Ryan Stever
+41 61 280 9615
ryan.stever@bis.org

Goetz von Peter
+41 61 280 8326
goetz.von.peter@bis.org

Christian Upper
+41 61 280 8416
christian.upper@bis.org

Highlights of international banking and financial market activity[1]

The BIS, in cooperation with central banks and monetary authorities worldwide, compiles and disseminates several datasets on activity in international banking and financial markets. The latest available data on the international banking market refer to the third quarter of 2006. The discussion of the international debt securities market and exchange-traded derivatives markets draws on data for the fourth quarter of 2006.

The international banking market

Locational banking statistics

Growth in cross-border claims is steady in the third quarter

In the third quarter of 2006, total cross-border claims grew by 16% on a year-on-year basis, a growth rate which was up slightly from the previous quarter and in line with historical averages. Total claims of BIS reporting banks expanded by $808 billion, bringing the stock of claims to $25 trillion.

Growth continued to be particularly robust for sterling- and dollar-denominated claims (Graph 1). For the second consecutive quarter, claims denominated in sterling increased at a more rapid rate than those in all other major currencies, at 23% year on year. The 18% expansion of dollar-denominated claims was well above their seven-year average growth rate of 11%, while growth in euro claims was somewhat more subdued at 14%.

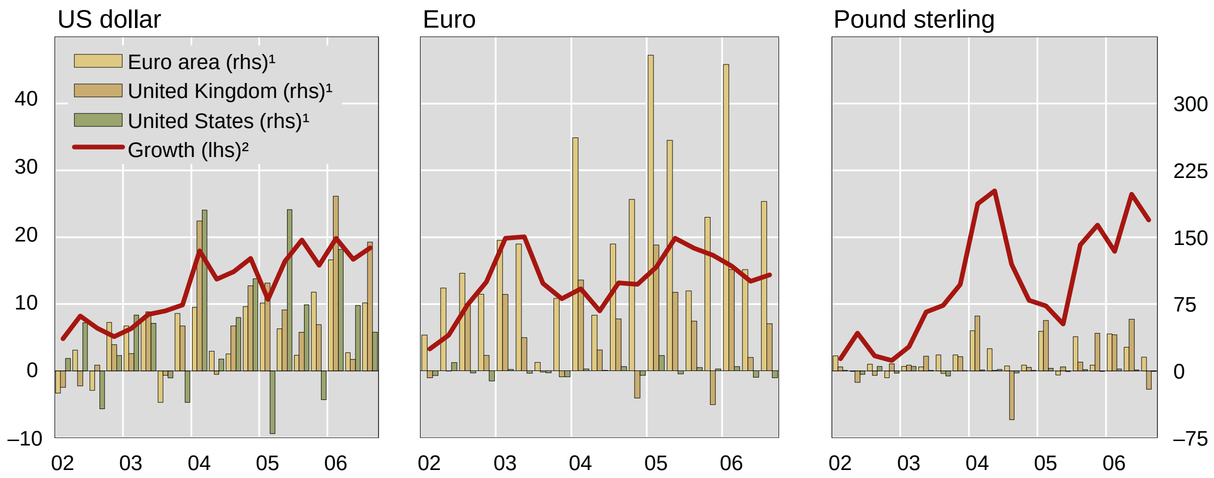
Yen-denominated claims on non-banks increased for the first time in three quarters, pushing growth to 2.5% on a year-on-year basis. Yen claims of banks in Germany and Japan fell while those of banks in France, Switzerland and the United Kingdom increased.

Growth in Swiss franc-denominated lending cools

Growth in Swiss franc-denominated claims on non-banks was more modest than in previous quarters. After gains of $6 billion and $2 billion the previous quarter, banks in the United Kingdom and Austria reported increases in these claims of only $300 million and $500 million, respectively. The cooling

[1] Queries concerning the locational banking statistics and international debt securities should be addressed to Ryan Stever, those regarding the consolidated banking statistics to Goetz von Peter, and those concerning the derivatives statistics to Christian Upper.

Cross-border claims by reporting country and currency



[1] Exchange rate adjusted quarterly changes in amounts outstanding, in billions of US dollars. [2] Annual changes, in per cent, calculated as the sum of exchange rate adjusted changes in amounts outstanding between periods *t*–3 and *t*, divided by the amount outstanding in period *t*–4.

