Response to the report The State and Payments (SOU 2023:16)

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About Positive Money
Positiva Pengar is the Swedish branch of the International Movement for Monetary Reform (IMMR), which is present in 29 countries. We consist of interested citizens as well as researchers, economists, journalists and politicians who are committed to reforming the monetary system to enable a democratic, fair and sustainable economy.

Positiva Pengar is a non-profit and non-partisan organisation. We have organised the conference "The Future of Money" with internationally renowned professors and representatives from central banks from different countries. We have written several debate articles, including together with international and Swedish professors of economics, in SvD, DN, DI, Aftonbladet and SvD. Read also the interview with former Governor of the Bank of Spain Miguel Ordonez in SvD about our proposal. See also our report, our consultation response to the Riksbank inquiry and our views on the inquiry into the state's role in the payment market.

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Positiva Pengar

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1. Summary

The Payment Inquiry has conducted a broad survey of the payment market and submitted proposals for measures to remedy the shortcomings identified. In this consultation response, Positiva Pengar presents its views on the inquiry's analyses and proposals.

The inquiry has not fulfilled its mandate
The inquiry was set up primarily to investigate the e-krona. However, it has failed to investigate (1) different models for the introduction of the e-krona, (2) the e-krona's potential for increased inclusion, where everyone is given access to immediate settlement of payments in real time without credit risk on objective and realistic criteria.
non-discriminatory conditions, (3) different channels for the distribution of new e-krona, (4) a thorough analysis of the monetary policy consequences and opportunities of the e-krona, (5) concrete legislative proposals required to implement an e-krona, and (6) further reforms that may be relevant as a result of an e-krona. The inquiry is thus shallow and incomplete in terms of its main task: to investigate the e-krona.

The introduction of the e-krona is being delayed
After 8 years of various investigations into the e-krona, the inquiry throws the ball back to the Riksbank for further investigations. Overall, this means that Sweden has gone from being a world leader in central bank digital currencies (CBDC) to now risking being left behind. This is unfortunate because it means that the side effects of the existing monetary system, such as economic disparities, excess profits for the banking sector and financial instability, remain, while citizens and society suffer welfare losses because we do not benefit from new technology.

Inconsistent, tendentious and biased arguments
The report has several good points, but it is clear that many wills have tried to come together, which at times makes the report more of a fragmentary compromise product than a coherent analysis. Many passages defend the privileges of the big banks, state subsidies and guarantees of the big banks, and their profits in a way that makes the reader doubt the integrity of the inquiry and its ambition to conduct an objective and comprehensive analysis.

Bank money should not be privileged in law
We are against the inquiry's proposed legislation, which in practice gives bank money the status of legal tender. Only cash and e-krona issued by the Riksbank should have the status of legal tender in Sweden, which means that everyone should be obliged to accept the means of payment in question. Excluding money created by private banks would not, as the inquiry claims, discriminate against the private banks. On the contrary, it is quite natural to give Swedish kronor issued by the Riksbank a special status as a means of payment over the banks' credits, which consist of debts in Swedish kronor.

Sweden needs an e-krona now
The Payment Inquiry's conclusion is that there is no sufficiently strong societal need for a payment system.
e-krona today. Positiva Pengar does not agree, but considers that there are many strong reasons for introducing an e-krona as soon as possible, which are described in chapters 4-5. In particular, we would like to emphasise:

- *Everyone should be able to use the payment system without restrictions*
  We believe that it is part of the Riksbank's main task to give everyone free access to money

in the form of e-krona and cash. The e-krona should not have an amount limit, should be provided without

cost to businesses and citizens, ensure personal privacy and not generate interest.

- *A stable, secure and efficient payment system*
  Today's payment systems are based on old technology. Payments cannot be made instantly around the clock, transaction costs are high and many actors and layers of transactions, clearing and settlement are involved. In addition, bank money carries a credit risk, which means that governments must subsidise and guarantee bank money to prevent bank runs, which in turn requires complex liquidity rules and capital requirements to prevent banks from taking excessive risks. A modern e-krona can greatly simplify and streamline the system and eliminate the risk of bank runs, allowing banks to fail like normal businesses without jeopardising the stability of the payment system.

- *Money and payments should be neutral*
  Money should be neutral between sellers and buyers and any intermediary so that no party gains an advantage. Money should be designed and issued so that the Riksbank can conduct a neutral monetary policy that does not unilaterally favour certain parties. This is not the case today, but with
  e-krona, the payment system and monetary policy can become neutral and not unilaterally favour the privileged companies that the banks are today.

- *Healthy division of labour with increased competition and innovation*
  The e-krona enables a smart division of labour, with the state providing an infrastructure for the settlement of payments directly between customers' e-krona accounts through a simple interface. The market provides the user interface, manages customer contacts and credit granting. This would lower the barriers to entry, allow new players to enter, and promote competition and innovation in the industry.

Introducing 100 per cent government money
Primarily for the above four reasons, we believe that bank money should be fully replaced by e-krona. Government subsidies and guarantees to companies in the banking and payment industry can then be abolished, banks can be allowed to fail without jeopardising the payment system. We also propose that the policy rate be replaced by a citizen's share and a liquidity fee as primary monetary policy tools. This would allow the Riksbank to effectively conduct monetary policy directly towards e-krona accounts without having to go through private banks and without negative side effects such as financial instability, distorted competition and increased economic inequality.

Introducing the e-krona in a seamless process
The inquiry is concerned that the e-krona will cause financial instability and reduced credit provision. In Chapter 5.4, we show how the e-krona can be introduced in a risk-free manner while maintaining stability, guided by the Riksbank through three phases using an e-conversion credit, citizen participation and a new liquidity requirement. In the first phase, e-krona accounts are introduced for everyone. When bank money is moved there, the bank is offered an e-conversion credit. In the second phase, all bank money will be replaced with
In the third phase, the interest rate on the e-conversion credit is slowly increased until the banks have fully amortised the loan.

2. Introduction

For 350 years, Sweden has relied on the Riksbank to issue Swedish kronor. A high government presence on the payment market, where the Riksbank has issued Swedish kronor in various forms, has contributed to security, stability and flexibility in the Swedish economy. The Riksbank's control of the krona and its accompanying management of the economy has helped Sweden to be more robust in crises, contributed to increased competition on the payment market and delivered seigniorage gains of around SEK 8 billion per year over the past 25 years - the profit from creating Swedish kronor - to the Treasury.

Due to digitalisation, the Swedish krona issued by the Riksbank is being replaced by private alternatives, as the Riksbank has warned in several reports and debate articles.[1] Sweden's legal tender - banknotes and coins - now account for less than 1.5 per cent of the money supply, with the remainder issued by private banks. This has made it increasingly difficult for the Riksbank to keep inflation at a stable level.
The effectiveness of monetary policy has been eroded, forcing controversial measures such as negative interest rates and quantitative easing with serious side effects such as widening economic disparities, inflation and the risk of housing and stock market bubbles.

The transformation of the Swedish monetary system in recent years raises major questions. What should the money of the future be? Should the state hand over the creation of money entirely to private banks? Why should Sweden have a Riksbank and which monetary policy tools are effective and appropriate in the banking and payment market of the future? How can sound market rules be formulated where all players in the banking and payment industry compete on equal terms? How can the innovative power of the business sector be utilised in the banking and payment industry without compromising society's demand for secure, robust systems that can withstand times of crisis and guarantee citizens a reasonable level of anonymity?

These issues need to be thoroughly investigated, which is why we at Positiva Pengar have been very positive about the government setting up a broad investigation into the state's role in the payment market. However, we unfortunately see several shortcomings in the investigation that has been carried out. In this consultation response, we go through the background to the inquiry and the inquiry's directives in Chapter 3, then we review the results of the inquiry in Chapter 4 and present our views on the inquiry's analyses and proposals, then we conclude with a proposal in Chapter 5 on what we believe the state's role in the payment market should be in the future.

[1] See the Riksbank's DN debate article: "Private alternatives on the way to competing with the krona", E-krona report 1, E-

krona report , the Riksbank's debate article in Aftonbladet, Riksbank Economic Review 2020.

3. Background to the investigation

The Riksbank was among the first central banks in the world to start investigating Central Bank issued Digital Cash (CBDC). The Riksbank started its e-krona project in 2016 and released a first report in 2017 and a second report in 2018.
The second report was sent out for consultation. 20 responses were received, most of which were positive, except for the Swedish Bankers' Association, the Swedish National Debt Office and the Swedish Financial Supervisory Authority, which were highly critical of the report.
the e-Kronan project.

Following the release of the report, a high-profile debate was organised at the Swedish House of Finance 2018. Annika Winsth of Nordea said that the e-krona was "a risky social experiment". Cecilia Skingsley of the Riksbank disagreed, mocking all the banks' objections and responding that: "There is no limit to what would happen if we introduce this little e-krona". The Swedish Bankers' Association's protests in its consultation response and in the subsequent debate were recognised in the media, both nationally and internationally. Johan Shuck wrote that "one can actually speak of a real sacking". Dagens Industri stated that "the Riksbank's e-krona is a threat to the banks" and later the international press such as Reuters wrote that "Swedish bankers face identity crisis over digital currency plans".

In its e-krona report 2, the Riksbank's legal investigation had concluded that the Riksbank could issue a value-based e-krona, but not an account-based e-krona on its own. However, the Swedish Bankers' Association and the Swedish National Debt Office emphasised that the Riksbank should not be allowed to continue with the project and should not be allowed to issue any form of e-krona at all on its own. A politically appointed inquiry was needed to move forward with the project. The Riksbank triggered the Finance Committee in spring 2019, which was positive, and on 18 June 2019 the Swedish Parliament decided that "The role of the state in the digital payment market should be investigated".

