

# Statistical Annex

## The international banking market

The BIS international financial statistics summary tables .....	A3
1A International positions of banks by residence of counterparty, September 2010	A4
1B International positions of banks by nationality of head office, September 2010	A5
2A Consolidated claims, immediate borrower basis, September 2010 .....	A6
2B Consolidated claims, ultimate risk basis, September 2010 .....	A7

## Securities markets

3A International debt securities issuance, December 2010 .....	A8
3B Domestic debt securities issuance, September 2010 .....	A9

## Derivatives markets

4 Global OTC derivatives market, end-June 2010.....	A10
Notes to tables .....	A11



## The BIS international financial statistics summary tables

The BIS publishes a variety of international financial statistics, most of them on a quarterly basis. They cover banking statistics on both a locational and a consolidated basis, debt securities issues in both domestic and international markets, and statistics on derivatives traded on exchanges and over the counter. The main purpose of the statistics is to provide a measure of the size and structure of key segments of the global financial market and to monitor their development. A summary of the most recent data is presented in seven tables (see below).<sup>1</sup>

### 1. International banking statistics (Tables 1A, 1B, 2A and 2B)

The locational reporting system provides quarterly data on the international financial claims and liabilities of banks resident in the 43 reporting countries on a gross basis. The methodology is consistent with the principles underlying the compilation of national accounts, balances of payments and external debt statistics. Breakdowns are provided in terms of instrument, currency, sector and vis-à-vis country. The currency breakdown allows the BIS to approximate global bank credit flows adjusted for exchange rate fluctuations.

The consolidated banking statistics cover banks' worldwide on-balance sheet claims, on both a contractual (immediate borrower) and an ultimate risk basis (ie net of risk mitigants such as guarantees and collateral). Positions are reported by head offices in their home country and include all branches and subsidiaries on a worldwide consolidated basis, net of inter-office accounts. Breakdowns are available in terms of instrument, sector, maturity and vis-à-vis country. Information is also available on key off-balance sheet items such as guarantees extended, credit commitments and derivative contracts. Currently 30 countries provide consolidated banking data.

While the locational statistics are appropriate for measuring lending flows in a given period, the consolidated statistics are more suited to gauging the size of banks' country and liquidity risk exposures. The data are compiled by the BIS on the basis of national data reported by the respective central banks, which in turn collect these data from the internationally active banks in their jurisdiction.

### 2. Debt securities statistics (Tables 3A and 3B)

These statistics are derived from various national, market and institutional data sources and provide information on amounts outstanding and flows of debt securities issuance in both international and domestic markets. Nominal values are used and the data are broken down using similar criteria as for the banking statistics, ie sector, currency and maturity. However, only the liabilities of the issuers are covered.

International debt securities comprise domestic and foreign currency issues by residents of a given country outside their respective domestic market, foreign currency issues by residents in their domestic market and foreign and domestic currency debt securities issued in the domestic market by non-residents. Breakdowns are available in terms of currency, sector and maturity.

Domestic debt securities comprise issues in domestic markets in national currency for 55 countries. Breakdowns are provided in terms of sector and maturity. As far as possible, the BIS endeavours to eliminate any overlap between its international and domestic debt securities statistics.

### 3. Derivatives statistics (Table 4)

Semi annual data are compiled for activity in over-the-counter (OTC) markets whilst quarterly data are available on activity in exchange-traded markets. The data on OTC derivatives are based on the reporting to the BIS by central banks in major financial centres that in turn collect the information on a consolidated basis from reporting dealers headquartered in their respective country, while those on exchange-traded derivatives are obtained from market sources.

The derivatives data cover notional amounts outstanding and gross market values for a number of risk categories: foreign exchange, interest rates, equity-linked, commodities and credit default swaps. Gross credit exposure in OTC markets after bilateral netting is also available.

---

<sup>1</sup> More detailed tables and options to download the data in time series form are available at <http://www.bis.org/statistics/index.htm>.

**Table 1A: International positions of banks by residence of counterparty, September 2010<sup>1</sup>**

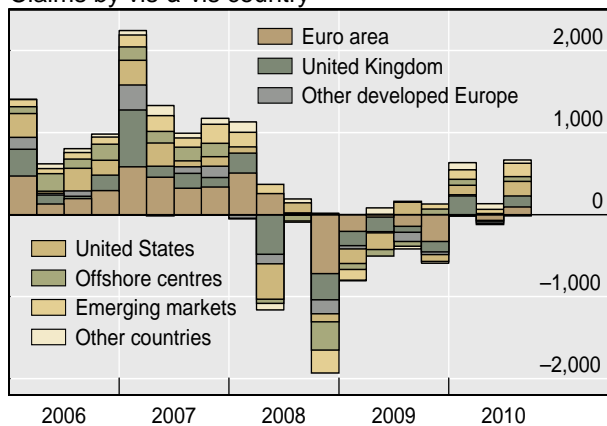
In billions of US dollars

	Vis-à-vis developed countries	Vis-à-vis offshore centres	Vis-à-vis emerging markets					All countries
			Total	Africa	Asia	Europe	Latin America	
<b>Amounts outstanding</b>								
<b>Total claims</b>	<b>26,805</b>	<b>4,213</b>	<b>3,297</b>	<b>489</b>	<b>1,344</b>	<b>865</b>	<b>599</b>	<b>34,906</b>
<b>Total cross-border claims</b>	<b>23,872</b>	<b>3,775</b>	<b>2,779</b>	<b>485</b>	<b>1,015</b>	<b>774</b>	<b>505</b>	<b>31,018</b>
Loans	16,791	3,122	2,161	442	771	598	350	22,367
Securities	5,306	523	360	21	135	93	111	6,278
Claims on banks	15,503	2,415	1,418	196	640	398	184	19,842
Claims on non-banks	8,369	1,360	1,361	288	376	375	321	11,176
US dollar	8,823	2,514	1,160	277	342	209	332	12,563
Euro	10,482	316	500	89	50	338	23	11,427
<b>Foreign currency claims on residents</b>	<b>2,933</b>	<b>437</b>	<b>518</b>	<b>4</b>	<b>329</b>	<b>91</b>	<b>94</b>	<b>3,888</b>
<b>Estimated exchange rate adjusted changes during the quarter<sup>2</sup></b>								
<b>Total claims</b>	<b>531</b>	<b>71</b>	<b>194</b>	<b>11</b>	<b>100</b>	<b>27</b>	<b>57</b>	<b>777</b>
<b>Total cross-border claims</b>	<b>448</b>	<b>61</b>	<b>160</b>	<b>11</b>	<b>84</b>	<b>22</b>	<b>44</b>	<b>650</b>
Loans	260	55	111	9	59	12	31	395
Securities	39	6	27	1	10	4	11	70
Claims on banks	164	39	95	6	44	17	29	278
Claims on non-banks	284	22	65	5	40	5	15	372
US dollar	457	48	66	7	23	8	28	575
Euro	-109	-20	7	3	2	1	2	-122
<b>Foreign currency claims on residents</b>	<b>83</b>	<b>10</b>	<b>34</b>	<b>0</b>	<b>16</b>	<b>5</b>	<b>13</b>	<b>127</b>
<b>Amounts outstanding</b>								
<b>Total liabilities</b>	<b>22,306</b>	<b>5,242</b>	<b>2,731</b>	<b>728</b>	<b>1,098</b>	<b>415</b>	<b>490</b>	<b>33,451</b>
<b>Total cross-border liabilities</b>	<b>19,307</b>	<b>4,479</b>	<b>2,151</b>	<b>721</b>	<b>717</b>	<b>304</b>	<b>409</b>	<b>29,110</b>
Deposits	16,767	4,337	2,083	713	687	300	382	23,574
Securities	1,383	100	20	3	12	0	5	4,113
Liabilities to banks	14,426	3,192	1,295	450	461	209	175	21,483
Liabilities to non-banks	4,881	1,286	856	271	255	95	234	7,627
US dollar	7,626	2,889	1,148	431	274	129	314	12,669
Euro	7,985	534	351	150	49	110	42	9,644
<b>Foreign currency liabilities to residents</b>	<b>2,998</b>	<b>763</b>	<b>580</b>	<b>7</b>	<b>382</b>	<b>111</b>	<b>81</b>	<b>4,342</b>
<b>Estimated exchange rate adjusted changes during the quarter<sup>2</sup></b>								
<b>Total liabilities</b>	<b>579</b>	<b>74</b>	<b>129</b>	<b>-2</b>	<b>83</b>	<b>22</b>	<b>26</b>	<b>852</b>
<b>Total cross-border liabilities</b>	<b>454</b>	<b>64</b>	<b>67</b>	<b>-3</b>	<b>44</b>	<b>10</b>	<b>16</b>	<b>655</b>
Deposits	266	57	74	-2	49	10	17	375
Securities	35	1	-1	-2	1	0	-1	140
Liabilities to banks	260	63	42	-13	36	6	12	406
Liabilities to non-banks	195	1	25	9	8	4	4	250
US dollar	369	91	63	13	19	16	15	608
Euro	51	-22	-22	-13	-3	-8	2	6
<b>Foreign currency liabilities to residents</b>	<b>124</b>	<b>10</b>	<b>62</b>	<b>1</b>	<b>38</b>	<b>12</b>	<b>10</b>	<b>196</b>

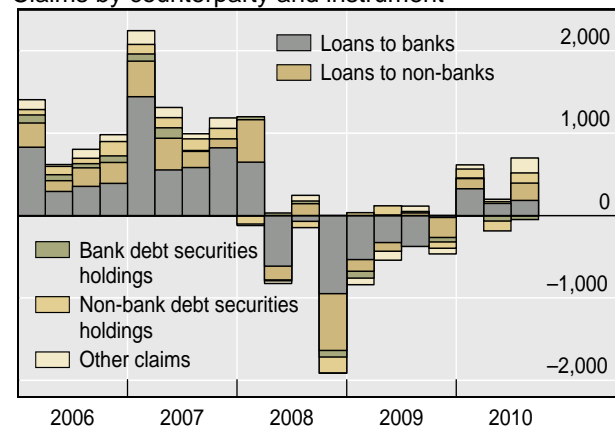
**Cross-border positions**

Exchange rate adjusted changes in stocks

Claims by vis-à-vis country



Claims by counterparty and instrument



<sup>1</sup> Detailed breakdowns and time series data are available at <http://www.bis.org/statistics/bankstats.htm> (Tables 1–7B). <sup>2</sup> Taking into account exchange rate effects on outstanding balances in non-dollar currencies.

