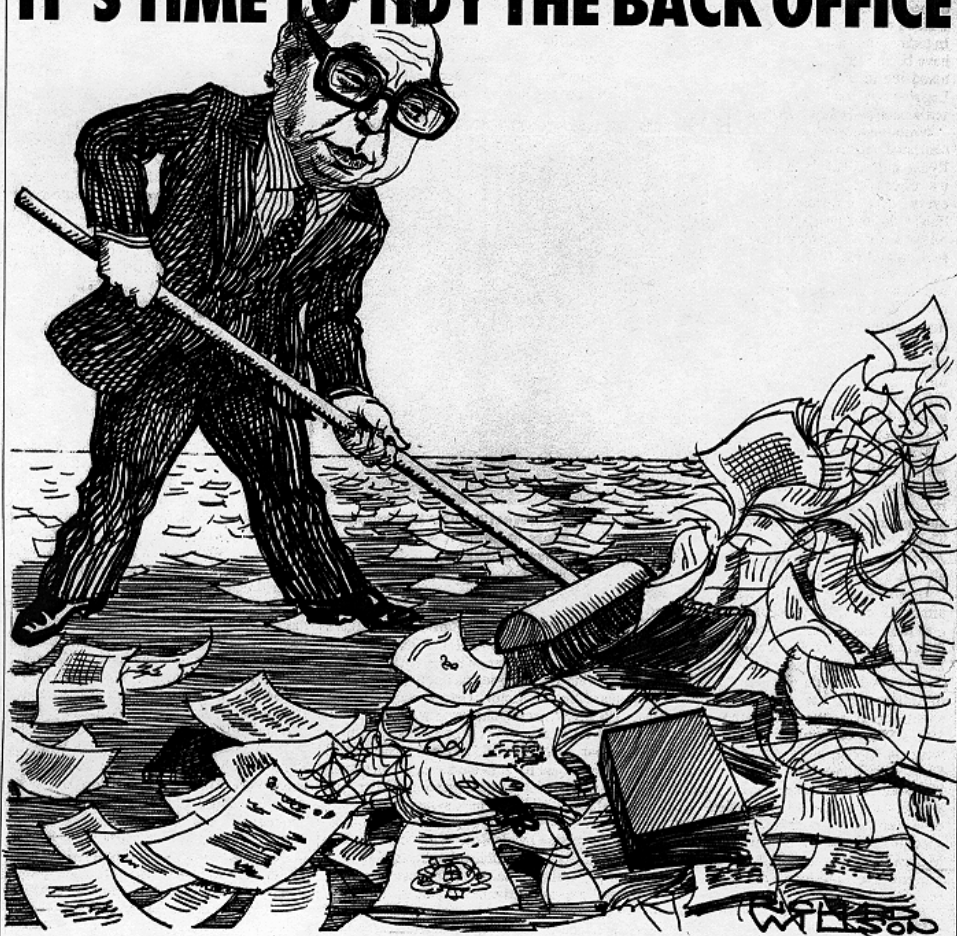


EUROMONEY

CLEARING SYSTEMS

IT'S TIME TO TIDY THE BACK OFFICE



Settlement in the international securities markets is in a shambles. Banks and securities houses have long trumpeted their commitment to technological solutions to back-office problems. But archaic, paper-clogged systems remain. And though the international exchanges are at last automating their operations, they are doing so in a variety of unco-ordinated and conflicting ways. For operations managers around the world, the daunting implications of settlement risk are making themselves felt.

"The whole business still faces an

While trading is slack, the detritus of Big Bang could be tidied, and an up-to-date clearing system introduced.

By Tony Shale

immense technological challenge," said Michael Roden, head of information technology at Banque Paribas Capital

Markets. "The crash highlighted to senior management the fact that information technology is *the* business — to the point that if your IT is not an integral part of your business strategy you will not survive."

Roden claimed that his view was once thought radical by colleagues — but no longer. Technocrats now believe an immediate review of houses' data architecture is both vital and inevitable. Those that don't rip out and replace old, cranky and short-term-orientated systems will have a crippling price to pay in the future.

