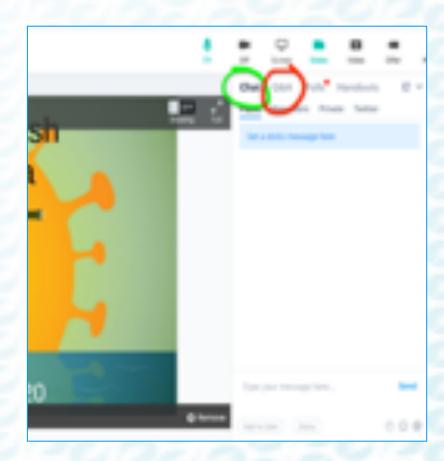


House-keeping

- We love interaction but attendee mics and cams are switched off
- Please submit questions in Q & A panel
- You can chat in Chat panel
- Session is recorded
- Enjoy

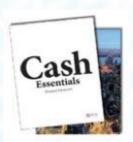




CashEssentials

CashEssentials is as an independent initiative, which aims at offering a platform for debate about the payments and monetary ecosystems, to conduct and foster high-quality research on cash and its future.







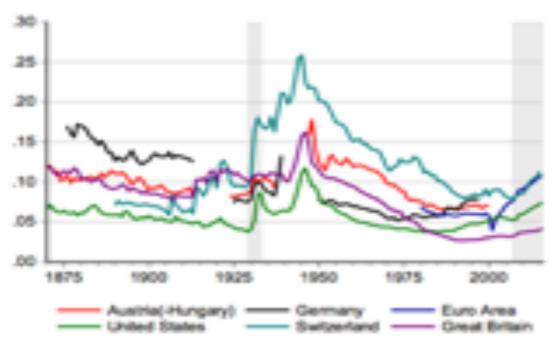






The Evolution of Cash is not Linear

Cash in Circulation/Nominal GDP



Source: Jobst C, And Stix H, The cash comeback: Evidence and possible explanations



Forget Forecasting – Let's Become Futures Literate

Futures literacy is a capability. It is the skill that allows people to better understand the role that the future plays in what they see and do. People can become more skilled at 'using-the-future', more 'futures literate', because of two facts. One is that the future does not yet exist, it can only be imagined. Two is that humans have the ability to imagine. As a result, humans are able to learn to imagine the future for different reasons and in different ways. Thereby becoming more 'futures literate'.





Our Panel



Head of Innovation and Payments, European Savings and Retail Banking Group.

Antti Heinonen

Chairman, Banknote Ethics Initiative; Former Head of Banknotes, European Central Bank

Diederik Bruggink



Petteri Lillberg

Senior Consultant, Demos Helsinki



Franz Seitz

Economist, Weiden Technical University of Applied Science

Agenda

| Introducing Futures Literacy Five tensions in the new world | Petteri Lillberg |
|---|--|
| What will drive the future of cash in the next decade? | Diederik Bruggink Antti Heinonen Franz Seitz |
| A Futures Table – An example | Petteri Lillberg |
| Q & A | All |
| Conclusion | Guillaume Lepecq |

DEMOS HELSINK



Petteri Lillberg

Demos Helsinki is an independent think tank, working together with the public sector, private sector, and NGOs. We want to impact the ongoing global transformations actively and aim to build sustainable and fair post-industrial societies.

Petteri Lillberg is a Senior Consultant at Demos impact across industries and organisations.

serves at the board of Unicef Finland.





Why Futures Literacy?

- 1. If no representations about future exist, then there would be only reactions rather than actions
- 2. We think about the future so that we can make sense of it and make better decisions in the present moment.
- 3. There is no single future, but instead a large number of possible futures to navigate among. Engaging in Futures Literacy helps to identify which of them are possible, probable and desirable and create own agency.

The key tool for today

A futures table is a tool for imagining radical futures and exploring the largest uncertainties.

A Futures table is a precisely defined framework about the future. It's a framework which contains the most important aspects of change.

