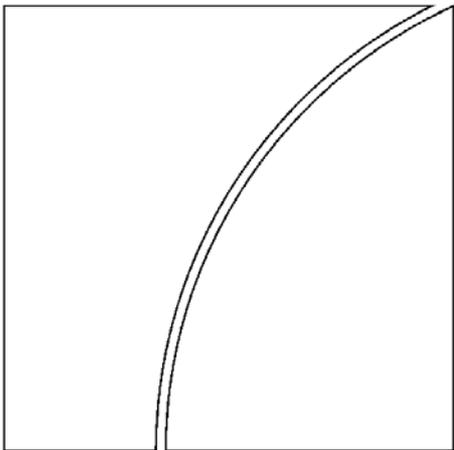




BANK FOR INTERNATIONAL SETTLEMENTS



## Triennial Central Bank Survey of Foreign Exchange and OTC Derivatives Markets

Reporting guidelines for turnover  
in April 2019

Monetary and Economic Department

10 December 2018

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## A. Introduction

The 12th Triennial Central Bank Survey of foreign exchange and over-the-counter (OTC) derivatives markets will take place in 2019. It aims to obtain comprehensive and consistent information on the size and structure of global foreign exchange and OTC derivatives markets. The results are intended to increase the transparency of OTC markets and to help central banks, other authorities and market participants monitor developments in global financial markets. They also help to inform discussions on reforms to OTC markets.

The Triennial Survey is coordinated by the BIS under the auspices of the Markets Committee and the Committee on the Global Financial System. It is supported through the Data Gaps Initiative endorsed by the G20.

As in previous Triennial Surveys, in 2019 the reporting exercise will be organised in two parts: (1) collection of data in April 2019 on turnover in notional amounts of foreign exchange spot and OTC derivatives and single-currency OTC interest rate derivatives; and (2) collection of data at end-June 2019 on notional amounts and gross market values outstanding of foreign exchange, interest rate, equity, commodity, credit and other OTC derivatives. These guidelines deal only with part 1 of the survey on *turnover*; companion guidelines for part 2 on *amounts outstanding* are available at [www.bis.org/statistics/triennialrep/guidelines\\_cbanks.htm](http://www.bis.org/statistics/triennialrep/guidelines_cbanks.htm).

The reporting population for the *turnover* part of the survey consists of large commercial and investment banks as well as securities dealers (collectively referred to as “reporting dealers”). Central banks are not part of the reporting population (see Section C). In order to maintain methodological consistency with previous Triennial Surveys and facilitate the separate identification of cross-border and local trades, the *turnover* part of the survey is conducted on a sales desk location basis (see Section B.4).

Only data on turnover in spot and OTC derivatives markets are requested; no data are collected on exchange-traded derivatives, given that timely and comprehensive information on these products is available from commercial data sources. For 2019, the following changes have been made to the structure of the turnover part of the Triennial Survey:

1. Options bought and sold have been merged.
2. For foreign exchange turnover, prime brokered trading with non-bank market-makers has been separated from that with other counterparties.
3. For foreign exchange forwards and swaps, the maturity breakdown has been expanded.
4. For foreign exchange turnover broken down by execution methods, dark pools have been merged with other electronic communication networks under disclosed venues.
5. For single-currency interest rate derivatives, trading of overnight index swaps has been separated from that of other types of interest rate swaps.
6. The supplementary survey of euro area trading has been deleted.
7. The complementary questions on contracts for differences and retail-driven trading have been deleted.
8. The complementary question on trade internalisation has been simplified.
9. There is now a new complementary question on the settlement of foreign exchange transactions.

All reporting dealers are expected to report all of the data requested in the template. Should any reporting dealer experience technical difficulties that may prevent it from reporting these data, the central bank will decide carefully whether or not any such reporting dealer in its jurisdiction could be granted relief from reporting some items on grounds of technical capacity.

The BIS will work closely with central banks to provide globally consistent guidance on how such relief could be granted, should the need arise. Furthermore, to help control for the impact of any incomplete reporting on the quality of the statistics, central banks are requested to answer some quality control questions in the complementary information section.

## **B. Coverage and reporting convention**

### **1. Risk categories**

The survey collects data on foreign exchange transactions and OTC derivatives products according to the following broad market classification:

- Foreign exchange contracts (Tables A1 to A4, Table C)
- Single-currency interest rate derivatives (Table B)

*Foreign exchange contracts.* Foreign exchange contracts cover spot, outright forwards, foreign exchange swaps, currency swaps, currency options and other foreign exchange instrument transactions with exposure to more than one currency (see Section G.1).

*Single-currency interest rate derivatives.* Interest rate contracts are contracts related to an interest-bearing financial instrument whose cash flows are determined by referencing interest rates or another interest rate contract (eg an option on a futures contract to purchase a Treasury bill) (see Section G.2). This category is restricted to deals where all the legs are exposed to only one currency's interest rate. Thus it excludes contracts involving the exchange of one or more foreign currencies (eg cross-currency swaps) and other contracts whose predominant risk characteristic is foreign exchange risk, which are to be reported as foreign exchange contracts.

### **2. Overview of breakdowns**

#### **2.1 Foreign exchange**

The part of the survey on foreign exchange turnover covers a number of breakdowns:

- *By instrument.* Five basic types – spot, outright forwards, foreign exchange swaps, currency swaps and OTC options – plus other products (see Section G.1 for detailed definitions). For outright forwards and foreign exchange swaps, there is also a breakdown by maturity (see Section E). Furthermore, reporting dealers are requested to identify how much of their “outright forwards” turnover for selected currency pairs is attributed to non-deliverable forwards (NDFs).
- *By counterparty.* Three basic categories: reporting dealers, other financial institutions and non-financial customers. In addition, the category “other financial institutions” is further broken down into five subcategories (see Section C).
- *By currency and currency pair.* There are explicit columns in the template for 40 currencies and 47 currency pairs. Turnover in currency pairs that are not explicitly listed is recorded in aggregate in the “Other” and “Residual” columns (see Section D for details).
- *Specific trading relationships.* Reporting dealers are requested to identify how much of their total turnover for each instrument and currency pair is attributed to (i) transactions conducted in a foreign exchange prime brokerage relationship (with the reporting dealer in the role of FX prime broker), and (ii) transactions that are directly or indirectly

generated by retail investors (see Sections H and I). Reporting dealers are also requested to identify how much of their *grand total* foreign exchange turnover is attributed to related-party transactions (see Section B.4).

- *By execution method.* Clarified and updated for the 2019 survey, there are four basic categories: voice-direct, voice-indirect, electronic-direct and electronic-indirect. The two “electronic” categories are further broken down into specific types of electronic trading platforms similar to those already in existence at the time of the previous surveys. New in the 2019 survey, “dark pools” are separately identified under “electronic-indirect” (see Section J for details).

## **2.2 Single-currency interest rate derivatives**

The single-currency interest rate derivatives turnover part has the following breakdowns:

- *By instrument.* Three basic types – forward rate agreements, swaps and OTC options – plus other products (see Section G.2 for detailed definitions).
- *By counterparty.* Three basic categories: reporting dealers, other financial institutions and non-financial customers. The more detailed new breakdowns for “other financial institutions” are not used here.
- *By currency.* There are explicit columns for instruments in 40 currencies. Turnover for instruments in currencies that are not explicitly listed is recorded in aggregate in the “Other” column.
- *Specific trading relationships.* Reporting dealers are requested to identify how much of their *grand total* single-currency interest rate derivatives turnover is attributed to related-party transactions (see Section B.4).

