6.3.1 Cash Management

Unit: Unit 2 – Treasury Applications

Module: Module 6 – Managing the corporate structure

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Summary: An in-depth look at how multinational corporations might approach the problem of cash management.

Keywords: cash management, liquidity management, float, cross border payments, multilateral netting, balance reporting, zero balancing, notional pooling, target balancing, overlay banking, SWIFT, treasury centre, treasury workstation, shared service centre, SEPA, IS020022, order to cash, purchase to pay, electronic invoicing, supply chain finance, cash, cheque, direct debit, credit transfer, card payment, wire transfer, bills of exchange, RTGS, ACH, withholding tax, regulation, transfer pricing, stamp duty, lifting fees, central bank reporting, exchange control, tiering, electronic bank account management, open banking, API, virtual bank accounts

Contents

1 Introduction 1

1.1 What are cash management and liquidity management? 1
1.2 Why good cash management is important 2

2 Original scope of cash management 3

3 Emerging scope of cash management 5

4 Global influences on cash management.....8

5 Consequent widening scope of cash management 9

6 Barriers to effective cash management on a national and a global scale.....11

6.1 Domestic cash management..... 12
6.2 National-level barriers to optimal domestic cash management..... 15
6.3 Global – issues on the corporate side 17
6.4 Structure of international banks..... 20
6.5 Global – issues on the bank side 21

7 Usage and limitations of SWIFT Message Set.....25

8 Tools of the trade / seeing and mobilising money.....28

9 Tools of the trade / what happens with the money that has been mobilised 41

10 The future.....51

10.1 SWIFT for Corporates (S4C) 51
10.2 ISO20022..... 52
10.3 Electronic bank account management (EBAM)..... 52
10.4 3SKey 52
10.5 Optimising Single Euro Payments Area (SEPA) 53

11 A future without banks?.....55

Learning outcomes:

1. Understand the meaning and scope of cash management.
2. What is the product set and why these products have developed around the barriers to cash management.
3. What these barriers are and how banks are, and are not, structured and equipped to help corporates mitigate or eliminate them.
4. What are the emerging initiatives and trends that could facilitate cash management for corporates.

1 Introduction

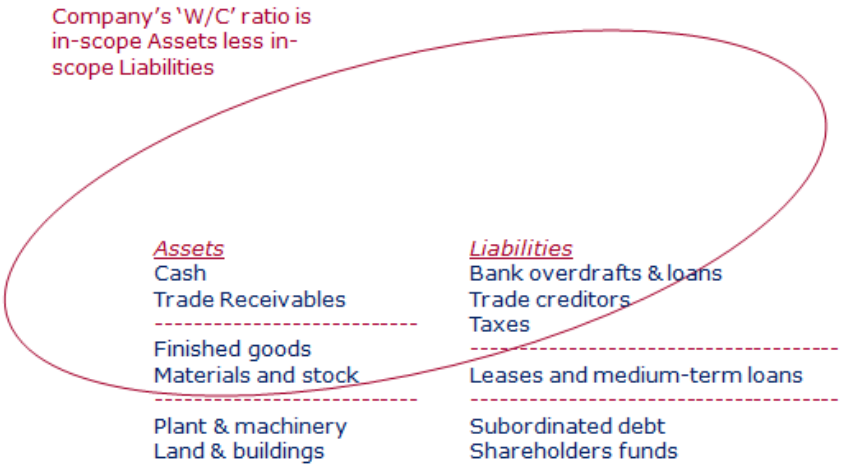
Exhibit 1: Cash management

1.1 What are cash management and liquidity management?

Liquidity management:

- ensuring financial assets exist to meet liabilities when they fall due
- which is arguably the same as saying it is asset/liability management in the 0-180 day range of the maturity spectrum, with anything with a maturity date beyond 180 days being by definition illiquid unless it was negotiable
- The Working Capital Ratio might be a possible measure (see exhibit 2).

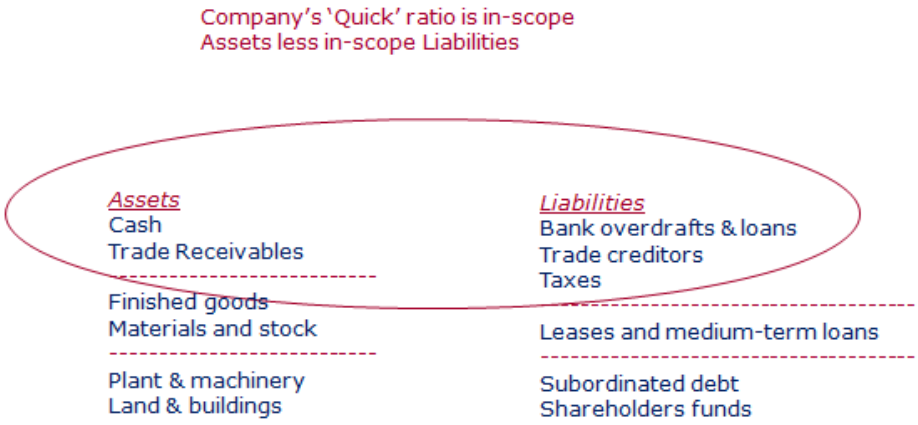
Exhibit 2: Working capital ratio – measure of resources available in 180 days to meet obligations



Cash management:

- is a subset of liquidity management, being asset/liability management at the short end of that maturity spectrum, 0-30 days
- and at the very short end (0-7 days) it is ensuring the right amount of money is in the right place at the right time, across all currencies and countries
- The Quick Ratio would be a key measure (see exhibit 3)

Exhibit 3: 'Quick' ratio – measure of resources available in 30 days to meet obligations



All assets and liabilities eventually result in a movement of cash, meaning scriptural money, not necessarily bank notes.

Alternative definitions of cash management:

- Historical – managing surplus cash on a daily basis to deliver security, liquidity and yield
- Emerging – shortening the Order-to-Cash cycle and controlling the Purchase-to-Pay cycle to increase cashflow, enhance ratios of liquidity, and reduce reliance on third-parties to meet liabilities when they fall due

1.2 Why good cash management is important

Success delivers:

- enhanced ability to meet liabilities
- visibility of cash
- lower costs and higher speed in mobilising money from where it is received to where it is needed
- improved net interest income deriving from reduction in overdrafts and/or better mobilisation of credit balances
- reduction of counterparty risk on and dependency on third-parties
- cutting of external debt as company's internal funds can be used instead of third-party funds
- reduces balance sheet footings
- better financial ratios (Quick Ratio, Working Capital Ratio)

- better credit ratings and lower cost of capital
- better reputation with customers and suppliers, leading to better credit terms

The penalties of poor cash management are:

- mail float: items of value in transit before being deposited into a bank
- funds float: items of value deposited but not part of available funds
- information float: items of value are available but cannot be seen or mobilised
- lack of visibility of overdrafts and credit balances
- locked-in pockets of funds or overdrafts
- high costs/slow speed for using credit balances to reduce/eliminate overdrafts
- sub-optimal:
    - counterparty risk management
    - net interest income
    - external debt
    - balance sheet footings
    - Quick Ratio and Working Capital Ratio
    - credit ratings and cost of capital
    - supplier credit terms, relationships with trading counterparties
- amounting to sub-optimal ability to meet liabilities when they fall due

Perhaps in a different category, but we could possibly add the topic of KYC[1] as a cause of penalties, i.e. arising from the difficulty of being able to open bank accounts and therefore unable to tackle the penalties above.

2 Original scope of cash management

Historically:

- Daily process by subsidiaries to make sure they are not in overdraft and that all their payments can go out, or the investment of net daily surplus at a better rate than they would receive on the same money if left on their current account
- There were no tools or support from the group centre to the subsidiaries
- Group-level priority was given to hedging foreign exchange and arranging borrowing, and to trade finance
- The approach may have delivered reasonable results at a local level, but there was no coordination or consolidation of positions
- There was a lack of banks and banking tools to help the group centre address this issue

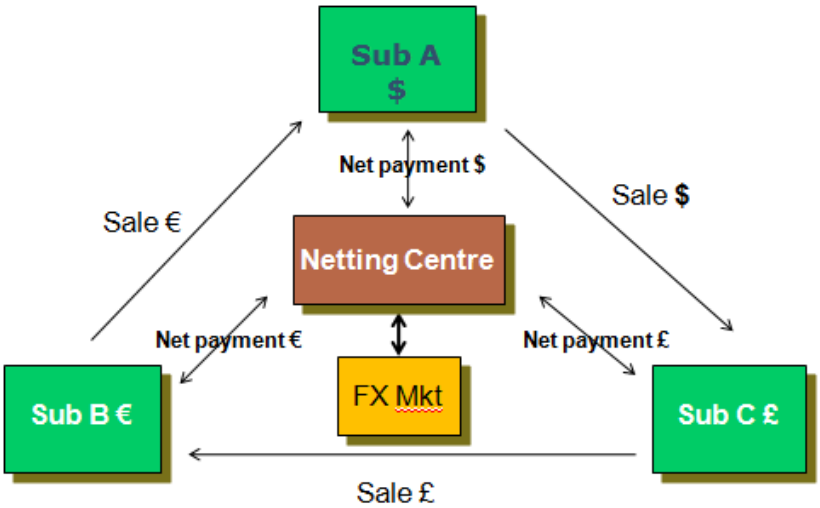
Phases of development of cash management on an international level:

- The common first step from the centre was to cut the cost and loss-of-value on cross-border payments needed to settle intra-group invoices, and at the same time as reducing

[1] Know Your Customer (KYC). These are regulations that banks must follow before they can open accounts and transact business with a customer. It is a very topical subject.

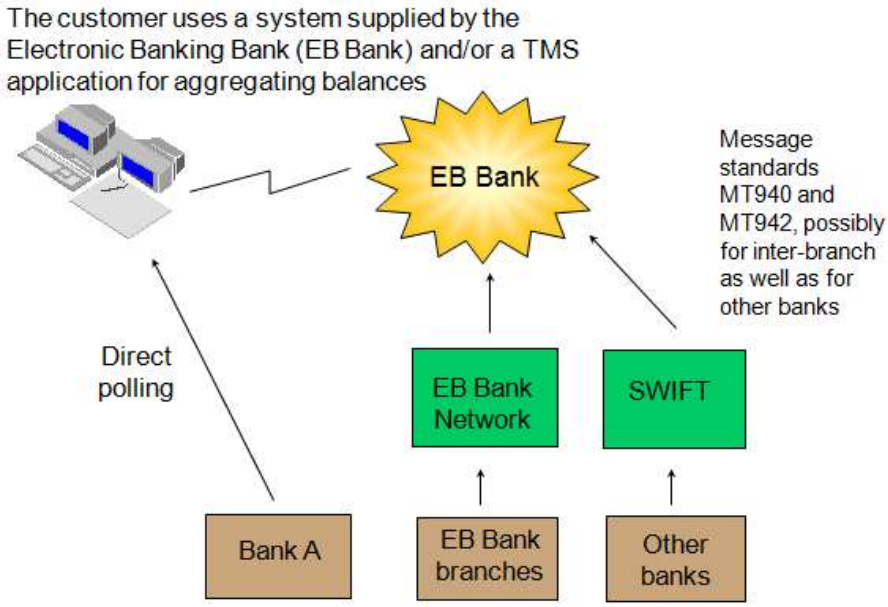
the volume of foreign exchange contracts being done by subsidiaries: multilateral netting (see exhibit 4).

Exhibit 4: Multilateral netting



- The centre would then want visibility of cash and borrowing positions at subsidiaries: Electronic Balance Reporting (see exhibit 5).

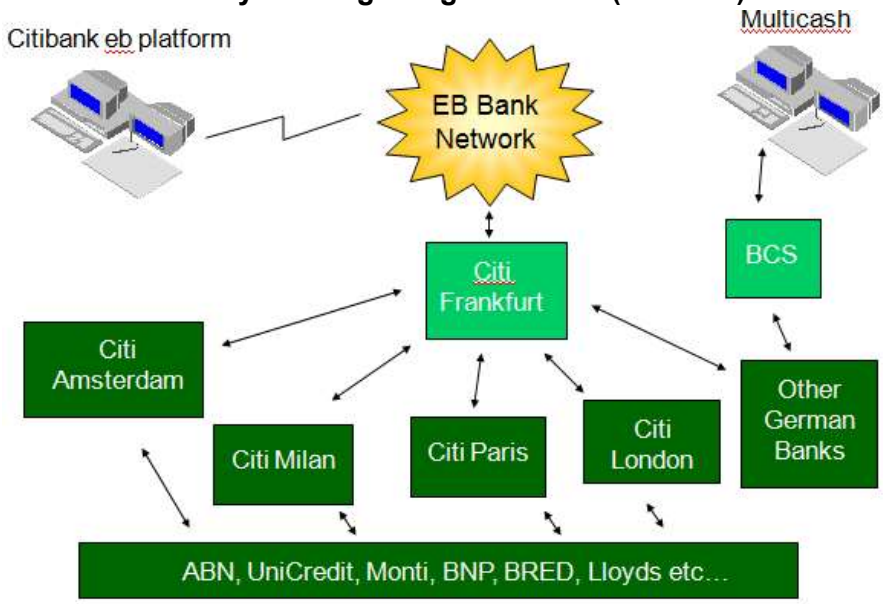
Exhibit 5: Information pooling based on electronic banking



- Having achieved visibility of balances in this way, it would become a policy to ensure consolidation of bank account balances of the subsidiaries that existed in the same country:

  - By local balance concentration using a domestic model (e.g. in Germany, Multicash).
  - By combining balances at the same bank via zero-balancing or notional pooling as appropriate to the local legal and regulatory regime.
- Having done that, it proved possible for the centre to get control of "surplus cash" at the country level and/or to insert inter-company loans from the centre if the country was a net borrower, both without incurring fees and loss-of-value: the model that emerged for this was Overlay Banking, piloted by Citibank. Only a few banks with their own branch network could offer this (See exhibit 6).

Exhibit 6: 'Overlay banking' via global bank (Citibank)



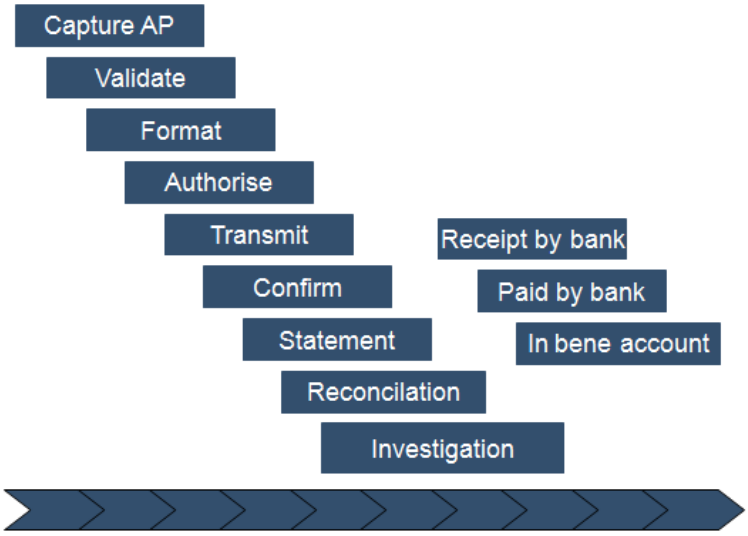
- Next step is for the centre to get control of net bank balances (debit or credit) and extract them to the centre: using SWIFT-based Multibanking, Cross-Border ZBA, Pooling Engine…, techniques that tend to use similar tools, and have similar limitations, under the bonnet.
- On top of that system of concentrating balances, the centre would run a cash-recycling system, with or without inter-company loans, managed by the group centre (usually at a Treasury Centre) but housed at a single location of a single bank: the system would normally be based on some form of Cross-currency Notional Pooling or Interest Enhancement.
- Single Euro Payments Area would allow some companies to move away from having bank accounts in each country at all, or to be able to handle all payments and collections within the Overlay Bank, dispensing with the need for the Underlay Banks at all.

3 Emerging scope of cash management

- This is not a static scope because Cash Management originally excluded external Accounts Payable and Receivable – mainly because they were managed in separate country-level accounting systems and even when they migrated to a distributed installation of an Enterprise-Wide Resource Planning system

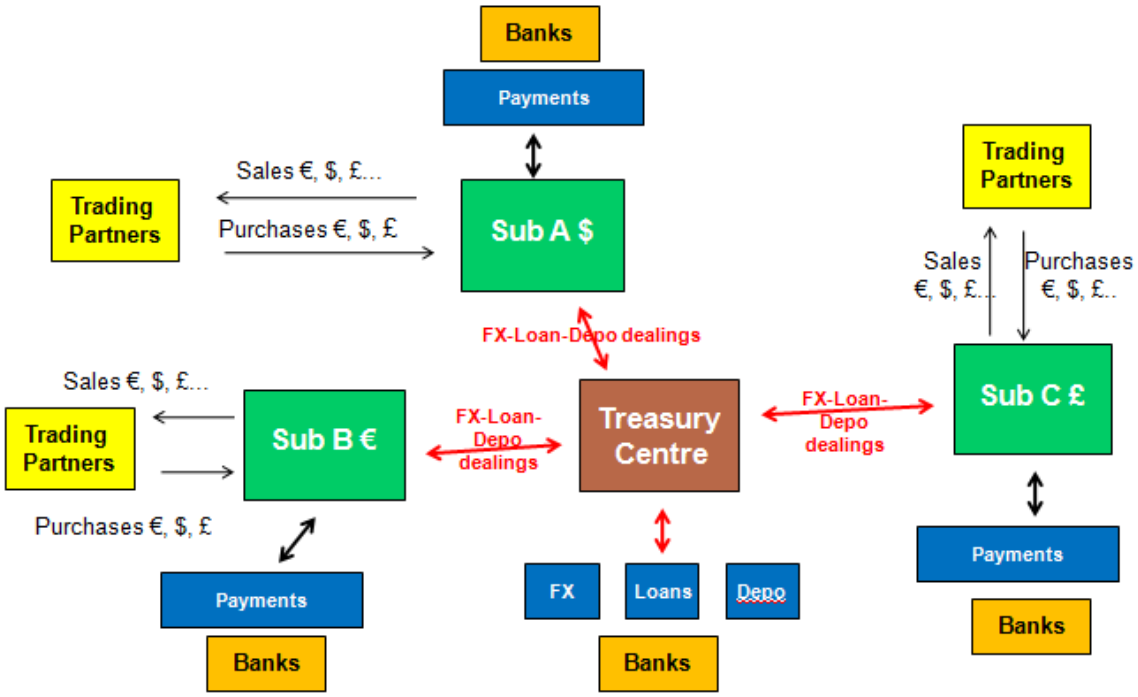
- Now companies that run ERP can obtain visibility and control from the centre over the entire cashflow including external Accounts Payable and Receivable and all other elements comprising Working Capital, and run a single process for payments and collections (see exhibit 7).

