

Cash Glossary

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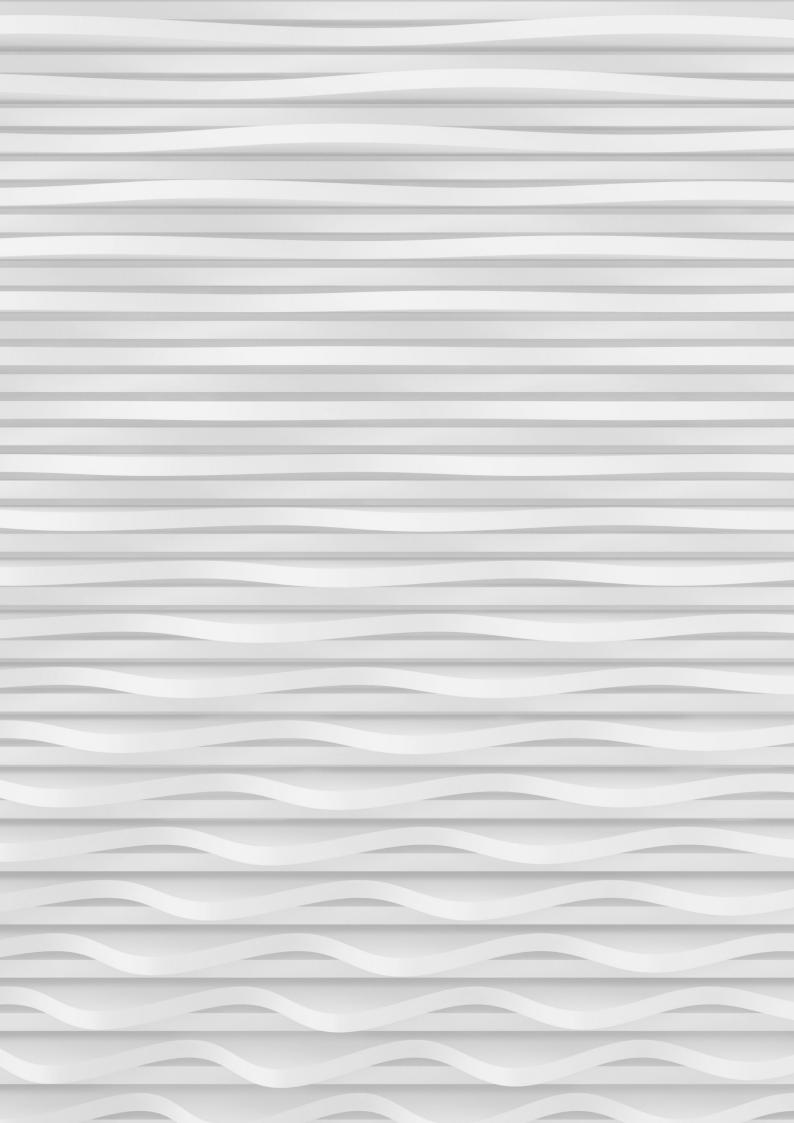
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Foreword

This glossary is designed first and foremost as an educational tool. It aims to help the cash community use the right word in the right situation.

It also aims to serve as a bridge between all those who are involved in the design, production, issuance, distribution, transportation, handling and destruction of banknotes and coins. By using a common language and terminology, we hope to contribute to bring the cash community closer together.

This is a collective work and CashEssentials would like to express its gratitude to the contributors. Dario Negueruela allowed us to use the excellent and very comprehensive *Diccionario de la Gestión del Efectivo* as a starting point. Antti Heinonen and Guillaume Lepecq reviewed and edited the translation and added some terms. James Shepherd-Barron contributed to terms used in the humanitarian world.

This first edition is the starting point. We welcome your contributions either for new words or suggestions for edits to existing definitions.





Acquiring Bank (acquirer)

The acquiring bank is the financial institution that maintains the merchant's bank account. The contract with the acquirer enables merchants to process credit and debit card transactions.

A/D conversion

An analogue to digital converter is an integrated electronic circuit that converts continuous analogue signals into a discrete sequence of digital numbers (0 and 1).

Adjustment of sensors

See Calibration of sensors.

Agency banking

A model whereby a commercial bank contracts third party retail networks as banking agents. Upon successful application, vetting and approval, these agents are authorized to offer selected products and services on behalf of the Bank. Agency banking is popular in emerging countries with a limited bank branch infrastructure.

Anti-Money Laundering (AML)

Many jurisdictions have established regulations and set up sophisticated financial and other monitoring systems to enable law enforcement agencies to uncover illegally obtained funds and detect suspicious transactions or activities. International cooperation arrangements have been set up to assist these endeavors. Many anti-money laundering laws combine money laundering (which is concerned with the source of funds) with terrorism financing (which is concerned with the destination of funds) when regulating the financial system.

Anti-theft device

A mechanism implemented in some offices, safes or security cassettes that is automatically activated when an attempt is made to open the system without the relevant clearances, triggering the operation of alarm systems, cameras, police connections, or ink-staining mechanisms.

Approved equipment

Equipment which has undergone reviewing and testing to check whether it meets the requirements of certain regulations and could be recognised by the competent body as "approved equipment" for the required function or activity. This applies, in some markets, to banknote handling equipment.

Armour-plating

Reinforcement of the robustness and strength of the surface of a material to hinder its rupture or perforation. A set of metal sheets or other material that protects an armour-plated area. The safes, strong rooms or vaults of central banks are heavily armoured, as well as the vehicles used to transport funds.

Armoured vehicle

A vehicle armoured with iron or steel plates that protect the people and objects inside.



ASCII (American Standard Code for Information Interchange)

A standardised means of representing text as numeric data.

ATM (Automated Teller Machine)

Electronic device that, primarily dispenses cash after identification of the customer, using a payment card or another device such as a mobile phone or biometric identification. See also Cash dispenser.

Authentication

The process of proving that a banknote or security document is genuine.

Authentication device

A device supporting cash handlers and retailers in authenticating banknotes. Some central banks regularly test banknote equipment with a selection of counterfeits most frequently seen in circulation and publish a list of machines and devices that have passed the test.

Authenticity

The condition that a security element of a banknote or security document is genuine.

Automatic Recognition System

A machine or system testing the authenticity of a banknote or a document.

Average life of a banknote

The time, on average, between the first issuance of a banknote and its withdrawal from circulation by the issuing central bank. High-value denominations usually have a longer average life than low-value ones which, due to their more frequent usage, deteriorate faster.



Balance-Sheet-Relief-Mechanism

Arrangement according to which participants of the cash cycle (e.g. banks or CITs) may hold cash inventories at defined locations in the name of the central bank or receive financial compensation from the central bank. The mechanism reduces the costs of the inventories for the participating commercial entities. See e.g. Notes Held to Order (NHTO).

Banding and collating

Placing a paper strip that holds together a set of banknotes (usually 100, 200, or 250 notes), usually of the same denomination.

Banknote

A banknote (or 'bill' as it is often referred to in the US) is a type of negotiable promissory note, issued by a bank or other licensed authority, payable to the bearer on demand.

Banknote auction

See Call for tender of banknotes.

Banknote destruction machine

Equipment used for the destruction of banknotes, usually by shredding, and reducing the banknotes to small chunks impossible to reconstruct.

Banknote Equipment Manufacturer (BEM)

A company that produces cash handling equipment for commercial e.g. point of sale, counting and sorting, vending, gaming, and note validating and dispensing purposes.

Banknote fit for circulation

A used banknote, which has not suffered any cuts, scrapes, tears or punctures, nor is it marked and presents a degree of soiling or wear considered acceptable by the central bank to be returned into circulation.

Banknote for recognition

See Suspect banknote.

Banknote not fit for circulation

See Unfit banknote.