It is on purpose polarised to allow discussing meaningful alternative development directions. By showing them we can identify our own agency in creating a desired futures. Futures table shows
key tensions that reveal alternative
development directions

| VARIABLE 1 | VARIABLE 2 | VARIABLE 3 | VARIABLE 4 |
|------------|------------|------------|------------|
| VALUE A | VALUE A | VALUE A | VALUE A |
| VALUE B | VALUE B | VALUE B | VALUE B |
| VALUE C | VALUE C | VALUE C | VALUE C |



5 key tensions

We cannot know how these tensions will develop in the future, but we can imagine radically opposing outcomes and increase our understanding what kinds of futures the different combinations of outcomes create, and what are the choices we can make.

Economy

Recovery led by national regimes

VS.

Regional and global institutions

Society

Surveillance

vs.

Right to anonymity

Sustainability and Inclusion

Economic growth

vs.

Planetary boundaries

Technology

Digital platforms and data as public policy tools

vs. Platforms and data as commercial, privately-held domains Money

Centrally issued and diversified means of payment

vs. Privately issued and fragmented means of payment





Head of Innovation and Payments, European Savings and Retail Banking Group.

Diederik Bruggink

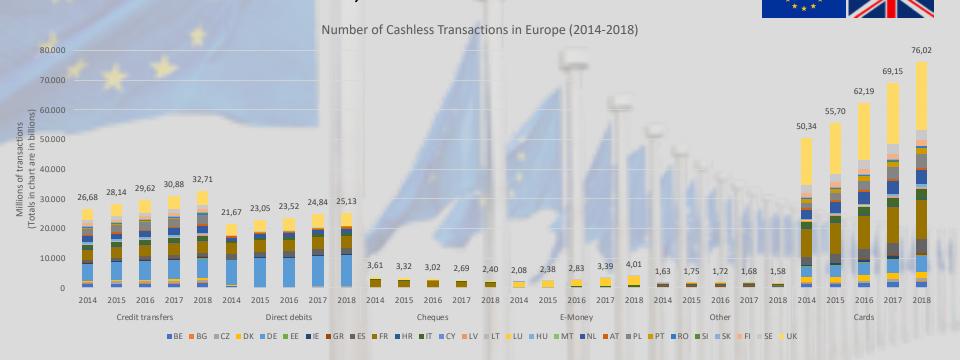
Disclaimer

The views and opinions expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the ESBG or its Members.

Diederik Bruggink holds responsibility at the two savings and retail banking associations for all innovation and payments topics from a worldwide perspective. In that role, he analyses the multiple dimensions of the payments market, proposing and assisting in agreeing member positions with respect to their payments' and related businesses. He also advocates the associations' positions on payments with policymakers, regulators, standardisation bodies, industry associations, and enabling a constant member dialogue on developments, with a particular focus on innovation. He is one of the key authors of the first three editions of the World Payments Report, makes regular appearances at industry conferences and serves as a member of the editorial board of, and regulator contributor to, the Journal of Payments Strategy & Systems. He is also a Board Member of the European Payments Council (EPC) and within the EPC he is also the Chair of the Cash Efficiency Working Group.

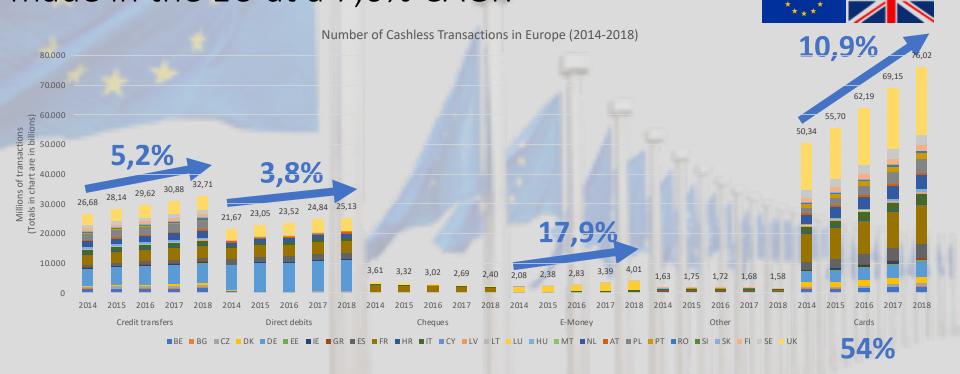


In 2018, nearly 142 billion cashless transactions were made in the EU at a 7,6% CAGR