## **3. Definition of turnover data**

The survey will collect turnover data for both the proprietary and commissioned business of the reporting institution. Commissioned business refers to reporting institutions’ transactions as a result of deals as an agent or trustee in their own name, but on behalf of third parties, such as customers or other entities.

Turnover data provide a measure of market activity, and can also be seen as a rough proxy for market liquidity. Turnover is defined as the gross value of all new deals entered into during a given period, and is measured in terms of the nominal or notional amount of the contracts.

No distinction should be made between sales and purchases (eg a purchase of USD 5 million against sterling and a sale of USD 7 million against sterling would amount to a gross turnover of USD 12 million). Direct cross-currency transactions should be counted as single transactions (eg if a bank sells the Swiss franc equivalent of USD 5 million against Swedish kronor, the reported turnover is USD 5 million); however, cross-currency transactions passing through a vehicle currency should be recorded as two separate deals against the vehicle currency (eg if a bank sells the Swiss franc equivalent of USD 5 million against euros first and then uses the euros to purchase kronor, the reported turnover should be USD 10 million). The gross amount of each transaction should be recorded once, and netting arrangements and offsets should be ignored. In this context, reporting institutions are reminded that CLS pay-in data are on a net basis, and thus should not be used as a source for completing the survey, which is on a gross basis.

For turnover of transactions with variable nominal or notional principal amounts, the basis for reporting should be the nominal or notional principal amounts on the transaction date.

Turnover data should be collected over a one-month period in order to reduce the likelihood of very short-term variations in activity distorting the data. The data collected for the survey should

reflect all transactions entered into during the calendar month of April 2019, regardless of whether delivery or settlement occurs during that month.

#### **4. Unconsolidated reporting and related-party trades**

##### **4.1 Sales desk basis**

For turnover data, the basis for reporting should be the location of the “sales desk” of any trade, even if deals entered into in different locations were booked in a central location. Thus, transactions concluded by offices located abroad should not be reported by the country of location of the head office but by that of the office abroad (insofar as the latter is a reporting institution in one of the other reporting countries). Where no sales desk is involved in a deal, in particular for trades executed via electronic platforms, the location of the sales contact who services the client should be used. Otherwise, the trading desk or electronic matching engine should be used to determine the location of the transaction.

Large financial groups operating in a range of centres should ensure that the agreed definitions of the guidelines are followed, as consistently as possible, by all their reporting units. Even for reporting dealers with global networks, reports must be made to the respective central bank by the foreign office itself.

##### **4.2 The need to include related-party trades**

Reporting dealers are asked to include related-party trades between desks and offices, and trades with their own branches and subsidiaries and between affiliated firms, in their reported aggregates. Related-party trades should be included regardless of whether the counterparty is resident in the same country as the reporting dealer or in another country. Moreover, these trades should be identified separately as an “of which” memorandum item, under related-party trades.

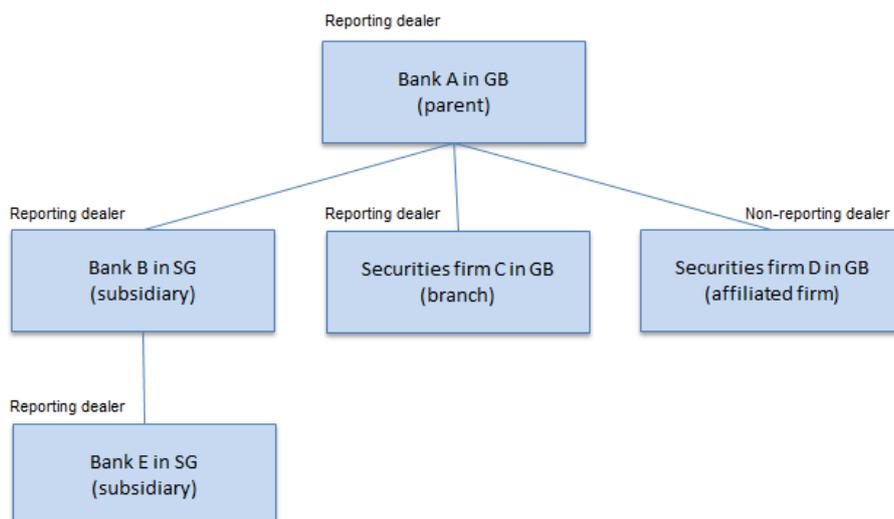
The reported trades with own branches and subsidiaries and between affiliated firms should be allocated to the category of reporting dealers or other financial institutions depending on whether the counterparty is a reporting dealer or not. In the event of, for example, an inter-desk deal within the same reporting entity, that trade should be recorded twice in the reporting dealer local category because the reporting dealer category will be automatically adjusted for double-counting by the BIS. If, however, the trade was with an affiliate overseas, which is also a reporting entity in that second country, the two reporting dealers should both record the transaction once in the reporting dealer cross-border category.

##### **4.3 Reporting of back-to-back deals**

Back-to-back deals are linked deals where the liabilities, obligations and rights of the second deal are exactly the same as those of the original deal. They are normally conducted between affiliates of the same consolidated group to facilitate either internal risk management or internal bookkeeping.

The original deal with the sales desk should always be reported. The second deal between the sales desk and affiliates that are part of the same consolidated group should only be reported if conducted to transfer risk from one affiliate to another. The second deal should not be reported if there is no transfer of risk from the reporting dealer: for example, deals conducted within the reporting dealer (between desks of the same dealer) or deals conducted by the sales desk on behalf of another affiliate so that the risk is never recorded in the books of the reporting dealer.

This is illustrated through the below example of a consolidated group comprising five entities:



In this example, back-to-back deals should be reported in the following way:

Original deal	Back-to-back deal	Transactions to be reported
Bank B sells an option to a customer, where the sales desk at Bank B is conducting the transaction on behalf of Bank A.	Deal is recorded in the books of Bank A, eg because Bank B does not maintain an options book.	Original deal by Bank B. Second deal is not reported because there is no transfer of risk from one affiliate to another (no transaction is recorded in the books of Bank B).
Bank B sells an option to a customer.	Original deal is recorded in the books of Bank B. A second deal between Bank A and Bank B is conducted to transfer the risk from Bank B to Bank A.	Original deal by Bank B. Second deal by both Bank A and Bank B.
Bank B sells an option to a customer.	Original deal is recorded in the books of Bank B. Second deal between the FX trading desk of Bank B and another trading desk of Bank B.	Original deal by Bank B. Second deal is not reported because there is no transfer of risk from Bank B.
Bank E sells an option to a customer.	Original transaction is recorded in the books of Bank E. Transaction between Bank E and Securities Firm D conducted to transfer the risk from Bank E to Firm D.	Original deal by Bank E. Second deal by only Bank E. Securities Firm D is not a reporting dealer.

