

Highlights of international banking and financial market activity

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 fourth quarter of 2009. The discussion on international debt securities and exchange-traded derivatives draws on data for the first quarter of 2010. Data on the over-the-counter (OTC) derivatives market are available up to the end of 2009. This chapter contains two boxes. The first, on page 20, discusses how BIS banking statistics shed light on the exposures of reporting banking systems to particular countries. The second, on page 26, compares the BIS data on OTC derivatives with the Interest Rate Trade Reporting Repository reports published by TriOptima.

The international banking market¹

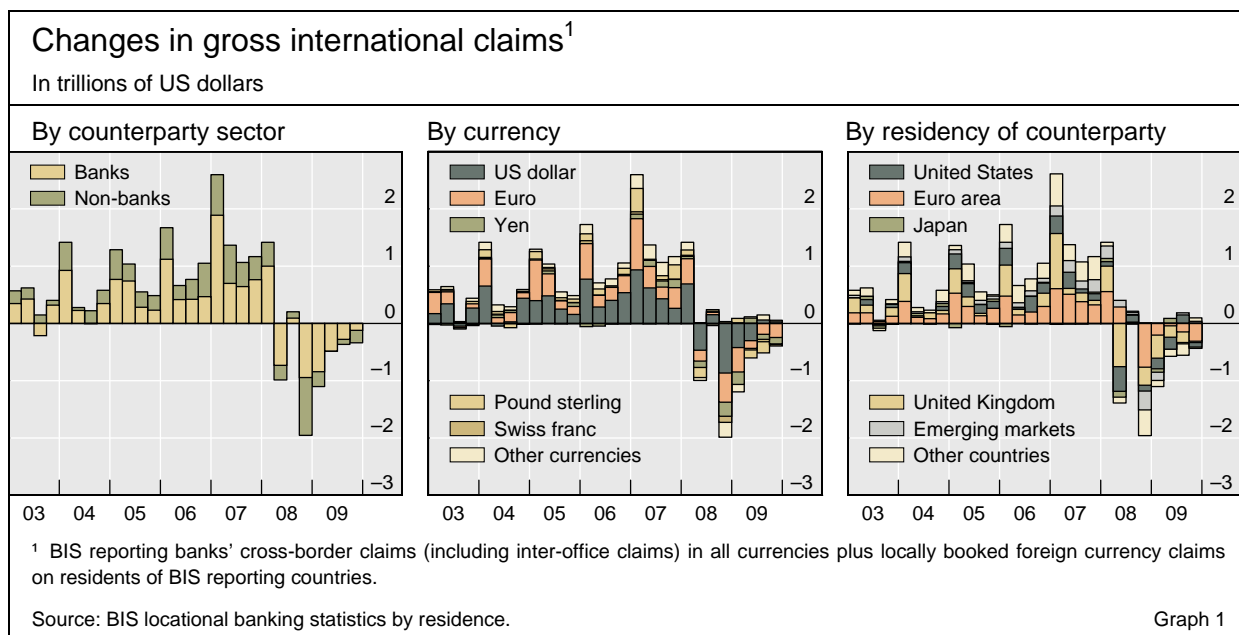
BIS reporting banks' international balance sheets contracted for the fifth consecutive quarter in the last three months of 2009.² The \$337 billion reduction in international claims was smaller than any of the previous four. Nevertheless, it brought the net cumulative decline for the past seven quarters to \$5,024 billion, a fall of 12% from the record level (\$40,393 billion) reached at the end of March 2008. Most of the crisis-related contraction had reflected a decline in interbank claims rather than in claims on non-banks. This pattern reversed in the final quarter of 2009, when exposures to non-banks dropped more (–\$219 billion) than interbank claims (–\$118 billion) for the first time since the fourth quarter of 2008 (Graph 1, left-hand panel).

Claims denominated in euros fell for the fifth consecutive quarter. The \$245 billion drop was the largest since the first quarter of 2009 (Graph 1, centre panel). A sizeable portion of the decline was due to a \$51 billion fall in euro-denominated cross-border interbank claims within the euro area. This

Euro-denominated
claims contract

¹ All queries concerning the international banking statistics should be directed to Stefan Avdjiev.

² BIS locational banking statistics by residence. Note that international claims contain inter-office claims.



drop, the fourth in the last five quarters, brought the overall exchange rate adjusted shrinkage in that category since the third quarter of 2008 to \$461 billion. These observations are in line with the evidence presented recently by a group of ECB economists, who show that the share of cross-border transactions in euro area money markets has declined substantially since the start of the financial crisis.³

Banks steered funds towards the faster-growing regions of the world, and away from those where the pace of economic recovery was sluggish. International claims on residents of emerging markets grew by \$37 billion during the last quarter of 2009 (Graph 1, right-hand panel). Once again, the increase was mainly driven by a rise in claims on borrowers in the Asia-Pacific region, while claims on emerging Europe continued to decline. At the same time, reporting banks reduced their exposures to residents of all developed regions, with claims on euro area residents contracting the most (-\$311 billion).

