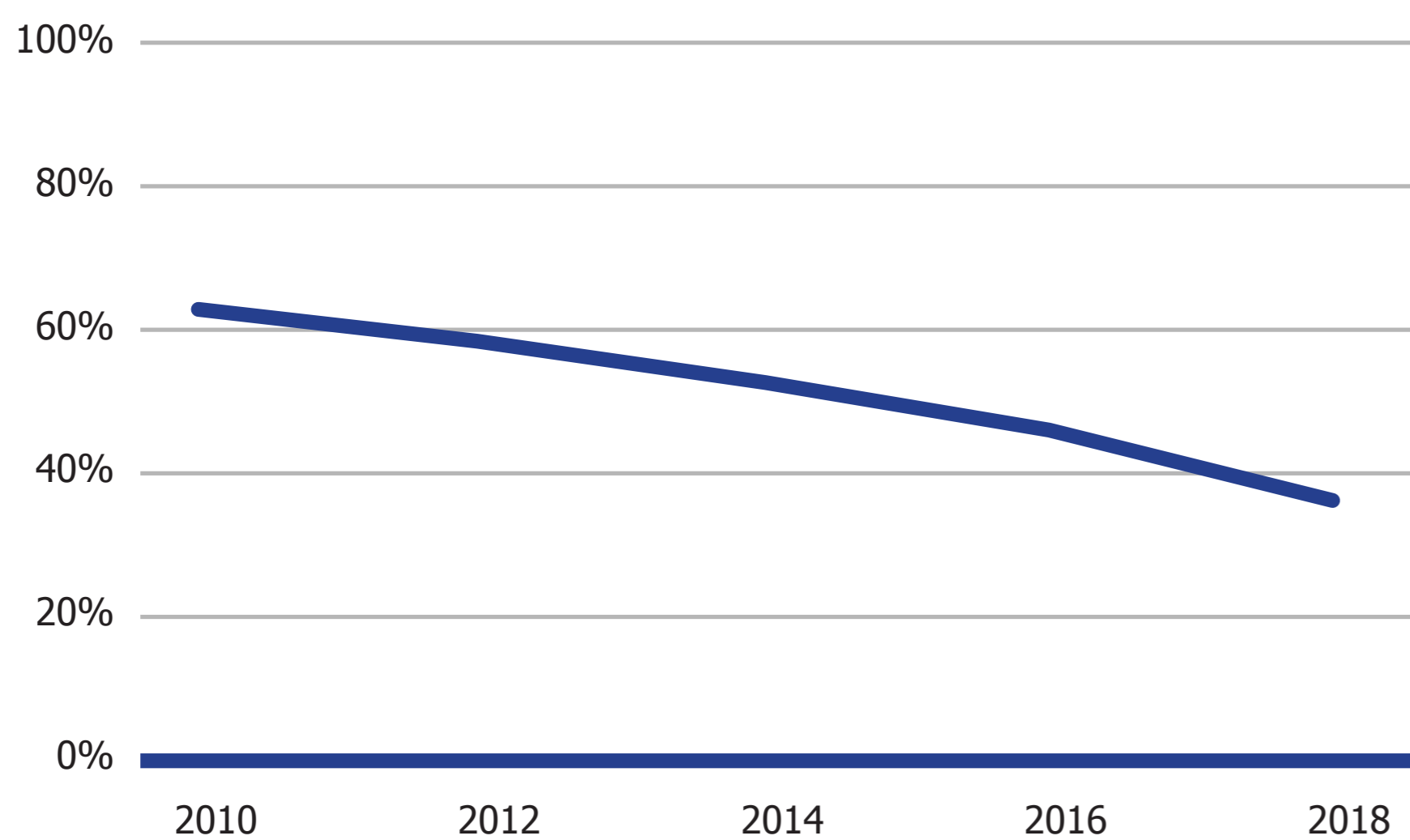


The future of cash

Designing for the continued support of cash

Percentage of cash payments in the Netherlands



Cash use is declining

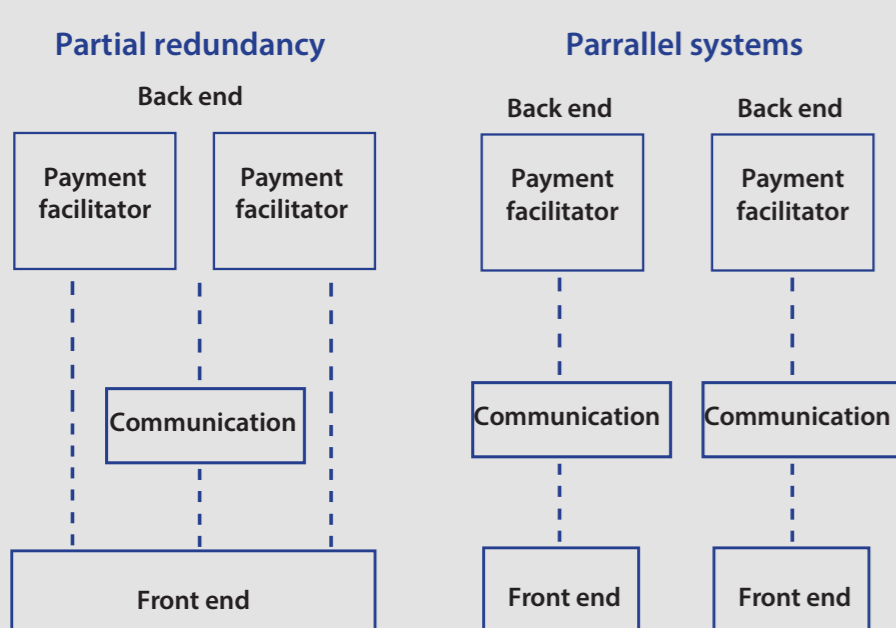
Cash has been the leading payment system for centuries and is now seeing rapid change in use due to digitalization. This has consequences for its use, support, reputation and system. The Netherlands has seen the biggest change in payment behaviour in the eurozone and should be prepared for the problems and challenges that arise from this development. Although the Netherlands is one of the front runners in this change, the entire eurozone must be prepared for these developments. The most important lesson is that this change is not going to stop.

