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Overview: markets focus on monetary policy

The upward trend in government bond yields that had been evident in major bond markets for much of the year came to an end in June. This was largely due to investor perceptions of weakening economic growth, in particular in the United States, and to markets reassessing the likelihood of further rate hikes by the Federal Reserve. Given the view that the US economy might be at a crossroads with respect to near-term growth prospects and the direction of monetary policy, particular emphasis was placed on US data and signals from the Federal Reserve. These factors, along with monetary policy decisions by other major central banks and expectations about their future actions, largely shaped developments in global bond markets.

In world equity markets, prices gradually recovered after the broad sell-off in May and early June, but volatility remained higher than before the turbulence. Implied volatilities recovered only partially after the sell-off, suggesting somewhat heightened uncertainty among investors about the near-term direction of equity prices. This may partly have been fuelled by concerns about the economic slowdown in the United States, and by questions about the outlook for corporate profits amidst higher oil prices and geopolitical tensions. However, equity prices were supported by falling bond yields and a generally favourable outlook for growth in the euro area and Japan, as well as positive second quarter earnings announcements.

In credit markets, while euro area markets largely recovered, spreads on high-yield debt in the United States did not tighten much after the sell-off in May and June, being held up by higher energy prices related to rising geopolitical risks, as well as signs of increasing leverage. By contrast, on the back of a spate of sovereign rating upgrades, emerging markets regained much of the exuberance that had characterised the early part of the year, with sovereign spreads again approaching all-time lows for major indices. Credit markets in both developed and emerging market countries were supported by news seen as suggesting less tightening of monetary policy going forward.

Upward trend in yields reversed

Towards the end of June, the general upward trend in bond yields that had been evident for much of the year came to an end. After increasing steadily throughout the first few months of 2006, bond yields in the major developed economies retreated in May and early June when turbulence in international equity markets prompted investors to turn to the relative safety of fixed income government securities. As equity markets stabilised, yields briefly resumed their previous upward trajectories. However, by late June yields set out on a more enduring downward path. By 1 September 2006, 10-year government bond yields had fallen by more than 50 basis points in the United States and by almost 40 basis points in the euro area, compared to the peaks reached earlier in the summer (Graph 1, centre panel). In Japan, while yields on 10-year bonds initially displayed less of a decline than in the United States and the euro area, trading within a range just below the 2% level, towards the end of August they also started to fall.

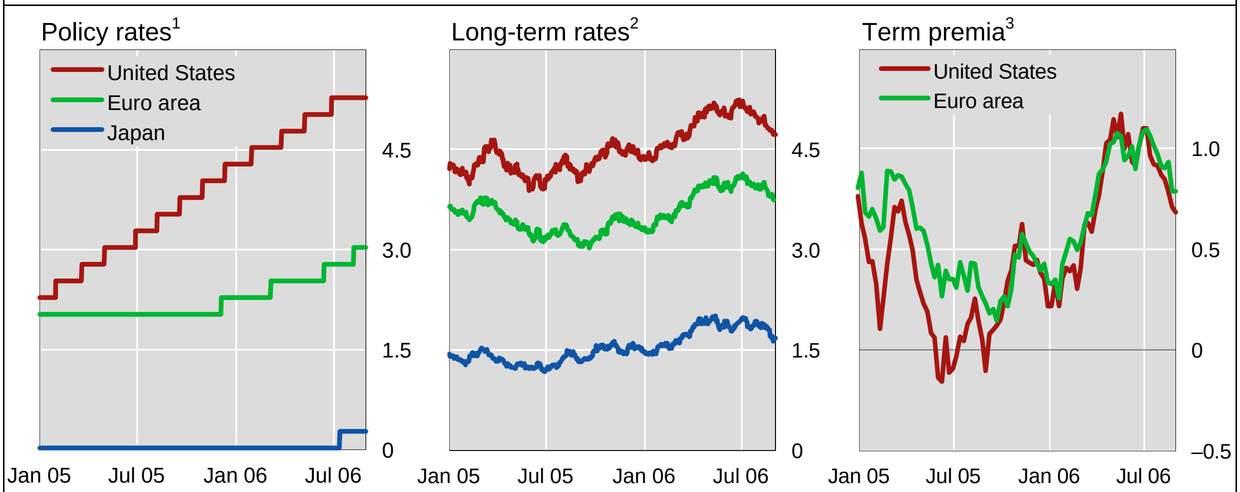
Bond yields end their upward trend and start falling …

The bond market rally was partly the result of a shift in investors' perceptions about the strength of future economic activity, in particular in the United States. Consistent with this, signals from the Federal Reserve were interpreted by the market as indicating a lower likelihood of further interest rate hikes in the near future. These factors seem to have had a significant impact not only on US bond markets but also abroad, possibly due to the weight of the United States in the global economy. Moreover, contributing to the overall decline in yields was an apparent fall in term premia, in contrast to developments in the first half of the year when estimated premia had been rising (Graph 1, right-hand panel).

Market participants focused a great deal of attention on realised and expected actions of central banks during the past three months. All three major central banks raised their key interest rates in widely anticipated policy moves (Graph 1, left-hand panel). The Bank of Japan decided to bring the zero interest rate environment to an end by raising the short-term interest rate by 25 basis points on 14 July – its first rate hike in six years. The ECB raised interest rates by 25 basis points on 8 June and again on 3 August. The Federal