However, it took some time before this inquiry was set up. In October 2019, the Riksbank reminded that it is of "utmost importance to society that the issue of the state's role in the payment market is investigated both thoroughly and urgently". On 15 October 2020, the Riksbank again reminded the government: "we need help". "A decision to issue an e-krona needs legal backing and political support." In November 2020, the inquiry was finally appointed. Positiva Pengar submitted comments before the directives were written and was generally satisfied with how the directives were ultimately formulated. The inquiry's main task was briefly to:

(1) **Conduct a historical analysis.** Conduct a broad and thorough analysis of the historical role of the state in the payment market, examining the changes that have occurred in the financial and payment markets as a result of technological developments and digitalisation and the consequences of these changes.
(2) **Map the current situation.** Identify the current functioning of the payments market and the current division of roles between the government and the private sector in the payments market.
(3) **Take a position on the future. Take a position on the** state's future role on the payment market. In this work, analyse the advantages and disadvantages of

central bank digital money and take a position on the need for the Riksbank to issue digital money.

central bank money, known as "e-krona".

The inquiry was due to present its findings on 30 November 2022, but the deadline was postponed, and it was not until 31 March 2023, eight years after the Riksbank launched its e-krona project, that the e-krona inquiry was finally presented. The report comprises 1317 pages and was presented with a debate article on DN-debatt that did not discuss or even touch on
the e-krona. However, the inquiry itself deals with the e-krona in detail. The overall conclusion of the inquiry is: "The inquiry therefore does not currently see a sufficiently strong social need for the Riksbank to issue an e-krona". But it notes that "no amendment to the Instrument of Government is required" and does not rule out the introduction of an e-krona in the future. However, it does not conduct a more detailed legal investigation and does not present any legislative proposals to prepare for an e-krona. Instead, the report passes the ball to the Riksbank and writes: "The Riksbank should therefore return with a proposal to the Riksdag in 2024 with an assessment of whether there are sufficient reasons to introduce an e-krona."

In the eight years since the Riksbank launched its e-krona project, most of the world's central banks have begun investigating central bank digital currencies. At least eleven countries have already started issuing a CBDC. Against this background, one might ask: why has the process been so slow in Sweden? With the Riksbank already developing concrete technical solutions for the e-krona in 2019, why has Sweden still not reached a conclusion on whether or not to introduce the e-krona?

There may be several reasons why progress on the e-krona has been slow. One reason that cannot be ruled out is lobbying by the banking sector. It is no secret that banking associations around the world lobbied hard against the introduction of the CBDC. According to the report, "It has been debated why the US authorities started the CBDC process later than other major economies. One of the reasons may be the strong position and political influence of the banks. Their attitude to the CBDC has generally been negative" (Payments Inquiry, p. 778).

The Swedish Bankers' Association and Swedish banks have a correspondingly strong position in Sweden and, as we have seen, they have been strongly opposed to the introduction of central bank digital money in Sweden. It is difficult to say how much lobbying has taken place and what effect this has had. However, we can see a lot of traces of lobbying in the payment inquiry. The inquiry has some good points and is generally well-written, but it also contains several tendentious and biased formulations, analyses and conclusions, which we draw attention to and object to in this text.

4. Conclusions of the study

Briefly, the inquiry's remit was to look back and report on historical developments, map the current situation and look forward. In this section, we examine how well the inquiry has accomplished this task and present our views on the inquiry's conclusions and proposals. The chapter is structured in these three parts after the inquiry's (1) historical analysis, (2) mapping of the current situation and (3) analyses and proposals for the future.

4.1 The historical analysis of the payments market

The inquiry's terms of reference state that it will conduct "a thorough and broad analysis" of "the historical role of the state in the payment market" and "changes in the financial and payment markets as a result of technological developments and digitalisation".
However, the report's historical analysis is neither thorough nor broad as required by the Directive, but rather very brief and fragmentary. Moreover, it does not present the history in a factual and comprehensive manner.

No thorough and broad historical analysis

The historical presentation takes place in two short paragraphs on p. 124, where a brief account is given of the state's role on the payment market throughout history with regard to the right to issue banknotes. The discussion is deepened somewhat on p. 629, where the report discusses the historical background to the concept of "legal tender" in just over a page. In addition, there are a number of shorter historical flashbacks, but no longer coherent historical description, which makes it difficult to draw lessons for the current situation on the payment market. We therefore wish to supplement the report's presentation with a more useful historical analysis.

Research on the history of the monetary system emphasises two key factors behind major paradigm shifts in the creation of money throughout history:

1. When the dominant type of money gives rise to continuing, recurring problems that cannot be solved with existing money.
2. When a new type of money appears, offering a solution to problems and/or other benefits.

Professor Joseph Huber in his book "The Monetary Turning Point" identifies four major paradigm shifts in the creation of money, all driven by the above two points. Before the 17th century, most money consisted of silver, copper and gold coins issued by the government. The amount of metal for minting new coins was limited, making it difficult to mint new coins at the speed required to meet the payment needs of growing populations and economies. The invention of the printing press made a new one possible,
more flexible type of paper money. Between the 1660s and the 1840s, we can speak of **a first paradigm shift**: the old coins lost out to the paper money of private companies.

However, the growing amount of unregulated private banknotes gave rise to new problems: banks were able to issue money at a much faster pace than economies were growing. This led to over-issuance of money, debt and asset bubbles, bank runs and financial crises. Between 1840 and 1910, **a second paradigm shift** took place: all European countries gradually granted central banks a banknote monopoly based on a gold standard to set an artificial limit to the money supply. The banknote monopoly was initially successful. As the Riksbank explains: "Only then was the Riksbank able to conduct a monetary policy in the modern sense, as a monopoly on the right to issue banknotes is a prerequisite for control over the means of monetary policy." If there are more people issuing banknotes, a central bank cannot control the money supply itself. This means that the bank cannot increase the amount of money when the economy needs to be stimulated, nor can it decrease it when the economy is overheated." The banknote monopoly gave the central bank new opportunities to conduct an effective monetary policy.

However, the gold standard was not entirely successful. The limited availability of gold could not cope with the growth brought about by industrialisation and urbanisation. For this reason, among others, private banks introduced cashless payments using 'account money', also known as 'bank money', which operated on an increasingly smaller base of central bank reserves. The transition from government-issued banknotes to bank money took place between around 1910 and 2010 and was further fuelled by digital technology, which allowed payments with bank money without the need to physically visit a bank branch. This is a **third paradigm shift in** the history of money and banking.

However, the bank money system had inherent problems from the outset, such as the potential for the money supply to go up in smoke if a bank failed, over-issuing of money and credit and debt crises. Therefore, in order to stabilise the system, the government was forced to support and rescue banks in times of crisis, while trying to prevent moral hazard through tighter regulation of the banking sector. However, as government-issued banknotes were replaced by bank deposits, the creation of money fell more and more out of the control of the state, eroding the effectiveness of monetary policy. With digitisation, the bank money system also became increasingly outdated; it was originally developed to enable expansion through efficient management of a limited gold base, which is why we still have several layers of clearing in the payment system before the payment is finally settled with central bank money. The purpose of this is to make efficient use of a limited amount of central bank money. But in a digitised world where central bank money is digital, it is merely an unnecessary administrative cost to try to make efficient use of central bank money - payments today can just as well be settled directly without several layers of clearing before final settlement. The current way of organising the payment system is not adapted to handle globalised and fast payments in a digital world. Today, making a payment with bank money requires the involvement of up to nine different private companies that have to communicate and process sensitive personal data.
The process currently costs 1-3% for national payments and up to 8% for international payments with processing times sometimes exceeding one week.

Today, the problems with the current monetary system, combined with new technological innovations, are leading to a new paradigm shift. New digital token money can be transferred directly from one e-wallet to another, completely independent of intermediaries such as private banks. The new technology also allows the money to be programmed with

advanced contracts. New technologies allow for safer, faster and cheaper payments without intermediaries. The problems with the current system, combined with the new opportunities offered by technology to create efficient digital currencies, mean that **a fourth paradigm shift** is inevitably on the way.

However, previous paradigm shifts have taken a long time, sometimes referring to a gradual transition over a long period of up to 100 years. There are several reasons why paradigm shifts do not always happen quickly, one important reason being the power interests of strong actors. In the past, there are examples of how powerful companies lobbying for their interests have delayed the introduction of new competing technologies. There are also plenty of examples of the state keeping old technology under wraps, preventing the necessary 'creative destruction' required to make way for the solutions of the future. This is unfortunate and means that the wealth that could have been created is lost and the country falls behind in development.

The payments market is particularly at risk of dilatory lobbying, as big money and power interests are at stake. Big banks' money and payment infrastructure benefit from heavy government subsidies, making it harder for new technological innovations to compete. Even if there are new, superior technological solutions, the old bank money may still be around for a long period of time, especially if the state chooses to continue to guarantee and support the creation of bank money by the big banks.

This can be compared to a situation where, for example, the horse and carriage industry never loses in competition with cars, as long as it enjoys heavy government support, special privileges and subsidies that keep the industry alive despite its product being obsolete. From the perspective of citizens and society, this would be unfortunate, as it means that serious problems of the old monetary system such as economic disparities, excess profits to the banking sector and financial instability remain, while citizens and society suffer welfare losses as a result of not benefiting from new technologies.

A biased historiography

In order to learn from history, it is important to have a comprehensive and factual account of history. However, the report does not fully live up to this requirement. Some examples of tendentious formulations and rhetorical arrangements in the report can be found in the historical presentation of the state's involvement in the payment market.

