Giesecke+Devrient

A Guide to Navigating Counterfeit Currency Trends in the U.S.

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Executive Summary

Counterfeit currency is a pervasive challenge in the U.S. economy, creating losses for businesses, eroding public trust in cash, and costing financial institutions billions. With evolving printing technology and organized crime networks advancing counterfeiting practices, financial institutions must take a proactive role in counterfeit detection.

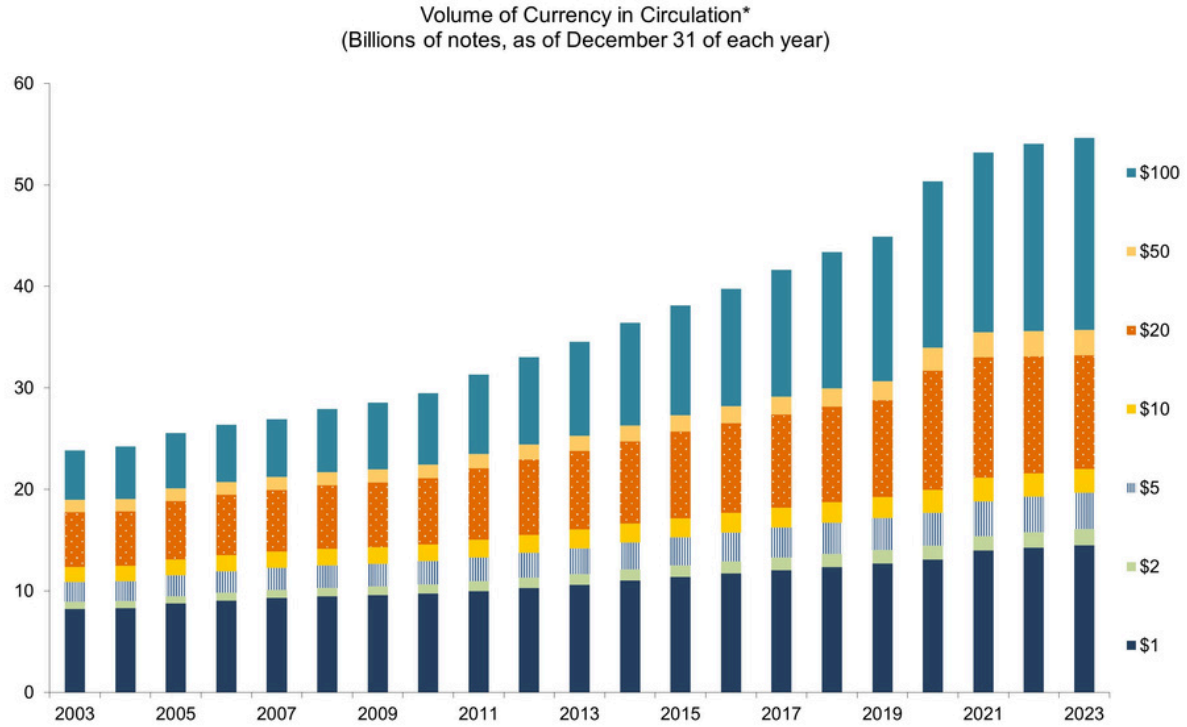
Giesecke+Devrient (G+D), a global leader in currency security solutions, empowers banks and businesses with advanced technology to enhance cash integrity. Our ProNote 1.5, BPS C2, and BPS C5 solutions provide flexible and effective defenses against counterfeiting, allowing institutions to efficiently authenticate currency and uphold public trust in cash transactions.

This guide first looks at trends in counterfeiting and then explores strategies for combatting it.

Trends in Counterfeit Currency in the U.S.

Currency Volume Continues to Rise

As this chart shows, the volume of U.S. currency continues to increase, with 54.6 billion notes in circulation as of 2023 (https://www.federalreserve.gov/paymentsystems/coin_data.htm). This underscores the importance of USD and the need to protect its integrity.



Digital Printing and Counterfeiting Accessibility

Digital printing has revolutionized currency counterfeiting, as high-resolution printers become more affordable and accessible. Inkjet and laser printers allow for near-perfect replicas of U.S. currency, making counterfeiting more prevalent than ever. An estimated $70 million to $200 million in counterfeit bills are in circulation at any given time, according to the United States Department of Treasury. (Counterfeiting cash making a comeback in the digital currency age - ABC7 Los Angeles).

This trend increases the likelihood that counterfeit bills will circulate undetected, affecting businesses of all sizes. The threat of counterfeit U.S. currency to the financial system of the United States continues to evolve. Advances in technology, the availability of scanning and printing devices and the adoption of the U.S. dollar by nations as their legal tender have exacerbated the global threat.

The Rise of "Supernotes" and Advanced Forgery Techniques

Supernotes represent an even greater threat within the counterfeit landscape. These high-quality counterfeits are often linked to organized crime networks, which leverage state-of-the-art machinery and detailed knowledge of currency design. Supernotes replicate the look, feel, and even some of the security features of legitimate currency, particularly in high-denomination bills like the $100.

Traditional counterfeit detection tools are often inadequate against such forgeries, requiring banks to adopt more sophisticated machines capable of identifying specific security features embedded in authentic currency. Advanced counterfeiting technology allows criminals to precisely mimic security threads, watermarks, and color-shifting inks, necessitating equally advanced defence mechanisms. (https://www.secretservice.gov/investigations/counterfeit).

The website UScurrency.gov (https://www.uscurrency.gov/) provides an excellent overview of the features to look for in each denomination.