Interest rates

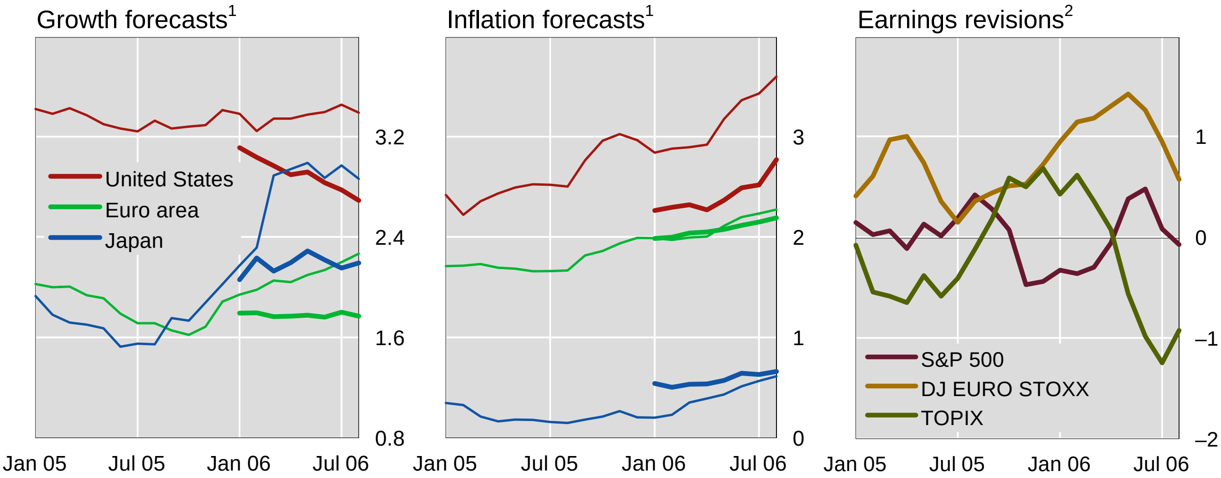
In per cent



[1] For the United States, targeted fed funds rate; for the euro area, main refinancing rate; for Japan, from 9 March 2006, target uncollateralised overnight call rate; zero previously. [2] Ten-year government bond yields; for the euro area, German bund. [3] Estimates for 10-year government bond yields; based on an essentially affine dynamic term structure model.

Sources: Bloomberg; BIS calculations. Graph 1

Macroeconomic outlook



[1] Forecasts as published monthly by Consensus Economics. Thin lines represent forecasts for 2006 while thick lines are forecasts for 2007; observations are positioned in the month in which the forecast was made. [2] Diffusion index of monthly revisions in forecast earnings per share, calculated as the percentage of companies for which analysts revised their earnings forecast upwards plus half of the percentage of companies for which analysts left their forecast unchanged; to adjust for analysts' systematic overestimation of earnings, the mean of the diffusion index over the 2003–05 period (S&P 500 = 54.1; DJ EURO STOXX = 49.6; TOPIX = 53.2) was subtracted from each monthly observation; three-month moving average.

Sources: Bloomberg; © Consensus Economics; I/B/E/S; BIS calculations. Graph 2

Reserve announced its 17th consecutive interest rate increase on 29 June, raising the federal funds rate by 25 basis points to 5.25%. The FOMC's accompanying statement, which was interpreted by investors as signalling an increased likelihood of a slowdown in the pace of interest rate increases, had a significant impact on bond markets in the United States as well as internationally.

... as the US growth outlook is revised downwards ...

New data releases contributed to reinforcing the perception among investors that growth in the US economy was gradually decelerating. For example, second quarter US GDP growth came in substantially below market expectations, and the unemployment rate rose more than anticipated in July. Both of these data releases resulted in sharply lower US long-term bond yields. In addition, activity in the US housing market showed clear signs of slowing rapidly. In view of the picture emerging from incoming data, US 2007 growth forecasts were continuously revised downwards during 2006 (Graph 2, left-hand panel).

... and Federal Reserve rate hike expectations decline

Signs of a cooling US economy, as well as statements by the Federal Reserve, prompted investors to conclude that the need for further near-term policy tightening had diminished. In line with these expectations, the FOMC kept interest rates on hold on 8 August, and indicated that it expected inflation pressures to abate as economic growth was moderating. Reflecting the market's reassessment of future US monetary policy, federal funds futures rates fell gradually in July and August. The pronounced downward shift across the entire fed funds futures curve that took place after June suggested that US policy rates were expected to remain steady or even start to decline next year (Graph 3, left-hand panel).

In contrast to the United States, perceptions about monetary policy moves in the euro area did not shift in the direction of a reduced pace of tightening, as indicated by EONIA forward rates (Graph 3, centre panel). These expectations were in line with data releases indicating a continued pickup in euro area economic activity. For example, second quarter euro area GDP growth surprised on the upside, reaching its highest level in five years. Accordingly, survey forecasts for 2006 euro area growth were revised upwards (Graph 2, left-hand panel). The 25 basis point increase by the ECB on 3 August, two months after the previous rate hike, implied an acceleration in the pace at which the central bank was bringing rates back to a more neutral level, given that the previous two increases had come at three-month intervals. Statements by the President of the ECB in August reinforced investors' perceptions that policy rates in the euro area were likely to be raised again, and sooner rather than later.

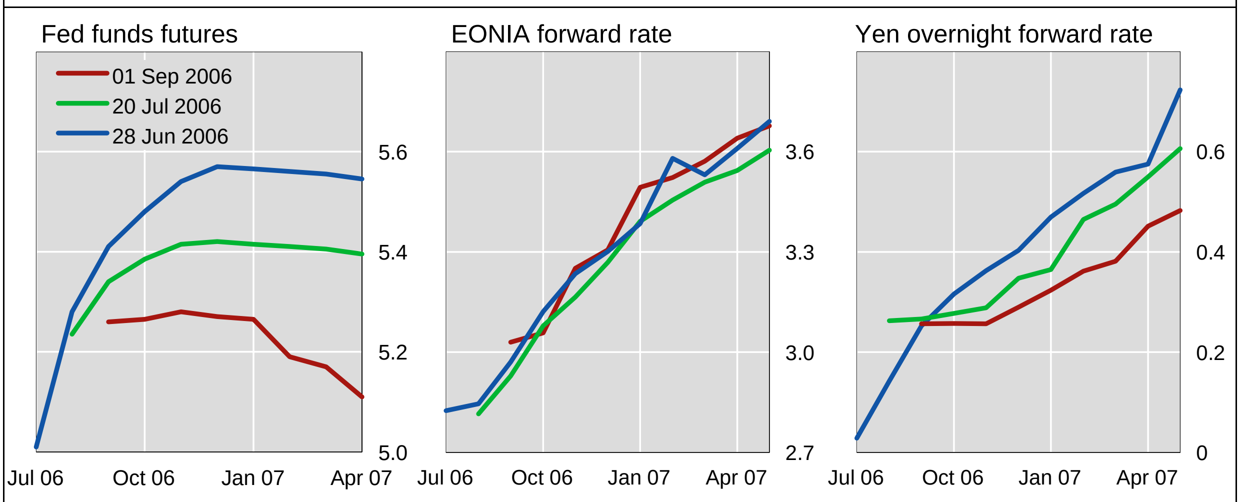
Monetary policy expected to be tightened in the euro area …

In Japan, economic news was also generally favourable during much of the past three months. The Bank of Japan's *Tankan* survey painted a brighter picture of the economy than the market had expected, and led to surging bond yields after its release in early July. Moreover, the Bank's July *Monthly Report of Recent Economic and Financial Developments* indicated that the output gap seemed to have entered positive territory, and that the economy was expected to continue to expand. However, not all news was upbeat with respect to growth prospects. Japanese bond yields declined on the day when data were released showing that second quarter GDP growth had been substantially below analysts' expectations. Yields fell further after it was announced that industrial production unexpectedly fell in July. Reflecting incoming data as well as signals from the Bank of Japan, the pricing of overnight index swaps suggested that policy rates were expected to rise only gradually following the July rate hike (Graph 3, right-hand panel).

