# The Money Market Liaison Committee Sterling Money Market Survey

Survey results | 2016 H1





**BANK OF ENGLAND** 

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The Sterling Money Market Survey is conducted by the Bank of England on a biannual basis, on behalf of the Money Market Liaison Committee (MMLC). Established in 1999, the MMLC comprises representatives from market participants, trade associations and the authorities, and provides a forum for discussion of structural issues in the money market.

The sterling money market brings together banks, other financial institutions and non-financial companies looking to borrow or lend money, and enables them to manage their liquidity. Transactions can be secured or unsecured and include deposits, loans, repo and the sale and purchase of tradable financial instruments such as commercial paper (CP) and certificates of deposit (CDs). The market plays a central role in the Bank's pursuit of its monetary and financial stability policy objectives, and is the market in which the Bank implements the interest rate decisions of the Monetary Policy Committee and provides liquidity insurance to the banking system.

The Money Market Survey gathers quantitative and qualitative information on developments in the sterling money market. Launched in May 2011, it adds to existing data sources available for different segments of the market and supplements the Bank's market intelligence. It complements similar surveys conducted by other central banks. Over time, the survey is intended to increase public understanding of the sterling money market, identify emerging trends, and help policymakers assess the impact of their actions on the behaviour of market participants. This report presents the data from the survey and provides a brief commentary.

The survey sample comprises 37 commercial banks, building societies and investment banks active in the sterling money market. The list of participants is detailed in the annex. Selection is based on the scale of institutions' involvement in the sterling money market and is kept under active review.

Additional background information on the survey can be found in the 2011 Q3 *Quarterly Bulletin article*, 'The Money Market Liaison Group Sterling Money Market Survey'.

The 2016 H1 report covers sterling money market transactions that took place during May 2016. The 2015 H2 report can be found at: www.bankofengland.co.uk/publications/Documents/other/markets /mmlc/smms2015h2.pdf.

This report is available on the Bank's website, along with copies of the questionnaire and data tables from the annex in Excel format, at www.bankofengland.co.uk/publications/Pages/other/mmlg/ default.aspx.

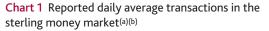
Detail on data definitions and interpretation is included alongside the data tables in the annex.

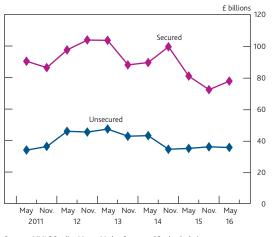
# The Money Market Liaison Committee Sterling Money Market Survey

The 2016 H1 report covers sterling money market transactions that took place during May 2016. The total value of sterling money market transactions rose 5% since the previous survey in November 2015. Secured activity rose 7% and made up 69% of total reported transactions, while unsecured activity remained broadly stable. The majority of both secured and unsecured activity continued to be carried out at overnight maturities. The share of turnover at overnight maturity fell relative to November 2015, with the share increasing in all longer maturity buckets. Perceptions of the functioning of the unsecured sterling money market continued to improve, while perceptions of liquidity in the secured market also improved but were deemed negative overall.

#### The overall sterling money market

The total value of average daily flows in the sterling money market rose 5% since November 2015. There was a 7% increase in secured turnover relative to the previous survey, while unsecured fell by 1% (Chart 1). Secured transactions constituted 69% of overall money market turnover, a slight increase from the previous survey.



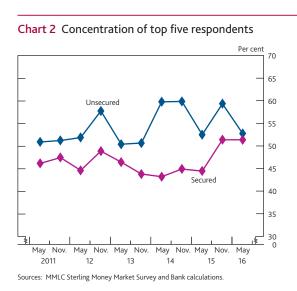


Sources: MMLC Sterling Money Market Survey and Bank calculations.

(a) Daily average flows are reported as the value of sterling money market transactions in the survey month divided by the number of working days during that period.
(b) The calculation adjusts for the double counting of matched interbank borrowing and lending

flows. See note v in the data annex for more detail.

Activity in the sterling money market continued to be relatively concentrated. The top five survey respondents in both the secured and unsecured market continued to account for over half of turnover. The concentration in the unsecured market fell relative to the previous survey, while the concentration of the secured market was unchanged (Chart 2).

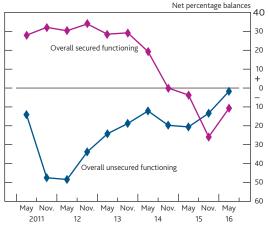


Overall, perceptions of secured market functioning have improved since the previous survey, although the market was still deemed to be functioning poorly in May 2016 (Chart 3). Respondents reported that unsecured market functioning had continued to improve and was neutral on balance for the first time since the surveys introduction in May 2011. Some contacts noted the market had continued to function reasonably well during periods of stress in the wider financial markets, such as the sharp Chinese equity price falls in early 2016, which may have improved perceptions of market functioning. But other contacts cautioned that this may not reflect a genuine improvement in market functioning but rather an acceptance that poor levels of market functioning seen in recent years may be the 'new normal'.

