Is the United States Ready for Cash Recycling?

by Philippe Preval

U.S. banks have flirted with the idea of cash recycling for several years. Recently, however, the North American market has become more serious about cash machines — largely due to the fact that cash recycling machines have dramatically come down in price. A cash recycling machine that cost $45,000 to $55,000 five years ago costs between $15,000 and $40,000 today.

The big question that remains: Will cash recycling continue to be a subject that garners a lot of lip service and little action, or are U.S. financial institutions finally ready to act?

Cash Recycling in a Nutshell

Cash handling machines perform simple but important teller tasks:

- Accepting cash
- Dispensing cash
- Storing cash securely
- Tracking the amount and denominations of cash on hand
- Automating the cash cycle

The idea of cash recycling comes from the machines' capability to accept and sort cash deposits and then dispense that same cash for withdrawals. That's why cash recycling machines should be implemented in places where there are high volumes of both deposits and withdrawals, whether that's at the teller counter or a high-traffic ATM.

Serious discussion about implementing cash recycling efforts in the United States began in recent years, with the evolution of hardware improvements. Later, advanced recognition technologies created opportunities for new ATM features, such as intelligent check deposit and cash recycling.

ATM manufacturers began designing cash recyclers in the late 1980s. Over the years, they have tested several solutions, including dedicated “drums” and recycling cassettes.

Eventually. the technology focused on recycling cassettes. Early initiatives took place in various European countries and accepted and dispensed domestic currencies. Most often, experiments were conducted in small countries where various currencies are distributed.

The European Central Bank (ECB) eventually stepped into the ring and, in 2004, issued basic cash recycling regulations. As is often true in Europe, implementing new procedures took time, so many regulations were implemented progressively: France and Germany implemented regulations in 2005, Spain in 2006, and the United Kingdom in 2010. That's how cash recycling began to flourish in European banks more than 10 years ago.

Around that same time, various hardware manufacturers, among them NCR and Wincor-Nixdorf, started developing cash recycling machines. The 2016 merger of Diebold and Wincor-Nixdorf brought together two of the world's leaders in the global financial and retail markets and could become the catalyst that makes cash recycling a reality in the U.S. market.

Now, with improved hardware and software available, cash recycling is becoming more of a focus for American banks and is considered to be a new feature.

Why U.S. Financial Institutions Are Ready for Cash Recycling

U.S. financial institutions face increasing pressure to reduce operating costs while meeting consumer demands for increased convenience and more advanced teller functions. The confluence of these has led many U.S. financial institutions to take a closer look at implementing teller cash recyclers (TCRs) in their branches.

Another trend that makes cash recycling appealing for U.S. banks: Consumers want ATMs to offer new functionality and additional withdrawal options, including the dispensing of bills in denominations beyond $20. Over the past few years, U.S. financial institutions that have strategically deployed cash recycling across ATM fleets have watched the process increase both efficiency and convenience.

Historically, Europe and Asia have been much less reliant on check payments than the United States, as well as more willing to adopt new payments technologies, and that enabled their financial institutions to focus on cash and software-based transactions without the worry of check handling.

A key shift that makes U.S. financial institutions more ready to implement cash recycling machines now than in previous years is the shift from check payments to electronic and mobile payments. U.S. check payments overall dropped 7.2% each year between 2015 and 2018. And, while it comes as no surprise that consumers are writing fewer and fewer checks, it is surprising that only 42% of B2B payments were made by check in 2019, compared to 51% just three years earlier.

In some U.S. markets, financial institutions are seeing ATM deposit rates of 20% or more; those markets are ideal for closed-loop cash recycling. As proven in Europe and Asia, banks can make even more use of cash-recycling ATMs when they switch retail customers from dropping nightly deposits in a drop box to depositing them at recycling ATMs.

ATMs that have a steady flow of deposits and withdrawals are good candidates for upgrade to or replacement by a cash recycler, which can deposit and dispense from the same cassette. This allows financial institutions to implement longer cash-in-transit cycles for improved efficiency and time savings.

And, finally, new innovations now enable U.S. financial institutions to pair recycling technology with advanced software for systems that decrease reliance on the switch, offering novel opportunities to increase efficiency and cost savings.

What Are the Challenges of Implementing Cash Recycling?

One of the most significant challenges U.S. financial institutions will face in implementing cash recycling is that determining a fair price to implement cash recycling and calculating return on investment isn't always straightforward. There currently aren't out-of-the-box options for evaluating solution configurations and price.

For banks to realize maximum ROI on their cash recycling investments, they should partner with trusted, experience hardware and service providers. Cash can be tough to manage, and it's not the cleanest of materials. Skimping or cutting back on service agreements or investments or on preventive maintenance could end up greatly reducing your ROI.

Along the same lines, user training is another area where banks should never try to cut costs, as effective teller adoption of cash recycling machines is highly dependent on the type and amount of training tellers are given.

The Benefits of Cash Recycling

From reducing teller stress and improving transaction speed and accuracy to improving customer service and the customer experience, financial institutions can expect numerous

benefits from cash recycling. However, it should be noted that, in order to reap those benefits, they first must have an intricate understanding of their deposit and withdrawal transaction flows and volumes. Using data-driven analysis, banks can make informed decisions about when they're ready to implement cash recycling and how to configure the machines they decide to implement.