Securities markets were created and developed by deal-makers and entrepreneurs with an eye to profits generated by traders. In today's international markets, the traders have become the glamour people who command the large salaries and high profiles. Lagging a long way behind are the settlement and clearing clerks.

While management has concentrated resources and high-flying staff in the front office, it's often forgotten that, for every deal generated by a trader, there is also a responsibility for implementing, settling and clearing it.

This didn't matter so much when most deals were done in cosy, parochial market conditions. But now that technology has propelled markets into the international arena and new instruments denominated in different currencies are traded on a 24-hour basis, this neglect is exposed.

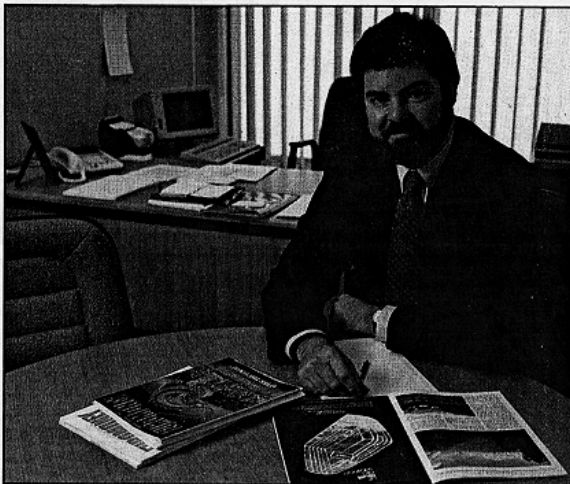
The world's stock exchanges were, until recently, making this situation worse by their reluctance or refusal to provide automated settlement facilities. This is incredible to Americans, who went through all this a dozen years ago.

"Hard lessons were learnt in the aftermath of 1975 [deregulation]," pointed out John Kinnaman, a recently imported American director at County NatWest in London. "And when settlement shortcomings were made clear in the aftermath of May Day, the US built the most sophisticated settlement system. In early 1987, 90% of actively traded securities were on deposit at the DTC. That's about \$2.5 billion-worth of securities immobilised in nominee form — and all on a book-entry system. The physical delivery of a certificate is only generated at the specific request of a particular player. Meanwhile there are idiots in London who require the physical delivery of US securities certificates."

Kinnaman arrived at County from the NSCC (National Securities Clearing Corporation) in New York. There, when two brokers deal, the trade is either executed electronically on trade day plus one, or matched by the NSCC and settled by its continuous netting system on trade day plus five. The Securities and Exchange Commission (SEC) acts as a guarantor of settlement between all counterparties once the trade is agreed.

The DTC extends the service offered by the NSCC, by incorporating all custodians, so that when a broker has bought for an institution the deal is confirmed electronically to all counterparties through its institutional confirmations system. If all parties agree, settlement again takes place

electronically on trade day plus five; the buying broker is allocated the securities by the NSCC and the DTC debits the broker and credits the custodian bank. "The systems talk to each other, and the computers complement each other, so data paper doesn't appear," said Kinnaman.



County NatWest's John Kinnaman: "...idiots in London who require physical delivery..."

He identified the Eurobond market's solution as the only rival in efficiency. "The need for sophistication in the settlement and clearing of securities has only been recognised by this sector. Driven mainly by the US investment banks, who wanted to avert any more crises, it's produced a system on a par with the US." The Association of International Bond Dealers is now completing its automation, supplementing Cedel and Euroclear with two new systems, ACE and TRAX, which will extend the amount of information available to users and speed up confirmation, settlement and clearing.

Excepting these two, Kinnaman's view of the present settlement climate is bleak. "Take a look around the world, and you will find no truly efficient settlement system in Europe, the Far East or the Pacific Basin."