Graph 1

was most evident for Austrian banks, where the expansion in Swiss franc-denominated claims in the latest quarter was the lowest in three years.

The growth in claims of banks in the developed world was steady at 16%. Banks in the United Kingdom were responsible for about a third ($208 billion) of this growth (Graph 2, centre panel), and a large share of those claims ($155 billion) were on non-banks (Graph 2, left-hand panel). Banks in both Japan and the United Kingdom have channelled an ever greater proportion of their total claims to non-bank borrowers (Graph 2, centre panel).

Banks in Canada are particularly active

Banks in Canada were particularly active in the third quarter compared with past experience, as their Canadian dollar-denominated cross-border claims on non-banks surged by $17 billion. Most of this increase was vis-à-vis residents of the United States. This high growth occurred in a quarter of unusually high differentials between US and Canadian short-term interest rates accompanied by below average volatility of the Canadian/US dollar exchange rate.

Funding from banks in Switzerland to offshore centres grew markedly in the third quarter, on the heels of impressive gains in the second (Graph 2, right-hand panel). Although the largest previous quarterly increase in net claims on offshore centres was $6 billion, in the second and third quarters of 2006 these claims rose by $51 billion and $66 billion, respectively. The increase stemmed largely from growth in dollar-denominated bank loans and dollar-denominated inter-office activity.

There was also unusually strong activity between banks in offshore centres and the United States, with dollar-denominated net claims on the United States increasing by a record $147 billion. This was primarily driven by a reduction in dollar deposits from both banks and non-banks.

Emerging markets are strong net depositors

Emerging markets were strong net depositors in the third quarter (Graph 3, left-hand panel). While growth in deposits placed by emerging market residents accelerated sharply, the growth of claims on these residents remained steady. As a result, reporting banks' net claims on emerging market countries decreased by $64 billion, 23% of total net claims.

Residents of Colombia and Mexico contributed heavily to the bulk of new deposits from Latin America. The new deposits from Mexican residents ($10 billion) into reporting banks were twice as large as those in any previous quarter. The majority of those flows were into banks in the Caribbean offshore centres. The new deposits from residents of Colombia, however, were mostly placed with banks in the United Kingdom.

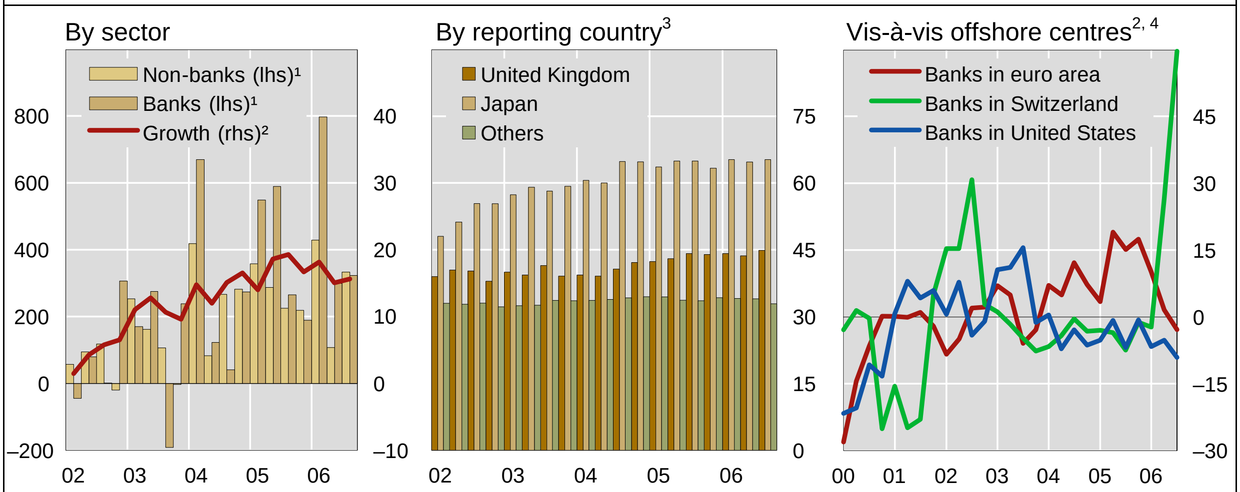
Reporting banks' claims on Korea, Taiwan (China)[2] and Thailand were the principal drivers of the growth of claims on developing Asia (Graph 3, centre panel). New claims on Thailand ($2 billion) were mostly in yen, while the $5 billion in new claims on Taiwan were primarily in dollars. Claims on Korean borrowers expanded by $27 billion, accounting for well over half of the growth of claims on the developing Asia-Pacific region. Over the second and third quarters of 2006, reporting banks' stock of claims on Korea rose by more than $50 billion (50% year on year), or more than all the growth in claims on Korea over the last five years combined.

