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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 international debt securities and exchange-traded derivatives refer to the third quarter of 2007, thus covering some of the recent turbulence in financial markets. The discussion on over-the-counter derivatives refers to the first half of 2007, and that on international banking markets to the second quarter.

The international debt securities market

Net issuance of bonds and notes less than half that of the previous quarter

Borrowing in the international debt markets retreated sharply during the turmoil in financial markets in the third quarter of 2007. Net issuance of $396 billion in bonds and notes was less than half that of the previous quarter. Year-on-year growth was negative (–4%) for the first time in two years, and well below both the 18% growth the previous quarter and the 7% average since 2003.

Stagnation was evident across an array of currency denominations, though not all (Graph 1, right-hand panel). The $90 billion in new euro-denominated bonds and notes represented a year-on-year decline of 9% (compared to a 17% decrease the previous quarter), while the dollar and sterling segments sagged to 0% and 2%, respectively (from 17% and 14% the previous quarter). Perhaps reflecting the relative stability of Japanese money markets during the quarter, the issuance of yen-denominated bonds and notes appears to have been little affected by the turbulence. Indeed, year-on-year growth in this segment remained elevated at 30%. The $18 billion in net yen borrowing in the third quarter accounted for nearly 4% of global issuance, the highest yen share in three years.

Sharpest declines in euro-denominated borrowing

The decline in euro-denominated borrowing reflected weak issuance in the euro area, particularly from French and German residents (Graph 1, left-hand panel). There was only $82 billion in new bonds and notes issued by euro area borrowers, following $392 billion the previous quarter. For the first time since the 1980s, German net issuance was negative (–$20 billion), while the

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

$10 billion in borrowing from residents of France was significantly below the $34 billion average over the last five years. For residents of both these countries, the decrease in issuance was due to a fall in financial sector borrowing, particularly from private banks.

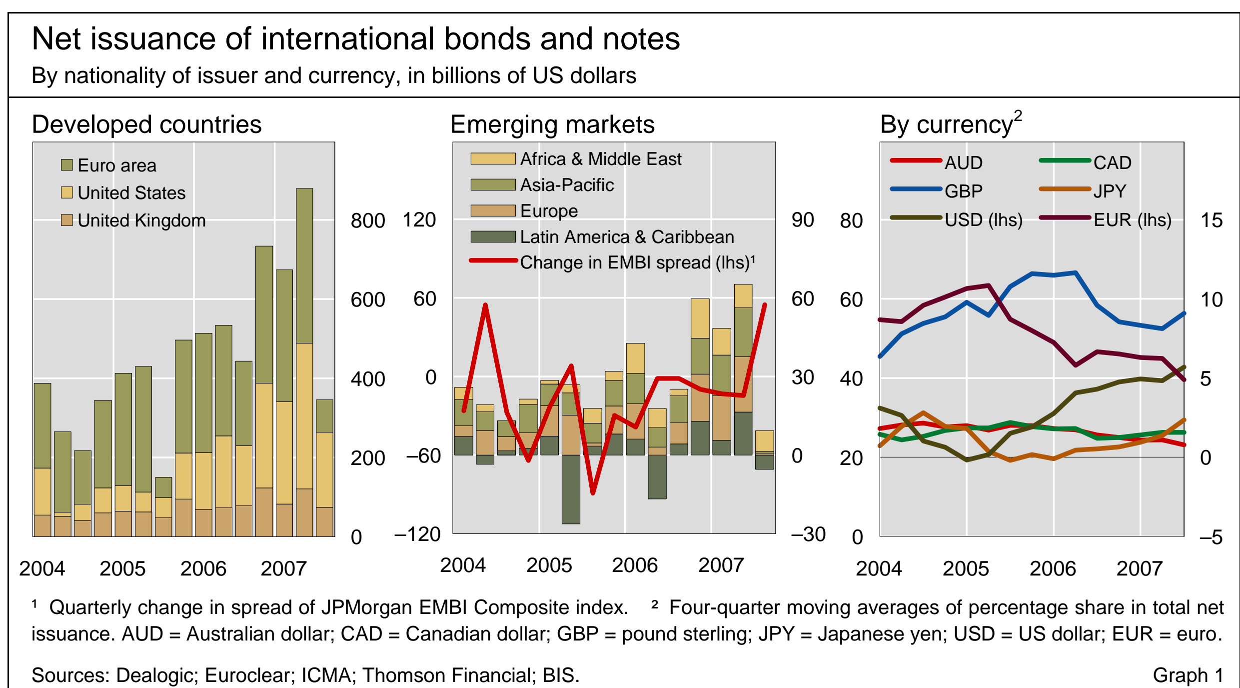
Although the decline was not as marked, net issuance in the United States, the United Kingdom and Australia also fell from the previous quarter. Borrowing from the United States was around $190 billion in the third quarter, which corresponded to a year-on-year growth rate of 4%, well below the previous quarter's 22%. The $74 billion in international debt added by UK borrowers reflected the first case of negative year-on-year growth since 2004. The $11 billion raised by Australian residents, mostly private financial institutions, represented a 3% year-on-year decrease (compared to a 13% increase the previous quarter), and was well below the $20 billion in borrowing in each of the last three quarters.

Emerging market borrowing slows …

In the emerging economies, bond and note issuance declined even more significantly than in the advanced economies, coinciding with a significant widening of emerging market bond spreads (Graph 1, centre panel). Borrowing in emerging Europe and Asia decreased particularly sharply. Announcements from emerging Europe were over 75% lower than the previous quarter, with year-on-year growth falling to –7%. Net issuance from borrowers of the emerging economies in the Asia-Pacific region was a mere $1 billion, the lowest since the third quarter of 2001.

