Statistical Annex

The international banking market

Securities markets

Derivatives markets

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).[1]

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 49 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.

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[1] 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, December 2009[1]

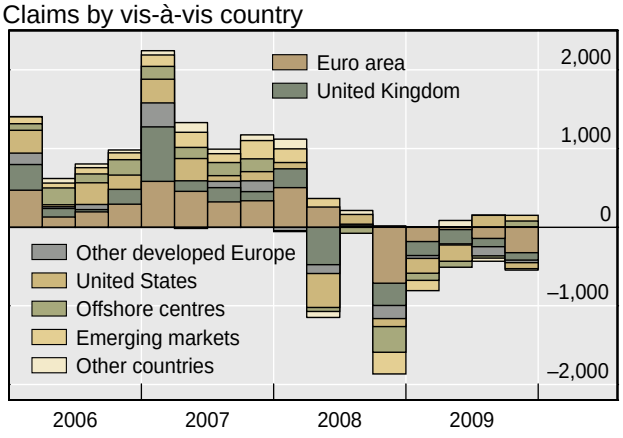
In billions of US dollars

	Vis-à-vis developed countries	Vis-à-vis offshore centres	Vis-à-vis emerging markets					All countries
			Total	Africa	Asia	Europe	Latin America	
Amounts outstanding								
Total claims	**26,297**	**3,960**	**2,850**	**480**	**1,037**	**853**	**479**	**33,783**
Total cross-border claims	**23,296**	**3,600**	**2,453**	**477**	**783**	**781**	**411**	**30,023**
Loans	16,438	2,962	1,932	438	588	618	289	21,617
Securities	5,547	523	299	20	108	87	84	6,448
Claims on banks	15,193	2,286	1,181	196	484	383	119	19,247
Claims on non-banks	8,103	1,313	1,271	281	300	399	292	10,777
US dollar	8,357	2,382	1,031	281	269	210	271	11,849
Euro	10,534	369	513	86	44	364	19	11,621
Foreign currency claims on residents	**3,001**	**361**	**397**	**3**	**254**	**72**	**68**	**3,759**
Estimated exchange rate adjusted changes during the quarter[2]								
Total claims	**-444**	**84**	**37**	**13**	**32**	**-12**	**4**	**-337**
Total cross-border claims	**-532**	**79**	**70**	**13**	**57**	**-14**	**13**	**-397**
Loans	-316	84	56	13	47	-12	8	-192
Securities	-142	1	10	0	8	-3	6	-135
Claims on banks	-230	25	59	13	44	-6	8	-157
Claims on non-banks	-302	55	11	0	14	-8	5	-239
US dollar	-126	83	28	16	19	-9	1	0
Euro	-234	-15	1	0	0	1	-1	-276
Foreign currency claims on residents	**88**	**5**	**-33**	**0**	**-26**	**2**	**-9**	**60**
Amounts outstanding								
Total liabilities	**21,057**	**5,268**	**2,593**	**759**	**980**	**410**	**444**	**32,282**
Total cross-border liabilities	**18,044**	**4,558**	**2,110**	**754**	**666**	**308**	**382**	**28,075**
Deposits	16,201	4,445	2,041	746	631	306	358	23,081
Securities	1,258	84	31	4	20	0	8	4,041
Liabilities to banks	13,499	3,216	1,295	506	432	213	144	20,765
Liabilities to non-banks	4,545	1,342	815	248	234	95	238	7,310
US dollar	7,127	2,924	1,157	461	273	125	297	12,252
Euro	7,463	610	367	157	46	127	38	9,404
Foreign currency liabilities to residents	**3,013**	**711**	**483**	**5**	**314**	**102**	**62**	**4,207**
Estimated exchange rate adjusted changes during the quarter[2]								
Total liabilities	**-268**	**-24**	**-51**	**34**	**-46**	**-33**	**-5**	**-386**
Total cross-border liabilities	**-230**	**-15**	**-6**	**34**	**-9**	**-31**	**0**	**-295**
Deposits	-198	-9	-11	36	-14	-31	-1	-237
Securities	34	-4	1	-1	2	0	0	23
Liabilities to banks	-128	-43	-4	33	-8	-25	-4	-223
Liabilities to non-banks	-102	27	-2	1	-1	-6	4	-73
US dollar	18	-3	17	39	-5	-15	-2	67
Euro	-107	-7	-10	-3	4	-11	1	-180
Foreign currency liabilities to residents	**-37**	**-9**	**-44**	**0**	**-37**	**-1**	**-6**	**-91**

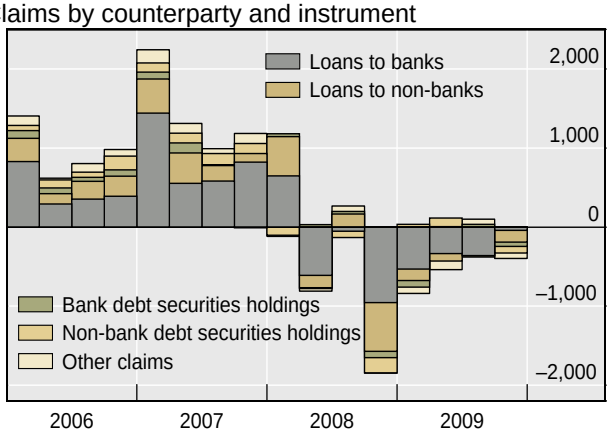
Cross-border positions

Exchange rate adjusted changes in stocks

Claims by vis-à-vis country



Claims by counterparty and instrument



[1] Detailed breakdowns and time series data are available at http://www.bis.org/statistics/bankstats.htm (Tables1–7B). [2] Taking into account exchange rate effects on outstanding balances in non-dollar currencies.

Table 1B: International positions of banks by nationality of head office, December 2009[1]

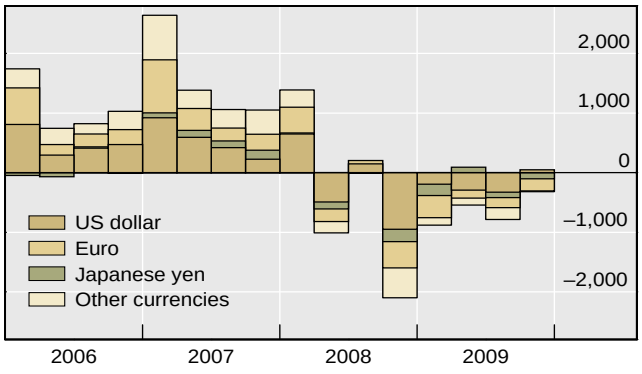
In billions of US dollars

	Nationality of banks										All countries
	France	Germany	Italy	Nether-lands	Spain	Switzer-land	United Kingdom	Japan	United States	Emerging markets	
Amounts outstanding											
Total claims	**4,332**	**4,869**	**1,015**	**1,962**	**1,017**	**2,504**	**3,904**	**3,215**	**3,705**	**1,008**	**33,755**
on banks	2,886	2,710	633	1,072	583	1,652	2,216	1,320	2,604	519	19,859
on related foreign offices	1,136	1,382	278	466	360	760	971	578	1,703	130	9,609
on other banks	1,715	1,320	354	604	222	878	1,226	742	896	369	10,132
on official monetary institutions	35	8	0	2	0	15	19	0	6	19	119
on non-banks	1,446	2,159	382	889	434	852	1,687	1,895	1,100	490	13,896
US dollar	1,334	1,473	188	508	355	1,244	1,590	1,587	2,647	683	13,283
Euro	2,233	2,619	734	1,044	487	602	1,406	560	503	100	12,271
Other currencies	765	778	92	409	176	657	907	1,069	556	226	8,201
Estimated exchange rate adjusted changes during the quarter[2]											
Total claims	**-43**	**-15**	**9**	**-102**	**57**	**-185**	**5**	**29**	**81**	**-21**	**-272**
on banks	22	7	40	-109	68	-116	97	14	-9	-19	-54
on related foreign offices	46	-36	54	-114	20	-67	25	28	116	3	98
on other banks	-29	45	-14	7	47	-47	73	-14	-126	-21	-153
on official monetary institutions	6	-3	0	-2	0	-2	-1	0	0	0	2
on non-banks	-65	-22	-31	7	-11	-69	-92	15	90	-2	-218
US dollar	-41	-24	52	-20	30	-4	-36	6	89	-20	47
Euro	-29	0	-43	-76	23	-75	72	-8	-1	0	-206
Other currencies	27	10	0	-6	4	-107	-31	31	-8	0	-113
Amounts outstanding											
Total liabilities	**4,042**	**3,571**	**1,009**	**2,008**	**1,063**	**2,756**	**3,995**	**1,791**	**4,388**	**1,105**	**32,308**
to banks	2,733	2,556	701	1,060	646	1,569	2,020	1,147	2,367	590	19,264
to related foreign offices	1,140	1,468	195	537	329	977	863	513	1,590	101	9,340
to other banks	1,487	1,019	479	493	284	582	1,035	590	622	467	9,147
to official monetary institutions	106	68	27	30	33	10	122	44	156	22	777
to non-banks	1,309	1,015	309	948	417	1,187	1,975	644	2,021	515	13,044
US dollar	1,407	1,336	196	604	405	1,313	1,370	952	3,381	703	14,059
Euro	1,809	1,383	681	903	447	715	1,290	288	472	116	10,103
Other currencies	826	853	132	500	211	728	1,335	552	535	287	8,146
Estimated exchange rate adjusted changes during the quarter[2]											
Total liabilities	**-11**	**-61**	**-38**	**-103**	**67**	**-150**	**13**	**-15**	**70**	**-11**	**-317**
to banks	-23	-90	13	-93	66	-126	18	-12	72	-18	-166
to related foreign offices	86	19	-10	-73	16	-64	24	12	23	3	76
to other banks	-93	-101	21	-14	47	-59	-13	-24	34	-14	-236
to official monetary institutions	-16	-9	2	-6	3	-2	6	0	15	-7	-6
to non-banks	12	29	-51	-10	1	-24	-5	-3	-2	7	-151
US dollar	-20	-59	19	-23	36	-16	-68	12	116	-22	61
Euro	-14	21	-48	-51	34	-44	98	-18	-25	5	-138
Other currencies	23	-24	-8	-29	-3	-90	-18	-9	-21	6	-240