… and gradually in Japan

On the inflation front, much of the news during the past three months pointed to mounting price pressures in all three major economies, thereby resulting in upward revisions of survey inflation forecasts across the board (Graph 2, centre panel). However, data published in August suggested that these pressures might have started to ease in the United States and, to a

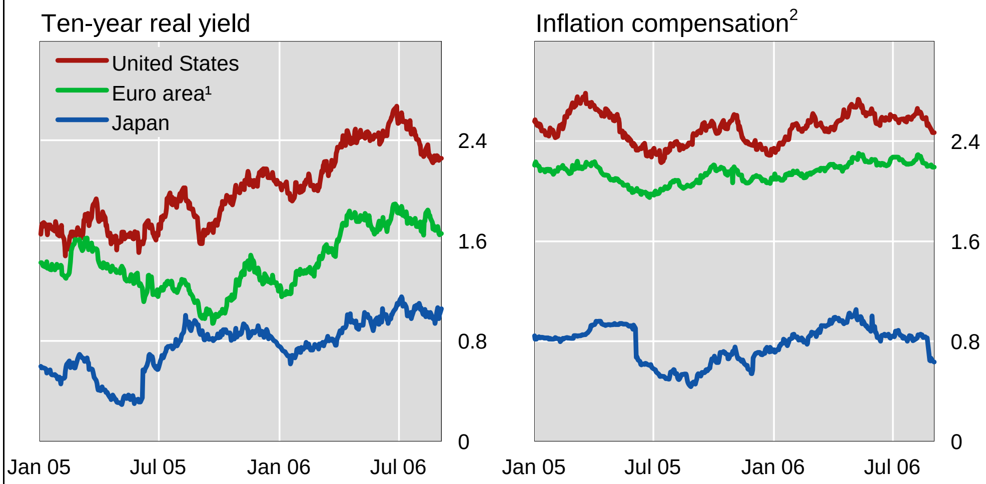
Futures curves



Sources: Bloomberg; BIS calculations. Graph 3

Real yields and inflation compensation

In per cent



[1] Based on French government bonds linked to euro area inflation. [2] Nominal minus real 10-year government bond yields.

Sources: Bloomberg; national data. Graph 4

Some signs of easing price pressures

lesser extent, in the euro area and Japan. Compared to a year earlier, core producer prices in the United States rose by 4.2% in July, which was lower than market expectations and also below the previous month's figure of almost 5%. Likewise, US CPI inflation for July was slightly below expectations at 4.1% year-on-year. Both of these releases led to sharp drops in US bond yields. In the euro area, figures for July HICP inflation showed that prices had increased by 2.4% compared to one year earlier, a pace somewhat below that of the previous month, and also lower than anticipated. Meanwhile, a data release showing Japanese consumer prices increasing substantially less than expected in July brought about a rally in Japanese bond markets in late August.

To a large extent, movements of nominal and real bond yields over the past couple of months reflected the aforementioned macroeconomic developments. In line with the outlook for slower growth in the United States, real bond yields fell in July and August, accounting for almost the entire decline in nominal yields over the same period (Graph 4). This left the inflation compensation demanded by investors for holding nominal bonds over the next 10 years little changed (see also the box on page 6). These developments contrasted with those during much of the first half of 2006, when not only higher real yields but also rising inflation compensation had contributed to the upward trend in nominal yields. In the euro area, real yields declined considerably less than in the United States, in line with the markets' perceptions of somewhat diverging expected growth trajectories in the two economies. The 10-year euro break-even inflation rate remained relatively steady, suggesting that long-horizon inflation expectations were stable. In Japan, both real yields and break-even inflation rates were little changed over the past three months. However, towards the end of August, the 10-year inflation compensation in Japan fell by almost 20 basis points, on the heels of lower than expected inflation data.

Forward break-even inflation rates and long-horizon inflation expectations

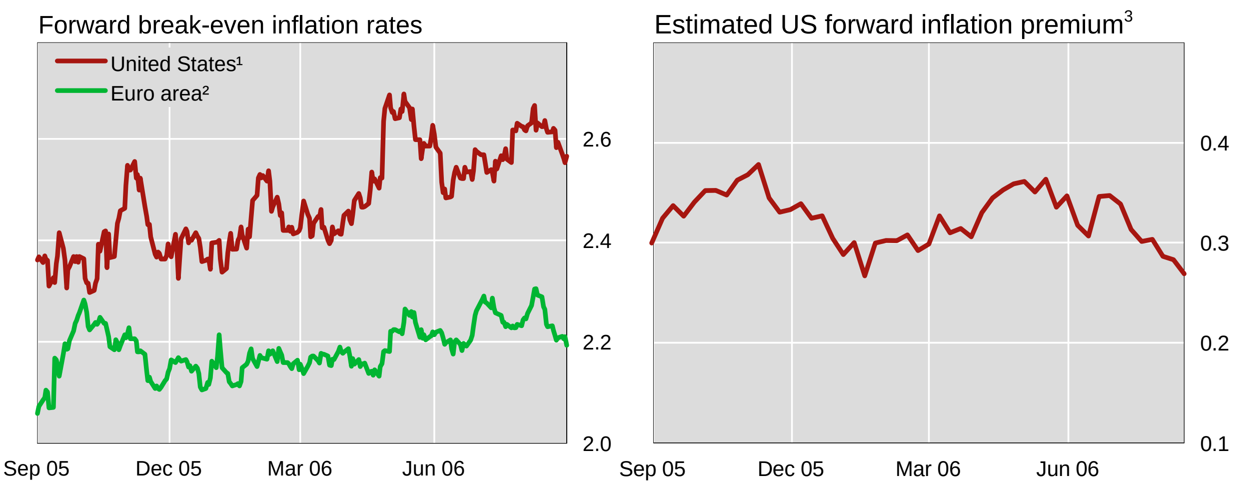
Break-even inflation rates, ie the difference between yields on nominal bonds and yields on real (index-linked) bonds of comparable maturity, have long been used as an indicator of the markets' inflation expectations over the horizon of the bonds, thereby complementing other measures such as survey forecasts. Another popular indicator in this regard is long-horizon forward break-even inflation rates, such as the five-year forward rate five years ahead. This type of measure is often seen as providing a cleaner indication of long-horizon inflation expectations because it should, in principle, not be affected by inflation movements expected over the near term, such as those caused by cyclical fluctuations.