**Table 1B: International positions of banks by nationality of head office, September 2010<sup>1</sup>**

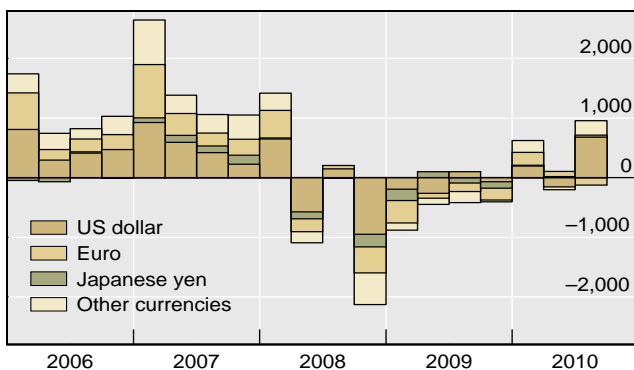
In billions of US dollars

	Nationality of banks										All countries
	France	Germany	Italy	Netherlands	Spain	Switzerland	United Kingdom	Japan	United States	Emerging markets	
<b>Amounts outstanding</b>											
<b>Total claims</b>	<b>4,444</b>	<b>4,553</b>	<b>1,026</b>	<b>1,573</b>	<b>848</b>	<b>2,585</b>	<b>4,570</b>	<b>3,638</b>	<b>4,043</b>	<b>1,168</b>	<b>34,805</b>
on banks	2,977	2,527	604	996	465	1,610	2,644	1,416	2,806	612	20,474
on related foreign offices	1,215	1,352	279	396	331	763	1,319	600	1,640	170	10,006
on other banks	1,744	1,151	323	596	134	839	1,296	816	1,163	417	10,341
on official monetary institutions	18	24	1	4	1	7	29	0	3	25	127
on non-banks	1,467	2,026	422	577	383	975	1,927	2,221	1,237	555	14,331
US dollar	1,405	1,350	194	385	290	1,269	1,895	1,849	2,851	791	13,975
Euro	2,189	2,461	736	865	384	600	1,612	525	554	118	12,031
Other currencies	850	741	96	323	175	715	1,064	1,264	638	259	8,799
<b>Estimated exchange rate adjusted changes during the quarter<sup>2</sup></b>											
<b>Total claims</b>	<b>239</b>	<b>-52</b>	<b>18</b>	<b>83</b>	<b>12</b>	<b>102</b>	<b>116</b>	<b>204</b>	<b>38</b>	<b>89</b>	<b>833</b>
on banks	211	-32	6	60	-2	3	9	64	-6	49	355
on related foreign offices	117	70	17	7	14	-9	39	1	-52	9	252
on other banks	103	-105	-12	50	-16	19	-31	63	45	35	109
on official monetary institutions	-9	3	1	3	0	-7	1	0	1	5	-5
on non-banks	28	-20	11	23	14	98	108	140	44	40	478
US dollar	109	2	23	0	10	106	88	179	68	65	680
Euro	61	-49	-4	71	-2	-29	-26	-7	-45	11	-124
Other currencies	69	-5	-1	11	3	24	54	31	15	13	277
<b>Amounts outstanding</b>											
<b>Total liabilities</b>	<b>4,234</b>	<b>3,598</b>	<b>1,047</b>	<b>1,656</b>	<b>987</b>	<b>2,788</b>	<b>4,492</b>	<b>2,040</b>	<b>4,570</b>	<b>1,279</b>	<b>33,405</b>
to banks	2,868	2,559	705	1,216	547	1,628	2,293	1,230	2,483	701	20,146
to related foreign offices	1,202	1,263	227	406	273	932	1,118	550	1,640	141	9,447
to other banks	1,548	1,219	442	777	241	681	1,073	650	700	543	9,963
to official monetary institutions	118	78	36	34	33	15	101	30	143	17	736
to non-banks	1,366	1,040	342	440	440	1,160	2,199	809	2,088	577	13,259
US dollar	1,439	1,385	211	515	344	1,329	1,536	1,128	3,490	819	14,595
Euro	1,919	1,398	721	703	451	709	1,471	282	469	125	10,295
Other currencies	876	816	115	437	192	751	1,485	630	611	335	8,515
<b>Estimated exchange rate adjusted changes during the quarter<sup>2</sup></b>											
<b>Total liabilities</b>	<b>271</b>	<b>82</b>	<b>55</b>	<b>94</b>	<b>70</b>	<b>56</b>	<b>41</b>	<b>157</b>	<b>30</b>	<b>97</b>	<b>912</b>
to banks	222	62	19	78	12	22	-30	69	12	46	465
to related foreign offices	95	37	-1	16	12	23	-29	20	-7	23	116
to other banks	115	24	15	67	-3	1	22	48	21	23	369
to official monetary institutions	12	1	6	-5	3	-2	-22	0	-2	0	-20
to non-banks	49	20	36	16	58	34	71	88	19	51	447
US dollar	113	54	42	38	31	96	32	152	56	83	820
Euro	103	25	11	35	36	-26	-35	-3	-24	2	29
Other currencies	54	3	2	21	4	-14	44	8	-2	12	64

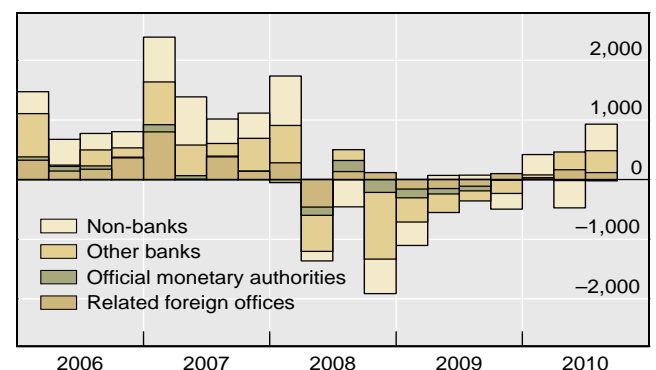
**International positions of BIS reporting banks**

Exchange rate adjusted changes in stocks

**Claims by currency**



**Liabilities by sector of counterparty**



<sup>1</sup> Detailed breakdowns and time series data are available at <http://www.bis.org/statistics/bankstats.htm> (Tables 8A–8B). <sup>2</sup> Taking into account exchange rate effects on outstanding balances in non-dollar currencies.

**Table 2A: Consolidated claims, immediate borrower basis, September 2010<sup>1</sup>**

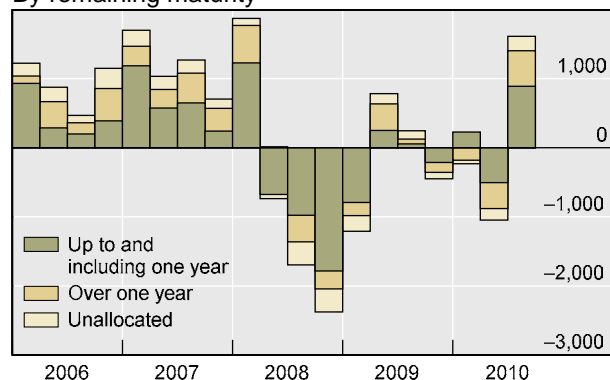
Amounts outstanding, in billions of US dollars

	Vis-à-vis developed countries				Vis-à-vis offshore centres	Vis-à-vis emerging markets					All countries
	Total	United States	Euro area	Japan		Total	Africa	Asia	Europe	Latin America	
<b>Foreign claims</b>	<b>23,864</b>	<b>5,506</b>	<b>10,451</b>	<b>1,135</b>	<b>2,335</b>	<b>4,885</b>	<b>634</b>	<b>1,706</b>	<b>1,398</b>	<b>1,147</b>	<b>31,183</b>
<b>International claims</b>	<b>15,702</b>	<b>2,668</b>	<b>7,820</b>	<b>673</b>	<b>1,840</b>	<b>2,768</b>	<b>413</b>	<b>1,096</b>	<b>798</b>	<b>460</b>	<b>20,409</b>
Up to and including one year	8,018	928	3,677	547	892	1,387	202	695	280	210	10,317
Over one year	5,281	1,097	2,937	74	599	1,109	189	271	448	200	7,027
Unallocated by maturity	2,404	643	1,205	52	350	272	22	130	70	50	3,065
<b>Local currency claims</b>	<b>8,162</b>	<b>2,838</b>	<b>2,631</b>	<b>462</b>	<b>494</b>	<b>2,117</b>	<b>220</b>	<b>610</b>	<b>601</b>	<b>686</b>	<b>10,774</b>
<b>Local currency liabilities</b>	<b>6,239</b>	<b>2,588</b>	<b>1,824</b>	<b>304</b>	<b>460</b>	<b>1,523</b>	<b>198</b>	<b>415</b>	<b>363</b>	<b>546</b>	<b>8,224</b>
<b>Unadjusted changes during the quarter<sup>2</sup></b>											
Foreign claims	1,490	93	892	111	150	456	46	167	146	98	2,103
International claims	1,243	155	723	90	111	252	28	120	64	40	1,615
Local currency claims	246	-61	169	21	38	203	17	47	82	58	488
Local currency liabilities	263	68	108	-17	45	121	10	20	46	45	428
<b>Nationality of reporting banks:</b>											
<b>Foreign claims</b>											
<b>Domestically owned banks (total)</b>	<b>20,003</b>	<b>5,229</b>	<b>8,392</b>	<b>841</b>	<b>2,274</b>	<b>4,578</b>	<b>593</b>	<b>1,538</b>	<b>1,356</b>	<b>1,091</b>	<b>26,950</b>
Euro area	9,693	1,729	5,156	268	506	2,210	237	332	1,090	550	12,462
Switzerland	1,408	678	333	90	178	141	24	68	17	32	1,735
United Kingdom	2,663	1,106	1,127	147	568	818	225	402	55	136	4,067
Japan	1,972	981	567	0	459	277	29	173	21	54	2,708
United States	1,882	0	683	305	322	677	51	338	67	221	2,881
Other countries <sup>3</sup>	2,385	735	526	30	241	455	27	225	107	97	3,098
<b>Other foreign banks</b>	<b>3,860</b>	<b>277</b>	<b>2,059</b>	<b>294</b>	<b>61</b>	<b>307</b>	<b>40</b>	<b>168</b>	<b>42</b>	<b>56</b>	<b>4,233</b>
<b>International claims, all maturities</b>											
<b>Domestically owned banks (total)</b>	<b>11,842</b>	<b>2,391</b>	<b>5,761</b>	<b>379</b>	<b>1,780</b>	<b>2,461</b>	<b>373</b>	<b>928</b>	<b>755</b>	<b>404</b>	<b>16,176</b>
Euro area	5,795	777	3,288	116	450	1,126	170	244	558	155	7,425
Switzerland	722	145	317	47	168	115	21	57	16	22	1,010
United Kingdom	1,334	446	675	72	272	335	92	167	38	38	1,960
Japan	1,683	766	542	0	425	225	29	123	20	53	2,333
United States	1,262	0	600	124	279	363	35	198	39	90	1,904
Other countries <sup>3</sup>	1,046	257	340	20	186	297	26	140	83	47	1,544
<b>Other foreign banks</b>	<b>3,860</b>	<b>277</b>	<b>2,059</b>	<b>294</b>	<b>61</b>	<b>307</b>	<b>40</b>	<b>168</b>	<b>42</b>	<b>56</b>	<b>4,233</b>
<b>International claims, short-term</b>											
<b>Domestically owned banks (total)</b>	<b>5,361</b>	<b>799</b>	<b>2,395</b>	<b>260</b>	<b>855</b>	<b>1,200</b>	<b>176</b>	<b>575</b>	<b>261</b>	<b>188</b>	<b>7,436</b>
Euro area	2,475	345	1,125	57	201	426	67	120	172	66	3,109
Switzerland	434	74	181	29	110	60	15	28	8	9	606
United Kingdom	615	184	331	36	148	187	45	101	23	18	953
Japan	195	66	65	0	48	85	8	63	5	9	327
United States	1,031	0	474	122	247	308	29	182	30	67	1,585
Other countries <sup>3</sup>	611	130	218	16	102	134	12	81	23	19	856
<b>Other foreign banks</b>	<b>2,657</b>	<b>129</b>	<b>1,282</b>	<b>287</b>	<b>36</b>	<b>187</b>	<b>27</b>	<b>120</b>	<b>19</b>	<b>22</b>	<b>2,881</b>