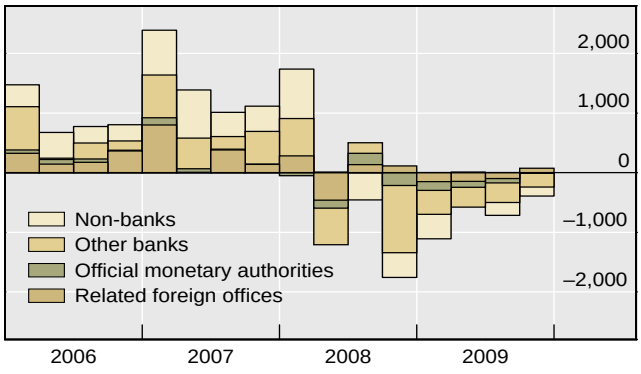
International positions of BIS reporting banks

Exchange rate adjusted changes in stocks

Claims by currency



Liabilities by sector of counterparty



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

Table 2A: Consolidated claims, immediate borrower basis, December 2009[1]

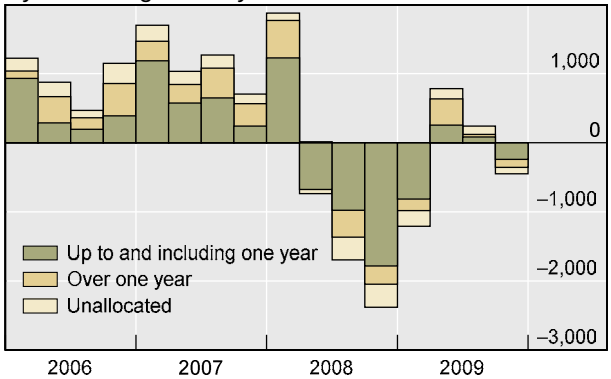
Amounts outstanding, in billions of US dollars

	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	
Foreign claims	**23,848**	**5,388**	**10,902**	**992**	**2,108**	**4,413**	**599**	**1,408**	**1,397**	**1,009**	**30,457**
International claims	**15,688**	**2,482**	**8,237**	**595**	**1,660**	**2,487**	**387**	**881**	**819**	**401**	**19,922**
Up to and including one year	7,800	859	3,812	470	768	1,141	179	511	282	169	9,728
Over one year	5,394	1,006	3,114	74	581	1,111	187	262	471	190	7,120
Unallocated by maturity	2,493	617	1,311	50	310	236	20	108	65	42	3,074
Local currency claims	**8,160**	**2,906**	**2,665**	**397**	**449**	**1,926**	**212**	**527**	**578**	**608**	**10,535**
Local currency liabilities	**6,127**	**2,453**	**1,841**	**294**	**425**	**1,428**	**197**	**375**	**363**	**492**	**7,982**
	Unadjusted changes during the quarter[2]										
Foreign claims	*-815*	*-192*	*-325*	*-117*	*10*	*108*	*11*	*84*	*-30*	*44*	*-700*
International claims	*-497*	*-70*	*-232*	*-35*	*-14*	*65*	*8*	*64*	*-25*	*17*	*-450*
Local currency claims	*-318*	*-122*	*-93*	*-83*	*24*	*44*	*3*	*19*	*-5*	*26*	*-250*
Local currency liabilities	*-340*	*-215*	*-37*	*-65*	*-7*	*18*	*7*	*1*	*-4*	*14*	*-329*
Nationality of reporting banks:	**Foreign claims**										
Domestically owned banks (total)	**19,912**	**5,085**	**8,673**	**729**	**2,036**	**4,162**	**560**	**1,288**	**1,346**	**968**	**26,194**
Euro area	10,351	1,806	5,622	277	522	2,167	236	315	1,104	512	13,082
Switzerland	1,347	665	319	78	162	119	19	57	18	25	1,634
United Kingdom	2,465	1,069	1,021	118	523	639	198	301	35	105	3,644
Japan	1,813	875	537	0	386	229	27	142	23	38	2,428
United States	1,650	0	641	234	241	601	55	294	53	200	2,493
Other countries[3]	2,285	670	533	22	203	406	26	179	114	88	2,913
Other foreign banks	**3,936**	**303**	**2,229**	**263**	**73**	**251**	**39**	**120**	**51**	**41**	**4,263**
	International claims, all maturities										
Domestically owned banks (total)	**11,752**	**2,179**	**6,008**	**332**	**1,587**	**2,236**	**348**	**761**	**768**	**360**	**15,659**
Euro area	6,238	783	3,668	117	467	1,136	164	229	586	157	7,884
Switzerland	679	146	301	37	154	95	16	44	17	17	933
United Kingdom	1,207	378	639	65	247	234	75	107	25	27	1,706
Japan	1,502	644	509	0	356	186	27	100	22	37	2,044
United States	1,151	0	559	101	206	321	41	171	30	80	1,678
Other countries[3]	974	229	331	11	157	264	25	110	88	42	1,413
Other foreign banks	**3,936**	**303**	**2,229**	**263**	**73**	**251**	**39**	**120**	**51**	**41**	**4,263**
	International claims, short-term										
Domestically owned banks (total)	**5,004**	**696**	**2,329**	**215**	**720**	**1,008**	**154**	**436**	**264**	**154**	**6,750**
Euro area	2,505	314	1,213	54	186	404	59	94	194	58	3,100
Switzerland	407	75	168	24	95	46	11	21	8	6	551
United Kingdom	516	138	293	34	136	122	33	63	14	12	777
Japan	152	49	50	0	38	62	7	45	5	4	252
United States	864	0	402	96	178	265	34	153	19	59	1,306
Other countries[3]	560	121	203	8	87	109	10	60	23	15	764
Other foreign banks	**2,796**	**163**	**1,483**	**255**	**48**	**132**	**25**	**75**	**18**	**15**	**2,977**

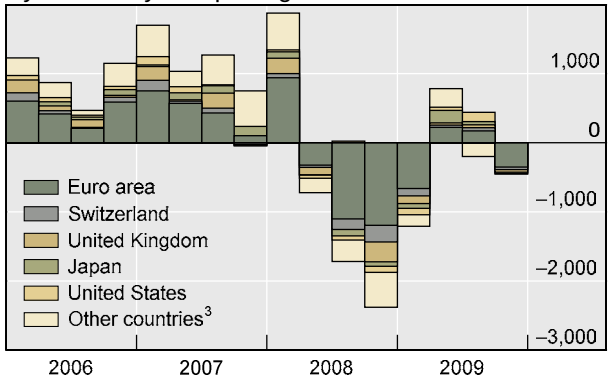
International claims of BIS reporting banks on an immediate borrower basis[4]

Changes in stocks[2]

By remaining maturity



By nationality of reporting banks



[1] 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). [2] Quarterly difference in outstanding stocks, excluding effects of breaks in series. [3] Domestically owned banks in other reporting countries. [4] Worldwide consolidated positions of domestically owned banks and unconsolidated positions of foreign banks in 30 reporting countries.

