjusted GS Equilibrium Sovereign Spreads (contd.)

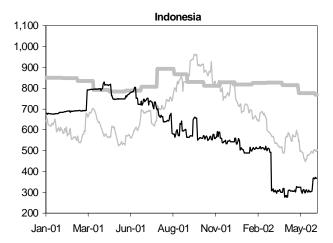








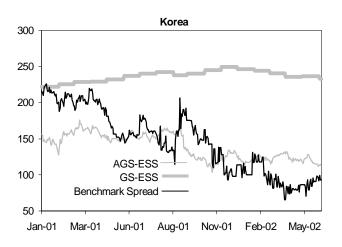


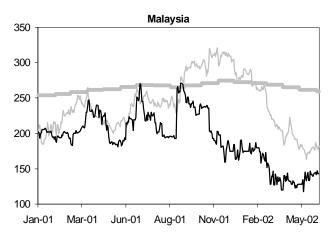


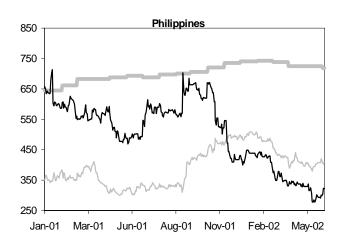
<sup>\*</sup>For a detailed list of benchmark bonds, please refer to the previous page, table GS-ESS – Equilibrium Sovereign Spreads

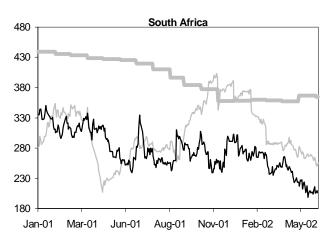


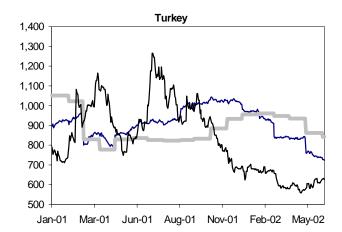
## Adjusted GS Equilibrium Sovereign Spreads (contd.)

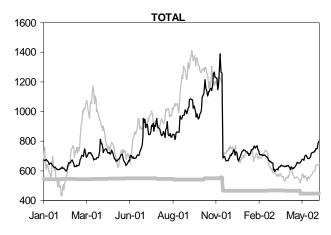












 $<sup>{}^*</sup> For \ a \ detailed \ list \ of \ benchmark \ bonds, \ please \ refer \ to \ the \ previous \ page, \ table \ GS-ESS-Equilibrium \ Sovereign \ Spreads$ 



## Risk Monitor

## **Emerging Markets Sovereign Credit Quality**

Asia		S&P			Moody's	
	Rating	Outlook	Since	Rating	Outlook	Since
China	BBB	Stable	Jul-99	A3	Stable	Aug-00
Hong Kong	A+	Stable	Feb-01	A3	Positive	Feb-01
India	BB	Negative	Aug-01	Ba2	Stable	Aug-01
Indonesia	SD	-	Apr-02	B3	Positive	Apr-02
Malaysia	BBB	Positive	Mar-02	Baa2	Positive	Apr-02
Philippines	BB+	Stable	Apr-02	Ba1	Stable	Jan-02
Singapore	AAA	Stable	Mar-95	Aa1	Stable	Jan-98
South Korea	BBB+	Stable	Nov-01	A3	Stable	Mar-02
Taiwan	AA	Negative	Aug-01	Aa3	Stable	Dec-97
Thailand	BBB-	Stable	May-99	Baa3	Stable	Jun-00
Latin America	222	S&P	iviay 66	Baao	Moody's	041100
	Rating	Outlook	Since	Rating	Outlook	Since
Argentina	SD	-	Nov-01	Ca	Stable	Jan-02
Brazil	BB-	Negative	Aug-01	B1	Stable	Jun-02
Chile	A-	Positive	Apr-02	Baa1	Stable	Jun-95
Colombia	BB	Negative	May-00	Ba2	Negative	Apr-02
Ecuador	CCC+	Stable	Dec-01	Caa2	Stable	Oct-99
Mexico	BBB-	Stable	Feb-02	Baa2	Stable	Feb-02
Panama	BB	Stable	Nov-01	Ba1	Stable	Jan-97
Peru	BB-	Positive	Jan-02	Ba3	Stable	Jan-02
Uruguay	BB-	Negative	May-02	Ba2	On Review -	May-02
Venezuela	В	Negative	Mar-02	B2	Negative	Feb-02
EMEA		S&P	IVIAI OZ	DE.	Moody's	1 00 02
	Rating		Since	Rating	Outlook	Since
	natiliy	Outlook	SHILE			
Bulgaria	BB-	Outlook Stable	Nov-01	B1	Stable	Dec-01
Bulgaria Croatia						Dec-01 Jan-02
Croatia	BB-	Stable Stable	Nov-01	B1 Baa3	Stable Stable	Jan-02
Croatia Czech Republic	BB- BBB-	Stable	Nov-01 Feb-01 Nov-98	B1	Stable	
Croatia	BB- BBB- A-	Stable Stable Stable	Nov-01 Feb-01	B1 Baa3 Baa1	Stable Stable Stable	Jan-02 Sep-95 Mar-99
Croatia Czech Republic Egypt Estonia	BB- BBB- A- BB+	Stable Stable Stable Stable	Nov-01 Feb-01 Nov-98 May-02	B1 Baa3 Baa1 Ba1	Stable Stable Stable Stable	Jan-02 Sep-95
Croatia Czech Republic Egypt	BB- BBB- A- BB+ A- A-	Stable Stable Stable Stable Stable Stable Stable	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00	B1 Baa3 Baa1 Ba1 Baa1 A3	Stable Stable Stable Stable Stable Stable Stable	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00
Croatia Czech Republic Egypt Estonia Hungary	BB- BBB- A- BB+ A- A- A-	Stable Stable Stable Stable Stable	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02	B1 Baa3 Baa1 Ba1 Baa1 A3 A2	Stable Stable Stable Stable Stable	Jan-02 Sep-95 Mar-99 Sep-97
Croatia Czech Republic Egypt Estonia Hungary Israel	BB- BBB- A- BB+ A- A-	Stable Stable Stable Stable Stable Stable Stable Negative	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01	B1 Baa3 Baa1 Ba1 Baa1 A3	Stable Stable Stable Stable Stable Stable Stable Stable	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan	BB- BBB- A- BB+ A- A- A- BB	Stable Stable Stable Stable Stable Stable Stable Negative Stable Positive	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01	B1 Baa3 Baa1 Ba1 Baa1 A3 A2 Ba2	Stable Stable Stable Stable Stable Stable Stable Stable Stable	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia	BB- BBB- A- BB+ A- A- A- BB	Stable Stable Stable Stable Stable Stable Negative Stable	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01	B1 Baa3 Baa1 Ba1 Baa1 A3 A2 Ba2 Baa2	Stable Stable Stable Stable Stable Stable Stable Positive	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon	BB- BBB- A- BB+ A- A- A- BB BBB	Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02	B1 Baa3 Baa1 Ba1 Baa1 A3 A2 Ba2 Ba2 Ba2	Stable Stable Stable Stable Stable Stable Stable Stable Negative Positive	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon Lithuania	BB- BBB- A- BB+ A- A- A- BB BBB- B- BBB-	Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative Stable	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02 Jun-97	B1 Baa3 Baa1 Ba1 Baa1 A3 A2 Ba2 Ba2 Ba2 Ba1	Stable Stable Stable Stable Stable Stable Stable Stable Stable Negative	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01 Feb-02
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon Lithuania Morocco	BB- BBB- A- BB+ A- A- A- BB BBB- BBB- BB	Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative Stable Negative	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02 Jun-97 Nov-01	B1 Baa3 Baa1 Baa1 Baa1 A3 A2 Ba2 Ba2 Ba2 Ba1 Ba1	Stable Stable Stable Stable Stable Stable Stable Stable Positive Stable Negative Positive Negative	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01 Feb-02 Dec-01
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon Lithuania Morocco Poland	BB- BBB- A- BB+ A- A- A- BB BBB- BBB- BB	Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative Stable Negative Stable Stable	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02 Jun-97 Nov-01 Sep-01	B1 Baa3 Baa1 Baa1 Baa1 A3 A2 Ba2 Baa2 Baa2 Ba1 Ba1 Ba1	Stable Stable Stable Stable Stable Stable Stable Stable Positive Stable Negative Positive Negative Stable	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01 Feb-02 Dec-01 Sep-99
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon Lithuania Morocco Poland Qatar	BB- BBB- A- BB+ A- A- A- BB BBB- BBB- BB	Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative Stable Negative Stable Negative Stable Negative Stable Positive	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02 Jun-97 Nov-01 Sep-01 Mar-01	B1 Baa3 Baa1 Baa1 Baa1 A3 A2 Baa2 Baa2 Ba2 Ba1 Ba1 Ba1 Baa1 Baa1	Stable Stable Stable Stable Stable Stable Stable Stable Positive Stable Negative Positive Negative Stable Stable	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01 Feb-02 Dec-01 Sep-99 Sep-99
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon Lithuania Morocco Poland Qatar Romania	BB- BBB- A- BB+ A- A- A- BB BBB- BBB- BB	Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative Stable Negative Stable Negative Stable Negative Stable Positive Positive	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02 Jun-97 Nov-01 Sep-01 Mar-01 Apr-02	B1 Baa3 Baa1 Baa1 Baa1 A3 A2 Baa2 Baa2 B2 Ba1 Ba1 Baa1 Baa1 Baa2 B2	Stable Stable Stable Stable Stable Stable Stable Stable Positive Stable Negative Positive Negative Stable Stable Stable Stable	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01 Feb-02 Dec-01 Sep-99 Sep-99 Dec-01
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon Lithuania Morocco Poland Qatar Romania Russia	BB- BBB- A- BB+ A- A- A- BB BBB- BBB- BB	Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative Stable Negative Stable Positive Positive Positive	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02 Jun-97 Nov-01 Sep-01 Mar-01 Apr-02 Feb-02	B1 Baa3 Baa1 Baa1 Baa1 A3 A2 Baa2 Baa2 Ba1 Ba1 Ba1 Baa1 Baa2 B2 B2	Stable Stable Stable Stable Stable Stable Stable Stable Positive Stable Negative Positive Negative Stable Stable Stable Stable Stable Stable Positive	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01 Feb-02 Dec-01 Sep-99 Sep-99 Dec-01 Apr-02
Croatia Czech Republic Egypt Estonia Hungary Israel Kazakhstan Latvia Lebanon Lithuania Morocco Poland Qatar Romania Russia Slovakia	BB- BBB- A- BB+ A- A- A- BB BBB- BBB- BB	Stable Stable Stable Stable Stable Stable Stable Negative Stable Positive Negative Stable Negative Stable Positive Positive Positive Positive	Nov-01 Feb-01 Nov-98 May-02 Nov-01 Dec-00 Apr-02 May-01 Aug-01 Apr-02 Jun-97 Nov-01 Sep-01 Mar-01 Apr-02 Feb-02 Oct-01	B1 Baa3 Baa1 Baa1 Baa1 A3 A2 Ba2 Ba2 Ba2 Ba1 Ba1 Ba1 Baa1 Baa2 B2 B2 B3 B3	Stable Stable Stable Stable Stable Stable Stable Stable Positive Stable Negative Positive Negative Stable Stable Stable Stable Stable Stable Stable Stable	Jan-02 Sep-95 Mar-99 Sep-97 Nov-00 Jul-00 Jun-01 Dec-97 Aug-01 Feb-02 Dec-01 Sep-99 Sep-99 Dec-01 Apr-02 Oct-98