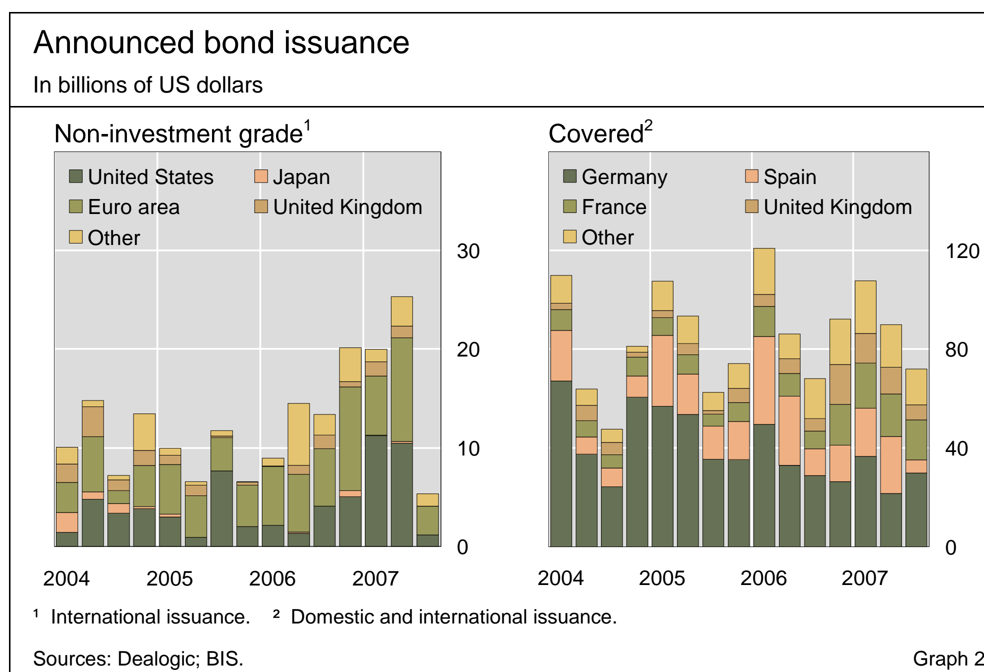
… as does issuance of non-investment grade debt

The decline in emerging market issuance may have reflected a retreat in the risk appetite of the investment community more generally. Examining gross issuance in the third quarter by credit quality class for international debt securities, the slowdown is most pronounced for non-investment grade bonds (Graph 2, left-hand panel). While non-investment grade debt issuance had expanded by an average of 11% year on year over the previous two years, in the latest quarter it collapsed to nearly one fifth the level of the previous



¹ Quarterly change in spread of JPMorgan EMBI Composite index. ² Four-quarter moving averages of percentage share in total net issuance. AUD = Australian dollar; CAD = Canadian dollar; GBP = pound sterling; JPY = Japanese yen; USD = US dollar; EUR = euro.

Sources: Dealogic; Euroclear; ICMA; Thomson Financial; BIS. Graph 1



quarter, leaving year-on-year growth at –10%. US non-investment grade borrowing dropped from $10 billion the previous quarter to $1 billion, while issuance from the euro area declined from $11 billion to $3 billion.

That said, even borrowing in some of the most highly rated markets was affected by the turmoil in credit markets. Issuance of covered bonds, securities issued by financial institutions that are backed by mortgage and government debt and are typically thought to be almost free of credit risk, slowed sharply in the second half of the third quarter (Graph 2, right-hand panel). The $27 billion in announcements in September marked the lowest level for that month since 2004. Spanish covered bond issuance slowed by more than that of other countries. The $5 billion in new borrowing by Spanish borrowers in the third quarter sank year-on-year growth to –8% and meant the slowest quarter for these issuers since the third quarter of 2003.

Among sectors, private non-financial borrowing slowed the least, with year-on-year growth nearly flat. Notable issues that attracted demand included some from US corporate Johnson & Johnson announced on 13 August. The five-year issue was AAA-rated and sold at a 62 basis point spread over the benchmark, and there were enough orders to warrant an increase in the size of the initial issuance by $100 million. Even some lower-rated corporates sold bonds at typical spreads. A 10-year bond rated BBB+ from Comcast announced on 20 August sold at a spread of 170 basis points, reportedly only around 10 basis points over the typical spread for this type of bond.

Derivatives markets

Exchange-traded derivatives

Surge in turnover of futures and options …

The turbulence in financial markets led to the busiest trading on record on the international derivatives exchanges. Activity was particularly strong in derivatives on short-term interest rates, whose trading volumes went up by

31% in the third quarter.[2] Rapid growth was also recorded in contracts on stock indices (19%) and on foreign exchange (18%). Activity in government bond contracts, by contrast, showed a more moderate rate of increase (8%). Combined turnover in listed interest rate, currency and stock index derivatives rose by 27% to $681 trillion between July and September, after remaining stable in the previous quarter. The year-on-year rate of growth accelerated to 46%, from 11% in the second quarter.

… particularly in money market contracts

The surge in activity in futures and options on short-term interest rates contrasts with reports of a decline in activity in other segments of the money market. Although turnover in money market derivatives increased in several currencies, the sharpest rises were recorded in contracts on short-term sterling (47%) and euro interest rates (43%), followed by US dollar contracts (28%). Turnover in all three currencies soared, as the spread between three-month interbank rates and rates paid on overnight interest rate swaps – a measure of pressures in the money market – widened in August (Graph 3). In September, activity declined in dollar- and euro-denominated contracts, but continued to increase in sterling derivatives. Similar spikes in turnover in exchange-traded money market derivatives had been observed during previous episodes of market stress. For example, turnover in eurodollar futures and options shot up by 241% between August and September 1998, when the near failure of a large hedge fund sparked significant distress.