Growth in claims mirrors economic growth across regions

Cross-border claims on emerging markets continue to expand

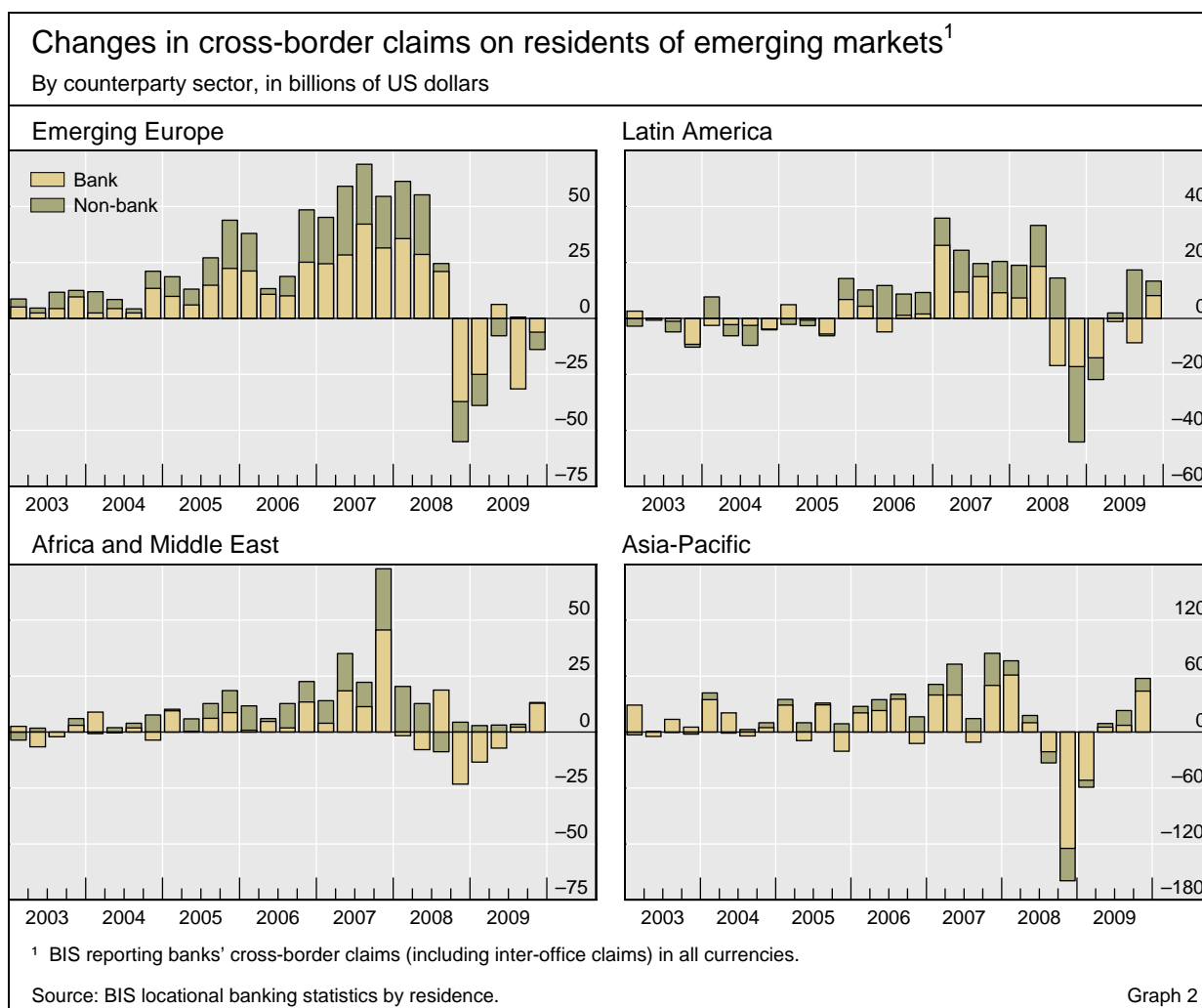
Cross-border claims on borrowers in emerging market economies registered their largest advance (\$70 billion) in six quarters. Despite that increase, however, their aggregate stock was still 12% below the peak (\$2,834 billion) attained at the end of the second quarter of 2008. By contrast, local claims in local currencies on residents of emerging market economies reached a new

Claims on emerging market economies expand ...

³ N Cassola, C Holthausen and M Lo Duca, "The 2007/2009 turmoil: a challenge for the integration of the euro area money market?", paper presented at the ECB-European Commission conference on *Financial integration and stability: the legacy of the crisis*, Frankfurt, 12 April 2010.

high at the end of 2009, boosted by a \$31 billion increase in the last quarter of the year.⁴

Just as in the previous three months, there was significant variation across regions (Graph 2). Once again, the main driver of the overall expansion in cross-border claims on emerging markets was a rise in claims on residents of Asia-Pacific (\$57 billion or 8%). Furthermore, local claims in local currencies in the area registered the largest increase of all emerging market regions for the quarter in both absolute (\$13 billion) and relative (3%) terms. BIS reporting banks also increased their cross-border claims and local claims in local currencies on residents of Latin America and the Caribbean (by \$13 billion and \$10 billion, respectively) and of Africa and the Middle East (by \$13 billion and \$3 billion, respectively). By contrast, they reduced their cross-border claims on residents of emerging Europe (by \$14 billion or 2%) for the fifth quarter in a row. Nevertheless, local claims in local currencies on residents of this region increased slightly (by \$4 billion or 1%).



⁴ Cross-border claims are obtained from the BIS *locational* international banking statistics by residence. Local claims in local currencies are obtained from the BIS *consolidated* international banking statistics on an immediate borrower basis.

Not surprisingly, the countries that saw the largest increases in cross-border claims on their residents were in the Asia-Pacific region. Strong economic growth in this area led to significant expansions in claims on borrowers in China (\$20 billion or 13%), Korea (\$14 billion or 7%), Chinese Taipei (\$8 billion or 18%) and India (\$8 billion or 6%). Local claims in local currencies also increased considerably in China (by \$7 billion or 9%), Thailand (by \$3 billion or 7%) and Malaysia (by \$1 billion or 2%).

... particularly in Asia-Pacific ...

BIS reporting banks significantly expanded their cross-border claims on several emerging market economies in Latin America. Boosted by rising commodity prices and steadily falling unemployment, Chile experienced a larger increase in cross-border claims (\$6.3 billion or 16%) than any other emerging market economy outside the Asia-Pacific region.⁵ Cross-border claims on Brazil continued to rise during the fourth quarter of 2009, despite the October 2009 imposition of a 2% financial transactions tax on foreign investments in Brazilian stocks and fixed income securities. While the growth rate of BIS reporting banks' holdings of Brazilian debt securities fell from 21% in the third quarter of 2009 to 12% in the fourth quarter, the \$6.5 billion surge in that category was still the second largest on record. Meanwhile, claims on residents of Mexico increased (by \$3.1 billion or 3%) for the first time in five quarters, mainly due to the better outlook for the country's export sector.

... and Latin America

The overall shrinkage in cross-border claims on emerging Europe was led by considerable declines in claims on residents of Russia (-\$8.5 billion or 6%) and Ukraine (-\$2.3 billion or 8%). Weak domestic demand was probably the main reason for these sharp contractions. In Ukraine, this factor was coupled with uncertainty surrounding the outcome of the upcoming presidential election. Reporting banks continued to cut their exposures to residents of the Baltic countries. Cross-border claims on banks located in Lithuania shrank by no less than 10% (\$1.5 billion), and those on banks in Latvia contracted by 6% (\$0.9 billion). A slight increase in claims (1%) on banks in Estonia was more than offset by a 7% decline in claims on non-banks.