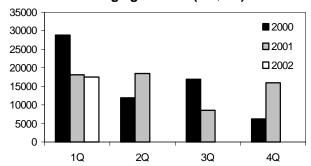
Source: S&P and Moody's.



## **Technical Monitor**

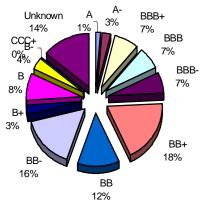
#### **Bond Issuance**

#### Issuance in Emerging Markets (US\$mn)\*



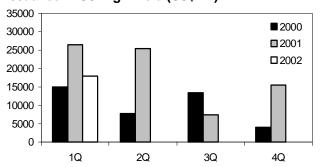
Source: Bondware, Goldman Sachs.

#### Total bond issuance in EM by rating\*



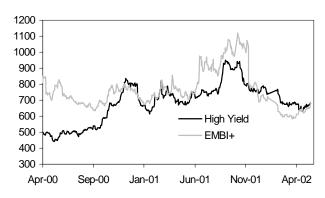
Source: Bondware, Goldman Sachs.

#### Issuance in US High Yield (US\$mn)



Source: Goldman Sachs.

#### High Yield Spreads vs. The EMBI+



Source: Goldman Sachs.

The high yield spread is the Goldman Sachs weighted average spread between USD, CCC, B, and BB yields and the treasury asset swap rate.

Bond Issuance in EM (US\$mn)	1Q00	2Q00	3Q00	4Q00	1Q01	2Q01	3Q01	4Q01	1Q02	Total
										2001
Total	28,810	11,947	17,007	6,233	18,158	18,568	8,585	16,050	17,573	61,360
USD	18,370	4,939	10,594	3,036	8,902	13,114	5,894	11,486	14,357	39,396
JPY	980	2,674	2,799	1,182	1,405	1,671	2,453	884	2,932	6,413
EUR	9,460	4,218	3,505	1,813	7,646	3,782	212	3,512	114	15,151
Other	0	116	111	201	206	0	26	168	171	400
Selected countries										
Brazil	5,148	2,026	3,414	1,006	4,353	4,645	2,058	940	4,092	11,997
Mexico	4,004	477	3,141	500	4,382	1,000	2,100	2,250	1,800	9,732
Korea (South)	3,763	1,281	2,247	948	849	1,538	1,448	3,962	633	7,796
Colombia	750	283	141	351	751	2,187	325	900	0	4,163
Lebanon	0	615	700	617	250	1,660	1,100	290	0	3,300
Poland	1,042	483	0	29	1,539	179	0	1,056	658	2,774
Turkey	3,978	1,928	2,124	461	691	0	0	1,467	1,450	2,159
Malaysia	0	0	500	920	600	1,400	0	150	350	2,150
Venezuela	489	225	0	169	767	392	198	724	750	2,082
China	0	488	0	0	120	1,782	26	110	500	2,037
Philippines	1,831	212	425	0	0	400	52	1,390	2,300	1,842
South Africa	1,236	250	0	0	447	482	600	0	250	1,529

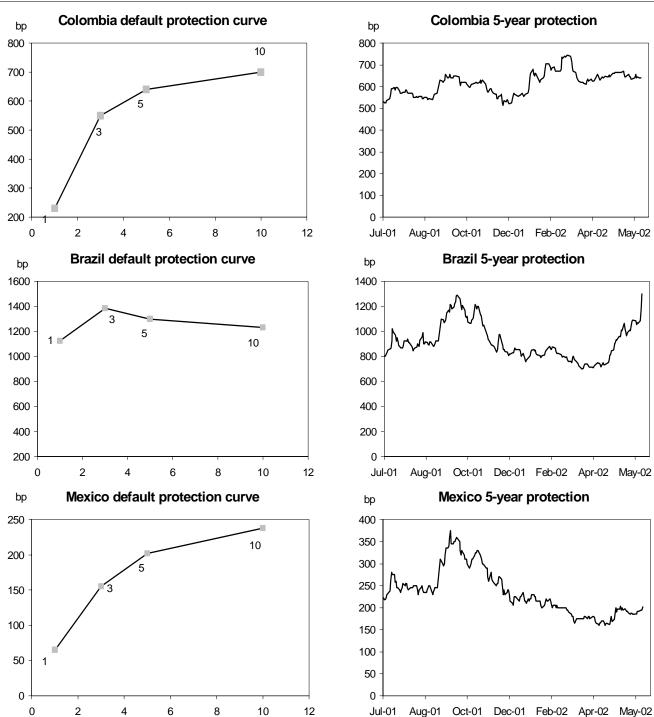
Source: Bondware. Issuance includes sovereign and non-sovereign entities. (i.e. corporates). The countries included are those in the EMBI Global.

<sup>\*</sup>Issuance includes sovereign and non-sovereign entities. (i.e. corporates). The countries included are those in the EMBI Global.