Foreign currency borrowing in Korea is strong

Much of the increase in loans to Korea was in foreign currency, perhaps due to lower interest rates than locally available accompanied by borrowers' expectations of local currency appreciation. While authorities implemented measures in August 2006 to restrain such inflows, an immediate dampening impact was not apparent in the third quarter, at least based on quarterly data.[3]

The supply of funds from oil-exporting countries grew rapidly in the third quarter, with deposits from Russia in reporting banks expanding by more than $13 billion. While sterling deposits placed by Russian residents fell by

Total claims of BIS reporting banks in the developed world



[1] Exchange rate adjusted quarterly changes in amounts outstanding, in billions of US dollars. [2] Annual changes, in per cent, calculated as the sum of exchange rate adjusted changes in amounts outstanding between periods t–3 and t, divided by the amount outstanding in period t–4. [3] Share of claims on non-banks, in per cent. [4] Net claims. Graph 2

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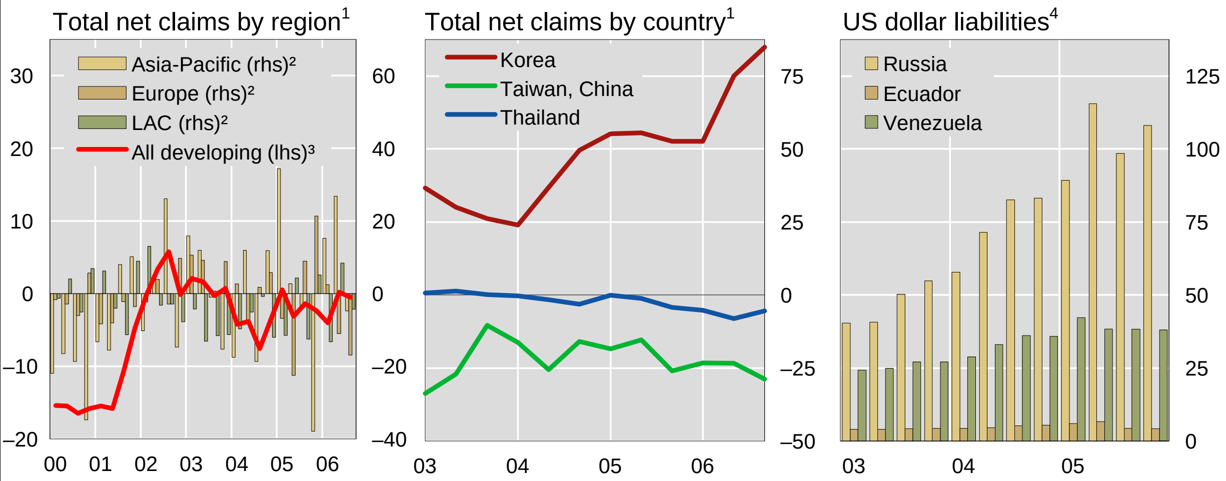
2 Hereinafter Taiwan.

3 Bank of Korea, *Financial Stability Report*, October 2006.

BIS reporting banks' positions vis-à-vis emerging economies

By vis-à-vis countries



[1] "Total net claims" is defined as total assets minus total liabilities, in billions of US dollars. [2] Exchange rate adjusted quarterly changes in amounts outstanding, in billions of US dollars; LAC = Latin America and Caribbean. [3] Annual changes, in per cent, calculated as the sum of exchange rate adjusted changes in amounts outstanding between periods *t*–3 and *t*, divided by the amount outstanding in period *t*–4. [4] Total liabilities, in billions of US dollars. Graph 3

$4 billion, dollar and euro deposits increased by $6 billion and $10 billion, respectively (Graph 3, right-hand panel). Nearly a half of the new deposits were placed in banks in the euro area and another $5 billion in banks located in the United Kingdom.