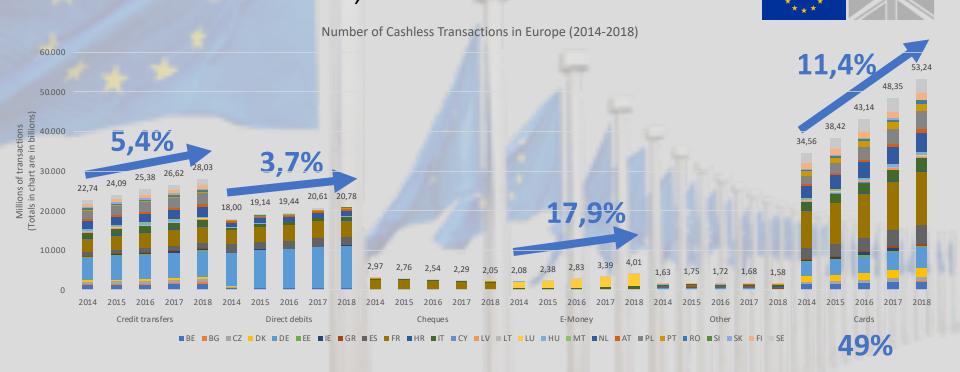


In 2018, nearly 142 billion cashless transactions were made in the EU at a 7,6% CAGR



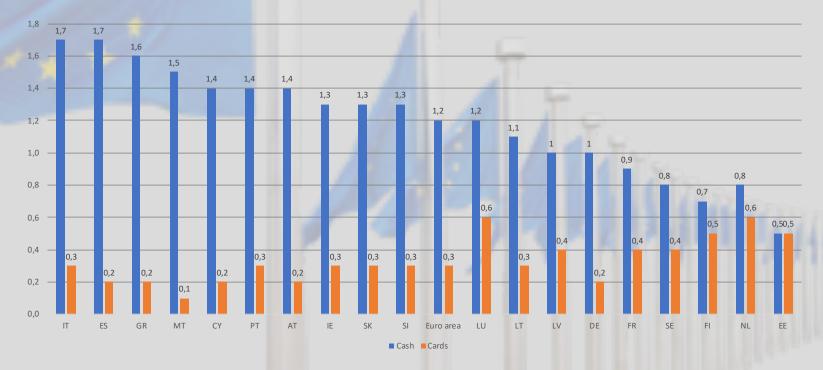


In 2018, nearly 110 billion cashless transactions were made in the EU at a 7,6% CAGR





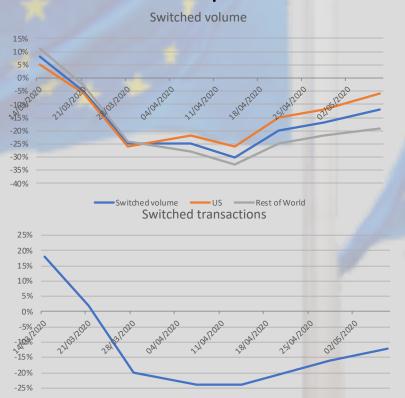
Average number of transactions per person per day, by instrument of payment

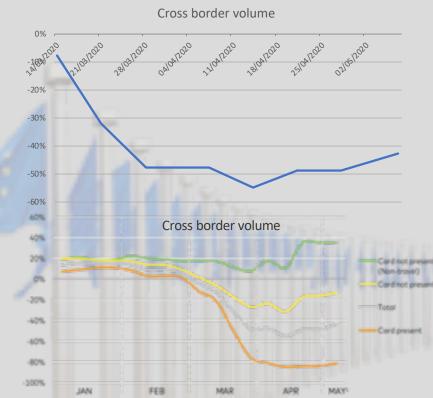


Source: ECB Occasional Paper Series, "The use of cash by households in the euro area", No 201 / November 2017



COVID-19 Impact on card transactions





Source: Mastercard International Investor Relations. Note: Growth trends of metrics are versus

comparable year ago period. © 2020 – European Savings and Retail Banking Group / BRU

COVID-19 Impact on card transactions



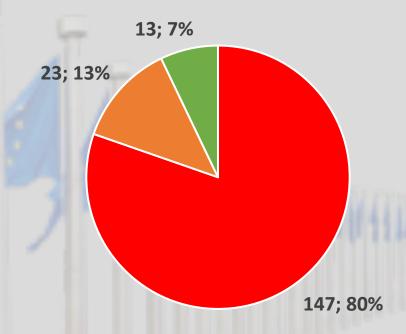
Source: Visa Inc Investor Relations. Note: Growth trends of metrics are versus the comparable grap period.