Potential causes

The precise channels through which financial turbulence feeds into high turnover are not clear, though. One factor that is likely to have played a role in August is the hedging needs of banks forced to rely on the overnight market for their funding as liquidity in longer-term segments of the money market dried up. This is supported by the fact that turnover in derivatives on federal funds increased by a greater magnitude (158% month on month) in August than turnover in contracts on three-month eurodollar rates (65%). It is also possible that market participants shifted some trading from the spot market or from over-the-counter derivatives onto the exchanges, either because of lower perceived counterparty risk given the existence of a central counterparty or because of the higher market transparency.

Heavy trading in contracts on the yen

The turbulence in international financial markets also left its imprint in the foreign exchange segment, where turnover went up by 18% to $6 trillion in the third quarter. This rise was mainly driven by a sharp increase in the volumes of contracts on the yen (55%) and the Swiss franc (24%). While this is consistent with reports of a large-scale unwinding of carry trades during August and September, a similar increase in activity has not been recorded in any of the major target currencies. For example, turnover in contracts on the Australian dollar increased by 17%, sterling by 12%, the Brazilian real by 9%, and the New Zealand dollar by 3%.[3]

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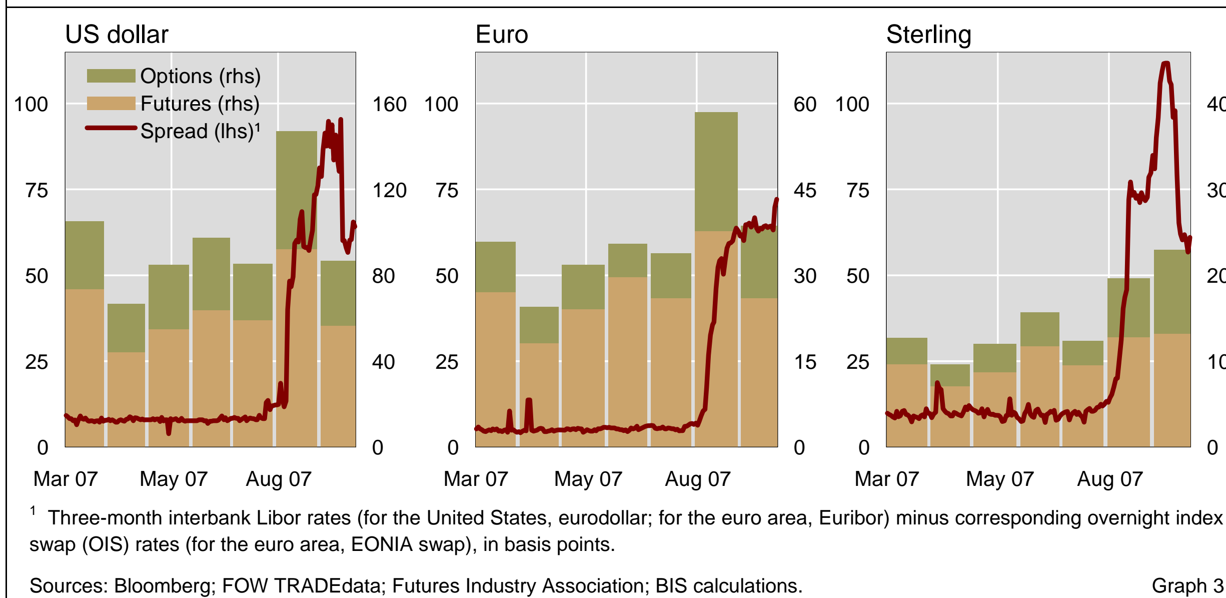
[2] All growth rates in this section refer to quarter-on-quarter increases, unless otherwise noted.

[3] See G Galati et al, “Evidence of carry trade activity”, *BIS Quarterly Review*, September 2007, pp 27–41, on how the available data can be used to assess the size of carry trade positions.

Turnover in short-term interest rate contracts

Monthly data, in trillions of US dollars



[1] Three-month interbank Libor rates (for the United States, eurodollar; for the euro area, Euribor) minus corresponding overnight index swap (OIS) rates (for the euro area, EONIA swap), in basis points.

Sources: Bloomberg; FOW TRADEdata; Futures Industry Association; BIS calculations. Graph 3

High level of activity in commodity markets

A surge in activity on Chinese exchanges lifted turnover in commodity markets in the third quarter. Global turnover in commodity derivatives measured by the number of contracts traded (notional amounts are not available) increased by 26%, owing to a rapid expansion in agricultural commodities (53%). Turnover in derivatives on precious metals rose by 10%, while the number of contracts on non-precious metals and energy remained approximately stable. An increase in activity in agricultural commodities was almost entirely driven by higher activity in contracts listed on Chinese exchanges, which tend to refer to considerably smaller physical quantities than those traded on the dominant Chicago exchanges (see *BIS Quarterly Review*, March 2007, p 26).

OTC derivatives

Triennial survey and regular OTC derivatives statistics

In November, the BIS released the latest statistics on positions in the global over-the-counter (OTC) derivatives market. These comprise the results of the second part of the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity as well as the regular semiannual OTC derivatives statistics.[4] The two surveys share the same format but differ in coverage. The triennial survey is more comprehensive. It contains information on instruments not covered by the semiannual survey, in particular credit derivatives other than credit default swaps (CDSs). Moreover, whereas the semiannual survey aggregates data from major dealers in the G10 countries and Switzerland, the triennial survey covers market participants in 47 jurisdictions.

Developments since last triennial survey in 2004

Positions in the OTC derivatives market have increased at a rapid pace since the last triennial survey was undertaken in 2004. Notional amounts

[4] For a discussion of the methodology of the two surveys, see the November 2007 Statistical Release, available at www.bis.org/publ/otc_hy0711.htm.