Deposits from OPEC member states rebounded from a slight dip in the second quarter. This was due principally to growth in US dollar deposits from OPEC countries in reporting banks, which rebounded to $44 billion following a $4 billion decline. Residents of Ecuador and Venezuela continued to reduce their dollar deposits (Graph 3, right-hand panel), while residents of Libya, Saudi Arabia and the United Arab Emirates were among the largest contributors to the growth in OPEC's dollar deposits.[4]

Consolidated banking statistics on an immediate borrower basis

Expansion in consolidated banking claims driven mostly by French, UK and Swiss banks

The consolidated banking statistics show that the expansion during the third quarter of 2006 was driven mostly by French, UK and Swiss banks. Foreign claims[5] were extended primarily to borrowers in the United States, emerging markets and the euro area, even as claims on banks in Germany and the Netherlands declined noticeably. French banks alone accounted for over a quarter of new foreign claims, and for over 40% of new local claims in local currencies, mainly the result of acquisitions of banks in Italy and Greece.

[4] These data should be interpreted with caution since the United States does not provide a complete breakdown of positions vis-à-vis individual oil-exporting countries in the Middle East but only for the Middle East region as a whole (which includes non-OPEC members). Thus, data for many individual countries as well as OPEC do not include data from banks in the United States.

[5] Foreign claims comprise international claims and local claims in local currencies. Local claims are those booked by foreign offices on residents of the country where the foreign office is located.

Australian and Canadian banks also raised their local currency claims, mostly on the main neighbouring countries, while Swiss banks built up local claims on the United States.

Emerging economies remained active in the international banking market. As lenders, Brazilian, Indian and Turkish banks substantially raised their international claims, albeit from a small base. As borrowers, emerging market residents received 20% of new international claims, twice their share in the stock outstanding. Some 80% of new credit went to emerging Asia and emerging Europe, while growth in claims on Latin American residents slowed. The doubling of BIS reporting banks' claims on the public sectors of Korea and Taiwan, mostly in the short-term segment, stood out. In reporting countries' emerging market portfolios, the share of public sector claims gained 1 percentage point, to stand at 17%, and the share of claims maturing within a year edged up to 48%. This is in contrast to the continued decline of these shares in reporting banks' overall portfolios.

Consolidated banking statistics on an ultimate risk basis

Exposures on an ultimate risk basis increase vis-à-vis almost all countries

The consolidated banking statistics on an ultimate risk basis indicate that reporting banks increased their exposures to almost all countries in the third quarter of 2006, in spite of political and military tensions in a number of countries. Claims on borrowers in several smaller emerging markets, such as Egypt, Israel and Ukraine, jumped by a quarter or more. From the lenders' perspective, Greek and Norwegian banks raised their portfolio share allocated to emerging markets by more than 10 percentage points in the course of a year, while US banks shifted their emerging market portfolios significantly towards public sector borrowers.

The value of derivatives positions declines

The relative sizes of contingent liabilities and derivatives positions in the portfolios of reporting banks have moved over time. Since reporting began in early 2005, the value of derivatives positions has decreased more often than increased. For example, the latest quarter's decline of 9% offset the previous increase in the market value of derivatives, largely reflecting the decline in long-term rates that reduced the market value of interest rate swaps.[6] By contrast, contingent facilities have expanded slightly faster than banks' total foreign claims. Within this category, guarantees have increased, while credit commitments have declined, as a share of foreign claims. From the perspective of the ultimate borrowers, the United States continued to secure the largest share of credit commitments by far, while the euro area displaced the United Kingdom as the region attracting the largest share of guarantees.

Risk transfers remain a small part of emerging market exposures

Risk transfers remain a relatively small part of portfolio exposures on emerging markets (Graph 4). Banks can use risk transfers to reduce their portfolio exposure when measured on an ultimate risk basis.[7] A gross outward risk transfer takes place when a US bank's loan to a Mexican corporate, for