Cross-border claims on emerging Europe continue to decline

BIS reporting banks' exposures to the euro area countries facing market pressures

The integration of European bond markets after the advent of the euro has resulted in a much greater diversification of risk in the euro area. As of 31 December 2009, banks headquartered in the euro zone accounted for almost two thirds (62%) of all internationally active banks' exposures to the residents of the euro area countries facing market pressures (Greece, Ireland, Portugal and Spain).⁶ Together, they had \$727 billion of exposures to Spain,

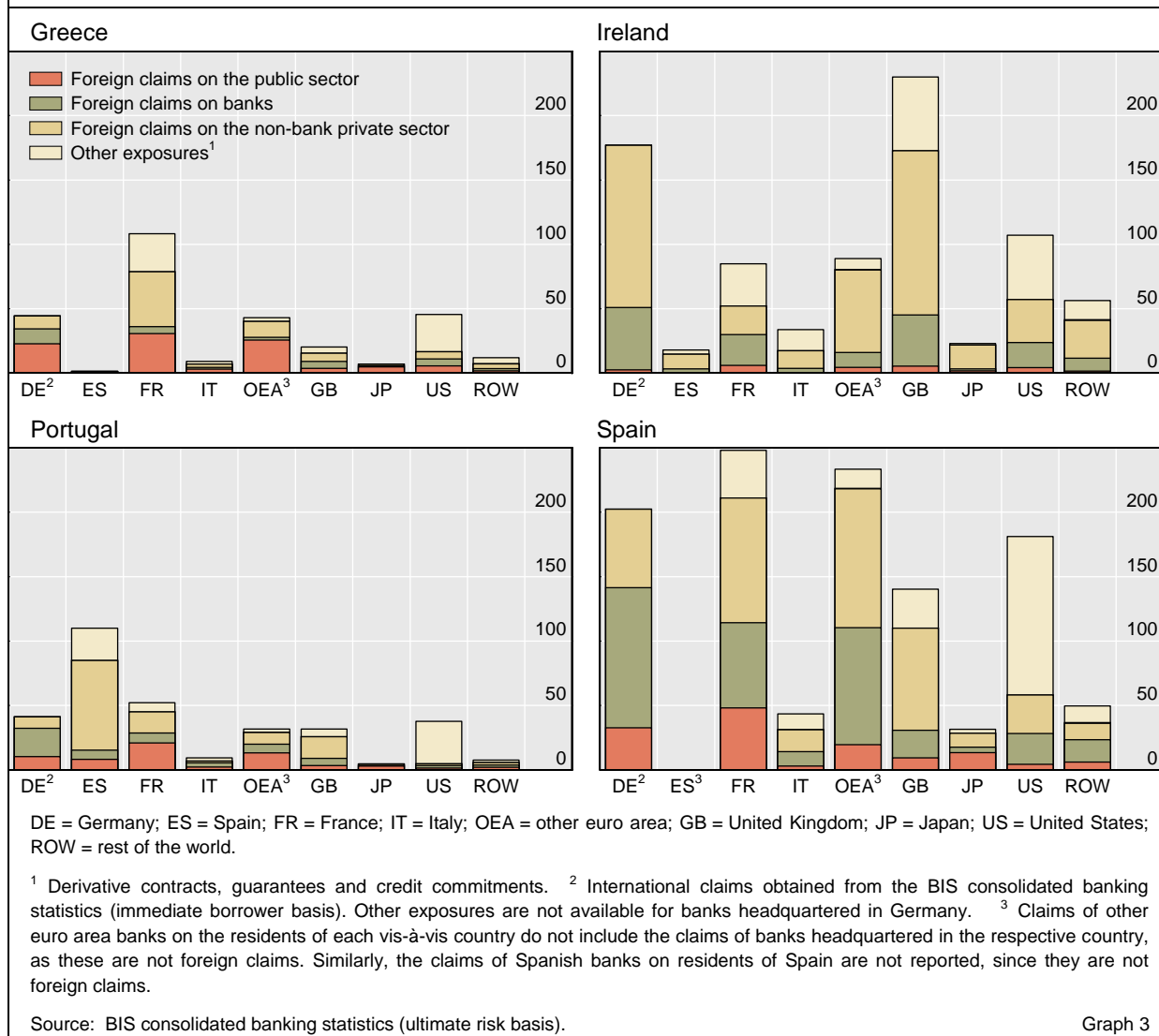
Euro area banks are most exposed to Greece, Ireland, Portugal and Spain ...

⁵ These developments occurred in the fourth quarter of 2009, before an earthquake struck Chile in February 2010.

⁶ The discussion in this subsection is based on figures for international claims from the BIS consolidated banking statistics on an *immediate borrower* basis for German banks and on figures for foreign claims and other exposures from the BIS consolidated banking statistics on an *ultimate risk* basis for all other banks. Note that these figures do not include the exposures of banks on the residents of the country they are headquartered in. For example, the

Exposures to Greece, Ireland, Portugal and Spain, by nationality of banks

End-Q4 2009; in billions of US dollars



\$402 billion to Ireland, \$244 billion to Portugal and \$206 billion to Greece (Graph 3).⁷

French and German banks were particularly exposed to the residents of Greece, Ireland, Portugal and Spain. At the end of 2009, they had \$958 billion of combined exposures (\$493 billion and \$465 billion, respectively) to the residents of these countries. This amounted to 61% of all reported euro area banks' exposures to those economies. French and German banks were most exposed to residents of Spain (\$248 billion and \$202 billion, respectively), although the sectoral compositions of their claims differed substantially. French banks were particularly exposed to the Spanish non-bank private sector

exposures of Greek banks on residents of Greece are not included, as they are not considered *foreign* exposures.

⁷ See Box 1 for a description of how the BIS banking statistics may be used to measure banking systems' exposures to particular countries.

Box 1: Measuring banking systems' exposures to particular countries

Stefan Avdjiev

The BIS consolidated international banking statistics provide a unique perspective on the exposures of national banking systems to residents of a given country. The statistics provide information on the aggregate foreign claims^① of banks headquartered in a particular location on a worldwide consolidated basis. The BIS *consolidated* statistics offer a more useful measure of the total risk exposure of a reporting banking system than do the BIS *locational* statistics, which are based on the residence principle.

