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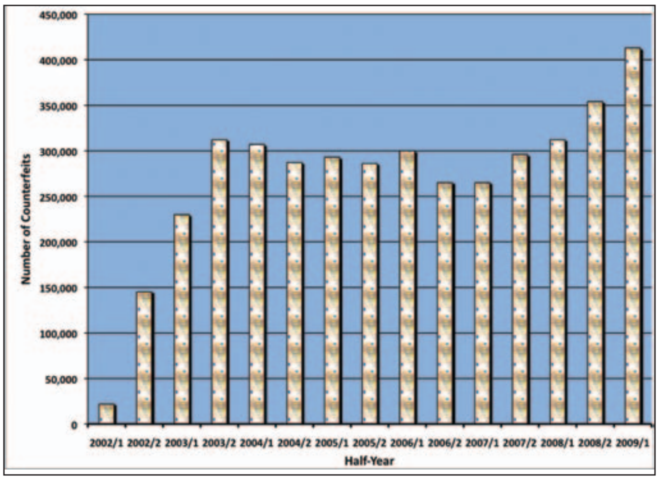
Euro Counterfeits Continue to Rise

The European Central Bank has announced a significant rise in the number of counterfeit seizures in the first six months of 2009.

Following a period of relative stability from 2004 through to 2007, during which seizures of counterfeits were running at about 600,000 notes per year, the last three six-month periods (January 2008 – June 2009) have all shown steady rises, culminating in July's announcements of a 17% increase in seized notes to 413,000 in the first half of 2009 when compared with the six-month period July–December 2008. Perhaps of more concern is that the first six-month seizures of counterfeits were 33% up on the similar period in 2008.



The €20 and €50 denominations represented 82.5% of counterfeit notes withdrawn from circulation, and nearly all (more than 98%) of those recovered were found in euro area countries. Only

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Ireland Signs up to CashSSP

The Central Bank and Financial Supervisory Authority of Ireland has become the fifth country to sign up to CashSSP, the common IT platform for cash operations that is already shared by the central banks of Belgium, the Netherlands, Luxembourg and Finland.

Cash SSP is a track and trace system for cash (notes and coins), which provides a common infrastructure that can be used by different central banks to save costs and harmonise cash handling. It handles orders from financial institutions and deliveries of cash, vault management and note and coin accounting, and provides statistics on cash for the European Central Bank.

Its origins lie in a major business process re-engineering project that the National Bank of Belgium undertook in readiness for the euro launch, to do away with the paperwork associated with cash distribution and to enable all deposits and withdrawals to be undertaken electronically. At its core is the ESCB (European System of Central Banks) encoding system which is applicable

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When Pessimism Pays Off

We are constantly being told that the current economic crisis is like no other – due to the sheer scale and global nature of the financial meltdown and subsequent recession – and that even the Wall Street Crash and subsequent Great Depression of the 1930s is an inadequate comparison to the situation today.

Nonetheless the distinct pattern in the events leading up to and following the financial meltdown have been fairly predictable.

First, while it is easy to be wise after the event, there were signs of the crisis to come, which most either failed to see or chose to ignore. And when these problems began surfacing, they were not at first immediate and dramatic but rather a series of shockwaves that started with the collapse of the subprime mortgage market in the US in mid-2007 and culminated with the full-scale financial tsunami and collapse of the world's financial markets in October 2008.

One of the defining characteristics of the currency sector is its constant vigilance in the expectation of attack, perceived or real

Second, this collapse has been followed by recession, despite the best efforts of many governments to avert this or at least mitigate its worst effects. The success or otherwise of government intervention remains to be seen, as does the financial cost for years, if not generations, to come.

And third, just as recession followed the financial collapse, so has increased criminality in the wake of shrinking incomes and rising unemployment.

None of this should have been unexpected – indeed it presents a depressingly predictable pattern regardless of the root causes.

Theft and Counterfeiting

Increased criminality in the currency sector relates to both theft and counterfeiting – and there appears to be evidence now that the latter is on the increase, if the latest figures from the ECB, the Bank of England and others are anything to go by. It is not possible, at this early juncture, to determine whether these figures are the result of an increase in organised crime or casual, so-called 'opportunistic' counterfeiting. 'Professional' criminals need little excuse to ply their trade at the best of times, but opportunist crimes are more likely to rise in times of economic hardship.

Either way, we shouldn't be surprised, and neither should we be too alarmed. The latest figures nowithstanding, the financial cost of counterfeiting remains small compared with, for example, product counterfeiting or payment card fraud.

As for the argument that it is not so much the financial consequences of currency counterfeiting that matters as the damage it does to public confidence, this is certainly more of a concern. However one of the defining characteristics of the currency sector is its constant vigilance in the expectation of attack, perceived or real. Currency issuers have always assumed the worst – to the extent, as has sometimes been argued in the recent past, that the investment made in securing banknotes is out of proportion to the problem itself.

Vigilance to be Welcomed

But at times like this, such vigilance is to be welcomed. Most will agree that financial institutions and governments have been staggeringly complacent. The same cannot be said of note issuers. Seldom has a month gone by in recent years without the issue of new designs or series somewhere in the world, invariably accompanied by the statement that such actions are pre-emptive, regardless of whether there is an issue with counterfeiting. (Indeed, there sometimes appears to be an inverse relationship between the vulnerability of a country's currency and the sophistication of the new features it adopts.) 'Keeping one step ahead of the counterfeiters' is a mantra that most issuers seem to chant. Now, more than ever, this mantra is relevant.

By assuming the worst and taking appropriate preventive steps – through increasing the rate at which new features or designs are introduced, deploying sleeper features, implementing extensive programmes of investment and assessment, working closely with law enforcement, educating the public and so on – note issuers are extremely well-positioned to respond to the increased incidence of counterfeiting. Caution, pessimism even, during the good times has meant that they are well able to deal with the problems that happen in the bad times.