One example is the inquiry's discussion of the state's banknote monopoly. The inquiry begins the discussion with: "There are different views on whether privately issued banknotes contributed to economic inefficiency and financial instability." (p. 629) It then adds that the cause of any instability was "Low collateral requirements to guarantee private banks' banknotes combined with the large number of issuers". But this is misleading. There is a consensus in the economic history literature that private banknotes caused financial instability by creating a risk of bank runs. The problem was not that the government had set up too lenient regulations with low collateral requirements, or that the major banks had competition from other players who could also issue money. The basic problem that the inquiry should highlight is that private banknotes always come with a credit risk. If the bank goes bankrupt, the money it has created disappears.

The report then concludes the paragraph with: "Another - and often more important - motive for giving state means of payment a special legal status has been to provide the state with seigniorage revenues, for example to finance wars." The report takes the opportunity to emphasise this in several places; on p. 124 it writes in passing: "In countries such as France and England, the issue of banknotes was a way of financing wars or other public expenditure."

The inquiry is right that revenue for the state treasury was an argument that featured in the debate. Several parliamentary motions during the 1860s and onwards argue that the profits from creating new money should go to the state - not to private companies. However, the main motive was not the financing of war, as the inquiry presents it, but a democratic argument about who should have the right to earn money from creating money.

Nor does the report address the other main and more important arguments and reasons for a state banknote monopoly. The Banking Committee of 1883 investigated whether the Riksbank should be given a banknote monopoly. They stated as a reason that "the issue of banknotes must take place without short-term profit interest" (Bankkommittén 1883, p. 236), they also considered that banknotes should be risk-free. Private banks' money is risky and government money has 'greater firmness and power in dangerous times' (Banking Committee 1883, pp. 235; 240). For a comprehensive and factual history, the arguments and conclusions of the Banking Committee should at least have been briefly addressed.

With regard to modern developments in the age of digitalisation, the report states that "digitalisation has enabled a major shift in power, and offers the possibility of further shifts, from traditional institutions to individual users". However, this is misleading; rather, digitalisation has led to an increasing concentration of power in the banking and payment market to a few large companies. Nor has digitalisation led to a shift in power in favour of the individual user. When cash was more widely used, individual users were freer to decide on their money and everyone could participate on more equal terms in the payment system. Today, there are virtually no alternatives to having one's money in a bank, which means increased power for banks to decide how existing money should be invested. However, digitalisation and a wisely implemented e-krona can enable a shift in power from traditional institutions to smaller institutions and individual users, provided that new market players are allowed to enter the market and provided that the state does not subsidise and guarantee the money of the big banks.

4.2 Analysis of the current payments market

When it comes to mapping how the current payment market functions, the inquiry has mapped relatively objectively what Sweden's current payment infrastructure looks like and the competitive situation in different payment layers. At the same time, there are several evaluative analyses of the situation on the payment market that are at times tendentious and contradictory. It is noticeable that many wills have tried to come together in the report, which at times makes the report more of a fragmentary compromise product than a coherent analysis. In this chapter, we highlight both some descriptions of the current situation that we agree with and some that we believe are misleading and that tend to reflect the interests of the major banks instead of presenting the actual situation on the payment market in a factual and comprehensive manner.

How money is created

The report correctly explains how money is created by private banks, writing: "when banks issue loans, deposits are simultaneously created in the borrower's account, which then circulate in the economy when the borrower makes payments". However, it uses inappropriate arguments that tend to trivialise money creation by private banks.

- **Inconsistent argument about money creation out of thin air**
  The report states: "It is sometimes claimed that banks create money "out of thin air". However, this is an incorrect description because deposits, which are a debt from the bank to bank customers, are matched by assets in the bank in the form of credits (loans)." The report continues: "The phrase "creating money out of thin air" is in some sense a more accurate description of how contemporary central banks create money. Since most countries abandoned the gold standard in the early 1930s, central banks instead issue banknotes and coins whose value is guaranteed by citizens' (and the rest of the world's) confidence in the government and its ability to always meet the need for central bank money."

  However, this argument is inconsistent. When a central bank creates money by buying assets or lending to banks, the newly created money is balanced by assets on its balance sheet (assets that the central bank bought or lent to banks). So private banks and central banks create money in exactly the same way: by expanding their balance sheet with both liabilities and a corresponding amount of assets. Claiming that only central banks create money out of "nothing" but not private banks is a biased and inappropriate argument.

- **Misleading description of the public's confidence in bank money** The inquiry writes that "[Bank money] has become widely used without having the status of a legal tender. It is likely that factors such as user-friendliness, accessibility, costs and reliability are the main factors influencing the use of a particular payment method." It also states that "Digitalisation has meant that means of payment are mainly provided by private actors. Despite several financial crises, this has not happened at the cost of an unstable monetary system that

the public lacks confidence in. In addition, the payment ecosystem has become more efficient and accessible to the vast majority of people." (s. 47). "In the committee's opinion, the monetary system in Sweden is stable and enjoys public confidence, including with regard to digital means of payment created by banks. These are subject to a comprehensive regulatory framework and are under financial supervision. Moreover, the government has a number of tools to ensure stability and confidence in the system and to safeguard Sweden's monetary sovereignty." (s. 49).

Together, these arguments give the impression that private bank money has become popular precisely because of its own merits: it is inherently reliable, stable, user-friendly, etc., which is further reinforced by laws, regulations and financial supervision that make bank money extra safe.

But this is a misleading picture. Bank-generated money has an inherent credit risk. If a bank were to go bankrupt, the money it created would disappear and, if the bank is large, the payment system could lock up. Bank-created money could never have been widely used if the government had not started using it, authorised it for tax payments, and eliminated the credit risk by promising to pay the banks' debts if they cannot pay them themselves, either explicitly through a deposit guarantee or implicitly by supporting banks or bailing them out in a crisis.

Thus, the primary reason why the public has confidence in private actors' means of payment is not that bank money is popular or safe in itself, or that regulations or financial supervision make it safe, as the report suggests.
The reason is that the public has become accustomed to the state both explicitly and implicitly guaranteeing the value of the money created by private banks - even during financial crises when the banks would otherwise have gone bankrupt. It is therefore misleading to suggest that the public has confidence in banks creating money and that it is characteristics such as user-friendliness etc. that have made bank money popular. In fact, the public has no other choice if they want to pay with digital money.

Nor do we feel that the general public has strong confidence in bank money. Rather, there is great frustration among the public regarding the banks' way of managing payments while generating large profits in both good and bad times. Public confidence in Swedish banks is currently very low. A reform that allows the public to manage their payments without being dependent on a commercial bank would certainly be warmly welcomed by many.

Competition in the payments market

The inquiry notes that competitive pressure on the payment market is greatest in the service layer, closest to the users, and less in the clearing and settlement layer, due to strong economies of scale and network effects. It is noted that barriers to entry exist for new players, due to the strong market position of the major banks and complex regulatory frameworks that are designed based on the role of the major banks in the financial system instead of focusing on competition and innovation. The regulations are more difficult for smaller and newer players to comply with.

than for large and well-established players.

It is also noted that new players do not have access to settlement with safe money in RIX and are therefore dependent on accounts with the banks to be able to offer their own payment services. The inquiry writes: "In the inquiry's opinion, there is a risk that credit institutions will restrict competition in relation to payment service providers by denying access to services (other than payment accounts) that are important for a payment service provider's ability to provide its services in an unhindered and efficient manner".

It also notes that the playing field is uneven: "While new entrants are often largely financed with equity, banks are largely debt-financed, which is a cheaper form of financing than equity." One example of cheap debt financing is that banks can fund themselves with public deposits that are covered by government deposit insurance.

Positive Money agrees with the above concerns, which are barriers to healthy competition in the payments market. In addition, we would add two further aspects of cheap debt financing by banks. Banks can lend out the money they borrowed while allowing the public to have immediate access to their deposits. In other words, a bank can have its cake and eat it too. Banks can also pay other actors in the economy with their debts: they can create new deposits (bank money) by making a payment to a non-bank. Although the bank has to compensate by having a slightly larger amount of liquidity as a back-up, this still means that banks can fund themselves much more cheaply than new entrants to the market who need to fund themselves through equity, bonds or by borrowing money in other ways with fixed maturities.

Despite the above observations, other parts of the report and several of its conclusions point in the opposite direction. The inquiry argues in several places that there are no problems with competition and that existing laws and regulations are satisfactory for giving new players the opportunity to compete on equal terms:

- "At the same time, the payments market is still dominated by traditional banks. This is not in itself a sign that competition is not working, but mainly reflects historical dependence and the fact that market conditions in the different parts and layers of the payment ecosystem make concentration desirable to a certain level."

- "However, this should not be equated with little competition as the economically optimal number of players is limited".

- "Concentration, interdependencies and cooperation within the payment ecosystem largely reflect genuine market characteristics and have benefited the development of efficient and cheaper payment services."

- "Direct participants could use this strategically to limit competition from indirect participants, either by providing a lower level of service or charging more than is justified by banks' actual costs (including funding costs). However, this is not allowed and there are also many direct participants to which an indirect participant can turn."

- The report describes the additional requirements that the major banks have to fulfil and goes on to say that "This has levelled the playing field between systemically important banks and other banks, and between established and new entrants."

- "As stated in section 9.4, there are rules in both EU legislation and Swedish legislation that access to infrastructure, payment systems and payment account services provided by credit institutions must be on objective and non-discriminatory terms. These rules exist precisely so that the (established) players
  who own essential infrastructure and provide essential services should not put up barriers to entry for new players."