Economic Impact of Counterfeit Currency on Businesses and Financial Institutions

The U.S. Secret Service seized more than $21 million in counterfeit money in 2023, resulting in 197 arrests for the crime (https://www.investopedia.com/spot-fake-money-5181245). This is detailed in the U.S. Department of Homeland Security, United States Secret Service 2023 Annual Report (https://www.secretservice.gov/sites/default/files/reports/2024-01/fy23-annual-report-final-pages.pdf)

The costs associated with counterfeit currency extend beyond financial losses. Each counterfeit bill impacts a business or bank's bottom line, particularly affecting small businesses and regional banks that lack advanced authentication equipment. Counterfeit incidents compromise both operational integrity and public confidence, as consumers may lose faith in cash transactions when counterfeiting becomes widespread. Counterfeit detection is crucial to protecting the reputation of cash and ensuring that businesses and consumers can transact confidently. As cash continues to play a vital role in the economy, protecting its value and integrity has become a priority for banks, businesses, and the Federal Reserve alike. Institutions are increasingly aware that counterfeit incidents impact both consumer trust and operational costs, which underscores the need for high-quality, reliable detection equipment.

Three Levels of Security Features within Banknotes

Banknotes security features are designed on three levels.

Level 1 - The obvious characteristics such as watermarks, security threads, or foil elements, are immediately recognizable to anyone, both haptically and visually, and are easy to verify.

Level 2 - features such as magnetic pigments, fluorescent or infrared-active inks. They can only be detected with the aid of a UV lamp, or by machine using appropriate sensor technology in ATMs or banknote processing systems.

Level 3 - security element, whose technology, features, and identification options are reserved for central banks or specialized entities, involve forensic-level verification methods such as infrared or spectral analysis to detect advanced materials or covert features. Together, these layers provide a robust defense against counterfeiting while ensuring the currency remains user-friendly.

For a simple guide to checking banknotes, watch the recent Noteworthy podcast Top 3 Ways to Authenticate Cash available online here: https://www.uscurrency.gov/media/noteworthy-podcast/s2e3-top-3-ways.

The UScurrency.gov website also details the specific security features of each denomination, a useful guide for anyone accepting cash: https://www.uscurrency.gov/denominations.

The G+D Approach

G+D is uniquely positioned with respect to banknote security and counterfeit detection due to its global presence. As counterfeits are seen worldwide, G+D collects data on these notes from various regions of operation. That data is used to update adaptations with documented processes that field organizations follow. Adaptations often include modifications to the U.S. Dollar, Euro and the British Pound from data collected outside their home country through this global data collection process.

G+D also has access to large pools of counterfeit U.S. banknotes because of access to the Federal Reserve but also through counterfeit money testing centers in Switzerland. All of this confirms the importance of counterfeit detection in G+D technology.

However, because of the access to counterfeits and the level of updates to adaptations, users can experience higher rejects because sensitivities are set to carefully examine the note for counterfeits. When properties are worn on a banknote, the properties don't meet the appropriate threshold and they are rejected as suspect. This is the balance that we discuss with customers about risk mitigation vs. throughput. G+D systems do have the capability to easily adjust the sensitivity settings in this regard to help customers achieve their desired balance.

Few manufacturers of currency processing systems have the global reach to be able to gain this visibility and to incorporate the data into their R&D and ongoing adaptation updates.

The M-Feature, which is unique in its kind, was invented by G+D and has been developed into the world market leader in numerous variations. More than 70 central banks secure their banknotes with this high-security feature and have integrated the corresponding sensor technology in their processing machines for verification. For them, the M-feature is also the key to maximizing sorting efficiency in their cash centers and minimizing processing costs. More than 100 billion notes with the M-Feature are currently in circulation worldwide. The composition is highly confidential. Even at G+D, only a small circle of experts knows the exact recipe of the security feature.

Europe has standards that are established by the European Central Bank. G+D systems meet those standards and our solutions are posted on their website as having met these high standards.

Key Features for G+D Currency Discriminators

While each class of currency discriminator has different levels of sensors that are used in counterfeit detection, here are a few areas where G+D solutions can help:

- **Multi-Currency Support:** our equipment supports multiple international currencies; this can be an essential feature for institutions handling a variety of cash types.

- **Streamlined Detection**: State-of-the-art sensors ensure high accuracy in counterfeit detection, these sensors can detect even highly sophisticated counterfeits by analyzing multiple security features.

- **Customizable Reporting and Data Analysis:** By offering detailed reporting options, institutions can track and analyze data on counterfeit incidents and currency fitness, monitor counterfeit trends and adapt strategies accordingly.

Conclusion

Counterfeit currency remains a significant and evolving threat to the U.S. financial system, requiring vigilance and advanced technology to safeguard the integrity of cash transactions. With the rise of digital printing and the advent of supernotes, counterfeiters continue to challenge the security of U.S. currency, impacting businesses, consumers, and financial institutions. By equipping financial institutions with innovative detection solutions, Giesecke+Devrient empowers banks and businesses to defend against these sophisticated threats.

G+D's currency solutions for the U.S. and Canada include the ProNote, BPS C2 Family, and BPS C5, and BPS M3/M5/M7 series all offer comprehensive protection for organizations of all sizes, ensuring that counterfeit notes are accurately detected and removed from circulation. By investing in robust currency processing technology, financial institutions can reinforce public trust, reduce operational losses, and contribute to the resilience of the cash economy. As counterfeit currency trends evolve, so too will G+D's commitment to pioneering solutions that uphold the security and integrity of cash transactions.

For more information on our solutions for Financial Institutions in the U.S. and Canada, visit our Resource Page located here: https://pages.gi-de.com/fi-resource-page.