If only our governments had taken their lead from this culture, our financial systems and economies would undoubtedly be much better off as a result.

Ireland signs up ...cont

throughout the eurozone. This caught the attention of the central banks of its nearest neighbours, Luxembourg and the Netherlands, and subsequent refinements and developments on the part of all three resulted in the current system. Finland signed up in 2007.

The purpose of the CashSSP IT platform, according to the NBB, is to support the daily business of cash departments and to securely manage cash relations between financial institutions and their respective central banks. It functions as an accounting and logistics tool and allows these institutions to record their note and coin lodgments and withdrawals via secure communications.

The operational costs of CashSSP, as well as those of development, are shared between the participants. They have stated that their cooperation, by pooling their human and financial resources, creates synergies and economies of scale.

They have also stated that they hope more central banks will take part. In addition to Ireland, the central bank of a sixth EU country will be signing up later in the year, while a seventh has signed a letter of intent to join.

Israel to Run Design Contest for New Issue

The Bank of Israel has told Currency News that it is planning to run a competition for the design of its new banknote series, likely to be issued in 2012. The new series will probably drop 'new' from the currency name (which will require new legislation), and although it is early days, Mordechei Fein, Head of the Currency Department, said that it is likely that it will be specified as a landscape design on both sides, rather than the portrait orientation on the front and landscape on the reverse.

He also revealed that the brief is likely to be for a design which 'expresses the history, tradition and heritage of Israel and the Jewish people'. This will be promoted through the country's design and general press, including English-language editions.

Canadian Mint Searches for Missing Gold

The Royal Canadian Mint is still trying to locate the whereabouts of some C$15m in missing gold bullion at its Ottawa facility, after a review conducted by Deloitte and Touche determined that the difference between the corporation's rolling inventory and the physical count of precious metals for the 2008 fiscal year was not due to accounting errors. The report suggests instead that the Mint reviews its technical operations, prior accounting periods and security to identify the source of the loss.

The discrepancy first came to light at the end of the previous financial year, and in March Deloitte and Touch were called in. The Mint has also requested the assistance of the RCMP.

In the meantime, the publication of the Mint's annual report and financial statements for 2008 has been delayed and executive bonuses have been frozen.

India Searches for New Features

The Indian government is reported to have set up a committee, headed by the Home Secretary, to identify the latest security features which could be incorporated into its banknotes to make counterfeiting more difficult. The committee has been constituted to monitor and draw up a comprehensive strategy to curb circulation of fake notes, comprising top officials from the Central Bureau of Investigation (CBI) and the Intelligence Bureau. It will seek suggestions from foreign forensic experts as well as international institutions on combating counterfeiting and identifying the latest security features, sources said.

The last time India's currency was upgraded was in 2005.

BSP Considers New Designs and Substrates

The Bangko Sentral ng Pilpinas (BSP) has said that an upgrade for its banknotes and coins could be in the pipeline. Discussions are in early stages, according to deputy governor Armando Suratos, but the new designs could be released within the next two years. The current series dates back to 1996, but is based on themes established in the mid-1990s. It comprises seven notes and the same number of coins,

The Bank is also reported to be considering polymer as an option for the new series. 'There are pros and cons in using polymer. We have to study it because the bills will have a longer lifespan than plain paper and cotton,' said Suratos. '[But] polymer is more expensive.'

A barrier to such considerations, however, would be the use of abaca fibres, a staple agriculture product in the Philippines which makes up 20% of the paper content of the current series. According to Suratos, it has improved the durability of the country's notes by up to 30% and, as a by-product, its use also supports local farmers.

Economic Crisis Hits Wincor Nixdorf

Wincor Nixdorf has stated that the continuing economic crisis is now impacting its business. For the first nine months of 2008/09 sales declined by 1% to €1.73 billion and EBITA by 9% to €138m. Of more concern, however, was the 11% drop in sales in the thrrd quarter compared with the same quarter the previous year, and the 31% drop in EBITA.

According to CEO and President Eckhard Heidloff, the results do not come as a surprise. 'Slower growth at the end of the good first half had already made it clear that we would feel the effects of the global economic crisis,' he said, pointing to the deferral of customers' investments, particularly in replacement systems. With the hardware side of the business hardest hit, this he said, validates the company strategy to progressively realign itself as a systems and solutions provider.

The company has launched a group-wide programe – 'ProFuture' in preparation for a longer lasting crisis and also, said Heidloff, to position itself more strongly and sustainably for the post-crisis market.

Norway Breaks the Mould By Bill Melbourn

As central banks around the world review the scope of their operations, many are questioning the extent to which they should be involved in the processing and distribution of banknotes. It is generally accepted that the design and issuance of secure banknotes is a core central bank function, as is ensuring the quality of notes in circulation. But several central banks have taken the view that they themselves do not need to perform the day-to-day tasks required to achieve the latter objective, with sorting, processing and redistribution of currency undertaken more efficiently and cost-effectively by delegating or outsourcing such tasks to third parties. Pitted against these are central banks who continue to maintain a central role in controlling the cash cycle, including processing most, if not all, cash themselves through extensive branch networks. The role and involvement of yet more central banks falls on a spectrum somewhere between these two positions.

In a new feature for Currency News, we shall be examining periodically, through a series of case studies, the different models that are in use on a country-by-country basis, looking at the factors that have led to these models being adopted, the benefits and pitfalls. We start with Norway, where Norges Bank is arguably, in terms of its overall cash function, the most outsourced of them all – having sold off its mint in 2003, closed down its printworks in 2007 and removed itself not only from the routine processing and distribution of cash, but also its destruction.

The Norges Bank has implemented a series of changes to its cash (notes and coin) distribution system over the past two decades, most notably in the period from 2001 to 2005 following a review of its role vis-à-vis the commercial banks and CIT companies, the driving force of which was the promotion of an efficient payment system.