Table 2B: Consolidated claims, ultimate risk basis, December 2009[1]

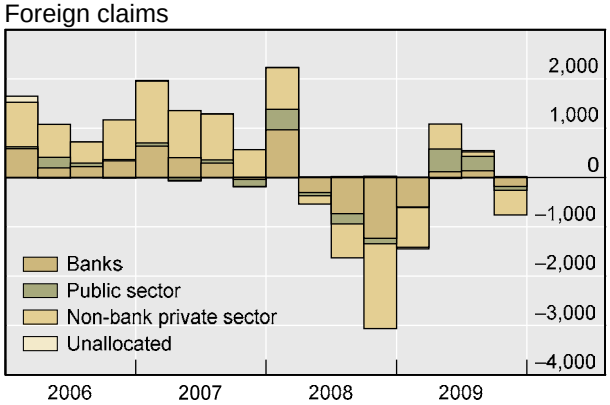
Amounts outstanding, in billions of US dollars

	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	
Foreign claims	**19,441**	**5,075**	**8,487**	**761**	**1,592**	**3,990**	**531**	**1,217**	**1,304**	**939**	**25,100**
Banks	4,986	832	2,450	211	131	698	93	289	198	118	5,824
Public sector	3,588	873	1,822	330	151	891	88	239	264	300	4,684
Non-bank private sector	10,711	3,301	4,181	216	1,283	2,382	348	687	827	519	14,381
Unallocated	156	70	27	3	26	20	1	2	16	1	210
Cross-border claims	**10,710**	**2,242**	**5,790**	**304**	**1,035**	**1,725**	**305**	**597**	**533**	**290**	**13,540**
Local claims in all currencies	**8,731**	**2,833**	**2,672**	**457**	**557**	**2,266**	**226**	**620**	**771**	**649**	**11,559**
	Unadjusted changes during the quarter[2]										
Foreign claims	*-828*	*-209*	*-375*	*-113*	*8*	*80*	*6*	*71*	*-31*	*33*	*-740*
Cross-border claims	*-489*	*-101*	*-252*	*-23*	*-13*	*39*	*4*	*43*	*-20*	*12*	*-461*
Local claims in all currencies	*-340*	*-108*	*-116*	*-90*	*21*	*40*	*2*	*28*	*-11*	*21*	*-280*
Nationality of reporting banks[3]	**Foreign claims**										
Total	**19,441**	**5,075**	**8,487**	**761**	**1,592**	**3,990**	**531**	**1,217**	**1,304**	**939**	**25,100**
Euro area	10,149	1,798	5,511	272	441	2,089	222	283	1,078	506	12,713
France	3,097	570	1,810	181	135	435	124	104	169	38	3,675
Germany	2,744	533	1,379	50	176	331	47	76	173	35	3,259
Italy	727	49	592	5	18	207	12	15	175	6	959
Spain	934	197	304	2	22	404	6	5	9	384	1,361
Switzerland	1,383	679	361	73	116	112	15	56	14	26	1,617
United Kingdom	2,440	1,042	1,007	137	467	634	194	305	33	103	3,559
Japan	1,817	946	505	0	232	214	25	127	24	38	2,263
United States	1,679	0	652	255	190	586	54	289	50	193	2,454
Other countries	1,973	610	452	24	146	356	22	157	105	72	2,494
	Cross-border claims										
Total	**10,710**	**2,242**	**5,790**	**304**	**1,035**	**1,725**	**305**	**597**	**533**	**290**	**13,540**
Euro area	5,791	825	3,566	94	361	875	157	178	411	129	7,060
France	1,663	197	1,011	54	105	226	75	63	62	26	2,004
Germany	2,022	361	1,197	19	156	247	45	53	118	31	2,433
Italy	315	29	221	3	16	45	5	7	26	6	383
Spain	267	33	176	1	15	53	5	5	4	39	337
Switzerland	642	156	340	32	95	93	12	43	14	24	836
United Kingdom	1,155	353	623	58	164	173	54	80	21	19	1,509
Japan	1,509	726	477	0	198	154	25	69	23	37	1,861
United States	967	0	554	109	144	279	38	154	24	63	1,390
Other countries	647	182	231	12	74	150	19	73	40	18	884
	Other exposures[4, 5]										
Derivatives contracts	3,668	939	1,442	109	145	173	31	78	27	38	3,999
Guarantees extended	6,903	788	2,637	235	378	741	113	225	267	137	8,022
Credit commitments	2,773	938	987	45	361	609	96	158	155	199	3,746

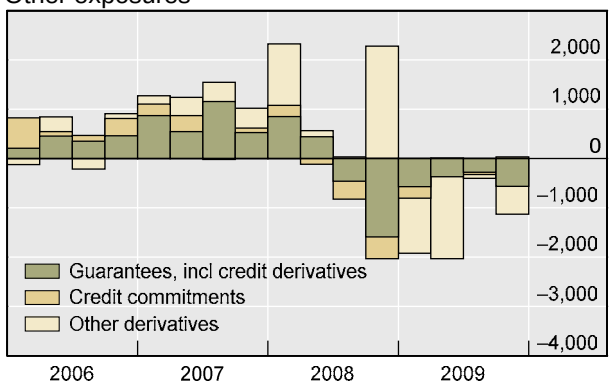
Consolidated claims and other exposures of BIS reporting banks on an ultimate risk basis

Changes in stocks[2]

Foreign claims



Other exposures[4, 5]



[1] Detailed breakdowns and time series data are available at http://www.bis.org/statistics/consstats/htm (Tables 9C–9D). [2] Quarterly difference in outstanding stocks, excluding effects of breaks in series. [3] Worldwide consolidated positions of domestically owned banks of 24 reporting countries. [4] Not included in foreign claims. [5] 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.

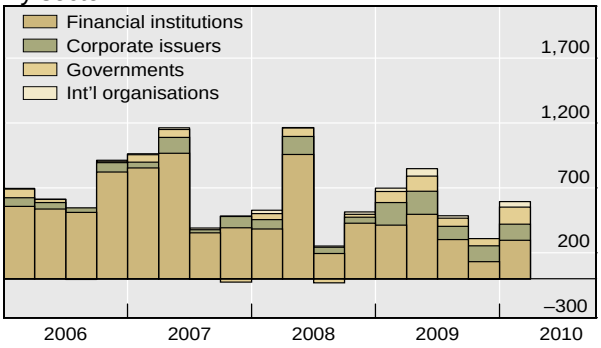
Table 3A: International debt securities issuance, March 2010[1]

In billions of US dollars

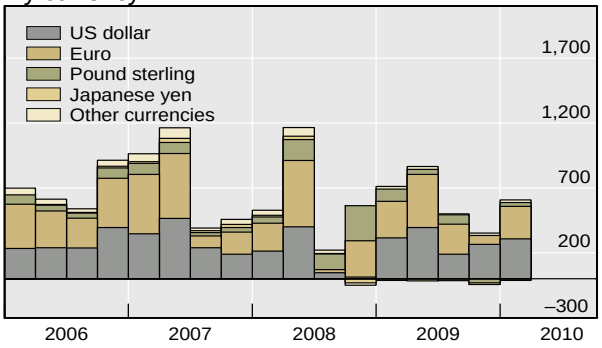
	Developed countries				Off-shore centres	Emerging markets					Int'l organi-sations	All countries
	Total	United States	Euro area	Japan		Total	Africa	Asia	Europe	Latin America		
Amounts outstanding												
Total issues	**23,269**	**6,140**	**11,378**	**171**	**1,495**	**1,031**	**141**	**292**	**249**	**349**	**821**	**26,616**
Money market instruments	**902**	**63**	**481**	**3**	**28**	**8**	**1**	**6**	**0**	**1**	**7**	**945**
Financial institutions	834	61	433	3	27	8	1	6	0	1	0	870
Corporate issuers	32	2	23	0	0	0	0	0	0	0	0	32
Governments	36	0	26	0	0	0	0	0	0	0	0	36
US dollar	319	49	157	0	11	4	0	3	0	1	5	339
Euro	426	10	260	0	6	1	0	1	0	0	0	433
Other currencies	158	5	65	3	11	3	0	2	0	0	2	173
Bonds and notes	**22,366**	**6,077**	**10,896**	**168**	**1,467**	**1,023**	**141**	**285**	**249**	**348**	**814**	**25,671**
Financial institutions	17,893	4,734	8,614	120	1,380	258	44	135	33	47	0	19,531
Corporate issuers	2,778	1,331	827	46	49	244	43	87	29	86	0	3,071
Governments	1,696	11	1,455	2	38	520	54	63	187	215	0	2,254
US dollar	7,676	5,153	1,123	42	1,047	720	96	230	112	282	275	9,718
Euro	11,180	585	8,898	15	203	186	18	14	116	38	245	11,814
Other currencies	3,510	339	875	110	217	117	27	42	21	27	294	4,139
Floating rate	7,249	1,208	3,810	21	591	93	36	37	10	10	56	7,989
Straight fixed rate	14,788	4,773	6,971	109	814	875	97	204	236	337	758	17,236
Equity-related	329	96	115	38	61	55	7	44	2	1	0	446
Net issuance during the quarter												
Total issues	**524**	**152**	**243**	**3**	**4**	**24**	**2**	**5**	**7**	**10**	**43**	**595**
Money market instruments	**47**	**2**	**13**	**0**	**4**	**-1**	**-1**	**0**	**0**	**0**	**-1**	**49**
Financial institutions	44	2	15	0	4	-1	-1	0	0	0	0	47
Corporate issuers	-1	0	-3	0	0	0	0	0	0	0	0	-1
Governments	4	0	1	0	0	0	0	0	0	0	0	4
US dollar	20	2	10	0	1	0	0	0	0	0	-2	19
Euro	19	0	1	0	0	0	0	0	0	0	0	19
Other currencies	8	1	3	0	3	0	0	0	0	0	0	11
Bonds and notes	**477**	**149**	**230**	**3**	**0**	**25**	**3**	**6**	**7**	**10**	**44**	**546**
Financial institutions	249	67	108	5	-2	2	-1	2	-4	6	0	249
Corporate issuers	116	82	23	-2	1	8	0	0	0	9	0	125
Governments	113	0	98	0	1	14	4	4	11	-5	0	128
US dollar	255	180	39	5	7	25	1	6	4	14	3	289
Euro	214	-18	197	0	-6	2	2	-2	4	-3	22	231
Other currencies	9	-12	-6	-2	0	-1	0	1	-1	-1	19	26
Floating rate	0	-8	26	0	-6	-4	-2	-2	0	0	8	-1
Straight fixed rate	472	148	209	6	4	28	5	7	7	9	35	540
Equity-related	5	9	-5	-3	2	1	0	0	0	1	0	8
Memo: Announced international equity issuance	*79*	*35*	*16*	*9*	*5*	*31*	*2*	*18*	*4*	*6*	*0*	*115*