## 5. Novation and central clearing

OTC derivatives transactions that are centrally cleared via central counterparties (CCPs) should be reported on a pre-novation basis in the turnover part of the survey (ie with the original execution counterpart as counterparty). Any post-trade transaction records that arise from

central clearing via CCPs (eg through novation) should not be reported as additional transactions.<sup>1</sup>

## 6. Currency of reporting and currency conversion

In general, transactions are to be reported in millions of US dollar equivalents. Non-US dollar amounts should be converted into US dollars using the exchange rates prevailing on the transaction date. However, if this is impractical or impossible, turnover data may be reported using average or end-of-period exchange rates.

When exchange rates other than those of the day of the transaction are used, the order of precedence of currencies' dollar exchange rates, for purposes of conversion in deals which involve currencies other than the US dollar, should be the following: EUR, JPY, GBP, CHF, CAD, AUD, SEK, ARS, BGN, BHD, BRL, CLP, CNY, COP, CZK, DKK, HKD, HUF, IDR, ILS, INR, KRW, MXN, MYR, NOK, NZD, PEN, PHP, PLN, RON, RUB, SAR, SGD, THB, TRY, TWD and ZAR.

Transactions which involve the direct exchange of two currencies other than the US dollar should be measured by totalling the US dollar equivalent of only one side (preferably the purchase side) of the transaction.

## 7. Rounding

When computing the statistics, reporting dealers as well as central banks are requested to avoid rounding and keep a minimum of six decimal positions (ie double-precision as computer number format) at each level of the process.

*Example:* The number USD 77,327,560 would be recorded as USD 77.327560 million in the reporting templates.

## 8. Reporting deadline

Each central bank or monetary authority aggregates the data from reporting dealers in its jurisdiction and transmits the aggregated data to the BIS.

Reporting dealers are expected to submit their data to central banks no later than **15 June 2019**. Central banks should transmit aggregated data to the BIS shortly afterwards, and at the latest by 15 July 2019.

## 9. Cancelled contracts<sup>2</sup>

The actual turnover of all new contracts initiated during the period of review, which are not cancelled during this period, should be reported. In case of cancellation during the period of review, for example if the original deal is incorrect, the transaction should be excluded from

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<sup>1</sup> For example, if a reporting dealer executed a non-deliverable forward (NDF) contract with a hedge fund and the contract was post-trade transferred to a CCP for central clearing, the reporting dealer should report only the turnover associated with that NDF contract with the hedge fund as counterparty. The post-novation contract with the CCP should not be reported as additional turnover. Please note that the treatment of centrally cleared OTC derivatives transactions in the turnover part of the survey is different from that in the amount outstanding part.

<sup>2</sup> The fact that one of the counterparties to a contract is entering an offsetting contract for terminating the original position does not impact the reporting of the original contract. Both the original contract and the new mirror contract should be reported. Similarly the fact that the counterparties to a contract agree in the settlement process to roll the proceeds to a future date (entering a new contract) does not impact the reporting of the original contract. Both the original contract and the new contract should be reported.

reporting unless it is rebooked during the period of review. In this case, the specifications of the new transaction should be used for reporting.

### C. Counterparties

As in previous surveys, reporting dealers are requested to provide, for each instrument in the foreign exchange and interest rate derivatives categories, a breakdown of contracts by counterparty as follows: reporting dealers, other financial institutions and non-financial customers (see Table 2 below for definitions).

For these three basic counterparty categories, reporting dealers are also requested to provide separate information on local and cross-border transactions. The distinction between local and cross-border should be determined according to the residence of the counterparty and not its nationality.

#### Definition of local and cross-border transactions

Local	Transactions with counterparties resident in the same jurisdiction as the reporting dealer.
Cross-border	Transactions with counterparties resident in a jurisdiction other than that where the reporting dealer is located.
Table 1	

The counterparty category “other financial institutions” is further broken down into five subcategories (see Table 2 below for definitions). This additional breakdown is used only in the foreign exchange part of the survey (template Tables A1 to A4). It categorises counterparties by their primary business activity or their primary motives for trading in foreign exchange markets. As some counterparties may potentially fall into more than one category, some judgment may be required on the part of reporting dealers (perhaps with the help of front office staff) or central banks to assign a specific counterparty to a category that best fits that entity. In case of ambiguity, the primary business activity of the counterparty should serve as the criterion.

## Counterparty categories, subcategories and definitions

Reporting dealers	<p>Financial institutions that participate as reporters in the Triennial Survey.<sup>3</sup></p> <p>These are mainly large commercial and investment banks and securities houses that (i) participate in the inter-dealer market and/or (ii) have an active business with large customers, such as large corporate firms, governments and non-reporting financial institutions; in other words, reporting dealers are institutions that are actively buying and selling currency and OTC derivatives both for their own account and/or in meeting customer demand.</p> <p>In practice, reporting dealers are often those institutions that actively or regularly deal through electronic platforms, such as EBS or Reuters dealing facilities.</p> <p>This category also includes the branches and subsidiaries of institutions operating in multiple locations that do not have a trading desk but do have a sales desk in those locations that conduct active business with large customers.<sup>4</sup></p> <p>The identification of transactions with reporting dealers allows the BIS to adjust for double-counting in inter-dealer trades.</p>
Other financial institutions	<p>Financial institutions that are not classified as “reporting dealers” in the survey.</p> <p>These are typically regarded as foreign exchange and interest rate derivatives markets end users. They mainly cover all other financial institutions, such as smaller commercial banks, investment banks and securities houses, and, in addition, mutual funds, pension funds, hedge funds, currency funds, money market funds, building societies, leasing companies, insurance companies, other financial subsidiaries of corporate firms and central banks.</p> <p>For foreign exchange turnover only (and not for single-currency interest rate derivatives), reporting dealers are requested to report the following five subcategories as “of which (o/w)” items:</p>
o/w non-reporting banks	Smaller or regional commercial banks, publicly owned banks, securities firms or investment banks, not directly participating as reporting dealers. <sup>5</sup>
o/w institutional investors	Institutional investors such as mutual funds, pension funds, insurance and reinsurance companies and endowments. Primary motives for market participation are to trade FX instruments eg for hedging, investing and risk management purposes. A common label for this counterparty category is “real money investors”.

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<sup>3</sup> This definition differs from that used for the amounts outstanding part of the survey.

<sup>4</sup> The detailed list of names of reporting dealers will be provided before the end of 2018.

