

Holding up a mirror



Banks support corporate treasurers in many ways, providing a range of products and services from simple current accounts to sophisticated structured finance. But banks also need these services for themselves. Inside every bank are departments performing functions that would be very familiar to any treasurer of a corporate.

Citigroup is one of the largest financial services companies in the world, combining a bank (Citibank) with a broker-dealer (SalomonSmithBarney) under one umbrella. It has a balance sheet of \$1,500bn and in 2005 had net income of \$24.6bn.

STRUCTURING TREASURY FUNCTIONS Citigroup's own treasury functions are split into two departments – a risk-taking profit centre (the risk treasury) and a largely non-risk-taking cost centre (the corporate treasury).

The risk treasury is responsible for funding the bank's activities and charges the bank's businesses a market rate for that funding. Or it credits businesses that generate cash. It then has the opportunity to make a return by funding itself optimally in the money markets. For example, if it takes the view that long-term interest rates will rise, it can borrow long term to lock in the cheaper rates. If the view turns out to be correct and long-term interest rates do rise, the risk treasury keeps the resulting profit. This activity can only take place within strict liquidity and interest rate risk limits.

The corporate treasury has four key functions.

First, it is responsible for predicting the end-of-day cash balances in Citigroup's bank accounts held with other banks and communicating this to the risk treasury so the adequate funding can be put in place. This function is particularly critical where Citigroup is a clearer and its bank accounts for that currency are held with the central bank.

Second, the corporate treasury is responsible for maintaining Citigroup's network of accounts held with other banks and other organisations such as clearing houses (Euroclear, for example). In addition to managing these third-party relationships, the corporate treasury maintains key relationships with financial regulators and central banks.

Third, the corporate treasury analyses the structural liquidity of the bank. For example, if the bank is lending long term but financing that

Executive summary

- Citigroup's own treasury department is split into two: a risk-taking profit centre and a largely non-risk-taking cost centre. The latter has four key functions, including managing Citigroup's FX exposures. As a global company with operations in more than 100 different countries, Citigroup's global presence creates FX exposures in three key ways.

business short term, there is liquidity risk. As mentioned earlier, the risk treasury is given limits for how much liquidity risk it can take. It is the corporate treasury that sets and polices those limits.

Fourth, the corporate treasury is responsible for managing Citigroup's foreign exchange (FX) exposures. Of course, as Citigroup has its own FX business and other trading desks entitled to take FX positions, the corporate treasury is careful not to unwind those positions. Aside from these positions, what drives Citigroup's FX risk?

FX EXPOSURE Citigroup is a US dollar company. Its shares are denominated in dollars and it reports its results in dollars. But it is a global company with operations in more than 100 different countries and that global presence creates FX exposures in three key ways:

- Citigroup's biggest expense (aside from interest) is salary and most employees are paid in local currency;
- Citigroup generates revenues in many different currencies; and
- Citigroup holds many investments that are denominated in foreign currencies.

How are these exposures managed? Natural hedges cover much of Citigroup's FX exposure. Investments in non-dollar subsidiaries are usually funded in the same currency, as are holdings of tradable securities. In many countries, local currency expenses are matched by local currency revenues.

However, there is often no natural hedge. For example, Europe has

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OFFER AN INSIDER'S VIEW OF THE
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a large sterling expense base in London that is not matched by sterling earnings; Europe is structurally short of sterling. Citigroup hedges the bulk of this risk 18 months forward using a series of rolling, forward dollar/sterling trades.

But this forward hedging programme is not the norm since most of the remaining exposures tend not to be as predictable or material. Most exposures are only hedged once they become certain; as this is the point at which the exposures can be recognised in the bank's balance sheet, there is no need to seek hedge accounting for these hedges. This is the only realistic approach for many Citigroup businesses as revenue forecasting at a currency level can be very difficult, a good example being certain derivatives trading desks. In fact, FX risk on currency profit and loss can be intrinsic to the trading structures run by some desks, so instead of hedging, Citigroup's corporate treasury reallocates the FX risk back to the relevant business.

The reallocated FX exposure then forms part of the total FX position owned by that desk or business. The desk will seek to manage that exposure within FX exposure limits set by their own risk managers who sit outside of the corporate treasury. Provided the corporate treasury can determine exactly how much of the total FX exposure on the bank's balance sheet is owned by each desk, it can successfully manage the remainder.

It is worth mentioning that there are some FX risks that are not identified or controlled by the Citigroup corporate treasury. For example, the FX/delta risk in holding FX option positions does not create exposure on the bank's balance sheet. Instead, each desk's risk management systems identify and control these risks.

ESTABLISHING FX EXPOSURES So how does the corporate treasury department establish what Citigroup's FX exposures are? It has built a bespoke system that takes feeds from general ledgers, FX trading platforms and management reporting systems. The system allows the corporate treasury to amalgamate exposures, monitor FX positions at trade, business and legal entity level and allocate FX

profit and loss on those positions. The system, based on client/server technology, is used globally and there is an ongoing project to roll it out to the remaining legal entities not yet using it.

This project team is based in London along with the servers and IT development staff. This puts the London corporate treasury department in a great position to play a leading role in the management of Citigroup's FX risk. London's time zone and FX market are also advantageous.

What instruments does the corporate treasury use to hedge FX risk? Apart from the forward trades mentioned earlier, vanilla spot FX is almost always used. This is made possible due to the way banks fund their operations, which is different from most corporates. For example, if Citigroup identifies a non-dollar expense to be paid in one month's time, it would not buy FX forward one month as a corporate might. Instead, it would recognise the FX exposure when the non-dollar accrual is booked in the general ledger, buy spot FX to cover the exposure and let the risk treasury fund the bank accounts flat, in an FX-neutral way. FX-neutral funding could be provided using funding swaps in the FX market or money market loans/placements.

Not surprisingly, the corporate treasury always uses the Citigroup FX desk as its FX counterparty. The Citigroup FX desk will normally lay that risk off with an external counterparty although it does have the option to run the risk within its own risk limits. Orders can be placed by calling or emailing the FX desk, but most are placed online using Chiefdealer.

Chiefdealer is Citigroup's e-commerce FX order-placing system and is used by internal clients like Corporate Treasury as well as a large number of external clients. Chiefdealer can be used as a real-time online quoting system where the order is finalised only if the customer agrees the price. Alternatively, orders can be logged in advance of regular 'fixing' times during the day, a service known as Bench. Orders placed in this way are executed at the market rate at the chosen fixing time and the client pays a pre-negotiated spread. The rates are published on the Chiefdealer website shortly after the fixing time.

It is for a number of reasons that the corporate treasury normally use the Chiefdealer Bench service:

- It provides transparency over the hedging rates achieved;
- It shows a clear audit trail;
- It is possible to specify on which account and legal entity each hedge should settle;
- Offsetting trades are netted automatically, so paying unnecessary spread is avoided, which also means that Chiefdealer can be used as a mechanism for booking trades between different accounts;
- All trades flow through to back-office systems under straight-through processing; and
- It is possible to alter user access levels so that maker-checker controls can be introduced to the order-placing process.

It is clear that there are both similarities between treasury functions in corporates and corporate treasuries in banks and also differences. One thing they both share, however, is being an integral part of the business. That makes them both fascinating places to work.

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