Net international debt securities issuance

By sector



By currency



[1] 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, December 2009[1]

In billions of US dollars

Amounts outstanding

	All countries	United States	Euro area	France	Germany	Italy	Spain	Other developed	Canada	Japan	United Kingdom
Total issues	**64,222**	**25,065**	**14,323**	**3,156**	**2,806**	**3,688**	**1,949**	**16,839**	**1,300**	**11,522**	**1,559**
Governments	34,104	9,475	7,077	1,693	1,548	1,973	603	12,435	906	9,654	1,189
Of which: short-term[2]	9,084	2,471	1,825	447	458	444	176	2,979	217	2,489	120
Financial institutions	23,063	12,805	5,054	1,185	914	1,204	630	3,328	250	1,085	349
Of which: short-term[2]	6,800	2,946	1,569	501	848	23	95	1,408	92	368	349
Corporate issuers	7,055	2,785	2,192	278	345	511	715	1,075	144	783	22
Of which: short-term[2]	687	93	237	63	40	1	37	158	11	124	1

	Emerging markets	Brazil	China	Chinese Taipei	Czech Republic	India	Malaysia	Mexico	South Africa	South Korea	Turkey
Total issues	**7,995**	**1,250**	**2,565**	**218**	**118**	**603**	**183**	**363**	**140**	**1,085**	**222**
Governments	5,117	817	1,460	131	94	531	88	210	87	426	221
Of which: short-term[2]	1,809	295	736	15	50	29	1	106	19	112	13
Financial institutions	1,876	424	752	31	16	53	41	124	32	331	0
Of which: short-term[2]	877	424	78	6	0	53	17	30	6	249	0
Corporate issuers	1,003	10	354	56	8	19	55	29	22	329	0
Of which: short-term[2]	199	10	68	20	0	19	3	3	1	66	0

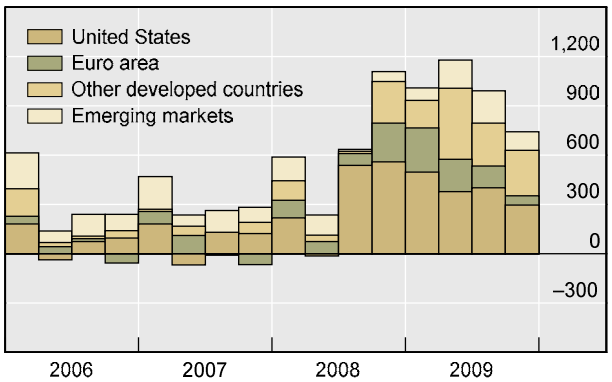
Changes in stocks during the quarter

	All countries	United States	Euro area	France	Germany	Italy	Spain	Other developed	Canada	Japan	United Kingdom
Total issues	**579**	**32**	**-9**	**11**	**-70**	**-19**	**50**	**308**	**10**	**215**	**-15**
Governments	741	297	56	30	13	-49	50	277	18	196	42
Of which: short-term[3]	-228	-199	-58	4	-5	-41	11	-10	-3	-7	-8
Financial institutions	-253	-253	-88	-15	-88	6	4	18	-14	-1	-56
Of which: short-term[3]	-150	8	-76	-16	-59	0	-3	-79	-14	5	-56
Corporate issuers	92	-13	24	-4	5	24	-4	14	7	20	0
Of which: short-term[3]	5	-16	-9	-4	-3	0	-1	10	1	13	0

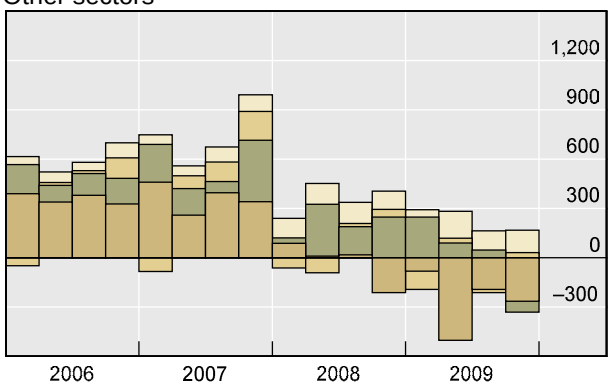
	Emerging markets	Brazil	China	Chinese Taipei	Czech Republic	India	Malaysia	Mexico	South Africa	South Korea	Turkey
Total issues	**248**	**-13**	**152**	**6**	**9**	**33**	**…**	**1**	**6**	**2**	**6**
Governments	111	-9	44	3	5	24	…	-3	4	-5	6
Of which: short-term[3]	39	-16	31	1	2	-1	…	0	0	0	-1
Financial institutions	70	-6	54	2	1	7	…	4	1	7	0
Of which: short-term[3]	-3	-6	0	2	0	7	…	1	1	-8	0
Corporate issuers	67	1	54	2	2	2	…	0	1	0	0
Of which: short-term[3]	20	1	15	-1	0	2	…	1	0	0	0

Changes in stocks of domestic debt securities

Governments



Other sectors[4]



Euro area: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Slovakia, Spain; Other developed countries: Australia, Canada, Denmark, Iceland, Japan, New Zealand, Norway, Sweden, Switzerland, the United Kingdom; Emerging markets: Argentina, Brazil, Chile, China, Chinese Taipei, Colombia, Croatia, the Czech Republic, Hong Kong SAR, Hungary, India, Indonesia, Lebanon, Malaysia, Mexico, Pakistan, Peru, the Philippines, Poland, Russia, Singapore, South Africa, South Korea, Thailand, Turkey, Venezuela.

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

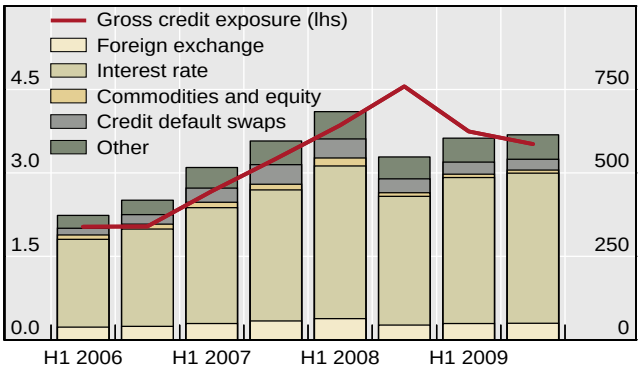
Table 4: Global OTC derivatives market, end-December 2009[1]