For many years, Norges Bank was involved both in retail and wholesale note processing activities.There was an incentive for the banks to move cash directly to the Bank's branches since it paid interest on commercial bank overnight deposits and accepted these in small packages of notes and coin at all its branches.

This was happening at a time when note and coin usage was falling, and demand for ATM-fit notes was increasing. By 2000 the Bank had 14 branches (reduced from 20 a decade earlier) and was offering 'retail' services that included checking and counting of overnight deposits and packing of notes for various branches and ATMs. In doing so, it was using resources that were not justified given the afore-mentioned objective of promoting an efficient overall system. Furthermore, its branches were effectively competing with other service providers, leaving it open to the charge of being anti-competitive.

Review of Non-Core Activities

In early 2000 the Bank began an internal review with the aim of distinguishing between statutory responsibilities and more commercial activities. This review concluded that it should outsource the non-core activities that could impede overall efficiency. Following a period of consultation with the banks, a new company was established in 2001 to undertake cash processing and handling on behalf of both the Bank and the commercial banks.

Norsk Konstantservice AS (NOKAS) was one-third owned by the Bank, with commercial banks owning the other two-thirds. The new company undertook processing and cash distribution for all, with the Bank purchasing its services on the same basis as the other shareholders. This move enabled the Bank to effectively become a wholesaler only, dealing only with surplus cash plus the provision of additional cash at times of increased demand.

Note Destruction Included

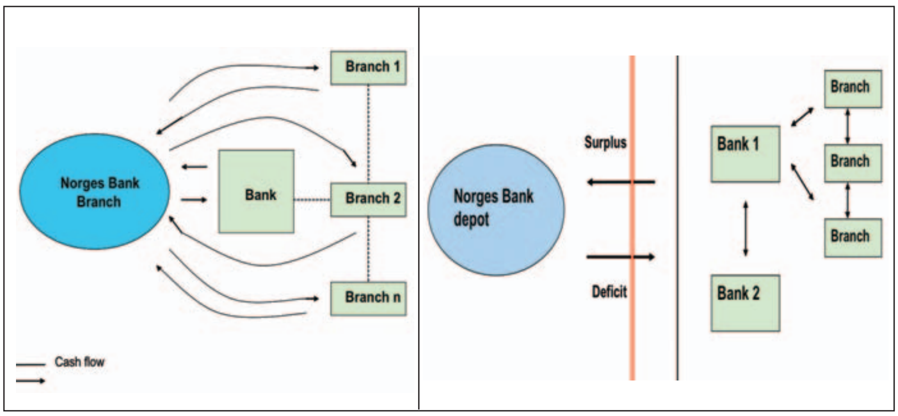
Unusually, NOKAS' activities included note destruction as well – an analysis of the fees charged by the Bank showing that there was a business case for NOKAS to not only process notes but destroy them as well on the equipment that originally belonged to the Bank but which was transferred to the new company. NOKAS' authority extended to genuine, defective notes only – counterfeits and old issue notes continuing to be returned to the Bank for destruction.

Needless to say, stringent control measures and a monitoring system were required, destruction normally being the last bastion and preserve of central banks, even when all else has been outsourced. These control measures include a requirement for all new NOKAS equipment for destruction to be approved by the Bank, while the Bank has sole responsibility for the equipment's software and note destruction settings along with access to real-time data and reports.

According to Norges Bank, NOKAS has been able to establish accurate costs on which to base its charges and, since cash processing is its core activity, has achieved significant savings due to economies of scale.

Further Changes

But the changes didn't stop there. Following another series of consultations, based on the experience gained since 2002, new rules were implemented



Norway's note distribution arrangements prior to outsourcing (left) and after (right) in 2005. Notes were to be sorted into fit/unfit with the Bank only accepting unfit and seasonal surpluses. Unfit notes are replaced free of charge.

The standard sizes for deposits were increased, and packaging was changed to ensure security, thereby eliminating manual inspection in central bank depots for fit withdrawals. Similar provisions were made for coin.

Compensation

Moreover, the number of depots where the central bank holds notes was reduced from 11 to five and private depots were allowed. There are now 16 of these, nine operated by NOKAS and seven by the CIT companies (although only the former are allowed to destroy notes). To ensure that banks use these depots on the same commercial terms as those of the Norges Bank, a compensatory scheme for loss of interest on the bank's holding in the former has been introduced.

Since the new arrangements for depots were put in place, there has been a dramatic reduction in the number of withdrawals from and deposits to the Norges Bank – dropping from around 5,500 daily transactions for each at the end of 2004 to a tenth of this number three years later.

Finally, all but completing the outsourcing process which started back in 2001, the Bank sold its interest in NOKAS to the shareholders in 2006.

Maintaining Quality

A major concern about outsourcing along the lines of the Norwegian model is that it can, say critics, lead to a reduction in the quality of notes in circulation. According to the Bank's Director and Chief Cashier Trond Eklund, however, the regulations governing quality control and authenticity sorting, clear definitions of fit and unfit notes, incentives that replace the latter free of charge and monitoring by the Bank of note quality are sufficient, and there is no need for further regulations or incentives. He also stated that, 'based on feedback from biannual meetings with the banking sector, our model works well in the Norwegian context. At present, there are no plans for further changes.'