Exhibit 7: Generic payments process



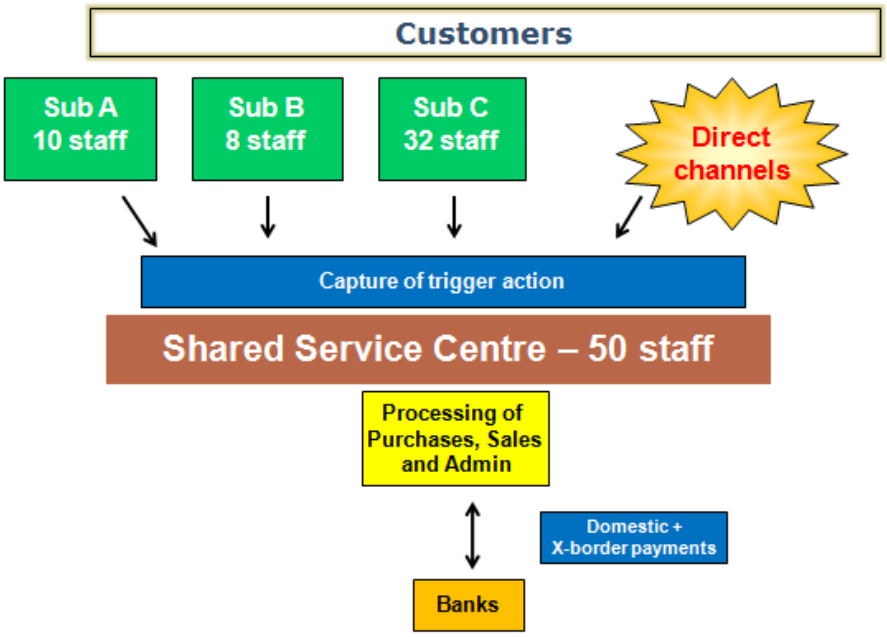
- The organisational and IT basis of the centralisation of the entire finance function is into a Treasury Centre with a Treasury Workstation, and a Shared Service Centre (or Payments/Collections Factory) using ERP.
- At the current stage of development of Single Euro Payments Area it may be possible for some companies, depending on their operating model, to reduce the number of banks they work with in the SEPA Area to a very few: SEPA should be a strong enabler for the centralisation of the finance function.
- Cash Management is then defined as the management of all resources and liabilities within that organisational and IT basis that have a maturity below 30 days.
- With a Treasury Centre the subsidiaries cease to do their own banking in terms of FX, Loans and Deposits – and conducts those with the Treasury Centre. The subsidiaries continue to do their own payments and collections (see exhibit 8).

Exhibit 8: With treasury centre - banking



- With a Shared Service Centre the payments and collections are moved to the centre as well (see exhibit 9).

Exhibit 9: Admin work and payments with Shared Service Centre



4 Global influences on cash management

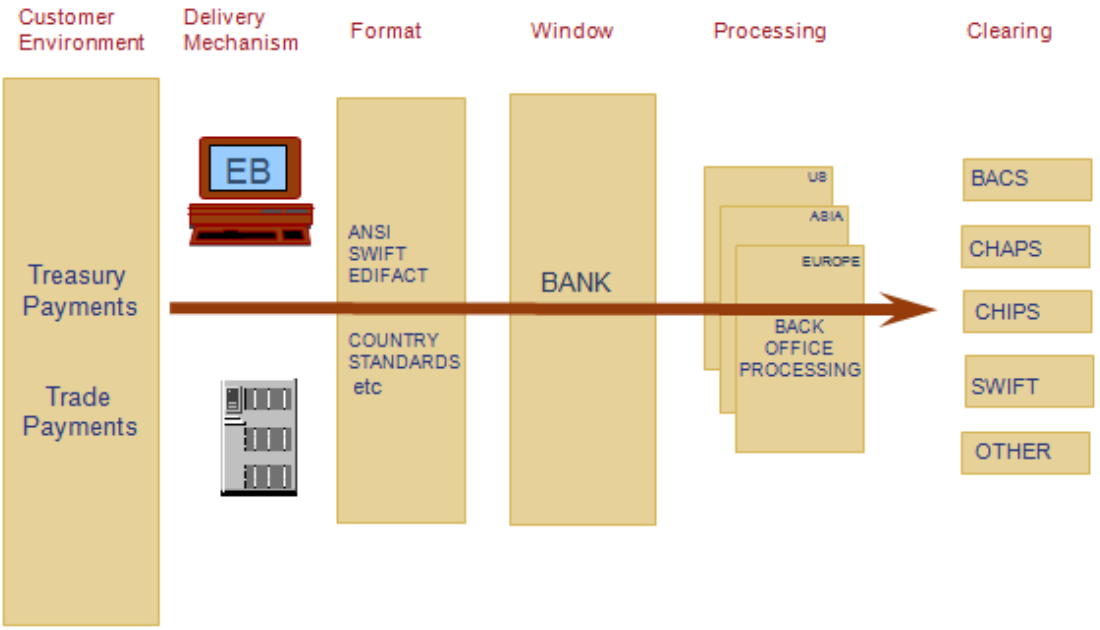
It is sometimes hard to distinguish drivers from enablers here. SEPA, SWIFT for Corporates, ISO20022 are in some ways both, so the global influences derive from the combination of the drive towards centralisation happening at the same time as the credit crisis.

Eight / nine years on from that the corporate side has globalised even more, and wishes to do that with centralised control, but the banks have both de-globalised and focussed their international efforts on fewer corporate customers – the very large ones.

The major influences are:

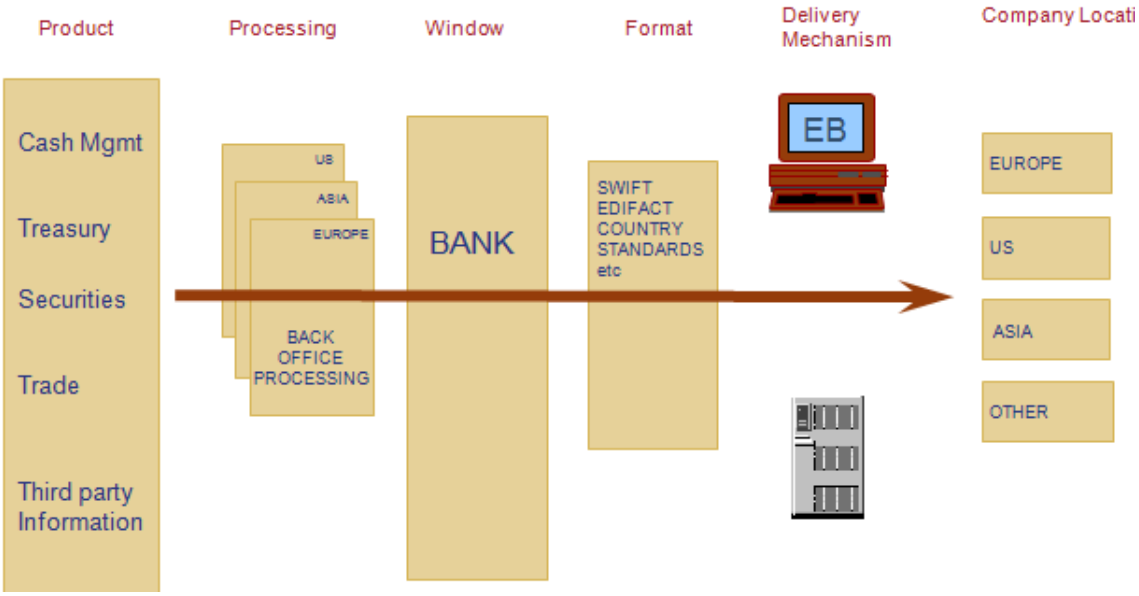
- requirement to manage counterparty risk
- ensuring that the company's IT environment is not heavily influenced by the demands of running bank-proprietary IT and ebanking systems
- necessity of getting visibility over all funds due to scarcity and increasing cost of bank credit
- establishing a complete control environment over payments and collections in order to be compliant with Sarbanes-Oxley
- breaking down the distinctions between Domestic and Cross-Border Cash Management Payments, as is logical when they are both being managed from a Shared Service Centre, and/or when the company business model has very light in-country presences and/or when SEPA has now materialised
- completing a centralisation of these tasks, thereby reducing the work done on Finance by subsidiary companies and local finance staff
- rationalising the customer-to-bank connections in the centralised environment ~ for example by using SWIFT for Corporates
- capitalising on banking industry (and competitors in the shadow banking sector) initiatives to speed centralisation and rationalisation, and cut cost ~ ISO20022, SEPA, Payment Services Directive
- these last two sets of initiatives seek to serve the corporate's requirements for 'Single Pipe' management of banking.
- for distribution of payments (see exhibit 10).

Exhibit 10: SSC objective – eliminate paper processing – typical payment flow



- And for collection of information (see exhibit 11).

Exhibit 11: SSC objective – eliminate paper processing – typical data reporting



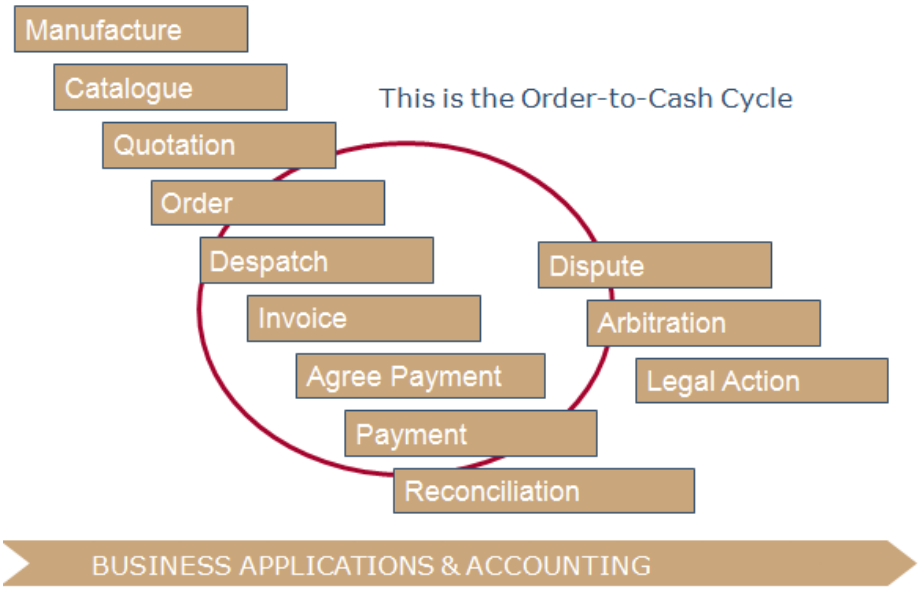
5 Consequent widening scope of cash management

Centralised cash management increasingly becomes a function run within Treasury and not within Accounting or Control or any other of the finance functions that report into the CFO.

Treasury's demonstrated success in managing centralisation of its own function has led to it being relied upon to manage the centralisation of other finance functions, and the next ones in line would be:

- centralisation of processes ancillary to Payments and Collections
  - bank account mandates
  - bank services invoicing
- adoption of further techniques to speed Order-to-Cash and manage Purchase-to-Pay
  - electronic invoicing
  - supply chain finance (see exhibit 12).

Exhibit 12: Order-to-cash cycle



- adoption of new payment channels into the same controlled environment, which channels are at the same time new methods of customer interaction:
  - PayPal, Google Wallet
  - mobile payments

However, there are in parallel certain trends that push against centralisation:

- Certain types of Supply Chain Finance are not available as a programme that would lend itself to being managed by Treasury centrally, but are rather available on a deal-by-deal basis, raising implications for staffing and organisation in Treasury.
- Banks are reducing their international footprint so it has in some cases been necessary to re-engage with banks at a local level, out of subsidiaries, rather than out of Treasury, in order to get credit.

These are examples of barriers that began to fall before 2008 and the credit crisis, and have since started to rise again.

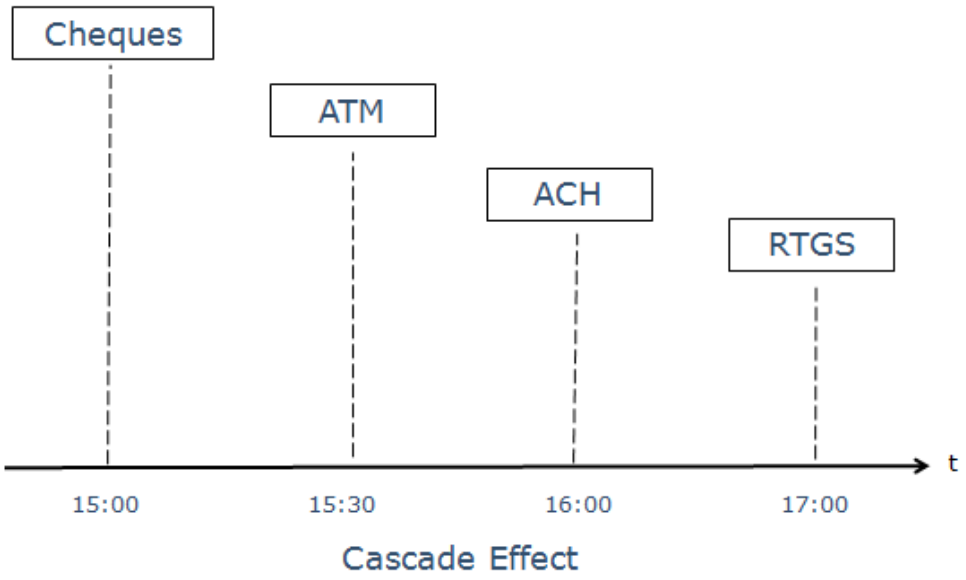
6 Barriers to effective cash management on a national and a global scale

Optimal cash management is inhibited by numerous barriers and structural issues, starting with how payments are received and made. The ideal situation – 'receive by wire transfer, pay by mule' – does not fit with the commercial reality where terms of trade and bargaining power govern the group's business.

Payments and collections in a company with in-country subsidiaries will be effected via a number of instruments, the terms and conditions and clearing/settlement for which will be subject to local models: cash, cheque, direct debits, credit transfers, card payments, wire transfers, hybrids between direct debits and bills of exchange.

Clearings for the different instruments will typically close at different times with the Wire Transfer system being last. That system is known by the term Real-Time Gross Settlement or RTGS, and examples are TARGET, CHAPS and Fedwire. (See exhibit 13).

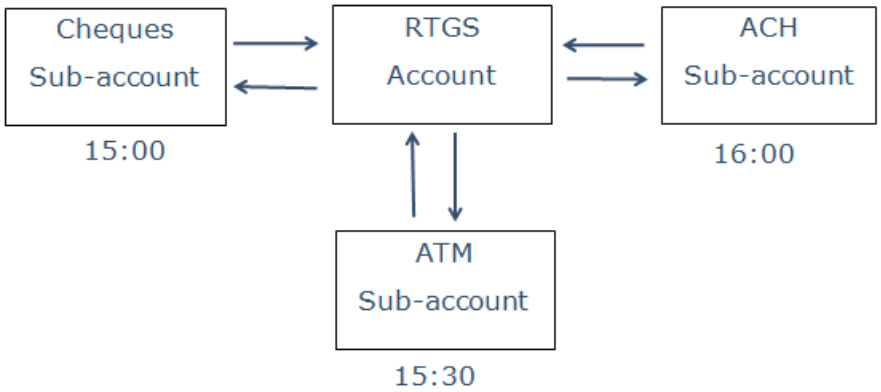
Exhibit 13: Clearing system closure cycle (example)



The clearings for cheques, card and ACH settle in the RTGS system, such that items originating in those clearings, posted by banks to customers' accounts, and viewed by customers before the point at which the clearing balances for that instrument are settled in the RTGS system are provisional and not final, and can be subject to recall (see exhibit 14).

Exhibit 13: Sub-clearing final settlement process

- Banks have a sub-account per scheme
- The sub-account is zero-balanced to the RTGS account
- Those schemes settle finally either:
  - When the scheme sub-account settles in RTGS
  - When RTGS settles finally



6.1 Domestic cash management

Key components of loss-of-value in domestic cash management:

- Cycle time – the time between initiation of an operation and its completion. BACS has a 3-day cycle time, but all accounting entries occur on Day 3 and there is no float.
- Float – the time when value is being lost to the client.
- Funds float – the time between the date of debit to the remitter and credit to the beneficiary: the banking system is earning interest.
- Mail float – items of value are in transit prior to deposit: no-one is earning.
- Information float – value may be available to the client but he does not know it: the client is not earning as much as he could be.

The first task of domestic cash management is to ensure an efficient process to minimise Funds, Mail and Information Float (as defined above). The main challenge in doing that will be the structure of banking in that country: is there nationwide banking?

- If there are nationwide banks, you can hold one account anywhere at that bank and make deposits directly into the account through other branches of the same bank, and experience uniform float and fee conditions.
- At worst one can hold several accounts at the same bank - one set at branches near where the company operations are located, and another central set.
- If there are no nationwide banks, but there is an interbank giro clearing, you can deposit into any clearing member bank, and ask it to route the credit to your bank, and experience reasonable float and fee conditions.
- In this case one can hold accounts at one set of banks - ones near where the company operations are located - and then another central set of accounts at just one bank, and use the interbank giro to move balances across.
- If there are neither nationwide banks nor a nationwide giro clearing, it will be a question of holding bank accounts at different banks and in different localities to meet day-to-day needs, and making use of local tools to consolidate cash.

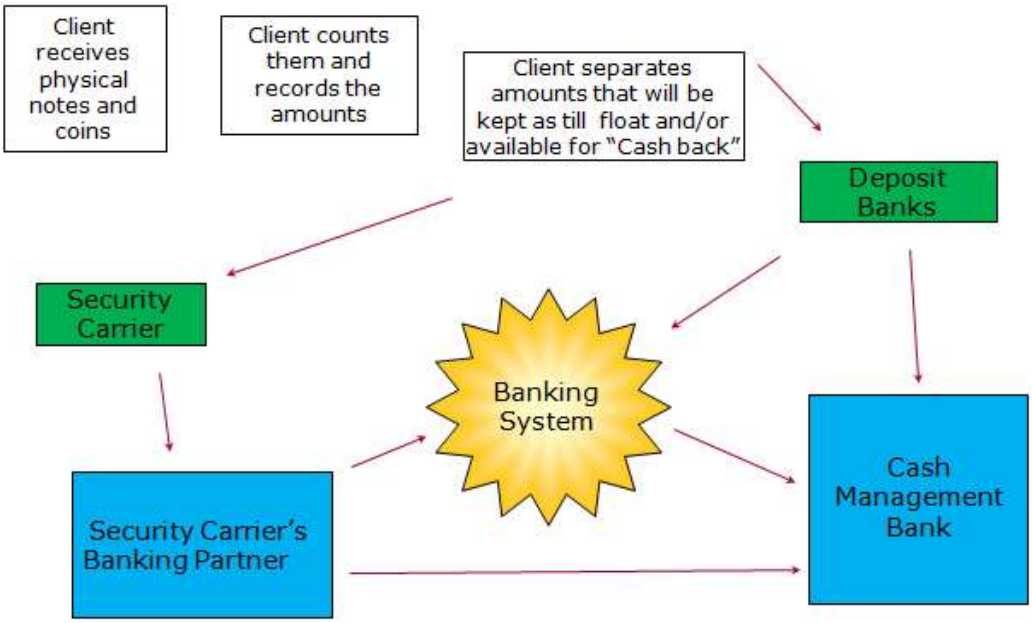
- The impact of a lack of nationwide banking is exacerbated where the mail service is poor and payments by cheque abound.