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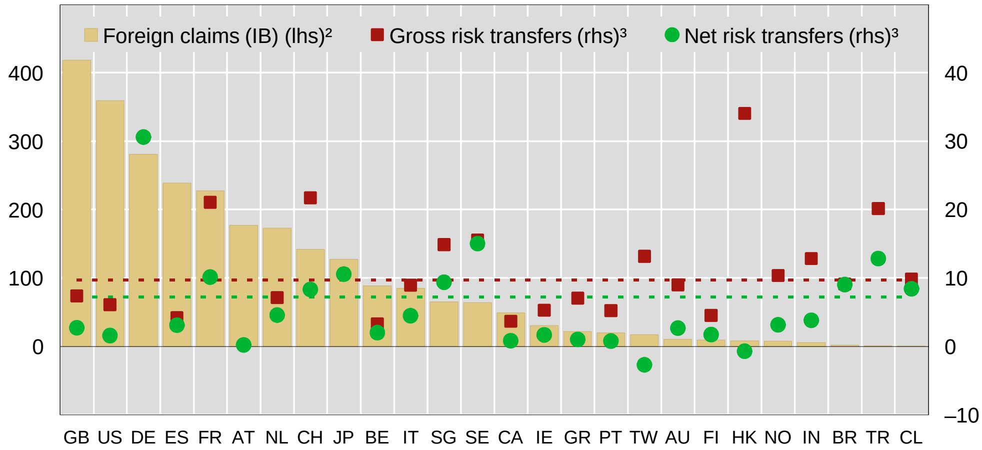
[6] Only positive market values of derivatives positions are reported.

[7] See P McGuire and P Wooldridge, "The BIS consolidated banking statistics: structure, uses and recent enhancements", *BIS Quarterly Review*, September 2005 for a discussion.

Risk transfers out of emerging markets, by reporting country[1]

Positions at end-September 2006



AT = Austria; AU = Australia; BE = Belgium; BR = Brazil; CA = Canada; CH = Switzerland; CL = Chile; DE = Germany; ES = Spain; FI = Finland; FR = France; GB = United Kingdom; GR = Greece; HK = Hong Kong SAR; IE = Ireland; IN = India; IT = Italy; JP = Japan; NL = Netherlands; NO = Norway; PT = Portugal; SE = Sweden; SG = Singapore; TR = Turkey; TW = Taiwan, China; US = United States.

Note: The dotted lines represent the overall shares of the corresponding colours as weighted averages. Austria, Germany and Japan report only net risk transfers and are excluded from average gross risk (outward).

[1] Of the 30 countries reporting consolidated banking statistics (IB), four do not report risk transfers and are excluded. Risk transfers are calculated vis-à-vis all emerging markets combined; net risk transfers exclude transfers within emerging markets. [2] Cross-border claims plus local claims in all currencies booked by foreign offices of domestically owned banks of reporting countries; amounts outstanding; in billions of US dollars. [3] As a percentage of foreign claims (IB).

Source: BIS international consolidated banking statistics. Graph 4

instance, is guaranteed by a third party outside Mexico. But if the guarantor resides in another emerging market, this also gives rise to an inward risk transfer into that emerging market. In the statistics, such inward transfers offset more than half of outward transfers, resulting in *net* risk transfers out of all emerging markets combined of only 7.2% of foreign claims.[8] Net risk transfers were, in fact, smaller than the additional contingent exposure taken on through guarantees extended to emerging market borrowers (10.5% of foreign claims). This was the case for the reporting population as a whole, as well as for most individual reporting countries listed in Graph 4.

The use of risk transfers varies by bank nationality

Banks of different nationalities vary in the way they use risk transfers to alter their portfolio exposures. German banks transferred more than 30% of their exposures out of emerging markets, while US banks, with even larger exposures to emerging markets, did so by less than 2%. In the case of US and Spanish banks, their strong local presence in Latin America may substitute for risk transfers.[9] Since their risk transfers measured in gross and net terms were equal, Brazilian banks appeared to concentrate on guarantors outside

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[8] This percentage has remained fairly stable and has never exceeded 10% since reporting began.

[9] See P McGuire and N Tarashev, "The international banking market", *BIS Quarterly Review*, March 2006 for a host country perspective.

emerging markets By contrast, Hong Kong and Taiwanese banks' larger outward risk transfers were completely offset by inward risk transfers from emerging markets.