The overall picture painted by the inquiry is that even if in theory there could be a problem with limited competition on the payment market, in practice it is not a major problem because it is economically optimal to have few players. And even if it could in theory be a problem that new players are not offered access to services on objective and non-discriminatory terms, it is not a major problem in practice, because the problem has been dealt with through laws and regulations. Rather, the inquiry seems to believe that the problem is the opposite - that the regulations disadvantage the major banks, favour new players too much and that new players can free ride on the major banks' investments. The inquiry writes:

- "Building payment infrastructure requires large investments. It is justified that companies that have joined forces and made these investments also get a return on them."

- The inquiry is concerned about plans to introduce a European equivalent of Swish as it would reduce the profits of Swedish banks. Part of the proposal is that: "Payment service providers may not charge additional fees for instant payments compared to regular digital bank payments." They object to the proposal because it "cannot fully capitalise on the innovative capacity of market players" in Sweden and that "A further question is how the additional costs incurred by payment service providers as a result of the implementation of the proposal will be paid for, given that customers cannot be charged."

- "Secondly, there is an imbalance between obligations (and costs) and benefits between account servicing payment service providers (banks) and third party providers. This imbalance may have hampered the willingness of banks to innovate as they need to share revenues from innovations with third-party providers."

- "It should be emphasised that it is important that regulations are designed so that a new entrant, whose business model and product range has the same risks as the corresponding activities of an incumbent, is not unduly favoured by weaker regulation."

Positive Money's comments on the report's arguments:

- **Lack of competition has led to overpricing and low quality**

Giving a selected group of private companies a monopoly or oligopoly is never economically optimal as the report suggests, it has not led to

the development of cheap and efficient payment services, but rather to expensive and inefficient payment services where merchants need to pay 1-3% per transaction, where payments cannot be made in real time around the clock even though we have been living in a digitalised society for several decades, where the cost of the financial system in 2022 amounted to an average of SEK 24,000 per inhabitant, where old, inefficient, outdated technology is still used in large parts of the payment infrastructure, for example in the bank giro to clear payments.

- **Existing laws are insufficient for healthy competition**
  Many companies in the fintech industry report problems accessing accounts and basic payment infrastructure. Even if laws and regulations make it more difficult, big banks can still overcharge, suspend customers from accounts, change their APIs and subtly make it more difficult for their competitors. So existing laws are not enough to level the playing field.

- **Big banks are not underperforming - they are making excess profits**
  The big banks have not suffered. On the contrary, they have long been unduly favoured by the current system, which has led to large excess profits for a long time. This development has reached its peak during the pandemic. When the rest of society went into recession, the banks nevertheless made very large profits. As a result of the Riksbank's large purchases of securities since 2015, but especially during the pandemic, the major banks now have around SEK 1,100 billion in their accounts. They receive 4 per cent interest on these, 44 billion per year. This 44 billion new money per year counteracts the Riksbank's attempts to curb inflation. The securities purchases were intended to bring up inflation by keeping down long-term interest rates. But now that the policy rate is high, there will be a setback. The 44 billion is not required for the interest rate corridor to work, for the banks to maintain their lending, or for the banks to survive. This is not sound competitive conditions on the payment market, but a direct state aid to society's most privileged large companies. In practice, it therefore seems to be far from the truth that the major banks are disadvantaged by the legislation and earn too little money from their operations, as the report suggests.

- **Making competitors dependent on each other's services is dysfunctional**
  Positive Money's overall view is that the competitive situation on the payment market is fundamentally deeply problematic. Trying to create a market where a number of companies compete with each other on equal terms, while some of the companies are given special privileges to finance themselves by creating money and exclusive access to the payment structure that other companies depend on to be able to offer their own products, is a fundamentally dysfunctional arrangement. Regulating such a market in a functional way is a very difficult task that is fundamentally doomed to fail without large amounts of unnecessary bureaucracy and supervision. We therefore believe that solutions other than more rules are needed: the e-krona as the only digital form of Swedish krona would give everyone access to central payment infrastructure on equal terms.

4.3 The inquiry's proposals for the payments market of the future

In this chapter, we examine the inquiry's proposals for the future. The inquiry was asked to consider what the future payment market should look like and what the role of the state should be. In this section, we review the most important proposals with which we agree or have objections:

Government digital ID

The inquiry proposes that the state should issue its own e-identification. Positiva Pengar agrees with the need for a state e-ID. However, we note the lack of consistent argumentation. The same arguments that apply to government e-ID also apply to the need for an e-krona. Below are three examples:

1. The **state needs to be able** to **identify and send and receive payments to residents**
The inquiry argues that "the state needs to be able to identify its residents and these should be given the opportunity to identify themselves in various contexts, both in relation to the public sector and in society in general." Just as the state needs to be able to identify its citizens, and give the citizens the opportunity to identify themselves, the state needs to be able to make payments to its citizens and collect taxes from the citizens. To the extent that the argument applies to e-identification, it also applies to the e-krona.

2. The market for digital IDs and payments is characterised by strong network effects
The investigation notes that "BankID's clearly leading position on the e-ID market - which has largely been achieved with the help of so-called network effects - has led to a situation where new companies that want to provide e-IDs have difficulty entering the market". The same applies to the payment system. The clearly leading position of the major banks on the payment market has led to a situation where new companies have difficulty entering the banking and payment market and competing with the major banks.

3. A national e-ID and e-krona would strengthen competition.
The study writes: "Furthermore, a governmental basic electronic identification system makes other e-IDs, based on the state one, will be more secure." It continues: "A governmental e-identification that can be used to access various e-services, and enables you to ID switching to other eIDs at a lower trust level could strengthen competition in the eID market and potentially open up more choices for individuals." The same applies to the payment system. An e-krona would make all other payment services, banking and the means of payment based on it more secure. It would open up to more players, better competition and create more choice for the individual.

Positive Money's views on the report's arguments and proposals:

- **The arguments in favour of a state e-ID also apply to the e-krona.**
  Overall, we are surprised that the inquiry does not seem to have any uniquely strong arguments for why central infrastructure such as ID should be provided by the state, but that other central infrastructure such as digital money should not be provided by the state. To be consistent, the inquiry should either propose that the state should

provide neither electronic IDs nor money, or that the state should provide

both electronic ID and money, as the arguments in both areas are so similar.

The draft law on means of payment

The term "legal tender" has historically meant that (1) all traders in a country are obliged to accept the payment instrument in question in legally valid transactions; and
(2) the means of payment in question is accepted by the state for the payment of taxes and other charges. In today's society, cash is the only legal tender. However, businesses have been given the opportunity to negotiate away the obligation to accept cash by, for example, putting up a sign stating that they do not accept cash. It is also not possible to pay taxes or public fees with Sweden's legal tender. If the Riksbank starts issuing a digital e-krona, the question of what status the e-krona should have also arises. Against this background, the inquiry has been tasked with considering whether there is a need to give certain means of payment the status of legal tender, and what the meaning of the term "legal tender" should be in that case.

The inquiry argues that there is a need to continue to define what constitutes legal tender in Sweden, particularly because it considers that "the position of the Swedish krona as a monetary unit in Sweden should be strengthened". However, it wants to make the legislation technology-neutral: "regulation of the Swedish payment ecosystem" should, as far as possible, be "both technology-neutral and future-proof".

The inquiry notes that "the current regulations do not, however, protect the krona as a monetary unit in Sweden in the sense that it must always be able to be used for payments, i.e. creditors must accept kronor in some form". It writes that "It seems most appropriate to secure the status of the Swedish krona by introducing a regulation that in practice corresponds to the status of banknotes and coins as legal tender. In this way, the krona as a monetary unit is protected in that it will always be valid in Sweden under certain conditions, regardless of its form."

Against this background, the Committee proposes the following legislative paragraphs:

> 2 § In this Act, physical means of payment means banknotes, coins and contingency money, digital means of payment means account balances and electronic money as defined in the Electronic Money Act (2011:755).
>
> 3 § Legal tender means physical means of payment issued by Sveriges Riksbank.
>
> 4 § A creditor or other payee is, unless otherwise agreed or prescribed by law or other statute, obliged to accept Swedish kronor as payment, regardless of whether the payment is made by physical or digital means of payment.
>
> 5 § A creditor or other payee is, unless otherwise agreed or prescribed by law or other statute, obliged to accept legal tender as payment.

The Act means that digital means of payment, defined as account balances and electronic money according to the Electronic Money Act, will in practice have the same status as legal tender, except that they will not be referred to as "legal tender". The inquiry writes: "This means that creditors or other payees will be obliged to accept means of payment expressed in Swedish kronor in the form of banknotes and coins (central bank money), bank deposits (bank money) or e-money (an electronically stored monetary value)." The advantage would be that such legislation is "technology and competition neutral between different types of (existing and possibly future) means of payment provided that they are expressed in and linked to the Swedish krona."

With regard to central bank digital money, the report argues that it should only be granted legal tender status if it is designed in a cash-like manner and used on a small scale for small transactions like cash, and does not compete with bank money. If the e-krona becomes account-based and earns interest, the report argues that it is more similar to bank money or e-money. They say there are "reasons not to discriminate between digital means of payment by giving them different legal status. This is particularly true if a central bank digital currency is interest-bearing."