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18

Poll

- Since the Corona crisis hit your region, has the number of payment transactions (cash and cashless) you personnaly make changed?
 - During the crisis I made less payment transactions
 - During the crisis I made the same number of payment transactions
 - During the crisis I made more payment transactions
- n = 183

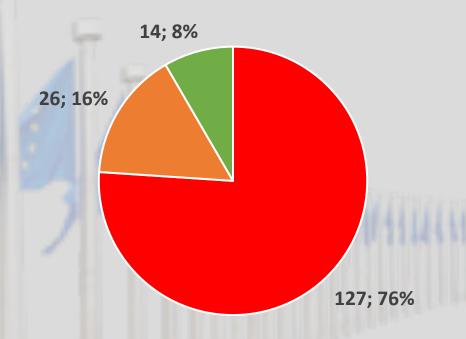




Poll

- Since the Corona crisis hit your region, how has the way you pay personal transactions changed?
 - During the crisis the share of cash transactions of total transactions decreased
 - During the crisis the share of cash transactions of total transactions remained the same
 - During the crisis the share of cash transactions of total transactions increased

• n = 167





COVID-19 Payment-related observations

- At announcement of lockdowns: increase in cash withdrawals.
- Promotion of cashless payments.
- Promotion of contactless payments, increase of contactless limits.
- Decrease in cash withdrawals (reports of down to 50% of pre-COVID-19 levels).
- Decrease in card transactions (reports of down to 70%-80% of pre-COVID-19 levels).
- Shift to remote transactions, chargebacks, refunds.
- Impact on customer behavior when restrictions will be relieved yet unclear.



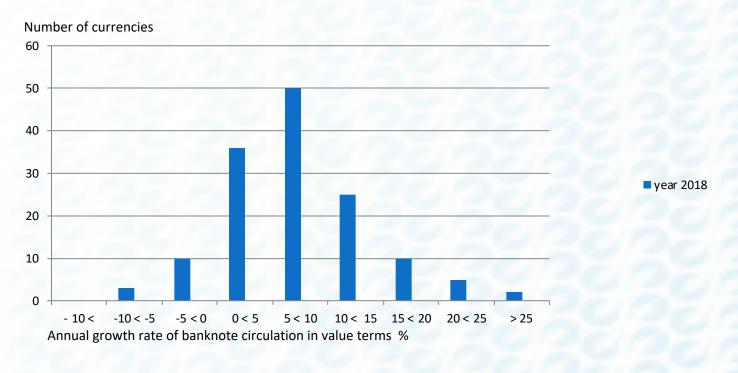
Antti Heinonen has been the chairman of the Banknote Ethics Initiative since its inception in 2013. He was the chairman of the Central Bank Counterfeit Deterrence Group, reporting to G10 Governors, between 2008 and 2012 and the Director, Banknotes at the ECB from 1998 until 2008. He chaired the Banknote Committee of the European System of Central Banks for more than 10 years and the Eurosystem Cash Changeover Coordination Committee in 2001 and 2002. Prior to joining the ECB he was the chief cashier for the Bank of Finland. He holds degrees in economics and mathematics from the University of Helsinki, and has written several books on banknotes and their history.



Antti Heinonen

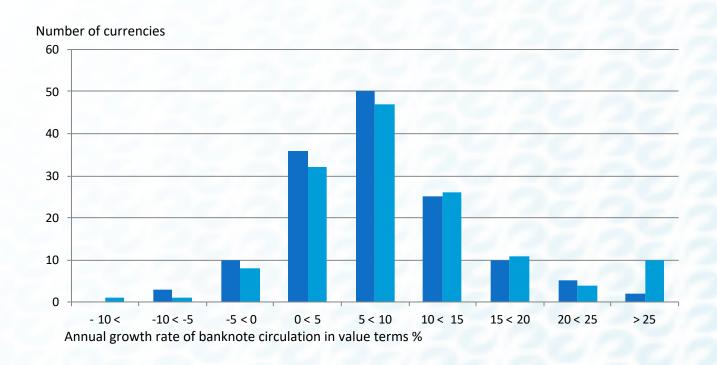
Chairman, Banknote Ethics Initiative; Former Head of Banknotes, European Central Bank

