
2011 ISDA Operations Benchmarking Survey

INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION

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INTRODUCTION

The ISDA Operations Benchmarking Survey identifies and tracks operations processing trends in privately-negotiated, over-the-counter (OTC) derivatives. The results provide individual firms with a benchmark against which to measure the promptness and accuracy of their trade data capture, confirmation, and settlement procedures, as well as the level of automation of their operational processes. ISDA first conducted the Survey in 2000 and has done so annually since then.

This year, sixty-six ISDA member firms responded; fifty-six of those firms participated in last year's Survey as well. Appendix 1 lists the respondents, and Table 1 shows some sample characteristics. The Survey classifies respondents into three size groups based on monthly deal volumes across products.

Table 1
Firms responding to ISDA Operations Benchmarking Survey
Number of firms

Size	Monthly Volume	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010/2011
Large	>3000	17	20	20	19	18	17	18	22	17	16	19	16
Medium	>500	26	23	22	25	22	18	19	22	22	16	16	14
Small	<5000	18	22	22	23	26	32	29	35	30	37	31	26
Total		61	65	64	67	66	67	66	79	69	69	66	56

Survey Results

SECTION 1 - VOLUMES

Chart 1.1
Average monthly event volumes, all products
Number of events

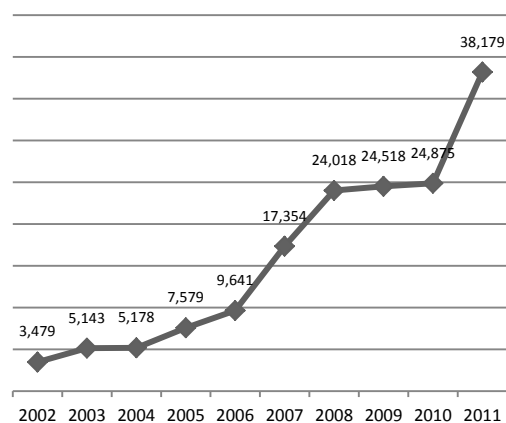


Chart 1.2
Average monthly event volume by product
Number of events

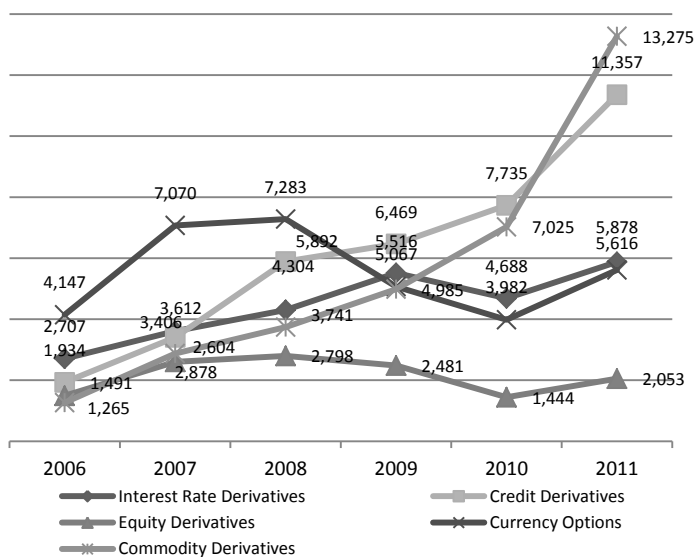


Table 1.1
Average monthly event volume, by size group

	Large						G14					
	2006	2007	2008	2009	2010	2011	2008	2009	2010	2011		
Interest Rate	7,631	9,903	12,677	19,881	18,300	18,112	12,328	18,369	19,156	20,797		
Credit	6,281	9,359	17,547	25,313	29,707	37,897	17,982	23,648	31,563	42,088		
Equity	4,522	5,237	6,595	7,025	4,849	5,392	6,520	6,666	4,765	5,747		
Currency Options	10,998	16,183	19,955	16,153	12,702	12,981	20,150	14,935	13,206	15,253		
Commodity	3,968	5,953	8,346	13,600	19,271	21,893	9,574	12,593	20,430	24,095		
Total OTC	32,256	47,345	65,121	81,972	84,829	96,274	66,554	76,211	89,120	107,980		
	Medium						Small					
	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
Interest Rate	1,643	1,862	2,060	2,674	1,817	2,486	369	400	335	418	411	591
Credit	392	415	680	663	665	312	39	120	87	64	49	122
Equity	769	1,334	703	1,366	240	1,529	70	140	255	138	82	90
Currency Options	1,177	1,439	1,392	2,702	1,261	5,454	499	842	315	269	233	257
Commodity	505	424	1,042	969	529	598	41	64	130	174	110	38
Total OTC	4,486	4,179	5,878	8,374	4,512	10,380	1,191	1,043	1,122	1,063	885	1,098

Table 1.2**Monthly event volume summary statistic, by size group (2011 submission analysis)**

Large	Number	Average	Median	25% Quartile	75% Quartile	Maximum
Interest Rate	17	18,112	18,012	9,559	25,276	38,790
Credit	16	37,897	37,252	20,126	52,659	91,439
Equity	16	5,392	5,508	3,490	6,438	13,668
Currency Options	17	12,981	9,053	6,500	16,987	33,428
Commodities Derivatives	19	21,893	18,798	7,502	33,157	68,709

Medium	Number	Average	Median	25% Quartile	75% Quartile	Maximum
Interest Rate	13	2,486	1,742	1,370	2,691	6,500
Credit	12	312	94	9	198	1,572
Equity	12	1,529	420	242	719	9,723
Currency Options	12	5,454	1,500	600	2,947	40,180
Commodities Derivatives	11	598	70	30	300	5,300

Small	Number	Average	Median	25% Quartile	75% Quartile	Maximum
Interest Rate	31	591	360	46	857	4,068
Credit	26	122	14	2	93	946
Equity	24	90	10	3	81	490
Currency Options	23	257	83	13	311	1,161
Commodities Derivatives	16	38	3	0	36	240

Table 1.3**% of event volume that is facing a G14 firm**

	All	G14	Large	Medium	Small
Interest Rate	60%	55%	54%	74%	58%
Credit	88%	80%	79%	92%	91%
Equity	39%	32%	37%	34%	42%
Currency Options	41%	30%	31%	49%	43%
Commodities Derivatives	22%	17%	14%	31%	23%
Average	50%	43%	43%	56%	51%