#### The secured sterling money market

Since the November 2015 MMLC survey — where secured activity was lower than reported in any previous survey — secured activity increased slightly, but remained below the

## Chart 3 Respondents' views of overall market functioning<sup>(a)</sup>



Sources: MMLC Sterling Money Market Survey and Bank calculations.

(a) 'Net percentage balance' is calculated as the difference between the balance of lenders reporting that, on a scale of 1–5, the market was functioning very poorly (1) to very well (5). The net percentage balances are scaled to lie between ±100: more extreme responses (1 and 5) attract a weight of 100%, less extreme responses (2 and 4) attract a weight of 50% and central responses (3) attract a weight of zero.

levels reported in earlier surveys (**Chart 1**).<sup>(1)</sup> Contacts did not think the increase in activity reflected underlying conditions and may be due to seasonal factors, such as the proximity to year end in the November 2015 survey. Overall, contacts noted continued pressure to reduce balance sheet size due to regulatory reporting requirements, such as the leverage ratio. These pressures were binding for a number of reporters, and extended beyond just end month reporting dates. There were expectations that this would continue to evolve, with some commenting that the cost of the Net Stable Funding Ratio (NSFR) was continuing to be passed through into repo pricing, and would make repo less attractive in future.

In May 2016, the majority of secured borrowing turnover took place at an overnight maturity (Chart 4), although the share had fallen, compared to the previous survey, to 67%. The share in longer maturity buckets increased, most notably the share at two days to two weeks' maturity, which more than doubled from 5% to 11% of turnover. Contacts thought this trend was likely to be temporary, and may have been partly driven by uncertainty in the run up to the EU referendum.

There was no notable change in the proportion of secured borrowing or lending taking place via central counterparties (CCPs), bilaterally or via tri-party repo (**Chart 5**).

Consistent with previous surveys, over 90% of secured transactions were collateralised by UK government debt in May 2016. This proportion was little changed when compared to previous surveys.

While participants reported a slight improvement in overall secured market functioning, most individual indicators of market functioning were deemed to have deteriorated further,

#### Chart 4 Maturity of secured transactions

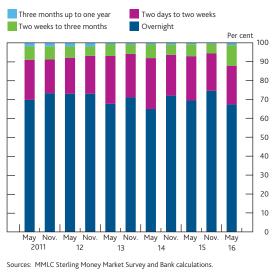


Chart 5 Distribution of secured transaction types<sup>(a)</sup>



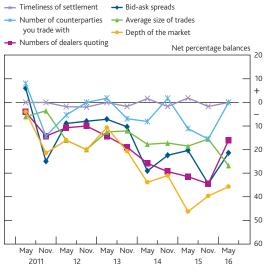
(a) All transactions via CCPs are assumed to be interbank. Other interbank transactions are captured as a subset of bilateral and tri-party transactions. See Table A5 of data annex for more detail

albeit at a slower pace, when compared to previous surveys (Charts 3 and 6). Respondents reported less market depth, wider bid-ask spreads, smaller average trade size and fewer dealers quoting. Of these indicators, only average trade size was deemed to have deteriorated at a faster pace than in the six months to the November 2015 survey, while timeliness of settlement and number of counterparties traded with were both reported to be unchanged. Consistent with previous surveys, respondents reported liquidity conditions were worse at longer maturities. This decline in liquidity was perhaps reflected in the widening of bid-ask spreads. The reported widening of bid-offer spreads may have made repo activity more attractive to banks with some balance sheet capacity. This may be consistent with the slight increase in headline

Although, the number of respondents has increased since the inaugural survey there were 33 participants in May 2011 and 37 in the current survey.

secured turnover, although contacts cautioned that the impact was likely to be small.

## Chart 6 Change in secured market functioning indicators<sup>(a)</sup>



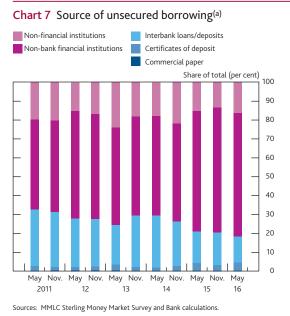
Sources: MMLC Sterling Money Market Survey and Bank calculations

#### The unsecured sterling money market

The value of unsecured transactions fell 1% compared to the value reported in the previous survey (**Chart 1**). Despite small headline changes in activity, the composition of participants in the unsecured money market was thought to have changed in recent years, as banks less constrained by the leverage ratio became relatively more active in the market.