The BIS consolidated international banking statistics on an *ultimate risk* basis are the most appropriate source for measuring the aggregate exposures of a banking system to a given country. Unlike the BIS consolidated international banking statistics on an *immediate borrower* basis, they are adjusted for net risk transfers. For example, suppose that a Swedish bank extends a loan to a company based in Mexico and the loan is guaranteed by a US bank. On an *immediate borrower* basis, the loan would be considered a claim of a Swedish bank on Mexico, as the *immediate borrower* resides in Mexico. On an *ultimate risk* basis, however, the loan would be regarded as a claim of a Swedish bank on the United States since that is where the *ultimate risk* resides.

To take a concrete example, one can use the BIS consolidated statistics on an *ultimate risk* basis to find out the size of exposures of *Canadian* banks to residents of *Denmark* at the end of the most recent quarter for which data are available. The intersection of reporting country *Canada* (in the column headings) and vis-à-vis country *Denmark* (in the row headings) in BIS Table 9D^② indicates that the consolidated foreign claims of Canadian banks on *Denmark* at the end of the fourth quarter of 2009 were \$2,068 million. This number represents the aggregate claims of all *Canadian-owned* bank branches and subsidiaries around the world on residents of Denmark. Therefore, it would include a loan extended by the London branch of a *Canadian* bank to a company based in Copenhagen (assuming that the loan is not guaranteed by another entity based outside Denmark). Conversely, it would not include a loan extended by the Toronto branch of a *US* bank to the same Copenhagen-based company, as this loan would represent a claim of a US bank, not a Canadian bank.

Developments in the banking world, such as mergers, acquisitions and restructurings, often lead to changes in the reporting populations of the BIS consolidated banking statistics. That is why, when tracking period to period changes in exposures, it is important to take into account all breaks in series that have occurred during the respective time span before making any inferences or conclusions.^③ For example, as a result of a restructuring that took place during the fourth quarter of 2009, a Swiss bank was reclassified as a Greek bank. As a consequence, its claims on Greece were no longer included in the consolidated figures for Swiss banks. This change in the reporting population of Swiss banks caused most of the \$74.9 billion decline (from \$78.6 billion to \$3.7 billion) in the claims of Swiss banks on residents of Greece between the third and the fourth quarter of 2009. If one compared the numbers for these two quarters in BIS Table 9D disregarding the break in series in the fourth quarter, one would wrongly conclude that there was a precipitous decline in the foreign claims of Swiss banks on Greece when, in fact, there was no sizeable change in the stock of claims held by the bank in question.

Care is also necessary when using the BIS consolidated international banking statistics to make inferences about how exposed banking system X is to a potential sovereign debt restructuring in country Y. The numbers reported in BIS Table 9D represent the consolidated *foreign claims* of a given banking system on all residents (ie public sector, banks and non-bank private sector) of a country. Therefore, the fact that banking system X has a large amount of foreign claims on the residents of country Y does not necessarily imply that the exposures of banking system X to the *public sector* of country Y are large.

^① Foreign claims comprise loans, deposits placed, holdings of debt securities, equities and other on-balance sheet items. Note that foreign claims do not include *other exposures*, such as derivative contracts, guarantees and credit commitments. ^② Consolidated foreign claims of reporting banks, ultimate risk basis, www.bis.org/statistics/consstats.htm. ^③ The BIS communicates all important breaks in the press release that accompanies the publication of the data. In addition, a separate document, which is updated every quarter and is available on the BIS website (www.bis.org/statistics/breakstablescons.pdf), provides details on the period of the change, the reporting country, the reason for the break and the net changes in aggregate assets and liabilities that resulted from it.

(\$97 billion), while more than half of German banks' foreign claims on the country were on Spanish banks (\$109 billion). German banks also had large exposures to residents of Ireland (\$177 billion), more than two thirds (\$126 billion) of which were to the non-bank private sector.

... in absolute terms ...

French and German banks were not the only ones with large exposures to residents of euro area countries facing market pressures. Banks headquartered in the United Kingdom had larger exposures to Ireland (\$230 billion) than did banks based in any other country. More than half of those (\$128 billion) were to the non-bank private sector. UK banks also had sizeable exposures to residents of Spain (\$140 billion), mostly to the non-bank private sector (\$79 billion). Meanwhile, Spanish banks were the ones with the highest level of exposure to residents of Portugal (\$110 billion). Almost two thirds of that exposure (\$70 billion) was to the non-bank private sector.

Government debt accounted for a smaller part of euro area banks' exposures to the countries facing market pressures than claims on the private sector. The joint foreign claims of banks headquartered in the euro zone on the public sectors of Greece, Ireland, Portugal and Spain (\$254 billion) amounted to approximately 16% of their combined overall exposures to these countries. Once again, most of those claims belonged to French (\$106 billion) and German (\$68 billion) banks. These two banking systems had sizeable exposures to the public sectors of Spain (\$48 billion and \$33 billion, respectively), Greece (\$31 billion and \$23 billion, respectively) and Portugal (\$21 billion and \$10 billion, respectively). The largest non-euro area holders of claims on the above four public sectors were Japanese and UK banks (\$23 billion and \$22 billion, respectively). The greatest exposures of both these banking systems were to the Spanish public sector (\$13 billion and \$9 billion, respectively).

... and relative to their Tier 1 capital

The exposures of BIS reporting banks to the public sectors of the euro area countries facing market pressures can be put into perspective by comparing them with these banks' capital. The combined exposures of German, French and Belgian banks to the public sectors of Spain, Greece and Portugal amounted to 12.1%, 8.3% and 5.0%, respectively, of their joint Tier 1 capital.⁸ By comparison, the combined exposures of Italian, Dutch and Swiss banks to the same public sectors were equal to 2.8%, 2.7% and 2.0%, respectively, of their Tier 1 capital. Those ratios stood at 3.4%, 1.2% and 0.7%, respectively, for Japanese banks and 2.0%, 0.8%, and 0.7%, respectively, for UK banks. The exposures of US banks to each of the above public sectors amounted to less than 1% of their Tier 1 capital.

⁸ Tier I capital data submitted to the BIS by selected central banks and supervisory authorities.

The international debt securities market⁹

Activity in the primary market for international debt securities recovered in the first quarter of 2010.¹⁰ Announced gross issuance rose by 27% quarter on quarter to \$2,249 billion. With stable repayments, net issuance almost doubled to \$595 billion, thus partly reversing the decline in the second half of last year (Graph 4, left-hand panel).