Banknote paper

The most widely used banknote substrate throughout history, usually made from cotton, of short fibres, which give a banknote special characteristics of touch, sound and firmness. It can include other fibres of different origins.



Banknotes pending counting

The banknotes that have been delivered by a credit institution (either directly or by an intermediary) to the central bank, where the latter has not yet counted them. In many countries there is a system (the pending counting system) by which the central bank and credit institutions sign an agreement that allows the amount of these banknote deliveries to be paid to the account of the financial institution, despite not having an absolute affirmation of its amount or legitimacy. Subsequently, when the central bank counts and analyses the banknotes delivered, it confirms or rectifies (through an extra credit or debit, for the difference found) the initial transaction credited in the bank account of the financial institution.

Barcode

Method for encoding information, which can be read by machines. Barcodes store information using a combination of printed parallel lines (bars) and in the spaces that are left between them. Reading stored data is performed using optical readers.

Bimetallism

A monetary standard in which the value of the monetary unit is defined as equivalent to certain quantities of two metals, normally gold and silver, which are independently used as legal tender, but in a fixed exchange ratio to one another.

Bit

In computers, the basic unit of digital information; contraction of Blnary digiT.

Bitcoin

Bitcoin is commonly said to be a cryptocurrency, a digital means of exchange developed by a set of anonymous authors under the pseudonym of Satoshi Nakamoto, which began operating in 2009 as a community project (Wikipedia type), without the relationship or dependency of any government, state, company or body, and whose value (formed by a complicated system of mathematical algorithms and cryptography) is not supported by any central bank or authority. Bitcoins are essentially accounting entries in a large database called a blockchain, which is unique but replicated in millions of computers connected to the internet. Bitcoins can be exchanged almost instantaneously for any currency and can be used for payment. The system has numerous pros and cons, and many central banks insist that bitcoin is not a currency but a highly speculative and high-risk asset.

Bit map

In computer imaging, the electronic representation of a page, indicating the position of every possible spot (zero or one).

Black money

Money obtained from criminal or illegal activities. For that reason, it is obviously not declared to the tax authorities. See *Grey money*.

Blind embossing

Design, which is stamped without metallic leaf or ink, giving a bas-relief effect.

Blockchain

An unchangeable digital record where transactions are processed and verified by a network of independent computers rather than by a single referee. This decentralised structure has been described as an open distributed ledger. It supposedly enhances security as there is no single entity to be hacked. It also protects personal identity and guarantees that governments can't block transactions or otherwise manipulate the payments space. The blockchain is the underlying technology supporting most cryptocurrencies such as Bitcoin.

Brick

Ten straps are commonly called a brick. In other words, a brick is a thousand notes. See *Strap*.

Briquette of banknotes

A conglomerate of small chunks of shredded banknotes compressed or stuck together by the use of a binder. Banknotes not fit for circulation are destroyed and shredded into very small pieces. In order to facilitate the handling of this waste, it is compacted into briquettes.

Briquetting press

Machine used to make briquettes. The waste of the destruction of banknotes is passed through the briquetting press where it is compacted to facilitate its handling, transport and storage. Briquettes of banknotes are sometimes recycled (as an advertising object, a gift or giveaway, or in the production of paper or cardboard, for fuel, etc.).

Bronze

A reddish-coloured alloy of copper and tin with a special sound and high level of resistance to deformation; it sometimes incorporates also small amounts of other elements such as zinc and phosphorus.

Rundle

A set (normally five or ten) of bundled banknote packages (straps) of one hundred notes.



CAC (Counterfeit Analysis Centre)

The body at the European Central Bank (ECB) that monitors the technological advances in printing and reproduction, as well as the number of counterfeits detected. These counterfeits are analysed by the euro area national central banks and the centre, which coordinates the technical and statistical information about them. The information stored in the centre's database is shared with national police forces and other bodies involved in combating counterfeiting.

Caduceus

From the Latin word *caduceu*. A staff or olive branch, with two wings at its end and two interlocking snakes, a symbolic object of the Roman god Mercury. The wings represent activity, and the snakes, prudence; it is the symbol of Peace and Trade, a popular symbol on banknotes in the past.

Calibration of sensors

Activity that should be performed periodically on a banknote sorting machine to review and update the correct operation of sensors that identify and evaluate the banknotes in the automated sorting process (See *Processing*). The operator may make an *ad hoc* adjustment to the sensors, allowing for instructions to be given to the machine to be more or less rigorous in the selection process and therefore in the automatic destruction of banknotes.

Call for tender of banknotes (banknote auction)

A procedure established in accordance with public and pre-existing rules and conditions, to receive offers from different banknote printers for the purpose of comparing them with one another and then to choose the one that is most favourable for the entity that calls the tender. The term is used almost as synonymous with auction; the difference, if any, is often found in the greater or lesser importance of the price factor when deciding on the winning bid.

Cash

Money in physical form such as banknotes and coins.

Cash assistance

The term cash assistance refers to direct cash transfers to individuals, families and communities in need of humanitarian support in lieu of in-kind commodities or direct service delivery. The term can be used interchangeably with 'cash-based interventions' (CBI), 'cash transfer programming' (CTP), 'cash and voucher assistance' (CVA), and 'cash-based programming (CBP)'. It does not include fund transfers from donors, payment of incentives to the staff of local authorities, payment of salaries to national staff and those of implementing partners, or so-cial protection payments in support of government. It also excludes remittances and aspects of financial inclusion such as insurances, loans or micro-finance.

Cashback

A service whereby the customer pays electronically a higher amount to a retailer than the value of the purchase for goods and/or services and receives the difference in cash. It is also a reward system associated with credit card usage, whereby the consumer receives a percentage of the amount spent on the credit card.

Cash-brick

See Brick.

Cash centre

Processing centre for large volumes of cash, often in facilities that have special security and logistic characteristics. Cash centres can be operated by a central bank or a commercial entity (usually bank or a cash-in-transit company).

Cash count

Measurement or counting of existing assets (or banknotes) in a storage. In cash management, it refers to the counting of the safeguarded units either directly or through intermediate units (package, cash till, etc.) where specified and secure content is assumed.

Cash cycle

Represents the various stages of the lifecycle of cash, from issuance by the central bank, circulation in the economy, to destruction by the central bank.

Cash dispenser

Electronic device that, primarily dispenses cash after identification of the user, using a payment card or another device such as a mobile phone or biometric identification. See *ATM*.

Cash handling professionals

A group of companies, bodies and institutions that actively and regularly participate in the cash cycle, with the professional handling of banknotes and coins being a basic component of their business activity.

Cashier

Initially, the person who is responsible for the safe, its opening and closing, and the contents that are safeguarded inside it. Nowadays, at a central bank, the person who is responsible for matters related to the treasury and cash. Their signature would usually appear alongside others on the banknotes issued by the bank.

Cash in circulation

The value (or number of units) of the banknotes and coins in circulation within an economy. Cash in circulation is included in the M1 monetary aggregate and comprises only the banknotes and coins in circulation outside the Monetary Financial Institutions (MFI), as stated in the consolidated balance sheet of the MFIs, which means that the cash issued and held by the MFIs has been subtracted ("cash reserves"). Cash in circulation does not include the balance of the central bank's own banknotes (as they have not been issued).



Cash-in machine (Cash deposit machine)

Device allowing a consumer or a merchant to deposit cash.

Cash-in-Shop

Service allowing a customer to withdraw cash from a payment account using a mobile application on a smartphone at a participating shop supporting the application. Also referred to as a "virtual ATM". Unlike cashback, a cash-in-shop transaction does not require the consumer to make a purchase.

Cash-in-Transit (CIT)

Describes the logistical handling of banknotes, coins, and items of value. This can include the transportation, storage, counting and processing, and packaging. Cash-in-transit companies are often responsible for the replenishment and servicing of ATMs. Many cash-in-transit companies are private security companies. See Cash Management Companies.