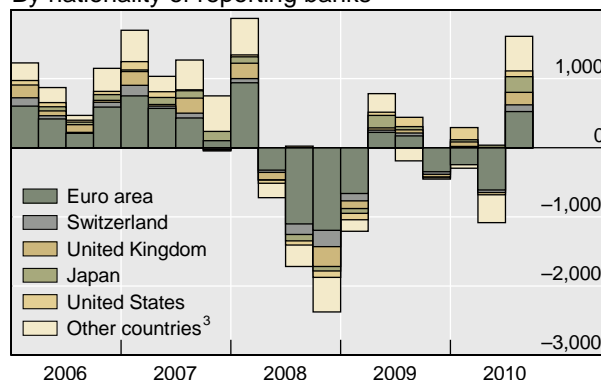
**International claims of BIS reporting banks on an immediate borrower basis<sup>4</sup>**

 Changes in stocks<sup>2</sup>

By remaining maturity



By nationality of reporting banks



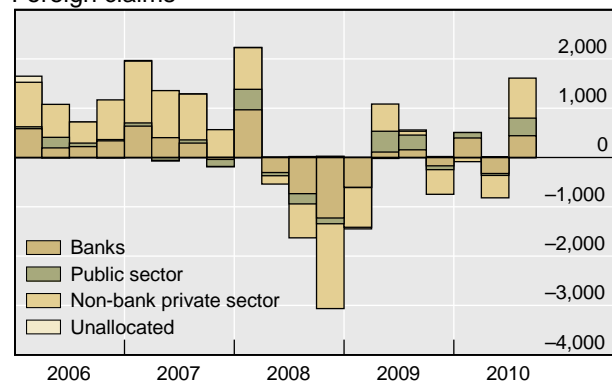
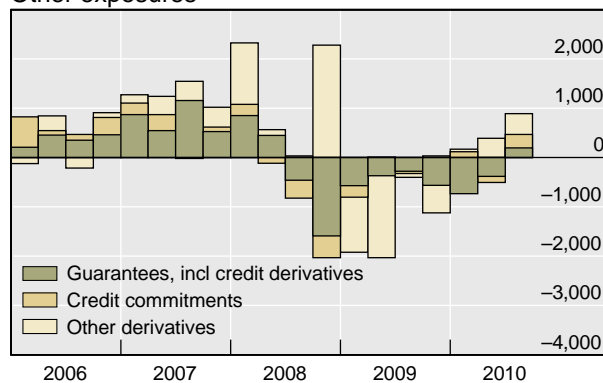
<sup>1</sup> Detailed breakdowns and time series data are available at <http://www.bis.org/statistics/consstats.htm> and <http://www.bis.org/statistics/consstatsweb.htm> (Tables 9A–9B and CB10). <sup>2</sup> Quarterly difference in outstanding stocks, excluding effects of breaks in series. <sup>3</sup> Domestically owned banks in other reporting countries. <sup>4</sup> Worldwide consolidated positions of domestically owned banks and unconsolidated positions of foreign banks in 30 reporting countries.

**Table 2B: Consolidated claims, ultimate risk basis, September 2010<sup>1</sup>**

Amounts outstanding, in billions of US dollars

	Vis-à-vis developed countries				Vis-à-vis offshore centres	Vis-à-vis emerging markets					All countries
	Total	United States	Euro area	Japan		Total	Africa	Asia	Europe	Latin America	
<b>Foreign claims</b>	<b>19,967</b>	<b>5,292</b>	<b>8,377</b>	<b>876</b>	<b>1,723</b>	<b>4,415</b>	<b>566</b>	<b>1,471</b>	<b>1,311</b>	<b>1,067</b>	<b>26,186</b>
Banks	5,381	845	2,613	280	148	788	97	372	187	132	6,328
Public sector	3,729	1,049	1,753	349	170	1,083	95	320	296	372	5,042
Non-bank private sector	10,687	3,323	3,983	245	1,375	2,525	373	778	812	562	14,592
Unallocated	170	76	28	2	30	19	1	1	16	1	223
<b>Cross-border claims</b>	<b>11,122</b>	<b>2,456</b>	<b>5,739</b>	<b>341</b>	<b>1,097</b>	<b>1,935</b>	<b>328</b>	<b>755</b>	<b>516</b>	<b>336</b>	<b>14,231</b>
<b>Local claims in all currencies</b>	<b>8,845</b>	<b>2,837</b>	<b>2,638</b>	<b>534</b>	<b>625</b>	<b>2,480</b>	<b>238</b>	<b>716</b>	<b>795</b>	<b>731</b>	<b>11,955</b>
<b>Unadjusted changes during the quarter<sup>2</sup></b>											
Foreign claims	1,123	124	612	80	75	405	46	139	134	87	1,609
Cross-border claims	825	140	463	47	24	185	29	88	45	24	1,040
Local claims in all currencies	298	-16	149	33	51	220	17	51	89	63	568
<b>Nationality of reporting banks<sup>3</sup></b>											
<b>Foreign claims</b>											
<b>Total</b>	<b>19,967</b>	<b>5,292</b>	<b>8,377</b>	<b>876</b>	<b>1,723</b>	<b>4,415</b>	<b>566</b>	<b>1,471</b>	<b>1,311</b>	<b>1,067</b>	<b>26,186</b>
Euro area	9,561	1,747	5,082	277	388	2,120	223	298	1,055	545	12,106
France	2,938	572	1,666	170	130	451	124	121	164	43	3,528
Germany	2,633	516	1,315	61	148	332	50	88	159	35	3,121
Italy	688	41	567	...	16	219	12	18	183	6	930
Spain	909	211	249	1	21	443	5	9	10	418	1,374
Switzerland	1,448	722	372	82	120	137	19	65	19	35	1,712
United Kingdom	2,621	1,071	1,105	161	508	823	223	412	52	136	3,972
Japan	1,985	1,080	520	0	263	264	26	159	22	56	2,512
United States	2,259	0	835	331	270	673	53	336	65	219	3,202
Other countries	2,093	673	462	25	174	398	22	202	99	75	2,682
<b>Cross-border claims</b>											
<b>Total</b>	<b>11,122</b>	<b>2,456</b>	<b>5,739</b>	<b>341</b>	<b>1,097</b>	<b>1,935</b>	<b>328</b>	<b>755</b>	<b>516</b>	<b>336</b>	<b>14,231</b>
Euro area	5,415	804	3,223	113	310	868	165	201	374	127	6,631
France	1,582	217	896	71	95	250	82	81	58	29	1,936
Germany	1,932	349	1,139	23	128	245	48	59	107	32	2,313
Italy	301	26	208	...	15	48	6	10	26	6	370
Spain	204	25	125	1	14	55	5	9	4	37	276
Switzerland	676	163	354	38	95	117	16	53	18	31	895
United Kingdom	1,253	403	648	65	174	263	67	135	31	30	1,709
Japan	1,707	882	495	0	223	190	26	88	21	55	2,121
United States	1,365	0	753	113	214	320	35	179	34	72	1,899
Other countries	706	204	266	12	80	177	19	100	37	20	976
<b>Other exposures<sup>4,5</sup></b>											
Derivatives contracts	4,481	1,145	1,796	140	165	204	38	79	30	58	4,867
Guarantees extended	5,811	721	2,071	208	285	986	119	349	319	198	7,083
Credit commitments	2,929	961	933	77	303	615	87	170	134	223	3,849

**Consolidated claims and other exposures of BIS reporting banks on an ultimate risk basis**

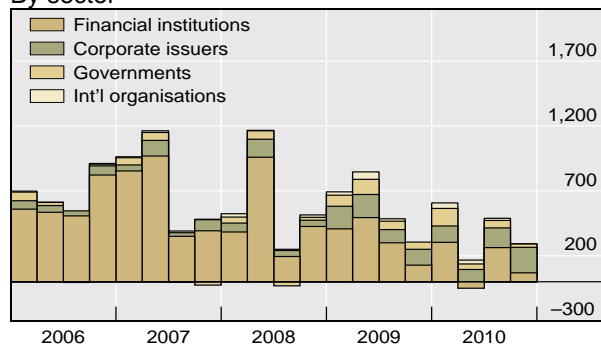
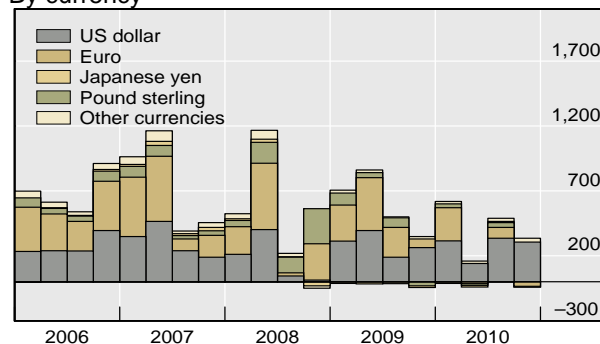
 Changes in stocks<sup>2</sup>
**Foreign claims**

**Other exposures<sup>4,5</sup>**

<sup>1</sup> Detailed breakdowns and time series data are available at <http://www.bis.org/statistics/consstats/htm> (Tables 9C–9D). <sup>2</sup> Quarterly difference in outstanding stocks, excluding effects of breaks in series. <sup>3</sup> Worldwide consolidated positions of domestically owned banks of 24 reporting countries.