In an environment where short-term inflationary pressures seem to have been rising for some time in both the United States and the euro area, forward break-even rates have been edging upwards, although more so in the United States than in the euro area. The left-hand panel of the graph below shows that over the past year US five-year forward break-even rates five years ahead have risen gradually by around 30 basis points, while corresponding euro area break-even rates displayed a more modest increase over the past couple of months after a period of relative stability.

In principle, however, an increase in the forward break-even rate can be attributed to expectations of higher inflation in the distant future or to a rising inflation risk premium, or a combination of both. The inflation risk premium, in this context, represents the additional return that investors require to invest in nominal bonds, which are exposed to risk stemming from fluctuations in inflation, as compared to the required return on real bonds. It is notoriously difficult to pin down the magnitude of risk premia, let alone to disentangle the inflation risk premium from its real counterpart, ie the required return associated with uncertainty in real interest rate fluctuations.

However, recent estimates using US data based on a dynamic term structure model might be able to provide some guidance in this regard. Kim and Wright (2005) use nominal US bond data in combination with inflation data to estimate the dynamics of the nominal term structure and to infer an implied real term structure, which in turn allows them to obtain estimates of real risk premia as well as inflation risk premia.[①] The technique also permits gauging the size of forward inflation risk premia, such as those that would influence the forward break-even rates shown below. Admittedly, this approach does not take into account information from index-linked bonds, and the results should therefore only be seen as indicative with respect to the break-even data displayed in the graph. In addition, other factors, such as liquidity considerations or institutional effects, may affect the level of break-even inflation rates. Even so, as long as these other factors are reasonably stable, recent changes in break-even rates should still be primarily due to changes in inflation expectations and/or changes in inflation risk premia.

Inflation compensation and term premia



[1] Five-year forward break-even inflation rates five years ahead; based on government bonds maturing in 2010, 2011, 2015 and 2016. Due to the limited number of available maturities for indexed-linked bonds, the forward break-even rates shown in the graph are approximations. [2] Five-year forward break-even inflation rates five years ahead; based on French government sovereign bonds (OATs) maturing in 2012 and 2015; index-linked OATs are indexed to euro area inflation. [3] Five-year forward inflation risk premium five years ahead, in per cent; based on calculations by Kim and Wright (2005).

Sources: Federal Reserve Board; Bloomberg; BIS calculations.

Estimates using the aforementioned technique suggest that the five-year/five-year forward inflation risk premium in the United States has remained fairly steady during the past year. The inflation risk premium therefore seems to have been playing a limited role in explaining recent movements in the forward break-even rate. On this basis, the gradual increase in forward break-even inflation rates that has taken place in the United States over the past year is likely to be due largely to expectations of modestly higher inflation in the long run.

① See D Kim and J Wright, "An arbitrage-free three-factor term structure model and the recent behavior of long-term yields and distant-horizon forward rates," *International Finance Discussion Paper* 2005-33, Federal Reserve Board, August 2005. Other recent work in which inflation risk premia have been estimated includes: A Ang and G Bekaert, "The term structure of real rates and expected inflation," working paper, Columbia University, Graduate School of Business, 2005; A Buraschi and A Jiltsov, "Inflation risk premia and the expectations hypothesis", *Journal of Financial Economics*, 2005, vol 75, pp 429–90; and P Hördahl, O Tristani and D Vestin, "The term structure of inflation risk premia and macroeconomic dynamics," mimeo, ECB and BIS, 2006.

Equity markets recover but remain volatile

Stock prices recover after sell-off

Equity prices in the major markets gradually recovered after the broad sell-off in May and early June, but volatility remained higher than before (Graph 5, left-hand panel). From the start of the sell-off on 10 May to the trough on 13 June, the S&P 500 Index had lost 7.7%, while the DJ EURO STOXX had fallen by 13.3% and the TOPIX by 16.5%. However, in subsequent weeks, these losses were largely recouped.

Despite the recovery, the brief sell-off of equities in May and June seemed to have left investors somewhat more nervous than earlier in the year, as indicated by higher equity price volatility. Implied volatilities, which had surged during the period of market turbulence, also recovered only partially after the sell-off, suggesting that investors remained somewhat more uncertain about the direction of equity prices in the near term (Graph 5, centre panel). In line with this, risk appetite among investors, which had taken a dive as global equities tumbled, seemed to remain somewhat subdued compared to levels seen in the recent past (Graph 5, right-hand panel).

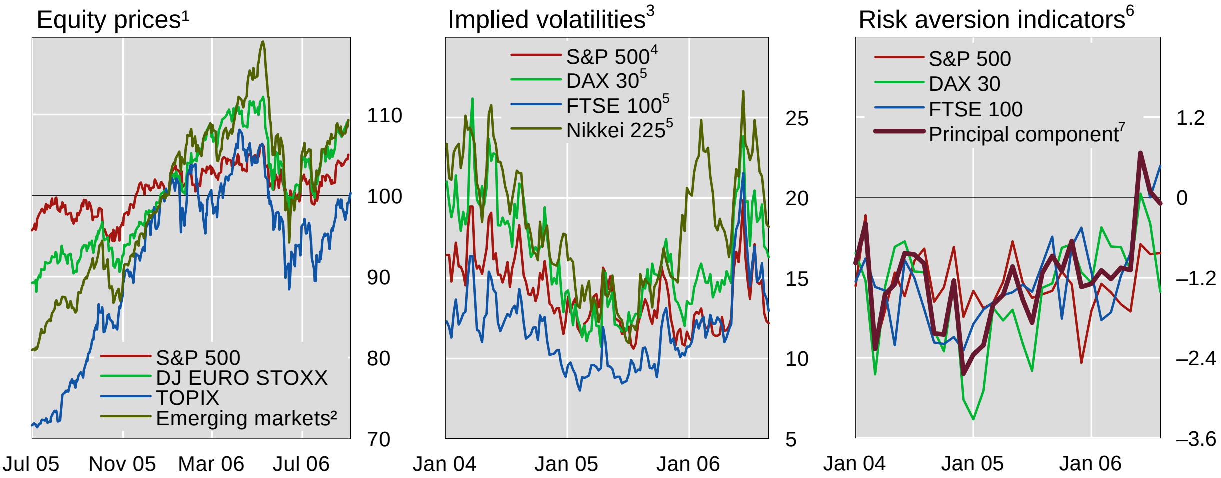
While uncertainties remain …

Contributing to the uncertainty among investors in the aftermath of the sell-off were questions about the degree and speed of the economic slowdown in the United States, and shifting perceptions of Federal Reserve monetary policy going forward. Geopolitical tensions, reflecting the outbreak of new hostilities in the Middle East, continued violence in Iraq, missile tests by North Korea and apprehension about Iran's nuclear plans, added to investors' uncertainty. On top of this, the ratio of positive to negative revisions of forecast earnings fell over the last quarter in the United States, Europe and Japan (Graph 2, right-hand panel).