## **Technical Monitor**

## **Credit Default Swap Curves (bp stripped static spread)**







## **Return and Risk on Emerging Market Currencies**

06-Jun-02	Excess R	Return (%)	Volatil	lity (%)	Sharp	e Ratio
06-Jun-02	3 Month	6-Month	3 Month	6-Month	3 Month	6-Month
\$/ARS	-38.1	-34.3	163.1	95.6	-0.9	-0.4
\$/BRL	-5.0	-2.0	12.6	17.1	-1.6	-0.1
\$/CLP	1.2	3.7	8.7	11.8	0.6	0.3
\$/CNY	0.1	0.2	0.1	0.0	10.1	4.5
\$/COP	-0.3	-0.4	6.0	6.4	-0.2	-0.1
\$/CZK	10.9	14.7	10.8	11.1	4.0	1.3
\$/HKD	0.0	0.0	0.0	0.1	1.0	0.5
\$/HUF	10.6	12.0	6.7	9.0	6.4	1.3
\$/IDR	15.3	20.6	13.5	13.1	4.5	1.6
\$/ILS	-5.0	-6.6	7.5	8.8	-2.7	-0.7
\$/INR	1.3	1.4	0.8	1.6	6.0	0.9
\$/KRW	8.6	9.0	4.6	5.2	7.5	1.7
\$/MXN	-5.4	-4.0	5.9	6.3	-3.7	-0.6
\$/PHP	1.4	2.7	5.2	4.2	1.1	0.6
\$/PLN	12.3	13.8	16.4	12.3	3.0	1.1
\$/PEN	-0.2	0.9	2.4	2.4	-0.3	0.4
\$/RUR	0.5	2.2	4.0	3.5	0.4	0.6
\$/SGD	0.9	1.9	3.9	4.1	0.9	0.5
\$/ZAR	20.6	21.7	16.1	23.0	5.1	0.9
\$/THB	2.0	4.0	3.6	3.9	2.2	1.0
\$/TRL	8.2	8.7	16.3	20.2	2.0	0.4
\$/TWD	2.4	2.6	2.6	2.1	3.6	1.2
\$/VEB	35.5	-14.1	0.2	40.4	3.3	-0.3
			Currency Crosse			
ARS/BRL	6.7	19.5	95.8	69.2	0.3	0.3
BRL/MXN	-0.8	-4.1	12.5	14.0	-0.2	-0.3
ARS/CLP	13.8	22.6	95.3	68.2	0.6	0.3
EUR/HUF	-3.2	-5.8	7.3	7.0	-1.7	-0.8
HUF/PLN	1.4	-0.9	16.3	14.1	0.4	-0.1
CZK/PLN	1.0	-3.2	18.2	16.4	0.2	-0.2
EUR/PLN	4.7	5.1	16.6	14.8	1.1	0.3
EUR/CZK	3.5	8.2	8.3	9.0	1.7	0.9
SGD/THB	1.1	2.8	3.6	3.1	1.2	0.9
SGD/KRW	7.6	4.4	5.0	5.4	6.0	0.8
TWD/THB	-0.4	2.8	3.8	3.6	-0.4	0.8
TWD/KRW	6.0	4.5	4.6	5.1	5.3	0.9
KRW/THB	-6.1	-1.7	4.9	5.3	-5.0	-0.3
HKD/CNY	0.1	0.2	0.1	0.1	8.3	3.1
EUR/ZAR	12.5	8.3	20.6	28.1	2.4	0.3

Regional						
Returns	3 Month	12-Month	3 Month	12-Month	3 Month	12-Month
Asia	3.5	1.7	4.1	4.4	0.9	0.4
EMEA	7.6	8.6	5.1	7.1	1.5	1.2
Latin America	-1.5	-6.3	56.0	32.1	0.0	-0.2
Total	3.2	2.9	31.2	18.9	0.1	0.2

Source: Goldman Sachs. Note: The 3-month "Excess return" is the return of shorting the currency in the numerator against the currency in the denominator and accruing each day at the then-current 3-month interest rate implied by the forwards and marked to market at the current spot rate. "Volatility" is the percentage volatility of returns of this strategy. The "Sharpe ratio" is the ratio of the excess return to volatility.



## Performance Monitor

## **Nominal Exchange Rates**

6-Jun-02			F	Percentage Chang	е	
	Spot	1-week	2-week	1-Month	3-Months	YTD
\$/IDR	9045	-0.1%	2.9%	2.9%	14.2%	14.9%
\$/INR	49.0	0.0%	0.0%	0.0%	-1.0%	-4.8%
\$/KRW	1214	2.5%	6.4%	6.4%	7.6%	7.1%
\$/SGD	1.80	-0.3%	0.4%	0.4%	2.1%	0.0%
\$/THB	42.5	0.3%	1.7%	1.7%	3.5%	4.6%
\$/TWD	34.0	0.9%	2.1%	2.1%	2.7%	-4.1%
\$/ARS	3.62	-10.6%	-14.1%	-14.1%	-52.5%	-72.4%
\$/BRL	2.65	-6.5%	-10.4%	-10.4%	-8.3%	-20.1%
\$/CLP	662.7	-1.6%	-1.7%	-1.7%	2.2%	-10.8%
\$/COP	2336.5	1.1%	-2.7%	-2.7%	-3.2%	-1.4%
\$/MXN	9.77	-2.8%	-4.3%	-4.3%	-5.9%	-2.2%
\$/PEN	3.47	-0.2%	-0.9%	-0.9%	0.0%	1.5%
\$/VEB	1150.5	-13.0%	-27.1%	-27.1%	-33.5%	-38.6%
EUR/CZK	30.6	0.4%	-0.7%	-0.7%	4.3%	12.4%
EUR/HUF	241.2	1.7%	0.6%	0.6%	0.9%	10.5%
\$/ILS	4.98	-2.3%	-1.9%	-1.9%	-7.4%	-15.4%
EUR/PLN	3.79	-0.6%	-5.0%	-5.0%	-6.2%	-3.8%
\$/RUB	31.4	-0.5%	-0.7%	-0.7%	-2.3%	-8.4%
\$/ZAR	9.76	3.2%	8.4%	8.4%	17.5%	-18.0%
\$/TRL	1448000	-2.1%	-6.3%	-6.3%	-8.2%	-31.3%

## **Trade-Weighted Real Exchange Rates**

6-Jun-02			F	Percentage Chang	е	
	(Jan98=100)	1-week	2-week	1-month	3-months	12-months
CNY	100.0	-0.1	-0.2	-0.8	-2.7	-1.9
HKD	113.0	-0.1	-0.3	-0.8	-2.6	-5.1
IDR	43.8	-2.1	-0.2	2.0	10.7	29.8
INR	102.7	0.2	0.2	0.0	-3.1	-2.0
KRW	63.9	0.7	2.2	4.2	5.4	8.9
PHP	92.5	-1.4	-2.6	-1.8	-0.9	2.3
SGD	103.7	-0.2	-0.6	-0.5	-0.9	-1.4
THB	75.1	-0.1	0.1	0.5	0.8	5.8
TWD	99.2	0.3	0.6	0.2	-0.4	-4.8
ARS	300.9	-3.8	-8.6	-11.0	-53.8	-224.2
BRL	171.8	-5.2	-6.5	-8.9	-4.4	-6.7
CLP	117.8	-0.9	-1.1	-1.2	2.0	-9.7
COP	111.5	-0.3	1.5	-1.6	-2.3	1.7
ECS	93.8	0.6	0.8	1.3	2.7	9.4
MXN	79.0	-0.5	-2.4	-2.5	-6.2	-1.8
PEN	105.1	0.3	0.1	-0.8	-0.9	-0.5
VEB	102.9	-1.8	-13.5	-27.8	-39.4	-40.7
BGL	79.0	1.3	3.2	3.5	7.1	10.6
CZK	71.5	1.1	3.0	3.3	10.1	16.7
HUF	80.0	2.0	4.4	4.4	8.2	16.7
ILS	119.3	-0.6	-2.5	-3.2	-10.0	-18.2
PLN	80.7	0.6	2.2	-0.5	2.0	1.9
RUB	133.1	-0.3	-0.8	-0.5	-1.4	3.1
TRL	97.9	-1.4	-1.0	-3.6	-4.0	23.8
ZAR	144.0	0.0	3.1	6.1	14.6	-13.8

Note: Goldman Sachs Trade Weighted Real Exchange Rate Indices are calculated using weights derived according to the IMF methodology. This methodlogy takes into account both direct and third market competition. Daily estimates are generated using in-house inflation forecasts for the current month. A positive change implies an appreciation.



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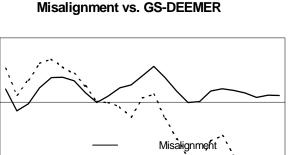
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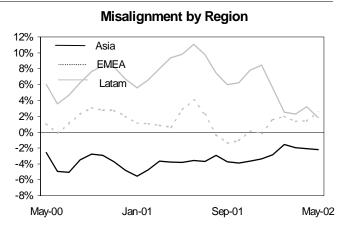
May-00

