

Our markets

STRONG PROSPECTS FOR LONG TERM SUSTAINABLE GROWTH

We operate in three main markets – currency, identity and product authentication – all of which have strong prospects for long term sustainable growth.

Currency market

A close up image of Ignite®, our next generation security thread for banknotes.



●● **The total amount of cash in world circulation has been growing at c3% a year over the past decade, and is expected to continue to increase at a similar rate in coming years.**

Population growth and the increasing number of ATMs are among the main reasons for this. Although electronic payment is growing as a proportion of total payments, cash remains the most commonly used payment method. Of all the world's transactions, 85% are still cash based². Even in developed countries, such as Germany and Japan, cash accounts for over 80% of total number of transactions.

In addition to its use for payment, using cash as a store of value also creates a demand. Cash is increasingly seen as a safer way to store value during political and economic uncertainty, such as the 2008 financial crisis.

There has been a growing trend that more central banks are changing their procurement practice, moving from fixed contracts to tendering.

Although many customers buy finished banknotes from a single supplier, some use multiple suppliers. This model involves separating their note buying into individual components: printing, substrate and security features.

Printing

Most banknotes are printed by the state print works (SPWs) of their issuing countries. The rest are printed by commercial banknote printers.

The number of countries outsourcing their banknote production has been stable in the past decade, and we expect it to remain unchanged in the near future. Around 11%, or c20 billion, of the 171 billion banknotes issued globally³ in 2018 were available for printing in the commercial market. This market is highly concentrated, with four major operators sharing two thirds of it. De La Rue is the market leader, with 28% market share.

While the increase in cash in circulation creates growth in the commercial banknote printing market, the timing of orders can be unpredictable. This degree of uncertainty is exacerbated by the SPWs being unable to meet internal demand. The overspill orders created typically account for 2% to 4% of the total banknote market, and so can have a profound effect on the commercial printing market.

Polymer substrate

Of the banknotes in circulation, c3% are printed on next-generation substrates such as polymer⁴. As central banks seek to reduce the cost of printing cash, polymer is becoming more popular, thanks to its durability, sustainability and greater security⁵.

More economies are switching, or considering switching, paper banknotes to polymer ones. Forty two countries have already issued, or are about to issue, one or more denominations on polymer. We expect the market to double in size by 2023⁶.

Currently there are only two commercial suppliers of polymer substrate. Although second in the market, De La Rue has been growing fast and now has 20% share by volume⁷. Polymer also offers opportunities to service the countries printing their own banknotes, yet sourcing substrate from the commercial market, thus increasing the size of the addressable market.

Security features

Security features underpin the integrity of our products. Customers are increasingly looking to gain the benefits of added value security features, such as threads and holograms, and this is making ownership of such innovations an attractive opportunity.

There are two types of security feature: covert and overt. Covert features can be detected only by using special devices or machines, such as UV inks and taggants. Overt features are easily seen and recognised by the public, such as threads and holograms.

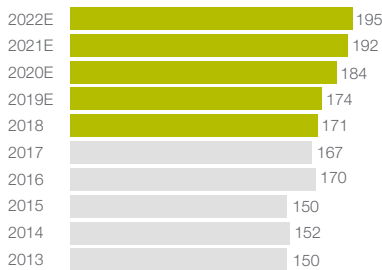
Typically, security features have a long life cycle. This is because the design of the product – such as a banknote or passport – tends to last between five and 10 years, and security features are usually integrated into the design.

Almost all countries buy security features or IP licences on the commercial market. About 90% of the 171 billion banknotes issued in 2018 incorporated security threads, while only 13% included features such as holographic patches and stripes. However, we believe growth in holographic features will accelerate, as the adoption rate of polymer banknotes increases.

Compared to print and polymer, the security features market is fragmented, with more than a dozen suppliers, ranging from banknote printers to firms that offer security features only. De La Rue is the third largest commercial supplier of security features.