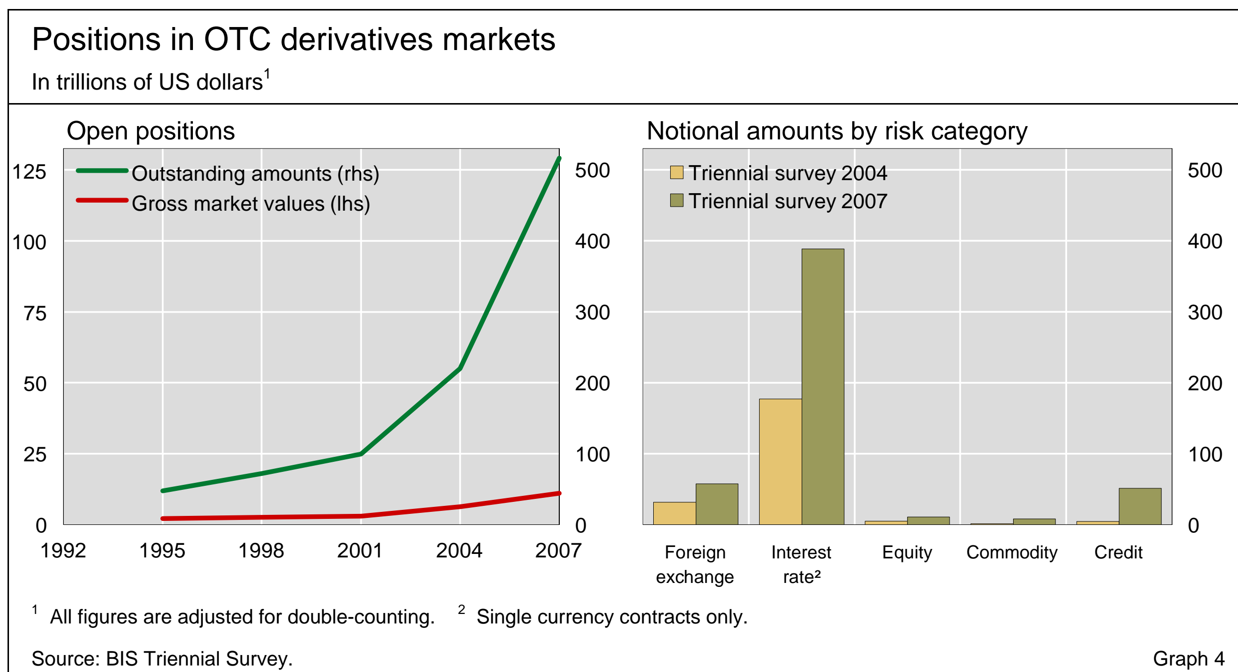
outstanding of such instruments totalled $516 trillion at the end of June 2007, 135% higher than the level recorded in the 2004 survey (Graph 4). This corresponds to an annualised compound rate of growth of 33%, which is higher than the approximatively 25% average annual rate of increase since positions in OTC derivatives were first surveyed by the BIS in 1995.[5] Notional amounts outstanding provide useful information on the structure of the OTC derivatives market but should not be interpreted as a measure of the riskiness of these positions. Gross market values, which represent the cost of replacing all open contracts at the prevailing market prices, have increased by 74% since 2004, to $11 trillion at the end of June 2007.

While growth has accelerated in all major risk categories during the last three years, the highest rate of increase was reported in the credit segment. Positions in credit derivatives stood at $51 trillion at end-June 2007, compared to under $5 trillion in the 2004 survey. CDSs are by far the dominant instrument in this category, accounting for 88% of positions in credit derivatives.

The triennial survey provides a useful benchmark against which the coverage of the semiannual data can be assessed. It turns out that the 55 reporting dealers surveyed on a half-yearly basis account for 88% of total positions in that market, reflecting the fact that OTC derivatives are generally executed between a large bank or securities house and a customer.[6] The coverage of the semiannual survey is lowest in the equity and foreign exchange segments, where the regular reporters account for approximately 85% of total positions. A much higher coverage is achieved in CDSs (94%).

Positions in OTC derivatives markets

In trillions of US dollars[1]



[1] All figures are adjusted for double-counting. [2] Single currency contracts only.

Source: BIS Triennial Survey. Graph 4

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[5] The 1995 survey covered OTC foreign exchange and interest rate derivatives only. However, other evidence suggests that positions in other risk categories were relatively small at the time. The bias resulting from incomplete coverage is therefore probably small.

[6] Of course, this ignores the possibility that contracts are entered into between institutions that do not report to the triennial survey. Conversations with market participants suggest that such positions are likely to be extremely small relative to those covered by the two surveys.

Box 1: Turnover in OTC derivatives markets

This box discusses developments in the turnover of OTC derivatives in April 2007, drawing on the recent BIS Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity (www.bis.org/triennial.htm). Turnover in the foreign exchange market is explored in more detail in the feature on page 63 of this issue.

Trading volumes in the OTC derivatives market continued to expand at a rapid pace between 2004 and 2007. Average daily turnover of interest rate and non-traditional foreign exchange derivatives contracts reached $2,090 billion in April 2007, 71% higher than three years before (see table). This corresponds to an annual compound rate of growth of 20%, which is in line with the growth recorded since the derivatives part of triennial survey was started in 1995.

Growth was particularly strong in the FX segment, where average daily turnover in cross-currency swaps and foreign exchange options increased by 108% to $292 billion in April 2007, thus outstripping growth in "traditional" instruments such as spot, forward and FX swap contracts (71%). While options remained the main "non-traditional" FX instrument in the OTC market, accounting for slightly less than three quarters of total turnover, the instrument with the fastest rate of growth (279%) was actually cross-currency swaps, whose turnover increased to $80 billion. In part, this growth could be explained by the hedging of foreign currency bonds. April 2007 saw a large issuance of dollar-denominated bonds by non-resident issuers, some of whom may have hedged their obligations in the swap market.