<sup>5</sup> The list of reporting dealers indicates whether a specific entity belongs to “reporting dealers” or “non-reporting banks”.

o/w hedge funds and proprietary trading firms	(a) Investment funds and various types of money managers, including commodity trading advisers (CTAs) which share (a combination of) the following characteristics: they often follow a relatively broad range of investment strategies that are not subject to borrowing and leverage restrictions, with many of them using high levels of leverage; they often have a different regulatory mandate than “institutional investors” and typically cater to sophisticated investors such as high net worth individuals or institutions; and they often hold long and short positions in various markets, asset classes and instruments, with frequent use of derivatives for speculative purposes.  (b) Proprietary trading firms (PTFs) that invest, hedge or speculate for their own account. This category may include specialised “high frequency trading” (HFT) firms that employ high-speed algorithmic trading strategies characterised by numerous frequent trades and very short holding periods. In addition, this category may include PTFs that employ their technology for the purpose of electronic market-making (see also Section H).
o/w official sector financial institutions	Central banks, sovereign wealth funds, <sup>6</sup> international financial institutions of the public sector (BIS, IMF etc), development banks and agencies.
o/w other	All remaining financial institutions (eg retail aggregators) that cannot be assigned to any of the subcategories above.
Non-financial customers	Any counterparty other than those described above, ie mainly non-financial end users, such as corporations and non-financial government entities. This may also include private individuals who directly transact with reporting dealers for investment purposes, either on the online retail trading platforms operated by the reporting dealers or by other means (eg giving trading instructions by phone) (see also Section I).
Table 2	

*Quality control.* To prepare for the possibility that some reporting dealers may be technically incapable of reporting in full the new breakdowns under “other financial institutions”, an entry called “undistributed” is available in the survey template. This entry captures the amount of “other financial institutions” turnover that fails to be allocated to one of the subcategories above (relief from reporting in full requires the agreement of the central bank).

To help assess the representativeness of the reported turnover in the new subcategories, central banks are requested to answer the four quality control questions (questions 4a, 4b, 4c and 4d) in the complementary information section.

## D. Currency breakdowns

All currencies in which reporting dealers have conducted reportable transactions are in principle covered in the survey. But a number of currencies and currency pairs require explicit reporting (in dedicated columns) in the survey template.

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<sup>6</sup> See [www.thecityuk.com/assets/Uploads/SWF-2012.pdf](http://www.thecityuk.com/assets/Uploads/SWF-2012.pdf) for an industry definition (page 2) and examples of the largest sovereign wealth funds (page 3).

## 1. Foreign exchange turnover

Reporting dealers are requested to report all transactions involving the domestic currency of the jurisdiction in which they are located. In addition, all reporting dealers, regardless of location, are requested to report all transactions involving the 24 currencies listed in Table 3 below. Participating central banks have the option to cover additional currencies that are important in their own jurisdiction. Transactions in gold should be excluded from reporting.

### Currencies subject to compulsory reporting

AUD	EUR	KRW	SEK
BRL	GBP	MXN	SGD
CAD	HKD	NOK	TRY
CHF	HUF	NZD	TWD
CNY <sup>1</sup>	INR	PLN	USD
DKK	JPY	RUB	ZAR
<sup>1</sup> Includes also offshore transactions commonly denoted by CNH.			

Table 3

Reporting dealers are requested to identify separately selected currency pairs as indicated in Table 4 below.

### Currency pairs in template Tables A1 to A3

	DOM against (Table A1)	USD against (Table A2)	EUR against (Table A3)	JPY against (Table A3)	Residual <sup>1</sup> (Table A3)
<b>G8 currencies</b>	AUD, CAD, CHF, EUR, GBP, JPY, SEK, USD	AUD, CAD, CHF, EUR, GBP, JPY, SEK	AUD, CAD, CHF, GBP, JPY, SEK	AUD, CAD	
<b>Non-G8 currencies</b>		BRL, CNY, HKD, INR, KRW, MXN, NOK, NZD, PLN, RUB, SGD, TRY, TWD, ZAR	CNY, DKK, HUF, NOK, PLN, TRY	BRL, NZD, TRY, ZAR	
<b>Other</b>	Other <sup>2</sup>	Other <sup>2</sup>	Other <sup>2</sup>	Other <sup>2</sup>	
<sup>1</sup> All transactions that do not involve the domestic currency, USD, EUR or JPY in one leg. <sup>2</sup> Denotes the remaining currencies traded that are not explicitly listed in each column of this table.					

Table 4

Some transactions involving the domestic currency could be reported either in template Table A1 or in template Table A2/A3 (eg PLN/USD for reporters in Poland, GBP/EUR for reporters in the United Kingdom, SGD/USD for reporters in Singapore). The preferred approach would be to report these transactions in template Table A1 and leave an empty column in template Table A2/A3. Euro area countries are advised to report USD/EUR transactions in template Table A2 and all other currency pairs involving the EUR in template Table A3 while leaving template Table A1 empty. Under no circumstances should template Table A1 and template Table A2/A3 be filled in simultaneously with the same data.

Reporters are requested to classify under "Other" (template Tables A1, A2 and A3) the second currency of those currency pairs involving the domestic currency, the US dollar, the euro or

the yen on one side of the deal, and a currency that is not explicitly listed in template Tables A1, A2 or A3 on the other side. In contrast, reporters are requested to classify under “Residual” (template Table A3) transactions which do not involve the domestic currency, the US dollar, the euro or the yen on either side of the contract. The grand total (template Table A3) should be calculated as the sum of totals plus the column residual.

Given the increasing interest in the identification of turnover in all reporting countries’ currencies (listed in Table 5 below), additional information is requested in template Table A4 for those currencies included under “Other” in template Tables A1, A2 and A3 and under “Residual” in template Table A3.

#### Currency breakdown of “Other” and “Residual” in template Table A4

AED	COP	MXN	SEK
ARS	CZK	MYR	SGD
AUD	DKK	NOK	THB
BGN	GBP	NZD	TRY
BHD	HKD	PEN	TWD
BRL	HUF	PHP	ZAR
CAD	IDR	PLN	Other
CHF	ILS	RON	
CLP	INR	RUB	
CNY	KRW	SAR	
Table 5			

As regards deals reported under “Other” in template Tables A1, A2 and A3: given that the first currency of the transaction is already identified (as domestic currency, USD, EUR or JPY), only the second currency should be reported in template Table A4, ie the exact amount reported under “Other” should be distributed in template Table A4.

In contrast, for contracts reported under “Residual”: since both currencies are unknown, transactions should be allocated to two currencies in template Table A4. In other words, although the deal is reported once in under “Residual” in template Table A3, it should be reported twice in template Table A4, making up 200% of the deal.

For those cases where neither currency involved in the deal is listed in template Table A4, the transaction should be included twice under “Other” in template Table A4 (making up 200% of the deal in the same column).

Example: Brazilian reporting dealers should report a USD 100 million transaction in the following way for these different currency pairs:

- BRL/USD: USD 100 million in Table A1 under “USD”. The “BRL” column in Table A2 remains empty.
- BRL/CAD: USD 100 million in Table A1 under “CAD”.
- BRL/MXN: USD 100 million in Table A1 under “Other” and USD 100m in Table A4 under “MXN”.
- ARS/MXN: USD 100 million in Table A3 under “Residual”, USD 100 million in Table A4 under “ARS” and USD 100 million in Table A4 under “MXN”.
- BOB/UYU: USD 100 million in Table A3 under “Residual” and USD 200 million in Table A4 under “Other”.

Under no circumstances should Brazilian reporting dealers report any data under “BRL” in Table A4.

## 2. Single-interest rate derivatives

For *turnover* of single-currency interest rate contracts, the same currency breakdown is requested: AED, ARS, AUD, BGN, BHD, BRL, CAD, CHF, CLP, CNY, COP, CZK, DKK, EUR, GBP, HKD, HUF, IDR, ILS, INR, JPY, KRW, MXN, MYR, NOK, NZD, PEN, PHP, PLN, RON, RUB, SAR, SEK, SGD, THB, TRY, TWD, USD, ZAR and other. This currency breakdown refers to the currencies of the respective underlying assets and not the settlement currencies.

