

# Johannes Beermann: Maintaining a safe and efficient cash cycle in times of change

Speech by Dr Johannes Beermann, Member of the Executive Board of the Deutsche Bundesbank, at the South African Reserve Bank, Pretoria, 4 December 2019.

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## 1 Introduction

Dear Johann,

Ladies and gentlemen,

When trying to make sense of the many and varied individual transactions and decisions being made in an economy, economists like to think in terms of the circular flow model.

In its most basic form, companies pay wages to consumers, who in turn purchase goods from companies. Economists are very familiar with the basic principle: goods flows are matched by monetary flows of identical value – just in the reverse direction of flow.

This way of thinking can be traced all the way back to a medical doctor. When, back in the 18th century, François Quesnay observed the various economic activities taking place around him, he is said to have been reminded of the flow of blood in the human body.

As complex a system as the human circulatory system can be reduced to a few basic observations: at the centre lies the heart, which pumps fresh blood through a dense network of arteries to the various organs. This keeps the system up and running. The deoxygenated blood then makes its way back to the heart.

We central bankers are arguably more comfortable talking about cash flows. But the parallels to the flow of blood in the human body are plain to see. And in the world of cash, too, it is essential for the system as a whole that every single organ involved works properly and in a coordinated manner.

Cash usage in both South Africa and Germany remains high. The South African Reserve Bank and the Bundesbank are pumping an increasing amount of cash into circulation. Demand for cash is on the rise.

But times are changing. Contactless payment methods are becoming more popular in Germany and beyond. Commercial banks, important elements of the cash cycle, are struggling with their existing business models.

Looking ahead, central banks need to ensure that their cash systems are fit for purpose. It is therefore a great pleasure to be here today to exchange views and learn from each other about potential future challenges.

## 2 Internal cost efficiency in the cash cycle

Cash remains the most frequently used method of payment in Germany for everyday transactions. Three out of four purchases at the point of sale are paid in cash.

German households value cash. This means that we need to maintain an adequate cash infrastructure. It is, after all, the Bundesbank's statutory mandate to promote the smooth functioning of payment transactions and payment systems.

The Bundesbank is an integral component of the cash cycle in Germany, but we are not the only game in town. The way in which the cash cycle functions internally is based on close cooperation and coordination between the central bank, commercial banks, cash-in-transit companies and retailers.

All actors in the cash cycle need to work together to ensure that handling and distributing cash remains efficient in terms of costs.

What does this mean? With the diversity of payment options increasing, their underlying cost structures are coming under greater scrutiny. Measuring these reliably is not an easy task, but we have to try nevertheless.

The Bundesbank recently published a comparative study on the costs of using different payment methods in the German retail sector.<sup>1</sup> It turns out that, at least on a transaction basis, paying in cash is less costly than paying by debit or credit card.

But with regulations bringing down the transaction costs of card payments and the rise of contactless payment options, this gap could narrow.

At the same time, we are at risk of measuring underlying cost structures inaccurately if we fail to recognise that transaction costs may simply be becoming less obvious. Customers reveal personal data when making card and contactless payments such that, in a way, costs are shifted towards them. It might be necessary for regulators to consider how to deal with this from a consumer protection point of view.

At the end of the day, bringing down the costs associated with handling and distributing cash is a matter of maintaining efficiency. This requires sensible investment. All actors along the cash value chain are in it together to ensure that processes are automated and quick.

Credit institutions in Germany, for example, are replacing traditional ATMs with devices that customers can use to both deposit and withdraw cash. These machines can even recycle banknotes. One in three of the roughly 60,000 ATMs in Germany have already been replaced with such upgraded devices.

In the retail sector, more and more automated points of sale and back office systems are being deployed – for example, systems which can portion paid-in banknotes in store. Mounting cash handling costs are likely to entice cash-in-transit companies to invest in more efficient and automated processes.

Finally, turning to us, central banks need to keep on investing in the long-term sustainability of their own processes.

Let me give you two examples of what the Bundesbank is doing in this regard.

First, we have been upgrading a large number of our cash processing machines located across our network of branches in Germany.

Second, we are in the process of setting up our new state-of-the-art cash center in Dortmund. Once operational, this branch will pool operations previously performed by five other branches. It will be equipped with automated transport vehicles and high-bay warehouses.

These substantial investments in the existing cash infrastructure are necessary to ensure that cash remains one of the variety of payment options that customers can choose from for their everyday transactions.

### **3 External resilience of the cash cycle**

Ladies and gentlemen,

Just like the human body, the cash cycle is essentially a closed system. Working smoothly and efficiently from within is the foundation on which everything else is based. But this by itself is of little use if the system is not resilient against external influences.

Attempts to inject counterfeit banknotes into the financial system are one example of this. The good news: their success is limited in the euro area. Enhanced security features were introduced with the issuance of the new Europa series of euro banknotes. This is to keep ahead of counterfeiters, and the banknotes are also more durable than the first series. Placing explosives around ATMs is a bolder example of an external attack that tends to receive considerable public attention.

Generally speaking, storing wealth – be it in electronic or physical form – will always attract illegal activities. The way to counter these is with effective law enforcement – white blood cells, if you like.

Safety measures tend to imply further regulations. Regulations tend to generate costs. It is an obvious trade-off.

But the only cash cycle that households will trust in is a safe one. Trust is particularly important in times of crisis. Cash is naturally immune to power outages, failing payment systems or even large-scale cyberattacks. We observe sharp spikes in cash demand in regions affected, for example, by earthquakes or hurricanes.

A safe and resilient cash value chain can act as a cushion for households during periods of economic uncertainty. Cash does this by establishing a link between households and the central bank. To date, this link has been physical and, for the most part, established via commercial banks.

In my view, having a tactile means of payment is important. Our evidence suggests that this helps households keep their personal budgets in check.<sup>2</sup>

Moreover, physical cash is easily understood and ready to use regardless of age or access to financial services. Cash does not limit financial inclusion as it is claimed at times – it enhances it.

But in an environment of low interest rates and ongoing digitalisation, the domestic banking sector is transforming. The number of bank branches is on the decline. Such structural changes could pose new challenges to the cash cycle in Germany.

On the other hand, an increasing number of retailers are offering basic banking activities such as depositing or withdrawing cash at the counter. This, however, requires staff and cash handlers to be sufficiently trained in areas such as recognising counterfeit banknotes. The Bundesbank offers training tools to facilitate that learning process.

#### **4 Conclusion**

Ladies and gentlemen,

So, does that mean that cash is alive and well? As in other places, Germany is seeing a gradual decline in cash usage. Nevertheless, it remains popular.

The lion's share of the cash held by households in Germany is used not to make purchases but rather as a store of value. The opportunity costs of holding this highly liquid asset are currently low.

As long as Germany's cash infrastructure remains intact, the country's cash system will remain

stable. This means that households can hold as much (or as little) cash as they want.

A resilient and efficient cash cycle does not come for free. It requires appropriate levels of regulation and investment. But a healthy system in turn generates trust in its internal functioning and external resilience.

Trust is at the core of the monetary system and serves as the basis for all stable currencies.

Thank you.

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<sup>1</sup> Deutsche Bundesbank (2019). The cost of payment methods in the retail sector, Monthly Report, June 2019.

<sup>2</sup> Deutsche Bundesbank (2018), Payment behaviour in Germany in 2017 – fourth study of the utilisation of cash and cashless payment instruments.