Positive Money's views on the report's arguments and proposals:

- **The krona should strengthen as a currency, not as a monetary unit**
  The fact that a means of payment is expressed in the Swedish krona as a monetary unit is not in itself a sufficient criterion. Anyone can create a means of payment expressed in the unit Swedish krona. There are plenty of companies and communities that create bonus points, local currencies, etc. that are expressed in the unit Swedish krona. It is not only the unit Swedish krona that needs to be strengthened, but the currency Swedish krona that needs to be strengthened. As the Riksbank has pointed out in previous announcements, the Swedish krona is currently being replaced by private alternatives, i.e. being replaced by bank money. To strengthen the Swedish krona as a currency, it would be directly counterproductive to give bank money - the competitor to the Swedish krona - an elevated status that in practice means that it becomes legal tender. Positive Money therefore proposes that the legislation should aim to strengthen the krona as a currency, not aim to strengthen all means of payment expressed in the krona as a monetary unit.

- **Bank money should not be given legal tender status**
  The inquiry's proposal means that money created by private banks would be given a stronger status; in practice, they would have the status of legal tender in Sweden. Positiva Pengar is critical of giving private companies' debts such a status in the law. We propose that only e-krona and physical cash should have the status of legal tender. In Sweden, it should be fully permitted for companies and authorities to say no to means of payment issued by private companies. When the e-krona is introduced, natural and legal persons should have full legal support to only accept the currency Swedish krona - i.e. cash and e-krona issued by the Riksbank - in Sweden.

- **Introducing a technology-neutral legislation on legal tender**
  The report's proposal for section 4 undermines the meaning of "legal tender".

and means that the term in practice becomes just an empty word. Since Sections 4§ and 5§ are identical except for the word "legal tender", there is, as the commission itself points out, in practice no difference between giving the e-krona the status of "legal tender" so that it falls under Section 5 § or giving the e-krona the status of account balance/digital money so that they fall under Section 4 §. A much simpler and better solution for achieving technology neutrality we propose is to delete section 4 and instead include digital money issued by the state in the definition of legal tender in section 3. This would make the legislation on what constitutes legal tender technology-neutral.

- **The obligation to accept payments with Sweden's legal tender should not be negotiable.**
  In order to strengthen the Swedish krona as a currency (and thus also as a monetary unit), we believe that the possibility to negotiate away accepting a payment in Swedish kronor should be abolished. As a basic rule, all businesses in Sweden should be obliged to accept Swedish kronor issued by the Riksbank, regardless of whether the payment is made in cash or e-krona. However, it should be possible to make certain exceptions to the cash requirement in cases where cash handling entails disproportionately high costs for the business. However, it should never, under any circumstances, be possible to obtain an exemption from the obligation to accept payments with at least *one of* Sweden's legal tender: cash or e-krona issued by the Riksbank. This would not, as the inquiry claims, discriminate against the private banks. On the contrary, it is quite natural to give Swedish kronor a special status as a means of payment over the banks' credits, which consist only of debts in Swedish kronor.

Access to payment accounts

The inquiry was tasked with "considering what requirements need to be set in order to ensure that everyone in society can make payments, including, for example, people living in digital exclusion, people living in sparsely populated areas, people with poor knowledge of the Swedish language, the elderly and people with disabilities, taking into account sustainable development".

The inquiry writes that "The state needs to take greater responsibility for ensuring that more people have access to payment accounts and that fewer people have their accounts cancelled without notice. There are indications of shortcomings in credit institutions' application of the legislation regarding access to payment accounts with basic functions." The report also notes that "The digitalisation of society has excluded large groups, not least in the payment market. Approximately one million adults do not have access to mobile or online banking".

The inquiry's principle line for solving this is that "the state can advantageously leave it to market players to carry out socially important payment activities, but should set clear requirements so that responsibility for execution cannot be opted out of by individual players." The inquiry proposes that stricter requirements should be imposed on the banks so that they cannot opt out of certain customer groups or deny accounts just as easily. The report also proposes that: "Credit institutions should to a greater extent than at present offer payment accounts with a more limited range of services than the basic functions stipulated

in Chapter 4a of the Payment Services Act (a low risk account), if

the risk of money laundering or terrorist financing is deemed too high in the individual case, instead of refusing access to a payment account with basic features."

Positive Money's views on the report's arguments and proposals:

- **The inquiry should have investigated the possibilities of the e-krona to give everyone access to accounts** One of the Riksbank's original motives for the e-krona was to reduce social exclusion and offer the possibility of making digital payments to customers who are not profitable for the banks or who have been denied an account by the banks. We are surprised that the inquiry has not investigated whether an e-krona can solve this problem. In the chapter on digital exclusion and access to payment accounts, the possibilities of the e-krona in this area have not been examined at all. Even though the report is generally sceptical of the e-krona, it would have been appropriate for a comprehensive and objective investigation to at least examine the advantages and disadvantages of the e-krona in solving problems with access to accounts.

- **Don't force private companies to provide unprofitable products**
  Private companies should not be required by law to specifically provide customised digital payment services for the elderly, the disabled, or people who are otherwise classified as an "unprofitable" target group by the market. Here we believe that a better solution is for the state to step in and provide essential services.

- **Give everyone access to at least limited e-krona accounts**
  A better solution is for the state to offer all individuals living in Sweden a limited e-krona account with equivalent functionality to the low-risk accounts proposed by the inquiry. Everyone should have the right to make basic payments to a certain extent. *See Chapter 5 for our more detailed proposal on the design of e-krona accounts.*

Access to payment infrastructure

The report states that "from a competition perspective, it is important that new players (if they fulfil certain requirements) are given access to the necessary services and infrastructure on objective and non-discriminatory terms." It also writes that: "Since payment institutions and
If e-money institutions compete with banks in providing payment services, it is important that all players have fair, open and transparent access to settlement systems."

The committee is in favour of opening up the possibility of paying with central bank digital money to companies other than the major banks: "Against this background, the committee believes it is urgent that the review of the finality directive leads to payment and e-money institutions in principle being given the opportunity to be direct participants in settlement systems."

At the same time, there are other formulations in the report that are more sceptical: "At the same time, it is important, as both the Riksbank and the Payments Council point out, that the review contains a thorough analysis of the advantages and disadvantages of giving institutions other than current participants (direct) access to settlement systems. Access to settlement systems for such institutions must not be at the expense of financial stability,

security or the fight against money laundering and terrorist financing." The investigation also writes "There is a need for clear criteria

on which financial institutions can be participants in settlement systems. It is not the task of the central bank to create liquidity for institutions that are not viable or that have poor governance and risk management." The inquiry's discussion boils down to the following two statements:

- "The Government should commission an authority to conduct an in-depth analysis of competition in the payment ecosystem in Sweden and, if necessary, propose measures to increase competition. The analysis should include payment service providers, payment infrastructure companies, including relevant cooperation between them, and third-party providers of technical ancillary services or systems. An analysis of competition in the payment ecosystem should be carried out using tools that analyse behaviour and structures on entire markets or sub-markets rather than on individual companies (so-called market research tools)."

- "The Government should actively work to ensure that new or revised regulations in the area of payments are designed in a way that both enables more efficient and secure payments and gives more Swedish fintech companies the opportunity to grow."

Positive Money's views on the report's arguments and proposals:

- **No concrete proposals to give more people access to digital central bank money** It is positive that the inquiry recognises the problem that only a few large companies currently have exclusive access to RIX where they can make secure payments with central bank money. The inquiry discusses in the running text the possibility of in principle giving more people the opportunity to pay with central bank money, but when it comes down to it, there are no concrete proposals for this in its final assessment. Instead, the inquiry refers the question of the competitive situation on the payment market to the government for further investigation. Positive Money thinks
  The inquiry should have delivered clear and concrete proposals on how to give more people access to central bank money on a fair and non-discriminatory basis.

- **No discussion on the potential of the e-krona to level the playing field**
  Positiva Pengar considers it remarkable that the inquiry does not anywhere discuss the obvious possibility of further broadening access to central bank money and giving all citizens and companies the opportunity to settle payments in real time without credit risk around the clock with digital central bank money. The e-krona opens up this possibility, which would level the playing field and allow all businesses to compete on equal terms. Regardless of the inquiry's views on the e-krona, it would have been appropriate, in order to achieve a comprehensive and factual examination of the e-krona core mandate, to at least clearly discuss in the chapter on payment infrastructure the pros and cons of the e-krona in providing access to payment infrastructure for all on objective and non-discriminatory terms.

- **Risk of continued high barriers to entry to RIX**
  Although the report is in principle favourable to giving more companies access to payments with central bank money, it expresses several reservations about financial stability, money laundering, etc. and considers that strict requirements should be set for participation. Stringent requirements for participants have previously been used as an

argument in favour of why only

the major banks should have access to payments with central bank money. If the government follows this line, there is a risk that high entry barriers will continue to be set up and that the major banks can continue to have the competitive advantage of having exclusive access to payments with central bank digital money.

- **Give everyone access to instant real-time settlement with central bank money** Positive Money can see no reasonable argument or reason why only a small exclusive group of major banks, or an extended group of major banks plus other companies in the financial industry that fulfil high standards, should have access to the service of instantly settling payments with central bank digital money. New digital technologies open up the possibility for everyone to be able to settle payments in real time around the clock without credit risk. If all citizens and businesses were given access to the e-krona payment infrastructure on the same terms, we would create a level playing field for all players with healthy competition and conditions for innovation and development of new banking and payment services on top of the e-krona payment infrastructure.

Operation of central payment infrastructure

The inquiry notes that there are several arguments in favour of the state operating decommissioning systems. "Underinvestment in infrastructure - or if the infrastructure becomes fragmented - can mean that the supply of infrastructure is lower than what is economically optimal. As a result, the rate of innovation and efficiency in the market will be lower. Against this background, there may be reason for the state, for example through the central bank, to offer competition-neutral payment infrastructure. In addition, clearing and settlement provided by the central bank can set an upper limit on the costs of joining any competing private systems." The report also writes: "Although multiple settlement systems can open up competition, a market with multiple, parallel systems is likely to be inefficient as economies of scale are not fully realised. Several central banks, including the Riksbank, own and operate systems for the settlement of instant payments." The inquiry's overall assessment is that the state should operate infrastructure for the settlement and clearing of payments.