Annual growth rates of banknotes in circulation vary significantly





One size does not fit all (even in the future)



year 2018year 2016

year 2010



Professor Franz Seitz teaches Economics with a special focus on Monetary Policy and Financial Markets at Weiden Technical University of Applied Sciences. He is author of numerous articles in national and international journals. His main fields of research are monetary theory and policy, financial markets and banking as well as payments markets, especially cash in circulation. For many years now, Professor Seitz is acting as a consultant in different projects for central banks, commercial banks and financial as well as non-financial corporations.



Franz Seitz

Economist, Weiden Technical University of Applied Science



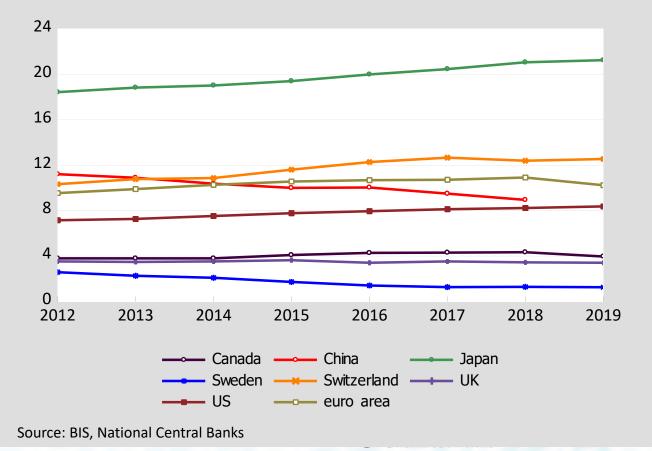
Cash at the POS



Source: ECB (2018)



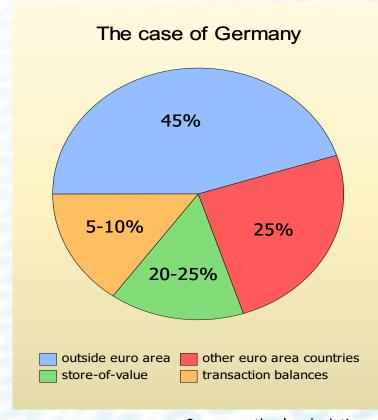




Worldwide, cash in circulation relative to GDP was about 10% in 2018, compared to 8% in 2011!

Cash: different motives

- domestic transaction demand
- availability of alternative means of payment (payments instruments innovation)
- hoarding and opportunity-costs
- mistrust in the financial (banking) system
- size of the shadow economy
- precautionary demand and (financial and economic) crises related demand
- disasters
- uncertainty
- foreign demand



Source: author's calculations



Head of Innovation and Payments, European Savings and Retail Banking Group.

Diederik Bruggink

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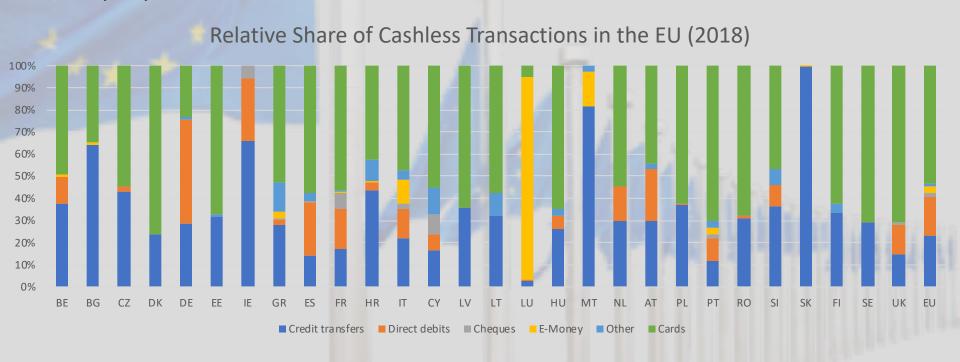


Instant payments – the new normal?