The international debt securities market

Issuance robust in the fourth quarter

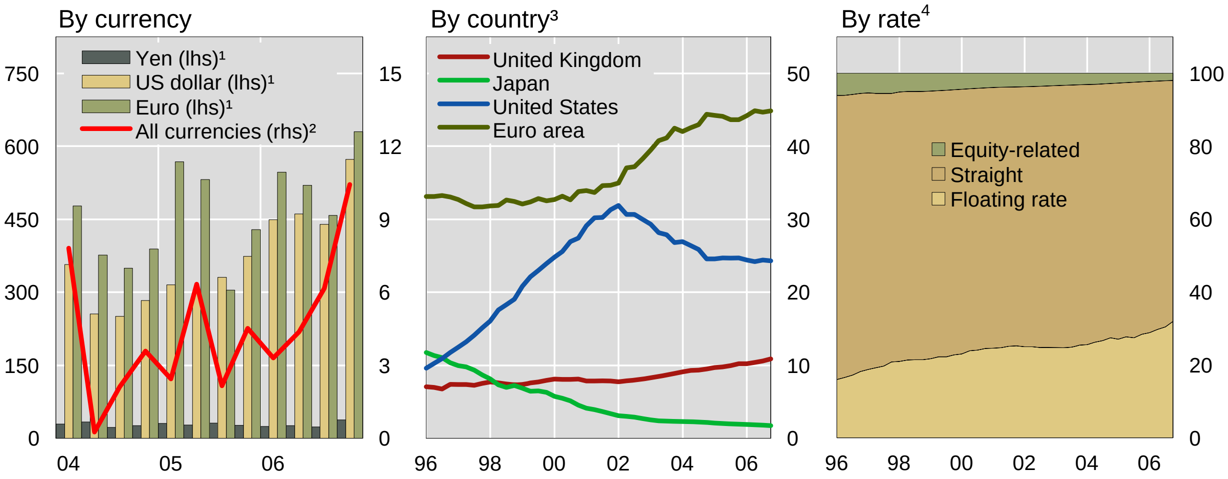
International debt securities issuance was robust in the fourth quarter of 2006. Gross issuance of international bonds and notes increased by over 10% year on year, well above the average growth of 4% since the first quarter of 2000 and the highest rate of growth since the third quarter of 1999. Net issuance surged by 14% year on year to $883 billion, despite a seasonal tendency for it to be sluggish in the fourth quarter. As a result, the amount outstanding of all international bonds and notes increased by 8% from the previous quarter.

The expansion of bond and note issuance in 2006 was strongest in dollar-denominated securities, although the euro and yen also saw significant growth in debt outstanding (Graph 5, left-hand panel). Gross dollar issuance expanded by 12% year on year, the largest increase in five years. Gross euro and yen issuance expanded by $630 billion and $37 billion, respectively. The level of euro-denominated gross issuance remains larger than that of any other currency in both gross and net terms.

In the developed world, issuance was firm in most countries but growth was particularly concentrated in Europe. The euro area was responsible for a full 41% of the $2.1 trillion in total gross issuance and 38% of net issuance. By contrast, the United States' share, which had reached a peak in the first quarter of 2002 at 31%, fell further to 24% (Graph 5, centre panel).

Growth in issuance from the United Kingdom continued to accelerate, increasing by 15% year on year, compared to 9% the previous quarter, and this nudged the United Kingdom's growing share of debt outstanding up to 11%

International bond and note issuance



[1] Announced issues, in billions of US dollars. [2] Annual changes, in per cent, calculated as the sum of exchange rate adjusted announcements between periods *t*–3 and *t*, divided by the sum of exchange rate adjusted announcements between periods *t*–4 and *t*–1. [3] Share in total of all countries, by issuer nationality, in per cent. [4] Share in amounts outstanding, in per cent.

Sources: Dealogic; Euroclear; ICMA; Thomson Financial Securities Data; BIS. Graph 5

(Graph 5, centre panel).

Canada and Japan both experienced high levels of activity in the international debt securities market in the fourth quarter. The $25 billion in gross issuance from Canada marks a 17% year-on-year increase following the previous quarter's growth of 6%. Growth in Japan's gross issuance also surged, but the real sign of growth in Japan was net issuance of $9 billion in bonds and notes. From the beginning of 2000, Japan had made average quarterly net repayments of $111 million. Since the beginning of 2006, however, there has been a run of four consecutive quarters of positive net issuance.