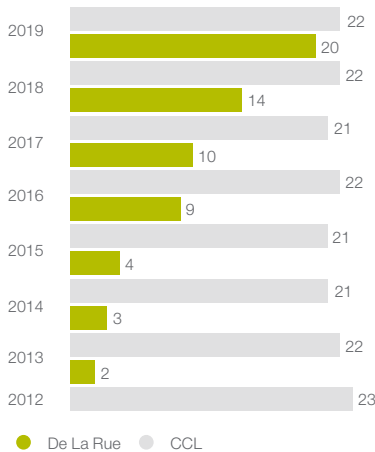
Global banknote issuance

Billion of notes



Source: De La Rue estimates.

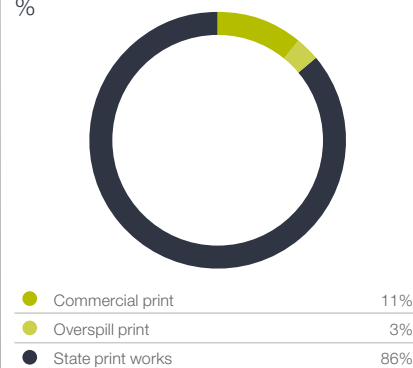
Polymer substrate market share by number of customers



Source: De La Rue estimates.

Commercially available print markets

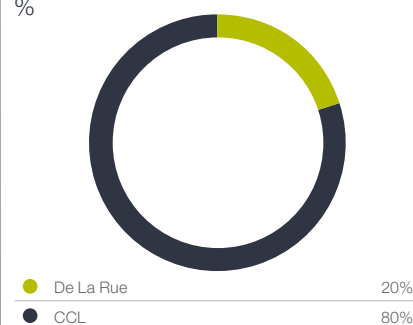
%



Source: De La Rue estimates.

Polymer market share by volume

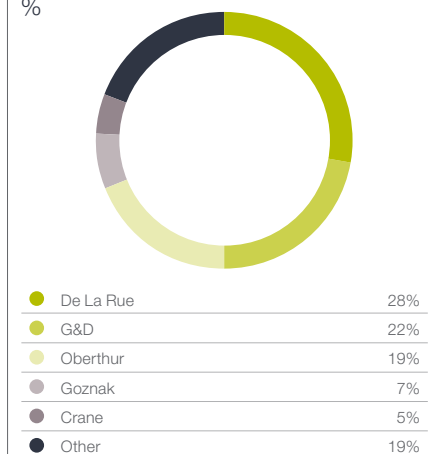
%



Source: De La Rue estimates.

Commercial print market by volume

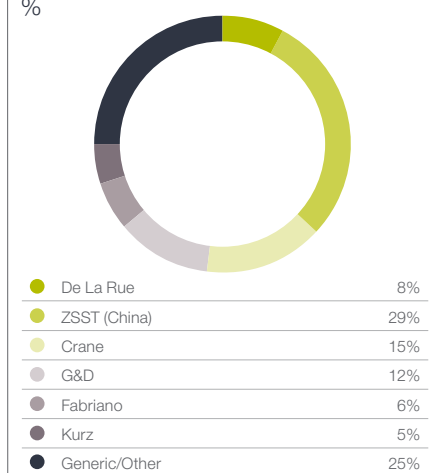
%



Source: De La Rue estimates. Excluding overspill orders.

Security features market by volume

%



Source: De La Rue estimates.

Our markets continued

Identity market

A close up image under a UV light showing invisible design features and embedded candy stripe fluorescent fibres on an end page of our house passport, the De La Rue River Book.



●●
The global identity market is valued at around £3.9bn today, and expected to grow at c6% a year.



The global identity market includes passports, ID cards, and associated digital solutions. With the increasing world population and greater globalisation, demand for identity products and services continues to rise, as governments increasingly focus on improved border security, authentication and their citizens' access to services.

Although many countries have security print capabilities in-house, many still choose to buy printing or individual components from the commercial market. More than half of the identity market is available to commercial manufacturers.