However, it does not consider it appropriate for the state to provide payment infrastructure beyond settlement and clearing, or payment services directly to the customer. It presents the following five arguments:

- "One argument is that central banks do not have the incentives for innovation that commercial actors have and are less cost-conscious because they are not subject to the same profitability requirements as private companies are."

- "An overly strong state presence risks both distorting competition and ensuring that taxpayers' money is not spent wisely."

- "In addition, there is a risk that a state-owned infrastructure company may consider other political aspects of how the business should be run than if the company has private owners."

- "Another argument against is the risk that confidence in the central bank, ultimately the

monetary policy, can be damaged if there are problems in the infrastructure provided by the central bank."

- "In addition, if central banks provide payment infrastructure in addition to settlement systems, this may create ambiguity in relation to the central bank's role as overseer (and, in many countries, supervisor), although this can be addressed through a clear regulatory framework and separation of functions and staff."

- "Finally, the concentration of payment infrastructure and systems in the hands of a small number of actors can lead to a greater negative impact of, for example, cyber-attacks on the payment ecosystem and the financial system as a whole than if several actors operate different parts of the infrastructure."

The inquiry summarises that: "Finally, it should be emphasised that although the role of the state in the payment market should, in the opinion of the inquiry, be strengthened, this does not mean that the state should increasingly provide payment services or operate infrastructure. Such measures should not be ruled out, but in most cases market participants are significantly better suited to developing appropriate and cost-effective solutions. Too strong a government presence risks both distorting competition and failing to use taxpayers' money wisely. At the same time, there needs to be a clear market failure if market players are to carry out activities on behalf of the state - the state should not finance activities that are commercially profitable."

Positive Money's views on the report's arguments and proposals:

- **New technology can fundamentally transform the payments market**
  The inquiry overlooks the fact that the development of new technology on the payment market and the proposal for the e-krona have made it possible to transform today's complex payment infrastructure with several layers into a simple infrastructure consisting of only two layers (1) real-time settlement directly between customers' e-krona accounts (2) a service layer with an interface to the user and customer contacts. An efficient payment system requires no more layers than (1) and (2). We share the inquiry's assessment that the state is best suited to offer the infrastructure for the settlement of payments; there are major economies of scale in having only one actor here. We also share the inquiry's assessment that, with regard to the service layer, the market is best suited to offer different user interfaces and to manage customer contacts.
  However, as mentioned earlier, we believe that the state has a fundamental obligation to offer a basic interface that is specially adapted for customer groups with special needs that the market deems unprofitable, see Chapter 5.

- **State presence can favour competition**
  The study argues that a state presence in the service layer can inhibit innovation and lead to increased costs. We agree that this can happen if the state gains too dominant a role so that other actors are excluded. However, the report fails to clearly explain the opposite argument: that government presence can also promote competition in poorly functioning markets. The state is already present on the banking market through state-owned banks such as SBAB and on the payment market through cash. This presence is not so strong that it eliminates the private

sector,

but is motivated by the fact that it enhances competition so that costs are squeezed. The same argument can be used for the state to be present in the service layer and offer a payment interface directly to users.

- **Too strong a government presence can lead to a waste of taxpayers' money** We agree that too strong a government presence can lead to taxpayers' money not being used sensibly. However, the report misses all the central examples of this in the current system: the government's bailouts of the banking sector, the Riksbank's loans to the banks, quantitative easing, the Riksbank's interest rate transfers to the banking sector, the currency reserve and implicit and explicit guarantees to the banks. This means a very strong state intervention in the business activities of a privileged few companies, which is fundamentally not a sensible way to use tax money. The introduction of an e-krona could significantly reduce government presence in several areas: banking and payment companies could be left to stand on their own feet and forced to compete on a level playing field by offering high-quality products to users.

- **Sweeping and unclear argumentation on political aspects** The study is concerned that political considerations would be taken into account if the state operated more extensive payment infrastructure. However, it does not describe any credible scenario in which political aspects could be taken into account. The report's argument is thus sweeping and toothless.

- **Sweeping and unclear arguments about damaged confidence in the Riksbank** The inquiry is concerned that confidence in the central bank, and ultimately monetary policy, may be damaged if there are problems with the payment infrastructure operated by the state. But why confidence should be damaged more when problems arise if the state runs the systems than if the private sector runs the systems seems to us to be extremely unclear. The argument is sweeping and lacks concrete, credible examples.

- **Sweeping and unclear arguments about ambiguity in the division of roles** The report also discusses ambiguity in relation to the central bank's role as supervisor. However, this seems more relevant in other countries where the central bank has a greater role as a supervisory authority. The inquiry does not describe any credible scenario in which this could become a problem in Sweden, where Finansinspektionen has the main task of macroprudential policy.

- **Reducing vulnerability to cyber attacks with a modern e-krona** The study is also concerned that the concentration of payment infrastructure and the -decentralised systems to a few actors can lead to increased vulnerability to, for example, cyber attacks. This is true, but the report has missed the fact that central banks around the world are investigating CBDCs based on modern decentralised technology. New technologies enable decentralised solutions where the ledger is stored in many copies in a larger network. This means that several nodes in the network can be hacked or bombed without disrupting the network as a whole and the payment system. The inquiry's argument is therefore misguided; an e-krona could rather make the entire payment system more robust and resilient in the event of cyber attacks or war. It is rather the current system, which is based on centralised

databases and concentrated server halls at the

the major banks and the Riksbank, which is vulnerable to cyber attacks and war.

- **Not all activities that are commercially profitable should be privatised** The report emphasises that "the state should not finance activities that are commercially profitable". However, this argument does not apply straight away. It would be very profitable to privatise important social functions and central infrastructure such as Sweden's police, railways, courts, military, motorways, etc. However, this is not sufficient reason to privatise such activities. The same applies to money, which is also a central and essential infrastructure: it is very profitable to have the privilege of creating money, but this is not a sufficient reason to give private banks this privilege.

- **Negative externalities are difficult to internalise in the payments market.** With regard to the operation of central infrastructure, the investigation has not sufficiently analysed the consequences of the fact that negative externalities are difficult to internalise in the payment market in a satisfactory manner. Private companies that operate payment infrastructure are not affected by the economically costly consequences of payment system failures. They therefore have no incentive to provide services that are robust and secure at a level that would be socially optimal. Nor do they have an incentive to provide newly created money for purposes and in volumes that would be socially optimal. There are therefore strong arguments in favour of the state operating central payment infrastructure in a more robust and reliable way than the private sector.

E-crown

The report summarises the motives of different central banks for introducing a central bank digital currency from a survey. The survey found that: "Among central banks in economically developed countries, financial stability and the safety and robustness of the payment system were cited as the most important motives. This was followed by monetary policy implementation and payment system efficiency (both domestic and cross-border payments) as important motives, while financial inclusion was cited as a less important motive."

In addition to these motives, the study also analyses the following motives: (1) to reduce the costs of handling cash, (2) to improve public access to central bank money, (3) the e-krona can act as an anchor for the monetary system, (4) increased competition, (5) reduced bank profits, (6) several actors can develop payment services that do not rely on bank infrastructure, (7) increased financial inclusion; (8) more efficient payment solutions, leading to transactions that would otherwise not take place; (9) that the e-krona can counteract the fragmentation of the payment ecosystem by crypto-assets; (10) that the e-krona can act as an exchange currency, allowing stablecoins to be moved between platforms.

The study then goes on to analyse the possible risks of an e-krona. The risks of the e-krona are based on a hypothetical scenario in which the public exchanges bank money for
e-krona to a greater extent. A flow to e-krona would mean that banks would have to transfer the corresponding value of central bank money to the central bank. The inquiry sees two

risks involved: (1) risks to bank lending and (2) risks to financial stability.

Risks to lending

The report states: "To the extent that the public prefers to hold CBDCs rather than deposits, banks lose a relatively inexpensive form of funding." "Since deposits from the public are generally the cheapest form of funding, banks' funding costs will increase as they compensate for the loss of deposits or try to persuade bank customers to keep their deposits by raising the deposit rate. In both cases, this could lead to more expensive credit."

If the public is transferring money to the CBDC, banks can meet this shortfall by one of the following methods: (i) using existing excess liquidity obtained through unconventional monetary policy practices; (ii) "finding other (more expensive) funding in the capital markets" such as issuing bonds; (iii) increasing the deposit rate so as to keep deposits in the bank"; or (iv) borrowing from the central bank against eligible collateral." This allows banks to obtain more central bank money or e-krona.

The inquiry notes that the banks currently have a large amount of excess liquidity due to unconventional monetary policy measures. This means that banks can use method (i) to manage rapid flows to e-krona at present. But: "As central banks phase out unconventional monetary policy measures, banks' liquidity situation may deteriorate overall. It is therefore reasonable to assume that the impact of introducing CBDCs on banks' funding costs will be higher in the future."

In the case of approaches (ii) and (iii), it directly increases funding costs for banks. However, the consequences of method (iv) are less clear. The report writes: "If the demand for eligible collateral increases, the price of collateral will increase, which has a negative impact on banks' profit margins. On the other hand, issuing covered bonds becomes more attractive, which reduces their funding costs. The net effect on funding costs in the banking system as a whole is therefore unclear." The report notes that banks in the EU have on average used just over 51 per cent of their collateral that is eligible as collateral for loans from the central bank. This means that there is plenty of room to pledge more collateral and borrow more, before the price of eligible collateral starts to increase significantly. Banks also have ample room to issue more covered bonds based on the existing pool of collateral, which would bring down the price of bond financing.