Example 1: Cheque clearing
In the USA Phoenix-Hecht make a business of measuring mailing times between different ZIP codes and cheque clearing time between different Federal Reserve clearing districts.

The USA is an example of a country with different clearing districts and of significant differences in fees or float for payments intra-district as opposed to inter-district.

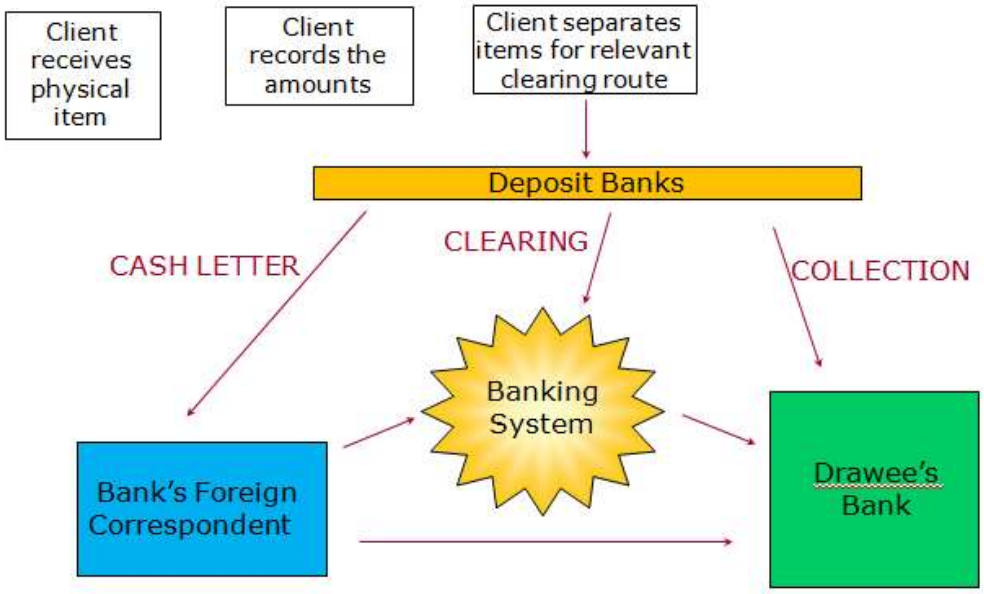
Here are the typical clearing routes for cash:

Exhibit 15: Clearing of cash routes



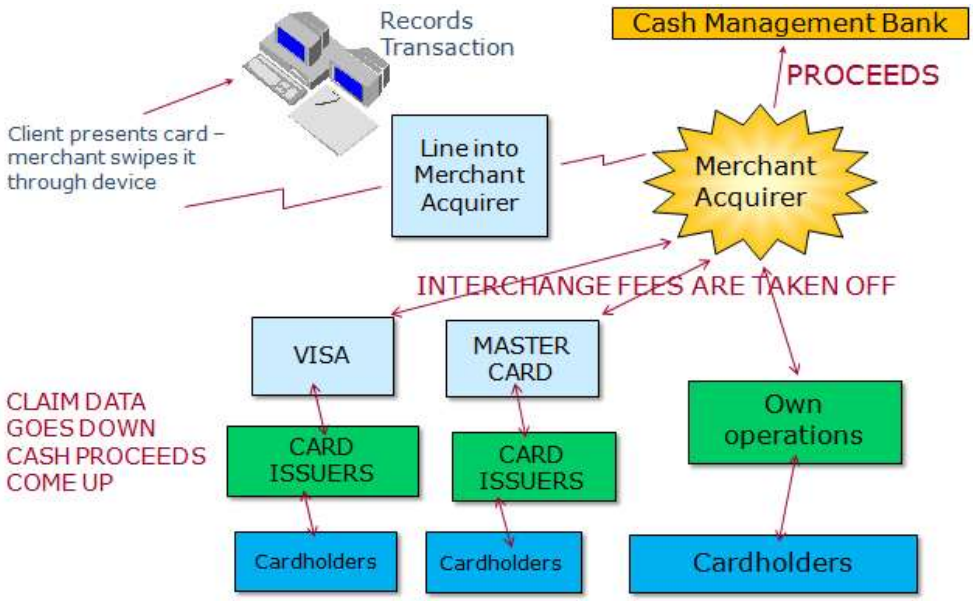
Here are the typical clearing routes for cheques:

Exhibit 16: Clearance of cheques/drafts



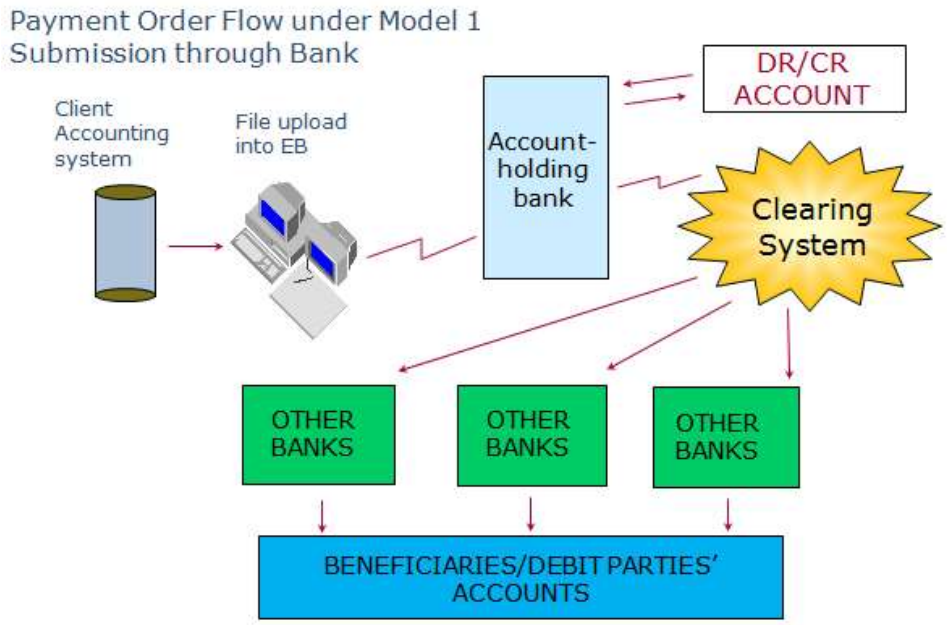
Here are the typical clearing routes for card operations:

Exhibit 17: Clearance of card operations



Here are the typical clearing routes for ACH operations – credit transfers and direct debits:

Exhibit 18: Clearance of ACH payments – credits and debits



There is a common alternative submission model, where the customer submits its files direct to the clearing house, which then prepares files of debit and credit entries for each bank. The UK BACS system works under this model.

In countries where there are significant fees and float for inter-district payments, one might:

- Organise for payment items to be physically transported from your premises to a more appropriate place of deposit e.g. by using a security carrier like BrinksMat.
- Organise for payment items to be received not at your premises, but at a location near to the appropriate place of deposit e.g. by using a lockbox.

That results in the holding of multiple bank accounts at different banks, and rolling up the balances to a single point can be achieved:

- Making use of a Cash Concentration product offered by a bank, which may just operate in relation to different accounts held within that bank but in branches around the country.
- Use a Cash-Con product that is cross-bank, which may require the people who know what is being deposited into an account to key that into a browser or a phone, which in turn orders the Concentration Bank to issue a debit order to that other bank.

Example 2: Building cash systems
Build your own domestic concentration system using available concentration tools such as:

- multibank data exchange to collect account balances
- MT101/"reverse wires"/Fed drawdowns for same-day concentration payments
- ACH debits for next-day concentration payments

6.2 National-level barriers to optimal domestic cash management

Aside from the banking infrastructure, the local banking conditions (frequently driven by regulation) may or may not conducive to optimal Cash Management.

Bank account conditions:

- Can credit balances attract interest?
- Does the bank pay credit interest?
- Is credit interest subject to withholding tax or not?
- Is the account permitted to go into overdraft:
    - at all?
    - without onerous supervision and documentation processes?
    - without attracting a rate that equates to a penalty rate?

Can credit balances attract interest?

- It can be unlawful for credit interest to be paid on a current account.
- Normally banks will offer an investment account as an alternative.

Example 3: Alternative to non interest bearing current accounts
In France its identity would be a SICAV – a form of unit trust

When the relationship has cross-border aspects, further questions become meaningful:

- Can foreign currency accounts be held? Do they attract credit interest and at what rate? Can they go into overdraft and at what rate?
- Are there different terms and conditions for Resident as opposed to Non-resident accounts?
- Under what circumstances does debit interest become subject to withholding tax?
- What is the country of residence for tax purposes of the bank?
- Watch out for the country of residence of the bank for tax purposes as well: if you are dealing with a branch, it is the country of the parent bank.

Example 4: Bank tax residency
Citibank N.A. London branch is a US resident for tax purposes but Citibank AG is a German resident

How are the interest rates arrived at on credit and debit balances?

- Is there a Reference rate and what is its relationship to Official reference rates?
- Is an absolute rate quoted without linkage to a Reference rate?
- Does a Tiered rate, or Average balance remuneration, or Balance offset apply (all of those will be explained later)?

Is the bank permitted to offer notional pooling?

- Because of the regulations in the location? London yes, Paris no, because of the non-availability of credit interest in EUR on current accounts in France

- Because of the regulations from its head office country? Netherlands – yes; Germany – no.
- Can you get the credit lines you need and without paying a commitment fee when the lines are undrawn?

Example 5: Choice of bank account location
The locations where the fewest barriers exist to notional pooling, both on banking regulation and tax, are UK and Netherlands.

Deposit insurance:

- In certain countries the bank has to pay an authority to maintain a Lifeboat Fund, aimed at compensating small depositors in failed banks.
- An example is the FDIC in the USA
- In the EU there is a common EUR100,000/£75,000[2] per institution protection from the authorities for bank deposits
- In the USA the bank is assessed for a principal amount of qualifying customer deposits at a given date or over a given period, and has to make a payment into the fund.
- It is better not to leave a lying balance on your account or you will be charged: this is also an incentive to adopt zero-balancing over notional pooling.

Example 6: Deposit insurance
Leave a credit balance on your DDA at quarter-end and you would be charged through your Account Analysis using a formula worked out between the bank and the Federal Deposit Insurance Corporation: it could be as much as 1/2% flat, or $2,500 on a balance of $500,000

Liquidity reserves:

- This is where the bank has to maintain a Liquidity Reserve at the Central Bank – this will usually take the form of a non-interest bearing deposit lodged at the Central Bank.
- The deposit is usually a given percentage of the bank's short-term liabilities, including customer account balances.

Example 7: Central bank control
If the percentage is 5% and applicable interest rates are 4%, then for every $1000 of current account money, the bank is placing a deposit $50 and losing $2 per annum interest income, or 20 basis points

6.3 Global – issues on the corporate side

Having optimised matters at a local level, the corporate will be looking to mesh each country and its money into a global system (albeit that the global system may be three regional systems will only minor meshing of the regions).

[2] FSCS in the UK

The corporate itself is working within a framework, composed of its own tax and legal issues.

- The overarching one is transfer pricing that governs relationships of all types between related companies. Transfer pricing in the financial side of the business regulates dividends, inter-company loans and royalties, but for cash management the operative one is loans:
    - arm's-length terms on intercompany loans
    - fairly reflecting the creditworthiness of the subsidiary = not of such an amount that no bank would have lent it to that company as a stand-alone
    - not exceeding a given multiple of the subsidiary's own capital – tests exist for this called Thin Capitalisation rules
    - if the ratios are exceeded, then the interest is viewed as being a dividend and cannot be offset against tax
    - interest terms should be what a bank would charge

Many Cash Management techniques can result in intercompany loans:

- A zero-balancing physically moves funds – and that results in 'co-mingling' if the 'master' and 'slave' accounts belong to different legal entities.
- At the very least this causes intercompany loans between them, and possibly a "deemed dividend" relationship as defined below.
- Notional Pooling may not create intercompany loans, but it creates relationships that can potentially be construed by tax inspectors as intercompany loans.

There is a series of other issues that can emerge:

Stamp duty

- A tax on certain types of money flow, usually fixed percentage of the nominal amount
- Usually a Capital/Financial flow, not Trade i.e. there is no invoice
- It becomes due every time that flow occurs – in a ZBA it would be daily

Withholding Tax (WHT)

- WHT – on credit interest – is the deduction of a given percentage of the interest before it is paid to the account holder
- The bank pays the WHT to the government, and issues a certificate of WHT deduction to the account holder
- The WHT is a prepayment of corporation tax or income tax by an account holder
- But what if the account holder is a non-resident and has no future tax liability in that country? They have to look at the Double Tax Treaty (if there is one) between their own country and that other country and see:
- Can they achieve an offset against their own tax (a tax credit)?
- Can they get a refund?
- Locations where there are WHT deductions from credit interest are avoided as Pool Master Account locations

Withholding Tax on debit interest

- WHT – on debit interest – is a real blocker to using a location or a bank as Pool Master Bank/Location. Compliance becomes very complicated when interest is debited direct to the account, because that short-circuits the normal process whereby the borrower would gross-up their interest payments
- Banks rarely have IT systems that gross-up debit interest dependent upon the Country of Tax Residence of the account holder, because it is the domestic tax rate for a foreign interest payment in the account holder's country that should be applied to calculate the gross-up
- The bank would have to:
    - capture that tax rate
    - add the WHT to the interest applied to the account
    - pay the WHT to the tax authorities of the borrower (whose address they would need to have)
    - obtain a WHT deduction certificate from the authorities
    - and send it to the borrower: too difficult

Example 8: Withholding tax
WHT on debit interest would apply to an Italian borrower from a pool established at the branch of a US bank in London – because the Country of Residence of the bank is the USA. Were the same pool established at the bank's Frankfurt subsidiary (an EU-incorporated entity), the arrangement would benefit from the blanket EU exemption on WHT on debit interest.

Thin capitalisation and other techniques[3]

- Debit interest on loans is normally deductible against the corporation tax liability of the account holder but there are restrictions where the lender is a group company. In the past companies have tried to load subsidiaries up with intercompany debt, especially where the lender is in Cayman or Guernsey (no tax!)
- Tax authorities now have tests for the ratio of capital-to-debt: interest on debt amounts above the threshold is disallowed. In addition, other techniques for limiting deductibility of interest are employed (see reading 6.2.1).
- The tests cater for direct intercompany loans – and disguised ones: like in Pooling where the bank is the lender-of-record

Example 9: Thin capitalisation
A parent lends EUR 20 million at 4% to a subsidiary in a country with a 25% corporation tax rate. The EUR 20 million exceeds the 3:1 Thin Cap test there, so the interest is disallowed against tax: in the worst case it might be the entire loan interest for the year EUR800,000 at 25%, meaning a loss of value of EUR200,000. In the best case the disallowance is of the interest paid in excess of the limit, and only for the period where the excess existed

Deemed dividend

- This can be a danger for US-parented groups where the parent company receives loans, direct or via a Pool, from its subsidiaries

[3] See reading 6.2.1 for further details.

Example 10: Deemed dividends
A US parent borrows USD20 million in a pool: the US tax rate is 40%. If the IRS is unhappy, this could put USD8 million at risk.

Capital stripping

- Where money is taken out of subsidiaries and especially where credit interest paid on that money is low or non-existent
- The local law may regard this as 'Capital Stripping':
  - Diminishing the ability of the subsidiary to trade
  - Making it possible that local creditors will not be paid
- Then it is illegal:
  - Local management can be prosecuted
  - And so can the banks that facilitated it
- Lessons:
  - Be aware of the countries where such legislation exists (France)
  - Be aware which relationships it applies to (Parent/sub, sister/sister..)
  - Examine the figures of the subsidiary to see how stretched it is
  - Ensure the Pool is structured so as to minimise risk

Tax treaties

- These are inter-government agreements on how to tax flows of money between the two countries
- The main relevant theme is the rate of deduction of WHT on loan interest. Most tax treaties are of the 'Credit' type – any tax paid over here can be deducted against the recipient's tax bill over there, as long as proper documentation is presented

6.4 Structure of international banks

In terms of looking for a banking partner that both understands and can help alleviate these issues, banks did not necessarily expand internationally with this objective in mind. They mainly expanded in order to increase their lending book, of course to follow their home customers, but also to acquire assets (i.e. loans) in the foreign country

The subsidiaries of their home customers and their new indigenous customers need to borrow from a resident entity:

- Otherwise they might have to gross-up the interest for withholding tax purposes.
- That makes the foreign bank's loan uncompetitive.

The branch would have full banking powers:

- deposit-taking
- loans
- FX and other treasury services

But it would also have limitations on the service offering:

- Funding is interbank only, and priced off 1-month or 3-month interbank rate.
- It may not have direct clearing membership and it certainly has no branch network: it will only be able to offer cards, cheque, cash and low-value payment services if it can find an agent.

Its two main value propositions would be:

- To extend credit products to subsidiaries of a major group without the need for the Head Office to guarantee another bank to do so:
    - capital-efficient
    - pricing can be decided by Global RM
- To make payments in and out within its network without:
    - a fee that is a percentage of the payment's face value
    - debit value date adjustment on the remitter side
    - credit value date adjustment on the beneficiary side

This second proposition is the basis of Overlay Banking.

Now though we have the Perfect Storm of negative impacts on an international branch network:

Cost-of-Capital	Cost of deposits
Basel III greatly increases Credit Conversion Factors for defining what percentage of deal's nominal amount must be held by a bank as Tier I capital – on which the bank wants to earn up to 15%	The bank must hold a portion, or sometimes all, of a deposit maturing below 30 days in a risk free asset, because these deposits would give potential for a 'run' on the bank.
Lines of business	**Home markets**
Regulators want some activities spun off into separate subsidiaries – increasing cost of operation	Governments want their banks to concentrate on helping the domestic market

6.5 Global – issues on the bank side

If nothing else, corporates will want to avoid paying lifting fees (also known as cartel fees or cross-border fees) on their cross-border payments, both incoming and outgoing. These are frequently fixed by the bankers' association of the country (hence the term 'cartel'). The default charging method is to deduct them from the principal amount, and these fees go hand-in-hand with back-valuation of the debit entry and forward valuation of credit entries.