In billions of US dollars

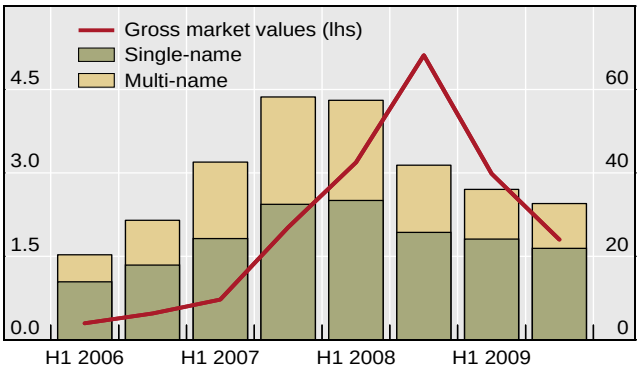
	Forwards and swaps				Options			
	Total	with reporting dealers	with other financial institutions	with non-financial customers	Total	with reporting dealers	with other financial institutions	with non-financial customers
				Notional amounts outstanding				
All contracts[2]	**541,765**	**168,408**	**324,507**	**46,720**	**72,909**	**33,017**	**32,343**	**6,335**
Foreign exchange	**39,638**	**14,795**	**17,779**	**7,064**	**9,558**	**4,117**	**3,666**	**1,775**
US dollar	33,381	13,324	14,994	5,064	7,540	3,318	2,827	1,395
Euro	17,075	5,850	7,562	3,663	3,289	1,353	1,203	734
Japanese yen	7,259	3,339	2,804	1,117	3,979	1,890	1,419	670
Pound sterling	5,386	1,774	2,411	1,200	543	215	201	127
Other	16,176	5,303	7,787	3,085	3,765	1,457	1,683	625
Up to one year	24,767	9,635	10,194	4,938	5,859	2,693	1,965	1,201
Over one year	14,871	5,160	7,585	2,126	3,699	1,423	1,701	575
Memo: Exchange-traded[3]	*164*	.	.	.	*147*	.	.	.
Interest rate	**400,985**	**115,304**	**253,471**	**32,210**	**48,808**	**23,233**	**22,178**	**3,397**
US dollar	138,059	42,982	84,436	10,640	15,299	6,603	7,395	1,302
Euro	150,368	36,588	103,528	10,253	25,358	12,657	11,227	1,475
Japanese yen	50,347	17,148	26,859	6,340	3,507	2,167	1,200	140
Pound sterling	31,546	7,884	20,895	2,767	2,710	1,011	1,504	195
Other	30,665	10,701	17,753	2,211	1,933	796	852	286
Up to one year	168,627	57,281	90,254	21,092	11,366	5,845	4,287	1,234
Over one year	232,358	58,022	163,217	11,118	37,441	17,389	17,891	2,162
Memo: Exchange-traded[3]	*20,628*	.	.	.	*46,429*	.	.	.
Equity	**1,830**	**466**	**1,077**	**287**	**4,762**	**1,722**	**2,634**	**406**
Memo: Exchange-traded[3]	*965*	.	.	.	*4,807*	.	.	.
Commodities	**1,876**	**…**	**…**	**…**	**1,068**	**…**	**…**	**…**
Credit default swaps	**32,693**	**17,717**	**13,400**	**1,575**	**…**	**…**	**…**	**…**
Unallocated	**64,743**	**20,125**	**38,780**	**5,583**	**8,713**	**3,946**	**3,865**	**757**
				Gross market values				
All contracts	**18,445**	**5,381**	**11,730**	**1,334**	**2,524**	**1,252**	**1,030**	**241**
Foreign exchange	**1,726**	**567**	**778**	**381**	**343**	**165**	**111**	**67**
US dollar	1,388	495	625	267	274	137	85	52
Euro	780	216	360	204	84	35	25	24
Japanese yen	347	142	139	66	192	106	49	37
Pound sterling	269	71	114	84	13	5	4	3
Other	669	209	319	141	124	48	56	20
Interest rate	**12,654**	**3,260**	**8,728**	**666**	**1,364**	**709**	**585**	**71**
US dollar	4,813	1,273	3,299	241	533	267	239	27
Euro	5,410	1,288	3,849	273	661	356	276	28
Japanese yen	780	280	462	38	63	40	21	2
Pound sterling	959	196	688	75	79	33	38	9
Other	691	223	428	40	27	12	11	4
Equity	**179**	**34**	**106**	**38**	**531**	**237**	**219**	**76**
Credit default swaps	**1,801**	**912**	**792**	**97**	**…**	**…**	**…**	**…**
Unallocated	**2,085**	**608**	**1,326**	**151**	**285**	**142**	**116**	**27**

Global OTC derivatives[4]

Notional amounts outstanding by risk category



Credit default swaps



[1] 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). [2] Due to incomplete counterparty breakdowns for the commodity derivatives, components do not add up to the total. [3] 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. [4] 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. 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. 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

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.

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.

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Recent BIS publications[1]

BIS Papers

Perspectives on inflation targeting, financial stability and the global crisis
March 2010

http://www.bis.org/publ/bppdf/bispap51.htm

This BIS Paper discusses lessons provided by the global financial crisis for inflation targeting and financial stability. It contains selected presentations from the BIS-sponsored sessions at two Latin American and Caribbean Economic Association (LACEA) annual meetings: November 2008, in Rio de Janeiro, and October 2009, in Buenos Aires. The 2008 papers in this volume are by José de Gregorio, Governor of the Central Bank of Chile, and Guillermo Calvo, professor of economics at Columbia University; the 2009 presentations are by Vittorio Corbo, former Governor of the Central Bank of Chile, and Michael Dooley, professor of economics at the University of California, Santa Cruz.

Working Papers

The bank lending channel revisited
Piti Disyatat

http://www.bis.org/publ/work297.htm

A central proposition in research on the role that banks play in the transmission mechanism is that monetary policy imparts a direct impact on deposits and that deposits, insofar as they constitute the supply of loanable funds, act as the driving force of bank lending. This paper argues that the emphasis on policy-induced changes in deposits is misplaced. A reformulation of the bank lending channel is proposed that works primarily through the impact of monetary policy on banks' balance sheet strength and risk perception. Such a recasting implies, contrary to conventional wisdom, that greater reliance on market-based funding enhances the importance of the channel. The framework also shows how banks, depending on the strength of their balance sheets, could act either as absorbers or amplifiers of shocks originiating in the financial system.

Does monetary policy affect bank risk-taking?
Yener Altunbas, Leonardo Gambacorta and David Marques-Ibanez

http://www.bis.org/publ/work298.htm

This paper investigates the relationship between short-term interest rates and bank risk. Using a unique database that includes quarterly balance sheet information for listed banks operating in the European Union and the United States in the last decade, we find evidence that unusually low interest rates over an extended period of time contributed to an increase in banks' risk. This result holds for a wide range of measures of risk, as well as macroeconomic and institutional controls.

Public governance of central banks: an approach from new institutional economics
Yoshiharu Oritani

http://www.bis.org/publ/work299.htm

The governance of central banks has two dimensions: corporate governance and public governance. Public governance is an institutional framework whereby the general public governs a central bank by and through the legislative and executive bodies in a country. This paper argues that the literature of new institutional economics sheds new light on the public governance of central banks. First, Williamson's theory of "governance as integrity" (probity) is applied to the internal management of central banks. Moe's theory of "public bureaucracy" is applied to the concept of central bank independence. Second, we apply agency theory to the issues associated with central bank independence and accountability. Third, public choice theory is applied to central bank independence.

The future of public debt: prospects and implications
Stephen Cecchetti, Madhusudan Mohanty and Fabrizio Zampolli

http://www.bis.org/publ/work300.htm

Since the start of the financial crisis, industrial country public debt levels have increased dramatically. And they are set to continue rising for the foreseeable future. A number of countries face the prospect of large and rising future costs related to the ageing of their populations. In this paper, we examine what current fiscal policy and expected future age-related spending imply for the path of debt/GDP ratios over the next several decades. Our projections of public debt ratios lead us to conclude that the path pursued by fiscal authorities in a number of industrial countries is unsustainable. Drastic measures are necessary to check the rapid growth of current and future liabilities of governments and reduce their adverse consequences for long-term growth and monetary stability.

[1] 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).

The failure mechanics of dealer banks
Darrell Duffie

http://www.bis.org/publ/work301.htm

Since explain the key failure mechanics of large dealer banks, and some policy implications. This is not a review of the financial crisis of 2007–2009. Systemic risk is considered only in passing. Both the financial crisis and the systemic importance of large dealer banks are nevertheless obvious and important motivations.

Accounting alchemy
Robert E Verrecchia

http://www.bis.org/publ/work302.htm

The controversy about the choice among accounting alternatives is often based on arguments suggesting heuristic behaviour by market participants and firm managers. Debates focus on whether accounting methodology systematically alters reported earnings and whether this effect may add or subtract economic value independently of any effect on underlying cash flows. Arguments based on heuristic behaviour of firms' management and investors influence decisions about the applicability of standards and regulation.

Illiquidity and all its friends
Jean Tirole

http://www.bis.org/publ/work303.htm

The recent crisis was characterized by massive illiquidity. This paper reviews what we know and don't know about illiquidity and all its friends: market freezes, fire sales, contagion, and ultimately insolvencies and bailouts. It first explains why liquidity cannot easily be apprehended through a single statistics, and asks whether liquidity should be regulated given that a capital adequacy requirement is already in place. The paper then analyzes market breakdowns due to either adverse selection or shortages of financial muscle, and explains why such breakdowns are endogenous to balance sheet choices and to information acquisition. It then looks at what economics can contribute to the debate on systemic risk and its containment.
Finally, the paper takes a macroeconomic perspective, discusses shortages of aggregate liquidity and analyses how market value accounting and capital adequacy should react to asset prices. It concludes with a topical form of liquidity provision, monetary bailouts and recapitalizations, and analyses optimal combinations thereof; it stresses the need for macro-prudential policies.