More moderate growth than in FX contracts was recorded in the interest rate segment, where average daily turnover increased by 65% to $1,686 billion. The euro remained the leading currency in this segment, although the gap vis-à-vis the US dollar narrowed. In the reporting period, 39% of turnover took place in euro-denominated contracts, and 32% in dollar. However, their combined share has fallen by nearly 10 percentage points since the 2004 survey, as turnover growth in several non-core markets has outstripped that in the two leading currencies. For example, average daily trading volumes of sterling-denominated interest rate derivatives increased by 91%, compared to rates of growth of 42% and 53%, respectively, in the euro and the dollar. Turnover in contracts denominated in the yen almost tripled, bringing that currency's share in total turnover to over 8%, from 4.5% three years before. To some extent, rapid growth in the yen market reflects a catching-up since for many years activity in that market had been hampered by low and stable interest rates.

Global OTC derivatives market turnover by instrument[1]

Average daily turnover in April, in billions of US dollars

Instrument	1998	2001	2004	2007
A. Foreign exchange instruments	**97**	**67**	**140**	**291**
Cross-currency swaps	10	7	21	80
Options	87	60	117	212
Other	0	0	2	**0**
B. Interest rate instruments[2]	**265**	**489**	**1,025**	**1,686**
FRAs	74	129	233	258
Swaps	155	331	621	1,210
Options	36	29	171	215
Other	0	0	0	1
C. Estimated gaps in reporting	**13**	**19**	**55**	**113**
D. Total	**375**	**575**	**1,220**	**2,090**

[1] Adjusted for local and cross-border double-counting. [2] Single currency interest rate contracts only.

Developments in the first half of 2007

Turning to the regular, semiannual derivatives statistics, growth in the amounts outstanding of OTC derivatives accelerated in the first half of 2007, prior to the turbulence that hit financial markets in August and subsequent months.

Notional amounts outstanding of all types of OTC contracts increased by 25% between January and June, after a 12% increase in the second half of 2006. Growth accelerated in all risk categories with the possible exception of commodities,[7] although once again the pace of increase in CDSs (49%) outstripped the rises in other risk categories.

The international banking market

Locational banking statistics

Banking activity returns to a more moderate pace

Following a surge in the first quarter, international banking activity returned to a more moderate pace during the *second quarter of 2007*. Cross-border claims expanded by $1.3 trillion to stand at $30 trillion, up 22% relative to a year earlier. As claims on non-banks continued to grow steadily (23% year on year), the moderation was entirely due to a slowdown in the growth of interbank activity. The US dollar share in the expansion was 47%, followed by those of the euro (30%) and the yen (10%). Swiss franc- and sterling-denominated claims remained nearly constant, after an exceptional expansion in sterling activity the previous quarter.

Loans to private non-banks continue to expand

Credit to non-banks continued on a robust growth path. Cross-border claims on non-bank entities expanded by $594 billion, following similar increases in the previous two quarters (23% year on year). Most of this credit was granted in the form of loans and, as a result, the share of debt securities in total non-bank claims outstanding fell below 38%, down from 43% at end-2005. During the latest quarter, the main destinations were the United States ($177 billion), the euro area ($132 billion) and emerging markets ($106 billion).

Bank credit to emerging markets hits new record …

Emerging markets received an unprecedented flow of bank credit. While bank claims on emerging markets soared by $201 billion, well beyond the record set in the first quarter of 2007, new deposit placements with BIS reporting banks fell below $100 billion for the first time in a year. As a result, emerging markets attracted $104 billion of net bank flows during the quarter. Half of this amount went to emerging Europe alone. Africa and the Middle East also attracted a record $32 billion, as inflows to the region were for once not offset by outflows in the form of deposit placements. Latin America was the only region where deposit placements ($28 billion) exceeded inflows, resulting in a net outflow of $4 billion.

Net inflows to emerging Asia ($22 billion) reflected both growing in- and outflows ($73 billion and $50 billion, respectively). China attracted $17 billion in net claims, with little change in deposits. Residents of Korea received $16 billion, in part by reducing their international deposit holdings by $5 billion. Growth in claims on Korea moderated somewhat, to 40% year on year (down from 63% the previous quarter), following efforts by the Korean authorities to check the build-up of foreign banks' claims on their Korean affiliates.

[7] The high rate of growth in commodity contracts in the second half of 2006 is likely to have been caused by substantial revisions of the amounts outstanding at the end of 2006.

Box 2: The evolving instrument composition of official holdings of US dollars

Robert N McCauley

The establishment of the China Investment Corporation to invest a portion of China's reserves has raised the salience of the choice of asset classes by official investors. This box reviews the recent evolution of official investment in US dollar instruments globally. Comparing the mix of identified dollar holdings in mid-2006 with that in mid-2004, several long-standing trends remain in evidence: the shift to longer-duration holdings and the shift away from US Treasury obligations to agency securities and, to a lesser extent, corporate debt securities.[①] At the same time, official holdings of equities in the United States have not risen much. Pursuit of higher returns with a corresponding acceptance of greater risk on the part of official investors remains a gradual process that to date has been largely confined to fixed income, at least within their dollar holdings.

The shift by official investors to longer-maturity investments, which started with the global bond rally in the 1980s, has continued this decade. In mid-2004, 60.6% of identified holdings were long-term securities; by mid-2006, this share had risen to 69.0%. While the practice of official reserve managers of buying coupon securities with less than one year to maturity implies that aggregating holdings by original maturity may overstate the preference for longer tenors, official holdings of long-term securities rose from 51.7% to 58.9% over the same period when measured on a residual maturity basis as well.

