

Cross-border derivatives statistics in France: the use of accounting data

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1. Introduction

Banque de France has recently built a new reporting system (“Compte-rendu de transaction des intermediaires financiers”) in order to prepare the transposition of the international standards of the IMF’s Sixth edition of the Balance of Payments Manual (BPM6) and international investment position (IIP). The new reporting system specifically addresses the transactions by financial intermediaries which have a major role in the continuing expansion of financial derivatives markets and their globalization.

The focus of the new reporting is put on the financial intermediaries, defined as Monetary and Financial Institutions, securities firms and financial auxiliaries which are to report either on a monthly or on an annual basis depending on the importance of their business activity. Although non financial firms may hold financial derivatives in their balance sheet for hedging purposes, they are less likely to enter significantly into the international derivatives markets. Therefore and order to limit the reporting burden, financial intermediaries are, up to now, the sole resident sector to report.

This paper discusses the French reporting system with a special focus on the use of accounting data as a primary source of information.

2. The widespread use of financial derivatives

According to BIS Semiannual Over the counter derivatives statistics, notional amounts of OTC derivatives reached USD 582,655 billions in June 2010. Their gross market value amounted to USD 24,673 billions. A decade earlier, figures were respectively six and ten times lower.

BIS statistics also show that interest rates derivatives represent the bulk of outstanding in OTC derivatives (78 % of notional amounts) followed by foreign exchange derivatives (9 %) and credit derivatives (5 %).

Banks are the primary dealers and end-users of financial derivatives. Typically, financial derivatives, which are fully recognized under IFRS, account for 10–20 % of the consolidated balance sheet of large banking groups. Banks are involved in OTC derivatives but also heavily trade derivatives on organized markets.

The vast majority of financial derivatives are recognized in the trading book but some derivatives in this category are in fact contracted for hedging purposes but do not formally

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qualify for hedge accounting under IFRS. The bulk of the derivative market value consists in OTC interest rate derivatives, mainly plain vanilla interest rate swaps which are, for instance, used for Asset and Liability Management (ALM) purposes.

Banking groups trade derivatives for their own needs and for their client needs for financing, hedging, indexation, leveraged borrowing. Consequently, financial derivatives booked in banking groups balance sheet also reflect the interest of non-financial end users.

Financial derivatives are a growing business and are internationally traded. They represent a challenge for statisticians since they are expected to account for a significant share of BOP Financial account flows and the International investment position (IIP). Moreover, as solo accounts cannot be used as not being systematically marked to market, a specific reporting with identification of cross border intra group transactions is needed.

3. IMF's Balance of Payments and International Investment Position Manual guidelines in a nutshell

The Sixth Edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6) now incorporates financial derivatives. It promotes an integrated view of transactions, other changes, and positions which allows consistency between stocks and flows

Integrated International Investment Position Statement

	Beginning of period IIP	Financial account - Transactions	Other changes in financial assets and liabilities due to			End of period IIP
			Other changes in volumes	Exchange rate changes	Other prices changes	
Assets						
...						
Financial derivatives (other than reserves) and ESOs						
...						
Total assets						
Liabilities						
...						
Financial derivatives (other than reserves) and ESOs						
...						
Total liabilities						
Net IIP						

Source: BPM6 Table 7.1 (extract from)

The main guidelines on financial derivatives statistics are in the following chapters:

Chapter 3 – Accounting Principles

- The notion of net flows is defined in article 3.114. *“Net recording always refers to aggregations for which all debit entries of a particular asset or a particular liability are netted against all credit entries in the same asset type or in the same liability type.”*

Chapter 5 – Classifications of financial assets and liabilities

- *A financial derivative contract is a financial instrument that is linked to another specific financial instrument or indicator (underlying asset). It can be traded in its own right (cf. article 5.80).*
- Financial instruments that are not financial derivatives are listed in article 5.83.
- Two broad types of financial derivatives are defined by BMP6: options and forward-type contracts, including in particular interest rate swaps (cf. article 5.84), such as listed in articles 5.85 to 5.93.
- Only non repayable margins – ie that reduce financial liabilities – are classified as financial derivatives (cf. article 5.94). Repayable margins which consist in cash deposit are not financial derivatives transactions.

Chapter 6 – Functional Categories

- Financial derivatives are recorded separately for assets and liabilities and preferably for both positions and transactions (cf. article 6.60).

Chapter 7– International Investment Position

- Financial derivatives are valued at market prices (cf. articles 7.33 to 7.36).
- Gross asset and gross liability data be compiled by summing, respectively, the values of all individual contracts in asset positions and the values of all individual contracts in liability positions. *“Financial derivatives should, by preference, be reported separately for both assets and liabilities”* (cf. article 7.37).