SECTION 2 – TRADE CAPTURE

Table 2.1
Amendment rates
By product

	Interest Rate			Credit			Equity			Currency			Commodity		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Percent of trade records containing errors	18%	14%	11%	12%	13%	10%	16%	15%	11%	10%	11%	9%	10%	10%	7%
Percent of errors attributable to front office	54%	58%	59%	49%	56%	50%	53%	57%	46%	51%	63%	60%	54%	57%	47%

Table 2.2
Rankings by common sources of errors
By product

Cause	Interest Rate	Credit	Equity	Currency	Commodity
Counterparty Name	1	2	4	1	2
Notional Amount	7	6	3	3	3
Underlying	8	1	6	6	4
Buy / Sell	9	8	8	8	8
Trade Date / Effective Date	5	5	2	4	5
Business Day Convention	4	9	9	7	6
Mutual Early Termination Payment Date(s) /	3	7	11	9	11
Termination Date	2	4	1	2	1
Miscellaneous Fees	6	3	5	5	7
Language / Elections	10	11	7	11	10
Legal agreement date	11	10	10	10	9
Others	0	0	0	0	0

SECTION 3 – CONFIRMATIONS

Table 3.1

Electronically confirmed event volume as a percentage of electronically eligible¹ event volume

	All			Large			Medium			Small		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Interest Rate Derivatives	61%	77%	83%	63%	79%	85%	48%	51%	74%	28%	47%	68%
Credit Derivatives	95%	99%	100%	95%	99%	100%	97%	99%	100%	93%	93%	98%
Equity Derivatives	58%	81%	79%	60%	87%	85%	52%	42%	26%	13%	19%	39%
Currency Options	73%	71%	67%	75%	72%	68%	52%	53%	66%	56%	61%	61%
Commodity Derivatives	57%	76%	66%	60%	77%	67%	4%	22%	37%	54%	70%	52%

Table 3.2

Electronic confirmation of event volume (2011 submission analysis)

	Electronically Eligible		Not Electronically Eligible
	Electronically Confirmed ^(a)	Not Electronically Confirmed ^(b)	
All			
Interest Rate Derivatives	74%	15%	11%
Credit Derivatives	99%	0%	1%
Equity Derivatives	27%	7%	66%
Currency Options	54%	27%	19%
Commodity Derivatives	57%	29%	13%
Large			
Interest Rate Derivatives	78%	14%	8%
Credit Derivatives	99%	0%	1%
Equity Derivatives	32%	5%	62%
Currency Options	57%	27%	16%
Commodity Derivatives	59%	28%	13%
Medium			
Interest Rate Derivatives	56%	20%	24%
Credit Derivatives	99%	0%	1%
Equity Derivatives	4%	10%	86%
Currency Options	49%	25%	26%
Commodity Derivatives	34%	59%	7%
Small			
Interest Rate Derivatives	45%	22%	33%
Credit Derivatives	61%	2%	37%
Equity Derivatives	23%	35%	42%
Currency Options	38%	24%	38%
Commodity Derivatives	18%	17%	65%

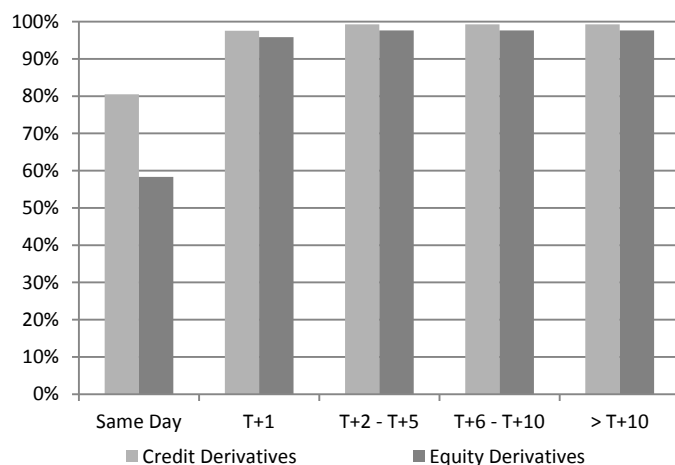
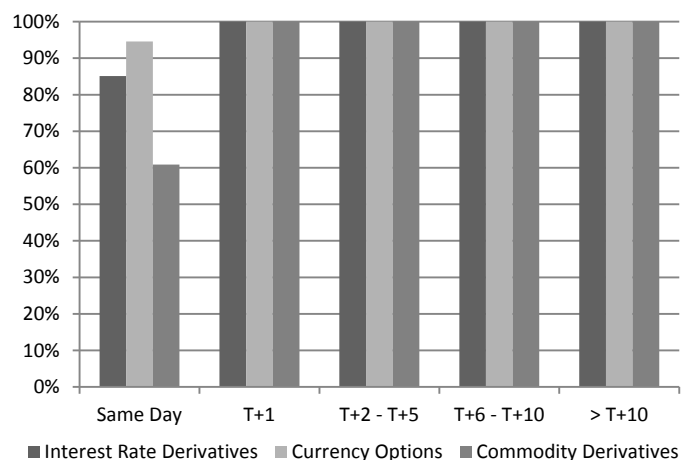
¹ Electronically eligible population consists of (a)+(b), giving corresponding calculation for 2011 in this table as (a)/((a)+(b)).