The London Stock Exchange (since rechristened the International Stock Exchange) has the Talisman settlements system which takes the paper away from market-makers. "That's its only saving grace," said one operations manager. "There has been no impetus by the authorities to improve the institutional side, where the contract note and the telex are still the modus operandi." Similarly, there has been no move as yet to automate individual share ownership registration. The British Government's rush of privatisations has made this area particularly cumber-

some. Another observer said: "British Gas had to spend over £700,000 just to communicate with its shareholders on one specific corporate action. There's got to be an easier and cheaper way."

Elsewhere in Europe, a straw poll of international market-makers revealed that Milan's notorious settlement problems have produced a steady exodus of foreign houses. They got fed up with a wait of six months to clear transactions. An automated system, Borsamat, should improve matters. The Madrid stock exchange retains a paper-based system, also not much admired.

In Switzerland, one market-maker said: "The system appears to be efficient but, because it is dominated by the Big Three banks, all extra-territorial business has to go through them, and clogs are apparent."

Germany with its Kassenverein depository system, was regarded with favour, but one complaint was that its two-day rolling settlement cycle is too short for global market-makers. Stockholm and

Amsterdam were also praised for having decertificated their systems. But Paris, London and Spain were all criticised for having monthly accounting cycles. "It's better to level it out like in the US," said one American investment banker. The five-day rolling settlement system used in the US and the Eurobond market was generally picked out as the best approach.

Kinnaman commented: "Tokyo has a settlement system which works, but which is dominated by members of the Tokyo Stock Exchange. And they tend to make it work simply because to fail on a trade there is looked on as dishonourable — a loss of face. The settlement cycle, at three days, is good for global participation, but they need to immobilise paper and make the system electronic." Hong Kong, too, has a paper-based system and a very inefficient one-day settlement cycle.

Banks, brokers and securities houses have to shoulder a huge burden of settlement risk as a result of this litany of errors and neglect. Each is affected in a different way. "For the brokers," said Michael de Mello, managing director of Financial Telecommunications (Fitel), "settlement risk means that what ought to be fast-moving inventories are immobilised."

Ivan Newman, European director of financial services at the rival systems house, I P Sharp, agreed. "If a trade fails, then a broker who has traded with the idea he has the stock on his books will have to borrow stock in order to fund the fail. This costs both time and money."

The vagaries of international settlement are costly when they mean that a house does not know what stage of which process its transaction has reached. "Knowing a transaction has failed is as valuable as knowing it has settled," said de Mello. "But when it's in limbo it's very difficult to cope with because the exposure is unknown and therefore unmanageable. And, although they won't admit it, brokers are having to manage fails." This entails a selective choice of dealing partner or location, depending on back office reliability — a practice with far-reaching implications for tardy institutions. De Mello also pointed out the foreign exchange risk a broker takes on when dealing in multiple markets.

For such investing institutions as pension funds, settlement risks mean lost interest. If funds are not credited to an institution at the right time and for the right amount, interest is lost on a deal. Those bearing the brunt of settlement risk, according to de Mello, are the custodian banks.

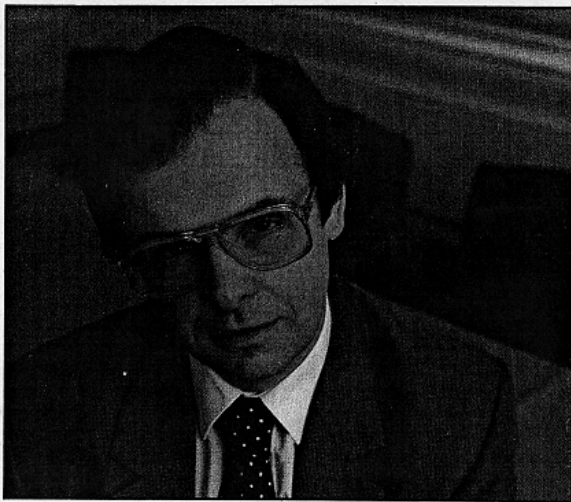
"It's a very concentrated market, with Chase, the largest, having something like 40% of it. Typically, on any given day, they can find themselves with a tremendous increase in exposure to one country because of settlement failure."