Issuance rebounds ...

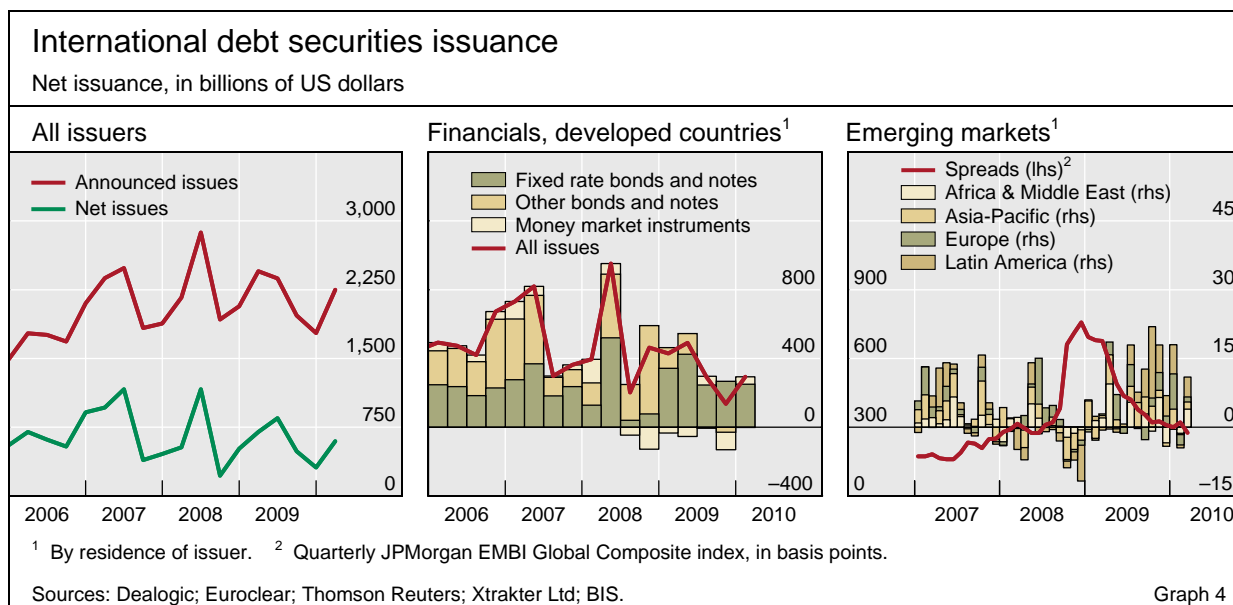
The recovery in issuance was primarily due to higher borrowing by residents in the developed economies (up 94% to \$524 billion). International financial institutions (IFIs) also placed larger volumes (\$43 billion, after net redemptions of \$1 billion in the previous quarter). This contrasted with a sharp drop in issuance by borrowers resident in developing economies (–43%, to \$24 billion).

... due to higher borrowing by residents in developed economies

International issuance by financial institutions resident in the developed economies recovered to \$292 billion (Graph 4, centre panel) after a very weak fourth quarter of 2009 (\$135 billion). Banks sold money market paper to the tune of \$51 billion, after net redemptions of \$67 billion in the previous quarter. Issuance of straight fixed rate bonds was stable at \$250 billion.

Financial institutions issue more debt

Although higher than in late 2009, issuance by financial institutions remained well below the levels seen before the crisis as banks continued to shrink their balance sheets. The share of government-guaranteed securities placed in domestic and international markets declined to 4% of announced gross issuance in the first quarter of 2010, from 7% in late 2009 and 25% in the first quarter of 2009. Financial institutions appear to be able to borrow on the strength of their own financial soundness once more, but they are doing so in



⁹ All queries concerning the international debt securities statistics should be directed to Christian Upper.

¹⁰ International debt securities are defined as securities denominated in foreign currencies or marketed to foreign investors, as indicated, for example, by the participation of foreign banks in the placement syndicate.

moderation. The composition of their securities issuance has also changed. Before the crisis, money market paper accounted for a much larger fraction of total issuance than after the crisis, despite the rebound in the first quarter.

Budget deficits lead to record issuance by developed country sovereigns

Governments from the developed economies placed \$117 billion of debt in the international market, the highest amount on record. Although high budget deficits are the main reason for this increase, technical factors also play a role. For example, more and more governments, European ones in particular, place bonds in the international markets through syndicates rather than through taps¹¹ or primary dealers (which do not show up in the BIS international debt securities statistics). In the past, syndication was used mainly by smaller economies.¹² The largest borrowers in the international market were Spain (\$24 billion), Greece (\$16 billion), Belgium (\$12 billion), the United Kingdom (\$11 billion) and France (\$10 billion). Bonds from regional governments accounted for about one third of Spanish issuance; in the other countries, it was mainly the central government that issued in the international market. Not all countries have moved to syndicated issuance. For example, Germany and the United States auction securities to a group of primary dealers, although Germany uses syndication to place inflation-indexed and foreign currency securities.

Weaker issuance in Latin America and emerging Europe

The decline in issuance by residents of developing economies was the result of a sharp drop in issuance by residents of Latin America and the Caribbean, which fell by 61% to \$10 billion. Residents of developing Europe also placed fewer securities in the international market (–19% to \$6 billion). Issuance by residents of Asia-Pacific and of Africa and the Middle East remained stable at \$5 billion and \$2 billion, respectively.

IFIs tap the international market

IFIs raised \$43 billion through the issuance of debt securities in the international market, the second highest amount on record. Accounting for more than 80% of the borrowing was the European Investment Bank, which increased its funding programme in anticipation of a higher demand for loans. Just over half of total IFI issuance was denominated in euros, followed by sterling and the Australian dollar (16% each). The share of the US dollar stood at 3%.