Charts 3.1 & 3.2

Confirmations normally sent by a given time, all firms

Cumulative percentages

Electronic



Non-electronic

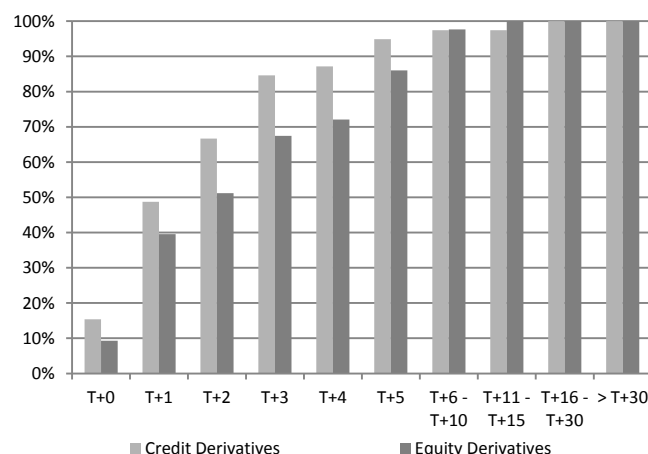
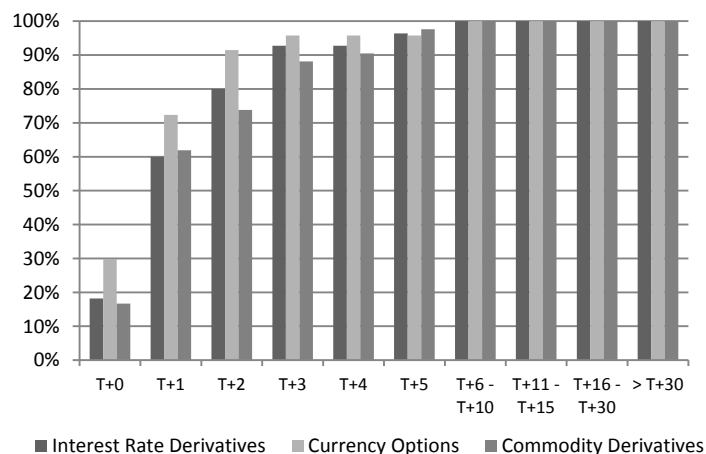


Table 3.3

Factors effecting confirmation dispatch times

Ranked by importance

	Interest Rates	Credit	Equity	Currency	Commodity
High Volumes	2	4	0	2	3
New or Non-Standard Product	8	8	8	8	8
Non-Standard Language	3	2	2	3	1
Awaiting Data or Approval From Traders/ Marketers	1	1	1	1	2
Awaiting Data or Approval From Legal/Compliance	4	3	4	4	4
Awaiting Data or Approval From Credit or Collateral Department	7	7	6	7	7
Awaiting Data/Details From External Source such as KYC Documentation, Static Data etc.	6	6	7	6	6
Systems/Technology Issues	5	5	5	5	5

Table 3.4
Average monthly levels of all confirmations outstanding
Business days

	Large							G14		
	2005	2006	2007	2008	2009	2010	2011	2009	2010	2011
Interest Rate Derivatives	11.4	14.1	13.9	10.3	6.8	2.8	2.1	6.9	2.9	2.0
Credit Derivatives	23.5	16.2	5.6	6.4	3.5	1	0.5	3.5	1	0.4
Equity Derivatives	16.7	24.6	22.6	13.9	9.7	7.3	6.7	9.7	7.4	6.5
Currency Options	5.3	7.9	6.1	2.1	2.6	1.3	1.8	2.6	1.3	1.8
Commodity Derivatives	20.2	23.3	7.5	3.2	2.4	1.2	0.9	2.6	1.3	1.0

	Medium							Small						
	2005	2006	2007	2008	2009	2010	2011	2005	2006	2007	2008	2009	2010	2011
Interest Rate Derivatives	6.9	7.2	9.4	7.5	4.7	1.3	2.2	10.4	6.6	8	4.8	5.4	3.5	1.8
Credit Derivatives	7.8	12.7	6.6	4.7	2.4	1.6	0.6	5.3	8.2	3.6	5.6	3.6	1.3	1.2
Equity Derivatives	9.7	10.3	10.8	11.2	3	4.2	2.0	1.6	6.4	7	3.5	9.8	7.2	6.0
Currency Options	12.1	2.3	7.1	4.4	1.8	0.5	0.6	4.2	4.4	2.3	6.2	6.4	1.3	3.3
Commodity Derivatives	4.3	7	4.5	1.4	1.5	1	1.1	4.1	6.5	4.1	4.1	2.9	1.6	7.0