Cash management

Management and control of cash in circulation.

Cash Management Companies

Companies specialized in the logistical handling of cash including several of the following operations: transportation, storage, counting and processing, packaging, replenishment and servicing of ATMs. See *Cash-in-Transit*.

Cash-out machine

Device allowing a consumer or a merchant to receive cash.

Cash-pack

In the traditional packaging system (100-1,000-10,000), this is understood to be a pack of 10 bricks that total 10,000 notes.

Cash recirculation

The right to recirculate banknotes that have been checked for authenticity and sorted for fitness by banks and cash-in-transit companies. The right is normally based on rigorous rules established by the central bank. See also *Recirculation*.

Cash recycling ATM

An ATM which can accept, validate and store banknotes which then become available for customers who wish to withdraw cash. Cash recycling ATMs need to comply with recirculation regulations imposed by the central bank. The term recycling is improperly used instead of recirculating but has become commonly accepted.

CashTech

The expression was first coined by CashEssentials and is the encounter of cash and technology. It brings together innovative companies who leverage software and modern communications technology to improve cash services: access to cash; acceptance of cash; and the efficiency of the cash cycle for all stakeholders.

Cassette

A container used for storing banknotes when in transit or within ATMs and other cash devices. Smart versions act as sophisticated mobile vaults, with geo-location transmitters, remote electronic access keys, PIN-pads and intelligent banknote destruction systems.

Cent

Fraction of a currency representing the hundredth of the unit of account.

Central bank (Reserve bank or Monetary authority)

Institution that manages the currency and operates the monetary policy of a state or monetary union and supervises the commercial banking system. Central banks in most developed nations are institutionally independent from political interference. See *Central bank* and *Monetary authority*.

Central bank cash services

The facilities, conditions and operations a central bank provides for credit institutions to withdraw or lodge banknotes (schedules, prior notices, presentation conditions, operating limits, etc.).

Central Bank Digital Currency (CBDC)

A digital payment instrument, denominated in the national unit of account, and a direct liability of the central bank, like banknotes. A general purpose CBDC can be used by the public for day-to-day payments like cash.

Central bank money

A liability of a central bank, including banknotes in circulation and banks' deposits with the central bank.

Change

This is the action by which certain banknotes and/or coins are exchanged for the same amount in banknotes/coins of a different face value, or unit value. See *Exchange*.

Circulating currency

Banknotes and coins issued by an entity authorised for such purpose and in circulation to act as a means of payment.

CIT (Cash-In-Transit)

Describes the logistical handling of banknotes, coins, and items of value. This can include the transportation, storage, counting and processing, and packaging. Cash-in-transit companies are often responsible for the replenishment and servicing of ATMs. Many cash-in-transit companies are private security companies. See Cash Management Companies.

Clean Note Policy

A policy adopted by central banks to maintain the quality of circulating banknotes.



CMS (Counterfeiting Monitoring System)

System that enables the storage and retrieval of information using mechanised systems and optical readers.

Coating

The finishing process of a paper, where it is coated on both sides with one or more layers of a stucco, which improves the surface properties of the paper (smoothness and tonality), resulting in better print quality.

Coin

A coin is a small, flat, round piece of metal alloy (or combination of metals) used primarily as legal tender. Issued by government, they are standardised in weight and composition and are produced at 'mints'.

Coin set

A set of coins, unified by country, epoch, sovereign, etc.

Colour copier

A machine that allows to copy images in colour. Produces a colour image through rows of high-resolution colour-sensitive photoelectric cells and prints it through the four-colour reproduction principle.

Colourless embossing

Embossing an image or text in relief form using high pressure.

Commemorative banknote

A legal tender banknote issued by a central bank to mark the occasion of a special event, or in remembrance of a person. These banknotes tend to have special features of design, structure and composition. Their production may be limited in number of prints. Not all countries issue commemorative banknotes.

Community money (local money)

An unconventional money used in a reduced geographical area for a small and alternative group of people, outside of the legal and official circle of money and central bank supervision. It is used by groups with a common bond, like members of a locality, or association, and designed to meet their needs. It is based on the general acceptation of the members of the community and used for exchange of goods from local production. The trade with this kind of money is not valid for banking transactions (because it has no legal tender status) or for official transactions.

Computer Aided Design or Drafting

The use of specialised workstations with high-performance computers in graphic design.

Conciliation

The action of counting and validating the contents of a package or an operation to ensure that the total amount is exactly what is expected.

Contingency plans

Work performed for the purpose of establishing protocols and procedures to be followed for the occurrence of an incident (theft, fire, natural catastrophe, etc.) or a situation (strike, unexpected demand, etc.), where normal work systems are unable to resolve problems.

Control digit

Usually the last digit(s) that appears in a number, which breaks the consecutive rhythm of the preceding digits, and whose value is obtained by applying a mathematical formula over some or all of the preceding digits.

Convertibility system

Legal system that operated under the *gold standard*, which allowed the conversion of banknotes into gold coins, gold bars or gold-denominated certificates payable in gold on demand, according to established conversion rates.

Copyright

Designates the rights of the author. Copyright is represented by the symbol ©.

Cost of cash

Although banknotes are delivered to the citizens free of charge and their use does not involve a specific fee, costs are generated during their manufacturing, storage and circulation process, which are covered by different social agents (central banks, commercial banks, retailers etc).

Counter

Automatic device for the counting of banknotes or coins.

Counterfeit

The reproduction or alteration of a document or security element with the intent to deceive the public. A counterfeit banknote looks authentic and has been manufactured or altered fraudulently. In most countries, currency counterfeiting is a criminal offence under the criminal code.

Counterfeit class

Certain type of a counterfeit banknote.

Counterparty

The opposite party in a financial transaction.

Covert feature

A security feature that is not detectable by the public either visually or by touch. It is usually applied on banknotes for third-party authentication, such as by a vending machine and/or verification equipment of a central bank or for forensic purposes.



Criteria for the recirculation of banknotes

Criteria established by the central bank to determine the condition of banknotes that could be returned into circulation. The criteria may vary depending on different circumstances, denominations and depend on the policy of each country. See *Fitness*.

Currency

The money used in a particular country at a particular time, like dollar, yen, euro, etc., consisting of banknotes and coins, that does not require endorsement as a medium of exchange.

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Dactylochrematophobia

The term was coined by CashEssentials and means the fear of handling cash. The word is a combination of ancient Greek words 'daktylos' meaning finger, 'chermato' meaning money and 'phobos' meaning deep aversion, dread or fear.

Daily credit

See Provisional credit.

Daily reconciliation

A control mechanism, where the existing cash balances and the inflows and outflows from the vault are balanced on a daily basis.

Damaged note

A legitimate banknote, in poor condition, which may even have missing parts. Most central banks have rules for the exchange of damaged notes.

Date

The year in which a medal or coin was minted. On a banknote, the date is usually the year in which the issuance of that banknote - not its printing or entering into circulation - was formally authorised.

Daylight fluorescent inks

Some inks are designed to fluoresce under daylight by changing the wavelength of light reflected by them. Bright orange, yellow and green are the most common.

Defect

Any non-conformance with the required technical specifications.

Defective

A product containing one or more defects, which do not meet the required technical specifications.

Demetallization

Production process in which text or design elements are removed from a metallic layer so that they are legible in transmitted light. Used for security threads and stripes in banknotes.

Demonetisation

See Demonetised banknote.

Demonetised banknote

A banknote declared worthless as a medium of exchange or as legal tender. See *Legal tender*.

Denomination

Each individual value in a series of banknotes or coins.



Design of a banknote

The process by which the artistic and technological conception of a banknote is generated to allow the banknote to fulfil its functions. The design must match the appropriate combination of artistic elements with industrial, security and functionality elements, combining aspects such as colour, shape, materials, composition, etc.