Participating central banks have the option to cover additional currencies that are important in their own jurisdiction.

Example: A three-year KRW fixed rate swap against three-month KRW, which is settled in USD, should be reported in the “KRW” column of the reporting template.

## 3. Special units of account

Any transaction executed in a special unit of account adjusted for inflation (eg CLF, COU and MXV) should be treated as having been carried out in the main currency (CLP, COP and MXN, respectively).

## E. Maturities

In the turnover part of the survey, transactions in outright forwards and foreign exchange swaps should be reported on an original maturity basis according to the following maturity bands:

- Seven days or less
- Over seven days and up to one month
- Over one month and up to three months
- Over three months and up to six months
- Over six months

For *outright forward* contracts, the maturity band for the transaction is determined by the difference between the delivery date and the date of the initiation of the contract.

For both *spot/forward* and *forward/forward foreign exchange swaps*, the maturity band for the contract is determined by the difference between the due date of the long leg of the swap and the date of the initiation of the contract.

Maturities should be measured in calendar terms. So “seven days” means a calendar week and not seven business days.

## F. Categorisation of derivatives involving more than one risk category

Individual derivatives transactions are to be categorised into two risk classes: *foreign exchange* and *single-currency interest rate*. In practice, however, individual derivatives transactions may straddle risk categories. In such cases, transactions that are simple combinations of exposures should be reported separately in terms of their individual components, as explained in Section G below. Transactions that cannot be readily broken down into separable risk components should be reported in only one risk category. The allocation of such products with multiple exposures should be determined by the underlying risk component that is most

significant. However, if, for practical reasons, reporting institutions are in doubt about the correct classification of multi-exposure derivatives, they should allocate the deals according to the following order of precedence:

*Foreign exchange.* This category will include all derivatives transactions with exposure to more than one currency, be it in interest or exchange rates.

*Single-currency interest rate contracts.* This category will include derivatives transactions in which there is exposure to only one currency's interest rate. This category should include all fixed and/or floating single-currency interest rate contracts, including forwards, swaps and options.

## G. Detailed instrument definitions and categorisation

### 1. Foreign exchange transactions

The instruments covered in the foreign exchange turnover part of the survey are defined and categorised as follows:

Spot	<p>Single outright transactions involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) within two business days.</p> <p>The spot legs of swaps should not be included among spot transactions but are to be reported as swap transactions even when they are due for settlement within two days. This means that spot transactions should be exclusive of overnight swaps and spot next swaps, as well as other "tomorrow/next day" transactions.</p> <p>Cash/same day transactions<sup>7</sup> should be reported under spot.</p>
Outright forwards	<p>Transactions involving the exchange of two currencies at a rate agreed on the date of the contract for value or delivery (cash settlement) at some time in the future (more than two business days later). This category also includes forward foreign exchange agreement transactions (FXAs), NDFs and other forward contracts for differences.<sup>8</sup></p> <p>Outright forwards are generally not traded on organised exchanges, and their contractual terms are not standardised.</p> <p>To cater to specific interest in NDFs<sup>9</sup> (as distinct from deliverable forwards), reporting dealers are requested to identify, in an "of which" item, NDF volumes for six currency pairs with significant turnover: USD/CNY, USD/INR, USD/KRW, USD/BRL, USD/RUB and USD/TWD. The NDF turnover of other less well traded pairs will also be captured, but in aggregate only.</p>

<sup>7</sup> Spot transactions with same day settlement (T+0 settlement).

<sup>8</sup> Separate information on forward contracts for differences (including NDFs) is also requested; see Section K, item 4 below.

<sup>9</sup> NDFs differ from deliverable forwards in that there is no physical delivery of the two underlying currencies at maturity. An NDF contract is settled in cash (very often in US dollars, or any other pre-agreed currency). The settlement amount is calculated based on the difference between the contracted NDF rate and the prevailing spot exchange rate at maturity (the fixing date), and the pre-agreed notional amount.

Foreign exchange swaps	<p>Transactions involving the actual exchange of two currencies (principal amount only) on a specific date at a rate agreed at the time of the conclusion of the contract (the short leg), and a reverse exchange of the same two currencies at a date further in the future at a rate (generally different from the rate applied to the short leg) agreed at the time of the contract (the long leg). FX swaps include “spot/forward swaps” and “forward/forward swaps” but also short-term swaps such as “overnight swaps”, “spot next swaps” and other “tomorrow/next day” transactions.</p> <p>In the <u>turnover</u> part of the survey, any FX swaps should be reported only once. The basis for reporting should be the forward leg of the swap. The spot leg should not be reported, either as spot or as foreign exchange swap transactions.</p> <p>In/out swaps between CLS members should be excluded.<sup>10</sup></p>
Currency swaps	<p>Contracts which commit two counterparties to exchange streams of interest payments in different currencies for an agreed period of time and/or to exchange principal amounts in different currencies at a pre-agreed exchange rate at maturity.</p>
OTC options	<p>Option contracts that confer the right to buy or sell a currency with another currency at a specified exchange rate during a specified period. This category also includes exotic foreign exchange options such as average rate options and barrier options.</p> <p>OTC options include:</p> <ul style="list-style-type: none"> <li>• Currency swaption: OTC option to enter into a currency swap contract.</li> <li>• Currency warrant: long-dated (over one year) OTC currency option.</li> </ul> <p>Each portion of an option strategy should be reported separately (eg a straddle, a strangle or a butterfly).</p>
Other products	<p>“Other” derivative products are instruments where decomposition into individual plain vanilla instruments such as forwards, swaps or options is impractical or impossible. Examples of “other” products are swaps with underlying notional principal in one currency and fixed or floating interest rate payments based on interest rates in currencies other than the notional (differential swaps or diff swaps).</p>

Table 6

Foreign exchange OTC derivatives are in principle to be broken down into three types of plain vanilla instrument (forwards, swaps and options). Plain vanilla instruments are instruments traded in generally liquid markets according to more or less standardised contracts and market conventions. If a transaction comprises several plain vanilla components, each part should in principle be reported separately.

Non-plain vanilla products should in principle be separated into their plain vanilla components. If this is not feasible, then the OTC options section takes precedence in the instrument classification, so that any foreign exchange derivative product with an embedded option is

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<sup>10</sup> So-called in/out swaps are used exclusively between CLS members in order to reduce pay-ins when settling FX transactions via the CLS system. As they are carried out only for liquidity management purposes in order to amend the settlement mechanism, their inclusion in the Triennial Survey would artificially boost the reported data and make any comparison with previous surveys difficult. These swaps should therefore be excluded from the reporting for the Triennial Survey.

reported as an OTC option. All other OTC foreign exchange derivative products are reported in the forwards or swaps section.