- As per the Commission, instant payments can assist the ambitions of strengthening the international role of the euro and achieving European sovereignty in payments.
- Instant payments launched in 2017, critical mass expected by 2020. Adherence and Reachability perceived as issues.
- In Commission's view, by the end of 2021 a full rollout of instant payments should have been established, meaning that from then everyone should be able to use instant payments everywhere and in all situations.
- Action Plan on FinTech including a Strategy on an Integrated EU Payments Market (non-legislative proposal) expected by Q3 2020.

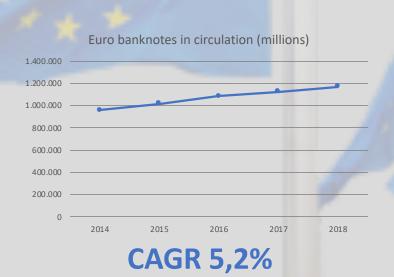


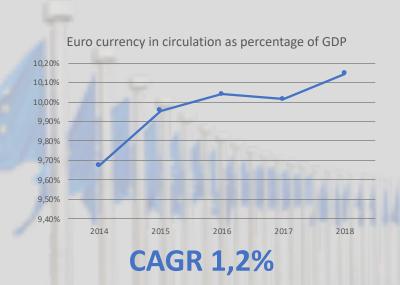
Different consumer preferences exist when it comes to retail payments





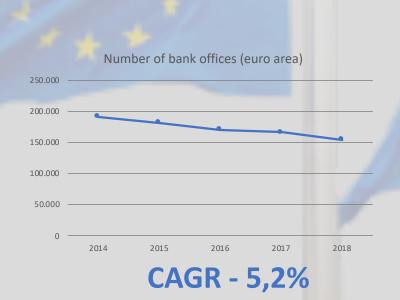
Remarkably, over the same time period the demand for cash (banknotes) is showing an increase as well







At the same time natural cash distribution points – branches and ATMs – are decreasing







Access to cash will likely become a policy issue during 2020 under pressure of consumer associations

As per EU consumer associations:

Cash is a public good which calls for public measures by the EU:

- All physical traders are obliged to accept payments in cash.
- Consumer access to cash is free of charge.
- There is a minimum availability and balanced geographical distribution of ATMs.
- 'Cash withdrawals in shops' are promoted, as a complementary option to the use of ATMs.

Source: Bureau Européene Unions de Consommateurs Paper: CASH VERSUS CASHLESS: Consumers need a right to use cash



What to expect?

- Impact on customer behavior when restrictions will be relieved yet unclear.
- In markets that gradually open up again the number of cash withdrawals and card transactions are showing slight increases.
- Will customers be locked-in current digital payment wallets?
- What will be the impact of longer lower volumes on the actors in the cash business?
- Will there still be (investment) appetite to invest in new digital payment methods?
- Consumers will be the judges initially.



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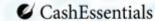
Antti Heinonen

Chairman, Banknote Ethics Initiative; Former Head of Banknotes, European Central Bank

Cash grant is a form of universal social protection

"Cash grants and other forms of universal social protection can play a huge role in tackling inequality and protecting vulnerable people, and they are critical in response to this crisis".

Source: OXFAM MEDIA BRIEFING 09 APRIL 2020



Professor Franz Seitz teaches Economics with a special focus on Monetary Policy and Financial Markets at Weiden Technical University of Applied Sciences. He is author of numerous articles in national and international journals. His main fields of research are monetary theory and policy, financial markets and banking as well as payments markets, especially cash in circulation. For many years now, Professor Seitz is acting as a consultant in different projects for central banks, commercial banks and financial as well as non-financial corporations.



Franz Seitz

Economist, Weiden Technical University of Applied Science



Implications for the future role of cash and payments



Is there a lower threshold? What does it mean?