With annual growth of c8%, the passport market remains attractive. Around 165 million passports are issued globally each year, and a quarter of this production is available to commercial security printers. Customers increasingly value security features, such as a polycarbonate data page, and holograms.

Around 100 of the world's countries have compulsory identity card schemes. The national ID market is expected to grow at 5%. Today, over 70% of the national IDs in circulation are chip based. Technological advances in recent years have enabled new types of ID schemes that combine traditional ID functionality with payment methods.

Commercial passport market by volume %



De La Rue	32%
Gemalto	12%
CBN	12%
IDEMIA	9%
G&D	8%
Other	27%

Source: De La Rue estimates.

Product authentication market

Image shows reels of tax stamp base before personalisation with unique reference numbers and being applied to product.



●● **The global market for brand protection is forecast to grow at 7% a year, rising to \$3.6bn by 2022.**

A significant increase in counterfeit goods and illicit trade means governments are losing billions of dollars in tax revenues. This undermines legitimate businesses and brand owners, erodes consumer confidence and puts their health at risk.

Excisable fast moving consumer goods such as tobacco and alcohol are widely recognised to be among the most illegally traded products in the world. One in every 10 cigarettes lit up in the world is illicit, a total valued at almost \$40bn, with a corresponding tax loss to governments. The need to protect tax revenue, together with continuing changes to governments' policies due to international treaties (such as the EU Tobacco Products Directive and the World Health Organisation Framework Convention on Tobacco Control), are the key factors behind growth in the tax stamp market. This market is expected to grow 12% a year until 2024.

There are over a dozen suppliers in the tax stamp market, ranging from small local firms that make tax stamps, to international conglomerates that provide track and trace technology.

De La Rue is one of the two leading providers that supply both physical tokens and end to end software systems.

The rise of counterfeit goods, unauthorised production, and the diversion of distribution channels also mean businesses and brand owners are losing revenue and brand equity. The rapid growth of e-commerce and easy global shipping have exacerbated the problem. The total world value of counterfeit and pirated goods is expected to be \$2.8tn in 2022, a 150% increase from 2013⁸. The global market for brand protection – including track and trace, product authentication, tamper evidence and anti-theft technologies – is forecast to grow from \$2.7bn in 2017 to \$3.6bn in 2022⁹.

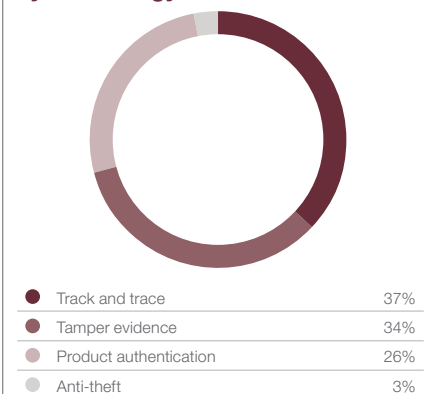
Similar to tax stamps, the brand protection market is highly fragmented, with most operators offering only partial solutions such as serialised labels and tamper-evident packaging. However, there is a growing trend towards integrated, end to end solutions. These provide a combination of highly secure labels, unique ID, and systems that can track, trace and authenticate products throughout the supply chain. Authenticating products through smartphones or other handheld devices is also becoming a trend as brand owners increasingly look to engage with their customers.

Global brand protection market \$bn



Source: The future of anti-counterfeiting, brand protection and security packaging to 2022, Smithers Pira.

Global brand protection market by technology 2017 %



Source: The future of anti-counterfeiting, brand protection and security packaging to 2022, Smithers Pira.

Notes:

- 1 De La Rue estimate
- 2 McKinsey/CapGemini
- 3 De La Rue estimate
- 4 De La Rue estimate
- 5 Bank of England survey
- 6 De La Rue estimate
- 7 De La Rue estimate
- 8 The economic impacts of counterfeiting and piracy, Frontier Economics
- 9 The future of anti-counterfeiting, brand protection and security packaging to 2022, Smithers Pira