## Value Monitor

#### **GS-DEEMER**



Jan-01



## **GS-DEEMER – Dynamic Equilibrium Emerging Markets Exchange Rates**

May-02

Major EM Currencies

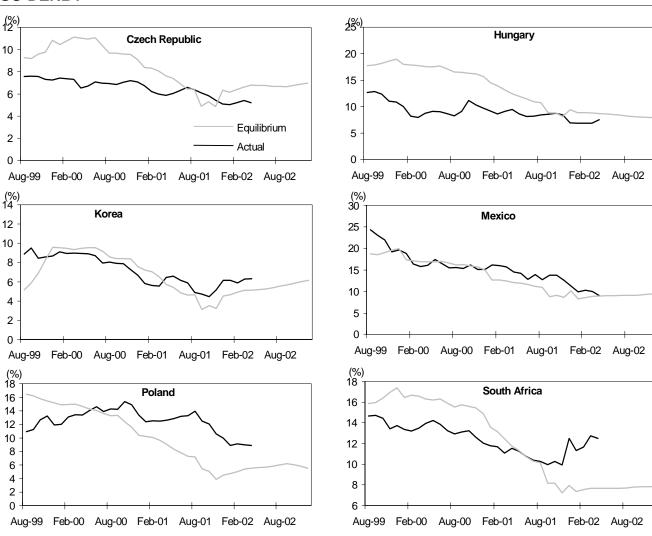
Sep-01

	Spot		GSDEEMER			Misalign	ment vs.	
	·				Trade-			
	6-Jun-02	Current	End 02	End 03	Weighted	USD	EUR	JPY
\$/CNY	8.28	7.72	7.81	8.06	2.4%	-6.7%	18.5%	1.5%
\$/HKD	7.80	6.67	6.55	6.44	-5.2%	-14.4%	12.3%	-6.1%
\$/IDR	9045	6984	6429	6250	-13.6%	-22.8%	1.9%	-14.4%
\$/INR	49.0	49.2	54.8	61.9	9.3%	0.4%	22.3%	8.4%
\$/KRW	1225	1152	1163	1184	2.0%	-5.9%	18.7%	1.2%
\$/MYR	3.80	3.49	3.51	3.53	0.5%	-8.2%	17.8%	-0.4%
\$/PHP	50.9	42.8	43.2	44.5	-7.8%	-16.0%	8.6%	-8.7%
\$/SGD	1.80	1.53	1.52	1.49	-6.3%	-14.7%	11.0%	-7.1%
\$/THB	42.5	32.8	32.7	33.0	-13.7%	-22.7%	2.2%	-14.6%
\$/TWD	34.0	32.2	31.9	31.5	2.6%	-5.4%	19.4%	1.8%
\$/ARS	3.62	1.16	1.93	3.56	-59.3%	-67.9%	-46.6%	-60.3%
\$/BRL	2.66	1.88	1.80	1.81	-21.4%	-29.4%	-7.4%	-22.4%
\$/CLP	662.8	543.4	552.2	555.2	-9.5%	-18.0%	4.8%	-10.5%
\$/COP	2335	1979	2039	2262	-8.1%	-15.2%	6.5%	-9.1%
\$/ECS	25000	30936	30967	31698	31.5%	23.7%	46.1%	30.5%
\$/MXN	9.75	10.85	11.70	12.88	15.8%	11.3%	33.3%	14.8%
\$/PEN	3.47	3.30	3.25	3.26	3.4%	-4.8%	17.8%	2.4%
\$/VEB	1170.5	1084.4	1293.7	1720.4	-0.5%	-7.4%	14.0%	-1.6%
EUR/CZK	30.6	39.5	38.2	37.7	19.8%	9.5%	29.0%	18.7%
EUR/HUF	241.2	339.5	342.9	346.9	32.0%	22.0%	40.7%	30.9%
\$/ILS	4.98	3.47	3.44	3.46	-21.4%	-30.3%	-13.6%	-22.3%
EUR/PLN	3.78	4.45	4.40	4.25	8.4%	-1.4%	17.7%	7.3%
\$/RUB	31.4	29.8	31.3	34.8	4.7%	-5.2%	18.1%	3.7%
\$/ZAR	9.80	6.59	6.71	7.13	-23.6%	-32.7%	-12.7%	-24.6%
\$/TRL	1450000	1357347	1691547	2306621	3.1%	-6.4%	12.7%	2.0%

Note: GSDEEMER is the preferred Goldman Sachs estimate of long-run equilibrium exchanges rates for emerging markets. The model provides econometric estimates of fair value using trade-weighted real exchange rates. The equilibrium trade-weighted real exchange rate is modeled as a function of inflation differentials, productivity differentials, measures of long-term capital inflows, the degree of trade openness, the terms of trade, and other fundamentals. For further details about the model, see September 1999 "GSDEEMER - Third Edition." Bilateral misalignments against USD, EUR and JPY are based on globally consistent misalignment calculations taking into account trade shares of each EMC and trade-weighted misalignments of USD, EUR and JPY respectively.



#### **GS-DERBY**



## GS-DERBY – Dynamic Equilibrium Bond Yields

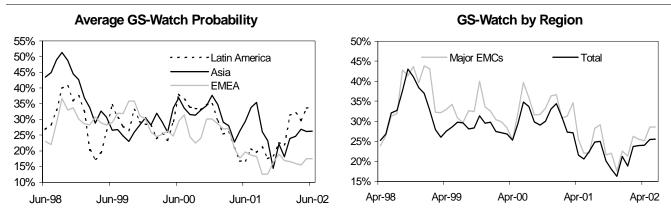
Spread	Current		Equilibrium Yield		
	Yield	-1 s.d.	Central	+1 s.d.	Dec-02
Brazil	28.5	18.8	19.5	20.3	19.7
Chile *	4.2	1.3	1.9	2.6	2.1
Czech	4.8	6.3	6.8	7.2	7.0
Hungary	8.1	8.2	8.7	9.2	7.8
Israel	8.8	6.4	7.0	7.7	6.7
Korea	5.7	4.7	5.1	5.5	6.2
Mexico	9.6	7.5	9.0	10.5	9.5
Philippines	10.4	15.0	15.6	16.1	12.1
Poland	8.0	5.0	5.6	6.1	5.6
South Africa	11.7	7.2	7.7	8.2	7.9

Note: The equilibrium nominal yield shows the yield that is consistent with GSDERBY and our Economic Group's inflation expectations.\* Chile and Mexico do not have equilibrium nominal yields estimated levels since their local fixed income market issues inflation-linked long maturity bonds only. Nominal instruments are issued with relatively short maturity. Current yields are obtained from 5-year bonds in the Czech Republic, Hungary and South Africa (R150), Poland is the 5-year bond. In Chile, we use 8-year PRCs, and in Mexico, 3-year TIIE swaps. In Israel, we use 5yr swaps, Korean Bonds are 3-year and in the Philippines we use the 2y bond. In Brazil we use the 2y Pre Swap rate.



## Risk Monitor

#### **GS-WATCH**



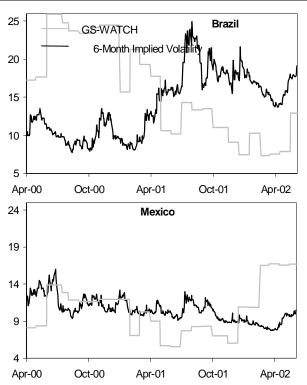
			Ea	rly Wa	arning	Sigr	nals			Probability			
		Domest	ic		Exte	rnal		GI	lobal			<b>Nomentum</b>	
		v						Liquidity	Contagion		(probab	ility change	e in bp)
	Equity Market	Credit Conditions	Political Risk	FX Mis- alignment	Export Growth	GEFR	Reserves			6-Jun-02	1M	3M	6M
Argentina	1	1	0	0	0	1	1	1.1	0.1%	65.9%	-170	-99	4358
Brazil	1	0	0	0	0	1	0	1.1	-0.3%	31.4%	1188	1319	897
Chile	0	0	0	0	1	0	0	1.1	0.1%	23.2%	-5	34	1920
Colombia	0	0	1	0	0	0	0	1.1	0.0%	13.2%	-46	-1134	768
Ecuador	0	0	0	1	0	1	0	1.1	0.1%	23.5%	43	-1471	-1967
Mexico	0	0	0	1	1	0	1	1.1	0.4%	32.1%	38	50	2395
Peru	0	0	0	0	0	0	0	1.1	-0.3%	12.2%	-301	738	-481
Venezuela	1	0	0	0	1	0	0	1.1	-0.4%	68.3%	2388	2450	4342
LATAM Average	ge									33.7%	392	236	1529
China	1	0	0	0	0	0	1	1.1	-0.1%	25.0%	1012	1103	1015
Hong Kong	0	0	0	0	1	0	1	1.1	-0.3%	28.4%	-1562	-1105	1561
India	0	0	0	1	0	0	1	1.1	-0.2%	17.8%	-36	91	-210
Indonesia	0	1	0	0	1	0	1	1.1	-0.6%	27.0%	-61	0	2435
Korea	0	0	0	0	1	0	0	1.1	-0.4%	25.4%	-42	-62	1326
Malaysia	0	0	0	0	1	0	1	1.1	-0.5%	29.4%	-51	285	2418
Philippines	0	0	0	0	1	0	0	1.1	-0.4%	25.4%	47	125	98
Singapore	0	1	0	0	1	0	0	1.1	-0.3%	26.0%	9	348	1617
Taiwan	0	0	0	0	1	0	1	1.1	0.0%	29.9%	276	303	1775
Thailand	0	1	0	0	1	0	1	1.1	-0.5%	27.1%	-319	1084	-407
Asia Average										26.2%	-73	217	1163
Bulgaria	0	0	0	1	0	0	0	1.1	0.2%	5.2%	-867	-814	-771
Czech	0	0	0	1	0	0	0	1.1	-0.1%	4.8%	-18	-6	187
Hungary	0	1	1	1	0	0	0	1.1	0.2%	16.7%	88	164	467
Poland	0	0	0	0	0	1	0	1.1	0.1%	19.6%	1142	114	-1625
Russia	0	1	0	0	0	1	0	1.1	-0.1%	19.8%	-25	730	624
Israel	1	0	0	0	1	0	0	1.1	-1.3%	34.0%	-247	-169	2091
South Africa	0	0	0	0	0	0	1	1.1	-0.3%	14.6%	28	81	-428
Turkey	0	1	0	0	0	0	1	1.1	-0.3%	15.0%	931	318	-107
EMEA Average	)									16.2%	129	52	55
Overall Avera	ge								-	25.2%	66	143	542

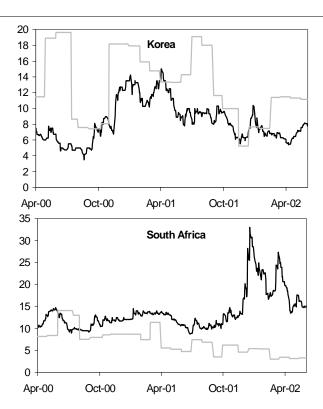
Note: GS-WATCH is the preferred Goldman Sachs model for estimating the risk that a currency may experience a crisis on a 3-month horizon. The model is based on econometric estimations that generate early-warning signals and an overall probability of crisis as a function of 9 explanatory variables. For further details, see December 1998 "GS-WATCH - A new Framework for Predicting Financial Crises in Emerging Markets."