Overall, this means that if demand for e-krona increases in the economy, it is likely that banks will face higher funding costs, at least in the longer term. But, note that "a reduction in credit supply does not necessarily imply economic costs. To the extent that (larger) banks are perceived to be guaranteed by the government, their funding costs are lower, which in turn increases the supply of credit to a level above that which is economically optimal." As the inquiry notes elsewhere, major banks currently have access to "debt financing", i.e. they can create money to finance themselves. This gives them a competitive advantage over other companies. A reduction in the banks' ability to finance themselves with money creation need not be a problem, but could lead to a more economically optimal credit supply. However, the report objects that "This effect should not, however, be taken as evidence that CBDC is the most (cost-)efficient way of

achieve an economically well-balanced credit granting compared with other measures (e.g. tighter macroprudential requirements)."

However, if the banks' funding costs were to increase in a suboptimal way, this could have negative economic effects. The report states that banks can "charge higher fees for banking services or increase the interest rate on lending to households and businesses (or a combination)", which can have negative effects on the real economy: "Higher lending rates reduce the demand for credit, which ultimately leads to reduced output and employment."

To prevent such negative consequences, however, there are a number of measures the central bank can take. The report writes that "Any negative effects on credit provision can, if necessary, be counteracted by central banks being able to supply the banking system with liquidity or adjust collateral requirements, and by limiting the holding or use of CBDCs. If the credit supply is negatively affected by the demand for CBDCs, the central bank can counteract this mainly by lowering the policy rate."

The alternative of adapting the collateral requirement could mean that the central bank completely abolishes collateral requirements for banks to borrow money from them. However, the report states that "this would mean that credit risk would be transferred to the central bank and ultimately to the government and taxpayers. Ultimately, any significant credit losses could damage confidence in the central bank and weaken its financial independence."

The study also objects to the complexity of designing a standing lending facility to respond to large and sudden outflows: "Normally, only monetary policy counterparties can borrow from the central bank's standing liquidity facility (or equivalent). In a situation where there is a significant spillover from bank deposits to the CBDC, it is unlikely that the bank's funding situation will be resolved in such a short term that the standing facilities are a real option. At the same time, emergency liquidity, i.e. liquidity support directed to individual (solvent) banks or other financial firms, which do not need to be monetary policy counterparties, is subject to high requirements and monitoring and can be stigmatising for the bank receiving the support."

The study also notes that "Central bank loans may ultimately have a negative impact on the structural liquidity position (NSFR) of banks compared to deposits from the public, but also some other sources of funding, unless the central bank loans have long maturities (one year or more)." To comply with the existing liquidity rules, the central bank must lend money to banks at a maturity of at least one year.

Financial stability risks

The study sees an increased risk of bank runs. It will be easier for the public to quickly move their money from a bank to e-krona in times of financial turmoil. This entails both financial stability risks and means that the banks will be forced to increase their resilience and hold more liquid funds to cope with larger flows to e-krona notes. The inquiry writes: "Banks increasing their resilience is seen as an insurance premium that society needs to pay to minimise the potential negative stability effects of CBDC." The increased risk of bank runs can thus further contribute to increased funding costs and reduced lending.

The study's assessment
The inquiry's overall assessment is that: "Regardless of how banks choose to adjust their balance sheet to the introduction of the CBDC, there will be some risk of negative real effects through tighter financial conditions. These effects stem from higher lending rates (and fees), reduced lending, or some households and firms receiving less favourable lending conditions or no lending at all."

The report goes on to discuss the consequences of this: "If the introduction of the CBDC leads to banks reducing their lending, companies and households will to a greater extent need to fulfil their need for credit on the capital markets. This means that companies other than banks - sometimes referred to as non-banks - will provide credit by acting as a more direct link between savers and borrowers" They continue: "However, several factors suggest that non-bank lending increases the risk of financial instability, especially if long-term illiquid assets are financed with cash and high leverage. While this risk is not in itself an argument against introducing CBDCs, stability concerns may increase as a side effect if CBDCs lead to a reduction in bank lending."

Positive Money's views on the report's arguments and proposals:

- **Knowledge is not lacking**
  The report states that: "knowledge of the effects of CBDC is still incomplete" and tries to make it appear that more research is needed in this area before it is possible to decide whether we should introduce a central bank digital currency. But this is not true, there is a huge international research literature on CBDCs. Central bank digital currencies have also been tested in 11 countries and a number of countries and central banks are investigating and likely to introduce a CBDC. In fact, Sveriges Riksbank was among the first central banks in the world to start investigating CBDCs and thus has an internationally unrivalled expertise on the subject.

- **Biased presentation on the reasons for an e-krona**
  Although the inquiry reviews a number of reasons for an e-krona, it dismisses these and considers that the most important reason for possibly introducing an e-krona in the future would be the risks to Sweden's monetary policy and financial stability that would arise if other countries introduced digital central bank currencies. We do not share this analysis; there are a number of other independent reasons that are in themselves strong enough to introduce an e-krona.
  e-krona as soon as possible, regardless of what happens in other countries. Sweden should be a leader in innovation and new technology, we should not sit passively and be left behind.

- **Possible ways of designing an e-krona need to be analysed.**
  The inquiry has not analysed different possible ways of designing an e-krona. In its submission, the Riksbank wrote that it wanted the inquiry to "analyse whether these can be designed in a way that solves the problems that arise when cash no longer functions in a broad sense" and that "the Committee should not be prevented from addressing and highlighting other issues relevant to the assignment within the framework of the assignment". This means that the inquiry should have taken the opportunity to analyse in more detail how an e-krona could be designed. An e-krona

could

be designed in different ways, ranging from a basic infrastructure where the market itself can develop APIs to ready-made e-krona accounts offered by the central bank directly to each citizen. The e-krona can also be given characteristics such as programmability with smart contracts. In order to be able to comment on the desirability of an e-krona, the inquiry should have investigated and presented different models for what an e-krona could be and what characteristics it could have.

- **The consequences of different future scenarios need to be analysed.** The study should have analysed different possible future scenarios, at least the consequences of the following three scenarios: (i) a scenario with only private money (bank money), (ii) with government money in competition with private money backed by the government (government-guaranteed 1:1 convertibility between government and private bank money), and (iii) government-issued money as the only legal tender.

- **Legislation required for the introduction of the e-krona needs to be proposed** Positiva Pengar is critical of the fact that the inquiry has not examined in more detail the legislation required for the introduction of the e-krona. Changes may be required in everything from the Payment Services Act, the Sveriges Riksbank Act and the anti-money laundering and bankruptcy laws. Liquidity and capital requirements may also need to be updated. Without prepared legislation, Sweden risks falling even further behind in the introduction of central bank digital currencies.

- **Different channels for distributing new e-krona should have been analysed** The inquiry should have analysed different possible channels for the distribution of newly created e-krona, as well as their advantages and disadvantages. A study on the e-krona that does not contain any analysis of how e-krona could be distributed is not to be considered complete. See Chapter 5 for our proposal in this area.

- **The report fails to recognise that increased funding costs can lead to reduced bank profits.** The report emphasises that increased funding costs for the banks would mean more expensive loans and lower lending, which could have negative effects on the economy. But nowhere does it describe the obvious alternative: another possibility is that competition is strengthened and the banks' profit margins are squeezed. The banks could manage the increase in costs within the framework of their currently very favourable profit margins. The fact that the inquiry does not even discuss this as a possibility, but instead directly emphasises the negative effects on the real economy, just as the Swedish Bankers' Association has done in its previous letters on the e-krona, appears to be somewhat biased.

- **Changes in the banks' funding costs are due to changes in the scope of government guarantees, not to problems with an e-krona. The** inquiry presents the banks' increased funding costs as a cost due to risks and problems with the e-krona. But this is misleading. The e-krona does not introduce anything new that in itself entails problems or increased costs for the banks. The only thing that can lead to increased costs is if the government, in the new situation that arises, chooses to reduce the extent to which it subsidises, supports and guarantees the banks' money.

The report discusses why deposits from bank customers are cheap: "Deposits from the public are the cheapest form of funding, partly because such deposits are largely covered by a deposit guarantee and are thus more stable than market funding." So it is government guarantees that make customer deposits cheap for banks. If customers change their bank money into e-krona, banks will have to replace a government-guaranteed source of funding (deposits from the public) with market funding (which is not government-guaranteed).

Thus, the reason why banks' funding costs increase is precisely because banks would have to fund themselves more on their own without benefiting from government subsidies. To avoid increased funding costs for the banks, the *central bank must provide the same level of government guarantees* for the banks' new sources of funding. The report completely fails to discuss this. The problem of increased funding costs is thus not specifically about the characteristics of the e-krona, but about the level of government guarantees and subsidies the government wants to give the banks. If they want to remain at the same level of government guarantees as before, the Riksbank could choose to do so, without any increased funding costs for the banks. However, given the banks' excess profits, this would not be reasonable. However, some subsidies could be retained during a transition phase to the e-krona, see Chapter 5 for our proposal.