Chart 3.3
All confirmations outstanding, by age
Business days

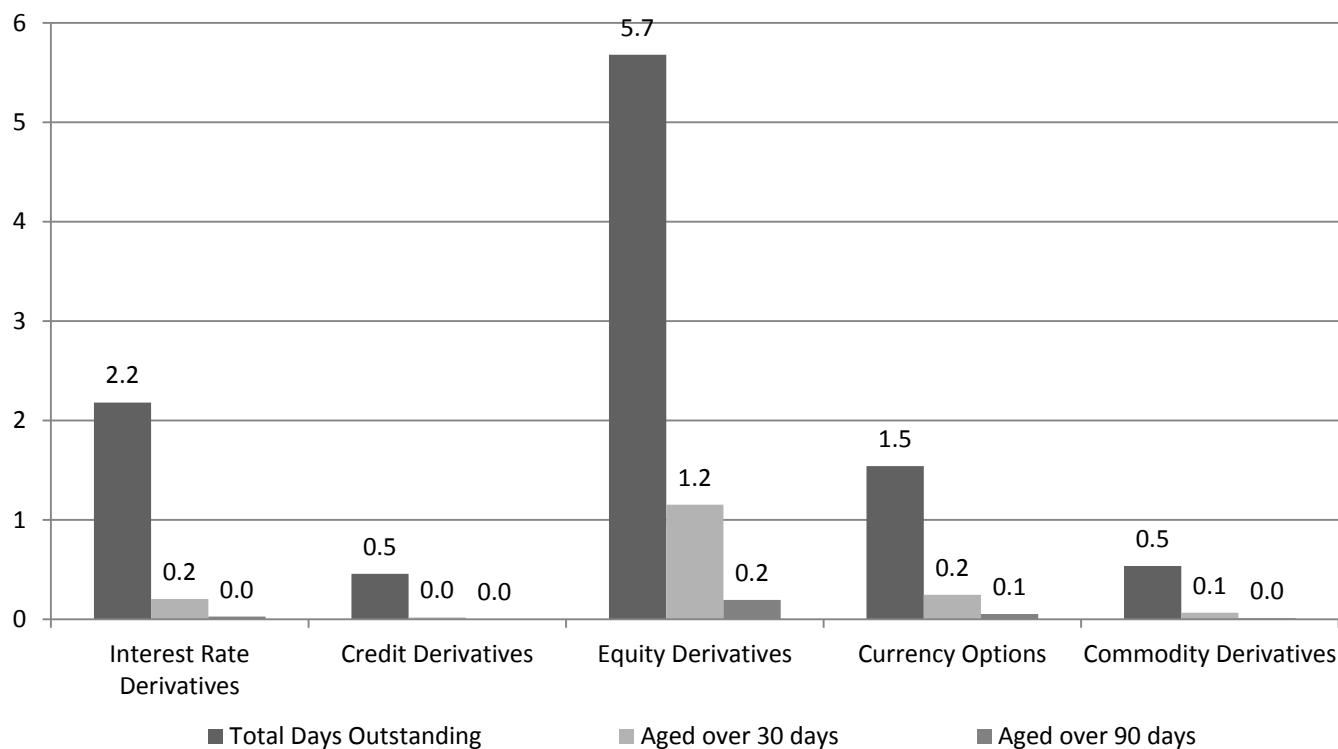


Table 3.5
Criteria used to prioritize outstanding confirmations
Rankings

	Interest Rates	Credit	Equity	Currency	Commodity
Business Days Outstanding	2	1	2	1	1
Unrecognised Trade	1	2	1	2	2
Type of Transaction	4	4	3	3	4
Type of Counterparty	3	3	4	4	3
Master Agreement signed	5	5	5	6	5
Net Present Value	7	5	6	7	6
Broker Confirmation checked	8	8	10	5	8
Credit Rating of Counterparty	5	9	8	7	7
Collateral held / Collateral Agreement signed	9	7	7	9	9
Positive Feedback from Settlement Departments	10	10	9	10	10
Positive Feedback from Collateral Departments	12	12	12	11	12
Others	11	11	11	12	11

Table 3.6
Trade affirmation

	Interest Rates	Credit	Equity	Currency	Commodity
<i>Does your firm perform a separate affirmation of key economic details of a trade?</i>					
Yes	64%	59%	65%	59%	57%
No	9%	18%	15%	17%	27%
Only when contacted by counterparty	27%	24%	21%	24%	16%
<i>Method of affirmation</i>					
Phone	16%	10%	13%	34%	38%
Electronic message	71%	74%	76%	54%	50%

Table 3.7
Expected affirmation times, all respondents

	Interest Rates	Credit	Equity	Currency	Commodity
Electronic					
T+0	44%	45%	25%	46%	37%
T+1	35%	27%	38%	18%	47%
T+2 - T+5	21%	27%	38%	29%	11%
T+6 - T+10	0%	0%	0%	4%	5%
>T+10	0%	0%	0%	4%	0%
Non-Electronic					
T+0	18%	21%	11%	29%	27%
T+1	38%	38%	26%	26%	37%
T+2 - T+5	45%	38%	63%	32%	33%
T+6 - T+10	0%	3%	0%	10%	0%
>T+10	0%	0%	0%	3%	3%

SECTION 4 – SETTLEMENTS

Table 4.1
Monthly settlements, all respondents
By product

	2005	2006	2007	2008	2009	2010	2011
Interest Rate Derivatives	12,826	12,183	15,341	25,017	29,389	27,150	27,818
Credit Derivatives	4,960	9,641	18,450	37,669	44,327	29,162	27,149
Equity Derivatives	1,139	27,997	3,421	6,771	6,648	3,583	3,173
Currency Options	3,983	3,643	7,752	3,246	4,226	4,100	3,447
Commodity Derivatives	641	1,920	3,623	5,182	5,039	4,872	6,353

Table 4.2
Monthly settlements summary statistics, by size category and product

Large	Average	Median	25% Quartile	75% Quartile	Maximum
Interest Rate Derivatives	83,603	76,906	33,964	125,516	182,724
Credit Derivatives	93,024	92,645	50,026	139,547	203,707
Equity Derivatives	10,072	8,701	4,220	13,730	25,010
Currency Options	6,978	5,997	2,292	8,788	28,500
Commodity Derivatives	18,632	5,850	1,222	24,026	125,000
G14					
Interest Rate Derivatives	99,138	94,123	65,035	138,481	182,724
Credit Derivatives	101,844	96,246	68,247	144,662	203,707
Equity Derivatives	11,051	9,504	7,373	16,701	25,010
Currency Options	7,832	6,200	2,751	8,991	28,500
Commodity Derivatives	12,973	8,800	1,213	16,465	57,655
Medium					
Interest Rate Derivatives	11,635	8,369	4,725	13,346	40,500
Credit Derivatives	1,432	265	77	1,389	6,891
Equity Derivatives	664	250	190	450	3,500
Currency Options	5,334	800	660	1,328	50,000
Commodity Derivatives	384	200	20	557	1,800
Small					
Interest Rate Derivatives	2,680	1,842	416	5,085	8,200
Credit Derivatives	527	120	22	859	3,200
Equity Derivatives	293	30	10	174	4,550
Currency Options	228	143	18	295	860
Commodity Derivatives	118	6	0	85	600

Table 4.3
Percent of monthly settlement volume resulting in nostro breaks

	2009	All		Large	2011	
		2010	2011		Medium	Small
Interest Rate Derivatives	9%	4%	5%	4%	8%	4%
Credit Derivatives	6%	4%	5%	4%	8%	4%
Equity Derivatives	15%	6%	6%	6%	5%	7%
Currency Options	6%	4%	6%	5%	17%	2%
Commodity Derivatives	11%	5%	8%	6%	17%	3%

Chart 4.1
Monthly average and aged nostro breaks, all respondents
Average by product

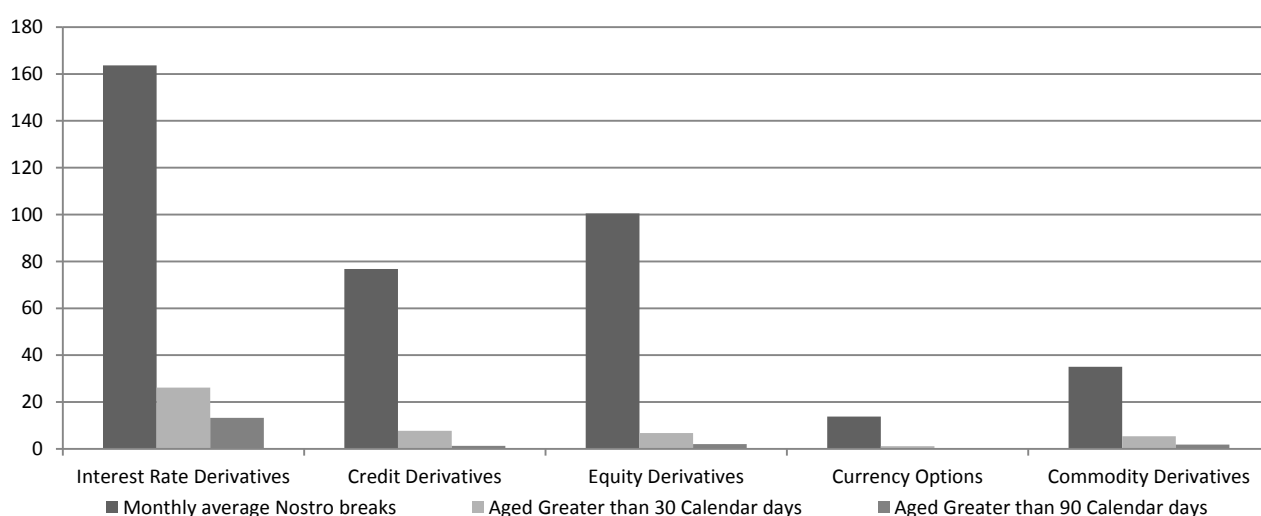


Table 4.4
Times to nostro break resolution, all respondents
Percentage resolved within specified time