## Risk Monitor

## **GS-WATCH (cont'd)**





## **Trading Ranges**

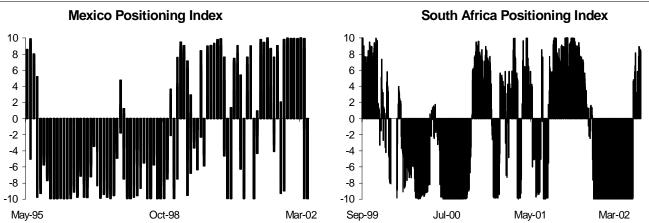
	5-Jun-02	20	2200	)2	30	<b>Q20</b>	02	40	<b>Q20</b>	02	10	<b>Q20</b>	03
	Current	Low		High	Low		High	Low		High	Low		High
\$/MXN				_									
GS	9.74	9.13	-	9.87	8.82	-	10.38	8.49	-	10.91	8.15	-	11.45
Implied Market		9.52	-	10.29	9.24	-	10.88	8.94	-	11.48	8.62	-	12.11
\$/BRL													
GS	2.60	2.18	-	2.92	2.25	-	3.05	1.91	-	3.04	1.59	-	3.01
Implied Market		2.52	-	2.91	2.40	-	3.24	2.26	-	3.59	2.12	-	4.00
\$/ZAR													
GS	9.94	10.09	-	11.31	9.25	-	11.55	8.37	-	11.63	7.53	-	11.67
Implied Market		9.62	-	10.78	9.29	-	11.60	8.93	-	12.41	8.56	-	13.25
\$/PLN													
GS	3.77	3.49	-	3.75	3.33	-	3.87	3.21	-	4.02	3.09	-	4.17
Implied Market		3.70	-	3.97	3.63	-	4.20	3.53	-	4.41	3.41	-	4.62
\$/KRW													
GS	1224	1238	-	1312	1178	-	1322	1122	-	1333	1067	-	1343
Implied Market		1197	-	1269	1170	-	1313	1142	-	1357	1111	-	1399
\$/SGD										•			
GS	1.80	1.76	-	1.88	1.75	-	1.89	1.71	-	1.91	1.66	-	1.94
Implied Market		1.76	-	1.82	1.72	-	1.85	1.68	-	1.88	1.63	-	1.91

The projected trading ranges are not forecasts of definite levels that will be seen during the periods ahead, but a prediction of the outer limits of the likely trading ranges during the quarter. The sizes should be of use to corporate treasurers, as well as equity and fixed income managers, and should be interpreted as recognition that currencies never move in straight lines. Obviously, they should be used to supplement our forecasts at the front of this publication. Implied market ranges are calculated using current prices for FX options. We show the inferred 95% confidence interval for each quarter.

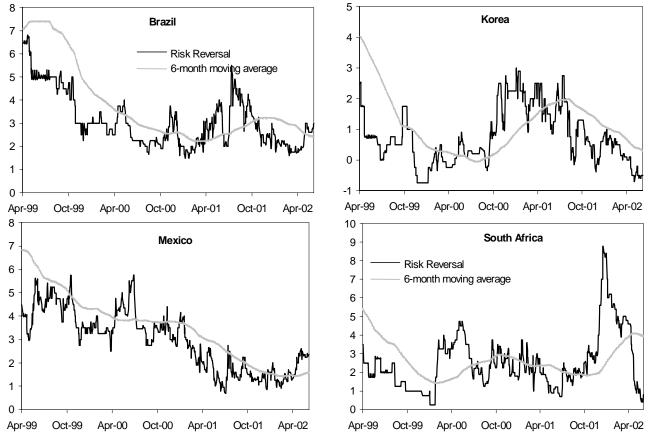


#### **Technical Monitor**

#### **FX Positioning**



IMM Positioning Indices are computed using the Commitment of Traders' report compiled by the Commodity Futures Trading Commission. The Mexican index is based on the difference between long and short positions for IMM non-commercial traders, expressed as a percentage of the open interest. In South Africa, we used the deviation of total open positions from the moving average. Historical values are normalised by the frequency distribution of the data between January 1985 and March 2000 to generate an index ranging between -10 (most short) and +10 (most long).

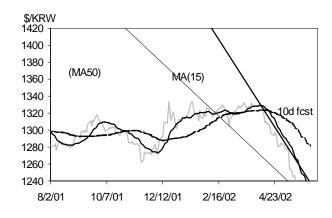


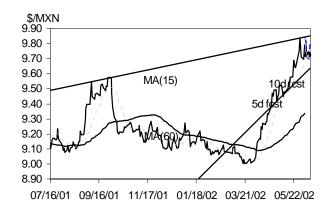
The sentiment indicator using Risk Reversals takes the deviation between the current level of risk reversals versus the "norm" as indicated by the 200 day moving average. Risk reversals reflect the difference in implied volatility terms between a call and a put with the same delta. We have used 1 month 25-delta risk reversals. In other words, the risk reversal is the difference between a 1 month 25-delta call and a 25-delta put expressed in volatility. For example, for US\$/MXN, a high reading indicates that risk reversals favor US\$ calls over US\$ puts relative to the norm, suggesting a bullish US\$ sentiment.

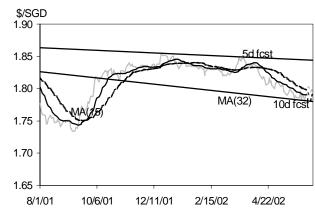


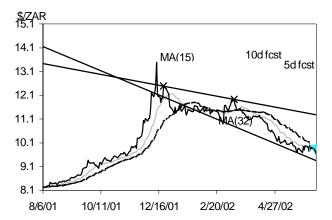
## **Technical Monitor**

## M-TAR (Short-Term Spot Prediction Model)









#### M-TAR Model Predictions and Support/Resistance Levels of EM Currencies

Currency		(	One-Week Ahea	ıd	T	wo-Week Ahea	d
			M-TAR			M-TAR	
	Spot	Support	Prediction	Resistance	Support	Prediction	Resistance
\$/KRW	1232	1240	1232	1220	1230	1221	1210
\$/MXN	9.79	9.80	9.79	9.50	9.80	9.83	9.55
\$/SGD	1.79	1.85	1.80	1.79	1.85	1.79	1.79
\$/ZAR	9.80	11.30	9.99	9.25	11.10	9.62	9.10

Notes: Predictions are based on momentum threshold autoregression (M-TAR) models of spot levels of currencies against the USD as a function of a currency-specific variables representing forward, equity and speculative market conditions. Support and resisistance levels are local or temporary levels derived through technical analysis. For a description of the M-TAR forecasting methodology and examples of tools used in technical analysis, see Chapter 9 of "The Foreign Exchange Market September 2001", pp. 60-64. Source: Goldman Sachs estimates.



#### **Main Economic Forecasts**

	Present Situation	Central Issue Going Forward
United States	Although real GDPsurged at a 5.6% annual rate in Q1, a significant slowdown is in prospect given companies' reluctance to hire. We expect growth to slow sharply, to about 3% in the second quarter and about 2-1/2% in the second half.	The strength and sustainability of economic recovery. The rate at which companies expand employment. The timing and extent of future interest rate hikes.
Euroland	Following a weak start, GDPgrowth is likely to pick up over the course of this year on the back of a recovery in real income, help from past monetary policy easing, and firmer export demand. We expect growth close to potential in 2003. After a bumpy start in 2002, inflation is likely to resume its downward trend and to remain well below 2% next year.	When will the recovery become visible and how strong will it be? We are still missing real signs of any incipient recovery of domestic demand. In the case of private consumption the determinants are in place for a clear resumption of growth by the summer. Failure of consumers to spend additional real income would rob the economy of a much needed boost from domestic demand.
Japan	The production/inventory cycle is finally improving, aided by exports. However, its sustainability still remains in question due to weakness in domestic demand. With various structural reform measures beginning to take shape, further deflation and deceleration in economic activity is always a risk.	The ability of the Koizumi administration to push through structural reforms amidst declining government popularity. The ability of the authorities to convincingly tackle the NPL issue and introduce effective fiscal support. The degree of quantitative easing by the BOJ; the adoption of an inflation target.