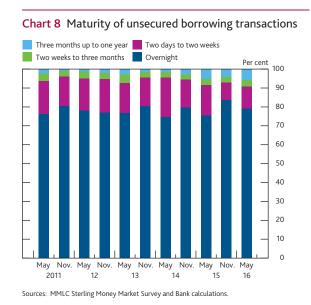
The vast majority (97%) of unsecured activity reported in the survey is borrowing, unchanged from the previous survey. Although unsecured lending turnover rose in May 2016 it averaged around £1 billion a day, having been nearly £5 billion in the inaugural May 2011 MMLC survey. This trend may be driven in part by wider access to Bank of England facilities and reserves accounts, meaning more survey respondents have the option to deposit at the Bank of England, rather than lend to other banks who already had a reserves account.

The share of unsecured borrowing sourced from non-bank financial institutions was broadly unchanged at two-thirds (Chart 7). The share from non-financial institutions increased from 13% to 16%, and the share of interbank deposits decreased to 14%, from 17% in November 2015. The amount of Certificates of Deposits (CDs) issued by survey respondents increased slightly to 5%. Contacts thought this reflected increased demand for CDs from banks' clients relative to earlier survey periods.



(a) Chart shows borrowing by reporting institutions from bank and non-bank institutions.

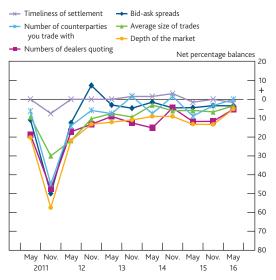
The overnight share of unsecured borrowing in overall unsecured market turnover fell to 79% in May 2016 from 84% in the previous survey. The share of unsecured borrowing in all three term maturity buckets increased when compared to the November 2015 survey results. While the share of turnover at maturities between two days and two weeks, and two weeks and three months remained smaller than in earlier surveys, the share of turnover at three months or longer has more than doubled from early surveys and accounted for 6% of turnover in May 2016 (Chart 8). As for secured market, contacts thought this development was likely to be temporary, again citing uncertainty in the run up to the EU referendum.



Overall perceptions of unsecured market functioning were neutral on balance, having been poor in every previous survey (Chart 3). Individual indicators of unsecured market

<sup>(</sup>a) 'Net percentage balance' is calculated as the difference between the balance of lenders reporting that, on a scale of 1–5, the market was functioning much worse than six months ago (1) to much better than six months ago (5). A negative balance reflects worsening conditions when compared to six months ago. The net percentage balances are scaled to lie between ±100: more extreme responses (1 and 5) attract a weight of 100%, less extreme responses (2 and 4) attract a weight of 50% and central responses (3) attract a weight of zero.

## Chart 9 Change in unsecured market functioning indicators<sup>(a)</sup>



Sources: MMLC Sterling Money Market Survey and Bank calculations

(a) 'Net percentage balance' is calculated as the difference between the balance of lenders reporting that, on a scale of 1–5, the market was functioning much worse than six months ago (1) to much better than six months ago (5). A negative balance reflects worsening conditions when compared to six months ago. The net percentage balances are scaled to lie between ±100: more extreme responses (1 and 5) attract a weight of 100%, less extreme responses (2 and 4) attract a weight of 50% and central responses (3) attract a weight of zero.

functioning were broadly unchanged since the last survey (Chart 9).

Since May 2013, survey participants have been asked how the number of banks to which they apply credit limits in the unsecured market has changed since the previous survey. Seventy four per cent of respondents reported that there had been no further change in the number of credit limits set in the past six months, which is a slightly lower proportion than in the previous survey. A small minority reported a further modest fall, while as in the previous three surveys, no respondents reported that the number of credit limits were 'much lower'.

# Future of the MMLC Survey report and the Sterling Money Market data collection

In 2015, the Bank announced the introduction of the Sterling Money Markets (SMM) data collection. The H2 2015 Survey report outlined that the Bank's formal SMM data collection will succeed the data presented in this Survey, in order to avoid duplication.

Moreover, taken together, the Sterling Money Markets data collection gives the Bank access to a broader, richer and more timely set of information related to activity in the sterling money markets.

The Bank will share detailed insights and analysis of these data in a more targeted manner than can be achieved by the publication of this semi-annual Survey. Instead, we will do so through the Bank's usual communication channels, such as the *Quarterly Bulletin*, the *Sterling Monetary Framework Annual Report*, or the *Bank Underground* blog. As a result, this 2016 May MMLC Sterling Money Market Survey report is the last to be published.

The Bank will also maintain the time series of those data presented in the semi-annual Money Market Survey within the Bank's interactive database, using the Sterling Money Markets data collection to the extent it is feasible to do so. In addition, a new set of time series will also be published based on the new data collected. A *Bankstats* article containing details of these time series will be published in due course.