Cash demand, crises and central bank digital currencies



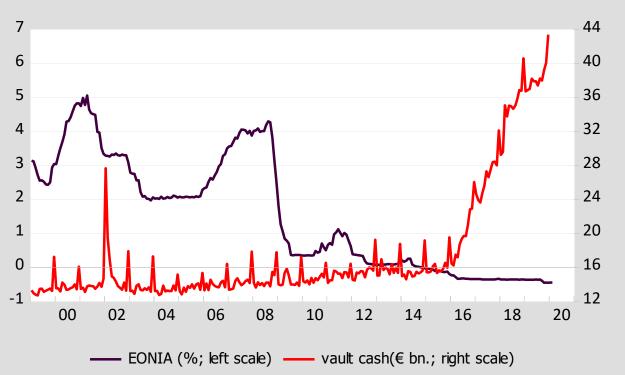
The role of negative interest rates



The role of central banks



Vault cash of banks in Germany





Senior Consultant, Demos Helsinki

Petteri Lillberg is a Senior Consultant at Demos Helsinki, focusing on strategy, foresight and societal impact across industries and organisations. A noted columnist and international speaker, Petteri holds an M.Phil from Cambridge University. He also serves at the board of Unicef Finland.

Petteri Lillberg



Tensions have variables

Variables set the framework and direction for major areas of change:

| Economic recovery | Society | Sustainability and Inclusion | Technology | Money |
|--|---|---|---|---------------------------------------|
| Recovery leadership Supply chain resilience and security | Surveillance vs. Anonymity Back to normal vs New Normal | Trajectory of Global warming Distribution of wealth | Governance of platforms Digital data ownership | Issuance of Money Payment instruments |

Futures Table – An example

| Tensions | Sustainability & Inclusion | | Society | | Economic Recovery | | Technology | | Money | |
|----------------|------------------------------------|------------------------|----------------------|-------------------------------|--|----------------------|----------------------------|---------------------------|----------------------|------------------------|
| Variab- les | Trajectory of Global Warming | Distribution of wealth | Social priorities | Surveillance vs freedom | Security and resilience of supply chains | Economic Recovery | Governance of platforms | Digital data ownership | Issuance of Money | Payment Instruments |
| VALUE 1 | Mitigation | | | | | | | 23 | | |
| VALUE 2 | Adaptation | | | | | | | 90 | | |
| VALUE 3 | Uncontrolled | | | | 9 | 10 | 30 | 92 | 12 | 5/5% |
| VALUE 4 | Denial | | | | 52 | 33 | | ğğ | | |



Futures Table – An example

| Tensions | Sustainability & Inclusion | | Society | | Economic Recovery | | Technology | | Money | |
|----------------|------------------------------------|---|----------------------|-------------------------------|--|--|---------------------------------|--------------------------------------|----------------------|------------------------|
| Variab- les | Trajectory of Global Warming | Distribution of wealth | Social priorities | Surveillance vs freedom | Security and resilience of supply chains | Economic Recovery | Governance of platforms | Digital data ownership | Issuance of Money | Payment Instruments |
| VALUE 1 | Mitigation | Fragment- ation | Transfor- mation | State Surveillance | Stregnthen BCP | Global recovery lead by few competitive regimes | States controls platforms | Individuals own their data | Central Bank | Digital only |
| VALUE 2 | Adaptation | Increasing inequality | Individual rights | Surveillance capitalism | Relocate Sourcing & Production | Regional governance leads comeback | Regulated platforms | States control data | Commercial Bank | Fragmen- tation |
| VALUE 3 | Uncontrolled | Efforts to reduce inequality within countries | Economic growth | Regulated surveillance | Diversify sourcing | Local recoveries | Unregulated platforms | Private corporations sell data | BigTech | Diversification |
| VALUE 4 | Denial | Efforts to reduce divide between rich and poor countries | Equality | No surveil- lance | Sovereignty is back | Post-WW2 global institutions lead recovery | Platforms control states | Data is the new currency | Anyone | Cash |



Question

What other factors will influence the future of cash? Open question. Respond in the chat.



Some Take-Aways

- Covid has impacted consumer payment behaviour but future behaviour is unknown
- Recession could lead to a shift to cash as a budget management tool
- Demand for a trusted, secure and universal form of money
- Consumers view cash as a public good
- Cash in circulation likely to increase but transactional demand could continue to decline
- Need to rethink the cash cycle to ensure access, acceptance and resilience
- Policy options: regulation or subsidisation





Next Steps

- The future of cash is not written.
- This FL project is ongoing and open source
- Recording will be available in 24 hours
- Second Webinar on 9th of June
 - Scenario-Planning exercise
- Third Webinar 30th of June
- Follow us on www.cashessentials.com
- glp@agis-consulting.com



@Cash_Essentials