Destruction of banknotes

A process by which a central bank destroys banknotes that are unfit to return into the fiduciary circulation. This is the last step in the life of the banknote. The destruction can be done manually or mechanically, and the latter may be online or offline. Online destruction is directly performed by automated sorting machines, without interruption of the treatment process. The process needs to be controlled in a very special way, since there is no possibility of verification or reconciliation.

Destruction rate

Ratio between the number of banknotes destroyed over a given period of time and the number of banknotes processed (cleared) during that same period. Expressed as a percentage, it indicates the number of banknotes destroyed for each hundred banknotes processed. The destruction rate depends on many factors, including but not limited to the quality policy followed by the central bank. There tends to be notable differences in the destruction rates between denominations, the rates generally being much higher for low denominations than for higher denominations.

Device to verify authenticity of banknotes

A device supporting cash handlers and retailers in authenticating banknotes. Some central banks regularly test banknote equipment with a selection of counterfeits most frequently seen in circulation and publish a list of machines and devices that have passed the test. See *Authentication device*.

Diffractive foil

Metal-coated foil with colour image-changing effects.

Digital printing

The process by which an image is created from digital data.

Distribution of cash

Activity consisting of the delivery of cash throughout the territory in the amount and modality required to adequately cover the needs. It is one of the central bank's core functions, for which the necessary logistics, materials and human resources are used, either in-house or outsourced.

Dog ear

A very common impairment of banknotes, consisting of the creasing or folding of the corners of the banknote in circulation.

Dollar

Monetary unit of the United States of America, and a number of other countries e.g. Australia, Canada and New Zealand.

Dollarisation

Process where the US dollar is de facto adopted as the currency of a country.

Dot matrix printer

A printer that prints by impact when tapping an ink-impregnated tape over the print stand, similar to a traditional typewriter. Unlike the typewriter, the characters to be printed are formed by a dot matrix, allowing for various types of characters and digits to be reproduced. Matrix printers are used for counterfeiting the numbering digits.

Dpi

Dots per inch.

Dry offset printing

An indirect printing process where a metal plate with a low relief, prints onto a blanket, which in turn transfers the image onto the paper or another substrate, without the use of water. See also *Wet offset printing*.

Dummy banknote

Banknote that is not legal tender and printed during the testing of a new family of banknotes. It is subject to special security measures even though it is designed not to be confused with a legitimate banknote. Dummy banknote can also be produced for special training purposes e.g. for the blind and partially sighted people.

Duplex paper

A paper composed of two sheets glued together by an adhesive. Often the sheets are of different colour or reactivity.



ECU

A unit of account used by European Economic Community composed of a basket of member country currencies. The value of the ECU was calculated as a weighted average of the value of the currencies that comprised the basket. On 1 January 1999, the euro replaced the ECU at parity.

Electronic banking

A form of banking in which funds are transferred electronically instead of by exchange of paper documents like cash or checks.

Embedded features

Security features embedded in the paper during production process or inserted between laminated layers. They include threads, planchettes, micro-taggants, micro-capsules and other devices, and cannot be removed or added retroactively without destroying the paper.

Embossing

Producing a raised image by pressing the paper or substrate on the etched lines of the intaglio plate. The raised image can be detected on the opposite side of the paper.

Emergency banknote

Some central banks had, in particular in the past, in their custody, a stock of printed banknotes, different to the banknotes in circulation, reserved for an emergency response to a significant counterfeiting of banknotes.

Engraving

Marking with incision or etching an intaglio printing plate to create a design which will be transferred on the paper or another substrate during the printing.

Euro

The name of the European single currency adopted by the European Council at the meeting held in Madrid on 15-16 December 1995. See *ECU*.

Euro Check Web Site

A website designed by the European Central Bank (ECB) that provides information in the counterfeit monitoring system of the ECB on a need-to-know basis.

Euroisation

The process where the euro is de facto adopted as the currency of a country.

European Monetary Institute (EMI)

A temporary institution established on 1 January 1994, at the start of stage two of the Economic and Monetary Union. It went into liquidation on 1 June 1998, following the establishment of the European Central Bank.

European System of Central Banks (ESCB)

Composed of the European Central Bank and the national central banks of the twenty-seven Member States, i.e. it includes, in addition to Eurosystem members, national central banks that have not adopted the euro.

European Technical and Scientific Centre (ETSC)

Centre for the technical analysis and classification of counterfeit euro coins. The ETSC has been established within the European Commission in Brussels and uses for that purpose the facilities of the French Mint in Pessac.

Europol

A body created within the European Union (EU) which supports the EU Member States in the fight against terrorism, cybercrime and other serious and organised forms of crime, like currency counterfeiting.

Euro symbol (€)

The graphic symbol of the euro (€) is inspired by the Greek letter epsilon and reflects the first letter in the word Europe. The parallel lines represent the stability of the new currency.

Eurosystem

The Eurosystem comprises the European Central Bank and the national central banks of those countries that have adopted the euro.

Exchange

In cash management, refers to the action by which a very used banknote of legal tender is exchanged with another of equal value.

Exchange of damaged banknotes

Central banks exchange legal tender banknotes that are mutilated or damaged, when a certain percentage, usually more than 50% of the banknote is presented or, when 50% or less is presented, and the remainder is shown to be destroyed.

Exchange rate

The rate at which one currency will be exchanged for another.



Face and orientate

Operations aimed at positioning all banknotes in such a way that they present the same face (front or back) and the same position (upside or downside) of their elements and components.

Face value

The figure or amount written on the banknote or coin which indicates the amount of its economic value. It is usually written in letters and numbers.

Family of banknotes

Banknotes form a family when they maintain traits that identify them as members of the same group (unity of design, uniformity of structure, etc.), while they may be of different size.

Fiat currency

A currency established as money, often by government regulation, without an intrinsic value, unlike a precious metal or a merchandise. It was a development step from the use of a commodity money

Fibres

A banknote security feature incorporated randomly during the manufacture of the paper. The fibres can be made of silk, plastic or metal, and may be visible, invisible, or fluorescent under UV light.

Fiduciary circulation

Expression used by economists and monetary specialists to refer to the amount of money in circulation.

Financial inclusion

A process by which individuals and businesses can access appropriate, affordable, and timely financial products and services. These include banking, loan, equity, and insurance products. While it is recognised that not all individuals need or want financial services, the goal of financial inclusion is to remove all barriers, both supply side and demand side. Supply side barriers stem from financial institutions themselves. They often indicate poor financial infrastructure, and include lack of nearby financial institutions, high costs to opening accounts, or documentation requirements. Demand side barriers refer to aspects of the individual seeking financial services and include lack of proof of identity, financial literacy, lack of financial capability, or cultural or religious beliefs that impact their financial decisions. There is growing scepticism from some experts about its effectiveness as en economic and social development tool.

Firmness and crispness

The combination of sound and touch when a sheet of paper is manually waved in the air.

Fit banknote

A used banknote that the central bank deems fit to be returned into circulation.

Fitness detection of banknotes

The checking of the of banknotes for soiling, graffiti, limpness, tears, dog-ears, etc. Banknotes that are considered fit will be returned into circulation, while unfit banknotes are withdrawn from circulation.

Foil - reflecting foil

A security feature of banknotes, visible to the naked eye. Metal foils can be applied to the banknote by hot or cold transfer.

Foil stamping

The process of transferring a thin foil to a banknote from a carrier. This may be achieved using heat to activate an adhesive or by stamping.

Front

Facade, face. See Obverse.



Gold standard

A monetary system in which the monetary unit of a country is based on a fixed amount of gold.

Grammage

The density of a paper defined as mass per unit of area., for istance in grams per square metre (g/m²). Most physical properties of paper are closely and proportionally linked to the grammage. It is typically between 80-120 g/m².

