Once more unto the breach dear friends – final preparations for the euro.

In Shakespeare's histories, there is no great deed or undertaking which is not preceded by a profound speech and insight into the human condition. Sometimes it is the (fairly) modest and pious – as with Bolingbroke before Bosworth, sometimes bombastic and furious as in Henry V at Agincourt. But always there is a recognition of great deeds in the offing and success or ruin the next day and a single minded determination to succeed.

At the end of this year, the City of London is expected to have 50,000 people at work on a 'bank holiday' (a new oxymoron for us to savour) with a similarly single minded approach. They also know that failure could have catastrophic consequences. This is more than were involved in any of Henry V's armies and far more than the future Henry VII could muster.

This may seem a bit over the top for a weekend where the most serious physical threat is terminal boredom induced by excessive reconciliation of fixed income positions at Euroclear, but there is indeed a huge risk. For if London cannot achieve a close to flawless conversion the whole of the European wholesale market could jam solid within days, and the credibility of the City could take an irrecoverable dive.

How would this failure take place? The two great threats are, one, lack of liquid cash for settlement – which will happen rapidly if at all, and two, the slower, but equally effective death by overwhelming numbers of failed trades.

Some will remember the day that the Bank of New York, through which large numbers of banks cleared funds, had a systems failure which led to the Fed lending tens of billions of dollars simply in order to allow payments to continue to take place. Well, if a few banks fouled up their payments in euros the market might rapidly grind to a halt as the deadlock of banks waiting for payments to come through overtook the market's capacity to provide extra liquidity to cover outstanding payments. Well this was just one bank, suppose it was five percent of the London market – that's about 35 banks. Now they might not have the commitments that Bank of New York had, but it's a large number for correspondent banks and the Bank of England to sustain.

If this were replicated over the rest of Europe (and don't forget, the accepted view is that banks in London are far better prepared for the weekend changeover than banks elsewhere) we might see each of the national centres jam solid for lack of liquidity.

The other – and potentially more serious - danger is the accumulation of fails in the market. There are reports that in recent tests that up to 40% of trades failed on SICOVAM, the French central market system, while the Italian system collapsed completely. And these are the central systems which drive the markets, the systems which actually dictate the standards for the markets.

But we don't expect to see SICOVAM or the Kassenverein fail. Much more likely is that there will be a small rise in the number of fails on a regular and continuing basis. Instead of an average of (say) eight percent of bond trades failing, we get ten percent for a sustained period. Well, that's no problem is it? Well, actually, yes it is.

A manager from HSBC recently told me that they had modelled just this level of rise in fails. What they discovered was that back offices – whose job nowadays isn't really so much to settle trades as to fix fails – have been honed to such a degree that a sustained increase in fails will overwhelm the resources available, and that there aren't the resources available rapidly enough to avoid a catastrophic runaway of failed trades.

At present, on average, all of one day's fails are processed and fixed within a working day. This does not mean that all fails are corrected, but rather that if, on average, a dealing room produces trades of which 80 will fail for some reason, then the back office will, on average, solve up to 85 per day. There will always be a backlog, but typically, it will be of manageable – i.e. controllable – proportions.

If, one the other hand, there is a sustained period of 100 fails per day, there will be an average *increase* of 15 trades per day. After two weeks, the backlog will have increased to two days normal processing, and, such is the nature of these things, it will be becoming exponentially worse daily as confusion and references begin to break down.

The example has been given of CREST which, when it began, had a number of minor problems, which led to a build up of fails. The operators rapidly stepped in, reduced the number of trades which were being processed by CREST – that is, asking participants to use other, traditional methods for a few days – and fixed the difficulties. No such option is available for the euro. It's all or nothing.

But why would this harm London? Well, as we all recognise, London has no divine right to operate the European time zone financial centre. No-one in their right mind would want to live in Frankfurt. It's possibly the most boring city on earth with an airport of sub third world efficiency, but Paris, Munich, Milan or Barcelona produce tons of smart English speaking young bankers who now work in London, and who might like to work nearer where they come from. London's great strength is its back offices. The links between back office managers, the guild-like training and depth of understanding of how it all works, and how it doesn't work, are the sinews of the banking market, and London's massive advantage.

If the settlement infrastructure were to fail, London's credibility would take a massive hit. It might be the beginning of the end for the City.

So, after this long introduction, how should we look on the last stages of preparation for the euro? Well there are two main components; first the institutions own preparations, second the markets' readiness and the role of the market supervisors.

Institutions.

Institutions must prepare for three quite distinct problems:

1) Preparation of new standing data for securities, standard settlement instructions (SSIs) and related matters
2) Converting and reconciling positions and trades over 'le weekend'
3) Continuing to do business in instruments denominated in both old and new currencies after 4 January 1999.

Static data

This is work which should already be under way – SSIs were due to have been exchanged by the end of September – and we shall certainly know which issues are redenominating well before the switch date. Also, if these are in place early, it should be easier to test whether they are correct or not in advance of actual use.

Other data is slowly becoming available – Reuters has had the new ISINs of Dutch and French securities available for some time, and we should expect to hear of the final arrangements for redenomination and reconventioning in the near future.