Notwithstanding this shift to longer-maturity holdings, the share of Treasury securities fell in favour of agency and, to a lesser extent, corporate debt securities. Treasury securities fell from 52.3% of identified holdings to 46.9%. If unidentified holdings of long-term dollar securities offshore were taken into account, the share of Treasury obligations would probably be less than 40% and perhaps as low as a third. By contrast, official holdings of long-term agency securities more than doubled over the two years. As a share of the identified portfolio, they rose from 9.6% to 15.8%, while holdings of corporate bonds rose from 2% to 3%. Contained in the latter were $30 billion in corporate asset-backed securities held in mid-2006, which could include those backed by mortgages that did not meet the standards of the government-supported mortgage enterprises.

Since mid-2006, the shift from Treasury to agency securities has accelerated. Although they can understate official purchases subsequently captured in surveys of holdings, monthly flow data strongly suggest such an acceleration. Cumulative purchases up to August 2007 of US Treasury coupon securities totalled $50 billion, while cumulative purchases of agency securities (adjusted for estimated principal repayments on agency asset-backed securities) totalled over $125 billion. In the strained markets of August 2007, reported official sales of Treasury coupon securities hit $30 billion, even as official purchases of agency securities remained positive at $2 billion. Cumulative purchases of corporate notes may have fallen not far short of purchases of Treasuries.

Given the breadth of discussion of a potential shift of foreign official holdings into equities, the striking observation is the modest increase in identified official holdings of US equities. True, the share rose from 6% to 7%. But price appreciation alone can account for this rise. Cumulative reported purchases of equities by officials since mid-2006 have been about zero.

The limitations of these data should be recognised. They mostly combine US Treasury International Capital data collected by the Federal Reserve and the Treasury, on the one hand, and BIS data on official US dollar deposits offshore, on the other. It is known that neither system succeeds in capturing all official holdings. Moreover, as noted above, neither system is designed to capture the securities holdings of official investors in offshore depositories, including many highly rated issues by non-US obligors favoured by official investors. Finally, the US Treasury's definition of "official" includes many sovereign wealth funds not included in reserve holdings as reported to the IMF, so that IMF-reported dollar reserves are not strictly comparable.

Nevertheless, the data capture enough of global official holdings of dollars to support several observations. The shift to longer-term holdings is robust to the limitations just reviewed, and indeed would probably only be more obvious if long-term dollar securities held outside the United States were captured. The same applies to the shift away from US Treasury securities, and the increase in agency and corporate holdings. Finally, identified official holdings of US equities do not as yet demonstrate much increase in the official appetite for equity gains and risk.

Instrument composition of official holdings of US dollars

In billions of US dollars and per cent

	Short-term	Long-term[1]	Total	Short-term	Long-term[1]	Total
	End-June 2004			End-June 2006		
Treasury securities	249	923	1,172	188	1,213	1,401
Other assets	635	434	1,069	803	846	1,649
Repos and deposits in the United States	141			195		
Commercial paper and certificates of deposit in the United States	93			125		
Offshore deposits	401	37		483	62	
Agency securities		216			473	
Corporate bonds		47			96	
Equities		134			215	
Total	884 (39.4)	1,357 (60.6)	2,241 (100)	991 (32.5)	2,059 (67.5)	3,050 (100)
Memo: Share of Treasury securities in identified assets of the given maturity	*28.2*	*68.0*	*52.3*	*19.7*	*59.4*	*45.9*
Total IMF-reported US dollar reserves			*1,643*			*1,999*

[1] Defined by original maturity. By remaining maturity, the share was 51.7% at end-June 2004 and 59.6% at end-June 2006.

Sources: Figures for US Treasury, agency and corporate bonds and equities are from US Treasury, Federal Reserve Bank of New York and Board of Governors of the Federal Reserve System, *Report on foreign portfolio holdings of US securities as of June 30, 2004* (2006) and *at end-June 2006* (May 2007). Figures for deposits and money market paper in the United States are from BEA, *International Transactions*, Table 4 (or the *US Treasury Bulletin*, Tables CM-I-2 and IFS-2). Figures for offshore US dollar deposits are estimated from the *BIS Quarterly Review*, Table 5C, the Japanese SDDS for June 2004 and 2006, and the *BIS Annual Report*. The US Treasury definition of official institutions, including "national government-sponsored investment funds" (page 10), may be broader than those of the BIS and the IMF. IMF data from COFER.

Some central banks in emerging markets responded to strong inflows by adding to their reserves. Official monetary authorities deposited $161 billion with BIS reporting banks in the first half of 2007, increasing their holdings in banks by 14%. In contrast to the first quarter, new deposits in the second quarter were almost exclusively in US dollars, raising the dollar share from 53% to 55%. Even so, the dollar share remains below the 65% quoted for overall official foreign exchange reserves.[8] (For a perspective on the role of offshore deposits in the management of official foreign exchange reserves, see Box 2.)

… with rapid growth of lending to emerging Europe

Cross-border bank lending to emerging Europe has accelerated considerably over the last five years (Graph 5). Total claims of BIS reporting banks on the region currently stand at $727 billion and have been growing at 39% year on year.[9] Russia and Turkey, the two largest economies in the

[8] IMF data on official foreign exchange reserves (COFER) report total reserves with identified currency composition at $3.65 trillion, of which $2.37 trillion in US dollars (preliminary data for the second quarter of 2007). BIS reporting banks' liabilities to official monetary institutions with identified currency composition amount to $1.3 trillion, of which $714 billion are in dollars, and $381 billion in euros.

[9] This figure is based on reported cross-border bank claims on eastern European countries, including Russia, Turkey and Slovenia. (Excluding these countries brings total claims to $464 billion.) Total *foreign* claims on the region are larger still ($1,171 billion, from the BIS

region, have the greatest stock of claims outstanding. However, as the region also holds substantial international deposits, banks' *net* claims are considerably lower ($189 billion). Much of this difference is due to Russian deposit placements ($258 billion).

