

Are UV Print Features Becoming Even More Important in the Fight Against Counterfeiters?

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Globally the threat from counterfeit banknotes remains low. This is helped by commercial banknote issuers and central banks taking timely decisions to upgrade or introduce new banknotes that utilise the latest innovation in banknote design, print, substrate and security features.

However even one counterfeit banknote can be a cause for alarm for a banknote issuer and understanding trends in counterfeiting remains essential in making decisions that enable banknotes to stay ahead of the counterfeiter.

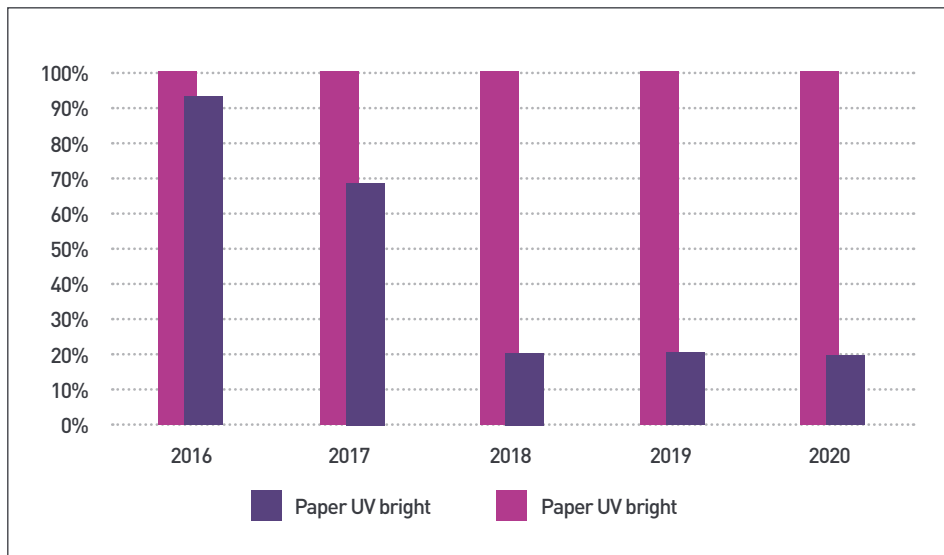
Over the past two decades an increasing proportion of counterfeit notes have shown attempts to go beyond simulating the standard print features, often targeting the major public recognition feature for simulation and focusing on the obvious visible parts of the banknote.

Many counterfeits have used commercially available paper, meaning that the entire note glows brightly under UV light, and it has been less common to see attempts to simulate level 2 security features.

Whereas the majority of counterfeit banknotes now routinely show attempts to simulate the major public recognition features (albeit it often not convincingly due to the technical challenges associated with such features), the De La Rue anti-counterfeit team less frequently sees UV print features simulated.

In their capacity as expert witnesses for the UK courts, the team examines around 2,500 Scottish and Northern Irish counterfeit notes every year. In the last 4-5 years a trend towards more counterfeits being based on UV-dull paper has emerged, suggesting that the role of UV print feature is becoming more important. In 2016 only 7% of the counterfeits examined were on UV-dull paper but that has increased to 80% by the first half of 2020. This coincides with the counterfeiters increasingly simulating the UV-printed features.

As an example, the previous Bank of Scotland £20 banknotes were printed with invisible barcodes that fluoresced green in UV-light. De La Rue's anti-counterfeit team observed simulations of varying quality, ranging from crude and hand drawn to screen printed. In many cases the simulation UV colour was not the same UV colour as the genuine feature; blue instead



The increasing proportion of counterfeits on UV dull paper.

of green was commonly observed and counterfeiter often added detail that was not on the genuine banknote, such as the denominational value of the banknote.



Barcodes on the previous Bank of Scotland £20 paper banknote viewed in UV light.



An example of a counterfeit simulation of the barcodes on the previous Bank of Scotland £20 paper banknote.

The trend towards a growing proportion of counterfeits on UV dull paper suggests an increasingly important role for UV security features in the fight against the counterfeiter. The fact that many attempts to simulate UV features are poor quality suggests that the counterfeiter thinks having 'something' in place is good enough.

This points towards more visually intuitive UV features, like *GEMINI*[™], playing an increasingly important role. More obvious patterns or images in UV light have a strong retailer education story and are more memorable. They also have the benefit of being harder to simulate; for instance, *GEMINI* requires two UV inks that have to be tightly registered to each other, with specific design considerations for the feature to work.

Registering invisible inks represents a challenge to the counterfeiter. If simple UV features simulations are poor then *GEMINI* represents a much greater barrier to counterfeiting and any counterfeits are more likely to be noticed. This may explain why *GEMINI* is one of De La Rue's most popular security features and has hardly ever been counterfeited.



An example of the Gemini UV print feature on the new Royal Bank of Scotland £10 banknote, demonstrating how this is much more challenging to counterfeit than a standard single colour UV ink.