Financial intermediation and the post-crisis financial system
Hyun Song Shin

http://www.bis.org/publ/work304.htm

Securitization was meant to disperse credit risk to those who were better able to bear it. In practice, securitization appears to have concentrated the risks in the financial intermediary sector itself. This paper outlines an accounting framework for the financial system for assessing the impact of securitization on financial stability. If securitization leads to the lengthening of intermediation chains, then risks becomes concentrated in the intermediary sector with damaging consequences for financial stability. Covered bonds are one form of securitization that do not fall foul of this principle. I discuss the role of countercyclial capital requirements and the Spanish-style statistical provisioning in mitigating the harmful effects of lengthening intermediation chains.

Fear of fire sales and the credit freeze
Douglas W Diamond and Raghuram G Rajan

http://www.bis.org/publ/work305.htm

Is there any need to "clean" up a banking system in the midst of a crisis, by closing or recapitalizing weak banks and taking bad assets off bank balance sheets, or can one wait till the crisis is over? We argue that an "overhang" of impaired banks that may be forced to sell assets soon can reduce the current price of illiquid assets sufficiently that weak banks have no interest in selling them. Anticipating a potential future fire sale, cash rich buyers have high expected returns to holding cash, which also reduces their incentive to lock up money in term loans. The potential for a worse fire sale than necessary, as well as the associated decline in credit origination, could make the crisis worse, which is one reason it may make sense to clean up the system even in the midst of the crisis. We discuss alternative ways of cleaning up the system, and the associated costs and benefits.

Household decisions, credit markets and the macroeconomy: implications for the design of central bank models
John Muellbauer

http://www.bis.org/publ/work306.htm

It is widely acknowledged that the recent generation of DSGE models failed to incorporate many of the liquidity and financial accelerator mechanisms revealed in the global financial crisis that began in 2007. This paper complements the papers presented at the 2009 BIS annual conference focused on the role of banks and other financial institutions by analysing the role of household decisions and their interplay with credit conditions and asset prices in the light of empirical evidence. In DSGE models without financial frictions, asset prices are merely a proxy for income growth expectations and play no separate role. On UK aggregate consumption evidence, section 2 of the paper shows this is strongly contradicted by the data, for all possible discount rates and both for a perfect foresight and an empirical rational expectations approach to measuring income expectations. However, an Ando-Modigliani consumption function generalised to include a role for liquidity, uncertainty, time varying credit conditions, wealth and housing collateral effects, as well as income expectations, explains the data well. Section 3 reports new evidence on the striking rejection on aggregate data of the consumption Euler equation central to all DSGE models. Section 4 shows that UK micro evidence

is consistent with the generalised Ando-Modigliani model. Section 5 discusses the limitations of recent DSGE models with financial frictions and housing. Section 6 discusses some business cycle implications of amplification mechanisms and non-linearities operating via households and residential construction. It reconsiders econometric methodology appropriate for designing better evidence-based central bank policy models.

Oil shocks and optimal monetary policy
Carlos Montoro

http://www.bis.org/publ/work307.htm

In practice, central banks have been confronted with a trade-off between stabilising inflation and output when dealing with rising oil prices. This contrasts with the result in the standard New Keynesian model that ensuring complete price stability is the optimal thing to do, even when an oil shock leads to large output drops. To reconcile this apparent contradiction, this paper investigates how monetary policy should react to oil shocks in a microfounded model with staggered price-setting and with oil as an input in a CES production function. In particular, we extend Benigno and Woodford (2005) to obtain a second order approximation to the expected utility of the representative household when the steady state is distorted and the economy is hit by oil price shocks.
The main result is that oil price shocks generate an endogenous trade-off between inflation and output stabilisation when oil has low substitutability in production. Therefore, it becomes optimal for the monetary authority to stabilise partially the effects of oil shocks on inflation and some inflation is desirable. We also find, in contrast to Benigno and Woodford (2005), that this trade-off is reduced, but not eliminated, when we get rid of the effects of monopolistic distortions in the steady state. Moreover, the size of the endogenous "cost-push" shock generated by fluctuations in the oil price increases when oil is more difficult to substitute by other factors.

Attributing systemic risk to individual institutions
Nikola Tarashev, Claudio Borio and Kostas Tsatsaronis

http://www.bis.org/publ/work308.htm

An operational macroprudential approach to financial stability requires tools that attribute system-wide risk to individual institutions. Making use of constructs from game theory, we propose an attribution methodology that has a number of appealing features: it can be used in conjunction with popular risk measures, it provides measures of institutions' systemic importance that add up exactly to the measure of system-wide risk and it easily accommodates uncertainty about the validity of the risk model. We apply this methodology to a number of constructed examples and illustrate the interactions between drivers of systemic importance: size, the institution's risk profile and strength of exposures to common risk factors. We also demonstrate how the methodology can be used for the calibration of macroprudential capital rules.

Toward a global risk map
Stephen Cecchetti, Ingo Fender and Patrick McGuire

http://www.bis.org/publ/work309.htm

Global risk maps are unified databases that provide risk exposure data to supervisors and the broader financial market community worldwide. We think of them as giant matrices that track the bilateral (firm-level) exposures of banks, non-bank financial institutions and other relevant market participants. While useful in principle, these giant matrices are unlikely to materialise outside the narrow and targeted efforts currently being pursued in the supervisory domain. This reflects the well known trade-offs between the macro and micro dimensions of data collection and dissemination. It is possible, however, to adapt existing statistical reporting frameworks in ways that would facilitate an analysis of exposures and build-ups of risk over time at the aggregate (sectoral) level. To do so would move us significantly in the direction of constructing the ideal global risk map. It would also help us sidestep the complex legal challenges surrounding the sharing or dissemination of firm-level data, and it would support a two-step approach to systemic risk monitoring. That is, the alarms sounded by the aggregate data would yield the critical pieces of information to inform targeted analysis of more detailed data at the firm- or market-level.

Central bank co-operation and international liquidity in the financial crisis of 2008-9
Richhild Moessner and William Allen

http://www.bis.org/publ/work308.htm

The financial crisis that began in August 2007 has blurred the sharp distinction between monetary and financial stability. It has also led to a revival of practical central bank co-operation. This paper explains how things have changed. The main innovation in central bank cooperation during this crisis was the emergency provision of international liquidity through bilateral central bank swap facilities, which have evolved to form interconnected swap networks. We discuss the reasons for establishing swap facilities, relate the probability of a country receiving a swap line in a currency to a measure of currency-specific liquidity shortages based on the BIS international banking statistics, and find a significant relationship in the case of the US dollar, the euro, the yen and the Swiss franc. We also discuss the role and effectiveness of swap lines in relieving currency-specific liquidity shortages, the risks that central banks run in extending swap lines and the limitations to their utility in relieving liquidity pressures. We conclude that the credit crisis is likely to have a lasting effect on the international liquidity policies of governments and central banks.

Basel Committee on Banking Supervision

Principles for enhancing corporate governance - consultative document
March 2010

http://www.bis.org/publ/bcbs168.htm

Given the important financial intermediation role of banks in an economy, the public and the market have a high degree of sensitivity to any difficulties potentially arising from any corporate governance shortcomings in banks. Corporate governance is thus of great relevance both to individual banking organisations and to the international financial system as a whole, and merits targeted supervisory guidance. The Basel Committee on Banking Supervision published initial guidance on corporate guidance in 1999, with revised principles in 2006. The Committee's guidance assists banking supervisors and provides a reference point for promoting the adoption of sound corporate governance practices by banking organisations in their countries. The principles also serve as a reference point for the banks' own corporate governance efforts.
Subsequent to the publication of the Committee's 2006 guidance, there have been a number of corporate governance failures and lapses, many of which came to light during the financial crisis that began in mid-2007. Drawing on the lessons learned during the crisis, the Committee's document, Principles for enhancing corporate governance, sets out best practices for banking organisations. The key areas where the principles have been strengthened include: (1) the role of the board; (2) the qualifications and composition of the board; (3) the importance of an independent risk management function, including a chief risk officer or equivalent; (4) the importance of monitoring risks on an ongoing firm-wide and individual entity basis, (5) the board's oversight of the compensation systems; and (6) the board and senior management's understanding of the bank's operational structure and risks. The principles also emphasise the importance of supervisors regularly evaluating the bank's corporate governance policies and practices as well as its implementation of the Committee's principles.

Report and recommendations of the Cross-border Bank Resolution Group - final paper
March 2010

http://www.bis.org/publ/bcbs169.htm

The Basel Committee's Cross-border Bank Resolution Group developed a set of recommendations that resulted from its stocktaking of legal and policy frameworks for cross-border crises resolutions and its follow-up work to identify the lessons learned from the global financial crisis which began in 2007. The financial crisis illustrates the importance of effective cross-border crisis management. The scope, scale and complexity of international financial transactions expanded at an unprecedented pace in the years preceding the crisis, while the tools and techniques for handling cross-border bank crisis resolution have not evolved at the same pace. Some of the events during the crisis revealed gaps in intervention techniques and the absence in many countries of an appropriate set of resolution tools. Actions taken to resolve cross-border institutions during the crisis tended to be ad hoc, severely limited by time constraints, and to involve a significant amount of public support.