The qualification criteria when viewed from Country A could be any or all of:

- one of the remitter's or the beneficiary's bank accounts is in our country and the other isn't
- one is a resident of our country the other isn't

- the payment currency isn't the currency of our country

Example 11: Lifting fees
Extreme care is needed – because the following could all fall foul of it if you are a bank in Germany:
- Book transfer within our own bank between two residents but in a foreign currency
- Transfer in local currency to another bank in our country but the beneficiary is a non-resident
- Local currency transfer between a resident's account here and an account belonging to the same person in Turkey

They can be 0.15 per mille flat, with a minimum (e.g. EUR25) but no ceiling, which means:
- EUR25 on EUR100 (meaning the minimum charge, where that minimum equates to 0.015% if the principal is EUR16,666.66)
- EUR15,000 on a EUR10,000,000 Treasury transfer

It has been a major focus for the EU to regulate fees for cross-border transfers firstly below EUR12,500, and then below EUR50,000 and now without an amount limit, and - under Payment Services Directive – to eliminate back-valued debiting and forward-valued crediting. In order to mitigate or eliminate these fees for their clients, banks should control the payment at both ends:
- By having branches in each country
- By having close partner relationships in each country
- Ensuring that all payments that go in and out of the branch or partner qualify as resident-to-resident, local currency and local transfers
- All cross-border payments then fall under the inter-branch or partner arrangement – upon which all-in fees can be negotiated because there are no further intermediaries involved who have the right to claim Lifting Fees

Central bank reporting
Central Bank Reporting is statistical information about qualifying transactions, which tend to be Cross-Border transactions. The obligation to report is normally that of the sender or receiver, not the bank, but the bank will often offer to discharge the obligation as a service. One can negotiate to report transactions en bloc, say monthly. The process cannot always be automated, due to the need to enter detailed coding that only the sender/receiver may know, the need to send accompanying documents etc.

Definition of high- and low-value for Central Bank Reporting
The definition of high- and low-value is important because it drives the need to include a transaction in Central Bank Reporting. Each Euro central bank used to have its own Reporting Limit, and they varied from low (EUR 5K) to EUR 50K. EC countries had to harmonise the minimum amount threshold in early 2003 to EUR12,500, and it went to EUR50,000 in January 2010 (under revised Reg 2560). Under SEPA it is abolished, but Central Bank Reporting is very common in other parts of the world and can be extensive.

Exchange control

Exchange control is where a government – usually acting through its Central Bank – imposes controls on flows of money into and/or out of the country. Distinctions may be made between:

- capital/financial flows and trade flows
- flows of the domestic currency and foreign currencies

Basically the free flow of money is impeded by charges, punitive interest rates (e.g. negative interest rates on foreign currency holdings), obligation to surrender all foreign currency receipts, or to lodge them interest-free at the central bank, establishment of a queue for foreign currency to send out…

Example 12: Exchange control
Argentinian importers may not hold foreign currency accounts in Argentina, nor may they hold non-resident accounts abroad in any currency. Proceeds of exports must be surrendered to the central bank in exchange for pesos. If the same company wants to pay for imports, it has to place its order in the queue and wait for foreign currency to become available.

Blacklisting and embargos
Blacklisting and embargos are where a government will intercept and block any flows of money to and from designated parties. The US OFAC is a good example of a government agency that imposes embargos. Any payment that falls within the scope of the embargo and which is handled by a banking entity falling within the jurisdiction of the agency imposing it must be stopped and kept (not returned!!)

Ledger balance/value-dated balance/available balance
It is important to understand and track funds as they moved into the different balances that are part of an account:

- The ledger balance will move for every entry on the account
- The funds may not affect the value-dated balance on the same day they are booked to the ledger balance: receipts from foreign payments frequently are not with same-day value. The value-dated balance is the balance upon which interest is calculated
- The available balance is how much money the account-holder can use. If the bank puts some form of reserve on the account – e.g. for credit card receipts – the account-holder will only be able to use part of the value-dated balance
- The available balance should never be more than the value-dated balance: except where the bank includes unused overdraft in it

Cut-off times and 'use of funds'
The cut-off time is:

- For payments, the time by which a payment order must be received for the bank to debit it with the requested execution date
- For receipts, the time by which the bank must have received the money in order to include it in that day's value-dated balance

- In the case of foreign payments it is a moot point whether the bank will credit the customer based on the receipt of a payment order from a foreign bank (MT103) or whether they wait to confirm receipt of cover (MT202 COV) on their nostro account at their correspondent. It often depends upon their view of the remitting bank. If the bank waits to see confirmation of cover next day on their MT950 statement on their own nostro account, the customer has lost a day's value
- The bank may obtain intraday reporting from their correspondent, for example by MT910 Advice of Credit, but this may still arrive after the bank's cut-off time
- If a receipt misses a bank's cut-off time they may claim not to be able to include it in the value-dated balance because they did not have 'use of funds' i.e. it was too late for the bank to invest the money itself and earn interest

Conflicts of cut-off times

Conflicts of cut-off times can result in loss of interest earnings and are important when clients are receiving international payments, or concentrating money cross-border. It is often the case that the funds can move through the clearing up to very late on the day of value. But if the bank or branch receiving the money is "offshore", it may close off its treasury position for the day in that currency much earlier than the closure of the clearing – especially if the precise branch is not a member of that clearing. The payment may be credited to the bank's or branch's account with value today…but they knew about it too late or not at all.

Pre-advices of credit

To avoid this problem, some banks allow customers to send Pre-advices of Credit (MT210 in SWIFT terms) to the bank or branch receiving such funds, as long as it gets there before the Payments cut-off time in the currency concerned. The bank will take the money into its treasury position on the expectation of seeing the factual remittance on its account later. The bank will charge costs back to the client if the funds do not arrive, so the client must be sure that the bank sending the funds is bound to a contractual value date, either because:

- the client initiated the payment through that bank
- it is the settlement of a treasury deal

Facing then the challenge of assisting an international company in implementing effective Cash Management in an international scale, a bank will have to confront the many dimensions in which the scope increase compared to a domestic solution, which will be predominantly in the local currency, with some foreign currency and cross-border payments and receipts.

The international requirements will be multicurrency, and so highly likely to involve companies from different countries of incorporation - and so they will be Multiple Legal Entity as well. Multicurrency can require FX transactions and so cannot always operate same-day if physical conversion is required. Multicurrency is likely to involve original balances that are at different banks, possibly also in different countries, and to require as a first step a physical movement of funds to a single bank branch - even if there is no change of control of the funds or of their currency.

Multicurrency will involve a two-day time lag if currencies have to be physically exchanged under a pooling system. This is even more problematical if monies have to be moved back unexpectedly to where they were originally drawn from. As a result, cross-currency pooling must operate on a notional basis if it is dealing with today's balances, and thus involves 'notional' fx rates and swaps: that is great for running the arithmetic, but these rates can be hard to check against open-market rates for the same maturity – because the front-contract in the open market is for delivery in two days.

When it comes to investing a currency, there is no point in isolating a balance in a currency in a financial centre where the terms for that currency are less attractive than if the money had been left in its home financial centre. That's different from a balance that is part of a pool:

- PLZ or SEK are best invested/borrowed in Warsaw or Stockholm respectively.
- That does not mean that EUR2 million equivalent in each currency should not be moved out and offset against a EUR6 million overdraft within a cross-currency pool.

Further aspects of the current financial situation come into play:

- interest rates being very low or negative
- current account balances attracting, in certain cases, an extra cost to the bank deriving from the Basel III Liquidity Coverage Ratio
- a non-interest bearing account being attractive since at least there is no interest cost to the corporate
- the unravelling of LIBOR as a base rate for the offshore money market, globally, in a wide range of currencies; instead the base rates will be set onshore, in the currency's financial centre, and presumably amongst just the large banks there

There is a risk in this last point when one is borrowing or depositing offshore because the rates, depth of the market, who is driving the market and so on become less connected to the onshore market.

Timezone

A bank will have to be well co-ordinated across regions to offer global cash management, and will have to have a method of leaving balances in-region where the balance is best invested or funded there, but also for moving it across regions if the balance is to be part of a cross-currency pool. The location running the cross-currency pool will want to have an arrangement with its sister branch or partner in the original region so that it can get value on the balance itself, and then assign a value to the balance in the pool.

7 Usage and limitations of SWIFT Message Set

Many bank solutions use SWIFT messages for international cash management, and even use the SWIFT network rather than an in-house backbone, both for dealing within their own group and for dealing with partner banks.

There are SWIFT message supporting Balance and Transaction Reporting, and Payments, and ancillary messages for cancellations, Rejections, Pre-advices of Credit, Cover Payments and so on. The core messages are:

- MT940
- MT942
- MT101

MT940 End of Day Balance & Transaction Statement is the absolute common basis of ICM. It is produced by almost all banks – but not always to good standard. It contains the closing ledger balance – Field 62a – and banks should ensure the 'balance 'clearly breaks out immediately available balance in 64 from future available balance in Field 65...and without including any unused overdraft limit in the available balance. It is the available balance that is the key to what monies can be moved

Example 13: SWIFT MT940
One of the drawbacks of MT940 is how well it supports automatic reconciliation. The relevant field is Field 61 Sub-field 6 Transaction Type Identifier:
Very few relevant values are available
MSC or MSD are the most common – Miscellaneous Credit and Miscellaneous Debit
That is no basis for automated cash application into an account chart of a back-end system
Compare that (negatively) with the German Text Key system or any number of national equivalents like BAI

The Main Remittance Information Field in MT940 is up to 6 lines of 65 characters = 390 characters, with few if any useful guidelines from SWIFT as to how to fill it. The frequent result is:

- unstructured information
  OR
- structure information but where the structuring is agreed in a closed user group (e.g. Banks in Germany)
- truncated information

Information that is different from each bank.

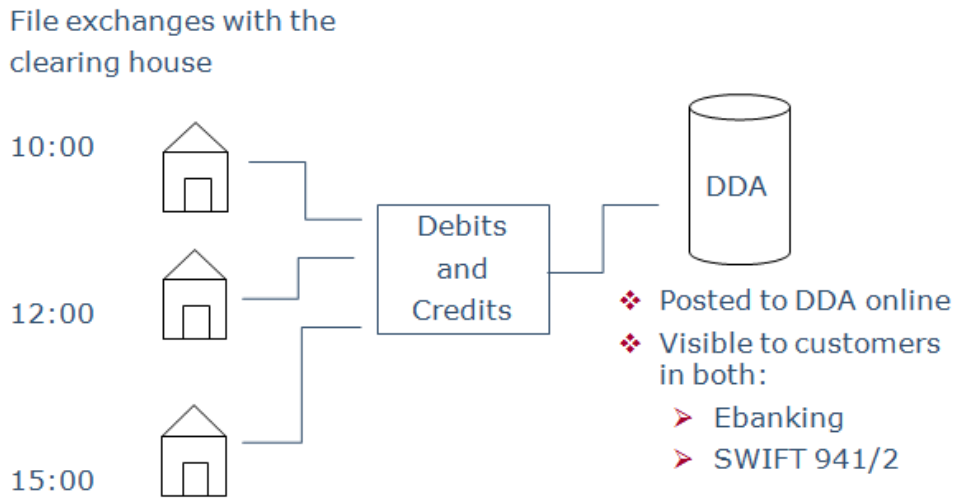
MT942 is the Provisional Transaction Statement, or intraday report. It is a list of transactions that were posted onto the "account" today, but not the balance. "Account" is written like that because it may be:

- The bank's books-and-records system, where the MT940 comes from, often referred to as DDA or the Demand Deposit Account System.
- A database that collects postings that will later be put onto the books-and-records system.

In the corporate's ideal world the bank will run their DDA system online, all debit and credit postings that the bank knows about will be posted in real-time, and any information system

(bank-proprietary, SWIFT, other form of data feed) will have identical information (see exhibit 19).

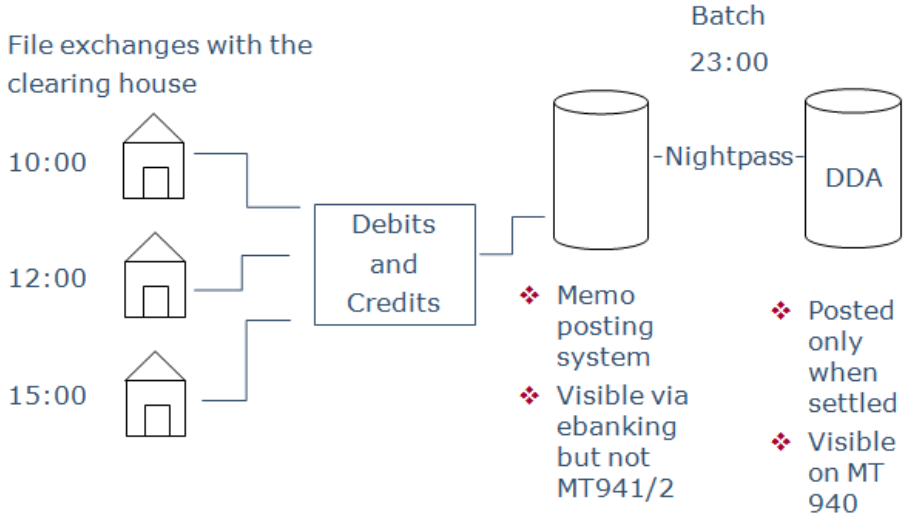
Exhibit 19: Ideal posting cycle of banks with online DDA



In the world as it is only a few banking environments deliver this, the most notable being the Nordic region – because of the smaller volumes, the fewer types of payment instruments, the timing of when the clearing houses send their data to the banks (early morning) and the early settlement of these clearings in the RTGS system.

More common is that the picture is imperfect, because the bank is running DDA in batch mode in the night, and information systems for customers are fed from different databases established for holding and showing debit and credit postings while they are (a) known to the bank (b) not yet posted to DDA (see exhibit 20).

Exhibit 20: Normal posting cycle of banks – DDA is posted up overnight



A bank's policy may be to not show unsettled items in intraday reporting – items that have not gone through the end-of-day processing, or else the bank's IT systems may not be

capable of including, in SWIFT intraday reporting, transactions processed in batch systems (cheques, ACH, counter traffic, cash) to the books-and-records system. In either case there is a major disconnect between what is visible in the bank's proprietary system compared to what is visible in MT942. That makes the MT942 less reliable.
MT101 (Request for Transfer) is a Payment Order initiated by customer (or surrogate – Pooling Engine). In SWIFT for Corporates it is sent direct by the customer to their bank where the debit account is held. The Executing Bank makes the payment in the same way as if the order had been delivered directly to them. The authorisation to debit MT101 will be part of the set-up agreement. MT101 (Request for Transfer) can have a number of outcomes at a bank. A customer would expect the minimum available outcomes at the Executing Bank to be:

- book transfer
- local high-value payment
- local low-value-payment (one-by-one)
- cross-border payment (by MT103)
- cross-border payment in EUR via SEPA Credit Transfer if the two accounts are in the SEPA Area

One cannot assume that the bank will price the same "outcome" identically if initiated by MT101 compared to via proprietary eb (where processing will be STP).

8 Tools of the trade / seeing and mobilising money

Electronic banking
The primary tool of cash management is electronic banking: to see funds and move them. Corporates would like a single window to gain visibility over ledger/value-date/available funds in real-time, and move them in real-time. Corporates find themselves compelled to use multiple banks – see above. As a result, the objective is not realisable.

Electronic banking/bank-proprietary
More or less every bank has an ebanking system of its own. It will spend more on this than on any other electronic channel because of the number of users and because it will be well networked into the bank's back-end systems (allowing fast processing and low cost). In particular, the sub-systems for cheques, counters, ACH and other payment types will report activity into the database behind the ebanking system in a timely manner, and the ebanking will clearly break out the ledger/value-date/available funds. It works well – but only for that bank, unless that bank is itself international. Where the bank is full-service, the system will enable multi-country domestic cash management and cross-border under one roof. However such a bank is usually smaller outside its own country and then the cross-border element is just Overlay: the customer will be using further domestic banks in that country.

Electronic banking/public standards
On a domestic level there are many countries that have either a product or a set of data standards that enable the process described above to be carried out on a multibank basis. The product Multicash enables this: it has the public standards embedded in it. In other

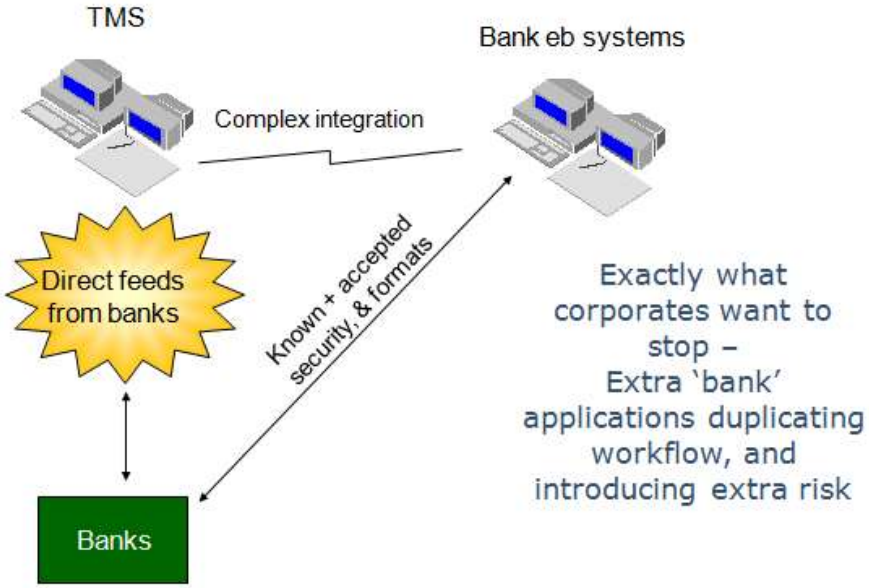
countries the public standards are embedded into many vendor products. As well as showing balances from multiple banks, the system may suggest payments to be made to optimise the cash position, and the payments can be carried out within the product. The banks will have invested, where these public standards exist, to the level where they can report into it as well as they can into their own ebanking (indeed Multicash may be their own ebanking as well), and they will accept the payment orders secured via the product and be able to execute them efficiently. This expands the frame to multi-bank – but not to multi-country.