Derivatives

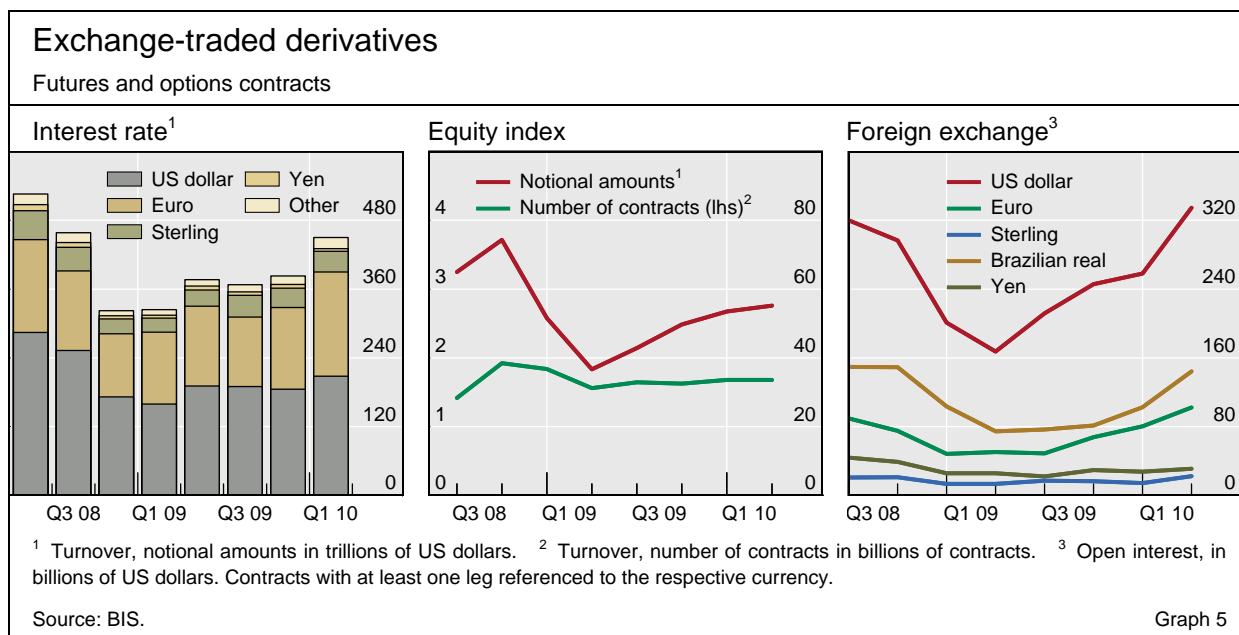
Exchange-traded derivatives

Higher turnover ...

Activity on the derivatives exchanges accelerated during the first quarter of 2010. Turnover measured by notional amounts of futures and options on interest rates, stock price indices and foreign exchange increased by 16% quarter on quarter to \$514 trillion between January and March. Open interest, expressed in notional amounts outstanding, rose by 12% to \$82 trillion.

¹¹ Tap issuance refers to the practice of selling securities directly to investors at the prevailing market price rather than through auctions.

¹² See H Blommestein, "Responding to the crisis: changes in OECD primary market procedures and portfolio risk management", OECD, *Financial Market Trends*, no 97, vol 2009/2.



Volumes in the market for derivatives on short-term interest rates surged as market participants revised their expectations about the future path of monetary policy (Graph 5, left-hand panel). Turnover in money market contracts went up by 18% to \$408 trillion, thus outpacing turnover growth in derivatives on government bonds (up 11% to \$11 trillion). Particularly rapid increases in activity were seen in contracts on short-term Brazilian rates, where turnover in futures and options almost doubled to \$5.4 trillion, as market participants began to price in higher interest rates. Turnover in contracts on short-term euro interest rates went up by 30% to \$162 trillion. In the United States, turnover in futures and options on the overnight federal funds rate – which is closely related to monetary policy – increased by 25% to \$28 trillion, whereas turnover in contracts on three-month eurodollar rates rose by 10% to \$163 trillion. The main exception to the increase in activity in money market contracts was in the yen segment. Turnover in yen-denominated futures and options fell by 27%, to \$2.5 trillion, as investors continued to expect that short-term interest rates would remain low.

... as market participants reposition themselves on rate hikes

Activity in the market for derivatives on stock price indices remained stable in the first three months of 2010, despite some notable fluctuations in equity prices. Turnover measured in terms of notional amounts increased by 3% to \$55 trillion, although this mainly reflected a valuation effect (Graph 5, centre panel). The number of stock index contracts traded on the international derivatives exchanges barely changed over the period.

Stable activity in stock index derivatives

Investors increased their positions in FX futures and options. Open interest of such contracts increased by 29% to \$0.4 trillion (Graph 5, right-hand panel), far outpacing growth in turnover (up 11% to \$9 trillion). Open interest in contracts with one leg in sterling increased by 57% to \$0.02 trillion.¹³ Open interest in contracts on the Brazilian real rose by 41% to \$0.14 trillion. This

Open interest in FX contracts rises

¹³ As each contract has two legs, open interest and turnover in the various currencies add up to 200% of the total.

makes it the second most important currency on the international derivatives exchanges in terms of open positions, behind the US dollar (\$0.33 trillion) but ahead of the euro (\$0.10 trillion). The importance of the real in the currency segment of the futures and options market is due to the fact that there is comparatively little trading over the counter.

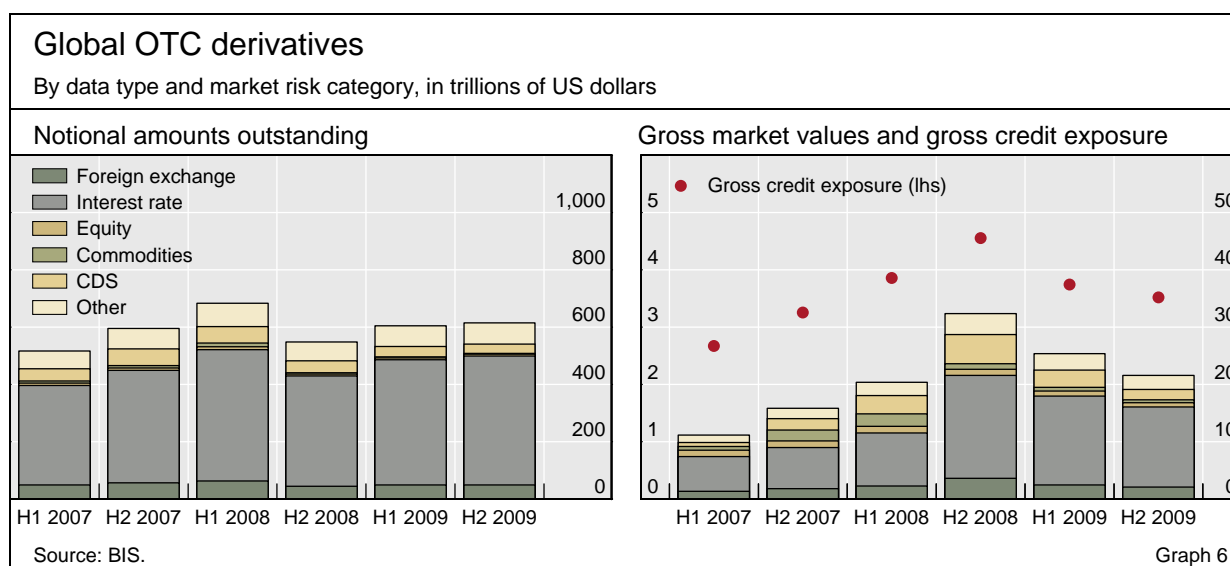
Lower trading in non-precious metals dampens activity on commodities exchanges