## 2. Single-currency interest rate derivatives

The instruments covered in the single-currency interest rate derivatives part of the survey are defined and categorised as follows:

Forward rate agreements (FRAs)	Interest rate forward contracts in which the rate to be paid or received on a specific obligation for a set period of time, beginning at some time in the future, is determined at contract initiation.
Overnight indexed swaps (OIS)	Contracts to exchange periodic payments related to interest rates on a single currency, fixed for floating where the periodic floating payment is based on a designated overnight rate or overnight index rate.
Other swaps	Contracts to exchange periodic payments related to interest rates on a single currency; can be fixed for floating, or floating for floating based on different indices. This group excludes OIS. It includes those swaps whose notional principal is amortised according to a fixed schedule independent of interest rates.
OTC options	<p>Option contracts that confer the right to pay or receive a specific interest rate on a predetermined principal for a set period of time.</p> <p>OTC options include:</p> <ul style="list-style-type: none"> <li>• Interest rate cap: OTC option that pays the difference between a floating interest rate and the cap rate.</li> <li>• Interest rate floor: OTC option that pays the difference between the floor rate and a floating interest rate.</li> <li>• Interest rate collar: combination of cap and floor.</li> <li>• Interest rate corridor: (i) A combination of two caps, one purchased by a borrower at a set strike and the other sold by the borrower at a higher strike to, in effect, offset part of the premium of the first cap. (ii) A collar on a swap created with two swaptions – the structure and participation interval is determined by the strikes and types of the swaptions. (iii) A digital knockout option with two barriers bracketing the current level of a long-term interest rate.</li> <li>• Interest rate swaption: OTC option to enter into an interest rate swap contract, purchasing the right to pay or receive a certain fixed rate.</li> <li>• Interest rate warrant: OTC option; long-dated (over one year) interest rate option.</li> </ul> <p>Each portion of an option strategy should be reported separately.</p>
Other products	<p>“Other” derivative products are instruments where decomposition into individual plain vanilla instruments such as FRAs, swaps or options is impractical or impossible.</p> <p>Examples of “other” products are instruments with leveraged payoffs and/or those whose notional principal varies as a function of interest rates, such as swaps based on Libor squared or index-amortising rate swaps. These include bond forwards.</p>
Table 7	

Single-currency interest rate derivatives are in principle to be broken down into three types of plain vanilla instrument (FRA, swaps and options). Plain vanilla instruments are instruments traded in generally liquid markets according to more or less standardised contracts and market

conventions. If a transaction comprises several plain vanilla components, each part should in principle be reported separately.

Non-plain vanilla products should in principle be separated into their plain vanilla components. If this is not feasible, then the OTC options section takes precedence in the instrument classification, so that any interest rate derivative product with an embedded option is reported as an OTC option. All other OTC interest rate derivative products are reported in the FRA or swaps section.

### **3. Islamic banking**

Islamic banks should report spot transactions as well as any instruments complying with Islamic law that serve the same economic purposes as the derivatives instruments collected in the Triennial Survey. These might include instruments like the Bai Salam, Istisna, Joala and Istijrar contracts. Any of these instruments should be reported in Tables A3 and C under “Other products”.

## **H. FX prime brokerage**

### **1. Traditional prime brokerage model**

Prime brokers are defined as institutions (usually large and highly rated banks) facilitating trades for their clients (often institutional funds, hedge funds and other proprietary trading firms). Prime brokers enable their clients to conduct trades, subject to credit limits, with a group of predetermined third-party banks in the prime broker’s name. This may also involve granting the client access to electronic platforms that are traditionally available only to large dealers.<sup>11</sup>

In an FX prime brokerage relationship, the client trade is normally “given up” to the prime broker, which is interposed between the third-party bank and the client and therefore becomes the counterparty to both legs of the trade.

### **2. Carve-out business**

In the carve-out model, the liquidity provider (typically a third-party bank or a PTF) operates via a prime broker, while its counterparty has a credit line from the same bank but is itself not prime brokered. The liquidity provider faces the counterparty directly and trades in its own name.

### **3. Non-bank electronic market-makers**

Non-bank electronic market-makers are defined as a subset of non-bank liquidity providers (eg PTFs) that are engaged, at least in part, in disclosed e-trading with customers, whereby they are identified by name or by a tag to the price taker (eg via API or other electronic-direct methods, fully disclosed price streams on electronic communication networks (ECNs), or trading on venues allowing partitioning of liquidity via anonymous tags such as Currenex or Fastmatch) and assume principle risk on at least part of their client trades. Examples are

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<sup>11</sup> This way the client gains access to the tight bid-ask spreads and the deep liquidity of electronic trading platforms in the FX inter-dealer market (eg EBS or Thomson Reuters). The prime broker earns fees from this service to the client. Moreover, prime brokerage provides customers with anonymity.

Citadel Securities, Jump Trading, XTX Markets and Global Trading Systems. Non-bank electronic market-makers exclude PTFs that operate exclusively on an anonymous basis and do not trade on behalf of clients (eg pure HFT firms focused on latency arbitrage).

Reporting dealers that *have acted as FX prime brokers*, using either the traditional model or the carve-out model, are requested to report the transactions that *they have brokered* in two ways:

- (i) in the usual manner, treating the two legs as two separate deals, allocating them by instrument, currency pair and counterparty; and
- (ii) under “o/w prime brokered to non-bank electronic market-makers” and “o/w prime brokered to other customers”, respectively, for each instrument and currency pair (both legs should be included here).

Those transactions that are *not prime-brokered* by reporting dealers only need to be reported once in the usual manner. This also means that reporting dealers that have not acted as FX prime brokers only need to allocate their trades in the usual manner, and never in the “of which” item.

*Quality control.* To help assess the representativeness of the reported figures on FX prime brokerage, central banks are requested to answer the four quality control questions (questions 4a, 4b, 4c and 4d) in the complementary information section.

*Example:* A hedge fund trades USD 100 million with a reporting dealer and the trade is “given up” to a prime broker that is also a reporting dealer. For the first leg, where both the prime broker and the counterparty dealer are reporting dealers, the USD 100 million transaction should be reported by both the prime broker and the counterparty dealer as a deal “with reporting dealers”. For the second leg, where the counterparty is not a reporting dealer, the prime broker should report the USD 100 million transaction as a deal “with other financial institutions”. In addition, the prime broker should report the two transactions or USD 200 million in the item “of which prime brokered”.

## I. Retail-driven transactions

In recent years, retail investors have increased their participation in the FX market, facilitated by internet-based trading platforms. Retail-driven transactions are those initiated by retail investors, where “retail investors” refers to private individuals executing, on their own behalf (ie not for any institution), speculative, leveraged and cash-settled foreign exchange transactions. Reporting dealers are requested to provide data on retail-driven transactions, for each instrument and currency pair.

From a reporting dealer’s point of view, electronically executed retail-driven transactions can be of two types:

1. *Direct* transactions with private individuals (“non-wholesale” investors) executed online or initiated by other means (eg phone or email).<sup>12</sup> When private investors trade via electronic

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<sup>12</sup> The “non-wholesale” transactions exclude branch retail spot transactions (“today” delivery date), transfers of funds denominated in different currencies across any two accounts, and electronic transactions using ATM, credit card, and stored value transactions that are executed in a foreign currency. They would also exclude transactions conducted by retail clients as part of a commercial transaction even if denominated in a foreign

margin brokerage platforms operated by the reporting dealer, the direct counterparty of the reporting dealer is a natural person. Trades of this type are to be categorised as “with non-financial customers”, and the turnover due to such trades should be reported in the “of which retail-driven” item.