### Notes to annexes

- i. The survey sample comprises 37 commercial banks, building societies and investment banks that are active in the sterling money market. The list of participants is detailed in Annex C. The MMLC Survey reporting population will be aligned with the SMMD reporting population from November 2016.
- ii. Sterling money market transactions are defined as wholesale borrowing and lending of a maturity no longer than one year. Non-sterling and intra-group trades are excluded.
- iii. Participants are asked to exclude trades with the Bank of England but, from May 2012, to include transactions with the UK Debt Management Office (DMO). This change was based on feedback from survey participants that suggested they may not be able to identify the ultimate counterparty to transactions made in the secured market via a central counterparty when using an automated trading system. So, to the extent that such transactions included those with the DMO, survey respondents may not have been able to exclude them. For more details on the DMO's money market activity see www.dmo.gov.uk.
- iv. Borrowing and lending figures are not equal because the survey only captures the survey participants' side of each transaction. In common with other central banks' money market surveys, there are likely a number of lenders who do not participate in the survey, and whose lending therefore is not captured in the survey lending figures, but is nonetheless captured in survey participants' borrowing returns. In particular, this affects the MMLC survey interbank data, yielding a discrepancy whereby interbank borrowing is larger than interbank lending. Discussions with a subgroup of survey participants indicate that this is likely to be because the survey sample excludes a range of, particularly foreign-based, banks that are regular net lenders.
- v. Reported daily average transactions in the sterling money market (**Table A1** and **Chart 1**) are calculated by adjusting for the double counting of matched interbank borrowing and lending flows (double counting occurs because respondents are asked to record both borrowing and lending, so the same transaction appears as lending in one participant's return and as borrowing in another). The calculations are as follows:
  - Secured transactions: secured borrowing (Table A2) + secured lending (Table A2) secured interbank lending (CCP and interbank excluding CCP, Table A5)
  - Unsecured transactions: unsecured borrowing + unsecured lending unsecured interbank lending (Table A7).

## Annex A: Data tables for quantitative survey questions

	,	0		0 , (					'			
		20	2011		2012		2013		14	2015		2016
		May	Nov.	May	Nov.	May	Nov.	May	Nov.	May	Nov.	May
Unsecured		34	36	46	45	47	43	43	34	35	36	36
Secured		90	86	98	104	104	88	89	100	81	72	78

#### Table A1: Reported daily average transactions in the sterling money market (£ billions)<sup>(a)</sup>

#### Table A2: Borrowing and lending (daily averages, £ billions)<sup>(b)</sup>

	2011		20	2012		2013		2014		2015	
	May	Nov.	May	Nov.	May	Nov.	May	Nov.	May	Nov.	May
Unsecured borrowing	34	37	45	45	47	42	43	34	34	36	35
Unsecured lending	5	4	4	3	3	2	2	2	2	1	1
Secured borrowing	78	75	85	90	88	72	74	81	68	59	66
Secured lending	57	63	66	60	65	51	51	62	50	42	40

#### Table A3: Average borrowing and lending transaction size (£ millions)

	2011		2012		2013		2014		2015		2016
	May	Nov.	May								
Unsecured borrowing	19	21	25	16	28	30	29	24	22	33	29
Unsecured lending	54	53	39	22	43	19	22	15	10	46	50
Secured borrowing	39	44	43	36	32	36	26	35	27	34	36
Secured lending	28	31	34	16	17	26	26	31	31	25	25

(a) Reported daily average transactions in the sterling money market (Table A1 and Chart 1) are calculated by adjusting for the double counting of matched interbank borrowing and lending flows (double counting occurs because respondents are asked to record both borrowing and lending, so the same transaction appears as lending in one participant's return and as borrowing in another). The calculations are as follows: secured transactions: secured borrowing (Table A2) + secured lending (Table A2) – secured interbank lending (CCP and interbank excluding CCP, Table A5); unsecured transactions: unsecured borrowing + unsecured lending – unsecured interbank lending (Table A7).

(b) Borrowing and lending do not sum to the totals in Table A1. This is because the totals in Table A1 are adjusted for the double counting of matched interbank borrowing and lending.