… equities are supported by earnings and falling bond yields

Nonetheless, equity prices received support from a number of factors. Actual earnings data remained upbeat: announcements for the second quarter indicated that aggregate S&P 500 earnings would grow at a double digit pace in year-on-year terms for the 17th consecutive quarter. News regarding growth prospects in the euro area and Japan was generally positive, and tended to balance the less favourable outlook emerging for the US economy. Moreover, falling bond yields and a growing perception among investors that the Federal Reserve had reached the end of its cycle of rate hikes lent further support to equities. In fact, data indicating weaker than expected US growth often resulted

Volatility and risk appetite in equity markets



[1] In local currency; 31 December 2005 = 100. [2] Morgan Stanley Capital International index. [3] Weekly averages, in per cent. [4] Chicago Board Options Exchange VIX volatility index. [5] Volatility implied by the price of at-the-money call option contracts on stock market indices; weekly averages, in per cent. [6] Derived from the differences between two distributions of returns, one implied by option prices, the other based on actual returns estimated from historical data. [7] First principal component of risk appetite indicators estimated for the S&P 500, DAX 30 and FTSE 100.

Sources: Bloomberg; Chicago Mercantile Exchange; Eurex; London International Financial Futures and Options Exchange; BIS calculations.

Graph 5

in rising share prices, as markets revised downwards their expectations of the pace and intensity of future rate hikes, and hence the probability that tighter monetary policy would lead to sharply reduced growth. As data released in August pointed to somewhat diminished inflationary pressures in the United States, the market seemed increasingly to price in a scenario where the US economy would experience a “soft landing”, cooling just to the extent necessary to keep upward price pressures contained.

US equity markets price in a “soft landing”

In emerging markets, equities were hit particularly hard during the May–June sell-off, with the MSCI emerging markets equity index tumbling more than 20%. However, as was the case among the major markets, equities in emerging markets gradually recovered (Graph 5, left-hand panel). By 1 September, more than half of the losses incurred during the sell-off had been recouped. In general, during the past three months equity prices in emerging markets tended to mirror those in advanced economies, although they appeared more sensitive to specific geopolitical events. Local factors also contributed to sharp price movements in individual markets. The Turkish stock market tumbled in June as accelerating inflation and a rapidly falling lira prompted the central bank to raise interest rates sharply. The escalation of violence in the Middle East also weighed particularly heavily on Turkish equities. In Mexico, the Bolsa saw abrupt moves in July as investors reassessed the likelihood that either of the two main contestants would end up being declared the victor of the closely contested 2 July presidential election.

US corporate spreads range-bound at higher levels

Developed country credit market performance was mixed following the May and early June sell-off (Graph 6). By 1 September, asset swap spreads over

Libor on US dollar investment grade and high-yield corporate bonds were at 42 and 279 basis points respectively, both still well above the lowest levels of the year hit in May. North American credit default swap (CDS) spreads, which had moved up much more dramatically during the sell-off of the second quarter, retraced only a fraction of the earlier widening. Though also volatile, performance was somewhat better for euro area credits: high-yield spread indices in the euro area in late August returned to around the levels preceding the sell-off, perhaps due to the more positive signals on growth described above.

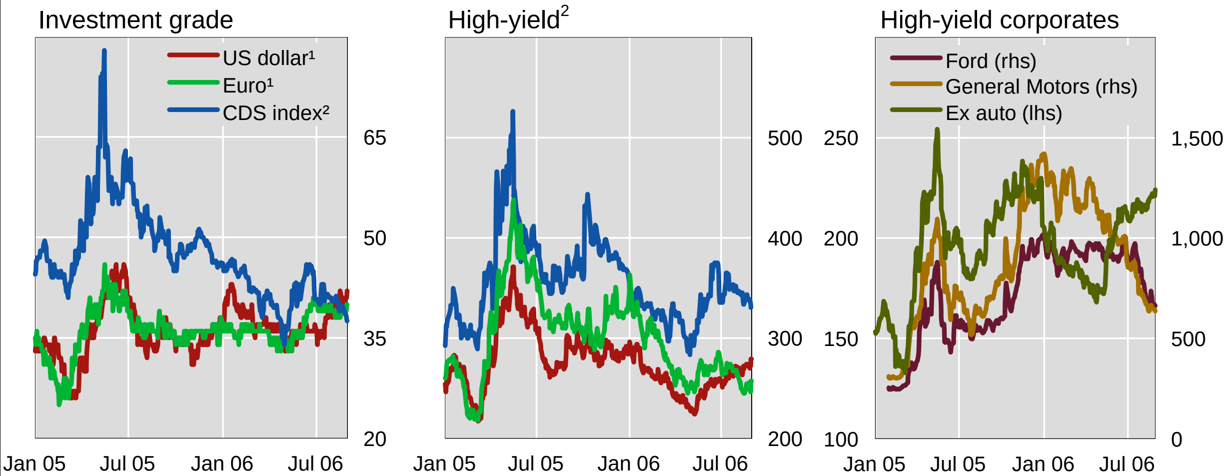
Middle East conflict contributes to rise in spreads

Similar to equity markets, spreads in corporate credit markets were driven in competing directions by higher energy prices related to rising geopolitical risks and changes in the near-term prospects of Federal Reserve action. The week of 10–14 July, in which oil prices rose sharply as conflict intensified in the Middle East, saw a 22 basis point rise in the North American high-yield CDS index (the investment grade index rose by 3 basis points). In contrast, both investment grade and high-yield CDS spreads fell sharply after the release of the FOMC statement on 29 June, and also in response to the Federal Reserve Chairman's Congressional testimony of 19 July. Even a worse than expected GDP report in late July was taken as positive news for the high-yield sector, indicative of a market less worried about the deceleration in current growth than the possibility of the Federal Reserve raising rates too rapidly and thereby intensifying the slowdown.