Gravure

A method of printing whereby the ink is applied in small areas of a metal plate bearing an engraved or etched design and then transferred onto the print substrate by a direct method.

Gresham's law (or principle)

A formulation attributed to Sir Thomas Gresham, an English merchant and financial businessman in the 16th century. According to the law, in a monetary system with currencies of different value, the more valuable will gradually disappear from circulation (the "bad" currency drives out the "good" currency).

Grey money

As in the case of *black money*, this is undeclared money, however originating from non-criminal activity. Its concealment seeks to avoid its taxation. Its detection by the authorities typically involves the imposition of a financial penalty in addition to the payment of the tax debt and the relevant interests. See *Black money*.

Gross domestic product (GDP)

A measure of the value of an economy's total output of goods and services in a specified period. GDP can be broken down by output, expenditure or income components.

Gross issuance

Value of banknotes issued by a central bank over a period.

GS1

System encompassing global standards for identification of products, associations, services and localisations and for the exchange of data. It is widely used in supply chains across industries and activities around the world.

Guilloche image

A traditional element, consisting of regular patterns of lines, creating a difficult-to-reproduce effect. Frequently used in the design of banknotes, using special machines or computers.

Guilloche pattern

A specific pattern consisting of continuous interlocking or superimposed lines arranged in geometric motifs, which aim to make their reproduction difficult. Often combined with the iridescence effect. Guilloche patterns can be in positive, negative, multitone or monotone.

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Hallmark

Official mark struck on items made of precious metals, such as platinum, gold, silver and in some nations, palladium, mostly to certify the content. In a more general sense, the term hallmark can also be used to refer to any distinguishing characteristic.

Hawala

A popular and informal value transfer system based not on the movement of cash, or on a telegraph or computer network or wire transfers between banks, but instead on the performance and honour of a huge network of money brokers (known as *hawaladars*). Today, hawala is used mostly for migrant workers' remittances to their countries of origin.

High denomination banknote

Refers to the highest part of a family of banknotes, used mainly as a store of value in comparison to the middle denominations, often dispensed by ATMs, and low denominations, used mainly as change. See also Low denomination banknote and Medium denomination banknote.

Hoarding

The term refers to the use of cash as a store of value. However, the term has a negative connotation of concealment, and is often used in the context of the war on cash. See *Precautionary Holdings*.

Hologram

A thin microscopic diffraction structure, that transmits or reflects light so a three-dimensional image can be seen. This image appears to move as the viewing orientation is changed.

Holographic patch

Transfer foil containing a holographic structure with three-dimensional images, usually exactly positioned (registered) in both horizontal and vertical directions. See *Hologram*.

Holographic stripe

A banknote security feature consisting of a rectangular vertical stripe, containing a holographic structure. See *Hologram*.

Holography

A method of rendering objects in three dimensions generated by means of laser beams. The result is a hologram.

Hot stamping

System for applying thin films of a material over another bracket. A die is heated at high temperatures and the film is pressed to transfer over the bracket where it remains fixed. This system is used to stamp stripes, foils or other features on to the banknotes.



House note 27

It is common that major banknote suppliers design and print notes for promotional purposes, with the supplier's name usually clearly stated on it. Their purpose is to serve as the supplier's business cards, to demonstrate their capabilities.

Hybrid substrate

describes a substrate that is a mixture of natural fibres (cotton) and plastic material, without either predominating the other.

IMT - Intermittent Magnetic Thread

A security thread containing an invisible code printed in magnetic ink, which can be used to authenticate and/or denominate banknotes in sorting machines.

Information campaign about banknotes

Various activities of informing the public (including vulnerable groups) and professional cash handlers about the characteristics, security features and proper use of the banknotes.

Infrared inks

Inks containing dyes or pigments that absorb wavelengths between 700 and 1100 nm.

Infrared light

Electromagnetic waves located at the top end of the visible light spectrum within the range of 700-1000 nm. Infrared light is used in detectors and special equipment to detect security features of banknotes and other documents.

Ingot (or lingot)

Metal or metal alloy bar or piece resulting from the process of smelting.

Inkjet printer

A computer printer that deposits ink droplets over the paper to create the image to be reproduced. It is one of the most popular types of printers, associated with personal computers.

Ink-stained banknote

A banknote that is stained with a special wash-resistant ink, triggered by an anti-theft mechanism located in a cash container or security case that is locked with a special seal and a security key. If the security case is stolen, any attempt to open it by force (or without using the correct key) will automatically trigger the mechanism and the banknotes will immediately become recognisable as stolen and should therefore be rejected at any financial institution. See Intelligent banknote neutralisation system.

Intaglio printing

A printing method, which also acts as a security feature, and gives the image a raised print effect that is difficult to achieve with other systems. The printing parts of the plate are recessed by engraving into a metal plate. The engraved plates are applied to the paper at very high pressure. The compression of the paper and the transfer of a thick layer of ink give the intaglio print a distinct tactility.

Intelligent banknote neutralisation system (IBNS)

An anti-theft mechanism located in a cash container or security case that is locked with a special seal and a security key. If the security case is stolen, any attempt to open it by force (or without using the correct key) will automatically trigger the mechanism and the banknotes will immediately become recognisable as stolen and should therefore be rejected at any financial institution.



Intelligent Safe

See Smart Safe.

Interchange fee

A fee paid between banks for the acceptance of card-based transactions. For instance, a merchant's bank (acquiring bank) will pay an interchange fee to the cardholder's bank (issuing bank) when the latter makes a transaction. This is also the case when a cardholder uses an ATM: the cardholder's bank pays a fee to the ATM operator.

Interpol

Name of the International Criminal Police Organisation. It dates back to 1923. Its activity extends to all crimes of common law and especially those related to drug and gold trafficking, counterfeiting of money and capturing criminals harbouring in a foreign country. Police forces from most countries in the world take part in this organisation.

Intrinsic value

The metal value of a coin or medal.

Iridescent ink

Ink with multi-coloured iridescent effect fluctuating in brightness and colour depending on the angle of illumination and observation.

ISARD

The Intaglio Scanning and Recognition Device is an optical detection system capable of determining the presence of intaglio printing on a banknote.

Issuance privilege

Exclusive right of an authority to issue banknotes and/or coins of legal tender.

Issuing authority

The entity authorised to issue money of legal tender in a country. Generally, the expression is synonymous with a central bank or a monetary authority.



30 Keyholder

Refer to persons responsible for the safekeeping of keys (and/or the unlocking combination) of central bank's safes (vaults). The term is used in plural because the simultaneous use of multiple keys, which are kept by different people, is usually necessary for opening the safes.

Know Your Customer (KYC)

Refers to the information that the local regulator requires financial service providers (FSPs) to collect about any potential new customer in order to discourage financial products being used for money laundering or other crimes. Some countries allow FSPs greater flexibility than others as to the source of this information.





Tests and measurements carried out on banknotes in a laboratory. Their purpose is to check that the banknotes meet the appropriate technical specifications, or to check their physio-chemical resistance.

Laminated foil

A foil applied to banknote paper which in case of window, serves to cover the window.

Laser printing

A digital printing technique using a laser beam to position the toner in a cylinder printer, which transfers toner deposits to the print substrate by heat and pressure. Laser colour digital copiers use this printing technique. It is a technique used in counterfeiting banknotes and other security documents.

Latent image

An optically variable, non-iridescent security feature based on intaglio printing relief. The feature is only perceptible when viewing a hidden text or image in the design from certain angle.

Latin Monetary Union

Formed by France, Italy, Belgium and Switzerland in 1865, with Greece joining and several countries following its rules, based on the franc.