#### Table A4: Maturity distribution of borrowing and lending (per cent)

				2	2011							
		М	1ay		Nov.							
	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year	Overnight	Two days to two weeks		Three months up to one year				
Unsecured borrowing	76	17	4	2	80	16	3	1				
Unsecured lending	79	12	7	1	81	12	6	1				
Secured borrowing	69	21	7	2	74	18	7	2				
Secured lending	cured lending 68 19		10	2	76	16	6	2				

		2012												
		٢	1ay		Nov.									
	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year						
Unsecured borrowing	78	17	4	1	77	18	3	2						
Unsecured lending	72	20	6	2	63	24	8	5						
Secured borrowing	73	19	6	2	73	20	5	2						
Secured lending	71	20	7	2	69	20	9	2						

		2013													
		M	1ay		Nov.										
	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year							
Unsecured borrowing	77	16	4	3	81	15	3	1							
Unsecured lending	80	14	3	3	78	14	5	4							
Secured borrowing	67	25	6	1	71	23	5	1							
Secured lending	69	23	7	2	70	22	6	2							

		2014													
		Ν	1ay		Nov.										
	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year							
Unsecured borrowing	75	21	3	2	80	15	3	3							
Unsecured lending	77	15	4	4	68	26	4	2							
Secured borrowing	65	27	7	1	72	22	5	1							
Secured lending	63	27	8	2	69	21	8	2							

		2015													
		٢	1ay		Nov.										
	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year							
Unsecured borrowing	75	16	3	5	84	9	3	4							
Unsecured lending	53	18	14	15	74	15	6	6							
Secured borrowing	69	23	6	1	75	20	5	1							
Secured lending	64	25	8	2	71	21	7	2							

		20	016	
		٢	1ay	
	Overnight	Two days to two weeks	Two weeks to three months	Three months up to one year
Unsecured borrowing	79	11	4	6
Unsecured lending	57	35	4	4
Secured borrowing	67	20	11	1
Secured lending	64	24	8	4

8

### Table A5: Distribution of secured borrowing and lending by type of transaction (per cent)

		20	011			20	12		2013			
_	٢	1ay	Nov.		May		Nov.		May		Nov.	
	Borrowing	Lending										
Tri-party	10	1	5	3	8	5	7	2	7	2	7	2
Bilateral	40	33	43	36	46	31	42	37	48	38	58	46
Central counterparty (CCP	)* 50	66	53	61	46	64	51	61	45	60	35	53
Interbank excluding CCP	18	14	23	20	22	16	16	17	18	16	17	16

		20	)14			20		2016		
-	Ν	1ay	Nov.		М	ау	N	OV.	May	
-	Borrowing	Lending	Borrowing	Lending	Borrowing	Lending	Borrowing	Lending	Borrowing	Lending
Tri-party	6	3	6	5	5	6	3	1	4	1
Bilateral	52	35	48	33	53	32	49	40	49	40
Central counterparty (CCP	<i>)</i> * 42	62	46	62	42	63	47	59	47	59
Interbank excluding CCP	14	9	11	8	16	12	11	12	12	13

 $\ast\,$  All transactions via CCP are assumed to be interbank.

#### Table A6: Distribution of secured borrowing and lending by type of collateral (per cent)

		20	011		2012				2013				
	M	May		Nov.		May		Nov.		May		Nov.	
	Borrowing	Lending											
UK government debt and Bank bills	82	78	87	95	89	90	90	93	93	95	94	96	
Other sovereign and central bank debt from selected issuers	5	2	9	2	8	5	5	5	2	1	2	0	
Other securities	13	20	4	3	3	5	5	2	5	4	4	4	

		20	)14			20	15		20	16
	Μ	lay	No	ov.	Μ	ay	Ν	ov.	М	ау
	Borrowing	Lending								
UK government debt and Bank bills	96	95	92	95	94	88	92	91	92	90
Other sovereign and central bank debt from selected issuers	1	0	1	0	1	3	1	4	0	4
Other securities	2	4	7	5	5	8	7	5	8	6

### Table A7: Source/destination of unsecured borrowing and lending (per cent)

		20	011			20	12			20	)13	
	M	1ay	No	DV.	М	ay	N	OV.	M	ay	N	ov.
	Borrowing	Lending										
Non-financial institutions	20	3	20	1	15	2	17	6	24	4	18	7
Other financial institution	s 47	5	48	9	57	8	55	6	51	7	52	7
Interbank:												
Interbank loans/deposits	30	85	29	85	25	82	25	81	21	81	27	82
Certificates of deposit	2	1	2	1	2	2	2	1	3	4	2	2
Commercial paper	0	6	0	4	1	6	0	6	0	5	0	2

		20	)14			20	15		20	)16
	М	ay	No	ov.	М	ау	N	OV.	M	ау
	Borrowing	Lending								
Non-financial institutions	18	7	22	6	15	2	13	12	16	13
Other financial institution	is 53	7	52	9	64	13	66	25	65	22
Interbank:										
Interbank loans/deposits	27	81	24	74	17	52	17	60	14	61
Certificates of deposit	2	0	2	2	4	25	3	3	5	1
Commercial paper	0	3	0	9	0	8	0	0	0	3