There is considerable diversity within this region owing to a range of country-specific factors; still, some general observations can be made at the subregional level.[10] Central European countries (Graph 5, left-hand panels) have a greater amount of debt outstanding to international banks than do southeastern European countries, in part due to a longer history of financial deepening. By contrast, the Baltic states and southeastern European countries are attracting foreign credit at the fastest rates, albeit from a lower base (Graph 5, centre panels). Growth in cross-border credit to this group ranged from 40 to 100% per annum at end-June 2007. Contributing factors include recent EU accession (Bulgaria and Romania), exchange rate stability due to currency boards (the Baltic states and Bulgaria) and, in some cases, temporary outward migration giving rise to remittances.

Consolidated banking statistics

Expansion driven by German, French and US banks

The consolidated banking statistics, which are compiled according to the nationality of reporting banks and net out inter-office positions, show an overall expansion of foreign claims during the *second quarter of 2007* to $31 trillion on an immediate borrower basis (IB), and to $26 trillion on an ultimate risk basis (UR).[11] A large share of the expansion (IB) was accounted for by banks headquartered in Germany (21%), France (18%) and the United States (16%), each adding over $200 billion in new claims, followed by banks headquartered in Japan (7.7%) and the Netherlands (6.5%). Regarding contingent facilities (UR), credit commitments continued to expand at the annual rate of 32% to reach $4.7 trillion outstanding. Contingent claims were outpaced, however, by contingent liabilities: guarantees have been extended at an annualised rate of 77% to stand at $5.7 trillion, underwritten primarily by US, Swiss, French and UK banks.

Rising exposures to emerging markets …

The large flows to emerging markets visible in the locational statistics are mirrored in a substantial increase in consolidated foreign claims. Foreign claims on emerging markets increased by over $300 billion, of which emerging Europe and Asia received a third each, while Latin America received 22%, and Africa and the Middle East 12% (IB). The emerging market share in reporting banks' portfolios rose, in a single quarter, from 11.2% to 11.8% (IB), and from 11.% to 12.5% (UR). In 2004, this share stood at 9.6% (IB). Among the 24 countries reporting their banks' ultimate risk exposures, UK banks have

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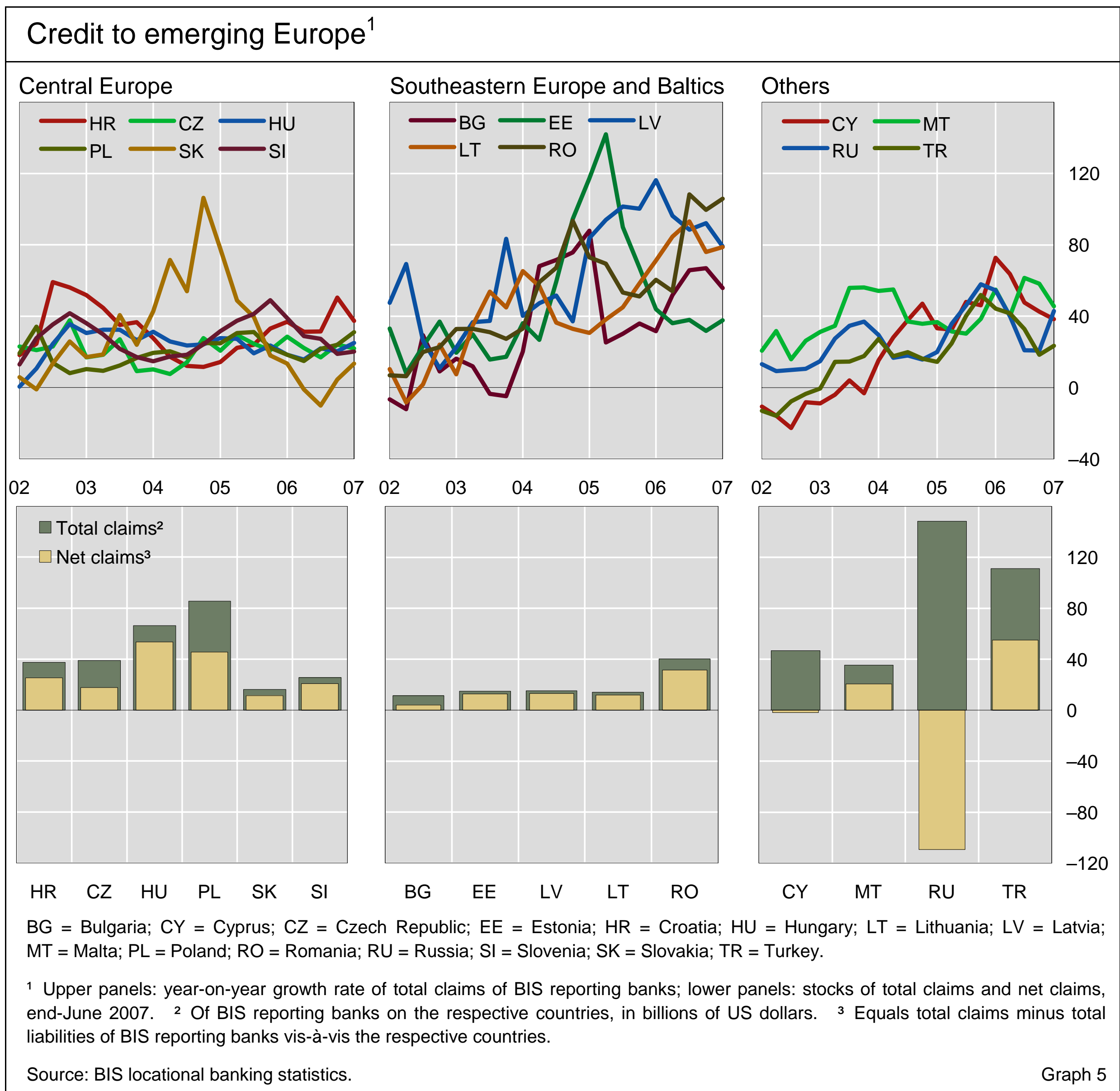
consolidated banking statistics), because they include foreign banks' *local* claims. The region as a whole features a high degree of foreign bank ownership.