The share of floating rate debt rises to a record high of 32%

Floating rate debt accounted for a good deal of issuance in international debt securities markets (Graph 5, right-hand panel). Over the last five years, around one quarter of gross issuance of bonds and notes has been floating rate. In the last quarter, that share rose to a record high of 32%. The move away from fixed rate debt is even more pronounced in net terms – with the corresponding share rising a full 5 percentage points from the previous quarter and 20 percentage points more than the average over the last four years.

Mortgage-backed securities once again accounted for a large proportion of issuance. For the second consecutive quarter, the largest single issue was a $7 billion offering by a special purpose securitisation trust (Canada Housing Trust) advised by Canada Mortgage and Housing Corporation. In addition, the United States' Federal Home Loan Bank, Fannie Mae and, to a lesser extent, Freddie Mac all had several large issues.

In emerging markets, securities borrowings rose sharply in Europe, Latin America and Asia-Pacific. In emerging Europe, net issuance was nearly 50% greater than the previous quarterly high since 2001. Latin America's growth in net issuance was the largest since 2001. Asia-Pacific experienced strong growth too, over 10% year on year.

Among the countries in the developing world with particularly high net issuance were Russia, the United Arab Emirates, Brazil, Korea, Mexico and Indonesia. Russian net issuance of $16 billion was up by 78% year on year, well above the previous quarter's 24% and about four times the quarterly average over the last five years. Gross issuance in Brazil and Mexico was $7.3 billion and $3.6 billion, respectively, while Indonesia had positive net issuance for the first time in three quarters at $2.6 billion.

Derivatives markets

Trading on the international derivatives exchanges slowed in the fourth quarter of 2006. Combined turnover of interest rate, currency and stock index derivatives fell by 7% to $431 trillion between October and December 2006.[10] As in the previous quarter, the deceleration in activity was primarily the consequence of seasonal factors, which tend to dampen trading in the interest rate segment towards the end of the year. By contrast, activity in derivatives on

[10] All growth rates in the section on exchange-traded derivatives refer to quarter-on-quarter increases.

stock indices increased by 5%, although at $45 trillion it remained just below the peak of the second quarter. Turnover in exchange-traded currency contracts rose by 19% to just under $5 trillion, the highest level on record. Finally, activity in futures and options on commodities, which are not included in the above total since notional amounts are not available, increased by 12% in terms of the number of contracts traded, mainly due to a sharp rise in the trading of agricultural commodities in China.

Seasonal factors weigh on turnover of money market derivatives

In the absence of significant monetary policy surprises,[11] turnover in derivatives on short-term interest rates fell by 10% in the fourth quarter of 2006, close to the estimates of seasonal factors presented in the March 2006 *BIS Quarterly Review* (pp 45–6). A particularly strong decline in activity took place in the market for federal funds futures, where turnover more than halved.[12] Trading in options on federal funds initially remained strong, but dropped considerably in November. However, this was not reflected in a reduction in the open positions in the market. Quite on the contrary, open interest in federal funds options almost doubled during the course of the quarter. This suggests that the decline in activity was primarily the result of less short-term trading rather than lower positions. Turnover in derivatives on three-month interest rates declined by a much smaller amount than trading in contracts on overnight rates. For example, trading volumes in three-month eurodollar contracts dropped by 6%, while trading in the equivalent euro and sterling contracts fell by 8% and 17%, respectively. Activity in euroyen futures and options was stable.

Active trading in stock index contracts

Increasing equity prices lifted activity in futures and options on stock indices in most regions. Growth was particularly rapid in some of the smaller markets, such as those for contracts on Hungarian (210%), Indian (78%), Swedish (41%) and Brazilian (37%) equities. Turnover in contracts on euro area and US indices expanded by 17% and 9%, respectively. The only major market posting a decline in activity was Korea, where turnover fell by 10%. The Korean market for stock index derivatives briefly overtook the US market as the world's busiest in the third quarter of 2005, but its size has stagnated since.