Currency News would like to thank Trond Eklund and the Norges Bank for their help with this article

QUICK FACTS

Issuing Bank: Norges Bank
Population: 4.5 million
Area: 323 780 km2
Notes in circulation: 100 million
Coins in circulation: 1.35 billion
No of ATMs: 2,113 (2006)
GDP per capita: $53,500 (2008)

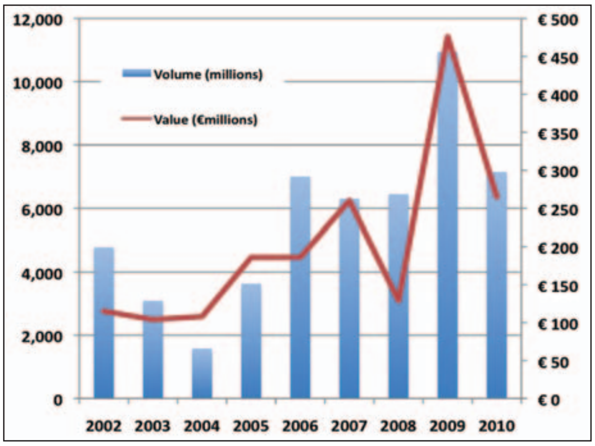
Euro Counterfeits...cont

around 1% were found in EU member states outside the euro area, while less than 0.5% were found in other parts of the world.

According to the ECB, no significant new counterfeit classes (as in groups of counterfeits having a common origin) were discovered during this reporting period. Thus, the increase in the quantity was due entirely to existing counterfeit classes being distributed more widely than before.

Whilst not as sharp an increase as the Bank of England's 136% increase in the number of counterfeit seizures reported in Currency News last month, the ECB figures do substantiate reports from across the world of a general increase of criminal activity relating to banknote counterfeiting. Hungary reported a 45% increase in seized counterfeits, Indonesia 12%, China 15% and reports from Canada indicate annual increases in the withdrawals of counterfeit notes from circulation may have grown by 50% in 2008.

Neither is the picture consistent across Europe, with the Netherlands experiencing a 30% increase in counterfeit seizures in the first half of 2009 as compared to the last six months of 2008, according to the Dutch Central Bank.



Euro production volumes - 2002-2010

These figures notwithstanding, the ECB is keen to point out that the 2009 seizure level still only represents only a very small fraction of the 12.5 billion euro notes in circulation in the first half of 2009.

The majority of counterfeits are withdrawn from circulation having been intercepted at automated cash centres operated by central banks, commercial banks or private operators, which process notes on behalf of the commercial banks and large retail customers. Raids on criminal production facilities involving banknote counterfeiting are relatively rare, but counterfeits do represent an important 'side catch' from other criminal activities such as drug dealing and people trafficking.

Lower Volumes for 2010

In another development, the postponement in issuing Euro Series 2, caused by manufacturing problems during pre-production trials with the new designs, has affected the ECB's ordering patterns.

The second series was originally due to start in 2011 with the issue of the new €50 note (see CN Vol 6, No 4), but is now more likely to start in 2013. Demand in 2009 increased to 10 billion notes in preparation for this series but now the ECB has cut production next year to the more normal level of 7.1 billion notes, a move which will disappoint some of Europe's state-sector banknote printers who are reliant on euro printing. Conversely, the private sector euro banknote paper makers and printers might welcome the reduction to enable them to meet their continuing strong export demand.

Despite this drop, the 2010 requirements still represent a healthy volume compared with the lean years earlier this decade.

150 Years at Brink's – from Horse-Drawn Wagons to World Leader in Cash Logistics

Brink's celebrates its 150th anniversary this year, having started out in 1859 with, literally, one man and a horse – the company founder Perry Brink who made his first delivery in a horse-drawn wagon. Needless to say, the company has moved on somewhat since then. Ten years ago it was a large conglomerate with holdings in numerous different industries, while two years ago it faced shareholder dissent and calls for a change of direction. Today, however, it it is focused purely on secure transportation and cash logistics, in which it is the market leader, and last year recorded growth in turnover and net profit of 16% and 68% respectively. To mark the anniversary and find out the secret of its success, Currency News spoke to Michael T Dan, who has been with the company since 1982 and its Chairman, President, CEO for the past 12 years.

CN: Can you give a brief history of the company since 1859?

MD: The company was founded on May 5 1859 in Chicago by Perry Brink as Brink's City Express. The first bank delivery was made in 1891 and Brink's was named the official money transporter of the historic 1893 Chicago World's Fair. It started expanding beyond Chicago into other US cities 1918, and in 1927 began operating in Canada. It wasn't until 1961, however, that it moved outside of North America, opening a branch in France. In 1966 it established its first foothold in South America with the launch of an affiliate in Brazil. The first operation in Asia-Pacific, a branch in Hong Kong, was opened in 1978, it expanded into Australia in 1988 and into South Africa in 1996.

The move into cash logistics took hold in 1995 when the *CompuSafe®* service was introduced as the industry's first closed-loop cash management system for cash-intensive retail businesses, and in 2001 Brink's Cash Logistics was established, signalling a new focus on cash management services alongside secure transportation.

CN: And where are you today, in terms of turnover, staff, geography and market position?

MD: We are based in Richmond, Virginia and are the leading supplier of cash logistics. Our customers include financial institutions, retailers, mints, jewellers, in fact anyone who has anything of value that needs to be transported, all over the world.

We are not only the oldest company in the market, but also the largest. We operate in 50 countries with 57,000 employees, 800 branches and 85,000 vehicles. Our turnover last year was $3.16 billion and 70% of this came from outside North America.

Michael T Dan

CN: You operate largely, although not entirely, in the cash arena. What are your core activities in cash and what proportion of your turnover do they account for?

MD: We have three key areas. First is our cash transportation and ATM replenishment services, which account for around 53% of turnover. Second are what we call our value-added services, which include cash logistics and also global solutions (such as the movement of non-cash valuables) and which account for 35% of turnover. The balance is made up by monitoring and guarding services.

CN: During 2006 and 2007, Brink's faced a revolt by three of its principal shareholders, while towards the end of 2007 you announced the appointment of the Monitor Group to help evaluate strategic alternatives. Why did shareholders feel the way they did and what was the outcome of this review?

