The e-krona project

Dakar FinTech Conference
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Central Bank Digital Currency - CBDC

• What is a CBDC?
  • a CBDC can be defined as national currency denominated, electronic, 24/7, liability of a central bank, which is more broadly accessible than current central bank deposits.

• Main reasons for issuing a CBDC
  • Socio-economic considerations
  • Financial stability objectives
  • Monetary policy objectives
  • Efficiency
## VI. ANNEX: COUNTRIES WHERE RETAIL CBDC IS BEING EXPLORED

Where central banks have done or are planning to do CBDC pilots

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahamas</td>
<td>Ecuador (pilot complete)</td>
</tr>
<tr>
<td>Canada</td>
<td>South Africa</td>
</tr>
<tr>
<td>China</td>
<td>Sweden</td>
</tr>
<tr>
<td>Curaçao en Sint Maarten</td>
<td>Uruguay (pilot completed)</td>
</tr>
<tr>
<td>Eastern Caribbean</td>
<td></td>
</tr>
</tbody>
</table>

Where central banks have or are exploring issuing CBDC

### Per central bank websites
- Australia
- Bahrain
- Brazil
- Cambodia
- Chile
- Egypt
- Denmark
- Haiti
- European Area
- Indonesia
- Hong Kong
- Iran
- Iceland
- Kazakhstan
- India
- Korea
- Israel
- Lebanon
- Jamaica
- Pakistan
- Japan
- Palestine
- Mauritius
- Philippines
- New Zealand
- Rwanda
- Lithuania
- Switzerland
- Norway
- Tunisia
- Russia
- Ukraine
- Trinidad and Tobago
- United Arab Emirates
- Turkey
- United Kingdom

### Per news media (unconfirmed)

Sources: Central banks or various news sources per hyperlinks above. Italicized entries are sourced from news articles. Information has not been verified through official channels.
"Happy families are all alike; every unhappy family is unhappy in its own way."

Leo Tolstoy, *Anna Karenina*
Cash is declining in significance in Sweden
Is cash accepted as means of payment?

Percentage of respondents who used cash in their latest payment transaction.

Only 50% of Swedish traders will probably accept cash after 2025.


Note: Per cent

Source: The Riksbank

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>39</td>
</tr>
<tr>
<td>2012</td>
<td>33</td>
</tr>
<tr>
<td>2014</td>
<td>23</td>
</tr>
<tr>
<td>2016</td>
<td>15</td>
</tr>
<tr>
<td>2018</td>
<td>13</td>
</tr>
<tr>
<td>&gt;2030</td>
<td>2020</td>
</tr>
<tr>
<td>2025</td>
<td>2030</td>
</tr>
</tbody>
</table>
What explains the decrease?

• Culture of cooperation in infrastructure among banks

• Cards are accepted everywhere
  • All households have cards and almost all retailers have terminals

• Innovation
  • Driver: Households are technology adept, handheld devices are common as is internet access
    • Top 3 in the World Economic Forum’s Network Readiness Index
  • Substitute for cash at points of sales (mobile payments, small but growing)
    • Example: iZettle converts a smartphone to a card terminal
  • Substitute for cash at person to person transactions (growing rapidly)
    • Example: Swish, now also for small businesses, eCommerce and point of sale.

• Demographic factors

• Cashless bank branches (>60%) and fewer branches overall
The cashless society

• Some groups will find it problematic

• The general public has no access to central bank money

• Competition in the retail payment market

• Resilience

• No domestic payment infrastructure
No easy alternatives available

E-krona

- New territory for central bank
- Effects on other policy areas?
- Testing and analysis needed

Detailed regulation

- Natural monopoly
- Pricing notoriously difficult
- No public access to central bank money

Do nothing

- Can private interests handle all groups and risks in society?
- New territory for monetary system
- Robustness?
The e-krona project

Proof of concept and testing 2019-2020

Continued analysis

Petition to the Parliament on the need for a broad investigation into an e-krona and alternatives
What have we done?

- 2017: ”Brainstorming”
- 2018: Deeper analysis
- What is an e-krona?
- What can it do
- Consequences
- Legal issues

https://www.riksbank.se/en-gb/payments--cash/e-krona/
Overall concept – Which basic functions *could* an e-krona have?

- Means of payment – primarily between households and companies
- Accessible 24/7, real time
- Denominated in SEK
  - Value based (~e-money)
  - Account based (~deposits)
- No legal support for interest rate – initially not interest bearing
- Anonymity (partial)?
- Off-line functionality?
With the market, not against it

Payer

Payment service providers

Payee

The e-krona platform
e-krona pilot – building and testing technical solutions

• A development project to increase knowledge
• “Value based” solution
• Goal: develop one or more technical proposals and rule book for an e-krona
• Pilot project during 2019 -2020
• Competence is being procured
• Technical work: 2020-
Analytical work

• Central bank money and confidence in money and banks
• Central bank money and an efficient unit of account
• Competition on the retail payment market
• Liquidity provision – how do banks react to CBDC?
• Seignorage
• Business model and financing
What is the role of the state?

- A retail CBDC is ultimately a political issue

- What role should the state have in the monetary system and payments market?

- What is the role of the central bank?

- A CBDC and the technology enabling are merely tools to reach economic and political objectives

- Petition sent to the parliament. Inquiry 2020-

Judi Dench, Stephen Fry, Jane Horrocks, Geoffrey Palmer, Michael Williams in
PIGLET MEETS A HEFFALUMP
and other stories
by A A Milne
From the award-winning dramatisation of Winnie-the-Pooh
Thank you!
Swedes are paying more often with Swish and more seldom with cash

Note. The figure shows responses to the question: Which means of payment have you used in the past month?