Soaring turnover in contracts on central European currencies

Trading in exchange rate linked contracts on the international derivatives exchanges picked up markedly in the final quarter of 2006 and surpassed the peak reached in the second quarter. Among the major currencies, particularly strong growth took place in futures and options on the pound sterling, where turnover increased by 36% to $618 billion. Even higher rates of growth were recorded in contracts on central European currencies such as the Hungarian forint (151%), the Czech koruna (71%) and the Polish zloty (57%). Combined open interest in these currencies almost tripled between end-September and

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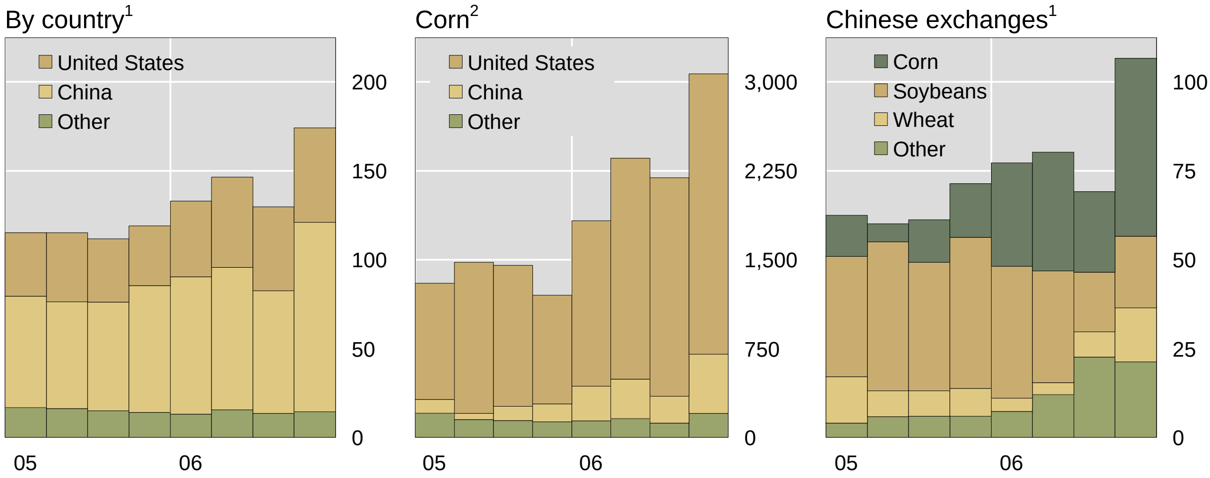
[11] In early January, both the Bank of England and the Bank of Japan surprised markets, the former by increasing policy rates and the latter by leaving them unchanged (Overview, p 3). However, neither event could have affected turnover in the final quarter of 2006.

[12] The payoffs of federal funds derivatives are directly related to policy rates, which makes these contracts particularly suitable for taking positions on the future course of monetary policy. See C Upper, "Derivatives activity and monetary policy", *BIS Quarterly Review*, September 2006, pp 65–76.

Turnover of derivatives on agricultural commodities



[1] In millions of contracts. [2] In millions of tons.

Sources: FOW TRADEdata; BIS calculations. Graph 6

end-December, after declining in the wake of the sell-off in May and June. In the case of Hungary, the rise in positions could be explained by the attractiveness of the forint for carry trades (see the box on p 8), although this explanation is much less likely to hold for positions in the zloty or koruna, where interest rates are much more in line with those in the euro area.

High turnover in agricultural commodities …

Heavy activity in derivatives on agricultural commodities (34%) offset weaker trading in contracts on energy (–9%) and precious metals (–14%) in the fourth quarter of 2006. Turnover in derivatives on base metals remained stable.

… reflects surge in activity on Chinese exchanges

Turnover in agricultural commodities was primarily driven by a surge in the number of contracts on corn (84%), whose prices had increased from approximately $200 per bushel[13] to almost $400 in the period under review. Although the rise in corn prices has been widely attributed to the expansion of ethanol production related to fuel conversion programmes in the United States, this factor is unlikely to explain the surge in turnover. Trading in derivatives on corn grew much more rapidly in China (121%) than in the United States (30%), bringing China's share in global turnover measured in terms of the number of contracts traded in agricultural derivatives to 60% (Graph 6). This compares to a share of just over 30% for the United States. However, this measure ignores the much smaller size of Chinese contracts. For example, the futures contract on corn traded on the Dalian Commodity Exchange refers to 10 tons, compared to 5,000 bushels (or approximately 125 tons) for regular-sized and 1,000 bushels (about 25 tons) for mini-sized contracts at the Chicago Board of Trade. Adjusted for the size of contracts, turnover in China accounts for only 16% of worldwide corn turnover, compared to the United States' 77%. In the case of wheat, the share of China is even smaller.

[13] A bushel of corn weighs approximately 25.5 kg.