Electronic banking/treasury workstation

If the corporate has a Treasury Workstation it will probably be multi-bank and multi-country, and will want to manage its cash process within the TW and not on a variety of ebanking systems. But this is problematical:

- How do you get visibility unless by interfacing several ebanking systems into the TW? Is that even possible?
- Do you instead try to get a feed of data from each bank via a channel such as Data Exchange, or a SWIFT aggregator bank basing itself on SWIFT MT940 or 942?
- For payments the banks may not accept the security methodology used in the TW: they will want payments to come to them out of their ebanking, so they will insist the corporate networks the TW into the ebanking (see exhibit 21).

Exhibit 21: Integration with treasury management systems



- This requirement is the basis of TWIST, of ISO20022 and of the expansion of SWIFT for Corporates beyond Treasury Confirmations.

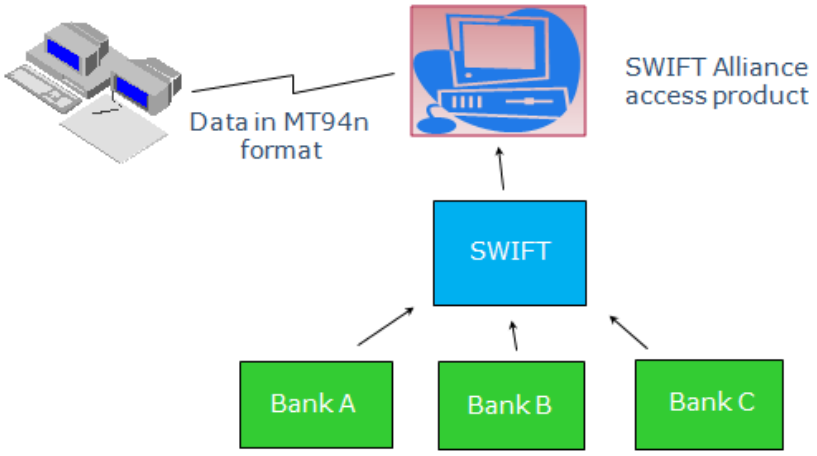
Electronic banking/SWIFT

Ebanking, products based on public standards and Treasury Workstation have relied on the SWIFT MT message set for their cross-border services, with the limitations laid out above. These characterise the following offerings:

- Informational Pooling – aggregation of multibank reporting either Previous Day (MT940) and/or Intraday (MT941/942) into numbers, in original currency or in a consolidation currency, without great breakdown into how accessible the underlying money is. This is a model that can be created via Direct SWIFT Corporate Access (see exhibit 22).

Exhibit 22: Direction collection via SWIFT Corporate Access

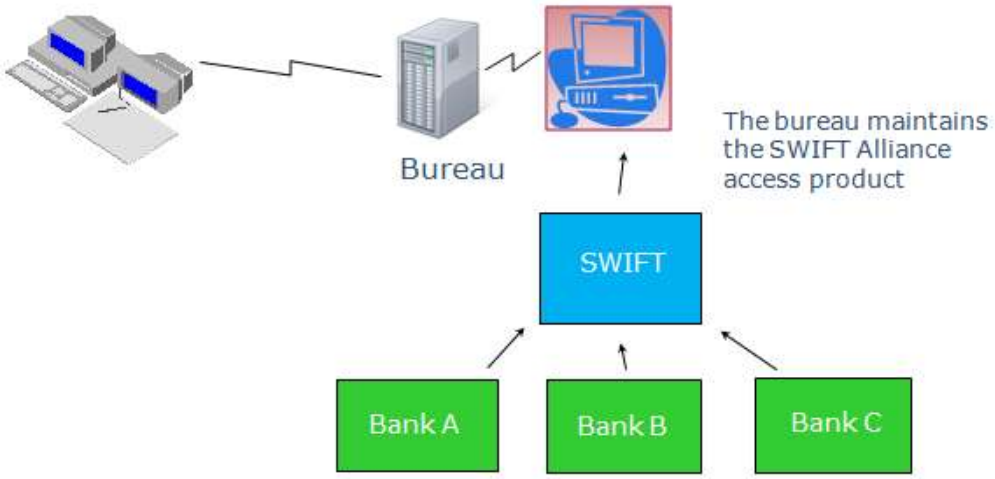
- The corporate maintains the SWIFT link itself and receives its messages directly
- Messages are always in SWIFT format: the corporate has to do translation themselves



Or it can be created on SWIFT Corporate Access via a Service Bureau (see exhibit 23).

Exhibit 23: Collection via a SWIFT Bureau

- The corporate integrates with a supplier (Steria, Sterci, Simplex, SMA) – which maintains the SWIFT link
- Data flows between TMS and Bureau in ANY format agreed: Bureau does the translation

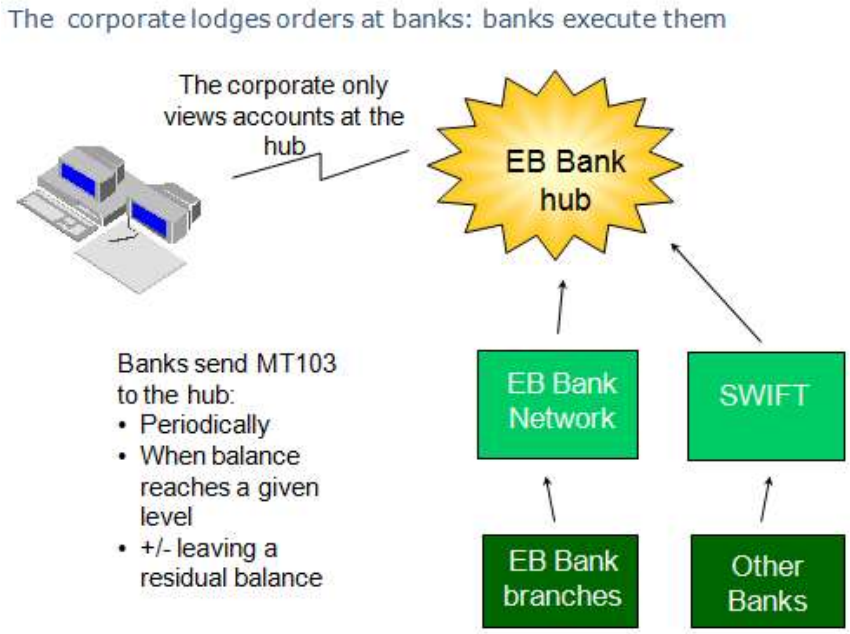


Informational pooling with standing orders – the above supported by Standing Orders lodged at the banks in the system:

- to move money one a week/month and/or when it reaches a certain amount
- pay it to another bank in the same country (resident-to-resident, local currency)
- pay it cross-border (usually out of just one bank per country, where the fees and flat have been negotiated)

(See exhibit 24)

Exhibit 24: Pooling via standing orders

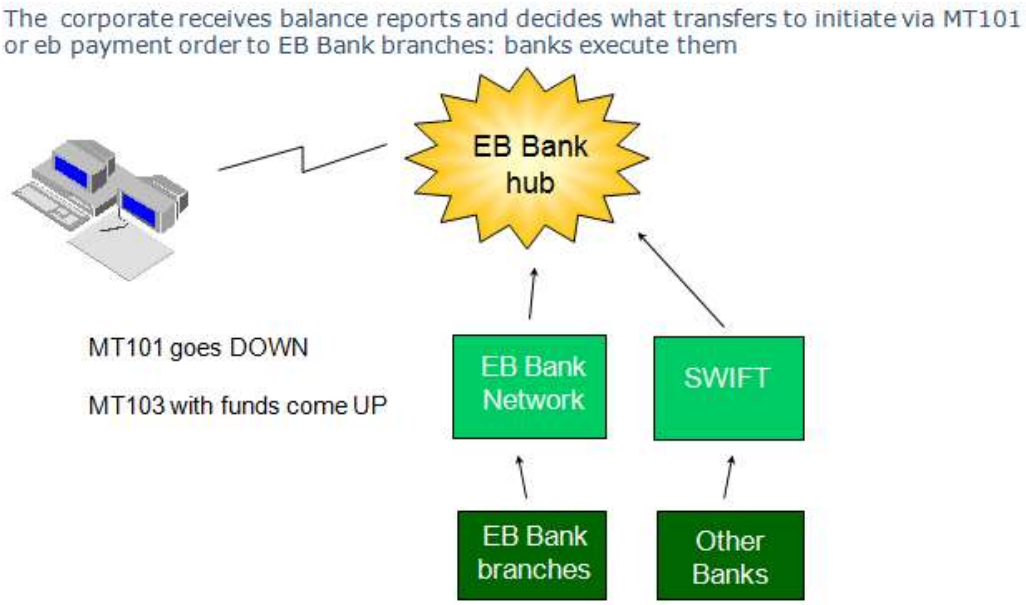


Informational Pooling with MT101 Request for Transfer – the above but with the decision as to when and where to move the money in the hands of the treasurer:

- MT101 would have to be set up with each bank
- At certain banks the corporate would always order a payment to another bank in the same country (resident-to-resident, local currency)
- Other banks would be used as the channel for extraction of money and insertion cross-border

(See exhibit 25)

Exhibit 25: Pooling via MT101



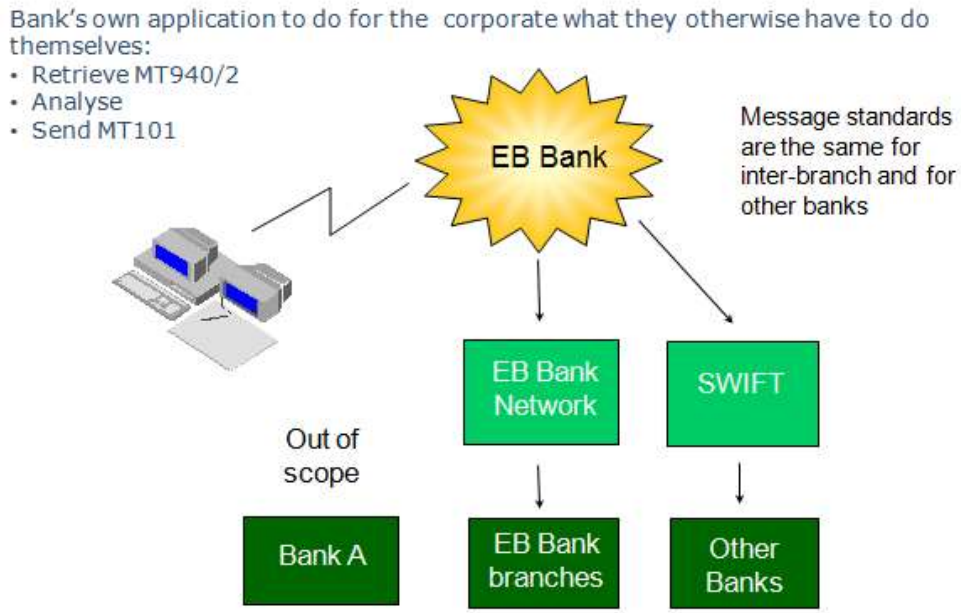
Pooling Engine

A Pooling Engine is an application run by the bank (and often based on exactly the same application it would offer to the corporate to run "Informational Pooling with MT101 Request for Transfer"):

- it retrieves balances from other banks
- it in effect stores a series of standing orders
- it executes them when the balances hit the peg or else at the agreed interval
- it may offer the corporate the opportunity to intervene, to adjust the suggested mt101s for amounts the pooling Engine is unaware of

(See exhibit 26)

Exhibit 26: What is a pooling engine?



The above offerings are about giving the corporate visibility of funds and moving them. The techniques below then go into:

- fully automated movement of money
- how accounts at the same bank are linked for the overnight calculation of interest

Zero-balancing basics

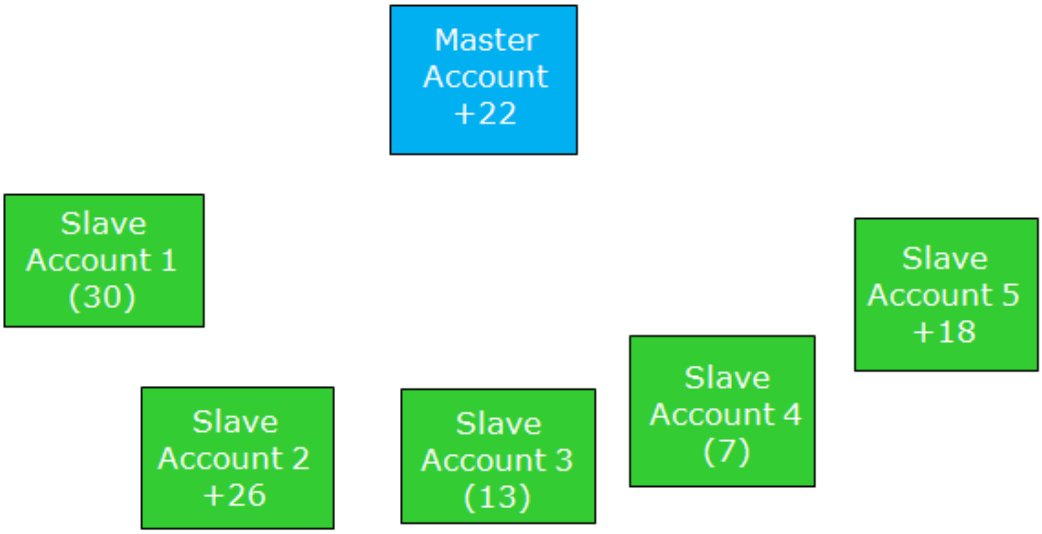
Zero-balancing is by definition a fully automated and computer-programmed operation to alter the balance on a 'slave' account to zero and transfer that balance to the 'master' account. To meet that definition, the operation is conducted in the bank's nightpass, after all debits and credits to both accounts have been posted and settled. It is usually within the same bank in the same country, but with special arrangements (which cannot involve payments through clearing systems) a ZBA can be set up:

- cross-border
- cross-bank
- cross-bank and cross-border

The balances in the Master and Slave Accounts at close-of-business could be aggregating balances (see exhibit 27).

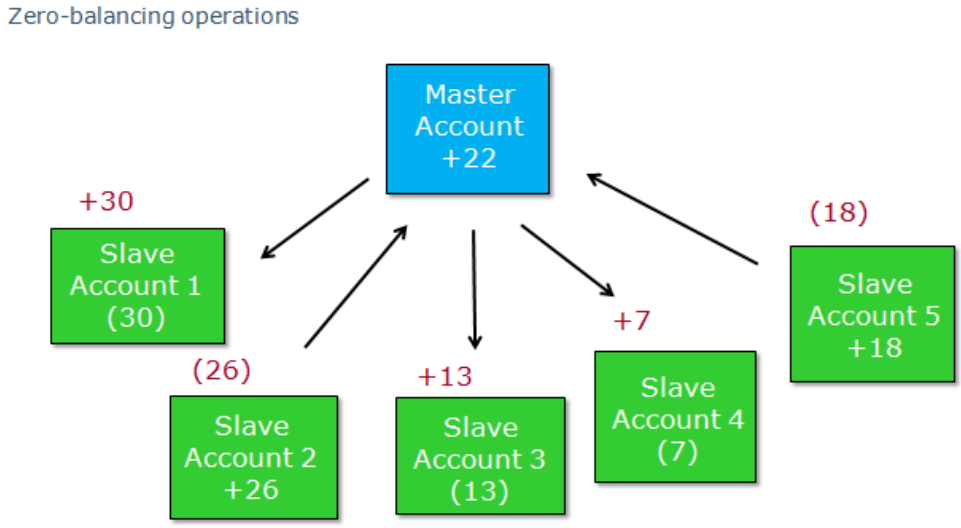
Exhibit 27: ZBA – aggregating balances

Five slave accounts and one master account – Balances after main nightpass on D



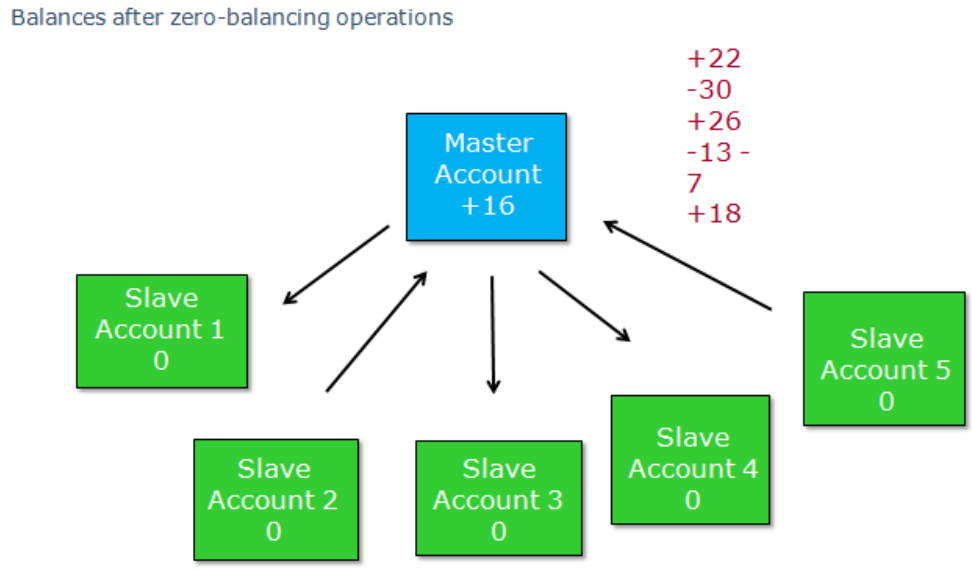
The ZBA programme creates a posting to the Slave Account that is equal to but the opposite sign to the balance on that account. The posting could be debit or credit. The posting to the Master Account is the equal-and-opposite to the one on the Slave Account (see exhibit 28).

Exhibit 28: ZBA – aggregating balances



The result is that all the Slave Accounts go to a nil-balance and the Master Account's balance is the aggregate of its own and all Slave Account balances (see exhibit 29).

Exhibit 29: ZBA – aggregating balances



A ZBA never exchanges the currency. A ZBA can move:

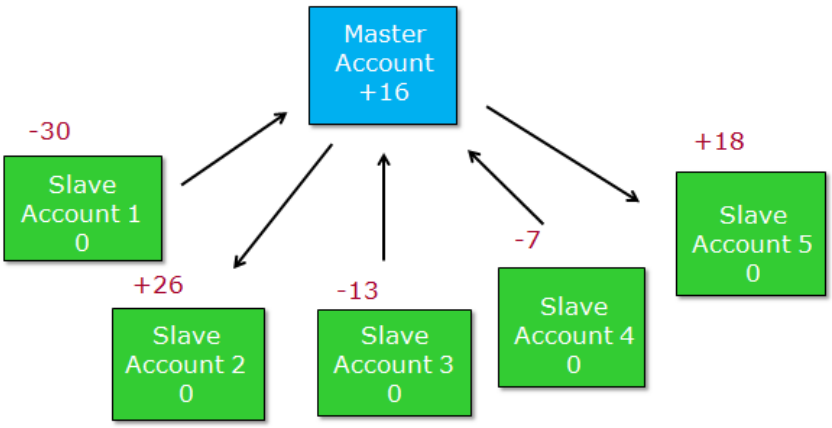
- just credit balances
- credit and debit balances – subject to the balance and lending lines attached to the 'master' account
- the ledger balance
- the available balance

Zero-balancing/enhancements

ZBA has become a very vanilla service. Value is added via enhancements. A common one is the Cinderella sweep, which reverses the sweep carried out at the end of D as the first booking entry of the following day D+1 (see exhibit 30).

