The crime of counterfeiting is as old as money itself, and it continues despite increasingly sophisticated security features on banknotes. But as the methods of prevention and detection make their trade more difficult, counterfeiters are looking for easier targets, such as credit card fraud and trademark infringement.

Fake currency is at best an irritation to central banks; at worst, it destabilizes economies. Banks characterize the criminals working at these two extremes respectively as "nuisance counterfeiters," who typically use home computers to duplicate notes, and "economic subversives." The first group accounts for only about 5% of false notes, and economic subversion is rare in peacetime.

**SEIZING FILM ▼**
The 2002 introduction of the euro gave counterfeiters a unique opportunity to hoodwink Europeans unfamiliar with the new currency. Italian finance police who cracked a major forgers' ring also seized film for revenue stamps.

A bigger counterfeiting problem comes from the middle ground: organized criminals who use multi-million-dollar printing plants to produce convincing currency copies.

**Which currencies are vulnerable?**
They pick their targets carefully. Currencies with a wide international circulation are popular, because the notes are easier to pass off outside the issuing country. This is why the US dollar is the most widely copied of all currencies. Easy-to-forge currencies attract counterfeiters, too: the German deutsche mark was heavily copied in 1991 and 1992, until the Bundesbank issued notes with better security features.

**Protection and detection**
Traditionally, banknotes have been printed using elaborate engraved designs with hard-to-duplicate watermarking, sequential numbering, and metal threads. But in the late 1980s, high-quality color copiers made further steps necessary. Some of today's notes have "illegal copy" lettering that appears only when a note is heated by a copier lamp. Other features include color-shifting ink that changes from green to black when the note is turned, microprinting visible only with a magnifying glass, machine-readable bar codes, iridescent ink, and holograms (see opposite page).
In the war against counterfeiting, the front line is the cash register. The look and feel, the watermark, and the security thread are the most reliable ways of authenticating notes. Popular but less reliable guides are UV light and iodine pens. These detect fluorescent brighteners and starch, which are not used in genuine banknote paper.

Finding the forger

In the forensic context, clues in the paper, printing, and ink can help track down the counterfeiter. All paper banknotes are printed on high-quality stock that is impossible to replicate economically.

COPYRIGHT & TRADEMARKS

Faked products make up an incredible one-tenth of all world trade. The proceeds from these counterfeits help fund organized crime.

COMPUTER GAMES

Most games are now on CD, enabling hackers to crack copy protection and sell pirate games—sometimes without vital features such as sound.

Wristwatches

Major brands such as Rolex are widely imitated, mainly in the Far East. Often openly sold as copies, the watches lack the numbering guaranteeing authenticity, and rarely last more than three years.

Perfume

Fake fragrances are advertised on the Internet at a fraction of the price of the real thing, but they rarely smell like it. Some can cause skin reactions.

Music

Music piracy is a huge problem for record companies. Russia is the counterfeiter’s Mecca—just one in ten CDs sold there is genuine.

Intaglio Ink

Specially engraved plates printed using the costly intaglio process produce a distinctive raised line that is impossible to reproduce with other printing methods.

Security Thread

Faking metal threads in banknote paper is difficult enough, but the newest generation of notes have printed threads for added security.

Hologram

Shiny optical variable devices on notes are not all holograms, but all show color or image changes when turned, and all are difficult to copy realistically.

Payment Cards

The IC chips in these smart cards are very much more difficult to copy than the magnetic swipe stripe of older payment cards, which can be duplicated on home computers.

If the criminal has access to genuine account details to encode in the magnetic stripe. Copying cards is actually easier than copying currency, because there are tens of thousands of different payment card designs. A counterfeiter does not even need to use the graphic identity of a genuine bank. As long as the data in the magnetic stripe is correct, and the card looks authentic, a merchant will suspect nothing. Investigation of payment card counterfeiting focuses on identifying common characteristics, such as defects in the embossing presses used to raise the numerals, and details of the signature strip, the hologram, and the PVC overlays that cover the card’s white core.