Financial institutions that have implemented cash recycling machines at the teller counter have seen marked reduction in the amount of pressure on tellers. The machines increase transaction speed and accuracy, so tellers can engage with their customers and even sell additional products and services. A major reason for teller turnover is the stress that comes from trying to do all of these at once, during the short time that the customer is at the teller window.

Furthermore, cash recyclers automate tedious, manual tasks such as sorting, counting and validating bills, as well as eliminate the need to close teller lines for vault buys and sells and drawer balancing after each — all while nearly eliminating human error in these activities. Cash recyclers also increase security of these activities by reducing the human element in cash collection and refilling.

Few activities are more important than drawer balancing; tellers that make too many or frequent errors risk losing their jobs, but cash recyclers allow tellers to help customers until the minute the bank closes, and they can balance their drawers within minutes of closing time.

Below, we identify and discuss the most common reasons U.S. financial institutions are seriously considering cash recycling.

- Cash is still king in many countries, driving demand for fast, secure access to it.
- Financial institutions want solutions that offer more — higher availability, better performance, increased security features and more streamlined service efficiencies.
- Cash recycling can improve operational efficiencies, reduce labor costs and enable financial institutions to use employees more effectively.
- Many cash recycling ATMs offer secure, 24/7 access to merchant service-based facilities.
- Financial institutions can reduce up to 50% of cash-in-transit costs.
- Some financial institutions have increased the ratio of sales to full-time employees because cash recycling machines allow tellers to spend less time processing and handing cash in the branch, so they instead can focus on customer service and activities that generate revenue.
- Cash recycling hardware can come in the form of full-function cash recycling ATMs or upgradeable modules that require a cassette swap as and when a bank rolls out cash recycling functionality.
- This holistic approach helps ensure that financial institutions have choices and flexibility, as well as that hardware and software vendors help future-proof their investment.
- Cash recycling reduces cash handling, resulting in lower TCO and less risk for bank staff. This particular benefit is seen as most important by some major institutions.
- Cash recycling enables financial institutions to immediately fund a customer account, which is a significant consumer benefit.
- Cash recycling improves fraud detection and reduces losses from counterfeit cash by trigging alerts on fake bank notes.
- Cash recycling machines improve the customer experience at the teller window, as the machines handle the speed and accuracy of transactions, so tellers can make eye contact with their customers and even learn more about other banking products customers might be interested in.

Implementing Cash Recycling

Cash recyclers affect nearly every cash process in the branch, so the method financial institutions use to integrate hardware with their teller applications will significantly affect how much cash recycling improves productivity, the effectiveness of teller adoption of cash recyclers and overall ROI of cash recycling. There are three fundamental approaches to implementing cash recycling — stand-alone, soft interface, or middleware and direct integration — and each has pros and cons that financial institutions should consider carefully.

The choice of vendors is another consideration, and many choices are out there. Pioneers in cash recycling were Wincor-Nixdorf (now Diebold Nixdorf) and NCR, but KAL, Hitachi, OKI, Hyosung and Diebold terminals also offer functionality.

On the protocol side, cash recycling is usually realized through dedicated extension of NDC or DDC protocols, and ISO 8583 protocols may also be involved. The impact on messages between the terminal and ATM server reflects supported functionalities of the device and design options from ATM vendor.

At Lusis Payments, we've helped financial institutions around the globe implement cash recycling solutions quickly and expertly for many years and with several ATM providers. Cash recycling by Lusis Payments utilizes our TANGO solution for simple and powerful deployment:

- Cash recycling ATM's are managed as other machines and monitored individually.
- The same handler can manage different standard ATM's and Cash recycling ATM's concurrently.

When your institution is ready for cash recycling, Lusis is here for you.

About Lusis Payments

Lusis Payments is an innovative global software and services provider to the payments industry. Our proven, cutting-edge technology operates in numerous hardware and operating environments. The TANGO platform, combined with the know-how to mitigate risk and deliver high levels of assured customer service, constitutes a unique proposition for organizations faced with the challenge of adapting to traditional and future needs in the payments ecosystem.

Central to the Lusis solution is TANGO, an online transaction processing engine for mission-critical 24x7 solutions including payments, retail, loyalty, finance, utilities, and transport. TANGO delivers performance, availability, and scalability, with a rich set of functionalities, all from a single application, a single code set and a single architecture. This flexibility and organizational dexterity makes TANGO ideal for the next generation of retail payment systems. TANGO is built on a highly performing micro-service architecture providing agility for your business needs.

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"Our relationship with Lusis has been a tremendous asset to us. We've worked at all levels together...Philippe Preval the President has been a tremendous part of that success...he has a clear grasp of the business and shares our passion for customers."

- Randy Meyer
VP Mission Critical Systems, HP

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"TANGO helps us to provide better value, improved transactional performance and reliability. Our partnership with Lusis also benefits us with added financial efficiencies that allow us to continue enhancing our processing platforms and technologies."

- Philip Fayer
CEO, NUVEI

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"...TANGO was the best match for our needs and requirements. Lusis Payments has ensured a successful migration, and the solution is now running excellent."

- Jan Erik Secker

BankservAfrica

"...not only did TANGO deliver the full capability to replace our existing solution but furthermore it delivered on the promises of flexibility, agility, capability and quality."

- Pieter Cilliers
CEO, BankservAfrica