Exhibit 30: ZBA – Cinderella sweep

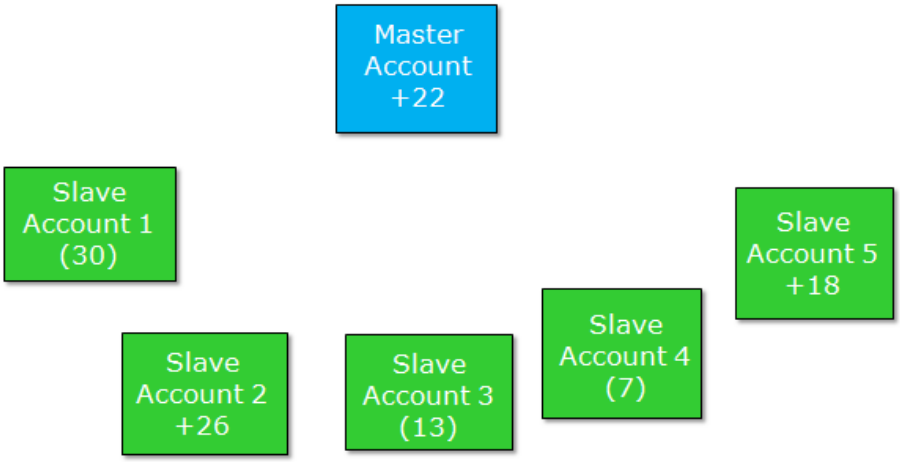
Reverses the Zero-balancing operations at the end D as first operation during booking date D+1: conducted at 07:00 on D+1



The owner of the 'slave' account sees the same balance at their going out (at 17:00 on D) and at their coming in (at 09:00 on D+1) (see exhibit 30).

Exhibit 31: ZBA – after the Ball

Five slave accounts and one master account – balances for start of business on D+1: good for subsidiary autonomy



A further enhancement is the production by the bank of the Emulated balance history. The Emulated balance history of each 'slave' account is as if the ZBA had not taken place. Each 'slave' account owner gets an emulated statement that looks like a normal Balance History Statement. It just has a banner like 'Emulated Balance Statement - For Information Only'.

Example 14: Zero balancing

Example for 'Slave' account 1 - closing balances for September:
(EUR 30,000,000)
EUR 21,000,000
(EUR 7,000,000)

On top of that the bank may produce Emulated interest. An Emulated interest statement for each 'slave' account is produced as if each account had accrued interest on its own balance.

For example, the interest rates used for this calculation could be:

- same rates as master account
- external market rates
- rates nominated by the company

The range of choice is part of the bank's value proposition. Each 'slave' account owner gets an interest statement that looks like a normal Interest Statement. It just has a banner like 'Emulated Interest Statement - For Information Only'

Example 14 continued: Zero balancing
Example for 'Slave' account 1 - closing balances for September:
(EUR 30 mil) x 5% x 1/360 = (EUR 4,166.66)
EUR 21 mil x 2.5% x 1/360 = EUR 1,458.33
(EUR 7 mil) x 5% x 1/360 = (EUR 972.22)

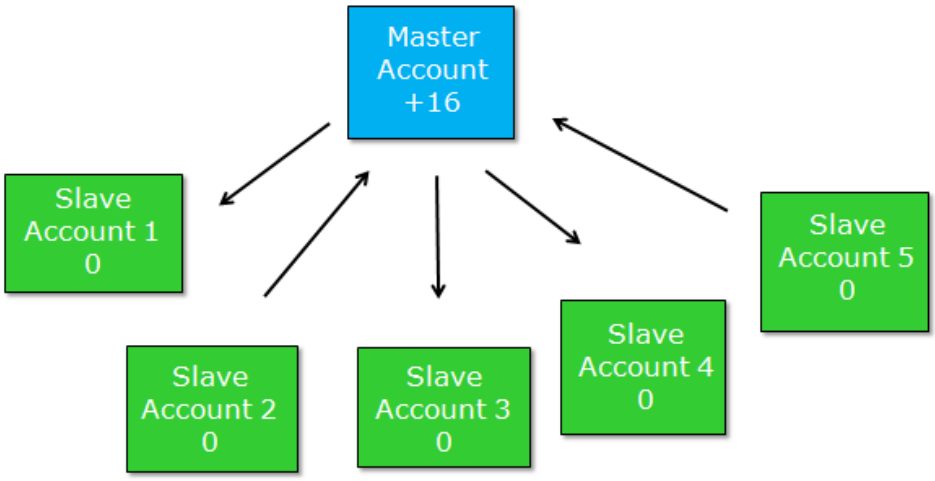
These enhancements are cumulative. They can then extend to the Posting of the emulated interest to the respective 'slave' account, with contra entry to the Master Account. Since the ZBA is intercompany lending, the interest is intercompany interest. With authority from both account owners, the bank could post the emulated interest as a debit to one account and as a credit to the other one. Then it is real intercompany interest.

The bank must be sure that:

- both account holders gave their authority
- the interest rates are arm's-length
- both account holders get an advice of the postings (the banners on the Emulated Interest Statements do NOT change)

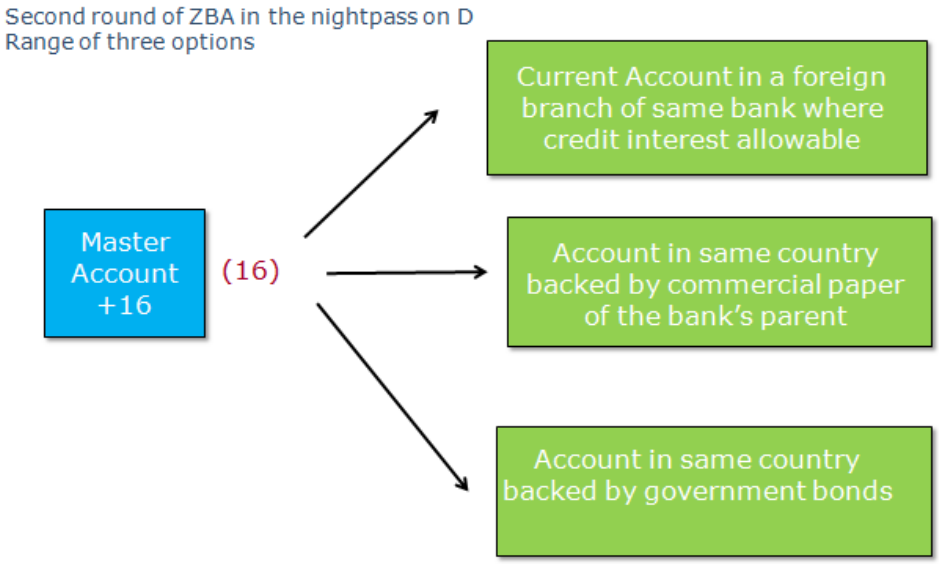
Domestic zero-balancing for credit interest
If Master Account is a current account in a country where credit interest is not available, the Master Account can then become a Slave Account in turn (see exhibit 32).

Exhibit 32: ZBA – to obtain credit interest



A bank might offer several alternatives as an investment vehicle for a cash balance see exhibit 33).

Exhibit 33: ZBA – to obtain credit interest



This was very common in the USA before the repeal of Regulation Q, which forbade credit interest being paid on DDA balances: hence the money was moved into a type of account that did not qualify as "Demand Deposit". Such an account is also free of FDIC deposit insurance charges and Fed liquidity reserve charges.

Cross-border zero-balancing

As stated, ZBA is most common on a domestic basis. However, subject to compliance with Exchange Controls, Central Bank Reporting and any other regulations, it is feasible on a cross-border basis i.e. the money moves across national boundaries. A ZBA connecting

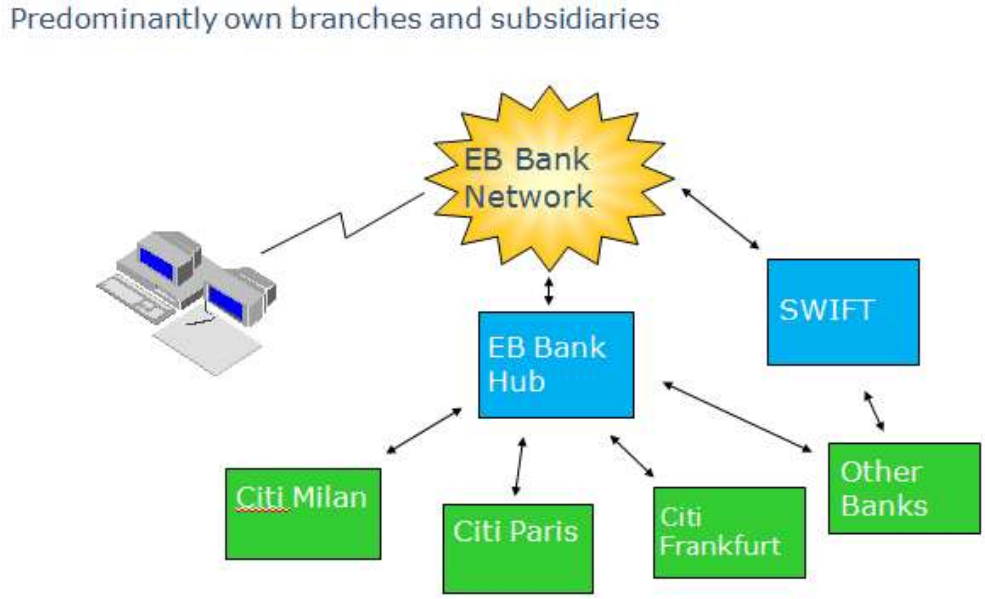
accounts at the same bank that are owned by a mixture of residents and non-residents might be marketed as “Cross-border ZBA” but does not present the same IT challenges.

Cross-border ZBA must at all costs avoid stamp duty and lifting fees.

Only a small number of banks and organisations are able to offer it, with the minimum requirement being to have branches or partner banks in both countries, and then to design a set of processes that allow the money to be moved through the different accounts without causing FX exposure, without requiring clearing payments, and without banks foregoing use-of-funds. These techniques are highly specialised and cannot be assumed to exist at all banks with their own networks, or within all banking clubs. Nevertheless, the complexity is usually out-of-sight of the corporate.

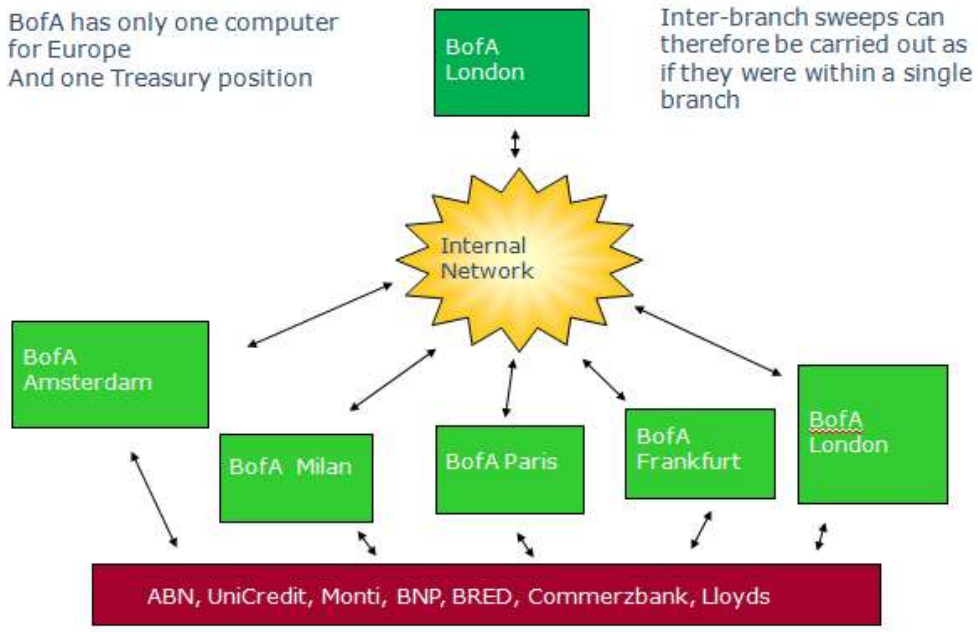
A good example would be Citibank with its network of branches and subsidiaries (see exhibit 34).

Exhibit 34: Cross-border ZBA in a global bank (Citibank)



Another example is Bank of America with its very centralised IT, Operations and Treasury infrastructure (see exhibit 35).

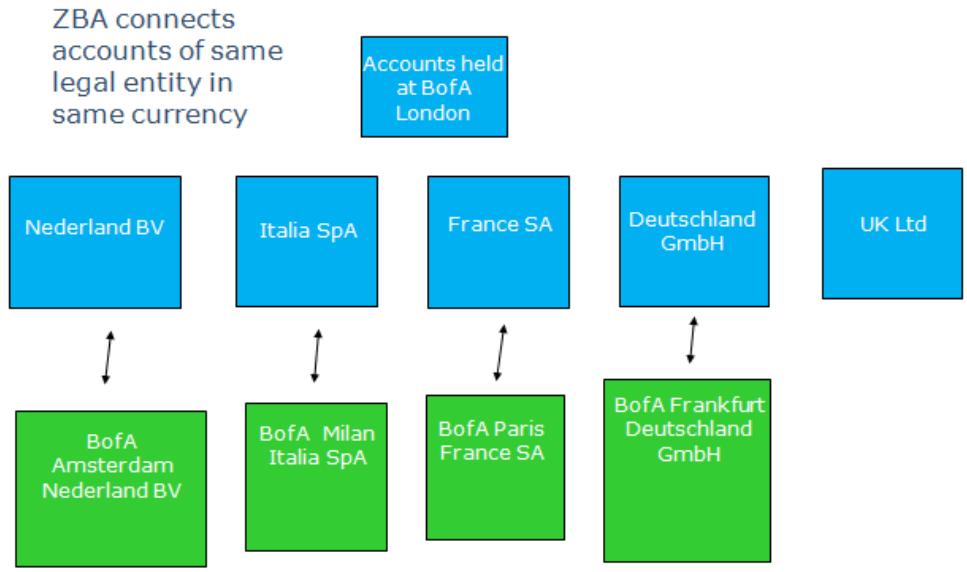
Exhibit 35: Cross-border ZBA (Bank of America)



The capability to execute the ZBA is one side of it; the other is the account structure within which the ZBA is executed. This depends upon the network of subsidiaries that the corporate has, and how tolerant the corporate is for creating intercompany loans.

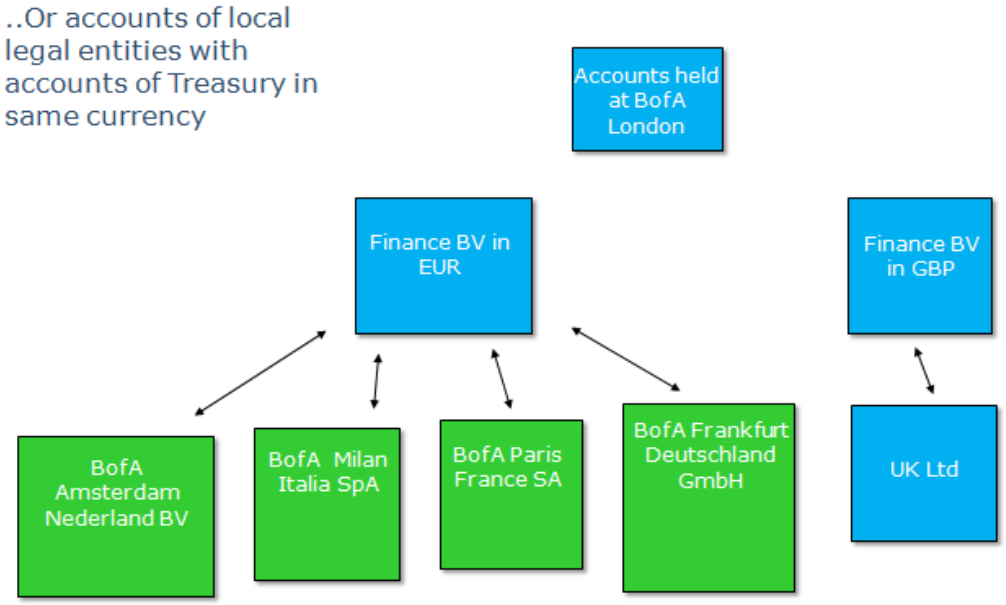
In the first structure the ZBA is executed in several instances in parallel, where Master and Slave Accounts belong to the same owner (see exhibit 36).

Exhibit 36: Cross-border ZBA Account structure #1



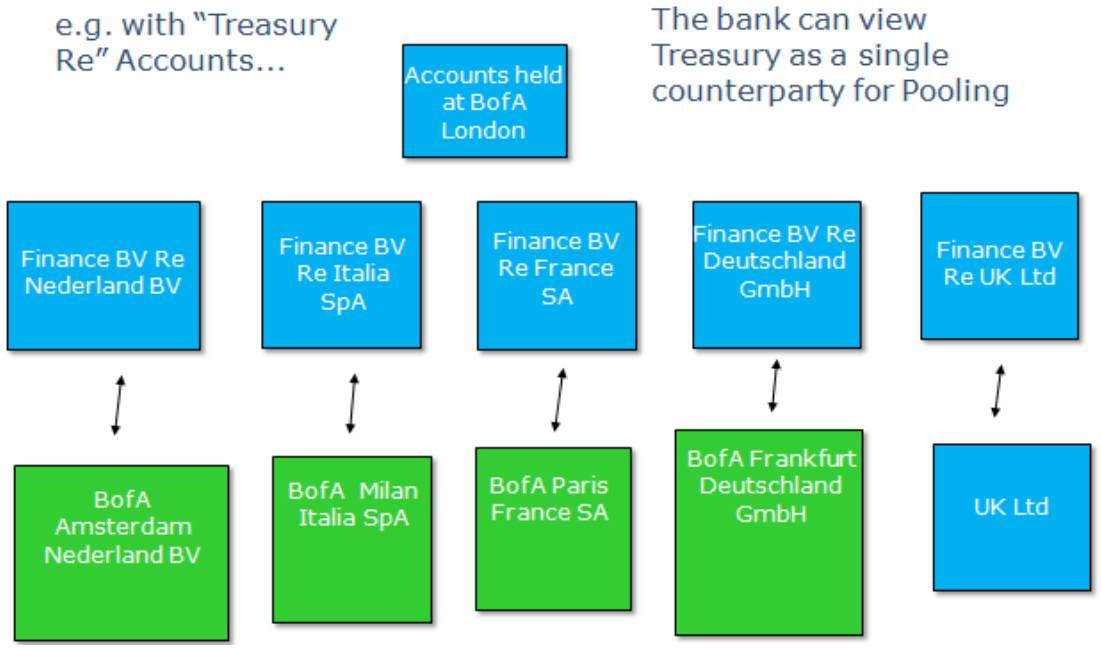
In the second structure the Master Account belongs to the Treasury Centre and Slave Accounts belong to the subsidiaries. Note that ZBA can never be cross-currency owner (see exhibit 37).