MD: The company has been transformed in the past ten years. We used to be involved in general freight through BAX Global and were also large players in the natural resources industries – coal, gas and timber. These were all sold off so that, by 2007, we were purely a security business with two arms – Brink's, Incorporated and Brink's Home Security (BHS). That period was the heyday of hedge funds, private equity and the like and everything was judged purely on EBITDA. We were being compared with G4S and Securitas, even though both of those have much larger businesses in guarding, and the shareholders thought that we were undervalued in comparison. We commissioned the review and concluded, from this, that the best option for our company and our shareholders was to spin off BHS. Which is what we did, concluding the process last October.

CN: What impact, if any, has this spin off had on your business?

MD: Very little, except to say that, whereas in the past we operated essentially as a holding company for a variety of different operations, following the sale of BHS we are now solely focused on the core business of cash. It was also a positive move in that it has freed up additional capital to invest in the business.

CN: You have had a very solid performance over the past five years – almost doubling turnover, while operating profits have nearly *quadrupled. Where has the growth come from?*

MD: From international growth, mainly in Latin America, and also increased penetration of our value added services, which are based on more complex products and services with higher margins.

CN: You have bought a number of companies in recent years, and have stated that acquisitions will drive the company's growth going forward. What is the philosophy behind your acquisition strategy and is this the only path for future growth?

MD: In terms of acquisitions, first and foremost, we follow the customers. Second, we look at opportunities in emerging markets not only through acquisitions but also greenfield development. And third is the roll-out of our full line of services in as many countries as we can.

But growth will also be driven through what we term our Core Plus strategy, under which we look at leveraging our assets around the world to develop new services. A recent example is our Electronic Payment Division, which offers *ePago* - a multi-functional self-service kiosk for both physical and virtual transactions that can be used, for example, to deposit money, pay utility bills, collect airline tickets and top up mobile phones. This is proving particularly popular in cash-intensive societies, such as those in Latin America.

CN: Talking of Latin America, one recent acquisition, earlier this year, was in Brazil. Another was in Russia. These are two of the so-called BRIC countries. Do these acquisitions signal a move into emerging economies (and, if so, will it India and China next)?

MD: Neither acquisition was a case of moving into a new market. We have been in Brazil since 1966, making it one of our earliest overseas markets. The acquisition earlier this year of Sebival has given us an additional foothold in and larger share of this market. As for Russia, we have been active there for 12 years through a subcontractor. Earlier this year we bought out the subcontractor, which is very typical way for us of growing the company.

In China, meanwhile, we have been active for 15 years through our Global Services Division. Local regulations mean that we cannot yet operate on the ground as far as cash services are concerned, but is something we hope will change. And in India, again, we have been active for 15 years and are one of the largest players through a joint venture, in which we own 40%.

CN: Continuing on the geographic theme, can you summarise the key market differences in the regions in which you operate?

MD: North America and Europe are mature markets, although there is certainly more use of cash in the former than the latter. In Latin America, Africa, Eastern Europe and Asia, many countries are more cash-intensive and their economies are growing faster, both factors that present numerous opportunities for us. As the saying goes, 'a rising tide lifts all boats'.

But another feature of these markets is that, coming from behind so to speak, they tend to bypass some of the stages of evolution that more developed countries have gone through. As an example, in telecommunications many have skipped the installation of landlines and moved straight to mobile phone networks instead.

> *Everything that we do – in terms of our technology solutions and services – is designed to go after and drive down costs*

So it is with cash. Whereas financial institutions in some of the more mature markets still think that a core activity is having a large cash centre, in many of the less mature markets the banking community is moving straight to outsourcing.

CN: You mentioned earlier offering more complex products and services. What have been the key technological innovations behind these?

MD: Our main focus has been on the development of technologies and systems that support value added services. Two very good examples are *CompuSafe* and *Virtual Vault*. These are enabling financial institutions to expand geographically without having to make the investment in physical premises, offering services on a wider basis but using our assets rather than theirs to do so. Such services lower the cost for retailers too – and working with both groups together is part of our growth strategy.

CN: So how do these systems work?

MD: Our CompuSafe service is a basically a computerised safe. The cash is deposited by retail employees, read, validated, recorded and secured, and the funds credited to their accounts even before the cash has left the premises. This benefits retailers because they no longer have to engage in time-consuming back-office reconciliation – the system does it all for them. And credit payments are expedited, which is also a huge benefit.

And the banks benefit because they don't have to handle the cash. Again, we do it for them. Banks don't like cash and don't want to invest in it, and the less they have to invest, the more attractive we become.

Virtual Vault, meanwhile, is a solution that gives banks a national footprint and enables them to offer cash services to their customers regardless of location, and without having to invest in the bricks and mortar of a branch network. Combining cash logistics, web information tools and secure transportation, Virtual Vault enables us to maintain currency on behalf of banks and undertake branch deposit processing, cash orders, federal reserve shipment processing and ATM replenishment, among other servicers.

Both are attractive, sophisticated solutions that are offering practical benefits to banks and retailers and driving costs out of the system.

CN: So presumably web-based track and trace tools are more and more important in the transportation and management of cash?

MD: Absolutely. We are investing a huge amount of time and resources in expanding the capability of these tools. The requirements for real-time data and the transparency of the cash process are absolutely key, and leveraging the web to offer this visibility to all constituents is essential in today's cash management business.

CN: It is widely taken that 'cash-in' costs are roughly double those of 'cash-out'. To what extent is what you are doing helping the market to reduce the former?

MD: Virtual Vault, CompuSafe, cash logistics and outsourcing all come into the equation. That is our business. It is why we exist. We can do it better than the retailers, and better than the financial institutions who don't want to make the investment anyway. Everything that we do – in terms of our technology solutions and services – is designed to go after and drive down costs.

CN: Given the importance of such tools, how much do you typically spend on R&D in a year?