Excluding the automobile sector, high-yield spreads would have moved up significantly more in June and July than they did (Graph 6, right-hand panel). Two of the largest issuers in the indices, the US automotive companies General Motors and Ford, saw their spreads compress during the period. Ford five-year CDS spreads fell to around 660 basis points by end-August, down more than 330 basis points from 28 June. GM five-year CDS spreads were around 640 basis points by end-August, declining by over 360 basis points over

Corporate credit spreads

In basis points

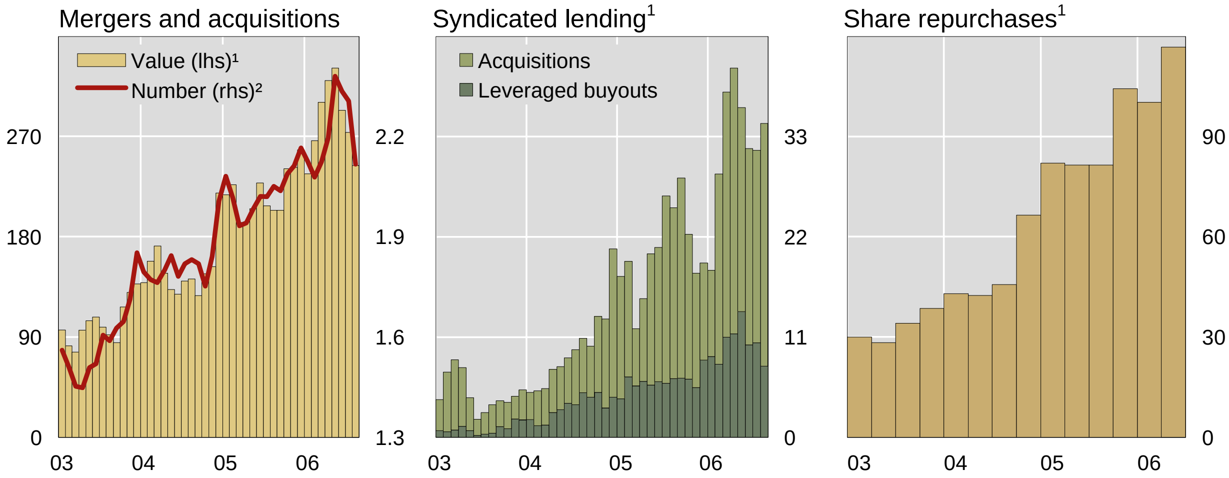


[1] Merrill Lynch corporate bond indices; asset swap spreads over Libor. [2] On-the-run five-year DJ.CDX.NA index.

Sources: JPMorgan Chase; Markit; Merrill Lynch. Graph 6

Shareholder-friendly actions

Three-month moving averages



[1] Announced, in billions of US dollars. [2] Announced, in thousands.

Sources: Bloomberg; Dealogic Loanware; Standard & Poor's; national data. Graph 7

the same period. Factors spurring the rally were probably idiosyncratic to the two issuers, including talk of a new GM restructuring plan, as well as an upside earnings surprise in July.

LBO risk and increased leverage weigh on credit markets ...

Rising concerns about LBO risk and increased leverage are likely to have weighed on corporate bonds, particularly in the United States. Indeed, an agreement for a $33 billion leveraged buyout of the US hospital chain HCA was announced on 24 July, the largest such transaction ever. The announcement led not only to an immediate 150 basis point rise in spreads for HCA debt obligations, but also to a marked rise in spreads throughout the hospital operator sector. A boom in global mergers and acquisitions has been ongoing for some time, to a considerable extent financed by increased leverage (Graph 7). Meanwhile, leveraging of the corporate sector by share repurchase activity has also increased markedly. Announced share buybacks surged to around $117 billion in the second quarter compared to $100 billion announced in the first quarter and the quarterly average of $87 billion in 2005.

... though credit quality indicators show no signs of deterioration

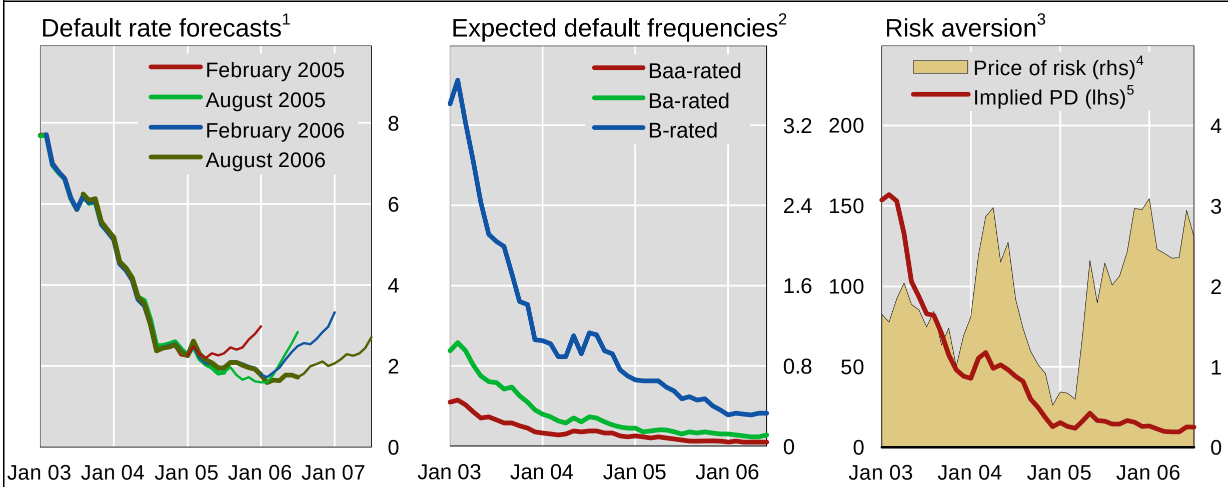
Major corporate spread indices stayed well above previous lows in the United States despite indicators of credit quality that showed few signs of deteriorating. Moody's forecast for the 12-month trailing speculative grade default rate for January 2007 was revised down by August 2006 to 2% from over 3% six months earlier, continuing a pattern of downward-revised forecasts over the past few years (Graph 8, left-hand panel). Expected default frequencies, as calculated by Moody's KMV based on balance sheet information and asset price volatility, were also stable at low levels for firms within rating categories (Graph 8, centre panel). The persistence of higher spreads in the face of a broadly unchanged outlook for credit quality is consistent with indicators showing that the appetite for credit risk never fully rebounded from the turmoil in corporate bond and CDS markets in the second quarter of 2005 (Graph 8, right-hand panel).