Exhibit 37: Cross-border ZBA Account structure #2



The third structure is a hybrid. The ZBA is executed in several instances in parallel, where Master and Slave Accounts belong to the same owner as far as the subsidiaries are concerned – themselves. But the Master Accounts are set up as joint accounts with the Treasury Centre, each one being entitled "Treasury Re [subsidiary name]". This enables the bank to regard the balances as belonging to the Same Counterparty, and eligible for notional pooling (see exhibit 38).

Exhibit 38: Cross-border ZBA Account structure #3



Zero-balancing/issues

Zero-balancing, whether on a domestic or cross-border basis, will invoke the series of issues dealt with above, including Intercompany lending, Thin capitalisation, and Withholding Tax. In the majority of cases the 'master' and 'slave' accounts are:

- Owned all by resident entities in a domestic ZBA, except where there is an account owned by the Treasury Centre
- Owned by the same legal entity in a Cross-Border ZBA: the movement of money changes neither the currency nor the owner

The nature of the Treasury Centre, its country of incorporation and that country's Double Tax Treaties alleviate many of the issues; otherwise the group would not locate its Treasury centre there.

Target balancing

Target balancing is a variant of ZBA, using the same IT functions. A ZBA moves the entire balance to zero, and daily whereas A Target Balancing:

- May not operate daily
- Leaves a residual balance on the 'slave' account until the next cycle

The purpose of the residual balance may be to meet 'petty cash' expenses because a Target Balance would normally be in the range £5,000. Its purpose could be to accrue notional credit interest under a Balance Offset

The discussion so far was about getting money from where it originates to a place where it can be invested or, if the original position was a debit, to move the debit position into a place where other credit positions can be used to offset it, either by further instances of ZBA or by usage of Pooling or Interest Enhancement.

Now we move on to the techniques for earning interest on a credit balance, or offsetting debit and credit balances.

9 Tools of the trade / what happens with the money that has been mobilised

Interest-bearing accounts

This is simple: the bank pays a rate of interest on the value-dated balance each day. If the account is On Demand, the rate can be quite low. If the account is on Call or Notice it should be a little higher. The Basel III Liquidity Coverage Ratio (LCR) makes it very expensive for banks to hold deposits with a maturity of less than 30 days because they must hold very liquid assets to meet the expected repayment. For large corporates with 'non-sticky' money, this can be a large proportion and it has often been heard that for every 100 of a deposit, the bank must hold 60 of gilts or other government bonds. Products to manage this, such as 30-day notice accounts are therefore available to get round this issue, but do of course increase counterparty risk significantly for the deposit holder.

Overdraft account
This is an account that is in debit, where the repayment of the debit position is On Demand. The rate can be quite high compared to money market rates.

Balance offset
Balance Offset is an arrangement mainly in the USA where credit interest is not possible, or was not possible until recently. Customers whose measure of success is low explicit fees rather than Net Interest Income are attracted by an offer of a notional credit on their balances. This notional credit can only be used to meet the service fees on the account.

Example 15: Bank charges
The basis of competition between US banks in this area is:
- The notional rate of interest on the balance
- The period for which the customer can carry forward any unused credit

For example if the earnings credit this month is USD354 but the service fees are only USD285, can the customer carry forward the difference of USD69 to next month?

Tiered interest accounts
Tiered interest accounts are an enactment of a deal where the customer says "I have a lot of money in your bank and the more I have the higher the rate should be". The customer would also want to be paid on the aggregate balance where the amounts are held by different legal entities or else in different currencies. It is the margin the bank pays below the respective currency base rate that gets reduced, the more money is in the system, and it reflects when a customer may have several accounts:

Same legal entity/different currencies
Different legal entities/same or different currencies
The service aggregates funds of the same customer group but held by different legal entities and in whatever currencies in order to determine the tiering. It is a sort of pooling but of credit balances only.

Example 16: Tiering of interest rates
The service basically pays credit interest on a scheme:
Up to EUR50,000 or equivalent – Base rate minus 1.5%
Up to EUR100,000 or equivalent - Base rate minus 1.25%
Up to EUR150,000 or equivalent - Base rate minus 1%
And so on...

However low / negative interest rates and the impact of Basel III Liquidity Coverage Ratio have led some banks to turn the logic upside down: 'the more money you place on current accounts in my bank, the less I want (or indeed can afford) to pay'. Because current account money from a corporate customer (but not necessarily from an SME) counts as 'unstable', the bank must hold a greater proportion of it in risk free low-yielding assets, rather than using the money to fund its credit card or other loan books. This factor creates a cost to the bank which lessens the attraction of such money.

Investment accounts and investment sweeps

Investment accounts and investment sweeps come into play where it is unlawful for credit interest to be paid on a current account, banks will offer an investment account. In France its identity would be a SICAV – a form of unit trust. In the USA it could have been a mutual fund, a securities account or a deposit account in a branch of the bank outside the USA, where the respective underlying investment could be T-Bills, Money Market CDs… Very often these assets are already owned by the bank and the bank just allocates part of its portfolio to this class of account at the end of each day…but at a "sale and repurchase" price that gives the bank a turn. However, in the USA, now that banks are allowed to pay interest on Demand Deposit Account balances, these types of account are no longer needed.

Interest enhancement

Interest Enhancement is similar to a tiered interest arrangement but extending to debit balances and not just credit balances. There is no actual movement of funds in between the participating accounts. It operates like a pyramid, the interest spread between credit and debit rates narrows:

- The more there is a match between the two
- The larger the amount

Because the rates set at the account level (for subsidiaries) are much worse than the rates agreed for the pool as a whole – and the Treasury Centre wants to have the difference
Some variants of notional pooling would be called interest enhancement by the banks that offer the latter

Notional Pooling

Notional Pooling is the complete – or near-complete – elimination of the interest spread between what the bank pays on credit balances and what it charges on debit balances, when the balances match. No actual movement of funds in between the participating account. In some services, no interest is accrued at all on the Matched Balance. In other services, interest is accrued on every account individually – debit and credit – and rebated to the customer at the end of the month. Some services allow the pool as a whole to show a positive or negative balance. Other services require that the pool balance be brought to zero every day.

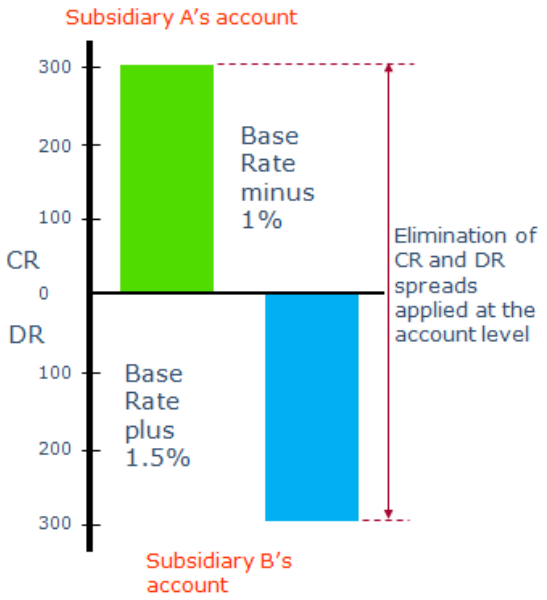
A typical service where the bank applied both credit and debit interest to the participating accounts – calculated on arm's-length terms – would create an interest spread at that level, which is the Pooling benefit. The bank would give back all of the Pooling benefit to the client (and usually to the Treasury Centre) as a rebate.

In the three examples that follow the spread is 2.5% composed of:

- 1.5% on the debit interest side (Base + 1.5%)
- 1% on the credit interest side (Base – 1%)

Where the amounts of currency on both sides exactly match, the bank rebates 2.5% less any basis points it needs, if any, to pay for its capital adequacy (see exhibit 39).

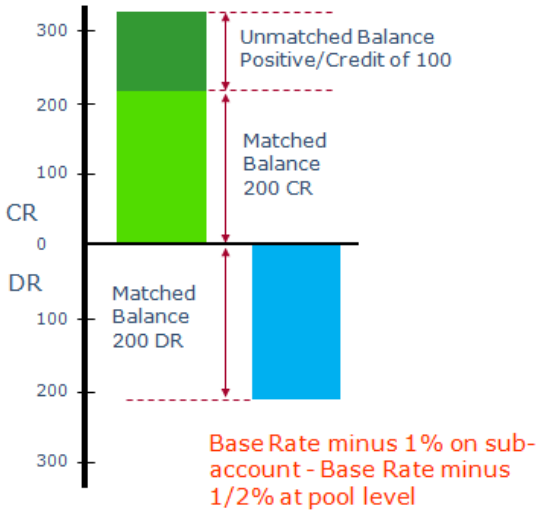
Exhibit 39: Matched balance in pooling



- Matched balance = 300 units of currency
- Elimination of CR + DR interest spread
- Elimination can be by Not Charging, or by a Rebate
- Client Benefit is 2.5 % on the total matched balance of 300 *less* an agreed utilization fee

Even if the amounts of currency on both sides do not match, there is scope for rebate if the spread at the participating account level is wider than that agreed between the bank and the Treasury Centre, for example on an excess credit balance where the participating accounts receives Base – 1%, the interest on an excess credit balance at the Pool level might be Base – ½%. Then there can be a rebate of ½% on the excess credit balance (see exhibit 40).

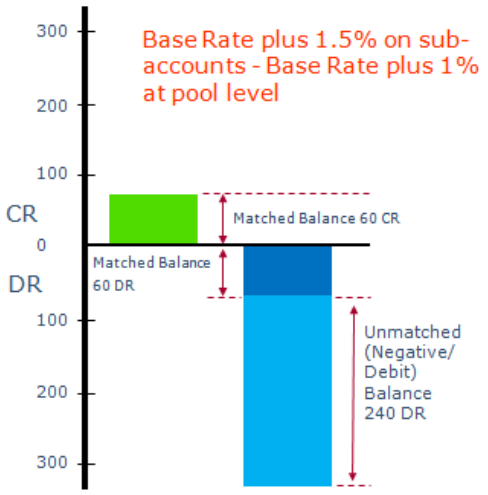
Exhibit 40: Unmatched balance in pooling (positive balance)



- Unmatched Balance = 100 CR
- Rebate on the Unmatched Balance is the difference between:
  - a) the spread paid to the subsidiary for credit balances by the bank
  - b) the spread agreed between the Pool Manager/Treasurer and the bank for credit balances

If on the other hand there is an excess debit balance where the participating accounts get charged Base + 1 ½ %, the interest on an excess debit balance at the Pool level might be Base +1% Then there can be a rebate of ½% on the excess debit balance (see exhibit 41).

Exhibit 41: Unmatched balance in pooling (negative balance)



- Unmatched Balance = 240DR
- Rebate is the difference between:
  - a) the spread levied at the subsidiary level for debit balances by bank
  - b) the spread agreed between the Pool Manager/Treasurer and the bank for debit balances

Notional pooling/issues

On the face of it the issues in Notional Pooling are all for the bank side. Subsidiaries have their account balances in their own accounts, they receive their own statements and interest calculations:

- the balances are accounted as “Asset/Cash in banks”, or “Liability/overdrafts”
- credit interest is recorded as “Interest income”
- debit interest is recorded as “Interest paid” and, because it is bank interest, is tax-deductible and not subject to Thin Capitalisation tests

However, the banking location where the pooling takes place is important in ensuring the absence of ancillary charges for the corporate:

- no deposit insurance charges
- no liquidity reserve charges
- no withholding tax deductions at source

The bigger issues for the bank are about Bank capital adequacy. If the bank has the balances in its accounts – the debit balances counting as loans – it should treat them as unconnected to the credit balances if they are held by different subsidiaries: the right of set-off in account opening papers only applies to accounts held by the same legal person. If the debit balances are unconnected, the bank needs to hold regulatory capital and earn their Return on Capital, meaning an interest margin of 1% or more which defeats the objective of the pooling.

The bank instead needs to have documentation that permits it either:

- To carry a far lower amount of regulatory capital and therefore to require an interest margin well below 1%, because the debit balances are construed as being secured on the credit balances.
- Enables the bank to eliminate the debit balances and credit balances completely from its balance sheet – and the debit and credit interest from its P&L – meaning it requires no interest margin at all.

To implement the first technique, the bank needs to assure itself that it can seize all credit balances in the system and apply them to the debit balances, without fear that any subsidiary – or a trustee-in-bankruptcy of a subsidiary – can force the bank to reverse this and pay back credit balances only. This technique works very like a zero-balancing: the bank has a right at any time to zero-balance the system. This is sometimes termed Close-Out Netting.

The second technique – called On-balance Sheet Netting – is more demanding on the bank. It compels the bank to construe all the different subsidiaries as a “Single Counterparty” and to hold legal opinions from all “relevant” jurisdictions against the risk that any subsidiary – or a trustee-in-bankruptcy of a subsidiary – can force the bank to reverse this and pay back credit balances only.

There are three main ways that banks have approached the documentation for On-balance Sheet Netting:

- Requiring Cross-guarantees from every participating subsidiary to secure the overdrafts of every other subsidiary, with each guarantee supported by a legal opinion from the country of the subsidiary.
- Declarations of joint and several liability between the subsidiaries.
- Having the subsidiaries’ accounts named in a particular fashion where the Treasury Centre is joint owner: the account would be named “Widget Group Treasury Centre BV Re Widget France S.A.” and “Widget Group Treasury Centre BV Re Widget Danmark A/S” and so on. The bank would regard “Widget Group Treasury Centre BV” as its Single Counterparty.

These approaches can in turn cause concerns for the corporate:

- How can a bank issue an Audit confirmation to each subsidiary of the subsidiary’s “Cash in Banks” or “Overdraft”, when the bank’s balance sheet does not contain these positions?
- What do the statements say? Is there anything on them, or on the interest statements, that compromise the recording of credit and debit interest as received from/paid to a bank? If so, that could threaten the deductibility of debit interest, the lack of withholding of taxes, and invoke Thin Capitalisation rules (if tax inspectors regarded the overdraft in the pool as a disguised intercompany loan).

- Is it even possible to obtain positive legal opinions from every in-scope country behind the cross-guarantees? How long does that take and what do they cost? Do they have to be refreshed every year?
- Is it legal and valid to have subsidiaries issue guarantees to cover each other's debts, in all in-scope jurisdictions?
- Is it desirable to do this from the corporate policy point of view, when a major reason for inserting capital into different subsidiaries is to manage risk: the parent's maximum loss is the capital it put in.
- These same questions apply to the Declarations of joint and several liability between the subsidiaries

A system based on Close-Out Netting, however, limits the recourse of the bank – once all cash has been applied - to going after individual debit balances:

- To the account holder
- To any individual guarantor of that account holder's line, if there is one

The bank usually cannot go after all the other account holders if they have no residual debt in the pool.

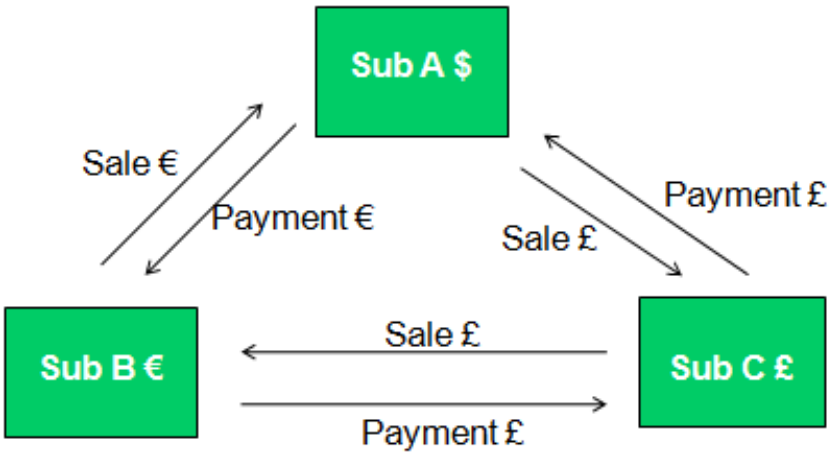
Multilateral netting

The point of Multilateral Netting is to reduce the loss of value (through fees, float and FX costs) of settling intercompany invoices. If subsidiaries trade with one another outside the framework of Netting, the legal & accounting structure is as follows:

- a many-to-many legal relationship
- the invoice currency used follows no pattern: it can be "mine", "yours" or a third currency

(see exhibit 42)

Exhibit 42: Intercompany invoicing and payments – decentralised model



Whichever it is, one counterparty to the invoice will have to deal with a "foreign" currency, resulting in the need to:

- account in foreign currency and revalue the exposure

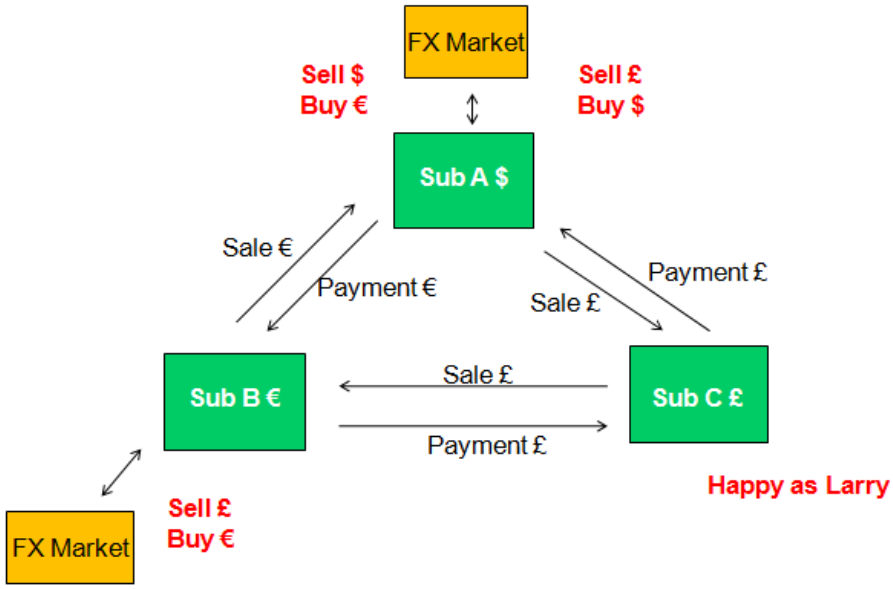
- hedge the exposure, account for the hedge and revalue it
- manage the hedge

On the FX side, without netting:

- Different subsidiaries buy and sell the same currencies
- There is at the very least the loss of bid/offer spread where currencies offset, but there will also be rate fluctuations during the course of the month, positive or negative
- Small amounts being dealt lead to wider bid/offer, somewhere between Interbank and Tourist rates

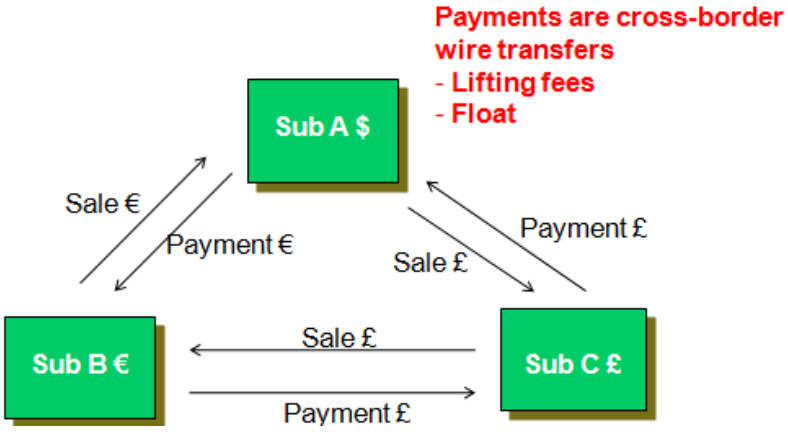
(See exhibit 43)

Exhibit 43: Without multilateral netting – FX



Payments without Netting represent many high-value cross-border commercial payments, attracting losses in terms of float, flat fees and Lifting Fees (see exhibit 44).