MD: We do make significant annual

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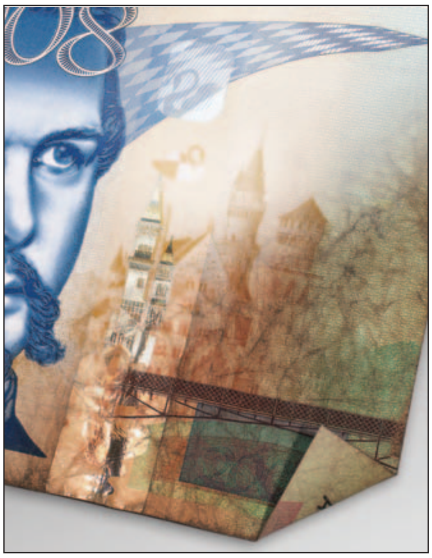
G&D's New Time Travel Tests for Banknotes

The intended life of banknotes in circulation is a key specification requirement of issuing authorities, and can have a major impact on note issuing policy. Developing substrates and features that stand up to the required lifecycle of such notes, meanwhile, is a key challenge for security papermakers and printers. As is proving such substrates and features before the notes undergo the ultimate test in the field.

Several papermakers and printers have addressed this challenge by developing currency circulation simulators. But Giesecke & Devrient appears to have gone a step further, and developed a procedure that first simulates the conditions of banknote circulation according to a variety of customer-specific parameters, and then tests the results. Banknote features and substrates normally undergo a multitude of tests during development with respect to mechanical stress, wear and tear, heat, moisture and so on. But such tests do not take into account the various stresses to which the notes will be subject in the field, such variations typically relating to climate, cash usage habits and the extent to which currency processing is automated.



A G&D house note after having undergone the Life Time Test cycle

According to G&D, its procedure enables banknote quality to be optimised for given countries by tailoring the substrates, printing methods and finishing technology to each customer's specific needs, as determined before the notes go into circulation rather than after.

The procedure comprises two stages. First is an accelerated laboratory simulation of banknote lifecycles, known as the Life Time Test (LLT) cycle, using equipment to effect soiling, creasing and abrasion. And second is a modular evaluation of general note durability, known as the Banknote Analysis Method (BAM). This method is based on mechanical assessment of the notes' fitness in terms of both visual appearance (soiling, stains) and physical characteristics (limpness, holes, tears).

As a result of this procedure, says G&D, banknote issuers can select the best possible combination of substrate and finishing technology for the specific local conditions in which the notes will circulate. Moreover, they can reliably estimate the durability of these notes before they are even issued.

150 Years at Brink's...cont

expenditures on research and development. And it is something that we have maintained in the current climate. We cannot be ready for the outsourcing revolution without being at the cutting-edge and having the right tools. We may have cut back somewhat on expansion, but have continued investment in technologies.

CN: You operate in a highly-competitive environment. What in your view sets you apart?

MD: People, technology and innovation are what drive our company. As is staying close to our customers and coming up with appropriate solutions. That is key. Finding the best solution is our challenge and we go after it every day.

CN: Your last financial year was a particularly good one. But what impact is the current recession now having on the market in general, and on the perceptions and priorities of your customers in particular?

MD: The financial institutions are trying to survive at the moment, and we are feeling the pressure to help them. There is a downside in the current climate. But there is an upside too, which is that the customers are far more receptive to ideas now to cut costs than they were before. This will benefit us greatly in the medium and long term and is one of the main reasons why we have not cut back on our technical R&D.

CN: What, in your view, will be the key factors shaping the nature of cash handling and management in the coming years?

MD: The evolution in cash distribution will continue. You just have to look back in history to see how. In years gone by the banks all used to have their own armoured fleets. Then they outsourced. They also used to handle all their own coins. They outsourced this too. And so it is happening with cash handling. Some banks have gone for shared solutions by joining forces to set up cash centres, but these rarely work. The banks have their own priorities, goals and investment cycles, and such arrangements tend to last for only a few years. After which they outsource the lot.

CN: And, finally, where do you see your company being placed and the sort of services that will be in widespread use in ten years time?

MD: Our goal is to continue to be the premier provider. The traditional business – cash transportation – comprised just over 50% of our turnover at the end of 2008. The value added services are growing fastest and will start taking over. We will achieve this by continuing to drive the move towards outsourcing through offering affordable and attractive solutions and, as we become more sophisticated, we will be moving into new competitive areas, such as the transaction business, where ePago is just the start.

The challenge is to be prepared for both eventualities, and we are in the best position to meet this challenge.

BrandWatch Develops Four-Level Covert Authentication

Brandwatch Technologies has introduced a new variety of its up-converting taggant technology that combines four levels of covert protection. This, it says, is the only one marker that provides multiple simultaneous identification and offers users a unique fingerprint that can be embedded into products or documents.

BrandWatch, which was taken into new ownership in 2007, produces micro-taggants based on inorganic up-converting anti-Stokes phosphors, together with proprietary handheld readers.

One of the first developments under the new ownership was *SpectraTagg*. This range of taggants has now been tuned to offer a combined UV and IR response with two other covert markers, yielding four distinct layers of protection which can be read simultaneously by the company's *Reveal* detectors.

In addition to SpectraTagg, the company also offers *MicroTagg*, an up-converting phosphor material with dual factor authentication that is readily incorporated into polymeric and other matrices. When irradiated with energy of a specific wavelength, the MicroTagg particles absorb the energy and re-emit it at a different wavelength, which is detected by the company's readers.

The company's technology originated in military research and has received several certifications as to its stability, longevity and durability. The taggants share a set of common properties, being inorganic, inert and non-toxic, insensitive to sunlight and stable at temperatures up to 1000° C. They can be easily incorporated into inks, dyes, polymers, textiles and pulp, will not alter the host's chemical make-up, have an extremely long shelf-life and are capable of being detected at low concentrations.