#### G-3 in a Nutshell

	2000	2001F	2002F	2003F	02Q1F	02Q2F(	02Q3F	02Q4F	03Q1F	03Q2F	03Q3F	03Q4F
Real GDP Growth (%, yoy)	2000	20011	20021	20001	02411	ULQLI (	<u> </u>	ULQ-II	00411	UUQLI !	00401	00Q-11
United States	4.1	1.2	2.6	3.0	1.5	2.2	3.2	3.4	2.7	2.9	3.1	3.4
Euroland	1.5	1.5	1.1	2.4	0.4	0.7	1.2	2.1	2.3	2.4	2.4	2.4
Japan	-0.5	-0.5	-1.0	0.8	-1.9	-1.3	-1.3	0.2	0.0	0.7	1.2	1.4
CPI Inflation (%, yoy)												
United States	3.4	2.8	1.8	2.0	1.2	1.6	1.9	2.4	2.6	1.9	1.9	1.8
Euroland	2.5	2.5	2.2	1.5	2.6	2.1	2.0	2.1	1.7	1.4	1.4	1.6
Japan	-0.7	-0.7	-1.0	-0.5	-1.4	-1.0	-0.8	-0.7	-0.5	-0.5	-0.4	-0.4
Interest rates (%, e.o.p)												
Fed Funds	6.4	1.8	2.5	4.0	1.7	1.8	2.3	2.5	2.5	3.0	3.5	4.0
UST 10-Year	5.2	5.1	5.0	5.4	5.3	5.2	5.0	5.0	5.1	5.2	5.3	5.4
UST 30-Year	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Euro yield 10-year	5.0	5.0	5.1	5.5	5.3	5.0	4.9	5.1	5.3	5.4	5.5	5.5
Exchange Rates (e.o.p)												
US\$/EUR	0.9	0.9	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
JPY/US\$	131	131	125	125	135	132	129	125	125	125	125	125
Stock Markets												
Dow Jones (index) 1/	10786	10022			1076.9							
S&P 500 Composite (index) 2/	1320	1148			9946.2							

Source: Goldman Sachs Economic Research Group. 1/ Dow Jones (index) forecast for 2002 ranges from

11300-12400. 2/ S&P 500 Composite (index) forecast for 2002 ranges from 1300-1425.



## Emerging Markets Macroeconomic Outlook

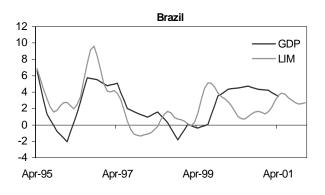
## **Main Economic Forecasts**

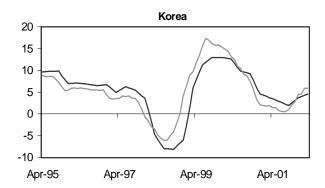
REAL GDP   2000   2001   2002   2003   (period avge)   2000   2001   2002   2005   (f)   (f)	2003 (f) 7.1 7.9 14.4 2.6 4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2
Emerging Markets         6.0         4.0         4.2         5.1         Emerging Markets         7.5         6.9         6.9           Central and E.Europe         3.7         2.9         2.7         3.8         Central and E.Europe         14.4         10.7         8.2           Latin America         4.1         0.5         -0.2         2.9         Latin America         8.7         6.3         10.7           Non Japan Asia         6.9         5.1         6.0         6.3         Non Japan Asia         2.0         2.4         1.9           Czech Republic         2.9         3.5         3.2         4.5         Czech Republic         3.9         4.7         3.6           Hungary         5.2         3.8         3.4         4.3         Hungary         9.8         9.2         4.9           Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7	7.1 7.9 14.4 2.6 4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2
Emerging Markets         6.0         4.0         4.2         5.1         Emerging Markets         7.5         6.9         6.9           Central and E.Europe         3.7         2.9         2.7         3.8         Central and E.Europe         14.4         10.7         8.2           Latin America         4.1         0.5         -0.2         2.9         Latin America         8.7         6.3         10.7           Non Japan Asia         6.9         5.1         6.0         6.3         Non Japan Asia         2.0         2.4         1.9           Czech Republic         2.9         3.5         3.2         4.5         Czech Republic         3.9         4.7         3.6           Hungary         5.2         3.8         3.4         4.3         Hungary         9.8         9.2         4.9           Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7	7.1 7.9 14.4 2.6 4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2
Central and E.Europe         3.7         2.9         2.7         3.8         Central and E.Europe         14.4         10.7         8.2           Latin America         4.1         0.5         -0.2         2.9         Latin America         8.7         6.3         10.7           Non Japan Asia         6.9         5.1         6.0         6.3         Non Japan Asia         2.0         2.4         1.9           Czech Republic         2.9         3.5         3.2         4.5         Czech Republic         3.9         4.7         3.6           Hungary         5.2         3.8         3.4         4.3         Hungary         9.8         9.2         4.9           Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           <	7.9 14.4 2.6 4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2
Latin America         4.1         0.5         -0.2         2.9         Latin America         8.7         6.3         10.7           Non Japan Asia         6.9         5.1         6.0         6.3         Non Japan Asia         2.0         2.4         1.9           Czech Republic         2.9         3.5         3.2         4.5         Czech Republic         3.9         4.7         3.6           Hungary         5.2         3.8         3.4         4.3         Hungary         9.8         9.2         4.9           Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil	14.4 2.6 4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2
Non Japan Asia         6.9         5.1         6.0         6.3         Non Japan Asia         2.0         2.4         1.9           Czech Republic         2.9         3.5         3.2         4.5         Czech Republic         3.9         4.7         3.6           Hungary         5.2         3.8         3.4         4.3         Hungary         9.8         9.2         4.9           Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4 <td>2.6 4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2</td>	2.6 4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2
Czech Republic         2.9         3.5         3.2         4.5         Czech Republic         3.9         4.7         3.6           Hungary         5.2         3.8         3.4         4.3         Hungary         9.8         9.2         4.9           Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8	4.5 4.1 3.2 13.0 6.3 23.4 75.3 5.2
Hungary         5.2         3.8         3.4         4.3         Hungary         9.8         9.2         4.9           Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6	4.1 3.2 13.0 6.3 23.4 75.3 5.2
Poland         4.0         1.1         1.8         3.8         Poland         10.1         5.5         3.5           Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6         4.5         4.0         Ecuador         95.9         37.8         13.1           Mexico         6.9         -0.3	3.2 13.0 6.3 23.4 75.3 5.2
Russia         8.7         5.0         4.0         4.0         Russia         20.8         22.1         17.0           South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6         4.5         4.0         Ecuador         95.9         37.8         13.1           Mexico         6.9         -0.3         1.7         4.0         Mexico         9.5         6.2         4.4	13.0 6.3 23.4 75.3 5.2
South Africa         3.4         2.2         2.1         3.7         South Africa         7.7         6.6         8.7           Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6         4.5         4.0         Ecuador         95.9         37.8         13.1           Mexico         6.9         -0.3         1.7         4.0         Mexico         9.5         6.2         4.4	6.3 23.4 75.3 5.2
Turkey         6.3         -9.4         1.0         3.5         Turkey         54.9         54.4         46.1           Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6         4.5         4.0         Ecuador         95.9         37.8         13.1           Mexico         6.9         -0.3         1.7         4.0         Mexico         9.5         6.2         4.4	23.4 75.3 5.2
Argentina         -0.8         -4.5         -12.9         -3.5         Argentina         -0.7         -0.9         42.8           Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6         4.5         4.0         Ecuador         95.9         37.8         13.1           Mexico         6.9         -0.3         1.7         4.0         Mexico         9.5         6.2         4.4	75.3 5.2
Brazil         4.2         1.5         1.8         4.0         Brazil         7.0         6.8         5.8           Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6         4.5         4.0         Ecuador         95.9         37.8         13.1           Mexico         6.9         -0.3         1.7         4.0         Mexico         9.5         6.2         4.4	5.2
Chile         5.4         2.9         2.9         5.0         Chile         4.0         3.5         2.8           Colombia         2.8         1.6         1.7         3.0         Colombia         9.0         8.2         7.3           Ecuador         2.3         5.6         4.5         4.0         Ecuador         95.9         37.8         13.1           Mexico         6.9         -0.3         1.7         4.0         Mexico         9.5         6.2         4.4	
Colombia       2.8       1.6       1.7       3.0       Colombia       9.0       8.2       7.3         Ecuador       2.3       5.6       4.5       4.0       Ecuador       95.9       37.8       13.1         Mexico       6.9       -0.3       1.7       4.0       Mexico       9.5       6.2       4.4	3.0
Ecuador       2.3       5.6       4.5       4.0       Ecuador       95.9       37.8       13.1         Mexico       6.9       -0.3       1.7       4.0       Mexico       9.5       6.2       4.4	6.0
Mexico 6.9 -0.3 1.7 4.0 Mexico 9.5 6.2 4.4	6.3
	4.0
Venezuela         3.2         2.7         -4.0         1.1         Venezuela         16.3         12.8         23.3	27.6
China 8.0 7.3 7.5 7.2 China 0.3 0.2 0.0	0.5
Hong Kong 10.5 0.1 2.0 5.5 Hong Kong -3.7 -1.6 -2.0	0.0
Philippines 3.9 3.4 3.5 4.8 Philippines 4.3 6.1 3.7	4.1
Singapore 9.9 -2.0 3.5 5.8 Singapore 1.3 1.0 -0.2	1.1
South Korea 8.8 3.0 5.8 7.0 South Korea 2.3 4.1 2.9	3.2
Taiwan 5.9 -1.9 3.6 4.4 Taiwan 1.3 0.0 0.5	1.1
Thailand 4.6 1.8 4.0 4.5 Thailand 1.6 1.7 2.1	2.6
GENERAL GOVERNMENT BALANCE CURRENT ACCOUNT BALAN	
(% of GDP) 2000 2001 2002 2003 (% of GDP) 2000 2001 2002	2003
(f) (f) (f) (f)	(f) 0.2
Emerging Markets         -3.1         -3.9         -3.7         -3.5         Emerging Markets         1.8         0.9         0.3           Central and E.Europe         -3.0         -4.7         -4.7         -4.0         Central and E.Europe         -5.0         -4.6         -4.3	_
	-4.3
Latin America -2.4 -3.2 -2.7 -2.4 Latin America -3.0 -3.5 -2.0	-1.3
Non Japan Asia         -3.3         -4.1         -4.0         -3.8         Non Japan Asia         2.7         2.2         1.6           Czech Republic         -3.2         -3.3         -1.7         -3.4         Czech Republic         -4.5         -4.4         -4.4	1.2 -4.5
	-2.7
Poland -2.2 -5.1 -4.0 -3.6 Poland -6.3 -4.2 -3.5	-3.4
	5.5
Russia 2.8 3.2 1.5 0.6 Russia 17.8 11.3 5.5	_/ I X
South Africa -2.0 -1.4 -2.1 -1.9 South Africa -0.4 -0.2 -0.9	-0.8
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1	-0.5
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2	-0.5 11.5
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1	-0.5 11.5 -4.1
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8	-0.5 11.5 -4.1 -2.1
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1	-0.5 11.5 -4.1 -2.1 -2.1
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0	-0.5 11.5 -4.1 -2.1 -2.1 -8.7
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5	-0.5 11.5 -4.1 -2.1 -2.1 -8.7 -2.5
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5           Venezuela         3.3         -6.5         -2.8         -1.3         Venezuela         10.8         3.6         3.8	-0.5 11.5 -4.1 -2.1 -2.1 -8.7 -2.5 2.9
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5           Venezuela         3.3         -6.5         -2.8         -1.3         Venezuela         10.8         3.6         3.8           China	-0.5 11.5 -4.1 -2.1 -2.1 -8.7 -2.5 2.9 0.4
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5           Venezuela         3.3         -6.5         -2.8         -1.3         Venezuela         10.8         3.6         3.8           China	-0.5 11.5 -4.1 -2.1 -2.1 -8.7 -2.5 2.9 0.4 6.3
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5           Venezuela         3.3         -6.5         -2.8         -1.3         Venezuela         10.8         3.6         3.8           China	-0.5 11.5 -4.1 -2.1 -8.7 -2.5 2.9 0.4 6.3 2.2
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5           Venezuela         3.3         -6.5         -2.8         -1.3         Venezuela         10.8         3.6         3.8           China	-0.5 11.5 -4.1 -2.1 -8.7 -2.5 2.9 0.4 6.3 2.2 18.4
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5           Venezuela         3.3         -6.5         -2.8         -1.3         Venezuela         10.8         3.6         3.8           China	-0.5 11.5 -4.1 -2.1 -8.7 -2.5 2.9 0.4 6.3 2.2
South Africa         -2.0         -1.4         -2.1         -1.9         South Africa         -0.4         -0.2         -0.9           Turkey         -11.7         -18.5         -14.8         -11.0         Turkey         -5.5         2.4         -0.1           Argentina         -2.3         -3.4         -1.4         -0.9         Argentina         -3.1         -1.9         9.2           Brazil         -4.6         -5.3         -4.7         -4.5         Brazil         -4.3         -5.2         -5.1           Chile         0.1         -0.3         -0.8         -0.7         Chile         -1.5         -1.4         -1.8           Colombia         -3.5         -3.5         -3.7         -4.2         Colombia         0.5         -2.0         -2.1           Ecuador         1.7         1.6         0.6         0.2         Ecuador         6.6         -4.3         -9.0           Mexico         -1.1         -0.8         -0.7         -0.5         Mexico         -3.4         -2.9         -2.5           Venezuela         3.3         -6.5         -2.8         -1.3         Venezuela         10.8         3.6         3.8           China	-0.5 11.5 -4.1 -2.1 -8.7 -2.5 2.9 0.4 6.3 2.2 18.4