Legal tender

Money that is legally valid for the payment of debts and must be accepted for that purpose when offered. Each jurisdiction determines what is legal tender, but essentially it is anything which when offered ("tendered") in payment of a debt extinguishes the debt. There is no obligation on the creditor to accept the tendered payment, but the act of tendering the payment in legal tender discharges the debt.

Legend

Refers to the lettering, words or phrases that are engraved on coins, usually located along or around the outside edge of the coins.

Letterpress printing

Characters are formed by raised surfaces on the printing plate; a roller applies ink to the raised surfaces and the plate is pressed against the paper to transfer its ink.

Lifecycle of a banknote

See Average life of a banknote, Rate of return.

Lingot (or ingot)

Metal or metal alloy bar or piece resulting from the process of smelting.

Liquidity

Describes the extent to which assets or rights can be converted into cash without causing a significant decrease in the asset's price. Accordingly, liquidity is often inversely proportional to the profitability of the asset and involves the trade-off between the selling price and the time needed to convert it to cash. In finance, cash is considered the most liquid asset and cash is sometimes used as a synonym for liquidity (e.g. cash reserves; cash pooling...).

Logistics

The term originates from military language and refers to the movement and provisioning of troops at war. In today's business vocabulary, it refers to the management in particular, the transportation, storage and distribution of finished goods.

Low denomination banknote

Refers to the lowest part of a family of banknotes, used mainly as change in comparison to the middle denominations, often dispensed by ATMs, which are used for transactions. See also *High denomination banknote*.





Machine readability

Characteristic of a feature recognised for authentication or denomination automatically.

Magnetic printing

A non-contact printing process in which the ink contains particles that control the printing process.

Matching motif

See See-through register.

Medal

Traditionally, a coin-shaped artistic piece with no face value, made for religious, honorary and other commemorative purposes.

Medium denomination banknote

Refers to the middle part of a family of banknotes, used mainly for transactions and usually dispensed by ATMs, in comparison to low denominations, used mainly as change and high denominations used mainly as a store of value. See also Low denomination banknote and High denomination banknote.

Metallic inks

Coloured inks with aluminium or bronze (copper-tin alloy), components that give off a distinctly metallic gloss; available in shades of silver and copper, gold tones and others.

M-feature

An invisible machine-readable security feature made of compounds containing "rare earth" elements (oxides of certain metals found in some rare minerals). It is used for the authentication of banknotes.

Microlenses

Small lenses, typically only a few microns in size.

Micron

The millionth part of a meter.

Micro-perforations

Image formed by numerous micro-holes punched into the paper and visible when held up to the light. Micro-holes are normally produced using a laser.

Microprinting

Printing of very small characters that are not readable to the naked eye but can be read with a magnifying glass. Microprinting on banknotes usually combines positive and negative characters.

Migration of banknotes

Passage of banknotes issued in one country to another, where they are then integrated into the fiduciary circulation of the latter. In the eurozone, migration of euro banknotes occurs with a high frequency and intensity because the euro banknotes are the national currency in multiple adjoining countries.

Mint

An industrial facility manufacturing coins.

Mixed fibres

Refers to a fibrous composition of the substrate used for banknotes, where there are fibres of cotton and other materials such as linen or polyester. The purpose of using mixed fibres is to improve the mechanical properties of the paper, such as scratch or crinkle resistance.

Moiré effect (pattern)

A new pattern formed by superimposing two patterns of lines or dots, differing in relative size, angle, or spacing. The Moiré effect is the visual perception that occurs.

Monetary Authority

See Central Bank

Monetary income

Income accruing to central banks in the performance of the monetary policy function, derived from assets held against banknotes in circulation and deposit liabilities to credit institutions. See also "Seigniorage".

Monetary standard

The value adopted as a basis of the monetary system.

Money

From the Latin word *moneta*, nickname that was given by Romans to the goddess Juno because there was a minting workshop next to her temple. Money is any item that is generally accepted as payment for goods and services and repayment of debts, such as taxes, in a particular region, country or socio-economic context. Its onset dates back to the origins of humanity and its physical representation has taken on very varied forms until the appearance of metal coins. The banknote, a typical representation of money, appeared in the 17th century, and has since experienced great development and growth. Currently, electronic means allow payments without the need to deliver physical money (banknotes or coins). Money is considered to have three basic functions: unit of account, medium of exchange and store of value.



Money laundering

The operation of attempting to disguise a set of fraudulently or criminally obtained funds as legal, in operations undeclared to tax authorities, and therefore not subjected to taxation. Money laundering activities are strongly pursued by authorities and in most countries, there are strict rules for credit institutions to cooperate in the fight against money laundering operations, to declare and report any transactions that could be considered suspicious.

Multiplier Effect

In economics, the multiplier effect refers generally to the increase in final income arising from a new injection of spending. Applied to cash assistance it refers to the indirect effects of cash assistance, whereby increased expenditure by recipients contributes to income growth for non-recipients, expansion of markets for local goods, or increased demand for services. The 'economic multiplier' is the estimated number by which a change in some other component of aggregate demand is multiplied to give the total amount by which the national income is increased as a result of direct and indirect benefits from that change in demand.

Mutilated and/or mismatched banknote

A banknote which is either missing a part or is the result of pasting or combining together different pieces from one or more banknotes. Most central banks have a process for the exchange of these banknotes after they have been authenticated.

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National central banks

In general, the expression refers to the central banks of different countries.

Net issuance

The value or units of banknotes (or coins) issued by a central bank over a period, minus the equivalent withdrawn from circulation during the same period. A positive net issuance expresses an increase in circulation during the period.

Nickel

Metal used in the manufacture of coins.

NIR light

Near-infrared light; not visible to the human eye, with a slightly longer wavelength than visible light.

Notes Held To Order (NHTO)

System used in some countries in which the central bank delegates the safe-keeping and distribution of banknotes to private entities and offers some sort of financial compensation to incentivise the system. See *Balance-Sheet-Relief-Mechanism*.

Numbering of banknotes

Numbering enables a banknote to be differentiated from another of the same denomination. If two banknotes have the same numbering it is a proof that one of them is false. Numbering is usually on both sides of the banknote, back and front.

Numismatic value

A price that is given to a numismatic object. It may deviate from the face value as a result of various factors: the degree of rarity, the state of its preservation, the artistic relevance and the historical significance.

Numismatics

The study of coins, medals, paper money and related objects. In the scope of banking services, the numismatic service deals with the sale of legal, former or rare banknotes and coins to customers with collecting interests acting as an intermediary.





Obverse (front side)

With a banknote, this is the main face that portrays the most representative motif. With a coin, it is also the main side or face where the symbol of the state or a portrait of the monarch and name of the country usually appear. The front side of a coin is commonly called "heads" in coin tossing, while the other side is called "tails". See *Reverse*.

Offset printing

A printing process that is used for printing multi-colour backgrounds of the banknotes. Offset presses that print simultaneously the back and front of the banknote with high accuracy enable security features to be incorporated in perfect register. See *Dry and Wet offset printing*.

OLAF

OLAF, the European Anti-Fraud Office, investigates fraud against the EU budget, corruption and serious misconduct within the European institutions, and develops anti-fraud policy for the European Commission.

On-site inspection

Review performed with the physical presence of the inspectors at the site or facilities to be inspected.

Optical Character Recognition (OCR)

The reading and recognition of characters using an optical device.

Origination

The processes which transforms an initial design of a banknote (fundamentally artistic labour) into an industrial product ready for printing.

Outsourcing

To commission a third party to conduct a part of the business, because it allows management to concentrate in the core business area. Outsourcing an activity, does not remove the responsibility for what is done on behalf and in the name of the institution and it should maintain the reputational impact of the activity intact.

Overt feature

A banknote security feature that is visible or apparent without the need for any special instrument. It may require instructions on how to observe it.