Cash Applications

The industries targeted by BrandWatch include currency – not only as a machine-detectable and forensic authentication feature for banknotes but also in cash degradation systems as part of the inks that enable stolen notes to be identified and traced. The company has already secured a new customer in this sector – an un-named cash handling company. According to Steve Delepine, BrandWatch's newly-appointed VP for Business Development, the company's solution is particularly suited because, while the supposedly indelible inks can be washed off the notes to a degree that enables them to be recirculated after ten or so washes, its taggants adhere to the paper fibres as well, staying on the notes long after the ink has gone.

Tidel Launches Revolution in Cash Room Automation

Tidel Engineering has introduced a new solution for retailers named *Revolution*, which it says fully automates cash handling and processing in retail outlets down to the exact till drawer, doing away with the need for any human interaction in retail cash room operations and, as a result, dramatically reducing costs.

Revolution is made up of three main elements. First is a coin recycler that accepts, validates, sorts and dispenses high volumes of coins directly into a till drawer or coin cup at rates of up to 3,000 per minute. Second is a note recycler that accepts, validates and dispenses notes. And third is a proprietary software suite that integrates both note and coin recyclers into the POS systems, as well as tracking, reconciling and performing cash reports and preparing end-of-day bank deposits.

According to Tidel, from loading a start-of-shift till balance directly into cashiers' till drawers, to returning coins, notes and all other financial paper at the day's end, Revolution enables retailers to develop completely unattended cash rooms. The system also provides reporting to balance every cashier's till draw, has back-end network connections and includes a CIT pick-up process.

The result, it says, of the elimination of manual counting, recounting, reconciliation and deposit preparation is substantial efficiencies and cost savings. Headcount is lower since Revolution does away with the need for employees to man cash rooms. Cash shrinkage is reduced. And CIT costs are lower too, since notes and coins are recycled, reducing the number of visits required.

Revolution was launched first in Europe and is now being rolled out in the US. It is currently configured for the euro, British pound and US dollars, but additional currencies will be added in coming months.

Tidel Engineering is a wholly-owned subsidiary of Sentinel Technologies. It sold its ATM business to NCR in 2006 and now focuses on cash security and management systems, primarily for the retail sector.

Long Wait for New Korean High Denomination Note

After several years' deliberation, the Republic of Korea (aka South Korea) finally issued a new top denomination note in June 2009 – the Won 50,000 (c. US$38).

The note - which is worth five times more than the previous highest denomination note - was initially greeted with much enthusiasm by the public, with queues forming outside banks eager to obtain low serial number notes in mint condition to collect or give to family members as cherished items. It is nearly 40 years since the Won 10,000 became the highest denomination note, and so the Bank of Korea, anticipating the public's interest, responded by flooding the economy with 165 million notes of the new denomination.

Before the launch of the Won 50,000, South Korea was unusual amongst industrialised countries in having a three-note series, with the value of its highest denomination (the Won 10,000) only the equivalent of US$8.

However, as seems to be the norm in Korea, it was not long before the new notes started to attract attention and criticism with the local press and media voicing concerns that it was too similar in colour and appearance to the Won 5,000 note and thus likely to confuse the public. It was also claimed that the adhesion to the

paper of one of the note's main security features – the *Motion*® security thread – was poor which, it was asserted, could result in the notes jamming ATMs.

The Bank of Korea, having fully trialled and researched Motion and other features in the new note, responded robustly, claiming that 'tests conducted showed that there is no problem using Won 50,000 won notes at ATMs' and, in a series of media responses, indicated it was fully satisfied the new banknotes met its durability requirements. The controversy faded away as quickly as it arose.

The problems are a nevertheless a reminder of those that accompanied the issue of the newly-designed Won 5,000 in 2006, when 17 million notes had to be recalled following the discovery of missing or damaged OVD patches. The Bank of Korea has since been very thorough in designing and releasing new banknotes and the new Won 1,000 and 10,000 notes were issued the following year without any technical problems.

The Won 50,000 was originally planned to be the lower of two new denominations to be issued – the other being a new Won 100,000. But concerns about inflation and criminal use of high denomination note resulted in the South Korean Government scrapping plans for the higher of the two notes.

The Won 50,000 is predominantly yellow and features the intaglio printed portrait of the medieval writer and calligrapher, Shin Saimdang. It has a wide range of security features including, in addition to the Motion thread, a second demetallised thread for machine detectability, an OVD stripe and OVI numeral.

All the notes in Korea are printed by the Korea Minting and Security Printing Corporation (KOMSCO) in Daejon, on paper made at its mill.

Controversy in Kenya Again over Banknote Procurement

Controversy over De La Rue's production of Kenyan banknotes has reared its head again after the company was awarded a one-year contract by the coalition government worth Sh1.6 billion (US$21m) to print 450 million notes.

De La Rue has printed Kenya's currency since 1966 and, in 1992, signed a ten-year exclusive contract on the basis of building a new printworks in Kenya. This contract was renewed in 2002, only to be annulled by the incoming Kibaki administration in 2003 and a competitive tender held instead. After several false starts and a long and drawn-out process of pre-qualification that was mired in controversy, with a number of companies either pulling out or being disqualified, the initial tender for a two-year contract was cancelled.

It was resumed and, finally, in early 2006 De La Rue was awarded the 1.7 billion note contract, worth more than $50m (see CN Vol 4, No 1), having benefited in the meantime from short-term renewals to keep the country in currency. Three more short-term contracts have been awarded since then, including this latest one.

The current objections are due in part, apparently, to the opacity of the process, and to government claims that its negotiations to buy a 40% stake in De La Rue's plant in the country (which have been ongoing for two years) makes it inappropriate to procure a long-term printing contract through competitive bidding. Opponents are claiming that this is simply leading to a maintenance of the status quo, preventing rival bids from being submitted and is also delaying the introduction of a new currency series, originally planned for 2007 but subsequently postponed.