<sup>4</sup> Not included in foreign claims. <sup>5</sup> Derivatives relate to positive market values recorded as on- or off-balance sheet items. Credit commitments and guarantees are recorded as off-balance sheet items.

**Table 3A: International debt securities issuance, December 2010<sup>1</sup>**

In billions of US dollars

	Developed countries				Off-shore centres	Emerging markets					Int'l organisations	All countries
	Total	United States	Euro area	Japan		Total	Africa	Asia	Europe	Latin America		
<b>Amounts outstanding</b>												
<b>Total issues</b>	<b>24,078</b>	<b>6,599</b>	<b>11,584</b>	<b>184</b>	<b>1,545</b>	<b>1,149</b>	<b>155</b>	<b>313</b>	<b>274</b>	<b>406</b>	<b>892</b>	<b>27,664</b>
<b>Money market instruments</b>	<b>869</b>	<b>95</b>	<b>483</b>	<b>2</b>	<b>27</b>	<b>6</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>11</b>	<b>914</b>
Financial institutions	810	94	447	2	27	6	0	4	0	2	0	843
Corporate issuers	25	1	18	0	0	0	0	0	0	0	0	25
Governments	34	0	17	0	0	0	0	0	0	0	0	34
US dollar	315	85	134	0	13	4	0	2	0	2	8	339
Euro	373	4	256	0	3	0	0	0	0	0	2	378
Other currencies	181	6	93	2	12	2	0	2	0	0	2	196
<b>Bonds and notes</b>	<b>23,209</b>	<b>6,503</b>	<b>11,101</b>	<b>182</b>	<b>1,518</b>	<b>1,142</b>	<b>154</b>	<b>309</b>	<b>274</b>	<b>404</b>	<b>881</b>	<b>26,751</b>
Financial institutions	18,232	4,848	8,714	131	1,415	288	44	142	35	66	0	19,935
Corporate issuers	3,193	1,643	895	49	63	289	48	98	36	106	0	3,545
Governments	1,784	12	1,492	2	39	565	61	69	204	232	0	2,389
US dollar	8,290	5,612	1,153	46	1,088	808	108	248	129	323	313	10,499
Euro	11,162	551	9,012	14	191	196	19	12	122	44	243	11,791
Other currencies	3,758	340	936	122	239	138	28	49	23	38	325	4,461
Floating rate	7,143	1,129	3,846	22	582	85	30	34	9	12	62	7,871
Straight fixed rate	15,706	5,249	7,145	118	871	998	116	230	263	389	820	18,394
Equity-related	360	125	110	42	65	60	8	45	2	4	0	485
<b>Net issuance during the quarter</b>												
<b>Total issues</b>	<b>235</b>	<b>199</b>	<b>76</b>	<b>-1</b>	<b>16</b>	<b>39</b>	<b>5</b>	<b>11</b>	<b>4</b>	<b>19</b>	<b>3</b>	<b>293</b>
<b>Money market instruments</b>	<b>-60</b>	<b>6</b>	<b>-11</b>	<b>0</b>	<b>1</b>	<b>-2</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>-56</b>
Financial institutions	-46	6	9	0	1	-2	0	-2	0	0	0	-46
Corporate issuers	-2	0	-2	0	0	0	0	0	0	0	0	-2
Governments	-11	0	-18	0	0	0	0	0	0	0	0	-11
US dollar	-16	6	-2	0	0	0	0	0	0	0	2	-14
Euro	-50	-1	-21	0	0	-1	0	-1	0	0	1	-50
Other currencies	7	0	12	0	1	-1	0	-1	0	0	2	9
<b>Bonds and notes</b>	<b>294</b>	<b>193</b>	<b>87</b>	<b>-1</b>	<b>15</b>	<b>41</b>	<b>5</b>	<b>13</b>	<b>4</b>	<b>19</b>	<b>-1</b>	<b>349</b>
Financial institutions	91	56	43	1	14	10	-1	3	1	7	0	115
Corporate issuers	178	136	28	-2	1	19	2	8	2	7	0	199
Governments	25	0	16	0	0	12	4	2	1	5	0	37
US dollar	269	210	14	0	17	29	4	9	3	13	6	321
Euro	25	-10	76	0	-3	2	1	-1	1	1	-9	15
Other currencies	0	-8	-3	-1	1	10	0	5	0	5	1	13
Floating rate	-36	-4	9	0	-4	-5	-4	-1	-1	0	2	-44
Straight fixed rate	322	189	78	0	21	43	9	13	5	16	-3	383
Equity-related	9	8	0	-1	-2	3	0	0	0	3	0	10
<i>Memo: Announced international equity issuance</i>	<i>200</i>	<i>104</i>	<i>41</i>	<i>3</i>	<i>12</i>	<i>76</i>	<i>2</i>	<i>58</i>	<i>9</i>	<i>7</i>	<i>0</i>	<i>288</i>

**Net international debt securities issuance**
**By sector**

**By currency**


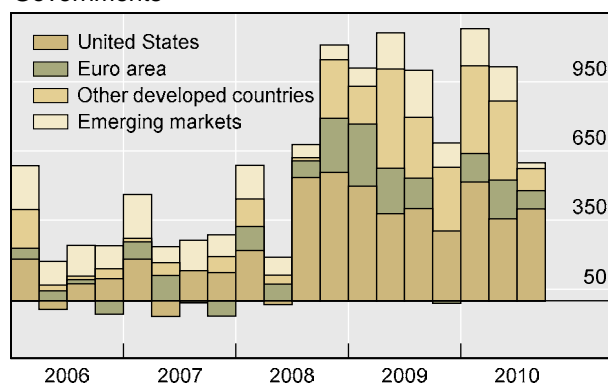
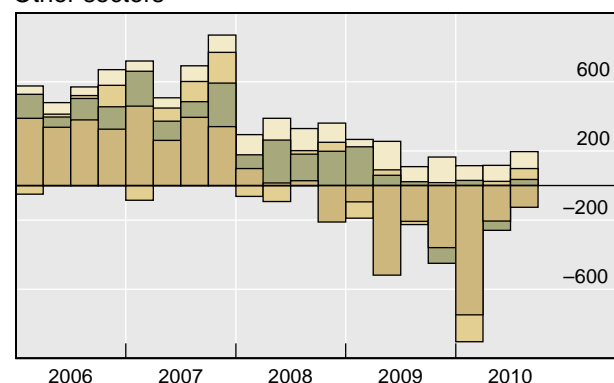
<sup>1</sup> Detailed breakdowns and time series data, including for gross international debt securities issuance, are available at <http://www.bis.org/statistics/secstats.htm> (Tables 11, 12A–D, 13A–B, 14A–B, 15A–B and 17B).



**Table 3B: Domestic debt securities issuance, September 2010<sup>1</sup>**

In billions of US dollars

Amounts outstanding											
	All countries	United States	Euro area	France	Germany	Italy	Spain	Other developed	Canada	Japan	United Kingdom
<b>Total issues</b>	<b>66,335</b>	<b>25,158</b>	<b>13,303</b>	<b>3,199</b>	<b>2,689</b>	<b>3,082</b>	<b>1,466</b>	<b>18,912</b>	<b>1,389</b>	<b>13,275</b>	<b>1,687</b>
Governments	37,874	10,746	7,048	1,696	1,556	1,975	606	14,333	971	11,213	1,344
Of which: short-term <sup>2</sup>	9,704	2,536	1,684	411	384	435	173	3,630	200	3,085	184
Financial institutions	21,897	11,524	4,953	1,208	785	731	837	3,414	262	1,206	322
Of which: short-term <sup>2</sup>	6,390	2,579	1,510	494	761	22	86	1,445	88	446	322
Corporate issuers	6,564	2,888	1,302	295	349	376	23	1,166	156	856	21
Of which: short-term <sup>2</sup>	713	128	179	86	42	1	1	143	11	111	1
	Emerging markets	Brazil	China	Chinese Taipei	Czech Republic	India	Malaysia	Mexico	South Africa	South Korea	Turkey
<b>Total issues</b>	<b>8,962</b>	<b>1,294</b>	<b>2,969</b>	<b>233</b>	<b>78</b>	<b>707</b>	<b>219</b>	<b>413</b>	<b>167</b>	<b>1,119</b>	<b>239</b>
Governments	5,747	822	1,617	141	53	607	113	239	108	481	239
Of which: short-term <sup>2</sup>	1,853	316	779	15	8	27	1	79	25	116	8
Financial institutions	2,007	462	859	32	17	75	45	141	34	272	0
Of which: short-term <sup>2</sup>	856	462	94	7	0	75	19	33	4	140	0
Corporate issuers	1,209	10	493	61	8	25	61	33	25	366	0
Of which: short-term <sup>2</sup>	263	10	110	22	0	25	3	2	1	81	0
Changes in stocks during the quarter											
	All countries	United States	Euro area	France	Germany	Italy	Spain	Other developed	Canada	Japan	United Kingdom
<b>Total issues</b>	<b>689</b>	<b>274</b>	<b>115</b>	<b>27</b>	<b>8</b>	<b>6</b>	<b>28</b>	<b>149</b>	<b>12</b>	<b>36</b>	<b>68</b>
Governments	619	400	79	-2	13	25	10	88	11	18	47
Of which: short-term <sup>3</sup>	-145	6	22	5	1	-7	8	-80	-3	-79	1
Financial institutions	-1	-129	32	11	-3	-5	18	61	-2	20	22
Of which: short-term <sup>3</sup>	80	40	12	-6	20	0	-3	25	-3	24	22
Corporate issuers	71	3	4	18	-2	-14	0	0	4	-2	0
Of which: short-term <sup>3</sup>	28	12	15	18	-3	0	-1	-9	-1	-6	0
	Emerging markets	Brazil	China	Chinese Taipei	Czech Republic	India	Malaysia	Mexico	South Africa	South Korea	Turkey
<b>Total issues</b>	<b>151</b>	<b>37</b>	<b>87</b>	<b>0</b>	<b>1</b>	<b>27</b>	<b>...</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>1</b>
Governments	52	26	4	1	1	21	2	-1	1	8	1
Of which: short-term <sup>3</sup>	-93	6	-44	0	-2	-3	0	-3	1	0	-3
Financial institutions	36	11	39	-1	0	3	...	4	0	-20	0
Of which: short-term <sup>3</sup>	3	11	0	-2	0	3	...	1	0	-11	0
Corporate issuers	63	0	44	1	0	3	...	1	0	17	-1
Of which: short-term <sup>3</sup>	10	0	8	0	0	3	...	0	0	0	0