	Interest Rate			Credit			Equity			Currency			Commodity		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
1 Day	4%	10%	6%	7%	9%	11%	5%	9%	5%	17%	7%	7%	11%	16%	30%
2 Days	14%	22%	18%	15%	23%	26%	18%	39%	33%	19%	36%	27%	22%	28%	21%
3 - 5 Days	50%	41%	53%	43%	51%	46%	45%	36%	46%	45%	40%	54%	53%	41%	33%
1 - 2 Weeks	23%	21%	22%	24%	15%	17%	25%	14%	15%	11%	13%	12%	8%	16%	15%
2 - 4 Weeks	5%	5%	0%	11%	2%	0%	8%	2%	0%	6%	4%	0%	6%	0%	0%
>4 Weeks	4%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%

SECTION 5 – AUTOMATION

Table 5.1
Degree of automation by product and function, all respondents
Average percent of volume automated

Function	Interest Rate Derivatives	Credit Derivatives	Equity Derivatives	Currency Options	Commodity Derivatives	Average for function
Trade data transferred from the front office to operations for processing	88%	82%	71%	87%	76%	81%
Trade data transferred from the operations system to the general ledger	90%	89%	78%	86%	81%	85%
Additional data added in order to process (SSIs, legal information etc)	63%	75%	58%	48%	52%	59%
Trade Affirmation	37%	28%	28%	28%	24%	29%
Confirmation generation - fully automated (trades confirmed through Markitwire, DTCC, Swift and other external and in-house automation systems)	55%	78%	32%	48%	37%	50%
Confirmation dispatch (for Non-Electronic Confirmation only)	50%	32%	35%	45%	37%	40%
Imaging of outgoing confirmation	62%	61%	54%	52%	55%	57%
Imaging of incoming confirmation	59%	55%	50%	56%	59%	56%
Confirmation matching (Electronic solutions offering both generation and matching / Affirmation should be counted under "Confirmation generation" and "Confirmation matching")	46%	70%	34%	46%	30%	45%
Nostro Reconciliation	71%	82%	73%	81%	73%	76%
Settlement Pre-Matching	18%	47%	13%	23%	20%	24%
Average for Product	58%	64%	48%	55%	49%	

Table 5.2
Degree of automation by product and function, G14
Average percent of volume automated

Function	Interest Rate Derivatives	Credit Derivatives	Equity Derivatives	Currency Options	Commodity Derivatives	Average for function
Trade data transferred from the front office to operations for processing	93%	94%	84%	90%	79%	88%
Trade data transferred from the operations system to the general ledger	93%	95%	90%	94%	87%	92%
Additional data added in order to process (SSIs, legal information etc)	76%	91%	63%	47%	48%	65%
Trade Affirmation	56%	24%	45%	22%	30%	35%
Confirmation generation - fully automated (trades confirmed through Markitwire, DTCC, Swift and other external and in-house automation systems)	85%	94%	52%	75%	65%	74%
Confirmation dispatch (for Non-Electronic Confirmation only)	59%	49%	45%	69%	57%	56%
Imaging of outgoing confirmation	94%	95%	81%	86%	67%	85%
Imaging of incoming confirmation	90%	94%	74%	83%	65%	81%
Confirmation matching (Electronic solutions offering both generation and matching / Affirmation should be counted under "Confirmation generation" and "Confirmation matching")	76%	87%	64%	65%	52%	69%
Nostro Reconciliation	75%	89%	67%	89%	80%	80%
Settlement Pre-Matching	30%	86%	20%	45%	18%	40%
Average for Product	75%	82%	62%	70%	59%	

Table 5.3**Planned automation by product and function, all respondents***Areas that respondents plan to increase automation in, in coming year*

Function	Interest Rate Derivatives	Credit Derivatives	Equity Derivatives	Currency Options	Commodity Derivatives	Average for function
Trade data transferred from the front office to operations for processing	53%	42%	54%	51%	43%	48%
Trade data transferred from the operations system to the general ledger	40%	36%	46%	39%	40%	40%
Additional data added in order to process (SSIs, legal information etc)	44%	36%	42%	44%	34%	40%
Trade Affirmation	37%	38%	34%	26%	36%	34%
Confirmation generation - fully automated (trades confirmed through Markitwire, DTCC, Swift and other external and in-house automation systems)	75%	54%	64%	54%	63%	62%
Confirmation dispatch (for Non-Electronic Confirmation only)	59%	32%	50%	52%	56%	50%
Imaging of outgoing confirmation	30%	20%	33%	24%	31%	28%
Imaging of incoming confirmation	25%	22%	31%	22%	35%	27%
Confirmation matching (Electronic solutions offering both generation and matching / Affirmation should be counted under "Confirmation generation" and "Confirmation matching")	60%	49%	57%	53%	48%	54%
Nostro Reconciliation	42%	33%	33%	29%	16%	30%
Settlement Pre-Matching	28%	36%	40%	18%	22%	29%
Average for Product	45%	36%	44%	38%	39%	

SECTION 6 – STAFFING

Table 6.1
Ratio of front office to support staff, all respondents

	Front office/Trade Capture				Front office/Confirmations				Front office/Settlements			
	2008	2009	2010	2011	2008	2009	2010	2011	2008	2009	2010	2011
Interest Rate Derivatives	5.3	5.5	3.5	4.3	3.5	3.6	3.3	3.8	4.1	4.9	4.9	6.0
Credit Derivatives	3.6	4.3	3.2	3.2	2.7	3.1	3.4	3.8	3.8	3.5	3.7	4.7
Equity Derivatives	3.5	4.8	3.4	4.2	5.4	4.7	5.3	4.6	7.3	6.8	8.2	7.0
Currency Options	4.2	3.6	3.4	3.6	3.2	3.1	3.1	2.6	5.2	5.6	5.5	3.8
Commodity Derivatives	5.2	6.8	7.3	4.8	5.1	4.8	6.6	6.2	5.4	4.6	6.0	6.4