Malayia's New RM 50

• Bank Negara Malaysia has introduced a new 50 Malaysian Ringgit, the first in the country's fourth currency series which will be phased in to the replace the existing series, which dates back to the mid-1990s (albeit with successive upgrades). It follows the design of an earlier version issued in December 2007 to commemorate Malaysia's 50th anniversary of independence. The new note drops the logo of the golden jubilee series and contains a number of new security features, including a colour shift thread, a multi-coloured latent image and a complex two-colour numeral that fluoresces in UV light. Other features include a watermark and electrotype and a newly-designed holographic stripe. The new note will co-circulate with its predecessor as the latter is gradually withdrawn from circulation.

• Bank Indonesia has officially launched a new low denomination 2,000 Rupiah (Rp) banknote. The new, mainly grey-coloured,

note follows the design theme and security of the other notes in the series, and the Bank expects to have 1.2 million in circulation by the end of the year.

The new note will gradually replace the Rp 1,000, production of which will be cut next year and more Rp 1,000 coins issued in its place. According to Yopie D Alimuddin, the Bank's deputy director for currency circulation, 'we're going to replace them slowly because coins are not as popular…. the public still prefers to hold paper bills instead of coins.'

• Further to the news that the Banco Central de Costa Rica is reforming its currency and introducing a new series in 2010, it has announced that the first note – the 20,000 Colones, which is a new denomination – will be released next March, and the entire series will be complete by January 2011. A 50,000 Colones will also be introduced, bringing to six the number of notes in the new series. The notes will differ in size according to denominations and will feature a new family of personalities.

• According to local reports, the Banco Central de Chile will begin issuing its new banknote series in the next few months, phasing these in over three years. The new series is designed to mark the 200th anniversary of Chilean independence, in 2010. The notes will feature the same design theme and personalities as the present series, but will include new security features and the size will vary according to the denomination. Three of the new notes – which are denominated in 1,000, 2,000, 5,000, 10,000 and 20,000 Pesos - will be on polymer, and two on paper. New coins are also being introduced – starting with the 20 and 200 Pesos.

Diary – Conferences and Exhibitions

ICCOS EMEA
September 20-22, 2009
Amsterdam, NL
www.iccos.net

Asian High Security Printing Conference and Cash Handling Seminar
October 13-15, 2009
Beijing, China
www.cross-conferences.com

ATM Security 2009
October 29-30, 2009
London, UK
www.atmiaconferences.com

BAI Retail Delivery 2009
November 3-5, 2009
Boston, MA, USA
www.bai.org

3rd International Conference on Cash Circulation
November 19-20, 2009
Moscow, Russia
www.cashconference.ru

Banknote 2009
December 6-8, 2009
Washington, DC
www.banknoteconference.com

Optical Document Security
January 20-22, 2010
San Francisco, CA, USA
www.opticaldocumentsecurity.com

Five Years Ago

It was good news, five years ago, for European banknote papermakers and printers, with the announcement that euro volumes for 2005 would be twice those for 2004. As the chart on page 5 shows, 2003 and 2004 marked low points for production which, after the boom years preceding the euro launch, resulted in over-capacity, lower prices and fierce competition for non-euro work. Since then, however, volumes have risen steadily each year – this year marking an all-time high with volumes for 2010 dropping back again.

It was also good news for the European Central Bank, which reported a marginal drop in euro counterfeits for the first half of 2004, compared with the same period the previous year when there had been a sharp rise (albeit from a low starting point). Counterfeit volumes remained relatively stable for the next three years, before beginning to rise again in 2008.

It was bad news, however, this time five years ago for the Austrian banknote printer Österreichische Banknoten- und Sicherheitsdruck (OeBS), where financial difficulties (brought about in part by a controversial contract to produce Singaporean banknotes) forced the company to embark on a restructuring programme. This was to see the removal of many senior and middle managers and the loss of nearly a quarter of the workforce. The measures, however, worked – with the company back in profit two years later.

UCB Films, a joint owner of Securency along with the Reserve Bank of Australia, was sold to the private equity firm Candover for €320m and renamed Innovia. Its involvement in polymer production was unaffected by the change of ownership.

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New Lease of Life for Goebel

As Currency News went to press, we learnt that the demise of Drent Goebel BV, the Dutch-based web press manufacturer which was declared bankrupt earlier this month, has not affected the company's security printing operation. Based in Darmstadt in Germany this has emerged as an independent entity under the name Goebel GmbH, reverting to its roots as a leading supplier of web-fed printing systems for banknotes, stamps and security documents. The managing director of the new firm is Dr Felix Berg.

Dr Felix Berg

The name Goebel is a well-known brand in high security printing circles, the company having been in existence for 150 years prior to its acquisition in 2001 by Drent Graphic Machines, which specialises in web offset rotary printing presses for the graphics arts industry.

This sector has been hit hard by the recession, but the emergence of Goebel from the remains of its former parent takes place at a time when the security printing sector remains relatively buoyant.

Sales Up, Profits Down for Royal Mint

The Royal Mint has reported a 17% increase in sales in 2008/09, although operating profit before exceptional items and interest fell by nearly 15% to £8.2m.

The Circulating Coin business saw sales increase by 8.8% to £93.2m. Sales of UK coins were down to £31.6m from nearly £40m but overseas sales were significantly higher at £61.6m, up 36%. Highlights of the year included the award of the contract to supply plated blanks to Russia for the next five years and the ongoing work to supply the Egyptian Mint with coins and blanks for the country's recoinage programme.

Turnover for the Commemorative Coin business increased by nearly 30% to £65.8m

The Royal Mint is currently the subject of a 'vesting' process by the UK government that will turn it from what is effectively a government department into a separate company in a move which, it is widely assumed, is a forerunner to privatization.

According to Andrew Stafford, the Mint's CEO, the decision 'brings the long period of discussion about our status to an end, providing a clear way forward for the business. There is now a strong case for the introduction of private risk capital into the business. This will allow us to pursue new commercial opportunities and expand more rapidly, taking advantage of the freedom and flexibility that comes from a move to company status'.