This exposure, for sums of over \$100 million, to such countries as Mexico or the Philippines, may be crippling.

Since the stock market collapse, the international clearing houses have had to take more notice of settlement risk. David Carter, vice president at Cedel, said: "Settlement risk for us occurs when we purchase securities for a participant's account and find we are unable to resell them. Where these are uncollateralised, we have to be careful about an overdraft position. As a result we are now having to be much more aware of the quality of instruments traded and the standing of the participant on whose behalf we purchase securities. We are occasionally having to ask some participants to provide collateral to cover margins." A credit committee of six members is responsible for this monitoring and risk management.

It is in the international equity market that settlement risk is worst. De Mello estimated that around 40% of all trades in the market in 1987 had failed. He maintained this failure rate has not altered, in spite of the reduction in trading since October. "That means that, at any one point in time, 40% of all positions were open during 1987. In London alone it is said that between \$5 and \$10 billion-worth of trades are outstanding.

Short-term solutions have been tried; back office staff have been working up to 18 hours a day in the City, and the stock exchange has mobilised a task force under Michael Baker, its divisional director of markets, which has imposed fines on companies for every unsettled transaction held



Michael Roden of Banque Paribas
Capital Markets: information technology is the business.

over after certain dates.

But these can only be short-term answers to an ever-present problem. A joint initiative on the part of regulators, exchanges and practitioners is needed now, during the breathing space provided by the decrease in trading.

At present all sides are suffering from each other's inadequacies. Kinnaman of County pointed out: "I could be the most efficient bank in the UK as far as settlement is concerned, but I would still only be as efficient as the whole system."

Those exchanges which have begun to see the light are creating more problems for the international securities trading community. Roden of Paribas explained: "The exchanges and the regulators are finally recognising the power of technology and are now spending huge amounts of money trying to develop efficiency. Meanwhile, the banks and securities houses are just beginning to wake up."

The failure of banks to respond to the increasing demands on their back offices is a constant lament of financial technocrats. "Before Big Bang there were around 7,000 staff in settlements in the City," said David Taylor, managing director of Stratus Computer. "And at the end of 1987 this figure was up to around 7,001. This despite the fact that volumes increased up to 10 times what many expected."

Taylor suggested that it would take be-

tween five and 10 years to automate the back office effectively. To do so, he maintained, would require the sort of real-time, on-line, fault-tolerant hardware provided by Stratus (and by Tandem Computers). This is required to replace the lumbering batch processors of the present, which merely store up data for after-the-event settlement.

Roden of Paribas agreed. "One of the main objectives of any business-driven information technology strategy is to eliminate the back office. The world is moving to global trading and electronic settlement. This means it is much more important to have operations in real-time and on-line. The deal has to be captured at source and within 15 seconds the account should be updated, P&L adjusted, credit updated and disbursement made. No longer can firms wait four or five hours or until the following day before knowing the effect of a trade." This, he said, was an urgent requirement — "because you can easily lose a dealer's annual profit in 10 seconds in the back office."

The lowly standing of the technician annoys Roden. "There's a bad perspective at the moment," he said. "It's all very well that the head trader reports to the managing director of a bank. But it's now equally as important for the head of information technology to have direct access to board level, because, without the necessary supporting systems infrastructure, the income generators cannot produce."

Roden added that banks should be changing their business direction to suit their systems, by the strategic commission and installation of new systems architecture at board level. However: "The boards of directors do not understand technology."

Moreover, people skilled in both financial and technological disciplines are still few. "The main problem in London at the present," said Roden, "is the scarcity of highly trained systems professionals."

The integration of settlement and clearing into the front office in a real-time, on-line environment is still a long way off. Roden could cite only Bankers Trust (*Euromoney*, July 1987) as possessing such a system among the world's leading financial institutions. Fitel and I P Sharp do offer international settlement systems through their Equinet and Instant Link systems to allow the paperless confirmation of trades.

Operations managers are still asking for a more far-reaching solution. "These systems provide good services for niches in the market," said Kinnaman of County. "And they're helping to make the international settlements market electronic."