Table 6.2
Transactions per Full Time Equivalents

Large firms	Front Office	Trade Capture	Confirmation	Settlement
Interest Rate Derivatives	65	291	269	454
Credit Derivatives	242	832	975	1,253
Equity Derivatives	20	106	113	184
Currency Options	247	804	533	804
Commodity Derivatives	162	845	1,187	1,247

Medium	Front Office	Trade Capture	Confirmation	Settlement
Interest Rate Derivatives	37	362	439	446
Credit Derivatives	17	112	147	117
Equity Derivatives	65	310	590	451
Currency Options	221	3,726	2,337	2,371
Commodity Derivatives	34	229	337	329

Small	Front Office	Trade Capture	Confirmation	Settlement
Interest Rate Derivatives	29	142	137	148
Credit Derivatives	17	41	49	51
Equity Derivatives	14	38	53	42
Currency Options	39	84	133	128
Commodity Derivatives	7	16	23	23

Table 6.3
Percent of full time equivalent staff that is outsourced or in a Low Cost Location

All Respondents	Interest Rate			Credit			Equity			Currency		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Trade Capture Staff	8%	6%	8%	7%	8%	9%	3%	6%	2%	7%	8%	8%
Confirmation Staff	19%	15%	20%	17%	15%	18%	13%	11%	15%	20%	22%	23%
Settlement Staff	22%	19%	22%	17%	18%	22%	15%	17%	16%	19%	28%	27%
Large												
Trade Capture Staff	8%	6%	16%	7%	8%	12%	3%	6%	6%	7%	8%	14%
Confirmation Staff	19%	15%	48%	17%	15%	50%	13%	11%	36%	20%	22%	45%
Settlement Staff	22%	19%	52%	17%	18%	59%	15%	17%	43%	19%	28%	54%

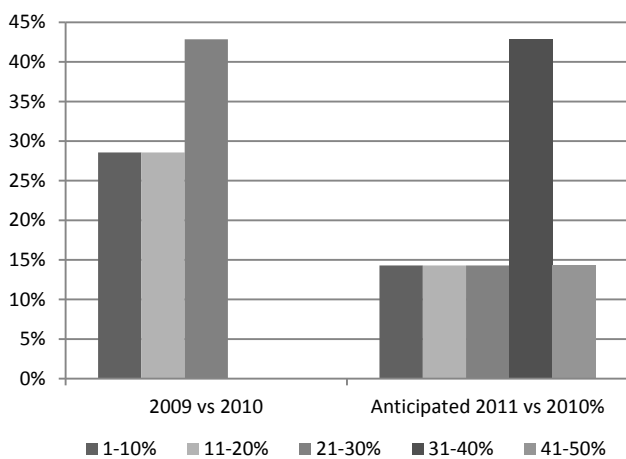
SECTION 7 – INDUSTRY INITIATIVES

Table 7.1
Project portfolio allocation for industry initiatives

	All	G14	Large	Medium	Small
% of your anticipated 2011 Project Portfolio related (directly or indirectly) to meeting Industry Initiatives	31%	40%	40%	27%	27%
Full-Time Equivalents dedicated to support Industry Initiatives in 2010	8	25	23	4	3
Full-Time Equivalents dedicated to support Industry Initiatives in 2011 (<i>projected</i>)	14	39	37	7	6

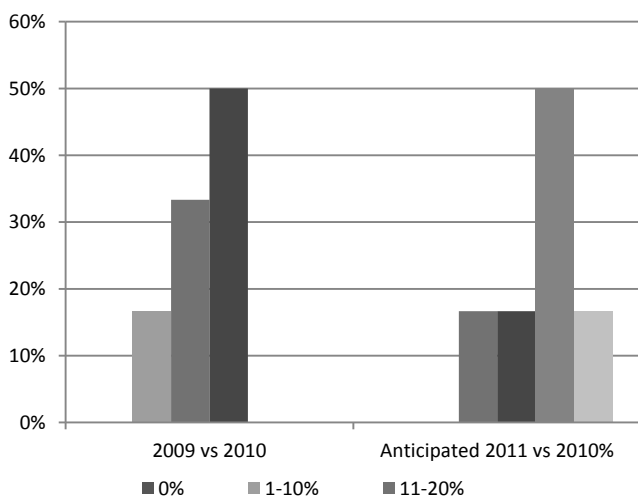
Chart 7.1
Project Expenditure for industry initiatives

Large



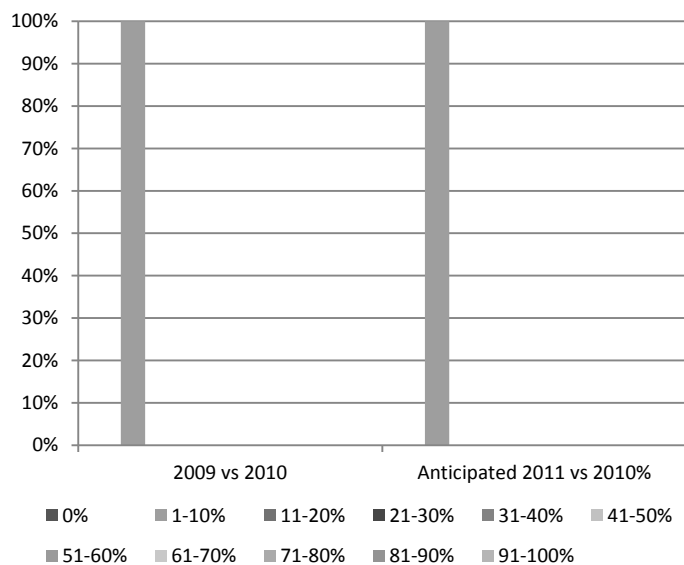
2009 v 2010		2011 v 2010	
Increased Budget	Decreased	Increased Budget	Decreased
91%	9%	100%	0%