**Changes in stocks of domestic debt securities**
**Governments**

**Other sectors<sup>4</sup>**


Euro area: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, Spain; Other developed countries: Australia, Canada, Denmark, Iceland, Japan, New Zealand, Norway, Sweden, Switzerland, the United Kingdom; Emerging markets: Albania, Argentina, Armenia, Bangladesh, Bolivia, Brazil, Bulgaria, Chile, China, Chinese Taipei, Colombia, Costa Rica, Croatia, the Czech Republic, Egypt, Georgia, Guatemala, Hong Kong SAR, Honduras, Hungary, India, Indonesia, Kenya, Lebanon, Lithuania, Malaysia, Mauritius, Mexico, Moldova, Morocco, Nepal, Pakistan, Peru, the Philippines, Poland, Romaina, Russia, Seychelles, Singapore, South Africa, South Korea, Sri Lanka, Tanzania, Thailand, Tonga, Turkey, Venezuela.

<sup>1</sup> Detailed breakdowns and time series data are available at <http://www.bis.org/statistics/secstats.htm> (Tables 16A–16B and 17A). <sup>2</sup> Issues with a remaining maturity to final repayment of up to one year. <sup>3</sup> Money market instruments. <sup>4</sup> Financial institutions plus corporate issuers.

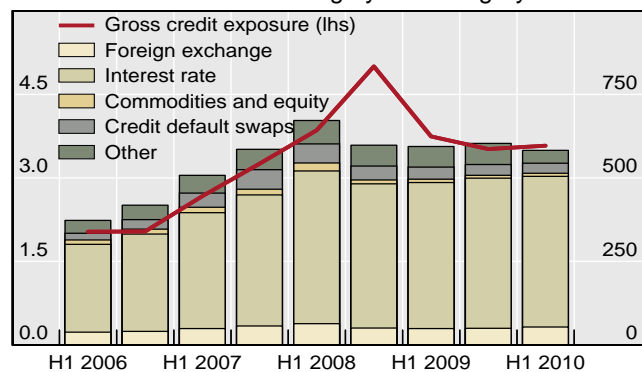
**Table 4: Global OTC derivatives market, end-June 2010<sup>1</sup>**

In billions of US dollars

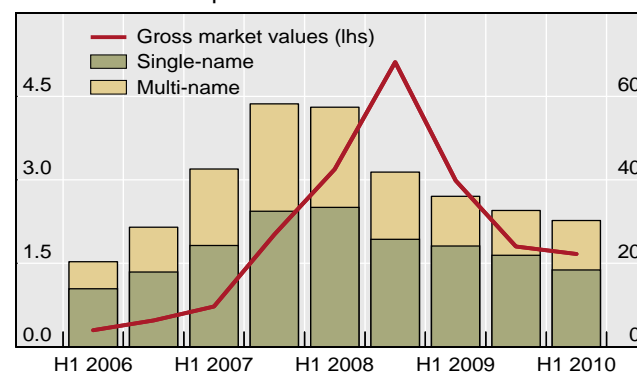
	Forwards and swaps				Options			
	Total	with reporting dealers	with other financial institutions	with non-financial customers	Total	with reporting dealers	with other financial institutions	with non-financial customers
<b>Notional amounts outstanding</b>								
<b>All contracts<sup>2</sup></b>	<b>513,275</b>	<b>151,542</b>	<b>313,892</b>	<b>45,940</b>	<b>69,380</b>	<b>30,433</b>	<b>31,246</b>	<b>6,550</b>
<b>Foreign exchange</b>	<b>41,972</b>	<b>15,376</b>	<b>19,151</b>	<b>7,445</b>	<b>11,153</b>	<b>4,544</b>	<b>4,323</b>	<b>2,286</b>
US dollar	36,504	14,142	16,711	5,650	8,835	3,555	3,454	1,826
Euro	16,085	5,515	7,058	3,512	3,909	1,501	1,399	1,008
Japanese yen	7,763	3,490	3,085	1,189	4,080	1,963	1,458	659
Pound sterling	5,706	1,737	2,782	1,186	887	332	344	211
Other	17,886	5,868	8,666	3,352	4,596	1,736	1,992	868
Up to one year	25,955	9,874	10,777	5,304	7,678	3,061	2,904	1,714
Over one year	16,017	5,502	8,374	2,141	3,475	1,483	1,420	572
<i>Memo: Exchange-traded<sup>3</sup></i>	157	.	.	.	190	.	.	.
<b>Interest rate</b>	<b>403,750</b>	<b>109,945</b>	<b>259,518</b>	<b>34,286</b>	<b>48,081</b>	<b>22,183</b>	<b>22,508</b>	<b>3,391</b>
US dollar	148,367	42,834	94,329	11,203	15,752	6,561	7,789	1,402
Euro	138,951	31,678	96,211	11,063	22,564	11,100	10,237	1,228
Japanese yen	51,176	17,615	27,542	6,019	4,218	2,573	1,477	168
Pound sterling	32,892	7,060	22,383	3,449	3,327	1,150	1,973	203
Other	32,364	10,758	19,053	2,553	2,219	799	1,031	389
Up to one year	183,905	56,137	105,085	22,683	12,135	5,896	5,188	1,051
Over one year	219,845	53,808	154,433	11,604	35,947	16,287	17,320	2,340
<i>Memo: Exchange-traded<sup>3</sup></i>	21,630	.	.	.	47,921	.	.	.
<b>Equity</b>	<b>1,754</b>	<b>479</b>	<b>932</b>	<b>343</b>	<b>4,506</b>	<b>1,704</b>	<b>2,359</b>	<b>442</b>
<i>Memo: Exchange-traded<sup>3</sup></i>	928	.	.	.	4,592	.	.	.
<b>Commodities</b>	<b>1,776</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>1,076</b>	<b>...</b>	<b>...</b>	<b>...</b>
<b>Credit default swaps</b>	<b>30,261</b>	<b>15,774</b>	<b>13,643</b>	<b>844</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>
<b>Unallocated</b>	<b>33,763</b>	<b>9,968</b>	<b>20,648</b>	<b>3,022</b>	<b>4,564</b>	<b>2,002</b>	<b>2,055</b>	<b>431</b>
<b>Gross market values</b>								
<b>All contracts</b>	<b>21,562</b>	<b>5,830</b>	<b>14,230</b>	<b>1,502</b>	<b>2,620</b>	<b>1,282</b>	<b>1,087</b>	<b>250</b>
<b>Foreign exchange</b>	<b>2,112</b>	<b>711</b>	<b>946</b>	<b>455</b>	<b>411</b>	<b>187</b>	<b>138</b>	<b>86</b>
US dollar	1,717	626	769	322	308	146	93	68
Euro	969	292	432	246	152	60	55	37
Japanese yen	470	200	181	90	187	107	44	36
Pound sterling	269	68	123	79	18	7	6	5
Other	798	237	388	174	159	53	80	26
<b>Interest rate</b>	<b>16,032</b>	<b>3,788</b>	<b>11,404</b>	<b>840</b>	<b>1,501</b>	<b>760</b>	<b>663</b>	<b>77</b>
US dollar	6,984	1,579	5,091	314	589	280	275	33
Euro	6,316	1,459	4,519	338	727	386	312	29
Japanese yen	907	323	536	48	73	47	23	3
Pound sterling	1,065	202	771	92	81	34	39	8
Other	760	224	488	47	30	13	13	4
<b>Equity</b>	<b>189</b>	<b>38</b>	<b>108</b>	<b>42</b>	<b>518</b>	<b>242</b>	<b>207</b>	<b>69</b>
<b>Credit default swaps</b>	<b>1,666</b>	<b>870</b>	<b>740</b>	<b>56</b>	<b>...</b>	<b>...</b>	<b>...</b>	<b>...</b>
<b>Unallocated</b>	<b>1,562</b>	<b>422</b>	<b>1,031</b>	<b>109</b>	<b>190</b>	<b>93</b>	<b>79</b>	<b>18</b>

**Global OTC derivatives<sup>4</sup>**

Notional amounts outstanding by risk category



Credit default swaps



<sup>1</sup> Detailed breakdowns and time series data are available at <http://www.bis.org/statistics/derstats.htm> (Tables 19, 20A–C, 21A–C, 22A–C and 23A–B). <sup>2</sup> Due to incomplete counterparty breakdowns for the commodity derivatives, components do not add up to the total. <sup>3</sup> Futures and options. Data on exchange-traded and OTC derivatives are not directly comparable; the former refers to open interest while the latter refers to gross positions. <sup>4</sup> In trillions of US dollars.