Investor demand continues to be strong for structured financial products. Collateralised debt obligations (CDOs) – in which debt is structured and repackaged into higher-rated securities – are a particularly robust area of issuance (Graph 9, left-hand panel). Not only were cash-based CDOs, at $76.2 billion in the second quarter, issued at more than double the pace of a year earlier, but the growth of issuance of so-called synthetic CDOs – backed by CDSs as well as CDS indices – also soared.

MBSs perform well despite cooling housing markets

Confidence in the functioning of the structured finance market may have been supported in part by the favourable performance of US mortgage-backed securities (MBSs) despite cooling housing markets. Signs of a weaker housing market did not lead to major changes in the pricing of mortgage-backed structured products, even for the securitisations of mortgage loans to subprime borrowers. Such loans, along with loans to Alt-A borrowers (who also do not merit prime borrower status), have constituted the underlying collateral for an increasingly significant portion of rated securitised bonds in recent years (Graph 9, centre panel). Despite declining FICO scores on subprime collateral (as well as increasing loan-to-value ratios), spreads on the mortgages underlying subprime-based securitisations rose only slightly (Graph 9, right-hand panel). Moreover, A and Baa-rated mortgage securitisations have in fact yielded higher excess returns over Treasuries in 2006 than more highly rated MBSs.

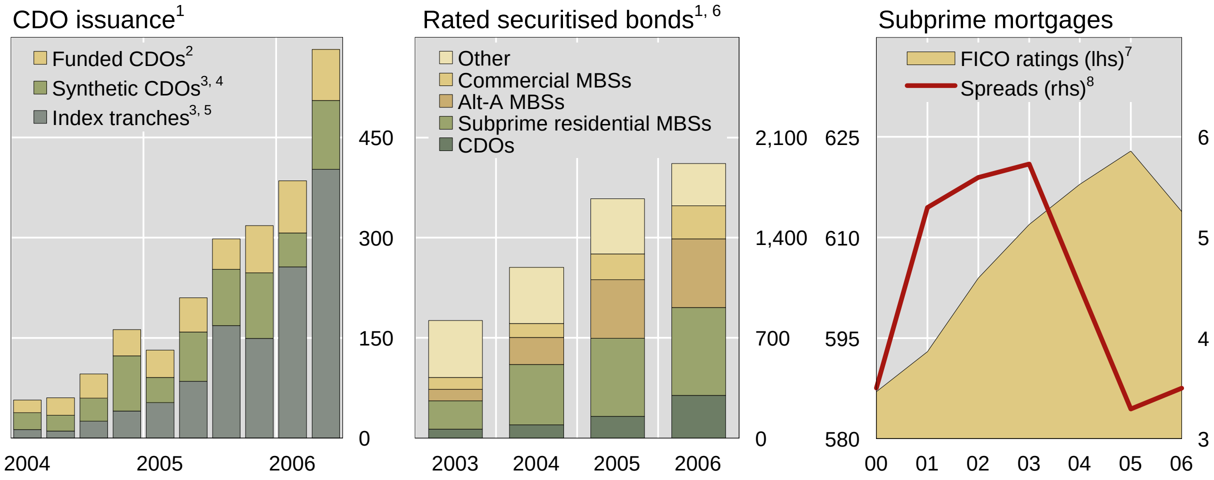
Default rates and CDS markets



[1] Speculative grade default rate forecasts by Moody's Investors Service at the time of the legend date; the thin lines refer to forecasts one year ahead of the legend date; the thick lines refer to historical default rates. [2] Expected Default Frequency (EDF[TM]) over a one-year horizon; median for non-financial corporations, in per cent. [3] Based on one-year spreads and default probabilities for the constituents of the DJ.CDX.NA.IG.4 index. [4] Ratio of risk neutral to empirical probabilities of default. [5] Probability of default (PD) implied by one-year CDS spreads, assuming a recovery rate of 40%, in basis points.

Sources: JPMorgan Chase; Markit; Merrill Lynch; Moody's; Moody's KMV; BIS calculations. Graph 8

Structured finance markets



[1] In billions of US dollars. [2] Cash flow CDOs. [3] Notional amount, not adjusted for the riskiness of different tranches. [4] Portfolio CDSs referenced to corporations, sovereigns and asset-backed securities. [5] Portfolio CDSs referenced to CDS indices. [6] Moody's-rated securitised bond offerings; 2006 values are annualised based on the first seven months; in billions of US dollars. Subprime loans are loans to borrowers with blemished credit histories. Alt-A loans are (other) loans to borrowers that do not meet all of the underwriting requirements of the government-sponsored US housing finance agencies. "Other" comprises jumbo residential MBSs and credit card and auto loan receivable asset-backed securities. [7] FICO rating for adjustable rate mortgages (ARMs) by vintage. FICO scores rank the relative risk of consumers defaulting or becoming seriously delinquent. A higher FICO score corresponds to a lower risk. [8] Spread of the weighted average mortgage rates for the 2/28 ARMs providing collateral for sub-prime securitisations, minus the two-year swap rate, in per cent.

Sources: Bond Market Association; CreditFlux; LoanPerformance; Moody's Investors Service; UBS. Graph 9

Emerging market spreads resume downward trend

Renewed spread tightening …

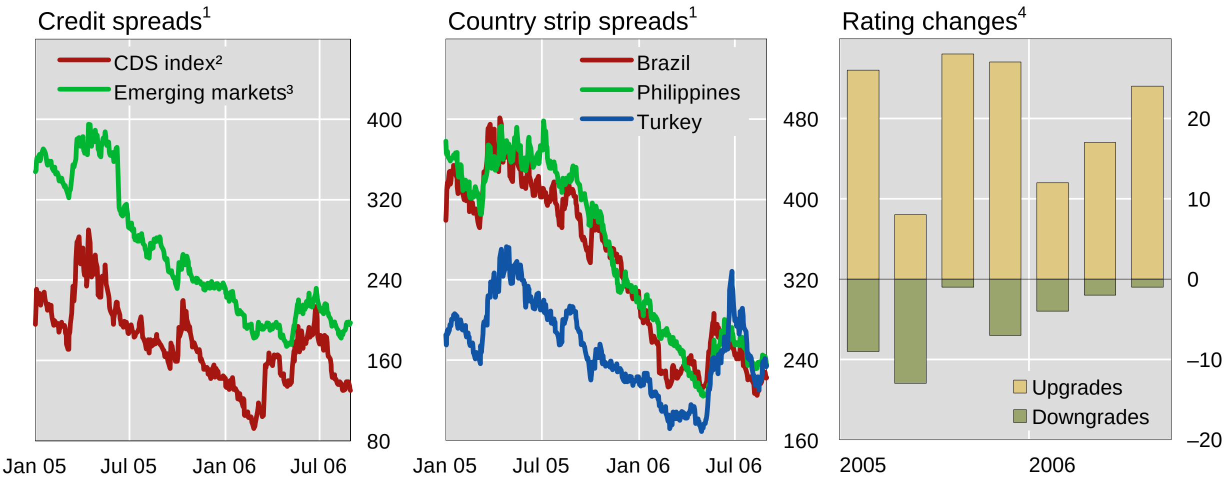
Much more than other risk asset classes, emerging market credits regained in July and August much of the exuberance that had characterised the early part of the year. Not only did spreads on emerging market debt peak in late June at levels that remained quite low by historical standards, but they subsequently resumed their downward trend (Graph 10, left-hand panel). By mid-August, the EMBI Global spread index, calculated by JPMorgan Chase, had fallen to nearly 180 basis points. This was well below the 232 basis points of seven weeks earlier, and close to the all-time low of 174 in early May.