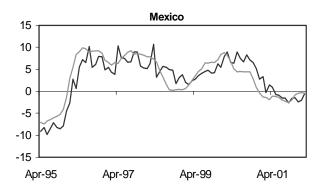
Source: Goldman Sachs.

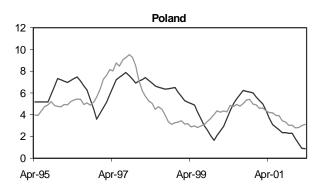


## **Leading Indicators**









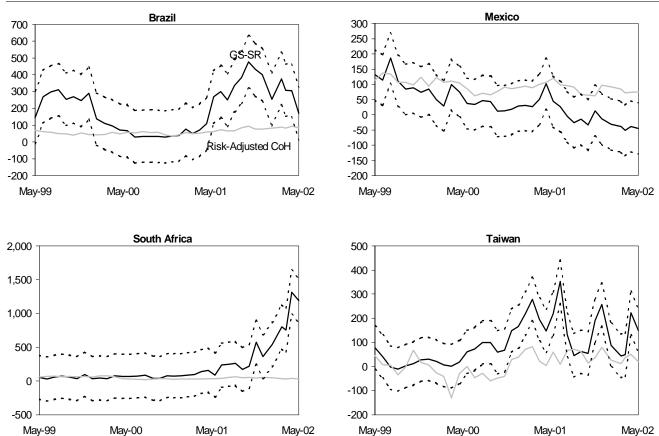
	Latest	Index	Perce	entage C	hange	Sı	ıb-Compo	nent Direct	tional Con	tributio	n	Diffusion
	Month		1M	3M	12M	Supply	External	Financial	Demand	Fiscal	Other	Ratio
Argentina	Mar-02	50.6	2.2	-7.8	-2.0	Down	-	Down	Down	Down	-	0.00
Brazil	Mar-02	72.7	-0.8	-13.7	2.7	Up	Down	Down	-	Up	Up	0.33
Chile	Mar-02	99.4	-0.4	0.5	4.8	Down	Down	Up	Down	-	Down	0.38
Colombia	Mar-02	88.5	-5.9	-10.1	1.4	Up	Up	Down	Up	Up	Down	0.56
Ecuador	Mar-02	112.9	1.9	-2.1	4.9	-	Down	Up	-	Up	Up	0.83
Israel	Mar-02	132.2	-0.4	0.7	-5.3	Down	Down	Up	Up	Down	Down	0.29
Korea	Mar-02	124.7	0.0	1.6	5.9	Down	Down	Up	Down	-	Up	0.56
Mexico	Mar-02	276.9	0.9	0.2	-0.5	Down	Down	Up	Up	-	Down	0.50
Peru	Mar-02	126.9	0.7	1.4	-3.1	Up	Down	Down	Down	Up	Up	0.63
Poland	Mar-02	147.4	0.4	-8.8	3.1	Up	Down	Up	Down	Down	Down	0.25
Singapore	Mar-02	68.8	0.2	4.8	1.7	Down	Down	Up	-	Down	Down	0.25
Sth Africa	Mar-02	111.7	1.2	-0.6	1.4	Up	Up	Up	Up	-	Down	0.56
Turkey	Mar-02	-	-	-	4.5	Up	Up	Down	Up	-	-	0.33
Venezuela	Mar-02	87.2	-2.3	-9.1	1.1	Down	Down	Down	Down	Up	Down	0.25

Source: Goldman Sachs. Notes: Leading indicators provide signals of activity momentum at the margin for over the next 3 to 4 months. Percentage changes of the index itself do not represent predictions of real GDP growth. Sub-component contributions provide summary information of whether specific components are pointing up or down. The diffusion ratio refers to the proportion of (unweighted) sub-component indicators that are showing positive signals (yoy) to the total number of components included in the index. The closer the diffusion ratio is to zero, the higher the likelihood of a more intense cyclical slowdown. Sub-component indicators are not necessarily common across individual countries. Similarly, sub-component groupings do not necessarily refer to the same variable(s) across individual countries.