## Annex B: Data tables for qualitative survey questions

	20	11	20	)12	20	013	20	)14	20	15	2016
	May	Nov.	May								
1 (very poor)	0	0	0	0	0	0	0	0	4	7	0
2	4	0	11	4	7	14	16	31	30	52	36
3	40	36	25	44	43	28	39	41	37	28	50
4	52	64	57	32	36	45	35	24	30	14	14
5 (very good)	4	0	7	20	14	14	10	4	0	0	0

#### Table B1: Respondents' views of secured market functioning (per cent)

#### Table B2: Respondents' views of unsecured market functioning (per cent)

	20	)11	20	)12	20	13	20	)14	20	015	2016
	May	Nov.	May								
1 (very poor)	3	45	31	21	15	9	9	6	6	3	7
2	41	15	38	32	27	28	24	39	41	37	17
3	41	30	28	41	48	53	48	43	41	43	48
4	13	10	3	6	9	9	18	12	12	17	28
5 (very good)	3	0	0	0	0	0	0	0	0	0	0

#### Table B3: Change in secured market functioning indicators during previous six months (per cent)

0		0		01											
			2011							20	)12				
			Nov.					May					Nov.		
	Better S	lightly better		lightly worse	Worse	Better S	lightly better	Same S	lightly worse	Worse	Better S	lightly better	Same S	lightly worse	Worse
Bid-ask spreads	0	7	43	43	7	0	7	71	18	4	0	4	76	20	0
Number of dealers quoting	0	0	71	29	0	0	4	75	18	4	0	0	80	20	0
Average size of trades	0	14	64	21	0	0	11	46	43	0	0	4	56	36	4
Timeliness of settlement	0	0	100	0	0	0	4	89	7	0	0	0	96	4	0
Number of counterparties you trade with	0	0	71	29	0	0	11	68	21	0	0	12	76	12	0
Depth of the market	0	7	57	21	14	0	11	54	29	7	0	4	56	36	4

					20	13							2014		
			May					Nov.					May		
	Better Sl	ightly better	Same S	lightly worse	Worse	Better Sl	ightly better		lightly worse	Worse	Better	Slightly better	Same	Slightly worse	Worse
Bid-ask spreads	0	4	82	11	4	0	3	76	17	3	0	3	42	48	6
Number of dealers quoting	0	0	75	21	4	0	0	66	31	3	0	0	55	39	6
Average size of trades	0	7	64	25	4	0	3	72	21	3	0	10	45	45	0
Timeliness of settlement	0	0	100	0	0	0	0	97	3	0	0	3	97	0	0
Number of counterparties you trade with	0	21	64	11	4	0	10	69	17	3	0	10	65	26	0
Depth of the market	0	4	75	18	4	0	3	59	31	7	0	6	42	29	23

			2014							20	15				
			Nov.					May					Nov.		
	Better Sl	ightly Detter	Same S	lightly worse	Worse		ightly better		lightly worse	Worse	Better S	Slightly better	Same S	Slightly worse	Worse
Bid-ask spreads	0	7	41	52	0	4	4	41	52	0	0	3	31	59	7
Number of dealers quoting	0	0	48	45	7	0	0	48	41	11	0	0	31	69	0
Average size of trades	0	3	59	38	0	0	7	52	37	4	0	3	62	34	0
Timeliness of settlement	0	0	97	3	0	0	4	96	0	0	0	0	97	3	0
Number of counterparties you trade with	0	17	69	14	0	0	11	59	26	4	0	7	55	38	0
Depth of the market	0	4	41	45	10	0	0	22	63	15	0	0	28	66	7

			2016		
			May		
	Better S	ightly better	Same S	lightly worse	Worse
Bid-ask spreads	0	7	46	43	4
Number of dealers quoting	0	4	64	29	4
Average size of trades	0	0	50	46	4
Timeliness of settlement	0	0	100	0	0
Number of counterparties you trade with	0	14	71	14	0
Depth of the market	0	0	36	57	7