Chapter 8 – Financial account

- *“Transactions may arise at inception, on secondary markets, with ongoing servicing (such as for margin payments), and at settlement. Financial account entries for derivatives should preferably be shown separately for each of assets and liabilities”* (cf. article 8.34).
- At inception, Forward-type contracts do not usually require the recording of financial transactions because, at that time, the market value should be nil and in any case is not triggering cash in or cash out. On contrary, the purchase of a conditional instrument leads to the recording of a financial transaction equivalent of the premium paid (cf. article 8.35).
- *Margins are payments (or receipts) of cash or deposits of collateral that cover actual or potential obligations incurred through financial derivatives – especially futures or exchange traded options.* (cf. article 8.39).
- When a financial derivative is settled several transactions are registered if the underlying asset is delivered (cf. article 8.40).

Chapter 9 – Other changes in financial assets and liabilities account

- *“Changes in the value of derivatives due to change in the underlying item are recorded as revaluation”* (article 9.30).

4. The merits of Financial Statement information

Using accounting data which by definition is the main input of financial statements is thought to be an efficient way to obtain high-quality data to the maximum extent possible since financial statements are certified by Independent external auditors. The data directly stem from the accounting interpreter. Reporters may use additional referential database to qualify the counterparty residency.

All financial derivatives are recognized in the balance sheet at fair value and transactions are market valued at the trade date since there is a single valuation measure for financial derivatives: the fair value which promotes market prices.

Aligning the statistical definition of financial derivatives on International accounting standards (IFRS/IAS) also allows large – however not necessarily complete since US Gaaps can be different – international comparability.

5. The limits of Financial Statement information on a solo basis

In France, the recording of financial derivatives at market value in the balance sheet is not fully recognized in unconsolidated individual financial statements, while consolidated accounts comply with IFRS. Indeed, accounting principles applied for solo accounts only recognize financial derivatives at their market value when held for trading purposes (“Catégorie D – Gestion spécialisée”).

Consequently, financial intermediaries IFRS accounting inputs are used, but the concerned financial intermediaries have to restate intra group transactions with foreign subsidiaries or branches which are eliminated during the consolidation process.

6. IAS 39: Accounting of financial derivatives

International Financial Reporting Standards (IFRS) are the applicable accounting standards for consolidated financial statements. IAS 39 (“Financial instruments: Recognition and measurement”) establishes requirements for all aspects of accounting for financial instruments to all types of financial instruments including financial derivatives (options, rights, warrants, futures contracts, forward contracts, and swaps).

Fair value in the consolidated balance sheet is determined on the basis of quoted prices in an active market or using valuation techniques. In practical terms, the bulk of financial derivatives are traded in active markets. Consequently, quoted prices for derivatives traded on organized markets (futures and options) and quoted prices and generally accepted models for plain vanilla OTC derivatives are available and are fully suited for valuing stocks and flows. Financial derivatives traded in inactive markets are valued using model based on (un) observable parameters.

6.a Derivative instruments held for trading purposes

They are recognized in the balance sheet in “Financial assets at fair value through profit or loss”. Realized and unrealized gains and losses are taken to the profit and loss account on the line “Net gain/loss on financial instruments at fair value through profit or loss”.

6.b Derivatives under the hedge accounting

Hedging refers to the process of mitigating risks of the hedged item using derivatives. Under IAS 39,² three purposes of the hedge are identified:

1. Fair value hedge,
2. Cash flow hedge,
3. Net foreign currency investments in affiliates hedge.

Derivatives used for hedging purposes are recognized at fair value in the balance sheet. Changes in fair value are taken differently in the P&L account depending on the purpose of the hedging strategy.

Since financial derivatives are always recognized at fair value in the balance sheet, accounting information used to build stocks of derivatives in the consolidated balance sheet can also be processed into financial derivatives IIP reporting. The individual accounting transaction hence constitutes the mutual input for both consolidated balance sheet (after elimination of positions with foreign affiliates) and the international investment position (individual reporter).

BOP transactions also rely on accounting information which tracks buy and sell of options, future's margin call and swaps servicing.

7. Compilation of cross-border derivatives statistics in France

Building a new reporting scheme (BOP/IIP) was the Banque de France's answer to implement BPM6 guidelines and to design an integrated view of transactions, other changes, and positions of financial derivatives.

Only the most significant financial intermediaries report flows of cross-border derivatives activities on a monthly basis (i.e. 29 Credit institutions and 7 Securities firms). Others financial intermediaries report on an annual basis.

Market value

According to BPM6, positions of financial assets and liabilities (cf. article 3.84) and flows should be priced at market value. Fair value is a market-equivalent value (cf. 3.88 a).