## Notes to tables

Data for the most recent period are provisional. Data on changes in stocks have been calculated by converting the relevant stocks into their original currencies using end-of-period exchange rates and subsequently converting the changes in stocks into US dollar amounts using period average rates. Flow and turnover data have been calculated by converting flows and turnover in original currencies into US dollar amounts using period average exchange rates.

Tables 1A–1B The data in Tables 1A–1B (the locational BIS banking statistics) cover banks' unconsolidated gross international on-balance sheet assets and liabilities. These data are based on the residence of the reporting institution and therefore measure the activities of all banking offices residing in each reporting country. Such offices report exclusively on their own unconsolidated business, which thus includes international transactions with any of their own affiliates. BIS reporting banks include banks residing in the G10 countries, plus Australia, Austria, the Bahamas, Bahrain, Bermuda, Brazil, the Cayman Islands, Chile, Chinese Taipei, Cyprus, Denmark, Finland, Greece, Guernsey, Hong Kong SAR, India, Ireland, Isle of Man, Jersey, Korea, Luxembourg, Macao SAR, Malaysia, Mexico, the Netherlands Antilles, Norway, Panama, Portugal, Singapore, South Africa, Spain and Turkey. Breakdowns by currency are compiled from actual reported data and do not include any estimates done by the BIS for reporting countries that provide incomplete or partial currency information. Table 1A provides aggregated figures by residence of banks in all reporting countries. Table 1B provides figures by nationality of banks in reporting countries. The nationality statistics are prepared by regrouping the locational data into categories based on the control or ownership of the banking offices in question. Thus, for a reporting country, total assets and total liabilities of all banks reported under locational by residence statistics should be equal to the total assets and total liabilities of all banks reported under nationality statistics. Locational by residence statistics of the latest quarter for Chile and Non-US banks in Bahamas relate to 2010Q2. Locational by nationality data of Bahamas relate to 2009Q4. Detailed tables, including time series data in CSV files, guidelines and information on breaks in series in the locational banking statistics, are available on the BIS website under <http://www.bis.org/statistics/bankstats.htm>.

Tables 2A–2B The consolidated statistics are based mainly on the country of incorporation of the reporting institutions and measure the international lending activities of banks' head offices in the reporting countries and all their offices at home and abroad, with positions between offices of the same bank being netted out. The data in Table 2A cover BIS reporting banks' worldwide consolidated claims on an immediate borrower basis. These contractual claims are not adjusted for risk mitigants, such as guarantees and collateral. The 30 reporting countries comprise the G10 countries plus Australia, Austria, Brazil, Chile, Chinese Taipei, Denmark, Finland, Greece, Hong Kong SAR, India, Ireland, Luxembourg, Mexico, Norway, Panama, Portugal, Singapore, Spain and Turkey. The data in Table 2B cover BIS reporting banks' worldwide consolidated claims on an ultimate risk basis. These contractual claims are adjusted for risk mitigants, such as guarantees and collateral. The reporting population is a subset of 24 countries which reports both sets of data and comprises Australia, Austria, Belgium, Canada, Chile, Chinese Taipei, Finland, France, Germany, Greece, India, Ireland, Italy, Japan, the Netherlands, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. In table 2B, German banks' foreign claims vis-à-vis developed countries are on an immediate borrower basis. The data in Table 2A cover both foreign and international claims, while Table 2B covers foreign claims only. International claims are defined as BIS reporting banks' cross-border claims in all currencies plus the local claims of their foreign affiliates in foreign currency. Foreign claims include, in addition, reporting banks' foreign affiliates' local claims in local currency, as shown below.

---

## Types of claims

---

<b>A</b> Cross-border claims	<b>B</b> Local claims of foreign affiliates in foreign currency	<b>C</b> Local claims of foreign affiliates in local currency	<b>D</b> Domestic claims in the reporting country
---------------------------------	--	--	--

***International claims*** (A + B)

***Foreign claims*** (A + B + C)

---

The shaded area indicates claims excluded from the consolidated banking statistics; bold italics indicate claims published within the consolidated banking statistics.

---

Austria and Portugal report on a partially consolidated basis. Detailed information on breaks in series in the consolidated banking statistics is available on the BIS website under <http://www.bis.org/statistics/breakstables.pdf>. The second quarter data of Chile have been rolled forward from the first quarter of 2010.

Tables 3A–3B     The methodology used to compile the international and domestic debt securities statistics and a description of the coverage can be found on pages 13 to 17 of the *Guide to the international financial statistics*, available at <http://www.bis.org/publ/bispap14.htm>.

The sectoral breakdown presents data based on the sector of the borrower itself and not on the sector of the parent company of the borrower or any guarantor. “Governments” comprise central governments, other governments and central banks. “Financial institutions” comprise commercial banks and other financial institutions.

The international debt securities data include “repackaged securities”, for example the new global issues of Argentina, resulting from the April 2005 exchange offer.

Table 4            The data in Table 4 cover the activity recorded in the global over-the-counter (OTC) and exchange-traded derivatives markets. The data on exchange-traded derivatives are obtained from market sources, while those on OTC derivatives are based on the reporting to the BIS by central banks in major financial centres that in turn collect the information on a consolidated basis from reporting dealers headquartered in their respective countries.

The data on OTC derivatives are available in terms of notional amounts outstanding, gross market values and gross credit exposure. Gross credit exposure excludes credit default swap contracts for all countries except the United States. These statistics are adjusted for inter-dealer double-counting and cover foreign exchange, interest rate, equity, commodity and credit derivatives.

For the exchange-traded derivatives, data on open interest measured in terms of US dollars are available for the main financial derivatives contracts (interest rate, currency and equity-linked derivatives).

Information on the methodology used to compile these statistical sets and a more detailed description of their coverage can be found on pages 18 to 21 of the *Guide to the international financial statistics*, available at <http://www.bis.org/publ/bispap14.htm>.

## Special features in the BIS Quarterly Review

December 2010	The \$4 trillion question: what explains FX growth since the 2007 survey?	M R King & D Rime
December 2010	Derivatives in emerging markets	D Mihaljek & F Packer
December 2010	Counterparty risk and contract volumes in the credit default swap market	N Vause
December 2010	A user's guide to the Triennial Central Bank Survey of foreign exchange market activity	M R King & C Mallo
September 2010	Debt reduction after crises	G Tang & C Upper
September 2010	The collapse of international bank finance during the crisis: evidence from syndicated loan markets	M Chui, D Domanski, P Kugler & J Shek
September 2010	Options for meeting the demand for international liquidity during financial crises	R Moessner & WA Allen
September 2010	Bank structure, funding risk and the transmission of shocks across countries: concepts and measurement	I Fender & P McGuire
June 2010	Policy responses to dislocations in the FX swap market: the experience of Korea	N Baba & I Shim
June 2010	Currency collapses and output dynamics: a long-run perspective	CE Tovar
June 2010	Was it credit supply? Cross-border bank lending to emerging market economies during financial crisis	E Takats
June 2010	European banks' US dollar funding pressures	I Fender & P McGuire
March 2010	The architecture of global banking: from international to multinational	R McCauley, P McGuire & G von Peter
March 2010	Exchange rates during financial crises	M Kohler
March 2010	The dependence of the financial system on central bank and government support	P Gerlach
March 2010	The term "macroprudential": origins and evolution	P Clement
December 2009	Macro stress tests and crises: what can we learn?	R Alfaro & M Drehmann
December 2009	Monetary policy and the risk-taking channel	L Gambacorta
December 2009	Government size and macroeconomic stability	M S Mohanty & F Zampolli
December 2009	Issues and developments in loan loss provisioning: the case of Asia	S Angklomkiew, J George & F Packer
December 2009	Dollar appreciation in 2008: safe haven, carry trades and dollar shortage	P McGuire & R McCauley
September 2009	The future of securitisation: how to align incentives	I Fender & J Mitchell
September 2009	Central counterparties for over-the-counter derivatives	S Cecchetti, J Gyntelberg & M Hollanders
September 2009	The cost of equity for global banks: a CAPM perspective from 1990 to 2009	M King
September 2009	The systemic importance of financial institutions	N Tarashev, C Borio & K Tsatsaronis

# Recent BIS publications<sup>1</sup>

## BIS Papers

### **The future of central banking under post-crisis mandates**

January 2011

<http://www.bis.org/publ/bppdf/bispap55.htm>

On 24-25 June 2010, the BIS held its Ninth Annual Conference, on "The future of central banking under post-crisis mandates" in Lucerne, Switzerland. The event brought together senior representatives of central banks and academic institutions who exchanged views on this topic. This volume contains the opening address by Stephen Cecchetti (Economic Adviser, BIS), a keynote address by Baron Alexandre Lamfalussy, and the contributions of the policy panel on "Do central bank governance arrangements need to be altered?". The participants in the policy panel discussion, chaired by Jaime Caruana (General Manager, BIS), were Mark Carney (Bank of Canada), Andrew Crockett (JPMorgan Chase International), Stefan Ingves (Sveriges Riksbank), Lucas Papademos (former Vice-President, ECB) and Duvvuri Subbarao (Reserve Bank of India). The papers presented at the conference and the discussants' comments were released as BIS Working Papers 326 to 331.

### **The global crisis and financial intermediation in emerging market economies**

December 2010

<http://www.bis.org/publ/bppdf/bispap54.htm>

On 28-29 January 2010, senior central bank officials from emerging market economies (EMEs) met at the BIS in Basel to discuss how policymakers had responded to the effects of the international financial crisis on emerging market economies. Although hit hard, most EMEs displayed remarkable resilience. Four aspects were discussed:

*Capital flows and cross-border lending.* Policymakers could do little to counter the sharp declines in the supply of cross-border bank financing and more broadly of capital flows at the height of the crisis. But comparatively strong macroeconomic fundamentals meant the crisis was short-lived, and capital flows recovered.