#### Table B4: Change in unsecured market functioning indicators during previous six months (per cent)

		2011							20	12				
		Nov.					May					Nov.		
				Worse					Worse	Better S	Slightly better	Same S	lightly worse	Worse
0	0	30	40	30	0	6	63	31	0	6	21	62	6	6
0	0	25	55	20	0	3	59	38	0	0	6	68	21	6
0	10	35	40	15	0	3	53	41	3	0	6	74	15	6
0	0	85	15	0	0	0	100	0	0	0	3	94	3	0
0	15	5	55	25	0	22	34	38	6	0	24	47	24	6
0	0	15	55	30	0	13	38	44	6	0	18	47	26	9
	0 0 0 0 0	0 0 0 10 0 0 0 15	Better         Slightly better         Same S           0         0         30           0         0         25           0         10         35           0         0         85           0         15         5	Better Slightly better         Same Slightly worse           0         0         30         40           0         0         25         55           0         10         35         40           0         0         85         15           0         15         55         55	Better         Slightly better         Same         Slightly worse         Worse           0         0         30         40         30           0         0         25         55         20           0         10         35         40         15           0         0         85         15         0           0         15         5         55         25	Better         Same Slightly worse         Worse         Better Slightly worse           0         0         30         40         30         0           0         0         25         55         20         0           0         10         35         40         15         0           0         0         85         15         0         0           0         15         5         55         20         0	Better         Slightly better         Same         Slightly worse         Worse         Better         Slightly better           0         0         30         40         30         0         6           0         0         25         55         20         0         3           0         10         35         40         15         0         3           0         0         85         15         0         0         0           0         15         55         25         0         22	Better         Same         Slightly worse         Worse         Better         Same         Slightly worse         Same         Same	Better         Same         Slightly worse         Worse         Better         Slightly better         Same         Slightly worse           0         0         30         40         30         0         6         63         31           0         0         25         55         20         0         3         59         38           0         10         35         40         15         0         3         53         41           0         0         85         15         0         0         100         0           0         15         55         25         0         22         34         38	Better         Slightly better         Same Slightly worse         Worse         Better         Slightly better         Same Slightly worse         Worse           0         0         30         40         30         0         6         63         31         0           0         0         25         55         20         0         3         59         38         0           0         10         35         40         15         0         3         53         41         3           0         0         85         15         0         0         100         0         0           0         15         55         25         0         22         34         38         6	Better Slightly better         Same Slightly worse         Worse         Better Slightly worse         Better Slightly wors	Better         Same         Slightly worse         Worse         Better         Same         Slightly better         Same         Slightly worse         Better         Slightly better         Better         Same         Slightly worse         Better         Slightly better           0         0         30         40         30         0         6         63         31         0         6         21           0         0         25         55         20         0         3         59         38         0         6         6           0         10         35         40         15         0         3         53         41         3         0         6           0         0         85         15         0         0         0         0         0         3         3         6         0         24           0         15         5         55         25         0         22         34         38         6         0         24 <td>Better         Same Slightly better         Same Slightly worse         Worse         Better Slightly better         Same Slightly worse         Worse         Better Slightly worse         Same Slightly worse         Better Slightly better         Same Slightly state         Same Slightly stat</td> <td>Better         Same         Slightly worse         Worse         Better         Same         Slightly worse         Same         Slightly worse         Same         Slightly worse         Same         Slightly worse         Same         Slightly better         Same         Slightly worse         Better         Same         Slightly worse         Better         Slightly worse         Better         Slightly better         Same         Slightly worse         Better         Slightly better         Same         Slightly worse         Better         Slightly better         Same         Slightly worse           0         0         30         40         30         0         6         63         31         0         6         21         62         6           0         0         25         55         20         0         3         59         38         0         0         6         68         21           0         10         35         40         15         0         3         53         41         3         0         6         74         15           0         0         85         15         0         0         100         0         0         3         94</td>	Better         Same Slightly better         Same Slightly worse         Worse         Better Slightly better         Same Slightly worse         Worse         Better Slightly worse         Same Slightly worse         Better Slightly better         Same Slightly state         Same Slightly stat	Better         Same         Slightly worse         Worse         Better         Same         Slightly worse         Same         Slightly worse         Same         Slightly worse         Same         Slightly worse         Same         Slightly better         Same         Slightly worse         Better         Same         Slightly worse         Better         Slightly worse         Better         Slightly better         Same         Slightly worse         Better         Slightly better         Same         Slightly worse         Better         Slightly better         Same         Slightly worse           0         0         30         40         30         0         6         63         31         0         6         21         62         6           0         0         25         55         20         0         3         59         38         0         0         6         68         21           0         10         35         40         15         0         3         53         41         3         0         6         74         15           0         0         85         15         0         0         100         0         0         3         94

					20	13							2014		
			May					Nov.					May		
	Better Sl	ightly better	Same S	ilightly worse	Worse		ightly better	Same S	lightly worse	Worse	Better S	blightly better	Same	Slightly worse	Worse
Bid-ask spreads	0	9	79	9	3	0	9	75	13	3	0	6	85	9	0
Number of dealers quoting	0	0	85	12	3	0	3	72	22	3	0	0	70	30	0
Average size of trades	0	9	70	18	3	0	9	66	22	3	3	9	70	15	3
Timeliness of settlement	0	0	100	0	0	0	3	97	0	0	0	3	97	0	0
Number of counterparties you trade with	0	21	52	18	9	0	28	50	19	3	0	18	55	21	6
Depth of the market	0	6	67	24	3	0	9	63	25	3	0	9	67	21	3