## **Currency Allocation**



## **GS-SR: Currency Overlay in Major Local Equity Markets**



	Risk Adjusted		GS-SR		Recommended		Recommended	%
	Cost of Hedging	-1 St. dev.	Jun-02	+1 St. dev.	Allocation	MSCI	Weight	Over/Under
HKD	11	-13	2	17	market weight	15.3	15.5	_
SGD	-24	-13 -31	-9	17	market weight	7.4	7.5	-
KRW	44	-167	19	206	market weight	19.0	19.4	-
TWD	-16	-43	46	136	market weight	13.4	13.7	-
CNY	31	-156	-89	-21	under weight	5.3	4.1	1.3
INR	92	-102	-53	-4	under weight	4.7	3.6	1.1
THB	16	-179	-47	84	market weight	1.9	1.9	-
MXN	54	-124	-40	43	under weight	9.0	6.8	2.1
BRL	85	13	169	326	market weight	7.6	7.7	-
CLP	23	-25	19	63	market weight	2.0	2.1	-
ZAR	60	772	1098	1424	over weight	11.3	14.4	3.1
ILS	42	216	313	410	over weight	2.0	2.6	0.6
PLN	86	-11	37	84	under weight	1.1	0.8	0.3

Note: GS-SR is our prefered measure of expected Sharpe ratio from exposure to the respective local market. The higher it is, the more attractive the currency. The risk adjusted cost of hedging is a market based Sharpe ratio. It shows in bp the interest rate differential between the local currency and the US dollar divided by the implied volatility. If the risk adjusted cost of hedging is significantly below/above GS-SR, investors should over/under weight currency exposure. For details see our Global Economics Paper of Feb 28, number 69, "Introducing GS-SR: A New Framework for Currency Hedging in Emerging Markets".



## Exchange Rate Forecasts

## Asia

	Current of	3-Month	Horizon	6-Month	Horizon	12-Montl	n Horizon
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast
\$/CNY	8.28	8.28	8.28	8.29	8.28	8.30	8.28
\$/HKD	7.80	7.80	7.80	7.80	7.80	7.81	7.80
\$/INR	49.04	50.00	49.00	50.93	49.00	52.48	50.00
\$/IDR	8,820	9,170	8,000	9,320	7,500	9,825	7,000
\$/MYR	3.80	4.00	3.80	4.16	3.80	4.42	3.80
\$/PHP	50.80	51.17	50.00	51.82	49.50	53.07	49.00
\$/SGD	1.80	1.79	1.82	1.79	1.82	1.77	1.80
\$/KRW	1,224	1,233	1,275	1,241	1,250	1,255	1,205
\$/THB	42.60	42.66	42.00	42.70	41.00	42.85	40.00
\$/TWD	34.09	33.97	34.00	33.92	33.50	33.76	33.00

## **Latin America**

	Current of	3-Month	3-Month Horizon		6-Month Horizon		12-Month Horizon	
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast	
\$/ARS	3.64	5.45	4.50	6.95	5.50	9.15	6.00	
\$/BRL	2.60	2.71	2.55	2.82	2.65	3.06	2.30	
\$/CLP	661	664	650	667	660	672	660	
\$/COP	2,334	2,370	2,325	2,409	2,420	2,499	2,510	
\$/MXN	9.74	9.91	9.50	10.06	9.60	10.37	9.80	
\$/PEN	3.47	3.49	3.50	3.51	3.53	3.56	3.55	
\$/VEB	1095	1210	1240	1295	1290	1495	1400	

#### **EMEA**

	Current of	3-Month	3-Month Horizon		6-Month Horizon		12-Month Horizon	
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast	
EUR/BLG	1.95	1.96	1.95	1.96	1.95	1.96	1.95	
EUR/CZK	30.70	30.73	30.50	30.74	31.00	30.73	31.00	
EUR/HUF	241.25	244.59	241.00	247.86	241.00	253.50	241.00	
EUR/PLN	3.78	3.83	3.62	3.88	3.60	3.96	3.63	
\$/RUB	31.42	32.49	30.50	33.00	31.00	30.65	32.00	
\$/ILS	4.96	5.02	4.85	5.08	4.55	5.18	4.45	
\$/ZAR	9.94	10.20	10.70	10.44	10.40	10.90	9.60	
\$/TRL	1,440,000	1,613,938	1,409,116	1,800,411	1,512,575	2,260,147	1,657,285	

	Current of	3-Month Horizon		6-Month Horizon		12-Month Horizon	
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast
EUR/\$	0.95	0.94	0.91	0.94	0.91	0.93	1.03
\$/JPY	124	124	138	123	138	121	128

Source: Goldman Sachs.



## **Interest Rate Forecasts**

#### **Asia**

	Date	3 Month	Horizon	6 Month	Horizon	12 Month	n Horizon
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast
China	2.0	2.3	na	3.1	na	3.7	na
Hong Kong	1.8	2.2	2.8	2.8	3.0	3.5	3.5
India	4.7	4.9	na	5.2	na	5.1	na
Indonesia	na	na	na	na	na	na	na
Malaysia	na	na	na	na	na	na	na
Philippines	4.6	7.2	5.5	7.4	5.5	8.1	5.5
Singapore	8.0	0.9	1.5	1.1	1.5	1.4	1.5
South Korea	4.7	4.9	4.9	5.2	5.0	5.1	5.0
Taiwan	0.4	1.6	na	1.7	na	2.3	na
Thailand	2.3	2.5	na	3.3	na	4.0	na

#### **Latin America**

	Date	3 Month	3 Month Horizon		6 Month Horizon		12 Month Horizon	
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast	
Argentina	193.1	113.5	250.0	81.8	150.0	44.5	100.0	
Brazil	18.2	17.1	18.0	18.7	17.5	21.0	15.5	
Chile	3.8	4.1	5.5	4.4	5.5	4.2	6.0	
Colombia	7.7	8.7	10.0	9.9	11.0	10.9	13.0	
Ecuador	3.7	3.8	3.8	3.8	4.3	4.3	4.8	
Mexico	8.2	8.5	8.5	8.7	8.7	9.1	9.1	
Peru	3.3	4.4	4.5	5.6	5.5	6.2	6.5	
Venezuela	42.2	30.0	35.0	50.3	35.0	16.3	25.0	

#### **EMEA**

	Date	3 Month	Horizon	6 Month	Horizon	12 Month	n Horizon
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast
Czech Republic	3.7	3.8	3.8	3.8	4.3	4.3	4.8
Hungary	9.1	9.2	9.0	8.8	8.5	9.1	8.5
Poland	9.3	8.4	9.0	8.0	9.0	7.8	8.0
Russia	10.9	11.4	10.5	12.6	10.0	12.7	10.0
Israel	6.1	7.0	5.5	6.9	6.0	7.1	5.5
South Africa	11.8	11.6	13.0	11.8	13.0	11.7	12.0
Turkey	48.3	48.3	48.1	56.1	45.0	46.3	40.4

	Date	3 Month Horizon		6 Month Horizon		12 Month Horizon	
	6-Jun-02	Forward	Forecast	Forward	Forecast	Forward	Forecast
US	1.9	2.0	1.9	2.3	2.0	3.3	2.0
Euro	3.4	3.4	3.3	3.5	3.3	4.0	3.4
JPY	0.1	0.1	0.1	0.1	0.1	0.2	0.1

Source: Goldman Sachs. Interest rate forecasts correspond to those implied in the forward exchange market. For countries where deliverable forwards are less liquid than the non-deliverable forwards (NDF), we work with the more liquid instrument. The table shows the forward foreward rate in 3-, 6- and 12-months. For example, the 6-month horizon represents the 3-month interest rate, 6-month forward.



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## **Investment Summary**



## Asia

	FX	Local Rates	FX Debt
China	Long CNY/JPY	Pay 3M	Marketweight
Hong Kong	Sell 1Y \$/HKD	Stay flat	-
India	Stay flat	-	-
Malaysia	No Repeg Expected	-	Underweight 0.50%
Philippines	Stay flat	-	Marketweight
Singapore	Hold \$/SGD	Receive 2Y, vs. 1Y swap	-
South Korea	Stay flat	Receive 1Y, vs. 2Y swap	Underweight 0.75%
Taiwan	Hold \$-call spread	Pay 1M - 3M	-
Thailand	Hold \$/THB	Pay 6M	Marketweight

## Latin America

	FX	Local Rates	FX Debt
Argentina	Long \$/ARS	Buy curve steepeners	Underweight 2.00%
Brazil	1Y \$-call, buy 6M \$-call	Pay 6M rates	Underweight 3.00%
Chile	long \$/CLP	Hold PRCs	Marketweight
Colombia	Hold \$/COP	Pay 3M	Marketweight
Ecuador	-	-	Overweight 2.00%
Mexico	Stay flat	Receive 5Y swap, vs. 2Y	Overweight 1.00%
Peru	Hold long \$/PEN	Stay flat	Marketweight
Venezuela	Stay Flat	Stay flat	Overweight 1.00%

## **EMEA**

	FX	Local Rates	FX Debt
Bulgaria	-	-	Underweight 1.00%
Czech Republic	Stay flat	Enter long 5Y5Y EUR/CZK	-
Hungary	Stay flat	Stay flat	-
Poland	Hold PLN-call spreads	Receive 5Y swap, vs. 2Y	Underweight 0.75%
Ukraine	-	-	Marketweight
Russia	Hold short \$/RUB	Receive All Curve	Overweight 4.00%
Israel	Hold short ILS volatility	Stay flat	-
South Africa	Stay flat	Receive 10y, pay 5y	Underweight 0.50%
Turkey	Stay flat	Unwind interest rate positions	Overweight 2.00%

Source: Goldman Sachs.