2. *Indirect* transactions via third-party platforms that cater to retail investors, such as electronic retail trading platforms and retail margin brokerage firms (wholesale financial counterparties). When retail investors trade FX instruments for speculative purposes via electronic platforms (eg Oanda, FXCM, Saxo, Gaitame.com or Gain Capital operating as “retail aggregators”<sup>13</sup>), the direct counterparty for the reporting dealer would typically be a wholesale financial institution. Trades of this type are to be categorised as “with other financial customers / other”, and the amount should be specified in the “of which retail-driven” item.

The table below illustrates how to report direct and indirect electronically executed retail-driven transactions in the reporting template for the turnover part of the survey.

	Direct transactions	Indirect transactions
Total	X	X
with reporting dealers		X (if retail broker/aggregator is reporting dealer)
with other financial institutions non-reporting banks institutional investors hedge funds and proprietary trading firms official sector financial institutions others		X (if retail broker/aggregator is not reporting dealer) + in the relevant subcategory (typically “others”)
with non-financial customers	X	
o/w retail-driven	X	X

*Quality control.* To help assess the representativeness of the reported figures on retail-driven transactions, central banks are requested to answer the four quality control questions (questions 4a, 4b, 4c and 4d) in the complementary information section.

## J. Execution methods

The organising principle for foreign exchange data on execution methods distinguishes execution along two dimensions: (i) “voice” vs “electronic” and (ii) “direct” vs “indirect”. This yields four basic categories: voice-direct, voice-indirect, electronic-direct and electronic-indirect.

To continue to capture turnover on different types of electronic platforms as done in past surveys, the latter two “electronic” categories are augmented with subcategories: single-bank

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currency. These transactions are excluded for ease of reporting and because they are normally not associated with FX trading for investment/speculation purposes.

<sup>13</sup> Retail aggregators are wholesale financial firms that act as intermediaries, aggregating quotes from dealers and facilitating trades by retail investors by offering them trading through margin accounts.

proprietary trading system, other direct electronic means, anonymous venues and disclosed venues.

These execution methods are accompanied by breakdown by instrument and counterparty (the three main types only) in template Table C.

### Execution method categories and definitions

Category	Definition
Voice-direct	Trades originated in person, by phone, by telefax or through general messaging systems (eg Outlook, Hotmail, Gmail or Yahoo mail) regardless of how trades are subsequently matched, and not intermediated by a third party.
Voice-indirect	Trade agreed by a voice method and intermediated by a third party (eg a voice broker).
Electronic-direct	Trades executed via an electronic trading system, not intermediated by a third party. These include transactions originated through specific messaging systems that are part of trading platforms.
<i>Of which:</i>	
Single-bank proprietary trading system	Electronic trading system owned and operated by a bank for both in-house use and other banks and non-bank clients on a “white label”/prime brokerage basis. <sup>14</sup> <i>Examples: Autobahn, BARX, Velocity, FX Trader Plus.</i>
Other	Other direct electronic trading systems. <i>Examples: Bloomberg Chat, Thomson Reuters Conversational Dealing, direct API price streams.</i>
Electronic-indirect	Trades executed via an electronic medium, intermediated by a third-party electronic platform (eg via a matching system).
<i>of which:</i>	
Anonymous venues	Electronic trading platforms that have historically been geared towards the non-disclosed inter-dealer market; plus any other central limit order book (CLOB) venues that do not allow partitioning of liquidity via the use of customised tags.  <i>Examples: Reuters Matching, EBS Spot, EBS Hedge Ai, HotspotFX ECN, BGC mid, FXall MidBook.</i>
Disclosed venues	Multi-bank dealing systems that facilitate trading on a disclosed basis or that allow for price discrimination, eg in the form of liquidity partitioning via the use of customised tags  <i>Examples: FXall OrderBook, EBS Direct, Currenex FXTrades, Hotspot Link, Bloomberg FXGO, Tradebook, 360T.</i>

Table 8

*Quality control.* To allow for the possibility that some reporting dealers may be technically incapable of properly allocating all their transactions to the new execution methods, an entry

<sup>14</sup> Single-bank proprietary trading systems differ from multi-bank dealing systems in that the primary liquidity provider is only that single bank. In contrast, multi-bank dealing systems may be thought of as “multi-dealer” systems in that various banks provide liquidity to the system.

labelled “unallocated” is available in the survey template. This entry captures the amount of turnover for each instrument and counterparty that fails to be allocated to one of the execution method categories above (relief from reporting in full requires the agreement of the central bank).

To help assess the representativeness of data on execution methods, central banks are requested to answer the four quality control questions (questions 4a, 4b, 4c and 4d) in the complementary information section.

## K. Complementary information

Reporting dealers are requested to reply to questions 3 and 6. Central banks are requested to aggregate the replies from reporting dealers and provide the BIS with responses to all questions.

1. Number of business days	Reporting central banks are requested to provide information on the number of business days in their country in April 2019. The information is needed to calculate comparable daily averages of the reported monthly turnover data.
2. Coverage and concentration	<p>Reporting central banks are requested to provide the following information on their foreign exchange national survey (spot, outright forwards, foreign exchange swaps, currency swaps and OTC options):</p> <p>(a) The final number of participating institutions.</p> <p>(b) The estimated percentage coverage of their survey (ie the share of total market turnover in the reporting country accounted for by survey participants).</p> <p>(c) The number of institutions accounting for 75% of the reported totals.</p>
3. Trend of trading activity	Reporting dealers are requested to provide information on whether, in their experience, foreign exchange turnover (spot, outright forwards, foreign exchange swaps, currency swaps and OTC options) in the month of April 2019 was normal, below normal or above normal and whether turnover in the preceding six months was steady, increasing or decreasing.
4. Quality control questions to assess the representativeness of the reported figures	<p>Each reporting dealer is expected to provide all the data requested in the reporting template.</p> <p>In exceptional cases, should a participant not be capable of reporting some of the new details on grounds of technical capacity (due for example to a lack of lead time to modify the IT application), the central bank could grant relief from reporting. The BIS will work closely with central banks to provide globally consistent guidance on how such relief could be granted, should the need arise. In such an event, an estimate of the data that are not reported should be provided by the reporting dealer for quality assurance purposes.</p> <p>Since incomplete reporting will impair the quality of the collected data, participating central banks are requested to answer some quality control questions. The information obtained would help assess the representativeness of the reported figures in four areas: detailed breakdown of other financial institutions, prime brokered transactions, retail-driven transactions and execution methods.</p>