*Financial intermediation in EMEs during the crisis: home-owned versus foreign-owned banks.* EME banks adjusted to the crisis in ways that stabilised their financial positions: they reduced (already limited) reliance on wholesale markets, curbed new lending, shifted towards less risky loans and increased holdings of government bonds, and shortened the maturity of their assets. While foreign bank affiliates and domestic banks often behaved in similar ways, it was noted that foreign banks: (i) did not always fully appreciate the risk posed by currency mismatches (eg in central and Eastern Europe); (ii) reduced their participation in domestic interbank or credit markets compared to domestic banks; (iii) sometimes provided financing to their parents during a period when funding markets in the advanced countries were experiencing stress. Foreign bank behaviour may have been influenced by the funding model, the financial condition of the parent and the strategic importance of the market. The experience has prompted a reassessment of the relative merits of foreign branches versus subsidiaries. There is now much greater emphasis on the responsibilities of host country supervisors.

*The impact of the crisis on local money and debt markets.* The crisis adversely affected financing in foreign exchange markets (eg the swap market), and to a lesser degree the domestic interbank market. There were significant effects on domestic bond markets in some cases.

*Central bank instruments in response to the crisis.* Central banks responded to the crisis by providing financing in foreign and domestic currencies. An important issue in the provision of foreign currency financing concerned the pros and cons of using foreign reserves as opposed to other sources, notably Federal Reserve swap facilities. The authorities changed their monetary operations or set up special facilities (eg to widen the range of securities purchased and lengthen their maturities) to support local currency funding. Policy rates and (in some cases) reserve requirements were also lowered countercyclically.

## Working Papers

### **Macroprudential policy - a literature review**

Gabriele Galati and Richhild Moessner

<http://www.bis.org/publ/work337.htm>

The recent financial crisis has highlighted the need to go beyond a purely micro approach to financial regulation and supervision. In recent months, the number of policy speeches, research papers and conferences that discuss a macro perspective on financial regulation has grown considerably. The policy debate is focusing in particular on macroprudential tools and their usage, their relationship with monetary policy, their implementation and their effectiveness. Macroprudential policy has recently also attracted considerable attention among researchers. This paper provides an overview of research on this topic. We also identify important future research questions that emerge from both the literature and the current policy debate.

### **Policymaking from a "macroprudential" perspective in emerging market economies**

Ramon Moreno

<http://www.bis.org/publ/work336.htm>

Recurrent capital inflows pose important challenges for authorities in emerging market economies seeking to preserve financial stability. Raising interest rates to dampen imbalances that could arise from capital flows can also attract more

---

<sup>1</sup> Requests for publications should be addressed to: Bank for International Settlements, Press & Communications, Centralbahnplatz 2, CH-4002 Basel. These publications are also available on the BIS website ([www.bis.org](http://www.bis.org)).

capital inflows and accentuate appreciation pressures. For this reason authorities have used a number of instruments to mitigate the effects of capital flows, all with financial stability implications. Many of these instruments (eg reserve requirements) may have been used for other purposes but the global financial crisis has raised interest in examining them from a financial stability, or "macroprudential" perspective. This paper reviews some of these instruments, drawing in part on material provided by central banks to the BIS. The instruments include foreign exchange market intervention and foreign reserve accumulation; measures to strengthen bank balance sheets and capital and measures to maintain the quality of credit or to influence credit growth or allocation, and capital controls. Certain implementation issues are also discussed, including signals to respond to, timing of prudential measures and procyclicality and effectiveness and calibration. An unresolved question is how the instruments described are to be used in conjunction with interest rate policy. Over the medium term, these instruments raise concerns because they may impair the development of the financial system.

### **To err is human: rating agencies and the interwar foreign government debt crisis**

**Marc Flandreau, Norbert Gaillard and Frank Packer**

<http://www.bis.org/publ/work335.htm>

During the 1930s, rating agencies took up a central role in regulatory supervision that they still have today. The proximate cause for this changeover was the economic shock of the Great Depression. Exploring the performance of rating agencies in assessing the risks of sovereign debt, an important segment of the bond market, we do not find that superior forecasting capacities can explain the agencies' growing importance.

### **Why issue bonds offshore?**

**Susan Black and Anella Munro**

<http://www.bis.org/publ/work334.htm>

This paper asks why Asia-Pacific residents issue debt in offshore markets and considers the implications for domestic debt markets. We use unit record data for bond issuance by non-government residents of Australia, Hong Kong, Korea, Japan and Singapore to link the decision to issue offshore to potential benefits. The results suggest that residents of smaller markets issue bonds offshore to arbitrage price differentials; to access foreign investors; and to issue larger, lower-rated or longer-maturity bonds. These bond characteristics tend to be correlated with offshore bond market size. The results support the notions that (i) deviations from covered interest parity are actively arbitrated by residents of minor currency areas, as well as by internationally active borrowers, as established in the literature; and (ii) issuers benefit from the liquidity and diversification of larger "complete" offshore markets. Against the potential benefits to borrowers, we consider the risks for both borrowers and the domestic market, and lessons from the ongoing financial crisis such as the benefits of funding diversification

## **Basel Committee on Banking Supervision**

### **The transmission channels between the financial and real sectors: a critical survey of the literature**

**BCBS Working Papers No 18**

**February 2011**

[http://www.bis.org/publ/bcbs\\_wp18.htm](http://www.bis.org/publ/bcbs_wp18.htm)

Understanding the transmission channels that exist between the financial and real sectors of the economy is critically important when assessing financial stability. Robust financial systems are viewed as those that do not adversely induce the propagation and amplification of disturbances that affect the financial system and those that are capable of withstanding shocks and limiting disruptions in the allocation of savings to profitable investment opportunities. Most definitions of financial stability and the "macroprudential approach" to financial supervision recently advocated by many financial stability bodies emphasise the macroeconomic consequences of disruptions to the functioning of the financial system.

This paper presents a review of the literature on the transmission channels between the financial and the real sectors, as well as observations regarding aspects of the transmission channels that remain inadequately addressed by the existing literature. The paper identifies three transmission channels that exist between the financial and the real sector: (i) the borrower balance sheet channel; (ii) the bank balance sheet channel; and (iii) the liquidity channel. The first two channels are often referred to as the financial accelerator channel; the third channel emphasises the liquidity position of banks' balance sheets, whose interest has been fairly recent - in part, spurred on by the current crisis.

A report reflecting some of the findings of this literature, as well as other analysis within the Basel Committee, will be published in the future.

### **Revisions to the Basel II market risk framework - updated as of 31 December 2010**

**February 2011**

<http://www.bis.org/publ/bcbs193.htm>

Since the financial crisis began in mid-2007, an important source of losses and of the build up of leverage occurred in the trading book. A main contributing factor was that the current capital framework for market risk, based on the 1996 Amendment to the Capital Accord to incorporate market risks, does not capture some key risks. In response, the Basel Committee on Banking Supervision (the Committee) supplements the current value-at-risk based trading book framework with an incremental risk capital charge, which includes default risk as well as migration risk, for unsecuritised credit products. For securitised products, the capital charges of the banking book will apply with a limited exception for certain so-called correlation trading activities, where banks may be allowed by their supervisor to calculate a comprehensive risk capital charge subject to strict qualitative minimum requirements as well as stress testing requirements. These measures will reduce the incentive for regulatory arbitrage between the banking and trading books.

An additional response to the crisis is the introduction of a stressed value-at-risk requirement. Losses in most banks' trading books during the financial crisis have been significantly higher than the minimum capital requirements under the former Pillar 1 market risk rules. The Committee therefore requires banks to calculate a stressed value-at-risk taking into

account a one-year observation period relating to significant losses, which must be calculated in addition to the value-at-risk based on the most recent one-year observation period. The additional stressed value-at-risk requirement will also help reduce the procyclicality of the minimum capital requirements for market risk.

The document has been updated as of 31 December 2010 to reflect the adjustments to the Basel II market risk framework announced by the Basel Committee in its 18 June 2010 press release and the stress testing guidance for the correlation trading portfolio referred to in paragraph 9 of the July 2009 version of this document. Changes introduced by the Basel III framework are not yet reflected in the text.

In the separate document "Interpretive issues with respect to the revisions to the market risk framework", the Committee provides responses to interpretive issues regarding the Revisions to the Basel II market risk framework and the Guidelines for computing capital for incremental risk in the trading book. Updated versions of this document will be published on the Committee's website if and when additional interpretive issues arise.

### **Messages from the academic literature on risk measurement for the trading book BCBS Working Papers No 19 January 2011**

[http://www.bis.org/publ/bcbs\\_wp19.htm](http://www.bis.org/publ/bcbs_wp19.htm)

This report summarises the findings of an ad hoc group of the Basel Committee's Research Task Force based on its review of the academic literature relevant to the regulatory framework for the trading book. This project was carried out in the first half of 2010 acting upon a request from the Basel Committee's Trading Book Group. It builds on and extends previous work by the Research Task Force on the interaction of market and credit risk. The literature review was complemented by feedback from academic experts at a workshop hosted by the Deutsche Bundesbank in April 2010 and reflects the state of the literature at this point in time.

### **Core Principles for Effective Deposit Insurance Systems - A methodology for compliance assessment - final document January 2011**

<http://www.bis.org/publ/bcbs192.htm>

In June 2009, the International Association of Deposit Insurers (IADI) and the Basel Committee on Banking Supervision (BCBS) issued Core Principles for Effective Deposit Insurance Systems. Since December 2009, IADI has been collaborating with the BCBS, the European Forum of Deposit Insurers (EFDI), the International Monetary Fund (IMF), the World Bank, and the European Commission (EC) to develop a robust methodology to assess compliance with the Core Principles. A consultative document was published in November 2010. A final version incorporating the comments received was submitted to the Financial Stability Board in December 2010.

### **Pillar 3 disclosure requirements for remuneration - consultative document December 2010**

<http://www.bis.org/publ/bcbs191.htm>

The objective of these additional Pillar 3 requirements on remuneration is to support an effective market discipline and to allow market participants to assess the quality of the compensation practices. These requirements should also contribute to promote a greater convergence and consistency of disclosure on remuneration.

The Committee's proposed Pillar 3 disclosure requirements on remuneration add greater specificity to the disclosure guidance on this topic that was included in the supplemental Pillar 2 guidance issued by the Committee in July 2009. The proposals cover the main components of sound remuneration practices and take full account of the Financial Stability Board's Principles for Sound Compensation Practices and their related Implementation Standards.