			2014							20	)15				
			Nov.					May					Nov.		
	Better Sl	ightly better	Same S	lightly worse	Worse		ightly better	Same S	lightly worse	Worse	Better	Slightly better	Same S	Slightly worse	Worse
Bid-ask spreads	0	0	91	9	0	0	6	82	9	3	0	7	80	13	0
Number of dealers quoting	0	0	91	9	0	0	0	79	18	3	0	0	77	23	0
Average size of trades	0	9	70	21	0	0	6	76	18	0	0	7	73	20	0
Timeliness of settlement	0	6	94	0	0	0	0	97	3	0	0	0	100	0	0
Number of counterparties you trade with	0	12	79	9	0	0	18	53	24	6	0	17	60	23	0
Depth of the market	0	3	76	21	0	0	0	76	21	3	0	0	73	27	0

	2016								
			May						
	Better S	Slightly better	Same S	Slightly worse	Worse				
Bid-ask spreads	0	0	93	7	0				
Number of dealers quoting	0	0	90	10	0				
Average size of trades	0	10	72	17	0				
Timeliness of settlement	0	0	97	3	0				
Number of counterparties you trade with Depth of the market	0	14 3	72 83	14 14	0				
Depth of the market	Ŭ	5	05		0				

#### Table B5: Changes in unsecured credit limits during previous six months (per cent)

					20	)13				
			May					Nov.		
	Much higher	Somewhat higher	The same	Somewhat lower	Much lower	Much higher	Somewhat higher	The same	Somewhat lower	Much lower
Compared with six months ago, is the number of banks with which you hold credit limits to lend unsecured	0	3	76	18	3	0	6	72	19	3
	2014									
	May						Nov.			
	Much higher	Somewhat higher	The same	Somewhat lower	Much lower	Much higher	Somewhat higher	The same	Somewhat lower	Much lower
Compared with six months ago, is the number of banks with which you hold credit limits to lend unsecured	0	3	78	19	0	0	6	81	13	0
	2015									
			May					Nov.		
	Much higher	Somewhat higher	The same	Somewhat lower	Much lower	Much higher	Somewhat higher	The same	Somewhat lower	Much lower
Compared with six months ago, is the number of banks with which you hold credit limits to lend unsecured	0	3	85	12	0	0	0	81	19	0
			2016							
			May							
	Much higher	Somewhat higher	The same	Somewhat lower	Much lower					
Compared with six months ago, is the number of banks with which you hold credit limits to lend unsecured	0	3	74	23	0					

#### Table B6: Coverage questions

	2012				2013				
	May	Nov.		May		Nov.			
	Respondents	Average Res		Average	Respondents	Average Res		Average	
Approximate percentage of your institution's global unsecured sterling money market transactions not conducted via your main London (or UK) desk(s)	32	6%	34	8%	33	6%	32	7%	
Approximate percentage of your institution's global secured sterling money market transactions not conducted via your main London (or UK) desk(s)	28	3%	28	5%	28	1%	29	1%	
Approximate percentage of turnover where there is uncertainty over the nature of the counterparty	_	_	33	2%	37	1%	32	2%	
	2014			2015					
	May		Nov.		May		Nov.		
	Respondents	Average Res	pondents	Average	Respondents	Average Res	pondents	Average	
Approximate percentage of your institution's global unsecured sterling money market transactions not conducted via your main London (or UK) desk(s)	33	6%	33	5%	34	7%	31	7%	
Approximate percentage of your institution's global secured sterling money market transactions not conducted via your main London (or UK) desk(s)	31	1%	29	1%	21	1%	30	8%	
Approximate percentage of turnover where there is uncertainty over the nature of the counterparty	33	1%	30	2%	25	1%	29	4%	
	2016								
	May								
	Respondents	Average							
Approximate percentage of your institution's global unsecured sterling money market transactions not conducted via your main London (or UK) desk(s)	30	19%							
Approximate percentage of your institution's global secured sterling money market transactions not conducted via your main London (or UK) desk(s)	30	9%							
Approximate percentage of turnover where there is uncertainty over the nature of the counterparty	29	0%							

## Annex C: 2016 H1 MMLC Sterling Money Market Survey Participants

Bank of America Merrill Lynch Bank of New York Mellon Bank of Tokyo Mitsubishi UFJ Barclays **BNP** Paribas **BPCE** Group Citigroup Clydesdale Commerzbank Co-operative Bank **Coventry Building Society** Crédit Agricole CIB Danske Bank Debt Management Office Deutsche Bank Goldman Sachs HSBC ING UK JPMorgan Chase Lloyds Banking Group Mizuho Bank Morgan Stanley Nationwide Nomura Nord LB Northern Trust Rabobank Royal Bank of Canada Royal Bank of Scotland Santander Société Générale Standard Chartered State Street Svenska Handelsbanken UBS UniCredit Yorkshire Building Society