Turnover on the international commodities exchanges fell slightly on the back of a sharp drop in activity in contracts on non-precious metals. Total turnover of commodity derivatives (measured in terms of the number of contracts traded, as notional amounts are not available) fell by 4%, following a 7% increase in the last quarter of 2009. This drop was driven by lower activity in contracts on non-precious metals, which fell by 30%. This contrasted with a 22% surge in derivatives on precious metals, and slight increases in contracts on agricultural commodities (2%) and energy products (3%).

OTC derivatives¹⁴

Modest increase in notional volumes, decline in market values

Notional amounts of all over-the-counter (OTC) derivatives increased modestly (2%) in the second half of 2009, reaching \$615 trillion by the end of December (Graph 6, left-hand panel). The increase was evenly spread among risk categories, with the exception of commodity derivatives and credit default swaps (CDS), where amounts outstanding fell by 21% and 9%, respectively. The decline in reporting banks' gross credit exposures, which provide a measure of counterparty risk, slowed to 6%, after an 18% fall in the first half of 2009.¹⁵ Gross market values also decreased, by 15% to \$22 trillion (Graph 6, right-hand panel).



¹⁴ Queries concerning the OTC derivatives statistics should be addressed to Karsten von Kleist.

¹⁵ Gross credit exposure is defined as gross market values after taking into account legally enforceable bilateral netting agreements, but before collateral. Credit default swap (CDS) contracts are excluded from this measure for all countries except the United States.

Box 2: A new trade repository for OTC interest rate derivatives

Jacob Gyntelberg and Karsten von Kleist

The OTC Derivatives Interest Rate Trade Reporting Repository (IR TRR) launched by TriOptima in early 2010 is an important step towards improving transparency in the global OTC derivatives markets. The IR TRR collects data on all transactions in OTC interest rate derivatives from a group of 14 major dealers. It complements the trade repository for credit default swaps (CDS) run by the Depository Trust & Clearing Corporation (see *BIS Quarterly Review*, December 2009, pp 24–25).

In April 2010, the IR TRR published its first monthly report summarising outstanding notional volumes at end-March 2010. The report provides a detailed breakdown of outstanding volumes by currency, maturity and type of contract. In contrast to the BIS data, the IR TRR does not publish information on market values or counterparty exposures.

The total amount outstanding of interest rate derivatives of the 14 participants in the new trade repository (13 of which are included in the sample of 57 dealers reporting to the BIS OTC derivatives statistics) at the end of March 2010 is very close to the market totals reported by the BIS statistics (Table A).[Ⓞ] This suggests that market concentration is high and that the coverage of the IR TRR data is near comprehensive.

OTC interest rate derivatives data comparison

IR TRR			BIS		
	End-March 2010			End-Dec 2009	
Counterparty type	Notional amounts outstanding (USD billions)	% of total	Counterparty type	Notional amounts outstanding (USD billions)	% of total
Dealers	94,200	21	Dealers	138,537	31
CCPs	198,714	45	Other financial	275,649	61
Other counterparties	145,935	33	Non-financial	35,607	8
Total	438,848	100	Total	449,793	100

The trade repository data include \$9,836 billion of cross-currency swaps, which are classified as FX instruments in the BIS data. They are thus excluded from the IR TRR data column in this table.

Source: The detailed data are available on http://www.trioptima.com/services/interest_rate_trade_reporting_repository. Table A

A detailed comparison of the IR TRR and BIS data is complicated by the different counterparty classifications used in the two datasets. The IR TRR provides separate information on the use of central clearing counterparties (CCPs). By contrast, contracts with CCPs are currently reported as part of deals with other financial institutions in the BIS data.

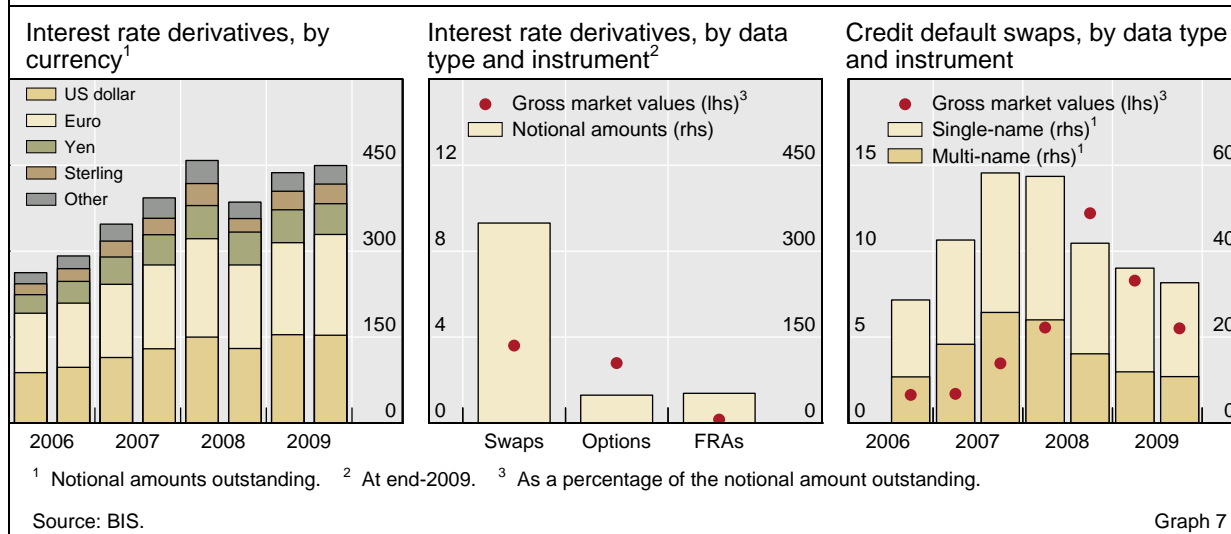
The new IR TRR data show that at end-March 2010 CCPs (essentially SwapClear) covered around 45% of the total market in terms of amounts outstanding. This included business with all 30 SwapClear members and not just with the 14 dealers participating in the IR TRR. Currently, 99% of instruments covered by the CCP are standard interest rate swaps, while more exotic swaps and interest rate options continue to be traded without the use of a CCP.