	<p>(a) How many reporting dealers are reporting the data?</p> <p>(b) How many reporting dealers are <u>not</u> reporting the data due to technical incapacity to report?</p> <p>(c) How many reporting dealers are <u>not</u> reporting the data due to no turnover in the transaction in question?</p> <p>(d) What is the estimated percentage coverage (ie the share of total market turnover in a given area that is accounted for by dealers reporting data in that area)?<sup>15</sup></p> <p><i>Example where three reporting dealers (RDs) participate in the survey.</i></p> <ul style="list-style-type: none"> <li>• RD1 reports “total spot” of 1,000, o/w prime-brokered 100.</li> <li>• RD2 reports “total spot” of 2,000, o/w prime-brokered 50.</li> <li>• RD3 reports “total spot” of 1,500, o/w prime-brokered not available.</li> </ul> <p><i>The central bank (CB) was informed that RD3 could not report data on prime-brokered transactions in foreign exchange markets. After discussions with RD3, CB decided to exempt him from reporting these particular data. As part of the exemption process, an assessment of the market share was made. According to RD3, its activity as FX prime broker is comparable to that of RD2 and should amount to approximately 50.</i></p> <p><i>So, CB would report 4,500 under “total spot”, and 150 under “o/w prime-brokered”. In question 4, CB would report in the column “prime-brokered”:</i></p> <p><i>a) Number of dealers reporting the data: 2.</i></p> <p><i>b) Number of dealers not reporting the data due to technical incapacity to report: 1.</i></p> <p><i>c) Number of dealers not reporting the data due to no turnover in the transaction in question: 0.</i></p> <p><i>d) Estimated percentage coverage: 75 (= 150 / (150 + 50), where 50 is the estimate that was given by RD3).</i></p>
<p>5. Internalisation of FX spot turnover</p>	<p>The internalisation of trades is a process whereby reporting dealers offset risk arising from client transactions against risk arising from transactions with other clients. Internalisation reduces the need to manage inventory imbalances via the traditional inter-dealer market. This information is typically available from e-trading desks operating in a principal (as opposed to agent) capacity. Only volumes from principal e-trading desks that assume risk on their own books shall be included.</p> <p>Reporting dealers are requested to provide internalisation ratios for spot turnover. This information should be provided by the reporting dealer’s front office or representatives from its e-trading desk. It should not be calculated by back office staff based on some other volume figures reported in the main spreadsheet templates.</p> <p>The internalisation ratio is calculated as follows:<sup>16</sup></p> $\left(1 - \frac{\text{Customer spot turnover hedged on external markets}}{\text{Total customer spot turnover}}\right) \times 100$

<sup>15</sup> The numerator is constituted by the turnover in US dollars from dealers reporting data in that area, and the denominator by the sum of turnovers in US dollars from dealers reporting data in that area and an estimation for dealers that are not reporting the data in that area due to technical incapacity.

<sup>16</sup> The definition purposefully abstracts from other considerations involved in the active management of customer turnover by principal e-trading desks, such as the internalisation horizon or quote skewing.

	<p>where:</p> <ul style="list-style-type: none"> <li>• Customer spot turnover hedged on external markets is defined as passive or aggressive trading on anonymous CLOBs or other explicit hedging of risk with internal or external counterparties. This includes: <ul style="list-style-type: none"> <li>- EBS Market, Reuters Matching or Hotspot Order Book;</li> <li>- mid-venues/dark pools such as BGC mid;</li> <li>- aggressive trading on venues allowing partitioning of liquidity via anonymous tags such as Currenex or Fastmatch;</li> <li>- hedging of customer spot turnover using FX futures on CME;</li> <li>- trading by a principal e-trading desk as a price taker with: <ul style="list-style-type: none"> <li>a) another bank (eg turnover of a reporting bank’s e-trading desk that takes liquidity from another bank or market-maker so as to minimise principal risk); or</li> <li>b) another principal trading desk of the same bank (eg passing customer orders to the voice trading desk).</li> </ul> </li> </ul> </li> <li>• Total customer spot turnover<sup>17</sup> is defined as passive trading executed via platforms where the identity of the counterparty is disclosed pre-trade either by name or by a tag enabling the dealer to recognise a future quote from the same counterparty. Includes: <ul style="list-style-type: none"> <li>- Single-dealer and multi-dealer platforms, whether on a screen or through an API.</li> <li>- Disclosed venues such as FXall OrderBook and 360T Tex; and turnover on venues allowing partitioning of liquidity via anonymous tags such as Currenex or Fastmatch.</li> <li>- Spot turnover vis-à-vis internal customers, such as the hedging activity of an options trading desk that trades as a price taker of the principal spot e-trading desk.</li> </ul> </li> </ul> <p>When aggregating internalisation ratios from reporting dealers, central banks should weight the responses by market share (sum (internalisation ratio * weight), where the weight is calculated as the reporter’s share of the country total customer spot turnover).</p>
6. FX settlement	<p>Reporting dealers are requested to provide the following breakdown as regards the settlement of foreign exchange transactions reported in template Table A3:</p> <p>(a) Total turnover. Gross turnover, as defined in the main survey, ie the gross value of all new deals entered into during April 2019, in terms of the nominal or notional amount of the contracts. This amount corresponds to the grand total for FX contracts reported in cell AA123 of Table A3, and excludes in/out swaps between CLS members<sup>18</sup>.</p> <p>(a1) Turnover to be settled with a single payment: the gross turnover of new deals reported under (a) that will be settled with a single payment from one counterparty to another (eg non-deliverable forwards).</p> <p>(a2) Turnover to be settled with at least two payments: the gross turnover of new deals reported under (a) that will be settled with at least two payments exchanged between counterparties (eg spot, forwards and swaps).</p>

<sup>17</sup> Comprises only the turnover of the principal spot e-trading desk; voice transactions are to be excluded.

<sup>18</sup> See “foreign exchange swaps” in table 6.

- (b) Two sided turnover subject to bilateral netting: the gross value of the turnover to be settled with at least two payments reported under (a2) that is subject to bilateral netting, before any netting takes place.
  - (b1) Net payable amount of two sided turnover subject to bilateral netting: the settlement value of bilaterally netted contracts reported under (b) after netting has taken place.
- (c) Gross value of payable settlement obligations: the settlement value of all contracts after netting. This amount corresponds to the turnover to be settled with at least two payments reported under (a2) less all contracts subject to bilateral netting reported under (b), adding back the residual settlement value of bilaterally netted contracts reported under (b1). This value should also equal the sum of payment versus payment (PvP) reported under (d) and non-PvP reported under (e).
- (d) Payment versus payment (PvP): the gross value of contracts settled without settlement risk. This can be achieved through having delivery and receipt of currencies across reporters' own accounts or through a system offering PvP risk management.
  - (d1) Via CLS: the gross value of contracts settled in CLS (<https://www.cls-group.com/>). Note that this is not the net values, nor pay-in, pay-out values.
  - (d2) Via other PvP or equivalent settlement methods: the gross value of contracts settled in PvP systems other than CLS (eg Hong Kong cross-currency RTGS systems, CCIL in India and others), or via another method with equivalent PvP protection (eg using the same third-party clearing bank as the reporting institution's counterparty where that clearing bank only transfers funds simultaneously).
  - (d3) Via "same-clearer" or "on-us" accounts without exposure to settlement risk: the gross value of contracts where delivery and receipt take place on accounts at the reporting institution (so that there is no settlement risk) – these can be considered "on-us" transactions. Note that, as described above, for settlement at the same third-party clearing bank, this would be recorded as other PvP (d2) if the third party guaranteed simultaneous settlement, or non-PvP (e) if it did not.
- (e) Non-PvP: the gross value of transactions settled through a system not offering PvP, either directly or via a correspondent.

Table 9