[10] Cyprus and Malta should be considered separately for their role as entrepôt banking facilities.

[11] The consolidated statistics on an ultimate risk basis differ from those on an immediate borrower basis by taking into account net risk transfers related to guarantees and collateral. While IB data are reported by banks headquartered in 30 countries and include positions of resident foreign banks, UR data are submitted by banks headquartered in 24 countries.



BG = Bulgaria; CY = Cyprus; CZ = Czech Republic; EE = Estonia; HR = Croatia; HU = Hungary; LT = Lithuania; LV = Latvia; MT = Malta; PL = Poland; RO = Romania; RU = Russia; SI = Slovenia; SK = Slovakia; TR = Turkey.

[1] Upper panels: year-on-year growth rate of total claims of BIS reporting banks; lower panels: stocks of total claims and net claims, end-June 2007. [2] Of BIS reporting banks on the respective countries, in billions of US dollars. [3] Equals total claims minus total liabilities of BIS reporting banks vis-à-vis the respective countries.

Source: BIS locational banking statistics. Graph 5

accumulated $507 billion and US banks $454 billion of foreign claims on emerging markets, followed by French, Spanish, German, Austrian, Dutch and Swiss banks, each holding exposures in the range of $200–300 billion. As a share of their foreign claims portfolio, the exposures to emerging markets of Greek (71%) and Austrian (49%) banks stand out. By comparison, banks headquartered in emerging markets maintain relatively low foreign exposures to other emerging markets (12.5% IB, 14.7% UR).[12]

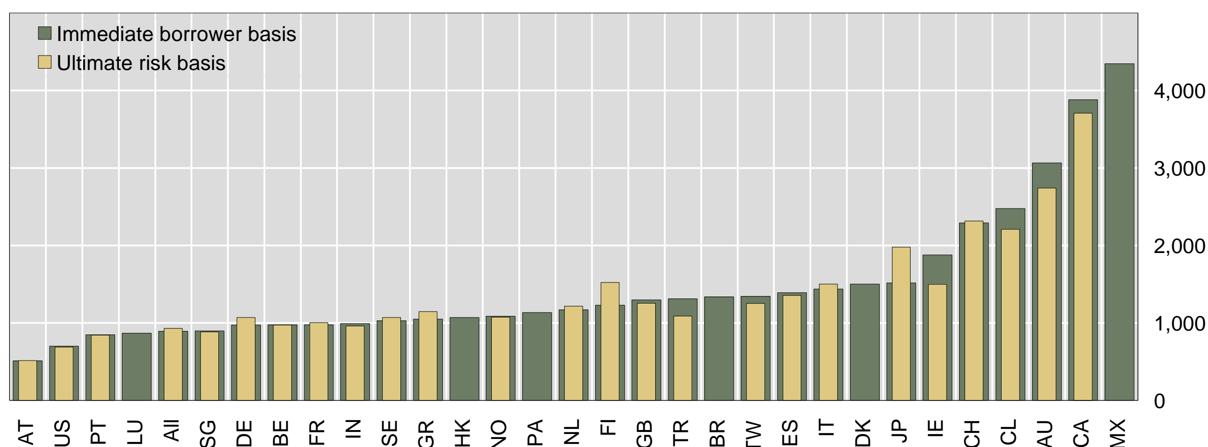
... contribute little to portfolio concentration

Allocating a high portfolio share to emerging markets does not, however, imply high concentration vis-à-vis individual countries. Graph 6 shows a measure of portfolio concentration for banks headquartered in 30 countries.[13] Greek and Austrian banks show fairly low concentration at the

[12] Emerging markets reporting consolidated banking statistics include Chile, India, Taiwan (China) and Turkey (IB and UR) as well as Mexico and Brazil (IB).

[13] This measure only captures concentration in the value of claims allocated to individual countries; it does not take into account risk or ratings.

Portfolio concentration of country exposures[1]



[1] For banks of each nationality, the portfolio considered here consists of their combined foreign claims, as of end-June 2007. Portfolio shares express foreign claims vis-à-vis individual countries as a percentage of the value of all foreign claims in the portfolio. Portfolio concentration is then measured by the Herfindahl index, the sum of squared portfolio shares.

All = all reporting countries; AT = Austria; AU = Australia; BE = Belgium; BR = Brazil; CA = Canada; CH = Switzerland; CL = Chile; DE = Germany; DK = Denmark; ES = Spain; FI = Finland; FR = France; GB = United Kingdom; GR = Greece; HK = Hong Kong SAR; IE = Ireland; IN = India; IT = Italy; JP = Japan; LU = Luxembourg; MX = Mexico; NL = Netherlands; NO = Norway; PA = Panama; PT = Portugal; SE = Sweden; SG = Singapore; TR = Turkey; TW = Taiwan, China; US = United States. Six countries, namely Brazil, Denmark, Hong Kong SAR, Luxembourg, Mexico and Panama, do not provide consolidated banking data on an ultimate risk basis.

Source: BIS consolidated international banking statistics. Graph 6

country level, indicating an emerging market exposure that is diversified across many countries. Similarly, those banks with the largest international portfolios, notably German, UK, French, Dutch, Japanese and US banks, tend to have moderate concentration (Swiss banks being the main exception in this group). The highest concentration in international bank portfolios appears to occur in the presence of an important neighbour. Mexican and Canadian banks concentrate 61% and 65% of their respective international portfolios on US entities, while 47% of Australian banks' combined portfolio relates to entities in New Zealand.