[Ⓞ] The figures adjust inter-dealer positions to account for double-reporting and exclude cross-currency swaps.

Notional amounts outstanding of interest rate derivatives rose by 3%, with limited variation between currencies (Graph 7, left-hand and centre panels). Increased netting of contracts interacted with a decline in the value of the US dollar during the reporting period to produce the smallest increase since end-2005 (other than the exceptional 16% fall in the second half of 2008, which was partly due to a major correction in sterling and the euro in that period). Market

Global OTC interest rate derivatives and credit default swaps

In trillions of US dollars and per cent



values of interest rate derivatives declined by 9% overall, with notable reductions in US dollar and Canadian dollar contracts (-17% and -28% respectively).

More existing and new interest rate contracts between dealers are now being cleared via central counterparties (CCPs). As more interest rate deals migrate to CCPs, reported contracts between dealers and other financial institutions will increase in the BIS data, given that one contract between two dealers is replaced with two contracts with the CCP (see also Box 2).

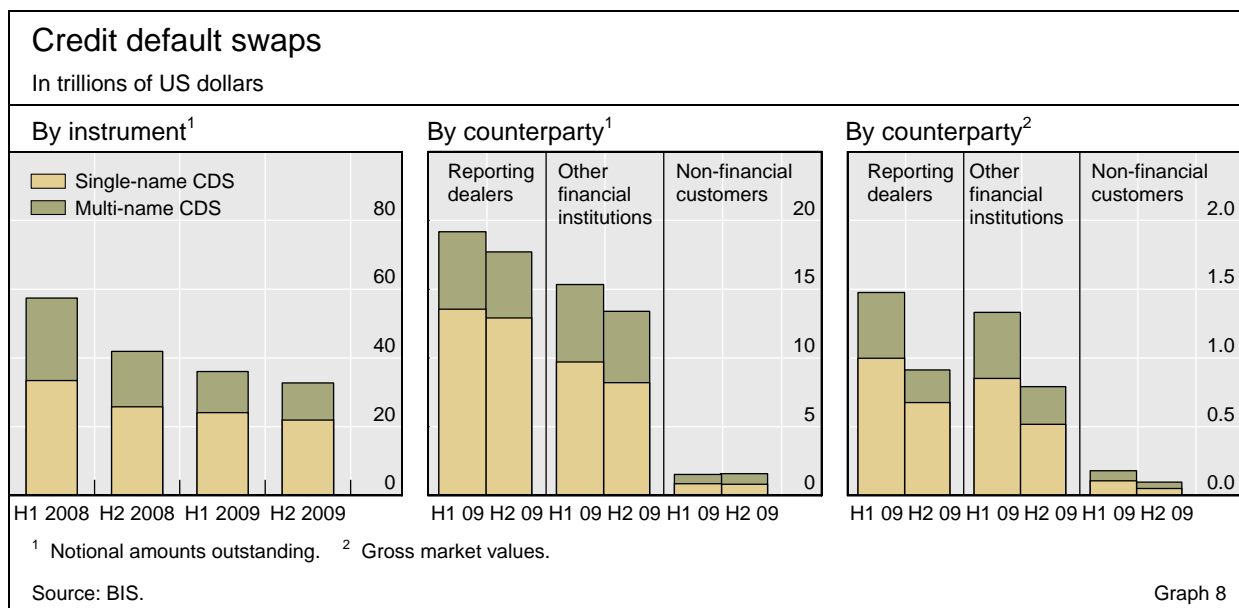
CDS amounts outstanding contracted again, by almost 10% (Graph 7, right-hand panel), due to a combination of factors. A reduction in overall activity and reduced spreads depressed new business, while ongoing netting continued to reduce the volume of outstanding contracts. Market values fell by another 36% for single-name CDS, and by almost 50% for multi-name contracts. The decline in activity was most pronounced for multi-name contracts between reporting dealers (15%), while notional volume between dealers and non-reporters decreased by only 5% (Graph 8). This is consistent with increasing use being made of CCPs, as these contracts are classified as contracts with non-reporting counterparties in BIS reporting.¹⁶

The amounts outstanding of single-name CDS on sovereigns increased by 10% in the second half of the year, as market attention was drawn to the implications of large fiscal deficits in late 2009 and sovereign CDS spreads rose. This increase was driven by inter-dealer positions, which rose by 20%. Data from the Depository Trust & Clearing Corporation (DTCC) suggest that exposures on some sovereign names increased by up to 50% during the period under review. Nevertheless, at end-2009, total notional amounts outstanding of sovereign CDS in the BIS data remained below their June 2008 peak. In contrast, positions on non-sovereigns (financial and non-financial firms) were

CDS volumes contract again ...

... but CDS positions on sovereigns increase

¹⁶ The BIS will introduce separate reporting of CCPs in the CDS data as of June 2010.



down 11%. This was mainly due to reporters' business with non-reporting financial institutions, whose outstanding CDS contracts declined by 17%.

Sizeable increases in the notional amounts outstanding of equity derivatives contrasted with declining replacement values. Rising equity valuations resulted in an increase in notional amounts of contracts on Japanese and other Asian equities by 50–80%, depending on the instrument. At the same time, market values dropped by 10–50% for various instruments. The US equity-linked derivatives segment saw a 17% increase in volume, but in terms of market value positions declined by 5%. Notional amounts and market values for European equities fell by around 20%. Notional amounts of Latin American equity-linked instruments decreased by 69% in the second half of 2009, but market values fell only 34%.

Commodity derivatives declined another 21% in both notional amounts and mark to market terms. The contraction was more than accounted for by options. Forwards and swaps, which had declined by 25% in the first half-year, held mostly steady in notional amount terms. Outstanding positions on gold were unchanged, but their market value increased by 11%.