Definition of financial derivatives

Since financial intermediaries rely on their accounting system to produce stocks and flows of financial derivatives, they follow the definition of derivatives provided by IAS 39. The noticeable exception is the embedded derivatives. Indeed according to BPM6 (Art 5.83), embedded derivatives are not financial derivatives but IAS 39 states that derivatives embedded in hybrid financial instruments are, under certain circumstances, extracted from the value of the host contract and accounted for separately as a derivative. Considering that it is not a major statistical inconsistency, all cross-border derivative products that are recognized in the balance sheet are subject to BOP/IIP reporting.

² The IASB aims to replace all of the requirements of IAS 39 by the second quarter of 2011. The new standard will be IFRS 9 *Financial Instruments*.

Definitions of financial derivatives

Under BPM6 (Art 5.80)

“A financial derivative contract is a financial instrument that is linked to another specific financial instrument or indicator or commodity and through which specific financial risks (such as interest rate risk, foreign exchange risk, equity and commodity price risks, credit risk, etc.) can be traded in their own right in financial markets. Transactions and positions in financial derivatives are treated separately from the values of any underlying items to which they are linked.”

Under IAS 39 (paragraph 9)

A derivative is a financial instrument or other contract with all three of the following characteristics:

- a) its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (sometimes called the “underlying”);
- b) it requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and
- c) it is settled at a future date.

Initial reporting of stocks of financial derivatives

Financial intermediaries are first asked to report the market value of their stocks³ (asset and liability positions) of financial derivatives as of the end of 2010. This piece of information once aggregated forms the initial IIP. Breakdowns for stocks and flows are provided by instruments (swaps, forwards, futures, option, FRA), markets (organized markets, OTC), countries and currencies.

Reporting of flows of financial derivatives

Resident financial intermediaries report, on a parent basis, financial derivatives transactions with non resident institutions which can be foreign subsidiaries (Identified in the scope of consolidation) or non affiliated foreign counterparties (Non financial Corporations, Financial Institutions – including Central Counterparty Clearing Houses or CCP, Retail customers). In both cases, the residency of the counterparty is properly identified at the transaction level in order to fit into the right category.

Financial intermediaries also report other flows – ie mainly reevaluations – which allow Banque de France to increment the final IIP.

³ For more details see:
www.banque-france.fr/fr/statistiques/telechar/economie_balance/F10-156_CRT_Borne_ouverture_PFD.xls

Swaps switching from an asset to a liability position (and vice versa)

Tracking financial transactions arising from swaps has to take into account changes in market prices. Indeed, in the reporting, transactions are tagged as stemming from assets (for instance SA110) or from liabilities (SP110). Consequently, reporters are required to identify swaps and other forwards that have switched in market value and assign an asset (liability) transaction (ie SA110 or SP110) for net receipts (payments) even though the derivative has turned a liability (asset).

Since other flows are globally deducted from aggregated positions (initial and final IIP) and transactions (ie country/currency/products/asset or liabilities), the tree datasets (position/transactions/other flows) remain consistent over time.

IIP & Flows of financial derivatives on country A

INITIAL IIP		FLOWS - Month XX				FINAL IIP		
ASSET	LIABILITIES	ASSET		LIABILITIES		ASSET	LIABILITIES	
Products		Transactions	Other flows	Transactions	Other flows	Market value	Market value	
ON COUNTRY A	Options traded on organized exchanges	OA210	OA211	OP210	OP211			
	OTC Options	OA110	OA111	OP110	OP111			
	Cleared Swaps	SA110*	SA111	SP110	SP111			
	Swaps	SA210	SA211	SP210	SP211			
	Futures	FA120	FA121	FP120	FP121			
	Forwards	FA210	FA211	FP210	FP211			
	of which flows with foreign affiliates						of which IIP with foreign affiliates	
	All products		DA210	DA211	DP210	DP211		

Individual reportings are then compared with financial statements and are cross-checked with peers. Temporal inconsistencies are tracked when building a new international investment position in financial derivatives.

8. Conclusion

The use accounting data allows reporters to rely on existing information systems and existing audit trails which are devised for financial statements. Fair value accounting (IFRS/IAS 39) almost perfectly fits with the BPM6 definition of financial derivatives allowing the direct use of established definitions (fair value, financial derivatives).

The integration of flows and positions, since financial intermediaries are only asked to report flows (transactions and other flows) but have keep track of the market valued stocks of financial derivatives, is deemed to limit errors.

Some issues remain difficult to address such as the way to take into account transactions with home CCPs that have also relationships with foreign financial counterparties.

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