… is widespread …

The improvement in spreads was evident across emerging markets. For instance, from 13 June to 1 September, the spread on Brazil's sovereign debt fell by nearly 51 basis points to 222 basis points, while that on the Philippines' sovereign debt fell by 45 basis points to 235 basis points. In CDS markets, typically more volatile and responsive to information flows than cash markets, spreads on Latin American credits such as Brazil and Mexico fell to levels below those prevailing when the retreat from risky assets had begun in May. Even the spreads on Turkish sovereign bonds, which had risen in an isolated move in late June on the back of fiscal concerns and a rating downgrade, fell from the peak of end-June by nearly 100 basis points.

The intensification of conflict in the Middle East did little to dent the downward trend in emerging market spreads. To be sure, when hostilities expanded into Lebanon in mid-July, and the price of oil rose to close to $80 per barrel on concerns about potential supply disruptions, many emerging market bonds sold off. However, major indices recovered within days and

Sovereign spreads and rating changes



[1] In basis points. [2] Emerging markets CDX five-year on-the-run CDS mid spread. [3] EMBI Global index; sovereign spread over government bond yields. [4] Cumulative long-term foreign and local currency sovereign rating changes from Fitch, Moody's and Standard & Poor's.

Sources: Fitch; JPMorgan Chase; Moody's; Standard & Poor's; BIS calculations. Graph 10

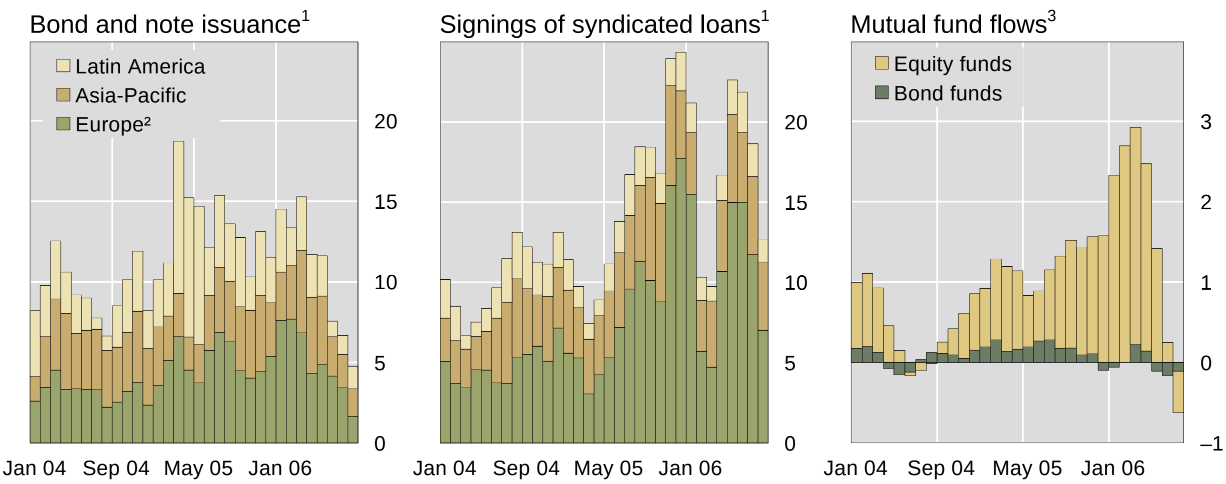
subsequently continued to narrow. Similarly, the market responded little to the London terror threat alert in mid-August.

… supported by rating upgrades …

Improving country fundamentals provided support to the tightening of emerging market spreads. A large number of sovereign ratings were upgraded over the period; in July and August alone, there were 24 upgrades from one of the three major agencies on 12 different sovereigns – including China, India, Indonesia and Russia (Graph 10, right-hand panel). These upgrades were usually justified by improving external balances and/or better fiscal outlooks. In fact, there was only one downgrade action during July and August, for the country of Belize.

Private capital flows to emerging markets

In billions of US dollars



[1] International announcements by residence; three-month moving averages. [2] Including Africa and the Middle East. [3] Net new cash flows into dedicated emerging market mutual funds registered in the United States, including net exchanges.

Sources: Bloomberg; Dealogic Bondware; Dealogic Loanware; Investment Company Institute; BIS calculations. Graph 11

… and perceptions of a peak in the US rate cycle

In addition, emerging market debt, even more than high-yield corporate debt, benefited significantly from an increased perception among market participants that the US Federal Reserve policy of steady rate hikes since mid-2004 was nearing its end. For instance, emerging market CDS index and North American high-yield CDS index spreads both narrowed by around 18 basis points on 29 June, the day of the release of the FOMC statement, and by 10 points the day of the Federal Reserve Chairman's Congressional testimony of 19 July. Both events had resulted in changed expectations about the course of US monetary policy. Lower than expected inflation numbers announced in mid-August also contributed to a significant decline in spreads.

The improved financial position of many sovereigns contributed to a slowdown in international bond issuance (see Highlights on page 21). Many financial and non-financial corporations, however, continued to raise large amounts, especially in the loan markets (Graph 11). Demand appeared to remain robust. For instance, the $750 million sovereign issue of the Republic of the Philippines in late July was 16 times oversubscribed. In addition, there were reports of net inflows picking up in early August as well as a large queue of emerging market issuers hoping to take advantage of favourable market conditions by issuing in September.