G14



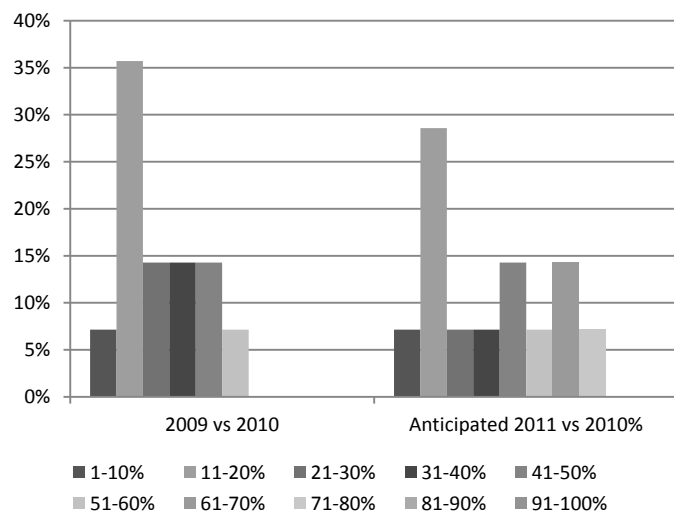
2009 v 2010		2011 v 2010	
Increased Budget	Decreased	Increased Budget	Decreased
90%	10%	100%	0%

Medium



2009 v 2010		2011 v 2010	
Increased Budget	Decreased	Increased Budget	Decreased
100%	0%	100%	0%

Small



2009 v 2010		2011 v 2010	
Increased Budget	Decreased	Increased Budget	Decreased
100%	0%	100%	0%

Table 7.2

Methods used by firms to track new Industry Initiatives and Regulatory Compliance

	All	G14	Large	Medium	Small
Yes we have a team that is responsible	83%	91%	92%	100%	70%
Yes there is an individual product expert responsible for this	0%	0%	0%	0%	0%
No	18%	9%	8%	0%	30%

APPENDIX 1 – 2011 SURVEY PARTICIPANTS

AEGON USA Investment Management, LLC
AUSTRALIA AND NEW ZEALAND BANKING GROUP
Banco Bilbao Vizcaya Argentaria, S.A
Banco Itau BBA S/A Nassau Branch
Banco Santander
Bank of America Merrill Lynch
Bank of Montreal
Barclays Capital
BayernLB
BHF-BANK Aktiengesellschaft
BNP Paribas
BP
Caisse de depot et placement du Quebec
Česká spořitelna a.s.
Cheyne Capital (UK) LLP
Citi
Commerzbank AG
Commonwealth Bank of Australia
Credit Suisse
Daiwa Securities Capital Markets Co. Ltd.
Danske Bank
DBS Bank Ltd
Deutsche Bank
DnB NOR Bank ASA
DZ BANK AG Deutsche Zentral-Genossenschaftsbank
Eksportfinans ASA
Generali Investment Italy SGR
Goldman Sachs
HBOS
HSBC
J.P.Morgan
KBC Bank NV
Kiwibank Limited
Landesbank Baden-Wuerttemberg
LTSB
Mizuho Capital Markets Corp
Mizuho Corporate Bank, Ltd.
Morgan Stanley
National Bank of Canada
NATIONAL BANK OF GREECE SA
NIBC Bank NV
Nomura
NORD/LB Hannover
Nordea Bank A/B
Northern Trust
Northern Trust Custodian
PNC Bank, N.A.
Prudential Global Funding LLC
PSEG Energy Resources & Trade LLC
Royal Bank of Canada
Royal Bank of Scotland
Scotiabank
SEB
Shell
Societe Generale
Sumitomo Trust & Banking Co., Ltd.
SunTrust Bank
Svenska Handelsbanken AB (publ)
The Chuo Mitsui Trust and Banking Company, Limited
The Norinchukin Bank
UBS
Wells Fargo Bank, N.A.
Westpac Banking Corporation
Zurcher Kantonalbank
TD Bank
Rabobank

APPENDIX 2 – DEFINITIONS OF TERMS USED IN 2011 SURVEY QUESTIONNAIRE

Affirmation

The process by which two counterparties verify that they agree the primary economics of a trade. The affirmation process may be done by telephone, voice recording, email or electronic checkout platform. For the purposes of Q13 and Q14 of this survey, platforms offering 'affirmation' services, e.g. MarkitWire, are not included.

Backloaded

The process of inputting existing outstanding OTC transactions into a trade repository/warehouse or CCP.

CCP

Central Counterparty; See Definition of Clearing House.

Cleared (Trade)

Derivative products cleared centrally by a CCP. Cleared Trades may be transacted bilaterally and then transferred (or novated) to a CCP or booked directly with the CCP. Responses should include any trades that were done via a broker.

Cleared Event Volume

Event volume that is cleared by a CCP.

Clearing

See Clearing Eligible.

Clearing Eligible

The transaction is of a type that is currently cleared by a CCP such as LCH, ICE, CME, or other clearing organization.

Clearing House

A clearing house is a financial institution that provides clearing and settlement services for financial and commodities derivatives and securities transactions. These transactions may be executed on a futures exchange or securities exchange, as well as off-exchange in the over-the-counter (OTC) markets.

Clearing Initiatives

Industry Initiatives pertinent to OTC Clearing.

Clearing Provider (Dealer Banks)

Service offering from sell-side firms offering securities clearing, custody, order execution, settlement, and lending services to traders, hedge fund managers, broker-dealers, and investment advisors. Service might also provide operational and administrative services for registered broker dealers.

Commodity Derivatives

OTC derivative products that are swaps, forwards, or options in which the underlying variable is a commodity price, basket of commodity prices, or commodity price index. Common underlying commodities include precious and base metals, crude oil and other petroleum products, natural gas, electric power, freight rates, and weather. Do not include exchange-traded (listed) commodity derivatives.

Confirmation Staff

All employees involved in the confirmation of OTC derivatives trades, including drafting outgoing confirmations, chasing and reviewing incoming confirmations, investigating and reconciling confirmation discrepancies and conducting the affirmation of key economic trade details.

Confirmations Matching

Process of reconciling the terms of a transaction as confirmed by each counterparty, either manually or on an electronic platform such as DTCC or Markitwire.

Credit Derivatives

An over the counter (OTC) financial derivative instrument that enables the isolation and separate transfer of credit risk. For purposes of this survey, Credit Derivatives include but are not limited to credit default swaps(CDS), total return swaps, credit linked notes, and credit spread forwards and options. Underlying credits include single corporate or sovereign names, baskets, portfolios, credit indices, and obligations (and indices of obligations) such as asset backed securities(ABS), collateralized debt obligations(CDO) and leveraged loans.

Custom in-house build

Bespoke solutions developed in-house specifically for own firms.