3 challenges for the future of cash

1: Backup

In high impact disturbances cash might be needed again.

The need for a backup tool is created by the vulnerability of the digital payment system which is highly centralized. Cash will not function properly as a back up tool in low impact disturbances such as power outages or connection issues. A better approach would be to decentralize the digital payment system by creating parallel systems that function independently from each other. This will increase the robustness of the digital payment system and decrease the effects of low impact disturbances.



Redundancy and parallel system for digital infrastructure

In high impact disturbances, events that can affect multiple different systems, have a much longer duration and are highly disruptive to society, cash can still be the most viable option. Although these events are rare it is important to be prepared for such a scenario. Such a scenario would require an emergency deployment of cash and cash infrastructure. Regulatory bodies and central banks have to be prepared for such a situation to occur.

Create emergency cash plan

2: Cash cycle

Cash and its system need to adapt to be able to function properly and viably on low usage.

When cash usage continues to drop there will be certain user groups such as: the elderly, the vision impaired and the digital illiterate who will be the remaining users of cash. To continue to support these users, the cash system needs to change to become more efficient and cheaper. If nothing is done the cash system will not be able to function anymore when the critical minimal use of the system is reached. Some recommendations are given:

- **Improve fitness of banknotes to allow longer circulation between retailer and public.**
- **Remote authentication and fitness testing for DNB.**
- **Improve the coin circulation and distribution.**

For improving the circulation of coins a redesign is created. It exists of a payment card sized holder for easy transport combined with new Euro tokens.

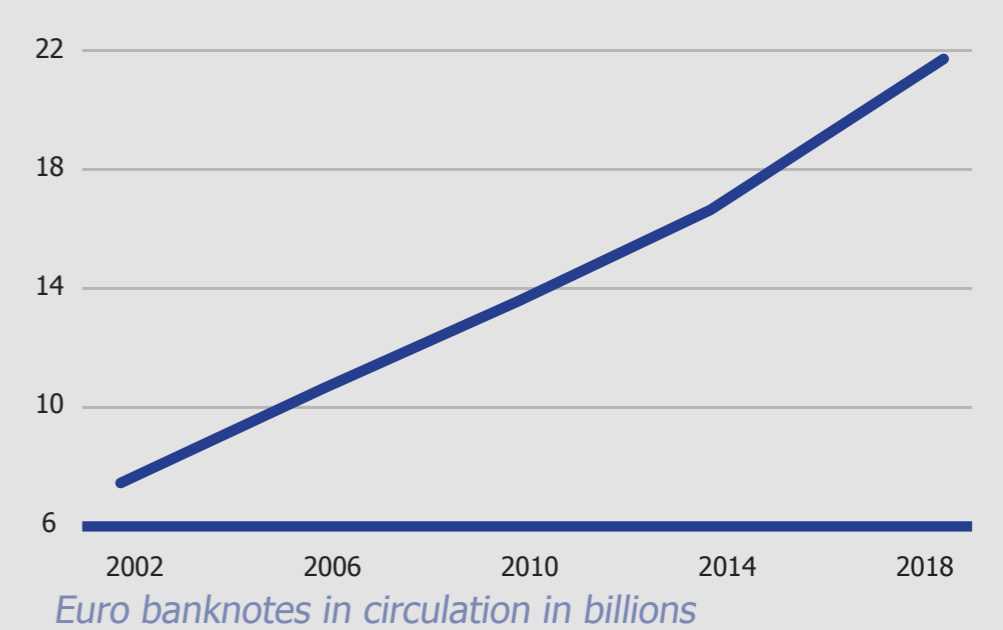


Adapt the cash cycle to low usage

3: Hoarding

Support the hoarding of cash

Although cash used in payments is reducing, the overall amount of cash in circulation in the eurozone is increasing.



It is important to realise cash has multiple functions and one of those is a store of value. Multiple statistics show that the amount of cash that is hoarded is increasing. This means that cash is being used less in transactions and more as a way to store value independently of banks or digital systems. While the infrastructure and support for cash as a day to day payment tool is dropping, it is important to realize what effect this would have on cash as a hoarding tool. If this stored cash cannot be used as easily in normal payments, the importance of other touch points increases. If cash should function properly as a store of value, it should have ways to interact and be interchangeable with digital payment tools. If people are not able to use their stored cash in payments and they are not able to deposit it; the trust in cash, the currency and the government that controls it will be at risk.

Touch points for hoarded cash

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