The Basel Committee's recommendations, as set out below, are intended to strengthen national resolution powers and their cross-border implementation. They also provide guidance for firm-specific contingency planning as banks, as well as key home and host authorities, should develop practical and credible plans to promote resiliency in periods of severe financial distress and to facilitate a rapid resolution should that be necessary. The recommendations also aim to reduce contagion by advocating the use of risk mitigation mechanisms such as netting arrangements, collateralisation practices and the use of regulated central counterparties. Strengthening the use of these and other measures would help limit the market impact of a bank failure.

Good Practice Principles on Supervisory Colleges - consultative paper
March 2010

http://www.bis.org/publ/bcbs170.htm

The Basel Committee on Banking Supervision has issued for consultation a set of eight principles which aims to promote and strengthen the operation of supervisory colleges.
Comments on the report should be submitted by 30 June 2010 by e-mail (baselcommittee@bis.org) or post (Secretariat of the Basel Committee on Banking Supervision, Bank for International Settlements, CH-4002 Basel, Switzerland).
Supervisory colleges are an important component of effective supervisory oversight of an international banking group. The consultative document Good Practice Principles on Supervisory Colleges supplements broader guidance issued by the Basel Committee on cross-border cooperation and information-sharing by clearly outlining expectations for both home and host supervisors in relation to college objectives, governance, communication and information, as well as potential areas for collaborative work. Among other things, the principles:

- emphasise that the main aim of colleges is to enhance information exchange and cooperation among supervisors to support the effective supervision of international banking groups.
- provide guidance on the types of information to exchange and the different communication channels available. The principles also promote collaborative work among supervisors.
- acknowledge that no single college structure is suitable for all banks and that a college might have multiple or variable sub-structures. Indeed, the structure of each college should be determined by the characteristics of the banking groups being considered as well as the particular supervisory needs.
- take into account the latest developments and policy-making work in response to the financial crisis. For example, colleges should form one of the building blocks for crisis management planning. They should also facilitate the process of identifying and disseminating information relevant to macroprudential analysis.

Sound practices for backtesting counterparty credit risk models - consultative document
April 2010

http://www.bis.org/publ/bcbs171.htm

The Basel Committee on Banking Supervision has issued today a consultative document on Sound practices for backtesting counterparty credit risk models.
This supervisory guidance reinforces and explains some of the proposed changes to the Basel II framework included in the consultative document Strengthening the resilience of the banking sector, which was issued for comment in December 2009. Today's sound practices for backtesting paper provides additional information on 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.

International Risk weight for the Multilateral Investment Guarantee Agency (MIGA)
May 2010

http://www.bis.org/publ/bcbs_nl15.htm

The Basel Committee on Banking Supervision has agreed that supervisors may allow banks to apply a 0% risk weight to claims on the Multilateral Investment Guarantee Agency (MIGA) in accordance with paragraph 59 of the document International Convergence of Capital Measurement and Capital Standards, A revised Framework, June 2004 (Basel II Framework). MIGA will be included in the list of multilateral development banks as set out in footnote 24 to paragraph 59 of the Basel II Framework.

Committee on Payment and Settlement Systems

Guidance on the application of the 2004 CPSS-IOSCO Recommendations for Central Counterparties to OTC derivatives CCPs - consultative report
May 2010

http://www.bis.org/publ/cpss89.htm

This report, prepared by a working group (WG) jointly established in June 2009 by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO), presents guidance on the application of the 2004 CPSS-IOSCO Recommendations for Central Counterparties (RCCP) to the CCPs clearing over-the-counter (OTC) derivatives products (OTC derivatives CCPs).
Over the past several years, public and private sector entities have undertaken a coordinated effort to improve the post-trade infrastructure for OTC derivatives transactions. The recent financial crisis demonstrated the need to further enhance the safety and transparency in the OTC derivatives markets. As a result, authorities in many jurisdictions have set out several important policy initiatives encouraging greater use of CCPs for OTC derivatives markets. The CPSS and the Technical Committee of IOSCO support these positive developments.
A well designed CCP can reduce the risks and uncertainties faced by market participants and contribute to the goal of financial stability. Nevertheless, because of the complex risk characteristics and market design of OTC derivatives products, clearing them safely and efficiently through a CCP presents unique challenges that clearing listed or cash-market products may not. These aspects were not fully discussed in the 2004 report of the existing RCCP. Consequently, applying the RCCP to newly established OTC derivatives CCPs in practice has involved a considerable degree of interpretation and judgment. The WG reviewed the RCCP in light of these experiences and identified key new issues that arise when a CCP provides clearing services for OTC derivatives. With the aim of promoting consistent interpretation, understanding and implementation of the RCCP across arrangements for OTC derivatives transactions, the WG has developed guidance tailored to unique characteristics of OTC derivatives products and markets, which is presented in this report.
The recent financial crisis highlighted a severe lack of market transparency in OTC derivatives markets. As an important step in addressing this issue, OTC derivatives market participants, with the support of the regulatory community, are committed to establishing and making use of trade repositories (TRs) for OTC derivatives markets. A TR for OTC derivatives is a centralised registry that maintains an electronic database of open OTC derivative transaction records. In light of the growing importance of TRs in enhancing market transparency and supporting clearing and settlement arrangements for OTC derivatives transactions, the WG also developed a set of factors that should be considered by TRs in designing and operating their services and by relevant authorities in regulating and overseeing TRs, which has been published for consultation separately. These two sets of policy guidance are complementary and, taken together, constitute an important part of the responses of the CPSS and IOSCO to the recommendations of the G20 that called for the strengthening of the robustness of the OTC derivatives market.

Considerations for trade repositories in OTC derivatives markets - consultative report
May 2010

http://www.bis.org/publ/cpss90.htm

This report, prepared by a working group (WG) jointly established in June 2009 by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO), presents a set of considerations for trade repositories (TRs) in over-the-counter (OTC) derivatives markets.
Over the past several years there has been a coordinated effort by public and private sector entities to improve the post-trade infrastructure for the OTC derivatives market. One outcome of this effort has been the establishment of TRs to centralise information on outstanding OTC derivatives transactions and help improve the market's overall transparency. A well designed TR that operates with appropriate risk controls can provide an effective mechanism to collect and

disseminate reliable data in a timely and proper manner to relevant authorities and the public, thereby strengthening the scope and quality of information available regarding the OTC derivatives market.
The effort toward the establishment of TRs has gained further significance and momentum, as the recent financial crisis highlighted a severe lack of market transparency in OTC derivatives markets. In light of the growing importance of TRs in enhancing market transparency and supporting clearing and settlement arrangements for OTC derivatives transactions, the CPSS and the Technical Committee of IOSCO concluded that some form of policy guidance would be useful. Consequently, in parallel with its review of the application of the 2004 CPSS-IOSCO Recommendations for Central Counterparties (RCCP) to clearing arrangements for OTC derivatives, the WG developed a set of factors (Considerations for TRs) that should be considered by TRs in designing and operating their services and by relevant authorities in regulating and overseeing TRs, which are presented in this report. These two sets of policy guidance are complementary and, taken together, constitute an important part of the responses of the CPSS and IOCSO to the recommendations of the G20 that called for the strengthening of the robustness of the OTC derivatives market.
The report is being issued now as a consultation document and comments are invited from any interested parties. Comments should be sent both to the CPSS Secretariat (cpss@bis.org) and the IOSCO Secretariat (OTC-Trade-Repositories@iosco.org) by 25 June 2010; please mention "CPSS-IOSCO considerations for TR" in the subject line of your e-mail. The comments will be published on the websites of the Bank for International Settlements and IOSCO unless commentators have requested otherwise.

Committee on the Global Financial System

The role of margin requirements and haircuts in procyclicality
March 2010

http://www.bis.org/publ/cgfs36.htm

Terms and conditions on secured lending transactions, as well as the changes to the eligible pool of collateral securities and the applicable haircuts on them, affect the access to credit and risk-taking behaviour of leveraged market participants. The study group report on The role of margin requirements and haircuts in procyclicality under the chairmanship of David Longworth of Bank of Canada reviews market practices for setting credit terms applicable to securities lending and over-the-counter derivatives transactions with a view to assess how these practices may contribute to financial system procyclicality. The report recommends a series of policy options, including some for consideration, directed at margining practices to dampen the build-up of leverage in good times and soften the systemic impact of the subsequent deleveraging.