Dodd-Frank

Dodd-Frank Regulatory Reform Bill <http://www.gpo.gov/fdsys/pkg/PLAW-111publ203/content-detail.html>.

Electronic Confirmation

The process by which derivative post-trade processes are automated. Confirmations are submitted to an electronic platform for matching. E.g. Markitwire, DTCC, Swift.

Electronically Confirmed

See Electronic Confirmation.

Electronically Eligible

Transactions that are eligible for matching on an industry recognised platform e.g. DTCC, MarkitWire.

EMIR

European Market Infrastructure Regulation http://ec.europa.eu/internal_market/financial-markets/derivatives/index_en.htm.

Equity Derivatives

OTC derivative products with payments linked to the performance of equities or equity indices. For the purposes of this survey, Equity Derivatives include but are not limited to; share and index swaps and options, equity forwards, equity options, equity linked notes, relative performance trades, correlation swaps, dividend swaps and options, and variance swaps and options. Do not include exchange traded(listed) equity derivatives.

Event Volume

Number of events relating to OTC derivatives trades sent to Operations for processing during the period. The following constitute 'events' for the purpose of this Survey: new trades, confirmable amendments (i.e. any economic amendment that requires a new confirmation to be drafted), partial

and full terminations, increases/decreases and novations. Exclude (i) all internal, intra-company and intra-group trades, (ii) terminations and partial terminations arising from Tri-Optima or other tear-up services and (iii) one-way notices such as corporate action notices. One structure should be reported as one trade irrespective of the number of tickets. Prime broker activity or intermediation should be reported as two trades. Allocation splits should be reported as the number of funds to which a block trade is allocated.

Failed Payments

Payments your firm has requested an Agent to action on your behalf but for various reasons the Agent has not been able to action the payment OR SWIFT message you have sent to your Agent which have failed. For the purpose of this Survey, the transfer of money is to be considered a payment.

FCM Service Provider

FCM is a firm that transacts futures and options business on behalf of institutions and the general public.

Front Office Staff

All employees entering into OTC derivatives trades housed on front office payroll, including: traders, marketers, sales, trade assistants, structurers and business managers, including staff allocated to a proprietary desk if the activity handled by such a desk is otherwise reported within this Survey. Where resources are shared across different business lines, e.g. one trade assistant for credit derivatives and interest rate trades, please allocate the appropriate percentage share of resource.

Full Time Equivalent

Percentage of time an employee (whether permanent, temporary or contractor) works represented as a decimal, e.g. a full-time person is 1.0, a person working 3 days per week is 0.6 and a person dedicating 50% of his/her time to the relevant activity is 0.5.

G14 Firms

Group of 14 major derivatives dealers. [BAML, Barclays Capital, BNP Paribas, Credit Suisse, Citi, Deutsche Bank, HSBC, Goldman Sachs, JP Morgan, Morgan Stanley, Societe Generale, Royal Bank of Scotland, UBS, Wells Fargo-Wachovia].

Industry Initiatives

Projects resulting from a drive to implement industry best practice or process improvements.

Interest Rates Derivatives

OTC derivative products that involve the exchange of cash flows calculated on a notional amount using specified interest rates. For the purposes of this Survey, Interest Rate Derivatives include but are not limited to: interest rate swaps, including cross-currency swaps, forward rate agreements (FRA) and interest rate options such as caps/floors, collars, swaptions, inflation swaps, and exotic options. Do not include exchange-traded (listed) interest rate derivatives.

KYC (Documentation)

Documents required to ensure that 'Know Your Client' requirements are adequately fulfilled.

Low Cost Location

Location selected for its lower operating cost (includes onshore and offshore locations).

Margin Amounts

The sum of money which must be deposited, and maintained, in order to provide protection against default by a counterparty to a trade.

Mutual Early Termination

A bilaterally agreed clause that allows both counterparties to a transaction to terminate the trade early under certain defined circumstances.

Non Electronic Confirmation

Confirmation not included in the definition of Electronic Confirmation, i.e., not submitted to an electronic platform for matching.

Nostro Break

A mismatch of cashflows between the paying and receiving banks, which occurs when the expected amount of cash settlement differs from the actual amount.

Nostro Reconciliation

The process performed to ensure that the expected cash movements of a transaction (or multiple transactions) are reconciled with the actual cash movements effected.

Outsourced

Refers to the contracting out to an external service provider of activities that could be performed within a company.

Outstanding Confirmations

Total number of Electronic and Non-Electronic Confirmations not fully executed as at month end. Includes confirmations not yet drafted or issued, confirmations drafted but not yet issued, confirmations not yet received (where the counterparty is expected to draft the confirmations), confirmations issued but not yet returned and confirmations with open queries.

Pre-packaged software

An application program developed for sale to the general public(Off-the-Shelf) - Not customized or tailored for individual firms.

Project Portfolio

Series of projects organized into a single portfolio that describes project objectives, costs, timelines, accomplishments, resources, and risks.

Regional CCPs

CCPs that function solely for products currencies traded in particular region of operation.

Regulatory Compliance

Regulatory compliance describes the evolving best practise in firms to comply with relevant laws, regulations and industry commitments.

Reporting Period

The data submitted should relate to the period from 1 January 2010 to 31 December 2010.

Settlement Staff

All employees performing settlement functions, including prematching, investigation and reconciliation of settlement fails and breaks (including Nostro breaks).

Settlements

For the purpose of Question 21 of the Survey, this number should represent the gross number of settlements (both payments and receipts) before applying any netting (pre-netted settlements).

Settlements Pre-Matching

Process of matching payments via an electronic platform such as DTCC, in which counterparties can bilaterally match payments in advance of a settlement date.

SSI

Standard Settlement Instructions for derivative transactions. SSIs outline the bank account details of legal entities for specific currencies and / or products.

Straight Through Processing / STP

The end-to-end processing of automated data without manual intervention.

Third Party Administrator

Used by Buy-side funds, Third-Party Administrators (TPAs) to handle middle and back-office functions. TPAs also use third parties to provide independent valuations for trades, including OTC portfolios and clearing advisory.

Trade Capture Staff

All employees whose primary function is to book, amend and blotter all trade events into trade capture and operations systems. Additional responsibilities may include liaising with the Front and Back Office to investigate queries and Unrecognised Trades, static data maintenance, options exercise and expiry monitoring, and calculating coupon and fee payments.

Unrecognised Trade

Transaction that cannot be identified by the alleged counterparty to the trade.