The Basel Committee welcomes comments on this consultative document. Comments should be submitted by Friday, 25 February 2011 by email to: [baselcommittee@bis.org](mailto:baselcommittee@bis.org). Alternatively, comments may be sent by post to the Secretariat of the Basel Committee on Banking Supervision, Bank for International Settlements, CH-4002 Basel, Switzerland. All comments may be published on the Bank for International Settlements's website unless a commenter specifically requests confidential treatment.

### **Capitalisation of bank exposures to central counterparties - consultative document December 2010**

<http://www.bis.org/publ/bcbs190.htm>

These proposals relate to the capitalisation of bank exposures to a central counterparty - CCP - and, in particular, default fund exposures. Generally speaking, the Committee proposes that trade exposures to a qualifying CCP will receive a 2% risk weight. In addition, default fund exposures to a CCP will, in accordance with a risk sensitive waterfall approach (based on a CCP's actual financial resources and hypothetical capital requirements), be capitalised according to a method that consistently and simply estimates risk arising from such default fund.

The Committee also announced that it will conduct an impact study, which will help in finalising and calibrating the CCP proposals. The impact study will be conducted in coordination with the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO). These organisations will communicate with and collect relevant data from the CCPs participating in the impact study. CPSS and IOSCO collectively set the standards for the supervision and oversight of financial market infrastructures - including CCPs - and are currently in the process of reviewing the standards.

The Basel Committee welcomes comments on the proposed rules text and other issues set out in this consultative document. Comments should be submitted by Friday, 4 February 2011 by email to: [baselcommittee@bis.org](mailto:baselcommittee@bis.org). Alternatively, comments may be sent by post to the Secretariat of the Basel Committee on Banking Supervision, Bank for International Settlements, CH-4002 Basel, Switzerland. All comments may be published on the Bank for International Settlements's website unless a commenter specifically requests confidential treatment.



**Basel III: A global regulatory framework for more resilient banks and banking systems**  
December 2010

<http://www.bis.org/publ/bcbs189.htm>

**Basel III: International framework for liquidity risk measurement, standards and monitoring**  
December 2010

<http://www.bis.org/publ/bcbs188.htm>

**Guidance for national authorities operating the countercyclical capital buffer**  
December 2010

<http://www.bis.org/publ/bcbs187.htm>

**Results of the comprehensive quantitative impact study**  
December 2010

<http://www.bis.org/publ/bcbs186.htm>

The Basel Committee issued the Basel III rules text, which presents the details of global regulatory standards on bank capital adequacy and liquidity agreed by the Governors and Heads of Supervision, and endorsed by the G20 Leaders at their November Seoul summit. The Committee also published the results of its comprehensive quantitative impact study (QIS).

Mr Nout Wellink, Chairman of the Basel Committee on Banking Supervision and President of the Netherlands Bank, described the Basel III Framework as "a landmark achievement that will help protect financial stability and promote sustainable economic growth. The higher levels of capital, combined with a global liquidity framework, will significantly reduce the probability and severity of banking crises in the future." He added that "with these reforms, the Basel Committee has delivered on the banking reform agenda for internationally active banks set out by the G20 Leaders at their Pittsburgh summit in September 2009".

The rules text presents the details of the Basel III Framework, which covers both microprudential and macroprudential elements. The Framework sets out higher and better-quality capital, better risk coverage, the introduction of a leverage ratio as a backstop to the risk-based requirement, measures to promote the build up of capital that can be drawn down in periods of stress, and the introduction of two global liquidity standards.

Transition and implementation

The Committee has put in place processes to ensure the rigorous and consistent global implementation of the Basel III Framework. The standards will be phased in gradually so that the banking sector can move to the higher capital and liquidity standards while supporting lending to the economy.

With respect to the leverage ratio, the Committee will use the transition period to assess whether its proposed design and calibration is appropriate over a full credit cycle and for different types of business models. Based on the results of a parallel run period, any adjustments would be carried out in the first half of 2017 with a view to migrating to a Pillar 1 treatment on 1 January 2018 based on appropriate review and calibration.

Both the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR) will be subject to an observation period and will include a review clause to address any unintended consequences.

QIS results

The Committee released the *Results of the comprehensive quantitative impact study*. The Committee conducted a comprehensive QIS exercise to assess the impact of capital adequacy standards announced in July 2009 and the Basel III capital and liquidity proposals published in December 2009. A total of 263 banks from 23 Committee member jurisdictions participated in the QIS exercise. This included 94 Group 1 banks (ie those that have Tier 1 capital in excess of €3 billion, are well diversified and are internationally active) and 169 Group 2 banks (ie all other banks).

The QIS did not take into account any transitional arrangements such as the phase-in of deductions and grandfathering arrangements. Instead, the estimates presented assume full implementation of the final Basel III package, based on data as of year-end 2009. No assumptions were made about banks' profitability or behavioural responses, such as changes in bank capital or balance sheet composition, since then or in the future. For that reason the QIS results are not comparable to industry estimates, which tend to be based on forecasts and consider management actions to mitigate the impact and which incorporate analysts' estimates where information is not publicly available.

Including the effect of all changes to the definition of capital and risk-weighted assets, as well as assuming full implementation as of 31 December 2009, the average common equity Tier 1 capital ratio (CET1) of Group 1 banks was 5.7%, as compared with the new minimum requirement of 4.5%. For Group 2 banks, the average CET1 ratio stood at 7.8%. In order for all Group 1 banks in the sample to meet the new 4.5% CET1 ratio, the additional capital needed is estimated to be €165 billion. For Group 2 banks, the amount is €8 billion.

Relative to a 7% CET1 level, which includes both the 4.5% minimum requirement and the 2.5% capital conservation buffer, the Committee estimated that Group 1 banks in aggregate would have had a shortfall of €577 billion at the end of 2009. As a point of reference, for this sample of banks the sum of profits after tax and prior to distributions in 2009 was €209 billion. Group 2 banks with CET1 ratios less than 7% would have required an additional €25 billion; the sum of these banks' profits after tax and prior to distributions in 2009 was €20 billion. Since the end of 2009, banks have continued to raise their common equity capital levels through combinations of equity issuance and profit retention.

The Committee also assessed the estimated impact of the liquidity standards. Assuming banks were to make no changes to their liquidity risk profile or funding structure, as of end-2009:

- The average LCR for Group 1 banks was 83%; the average for Group 2 banks was 98%.
- The average NSFR for Group 1 banks was 93%; the average for Group 2 banks was 103%.

Banks have until 2015 to meet the LCR standard and until 2018 to meet the NSFR standard, which will reflect any revisions following each standard's observation period. Banks that are below the 100% required minimum thresholds can meet these standards by, for example, lengthening the term of their funding or restructuring business models which are most vulnerable to liquidity risk in periods of stress. It should be noted that the shortfalls in the LCR and the NSFR are not additive, as decreasing the shortfall in one standard may also result in a decrease in the shortfall in the other standard.

Mr Wellink noted that "the Basel III capital and liquidity standards will gradually raise the level of high-quality capital in the banking system, increase liquidity buffers and reduce unstable funding structures. The transition period provides banks with ample time to move to the new standards in a manner consistent with a sound economic recovery, while raising the safeguards in the system against economic or financial shocks". He added that in the case of the liquidity standards, "we will use the observation period for the liquidity ratios to ensure that we have their design and calibration right and that there are no unintended consequences, at either the banking sector or the broader system level".

The Basel Committee and the Financial Stability Board (FSB) are also issuing an updated report of the Macroeconomic Assessment Group which analyses the economic impact of the Basel III reforms over the transition period. The updated report and a separate press release will be issued in the coming days.

The Committee issued *Guidance for national authorities operating the countercyclical capital buffer* as a supplement to the requirements set out in the Basel III rules text. The primary aim of the countercyclical capital buffer regime is to achieve the broader macroprudential goal of protecting the banking sector from periods of excess aggregate credit growth that have often been associated with the build-up of system-wide risk. In addition to providing guidance for national authorities, this document should help banks understand and anticipate the buffer decisions in the jurisdictions to which they have credit exposures.

The Committee is conducting further work on systemic banks and contingent capital in close coordination with the FSB. In the coming days, the Committee will also issue a consultation paper on the capitalisation of bank exposures to central counterparties.

### **Sound practices for backtesting counterparty credit risk models - final document December 2010**

<http://www.bis.org/publ/bcbs185.htm>

This guidance sets out supervisory expectations as well as recommendations to strengthen the backtesting of internal assessments of counterparty credit risk exposures.

Banks that have received supervisory permission to use internal model methods to calculate regulatory capital are required to validate their models on an ongoing basis. Backtesting is an integral element of the model validation process and the financial crisis has revealed that additional guidance in this area is required. The Committee believes that implementation of these sound practices will improve the backtesting of banks' models and, as a result, will enhance the resilience of individual banks and the financial system.

A consultative version of this paper was released for public comment in April 2010.

### **Operational Risk - Supervisory Guidelines for the Advanced Measurement Approaches - consultative document December 2010**

<http://www.bis.org/publ/bcbs184.htm>

The regulatory capital adequacy framework envisages that, over time, the operational risk discipline will continue to mature and converge towards a narrower band of effective risk management and measurement practices. The guidance seeks to better achieve this by setting out supervisory guidelines relating to governance, data and modelling.

### **Sound Practices for the Management and Supervision of Operational Risk - consultative document December 2010**

<http://www.bis.org/publ/bcbs183.htm>

*Sound Practices for the Management and Supervision of Operational Risk* updates the Committee's 2003 paper on this topic. The updated version highlights the evolution of operational risk management since 2003 and is based on best industry practice and supervisory experience. The principles outlined in the report are discussed within the context of three overarching themes: governance, risk management and disclosure.

## Speeches

### **The role of central banks after the crisis**

Speech by Mr Jaime Caruana, General Manager of the BIS, to the Observatory of the European Central Bank, Madrid, 19 January 2011

<http://www.bis.org/speeches/sp110128.htm>

The current crisis will have far-reaching consequences for the role and responsibilities of central banks. They will need to pay greater and more symmetric attention to financial considerations in framing their monetary policy. They will also need to play an important role in any macroprudential policy framework that is set up - even when they are not responsible for detailed implementation. But wider responsibility requires greater accountability. Strengthened governance arrangements must both ensure accountability and provide central banks with the autonomy needed to conduct monetary policy and financial stability policy.