Static data for non-government issues, however, continues to be inconveniently vague. We can hardly hold the data vendors responsible for this, since they will need to be told by the bond issuers whose decision it is. However, it seems that there has been a potentially problematic lack of foresight in the regulation of these matters in 'in' countries.

One of the serious deficiencies has been the lack of an announced source of reconventioning dates. While it is fairly clear how redenomination will be announced, the date on which new accrual methods will be applied has been more noticeable by its absence than anything else.

Le weekend

For most institutions, the work for this weekend should be limited to reconciliation and little else. Once the rates have been fixed during early afternoon on 31 December (we all hope!) the central market machines – Euroclear, Cedel, the Kassenverein and so on will begin the process of conversion of positions and trades according to the published rules.

Similarly, systems which run effectively as bureaux, such as Bloomberg trading, all outstanding positions and transactions will be converted and new versions will be supplied where required. Most of the work associated with

Similarly, custodians will be carrying out conversion of their holdings.

The market participants should, by this time have sorted out fails and outstanding items, and if the markets have been kind and calm, there should be few trades from the period between Christmas and New Year.

Once the custodians have sent their reports of converted positions the back offices will be able to get down to the real work, the reconciliation of all positions and trades in their new formats.

In broad terms the first problem is one which is yet another example of the ubiquity of the euro in financial business processes. Whereas in a manufacturing or distribution company, money is really 'how you keep the score', in banking and investment it is the raw material, work in progress and product, as well as the measure of its own worth. Because it permeates every aspect of the business, it has been necessary to involve every part of a bank in the euro process.

Those institutions which have not involved every aspect of the organisation so far will now find that it will be difficult to carry out end to end testing and ensure that the organisation is prepared to do business in January.

Diagram 1 illustrates the problem. The horizontal lines show the systems and departments which will need to be prepared. The vertical axis shows the instruments in which the organisation operates. Needless to say, the dates are invented and the selection of systems is not meant to represent what should happen at any real organisation.

The diagram takes three simple milestones: start of testing, end of testing and live use. These are usually the less disputable milestones within a project, and fairly simply recognised.

Diagram 1 shows the situation in late October, we can se that not much has been done, but that neither is much scheduled yet. Diagram 2, by contrast is set at 23 December, and it is clear that the institution is having serious problems preparing itself for derivatives business.

Items in green have been completed, items in yellow are due for delivery within the next five days, items in red are overdue and items in blue have not yet been started.

Most projects have concentrated on the horizontal aspects – getting the individual systems ready – to the exclusion of seeing whether the vertical aspect can be completed. The problem most organisations now face is ensuring that they have sufficient systems (in the broad sense) to be able to do business in January.

It will not prove easy if the owners of the product streams are not already involved in identification of end to end testing and operation.

Continuing business

In many institutions, the greater part of the conversion work will be carried out manually. Even those banks with the most sophisticated set ups will not see fit to automate processes which intrinsically require an understanding of what has failed, and which will in any case, only be done once.

But for ongoing business, the situation is quite different. The curiosities that the euro has produced – such as odd lot decimal value trading of fixed income securities – may well have an attraction to some market participants. Similarly, the changes to the interest calculation basis, the interaction with real time gross settlement systems and cross border settlement within the euro zone will all be permanent, or at least long lived changes to market operations.

The distinction then between conversion and continuing business is in many ways one of the degree to which the process is susceptible to automation. The one-off conversion is not easily automated while the continuing processing is.

Market preparations and supervisors

It now seems that most of the market institutions have made reasonable preparations, although as we noted above there are worrying signs from France and Italy, and there does not seem to be an excess on news from other centres.

Of course, in one sense, catastrophic market failure (say the enforced closure of the German equities market) would be spectacular, but would probably be easier to recover from than the failure of a few major market participants. If a Merrill Lynch or a Deutsche Bank were unable to settle its trades because of some system failure, the market would probably have far more trouble unwinding and correcting matters.

It will take a while for the markets to settle on benchmarks for bonds and other instruments, and the UK is likely to find a particularly disconcerting matter once the FTSE-100 contains a mix of shares some priced in sterling others priced in euros.

The market regulators and supervisors are also now starting to make their positions clear. In London the FSA has been visiting the market participants armed with several closely typed pages of questions designed to identify who may have problems.

The FSA has also hinted that it intends to be involved during the conversion weekend, trying to find out if anyone is having difficulties and, if so, to put in place remedial steps to preserve the integrity of the market.

There are already rumours that some banks are far from ready, and it will be interesting to see of regulators take any pre-emptive action if they consider that problems are likely to result.

The role of the Bank of England too has very much been that of midwife to the new currency. There will soon be visits to North America and the Far East by David Clementi and John Townend, designed to cement the role of London as the major market in the European time zone to investors and market participants in those areas.

Conclusion

There are participants in the market who believe that the arrival of the euro will unleash a flood of opportunity, particularly in the fixed income markets. There are others just hoping to survive the technical changes brought on by the new currency.

But none of them can truly be confident, because of the close interdependence of all market participants. No industry other than finance will need to undertake a big bang such as we are about to see in London and elsewhere. There can also be no second chance. It’s a bit like bungee jumping; you can’t change your mind once you’ve started.

The main problem is that we don’t know whether we’re part of Henry’s army at Agincourt, or Anthony’s before Actium.