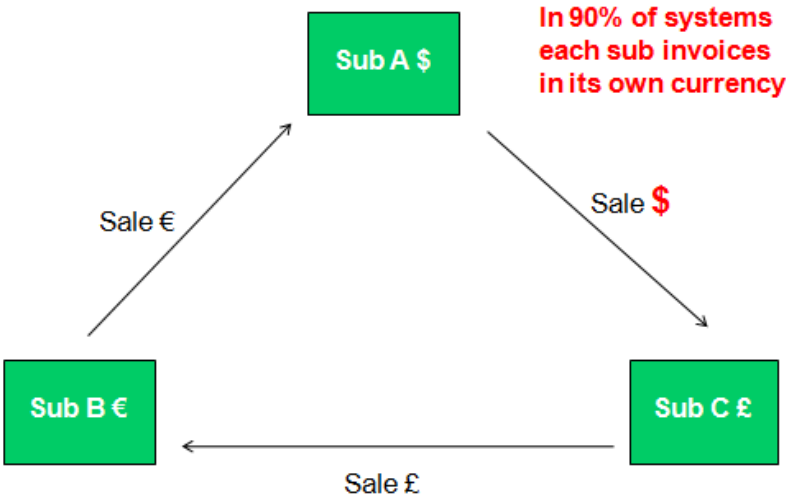
Exhibit 44: Without multilateral netting – payments



The ***Netting Legal Construction*** is as follows:

- Subsidiaries agree to have their invoices netted, as long as it is permitted in their country. They must also continue to comply with Exchange Control and Reporting regulations.
- They will then appoint an Agent to administer the process, often called the Netting Centre.
- The Netting Centre may be a bank, in which case all participants will probably hold a real account there.
- If it is the Treasury Centre, participants will hold an intercompany account there. The Treasury Centre may in turn appoint a bank (see exhibit 45).

Exhibit 45: Without multilateral netting – invoicing



While subsidiaries continue to submit invoices to one another as they trade, their settlement via Netting requires submission of invoices to the Netting centre as well to a set schedule:

- Netting occurs on set dates depending on volumes - month-end, twice a month, weekly.
- A set number of days before the next Netting Date, participants send in all the invoices they have that are drawn on other participants (they can send in all payables, or receivables, or both).
- The Netting Centre enters all the invoices into the software package against the names of the beneficiary and the payer.
- The Netting Centre, using indicative FX rates, re-expresses each participant's invoices as a net figure in its own currency.

That is the ***Trial Netting***

- The Netting Centre sends the initial estimates - the Trial Netting - to each participant together with information of every invoice submitted for it to pay.
- Participants then have a set amount of time (e.g. 2 days) to agree every invoice that will be settled and the correct amount - they may contact one another in that period.
- This is also the time for Leading and Lagging, where a cash-short subsidiary may want to include sales invoices that would normally be for the next netting, or else a cash-rich

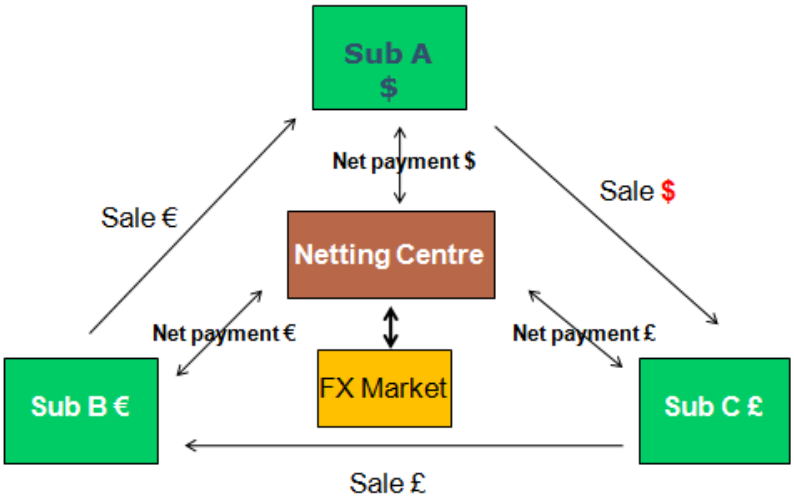
one may be prepared to see a sales invoice that is due now delayed to the next netting cycle.

Definitive Netting

- Once the invoices to be settled are agreed, the Netting Centre makes any adjustments to the data in the software and, using real FX rates, runs the netting.
- Each participant will be told:
  - what each invoice is worth in its home currency
  - what is the net amount of cash it will pay or receive
  - this is expressed in the subsidiary's home currency
- it is payable usually two days later
- The Netting Centre will then cover all the net FX positions in the marketplace, or else take them into its own position and cover those when it wishes.

(see exhibit 46).

Exhibit 46: With multilateral netting – payments and FX



Settlement – Netting centre is a bank

- If the Netting Centre is a bank, the netting result will be debited or credited to the participant's account there
- If an overdraft would result, the participant will normally cause their local bank to move funds into the account held there
- If a long balance would result, they will ask the Netting Centre bank to pay funds out
- The accounts may, however, be part of a pool, and then it may be advantageous to leave the balances as they are, combining them with the general cash position

Settlement – Netting centre is the treasury centre

- If the Netting Centre is the Treasury Centre, the netting result will be debited or credited to the participant's intercompany account held in the books of the Treasury Centre
- This does not affect the group's cash position at banks
- Leading and Lagging is far easier if done on intercompany accounts, because Sub A can lag all or part of the netting result over this account, without it affecting Subs B, C or D

- Each sub has a separate relationship with the Treasury Centre, with whom they can adjust their cash position and move money into/out of operational bank accounts

Meshing of multilateral netting with cash management

The results of the Netting can be meshed into Cash management in a number of ways:

- Settlement can be made into accounts held in a Cross-Currency Pool at a bank, thus simply adjusting credit and debit balances of individual account-holders, but not adjusting the Pool Balance at all;
- Settlement can be into accounts held at the Treasury Centre, again simply adjusting credit and debit balances of individual account-holders, but not adjusting the Treasury Centre's balance sheet footing at all: the Treasury then takes on the currency mismatch in the Netting via changes in the balances on its own currency accounts held with banks
- Leading and Lagging – helps the liquidity of cash-poor subsidiaries by postponing their payables, and similarly for cash-rich ones by reducing their cash, both achieved without resorting to external parties
- Intercompany loan or deposit account: the Treasury Centre can roll the Netting result in to its loan or deposit with the subsidiary in question, and agree how to further expand or reduce the amount until next Netting cycle so that the subsidiary can meet its payables during the next cycle. That would result in a cash amount transferred to the subsidiary or received from it. Companies frequently have their intercompany loan programme tied to the same dates as the Netting.

10 The future

The future, looked at from now, should be a coming-to-fruition of a number of initiatives in the payments space primarily that would have significance in the Cash Management space as follows:

- A single channel of communication to all banks, rather than proprietary ones
- More harmonised payment instruments requiring fewer bank accounts for specialised purposes
- Harmonised data formats for payments and reporting
- A single security methodology for bank business
- A harmonised way of managing bank mandates

10.1 SWIFT for Corporates (S4C)

With so many banks on SWIFT it was decided that allowing corporates on would be a major contributor to their initiating payments, obtaining reporting, getting visibility of cash and managing it. As such the main scope would be using FileAct to send files of payments, getting MT940/1/2 individually or via FileAct, and sending MT101. So far the main usage of has been corporates:

- sending files of low-value items still in national data format, or receiving statements in national data format
- taking intraday reporting via MT941/2 and doing cash management payments via MT101

The reasoning behind this is:

- MT101 is inflexible as a basis for mass payments so national data format is preferred by both corporate and bank
- MT940 does not contain the codes needed for auto-reconciliation

S4C's main advantage is in reducing the number of connections a corporate has:

- Ebanking products in use
- PCs and servers to run them on
- Tokens to secure their activity
- Communications networks to connect to banks
- Communications protocols

10.2 ISO20022

This initiative is for a single data standard for corporate-to-bank communication, covering reporting, payments, advices and any other ancillary area. SWIFT is the standards registrar and ISO20022 messages are also known as SWIFT MX messages. SWIFT would like banks to replace MT with MX for bank-to-bank communication. The main message sets are:

- pacs – for bank-to-bank payments
- pain – for corporate-to-bank payment orders
- camt – for reporting, advices, enquiries
- acmt – for account management

The main implementation of ISO20022 is SEPA – the SEPA schemes' Message Implementation Guidelines are all based on pain, pacs and camt messages.

10.3 Electronic bank account management (EBAM)

EBAM is a service available to corporates on S4C that comprises:

- A workflow for a series of operations such as altering the signatories on a bank account mandate
- The ISO20022 messages out of the acmt series that need to be exchanged to complete the workflow
- The contents of each acmt message so that it plays its desired role in each Workflow

10.4 3SKey

SWIFT PKI process and token for an individual to certify their identity on the SWIFT network. It is distributed to the corporate by a bank, and it should be good for the corporate to secure their exchanges with any other bank on the SWIFT network.

However, the predecessor – Identrus – has suffered because it has laboured under a fallacy as follows. The Identrus certificate is issued by Bank A to its customer, and then the customer can use its certificate to identify itself to Bank B, Bank C and so on..., in theory without Bank B or Bank C seeing the basis upon which the certificate was issued by Bank A. Banks do not and/or are not allowed to delegate Know Your Customer identity checks in this way without there being a direct relationship of trust: both banks being Identrus banks is not enough.

It remains to be seen whether 3SKey is different from Identrus on this point, or because it is a SWIFT product that banks do not go through the same questioning.

S4C, 3SKey and ISO20022 are initiatives aimed at simplifying the communication and format of data, in other words of easing structural problems to do with the playing field on which Cash Management is carried out, but they do not in and of themselves alter the bank account structure of the corporate.

However of course if supporting S4C, ISO20022 and 3SKey become determinants of a corporate's choice of banks, the number of accounts and the number of banks will be rationalised and the underlying Payables and Receivables processes simplified. That development certainly results in a simpler structure within which the cash balances exist.

10.5 Optimising Single Euro Payments Area (SEPA)

SEPA should deliver a simpler structure within which a corporate's cash balances exist. SEPA's aim is to dissolve the distinction between 'domestic' and 'cross-border' for Euro payments within the SEPA Area (the EU and the EEA including Switzerland). The means are by replacing all credit transfer and direct debit schemes in euro (domestic within a SEPA Area country and cross-border with both endpoints in a SEPA Area country) with unitary schemes based on Rulebooks and Message Implementation Guidelines agreed at a European level, and based on ISO20022.

These schemes are the SEPA Credit Transfer scheme, the SEPA Core Direct Debit scheme, and the SEPA Business-to-Business Direct Debit scheme.

Since, due to other EU Directives and Regulations, the value-dating and other terms and conditions for euro transfers have been set, there should be no barrier to a corporate doing all their euro payments business with just one bank in the SEPA Area.

The schemes and Rulebooks have been developed over the last 10 years, along with the frameworks for how SEPA payments should clear, and how the Message Implementation Guidelines correlate to ISO20022 in a Data Model, both for the customer-to-bank communications and the bank-to-bank communications (which also means bank-to-clearing system-to-bank.

In fact, because there are quite a number of clearing systems and banks may only belong to one, the clearing route could easily be bank-to-clearing system- to-clearing system-to-clearing system-to-bank

Example 17: SEPA

SEPA Clearing: Portuguese customer payment from local bank to a customer of a German co-operative bank like Suedwestdeutsche Genossenschaftliche Zentralbank (SWGZ), could clear in sequence through all of:
SIBS
EBA STEP2
Equens

The Portuguese local bank's clearing system is SIBS; SWGZ is a member of Equens.

There may be no direct bridge between SIBS and Equens in which case they have to find another clearing systems that they can connect though: EBA STEP2. The Portuguese local bank will not be a direct member of EBA STEP2 or Equens; SWGZ is not a direct member of SIBS or EBA STEP2.

The basic credit transfer payments and direct debit payments in Euroland were meant to have migrated onto the SEPA schemes by February 2014. This was postponed until August 2014. It can now be said that the bank-to-bank leg of all in-scope payments is being conducted using the SEPA schemes and in ISO20022. However quite few corporates are using ISO20022 themselves, and rather relying on conversion services to translate ISO20022 data into/out of the data format the corporate uses itself, which may still be the legacy national data format for payments.

Even to achieve this degree of migration, it was found necessary to replicate into the SEPA scheme certain data in the legacy national format that was not present in the SEPA scheme definitions as issued by the European Payments Council. Several countries felt compelled to utilise data fields in the ISO20022 framework that had not been defined in the SEPA Message Implementation Guidelines: such extra fields are known as "Additional Optional Services" or "AOS" in the language of SEPA.

In consequence of that there can be country flavours of the SEPA schemes, and these flavours are particularly seen in the domains of salary payments and of tax payments.

Example 18: SEPA
Finland defined a field for "Tax Payment Date" as an AOS for its SEPA Migration. It also defined a field for a Corporate Reference as AOS, but this was later incorporated into the main scheme, at which point it stopped being classed as AOS.

Examples of unknown or variable elements in the SEPA Migration Plan at this stage are:

- How much of the totality of credit transfer and direct debit schemes was migrated in 2014 and what can and will be delayed until 2016 due to the so-called Transitional Provisions in the EU Regulation
- What will remain totally out-of-scope in terms of payments because there are several. other credit transfer and direct debit schemes in some countries that are not classed as basic and so have not been declared to the within SEPA's scope
- Many other payment and banking products that are out-of-scope
- How electronic statements will be populated when some of the underlying items are in ISO20022 and the rest are in the country's legacy format.

Where customers use a wider array of payment and banking services than just the credit transfer and the direct debit, optimising their structure in the SEPA Area may prove elusive. For other customer business models the objectives of SEPA could be realisable now.

11 A future without banks?

This reading is arguably all based on a financial infrastructure that has been built up over 30 or 40 years, where large banks dominate the large corporate world which most treasurers inhabit. The names Citibank, Bank of America have cropped up in this reading several times. Readers will no doubt know the names of the other banks which treasurers would use to manage global or regional cash management arrangements. There aren't many of them. But even beyond this, the word "bank" has appeared nearly 400 times in this reading already. Banks are a really important part of the financial infrastructure but there are cracks appearing.

There has long been disintermediation in the lending markets, the rise of bonds is testament to that and is increasing day by day. Guarantees (used to bond construction contracts, for example) are now routinely sourced from insurance companies and some private placement loans have drawdown schedules, partly resembling a Revolving Credit Facility (RCF).

Cash management is starting to have its own disintermediation. This is probably most prevalent in the consumer segment of the market. For example, PayPal has been a payment and cash holding vehicle for many years. Fintech companies probably see most to gain in that sector.

There are several (European) regulatory moves to try and free up competition in this area and get some innovation going.

Firstly, open banking using an Application Programming Interface (API) will allow better sharing of data – the UK is leading this charge in Europe.

Example 19: Open Banking

This is an extract from The Open Data Institute, see:

https://theodi.org/open-banking-standard

How will the Open Banking Standard benefit customers and industry?

By guiding how banking data can be better opened, accessed and shared, the Open Banking Standard will help developers to build services that are more targeted to meet the needs of customers, suppliers and other innovators in finance.

For customers, having access to their own banking data will mean better options for choosing and using financial products, and better ways to manage their finances. For challengers in industry, having access to open bank data, and clear, secure ways to integrate it with shared customer data, will mean they can quickly develop new, or better, products and services. For banks, being able to make their interactions with customers

smoother and simpler will help them to find efficiencies, improve customer service and deepen their customer base

Secondly, the Payment Services Directive (PSD) allows non-banks into the payments area. An Authorised Payment Institution (unfortunately also an API) may carry out many of the functions normally thought of as exclusively only open to banks.

Example 20: Authorised Payment Institutions

This example looks at Ebury Partners UK Ltd. See:

https://www.ebury.com/

These are some of the product promotions that Ebury show their corporate clients:

Grow	Across the globe	Securely and efficiently
FX and risk management solutions to protect your margins as well as business lending to capitalise on growth opportunities.	Extensive international payment and collection capabilities to ensure you can trade where you need to.	Fast and secure same day payments and the ability to bulk pay your recipients.

Why Ebury?

- Make international payments in over 130 currencies including many emerging markets
- Local currency collection in over 55 currencies to ensure you get paid
- Dedicated support from a named finance specialist to create the right solution for you
- Seamless integration through our API, online platform or direct with your dealer
- Same-day onboarding with no set-up fees

Ebury also offer FX services and loans.

One of the products that is offered is collection accounts, which is broadly using Ebury's (currently) Barclays Bank account in a particular currency to collect in foreign currencies. Ebury claims easier account opening than banks, which is a key competitive feature in today's KYC world. Note however that there is still a bank in the background, giving counterparty risk issues.

Many Fintech companies have found the regulation, risk and security involved in becoming an API is actually more difficult than they thought.

Note that banks are fighting back a little with the use of Virtual Bank Accounts.

There will be much more to come in this story.