Packaging of banknotes

System of wrapping different aggregate units of banknotes (hundreds, thousands and tens of thousands).

Pallet

Platform of panels for storing and transporting banknotes and coins.

Pantone

Name of a widely used colour matching system in graphic design. Depending on this system, each colour is coded with a reference number.

Paper

See Banknote paper.

Paper currency

This is often used as a generic expression to refer to banknotes, versus the "metal currency" expression, which refers to coins.

Payment

A transfer of funds which discharges an obligation on the part of a payer vis- \dot{a} -vis a payee.

Payment diary

An increasingly used instrument by central banks, which consists in asking a representative sample of the population to record for a certain period of time all their transactions, as well as the payment method used. Payment diaries provide a snapshot of the use of different payment instruments. They are, however, a costly tool and do not provide real-time results, but are useful for comparative purposes.

Payment instrument

Device, tool, procedure or system used to make a transaction or settle a debt.

Payment method

See Payment instrument.

Pending counting

System whereby the total value of banknotes delivered by a financial institution to the central bank will be credited on the same day the delivery is made, even if the veracity and accuracy of the information provided is not verified by the detailed counting and validation of the delivered banknotes. The system involves the settlement of any differences on the account of the financial institution at the central bank. See also Settlement of differences.

Photoluminescence

Luminescence produced by exposure to ultraviolet light.



Piece

In plural, it is commonly used as synonym for units of banknotes and coins.

Pilot production of banknotes

Refers to the first industrial production completed in a printing plant after all technical requirements for a new banknote are approved. The pilot production is carried out with a relatively small number of banknotes (a few million pieces) and serves, amongst other things, to validate or correct the technical specification of the banknote before the large-scale production is initiated.

Point-Of-Sale (POS) terminal

A device allowing the use of payment cards at a physical (not virtual) point of sale. The payment information is captured either manually on paper vouchers or by electronic means.

Polymer

A substrate used in the printing of banknotes, made of biaxially oriented polypropylene (BOPP) polymer. Polymer banknotes were first introduced in Australia and are widely used around the world.

Porosity

This is a measure of empty volumes in a material in relation to the total volume or surface. Property of certain materials that allow the transfer of air or water through its surface. It is related to the absorption capacity. Depending on the needs and purposes, higher levels of porosity will make material more or less desirable and appropriate.

POS

Abbreviation for "point of sale". See Point-of-Sale terminal.

Precautionary Holdings

Banknote demand motivated by the store of value function of banknotes, for saving purposes or as a precaution for uncertainties. See *Hoarding*.

Pre-press

Preparatory work on original materials, such as films, files, plates, etc., required to carry out the printing of a banknote.

Print registration

Printing of various colours with tight limits.

Printworks

A plant for producing banknotes and other security documents. Printworks can be either state or central bank-owned or run by commercial companies.

Processing capacity

The maximum capacity of a machine (expressed in thousands of banknotes per hour) for processing banknotes.

Processing of banknotes (Sorting)

The counting, sorting and checking the authenticity and condition of banknotes, which can also be banded or destroyed. Banknotes can be sorted mechanically by type and denomination. Counting machines can count the number of notes as well as their combined value. They can also detect counterfeits and keep electronic records of the number of each note being sorted.

Procurement of banknotes

The process of procuring banknotes by direct assignment, restricted call for tender, limited public tender or open public tender.

Provisional credit (Daily credit)

A temporary credit applied to an account when a transaction is being disputed and under investigation. It also applies to transactions involving cash, whereby the declared amount is credited prior the actual counting and authentication of the cash.



QR-Code

A QR-code (abbreviated from Quick Response code) is a type of matrix barcode (or two-dimensional barcode) first designed in 1994 for the automotive industry in Japan. A barcode is a machine-readable optical label that contains information about the item to which it is attached. In practice, QR-codes often contain data for a locator, identifier, or tracker that points to a website or application. A QR-code uses four standardized encoding modes to store data efficiently; extensions may also be used. It consists of black squares arranged in a square grid on a white background, which can be read by an imaging device. The required data is then extracted from patterns that are present in both horizontal and vertical components of the image.

Quality control

Refers to the verification processes – manual and/or automated – to ensure that the banknotes meet the technical specifications.

Quality in circulation

When applied to circulating banknotes, quality refers to their level of use or deterioration in circulation. Central banks apply policies to reduce the degree of impairment of the banknotes in circulation, as a very deteriorated banknotes can be difficult to authenticate. Issues relating to the image, prestige and hygiene also support quality policies.

Quality inspections

Industrial activity processes are increasingly subjected to quality reviews or inspections, periodic or irregular, which aim to verify and ensure compliance with the requirements imposed on the process.

Rate of return

Ratio between the number of banknotes per denomination that return to a central bank, during a certain period, and the average number of banknotes in circulation during the same period. It is one of the indicators used in the management and analysis of cash in circulation.

Ream

Pack of paper/substrate containing 500 sheets.

Recirculation

The right to recirculate banknotes that have been checked for authenticity and sorted for fitness by banks and cash-in-transit companies. The right is normally based on rigorous rules established by the central bank.

Recirculating ATM

A self-service ATM that checks the deposited banknotes, sorts them and pays out the fit notes to customers withdrawing banknotes. See *Recycling, ATM*.

Reconciliation

Verification that what is stated in the documentation matches up with the reality, or that the information in two different documents coincide.

Recycling

The process of converting waste materials into new materials and objects. Banknotes are increasingly recycled after destruction, and the waste is often used for landfills, isolation material etc. Polymer notes are melted into pellets which are recycled into new products. Recycling is often incorrectly used instead of recirculation. See *Recirculation*.

Register

See See-through register.

Rejects

Banknotes that are not recognized or are suspected of being counterfeits in automated processing.

Remittance Company

Commercial companies whose only, or primary, service is wiring or transferring money electronically between locations, often from abroad. These companies provide a Cash Collection service, whereby the recipient pays a fee to collect money in addition to the sender paying a commission to have money transferred.

Remittances

Money sent home from emigrants working abroad.

Replenishment rate

The inverse indicator of the average life of the banknote: the higher the replenishment rate of a banknote, the lower the average life of that banknote.



Reproduction of banknotes

In order to prevent that published banknote images are used for counterfeiting purposes the central banks normally regulate the reproduction of banknote images, especially in relation to their size. For example, the reproduction could be authorised if the size of the banknote image is either less than 75% of the banknote or greater than 125%.

Reserve bank

See Central bank.

Reverse

The back of the banknote or coin. See Obverse.

RRC (Reproduction Research Centre)

Counterfeit research centre, located in the premises of the central bank of Denmark in Copenhagen, financed by a number of central banks.

Safe

Secure container for storing money and valuables, with high resistance to breaking and entering.

Safe box

See Safe deposit box.

Safe deposit box

A secured container for storing of valuables.

Safe-grading

Safes and vaults are awarded a grade for burglary resistance. The grading system is important as the contents of a safe will only be insured for the correct value if the safe carries the appropriate grade.

Sample set for fitness check

A set of a banknote denomination, numbered from one to ten, showing different degrees of fitness, soiling level and wear and tear due to usage, representative of the changes in the condition and appearance of the banknote over its useful lifetime. It serves as a reference to identify the maximum level of soiling or impairment allowed and determines when a banknote should be removed from circulation.

Screen printing

A printing process in which ink is applied to paper through a metal or fibre mesh. Ink passes onto the paper through areas that are not blocked by the mesh. Optically variable ink (OVI) is applied using this technique.

Security features of a banknote

Certain substances, special elements or hard-to-reproduce printing processes that are incorporated into a banknote during its manufacture for the purpose of making it difficult to counterfeit and to facilitate its recognition. Examples of widely used security features are the following: intaglio-printing, ink layer with embossed relief, watermarks, threads and foils, matching motifs and optically variable elements such as holograms and optically variable inks. These are verified through looking, feeling and tilting or by instruments such as magnifying glasses and ultraviolet lamps. Some features are designed for detection by sensors integrated in machines for verifying and processing banknotes.