The functioning and resilience of cross-border funding markets
March 2010

http://www.bis.org/publ/cgfs37.htm

The financial crisis that began in 2007 was accompanied by unprecedented funding market dislocations, which spilled across time zones and currencies. The resulting market disruptions triggered policy responses on a global scale, raising questions about the functioning and resilience of the various funding markets on which internationally active banks had relied.
This report, prepared by a joint study group of the Committee on the Global Financial System and the Markets Committee, presents an assessment of this episode of global market disruptions. Under the chairmanship of Guy Debelle of the Reserve Bank of Australia, the study group documented in this report the pre-crisis pattern of cross-border funding among internationally active financial institutions, reviewed what happened in various funding markets as the crisis unfolded and the policy responses that ensued, and distilled five policy lessons from the experience.

Macroprudential instruments and frameworks: a stocktaking of issues and experiences
May 2010

http://www.bis.org/publ/cgfs38.htm

Central banks will face a range of issues as macroprudential policy frameworks are developed and applied, because of central banks' roles in financial stability, and because successful macroprudential policy can help stabilise the economy. But questions surround how macroprudential policy should be defined and how its instruments should be operated.
This report summarises a preliminary "stocktaking" by the Committee on the Global Financial System of issues and experience related to the design and implementation of macroprudential policy. The production of the report was overseen by a coordinating group led by Lex Hoogduin of the Dutch central bank. The report includes summary results from a survey of central banks on their conceptions of macroprudential policy and their use of macroprudential instruments, and from a central bank workshop on the use of macroprudential instruments relating to property lending markets, many of which have been applied in emerging economies.

Funding patterns and liquidity management of internationally active banks
May 2010

http://www.bis.org/publ/cgfs39.htm

The risks and complexities associated with funding and liquidity management of international banks became apparent during the global financial crisis. As liquidity in major bank funding and FX swap markets evaporated, sizeable maturity mismatches across currencies added to balance sheet pressure on internationally active banks.
This report, prepared by a Study Group chaired by Mário Mesquita of the Central Bank of Brazil, investigates changes in funding and liquidity management of international banks in response to these developments. It also presents the Group's preliminary assessment of possible consequences of greater decentralisation in funding and liquidity management for the efficiency and resilience of financial systems.

Speeches

Towards a global financial stability framework

Speech by Hervé Hannoun, Deputy General Manager of the Bank for International Settlements, at the 45th SEACEN Governors' Conference, Siem Reap province, Cambodia, 26–27 February 2010.

http://www.bis.org/speeches/sp100303.htm

A new global financial stability framework is needed to reduce the probability and severity of a future financial crisis. The financial stability framework needs to be global in the sense of being both worldwide and comprehensive, with contributions from prudential, monetary and fiscal policies. Market discipline and microprudential regulation alone cannot achieve financial stability. Monetary and fiscal policies need to contribute by leaning against the build-up of financial imbalances and by responding to busts in a symmetric fashion. Central banks are increasingly aware of the potential for trade-offs between price stability and financial stability in the short run, recognising that these objectives are complementary in the long run. Fiscal policy must be countercyclical and maintain buffers that provide the ability to respond in times of financial system stress. Enhancements to microprudential regulations to increase the resilience of individual financial institutions must be accompanied by macroprudential policies that address the stability of the financial system over time and at each point in time. The need to break with the leverage-led growth model is highlighted.

Backstopping global banking

Speaking notes of Mr Jaime Caruana, General Manager of the BIS, prepared for a high-level policy panel at the conference: "Financial integration and stability: the legacy of the crisis", jointly sponsored and organised by the ECB and the European Commission, Frankfurt am Main, 12 April 2010.

http://www.bis.org/speeches/sp100415.htm

The financial crisis has led some to suggest that the decades-long process of financial integration could and possibly should reverse. However, we tend to underestimate the enormous benefits of financial integration, benefits which can be diffuse and hard to identify, but which are substantial nonetheless. What is needed is a new framework for global financial stability, one that addresses the challenges of system-wide risks head-on. Such a framework needs to be global in the sense of being both worldwide and comprehensive, with contributions from monetary, fiscal, and macro- and microprudential policies. Regulatory reform is under way, but this is just one of a number of building blocks. We also need adequate tools for systemic risk monitoring, and this means that we need better and more timely data. Uncertainty about the scale of losses on banks' assets was the proximate cause of the crisis, but it was the dislocations in banks' funding markets that turned the subprime crisis into a global financial crisis. Regardless of the methods used to manage systemic risks, a first step must thus be to monitor these funding pressures.

Information gaps: what has the crisis taught us?

Opening remarks by Hervé Hannoun, Deputy General Manager of the Bank for International Settlements, at the Conference for senior officials to help develop a concrete plan of action to implement the recommendations in the IMF-FSB report "The financial crisis and information gaps", prepared for the G20 Finance Ministers and central bank Governors, Basel, 8–9 April 2010.

http://www.bis.org/speeches/sp100419.htm

Unconventional The financial crisis exposed a number of gaps in our ability to monitor systemic risks. Addressing even a few of these may help to reduce the risk of future crises. The crisis has revealed at least five elements which matter in the monitoring of systemically important financial institutions:
1. Consolidation matters: We must enhance our ability to "see" consolidated balance sheets, both at the individual bank level and in aggregate, since it is across the whole balance sheet that stresses build up.
2. Liabilities matter: It was the collapse in funding markets which made the crisis global, and yet we cannot really see funding patterns in the available data.
3. Currency matters: Monitoring maturity mismatch at the systemic level requires information on the currency of positions, since cross-currency financing can embed rollover risk into the balance sheet.
4. Interconnectedness matters: The number and nature of an institution's bilateral relationships, and not only its size, are a key measure of its systemic importance.
Non-banks matter: Off-balance sheet SIVs, as well as pension funds, insurance companies and large corporates, should not be excluded from systemic monitoring exercises.
Efficiency demands that we draw on the existing reporting frameworks for our global statistics, but with better data design, and with more coordination across organisations. For its part, the BIS stands ready to help wherever possible. The BIS already collects statistics on the international activities of large banks - the so-called BIS banking and derivatives statistics - and will continue to push for improvements to these statistics.

Macroprudential policy: working towards a new consensus

Remarks of Mr Jaime Caruana, General Manager of the BIS, presented at the high-level meeting on "The Emerging Framework for Financial Regulation and Monetary Policy" jointly organised by the BIS's Financial Stability Institute and the IMF Institute Washington DC, 23 April 2010.

http://www.bis.org/speeches/sp100426.htm

The speech places macroprudential policy within the emerging framework for financial stability and discusses the challenge entailed in turning this macroprudential concept into a reality. Macroprudential policies are designed to increase the stability and resilience of the financial system as a whole, not just of individual institutions or markets. To achieve financial stability, prudential policies need the support of sound macroeconomic policies. Monetary policy should respond in a symmetric fashion during the boom and bust phases of financial and business cycles. Fiscal policy must play a supporting role as well, and international cooperation is vital. Policymakers need to respect the limits of macroprudential policy and to avoid any overconfidence that it can fine-tune the macroeconomic cycle. At best, such policy can relieve some of the pressure on traditional macroeconomic tools. Since macroprudential policy has yet to be implemented comprehensively, policymakers should not expect too much from it. The elements of this macroprudential framework need to be calibrated carefully and complemented with a more active approach to supervision.

Alternatives to self-insurance

Remarks by Mr Stephen G Cecchetti, Economic Adviser and Head of Monetary and Economic Department of the BIS, prepared for the Swiss National Bank - International Monetary Fund High-Level conference on the International Monetary System, Zürich, 11 May 2010.

http://www.bis.org/speeches/sp100512.htm

Global foreign exchange reserves have grown rapidly over the past decade. This raises questions about how much reserves are needed for self-insurance. A lesson of the crisis is that the combination of currency and maturity mismatches can lead to global liquidity shocks. Monitoring and containing the build-up of mismatches is a challenge. Central bank swap lines and foreign exchange reserves helped to resolve the acute dollar shortage of 2008. How could countries ensure that they have access to foreign currency funding during future crises? Three options are self-insurance, where a country purchases reserves outright or borrows them; bilateral agreements; and multilateral agreements. These are complements, not substitutes, so countries will probably continue to rely on a mix of arrangements.

The great financial crisis: lessons for the design of central banks

Speech by Mr Jaime Caruana, General Manager of the BIS, at the Colloquium in honour of Lucas Papademos European Central Bank, Frankfurt, 20 May 2010

http://www.bis.org/speeches/sp100521.htm

The global financial crisis provides insight into the role central banks can and should play in promoting financial stability. The central bank is almost always the first public institution to respond when a crisis hits. In order to act quickly and purposefully, it needs realistic financial stability objectives consistent with its monetary policy responsibilities and a suitable array of powers and tools. A clearly articulated strategy for promoting financial stability and transparency about actions and the decision-making process will help promote accountability. Clarity about the respective roles and responsibilities of the various authorities fostering financial stability and well specified mechanisms for coordination will allow central banks to retain the autonomy they need to perform their public policy tasks.