Security inspection

Review of the procedures, systems and facilities (of a central bank, printing works or component supplier of banknotes, warehouse, etc.) to verify whether they comply with the established security standards.

Security seal

A numbered tamper evident physical device secured with fastening mechanism to ensure that it is not opened without authorisation.



Security thread

Plastic, metal or other material, incorporated into the paper sheet during its manufacturing process, fully or intermittently. A window thread appears on the paper's surface at defined points, and is partially visible, however, in transmitted light appears across the entire length of the note. The thread may be able to contain any of the following: visible or machine-readable codes, microprinted or mini-printed text in positive or negative, or display of fluorescent, iridescent, holographic or metallic gloss effects. A variant is the strap thread, which is not quite an intermittent thread, but a continuous band with metal segments applied by heat onto the paper surface.

See-through register

A security feature that, when held up to the light, combines elements of the front and back of the banknote into a specific image.

Seigniorage (Seignorage)

Derived from the French expression *seigneuriage*, referring to the right of the lord (seigneur) to mint money. In connection with banknotes seigniorage refers to the interest earned by the central bank when investing the funds received via issuance of banknotes at face value, minus the cost of producing, distributing and replacing them.

Sensors

Devices capable of detecting specific physical properties of banknotes.

Series of banknotes

See Family of banknotes.

Settlement

The discharge of an obligation in accordance with the terms of the underlying contract. In e-transfers the settlement may take days, whereas cash settlements are instantaneous and irreversible.

Settlement of differences

Operation by which the central bank, after checking and counting the banknote delivery from a banking entity, credits or debits the entity's account with the difference, if any, in relation to the amount initially credited. See *Pending counting*.

Sheet

A piece of paper or substrate of 800 mm by 700 mm, on which banknotes are printed. The "sheet to sheet" printing technique is the most widely used in printing of banknotes, but the roller printing technique also exists.

Shredding

See Banknote Destruction Machine.

Shrink wrap

Refers to the wrapping with a plastic film that adapts to the shape of the cashpack or bundle of banknotes. Such wrapping is used as a security measure to prevent any manipulation.

Silk screen printing

A printing process where freely flowing ink is applied to paper through a metal or fibre screen with fine holes.

Silver

White, shiny, and soft metal used to mint coins or medals.

Smart Safe

A safe way to make the cash management of a retailer more efficient. Banknotes and/or coins deposited into the device are counted and provisionally credited to the account holder. The retailer does not have access to the contents of the safe, which is usually serviced by a cash management company.

Soil

See Soiling.

Soiling

The process of staining, usually by greasy materials sticking to the surface or by the absorption and adhesion of dust and particles to the cotton fibres of which the banknote is made. It is one of the main reasons for banknote deterioration and their subsequent destruction.

Sorting

Process of fitness sorting of banknotes by their condition of use. Through this process, used banknotes are classified as fit or unfit to return into the circulation. See *Processing of banknotes*.

Specification

Document that describes the technical requirements of a product, material or service, including the quality control procedure to determine whether its requirements have been met.

Specimen

A sample banknote with no value that is legitimate and numbered, and marked by printing ink or perforation system with the word "Specimen". Specimens are exchanged among monetary authorities and in the past sent also to correspondent banks to share information on a new banknote or a new series.

Staining of banknotes

See Ink-stained banknote.

Sterling

Pound sterling, British currency.



Store of value

One of the functions of money or more generally of any asset that can be saved and exchanged at a later time without loss of its purchasing power. See also *Precautionary Holdings*.

Strap

A narrow strip of paper or plastic band that is kept around a banknote package of one hundred notes. A strap often has a label containing the denomination and total value of the package, as well as the date and signatures of those responsible for the counting. Sometimes coloured straps are used to differentiate denominations.

Structure of denominations

Number of banknotes and coins of different value and their ratio that make up the currency in circulation. A ratio of 1-2-5 among them is very common. Banknote families are typically composed of between 4 and 8 denominations, their ratio and balance depending also from the value and number of coins in circulation.

Stucco

A set of binder pigments and additives that are applied to the surface of the paper to enhance its printing properties. It consists of an inorganic compound (usually derived from kaolin and gypsum) that is added to the paper during its manufacturing process to improve its finish by giving it more smoothness and whiteness. Its texture and finish can be glossy, silky or matte.

Substrate

The physical media or support on which the image is printed, such as paper, polymer or hybrid, etc.

Suspect banknote

A banknote whose authenticity is questionable but has not yet been confirmed or disproved.

Tactile marks/features for the blind

Marks printed in intaglio, recognizable by feel and usually located close to the edges of the banknote to facilitate recognition by visually impaired persons.

Tactility

The property of a banknote feature that can be felt, made by means of intaglio printing.

Tellercash recycler

Device that authenticates incoming banknotes and securely stores the cash in an internal vault, and then enables automated cash transactions for the tellers from the cash inventory, including deposits and withdrawals. The devices are typically found in banks and other financial institutions, and directly integrate with the teller transaction software.

To put into circulation

A process by which a central bank, using its right to issue banknotes, puts the banknotes into circulation, from which point onwards they are considered as currency of legal tender.

Traceability

The tracking of a product through its industrial or commercial life, by monitoring its location at all times.

Transparent window

A transparent area on a banknote incorporating optical effects by applying different elements, such as inkless embossing, liquid crystals or an optically variable device. It is currently used both on polymer and paper banknotes.

Treasurer

See Cashier.

Troy ounce

Anglo-Saxon weight unit, equivalent to 31.10 grams. Used in the precious metals industry.



Ultraviolet light (UV light)

Electromagnetic waves located at the lower end of the visible light spectrum. They move within the wavelength range of 200–400 nm. UV light is often used to analyse security documents and notes and security features such as paper brightness, fluorescent inks, fluorescent fibres, etc. UV-lamps used in stores and banks to verify banknotes operate at a wavelength of 365 nm.

Unfit banknote

The opposite of a *fit banknote*. A banknote which, due to its deterioration or poor quality, is no longer suitable to be returned into circulation, and will be destroyed by the central bank.

UV

Abbreviation for ultraviolet.

Varnishing

Applied to the banknote, this is the process by which the surface of the banknote is coated with a layer of varnish with the purpose of decreasing the level of absorption of the substrate, thereby reducing its soiling and prolonging the life of the banknote in circulation.

Vault

Safe; strong room. A place reinforced with special security measures where high-value objects and documents are safeguarded. In central banks, banknotes and other objects are safeguarded in vaults.

Velocity of money

The frequency at which one unit of currency is used to purchase goods and services within a given time period.

Verification

Checking the authenticity.





War on Cash

The expression refers to various policies by governments and campaigns run by other stakeholders, including providers of alternative payment instruments, aimed at reducing or at abolishing the use of cash altogether. This includes for instance the withdrawal of high-denomination banknotes or restrictions on cash transactions as well as spreading misinformation on the usage and properties of cash.

Watermark

A security feature used on most banknotes. It consists of variations in density and thickness created during the paper production, resulting in variations in their opacity. The combination of these variations forms an image embedded in the paper, which is visible with backlight. Due to its variations in thickness, the watermark also has a raised relief effect.

Wet offset printing

An indirect lithographic printing process where a flat printing plate prints onto a rubber blanket that transfers the image onto the paper. The printing plate must be moistened with water before it is inked, the water adhering to the non-image area. See Offset printing.

Window thread

See Security thread.

Withdrawal of banknotes from circulation

The process used to remove banknotes deemed to be unfit from circulation. Used also in connection of withdrawing the old banknote series from circulation after the new have been issued.