- **Lending money to banks without requiring collateral does not mean that taxpayers are taking an increased credit risk.**
  The inquiry objects to the central bank lending money to the banks without requiring collateral on the grounds that this would mean the Riksbank taking on credit risk, which would ultimately affect the general public if the banks encountered problems. But this argument is misleading. Customers have already deposited their money with the banks without requiring collateral from the bank. If a bank encounters problems and is unable to repay the money, there is no collateral available to the public. Instead, there is the state deposit guarantee. In a scenario where the banks' deposits from the public (which have taken place without the requirement of collateral) are replaced by deposits from the central bank (without the requirement of collateral), the public and the state have not taken on more credit risk overall. The credit risk has only been transferred from the part of the state that was previously responsible for implementing the deposit guarantee to the Riksbank. Compared with the current situation, there is thus nothing new that is controversial about the Riksbank lending money to the banks without requiring collateral to compensate for the outflow to e-krona. However, the arrangement makes the state subsidies and guarantees in the current system more explicitly visible, which we at Positiva Pengar believe is positive from a democratic perspective: the system needs to be transparent.

- **Designing a suitable lending facility would not be difficult.**
  The study argues that it would be difficult to design a suitable lending facility. However, it would not be at all difficult to design an automatic loan whereby banks could borrow money as soon as someone switches to e-krona in a scenario where the bank lacks excess liquidity. See Chapter 5 for a concrete proposal on how such a e-conversion credit could be designed.

- **The inquiry is concerned about what is stigmatising for banks**

It is worrying that the report's main problem with liquidity support to banks is that

is that it risks stigmatising the banks. We call for a more critical discussion of the social consequences of a monetary system where banks that get into trouble have to be rescued because the payment system would otherwise lock up.

- **Too little focus on the implications for monetary policy**
  The inquiry limits itself to not focusing on any deeper analysis of the consequences for monetary policy. It writes: "as mentioned in the introduction to the chapter, the inquiry has not been commissioned to analyse whether the Riksbank needs additional monetary policy tools and for this reason does not take a position on whether it would be desirable from a strictly monetary policy perspective to give a possible e-krona a certain design." However, the inquiry was tasked with taking a broad approach to the issue, and was given the freedom to also examine related topics that were relevant to shedding light on the issue. In order to take a position on whether Sweden should have an e-krona, it would have been important to shed more light on the monetary policy effects and how desirable these effects are. Otherwise it will not be possible to give a good answer to the inquiry's fundamental questions about the e-krona.

- **Central banks do not rule out helicopter money**
  The study mentions in passing that "CBDCs can also be designed to be used for direct payments of transfers to households and firms, which in turn allows CBDCs to be used for fiscal stimulus (so-called helicopter money). So far, this motive has not been emphasised by any central bank." However, it is misleading to say that helicopter money has not been emphasised by any central bank; for example, Anna Breman opened the door to helicopter money in her post that the central bank needs new, more efficient tools.

- **Helicopter money would create a clearer division of labour between fiscal and monetary policy**
  The inquiry writes about helicopter money to the inhabitants that "Such a design would mean that monetary and fiscal policy are mixed together, which could threaten the central banks' monetary policy independence as well as make it unclear who is responsible for fiscal policy" The inquiry takes the same line as the Riksbank inquiry. As we pointed out in our consultation response to the Riksbank Inquiry, the argument that helicopter money would entail a confusion with fiscal policy does not hold up either; on the contrary, helicopter money would mean that monetary policy and fiscal policy could be separated even more clearly than today.

- **The e-krona should not be restricted**
  The inquiry considers that "it should be possible to restrict the public's possession of or transactions with e-krona". We see no reason for such a restriction other than the limited accounts that must be provided due to money laundering, terrorist financing and the like. In our proposal in Chapter 5, we show how the e-krona can be introduced without financial imbalances, entirely under the control of the Riksbank.

- **Existing regulations have failed**
  The report considers that there are other tools (macroprudential supervision and regulations) to adapt credit provision to a more economically optimal level. Competition

from an e-krona suggests it would be more costly. However, regulation and supervision have not been sufficient to ensure fair competition, robustness and stability in the payment system. Rather, with the advent of Basel I, II, III and IV, regulation has grown to thousands of pages and thousands of full-time bureaucrats working solely on the regulations of banks and authorities. These complex rules create barriers to entry for new players who are unable to familiarise themselves with all the rules and comply with them, as well as distorting credit provision in favour of safe large corporations who find it easier to borrow and pay.

- **The e-krona allows for the liberalisation of the financial sector**
  We believe that trying to patch up existing regulations is not a good solution. A new approach is needed. Here, the e-krona could be a better option: by the state providing a secure payment infrastructure, the need to subsidise and guarantee the banks' money, as well as the need for complicated regulations to reduce the banks' risk-taking, disappears. The e-krona would allow for a major simplification and deregulation of the banking and payments industry, which would create lower barriers to entry, increase competition, improve efficiency and reduce distortions in bank lending caused by existing regulations.

- **Increased lending by non-banks can enhance financial stability**
  The report argues that if the e-krona increases in use so that bank lending decreases and households start to finance themselves more by borrowing from non-banks, financial instability would increase, "especially if long-term illiquid assets are financed with cash and high leverage". But this picture is misleading. The non-banks the report refers to as providing a "direct link between savers and borrowers", also known as "P2P banks", fund lending through deposits with matching maturities but do not fund themselves with cash, i.e. current accounts, as banks do. If households financed themselves more through loans in this market, which is currently growing rapidly, the risks in the financial system would actually decrease.

5. Recommendation to the government: the role of the state in the future payments market

In this chapter, we summarise Positive Money's proposals for the role of the state in the payments market of the future. Money is a means of payment and thus the most basic tool in a market economy. Money transfers value from one individual or company to another individual or company as a gift or payment for a service or product. Money should be neutral between seller and buyer and any intermediary so that neither party gains an advantage over the other. This is why governments have been the main issuers of money throughout history.

However, as digitalisation progresses, privately issued digital money has started to take over more and more. The Riksbank has therefore taken the initiative to investigate whether it should start issuing an e-krona, a digital equivalent of banknotes and coins. Internationally, money of the e-krona type is called Central Bank Digital Currency (CBDC). The difference between e-krona and today's digital bank money is that bank money is a claim on a commercial bank, whereas e-krona is a claim on the Riksbank. There are many different ways an e-krona can be designed. With regard to the design and introduction of the e-krona, we would like to emphasise the following four areas in particular:

5.1 Everyone should be able to pay without restrictions

According to the Riksbank, the purpose of an e-krona is that "Swedes should be able to make payments quickly and securely and at low cost, within the country and across borders, 24 hours a day, all year round - with central bank money" and that "even those who live in Sweden and do not want, cannot have or have access to the banks' services should also be able to manage their payments". This was previously possible when physical cash, i.e. banknotes and coins, was the dominant means of payment. We at Positiva Pengar agree: it is important that everyone should be able to manage their payments without being dependent on the balance sheets of commercial banks, therefore we propose that:

- **E-crowns for all**
  It is part of the Riksbank's main task to give Sweden's residents and companies free access to safe money. The Riksbank should therefore issue an e-krona that is available on equal terms for everyone, both natural and legal persons. This means that all natural and legal persons in Sweden will be able to settle payments in real time with digital central bank money around the clock.

- **Cash for all**
  Those who, for various reasons, are unable or unwilling to use digital means of payment must also be able to make payments with public money. The payment system should not only be for a certain part of the population. Everyone must be included if we are to talk about a shared society. It is therefore important that cash continues to have strong protection and support in society.

- **Government provides infrastructure, companies manage customer relations**

The main rule should be that the state provides the infrastructure for payments with

e-krona, while businesses build user interfaces, provide payment applications and manage customer relations. It is the responsibility of the state to automatically provide all citizens and, upon request, other legal entities with basic e-krona accounts and to operate the necessary infrastructure for payments between them. Basic e-krona accounts should allow everyone to make basic payments, just like the low-risk accounts proposed in the report. It is every citizen's right to upgrade their basic e-krona account to an unlimited account without restrictions, if they comply with applicable laws. As today, the private sector will be responsible for checking this: authorised payment companies can upgrade basic e-krona accounts to unlimited accounts if their existing customer relationship or a new customer check shows that there is no risk of money laundering and terrorist financing.

- **No costs for residents and businesses**
  Money is a public good that should be provided as a central infrastructure free of charge by the state. Payment companies should therefore not be charged by the Riksbank for operating costs for the e-krona infrastructure or for access to this infrastructure.
  Any savings from this should benefit the end user through low barriers to entry and increased competition driving down prices in the industry.

- **No thresholds**
  The e-krona should not, as such, contain any built-in limitations as to how much money can be saved in an account or how large payments can be made. For a well-functioning economy, it needs to be possible to make large payments with digital Swedish kronor. However, there is an exception. To counteract money laundering and economic crime, financial companies should be able to choose to implement amount limits and restrictions on transaction volumes.

- **Open source government payment app**
  Governments have a responsibility to ensure that all citizens, organisations and businesses, including those deemed unprofitable by the market, can make payments. Therefore, the government should provide a simple and user-friendly mobile and web app with the latest accessibility standards at no cost to enable everyone to access their e-krona accounts and make payments. The Riksbank's payment app should be provided as open source so that even smaller players who cannot afford to develop their own app can use the app, rebuild it or integrate it into their own solutions. In this way, a government payment app can contribute to increased innovation and competition in terms of smart user interfaces for the e-krona.

- **Payment cards for all**
  All Swedish citizens should have the right to have a government payment card linked to their e-krona account free of charge.

- **API access for all payment companies**
  All payment industry companies authorised by the Financial Supervisory Authority shall be granted API access to the e-krona payment infrastructure so that they can create and manage e-krona accounts, make payments between e-krona accounts and terminate them.
  e-krona accounts on behalf of customers. But we are also in favour of the industry

In addition, they may be authorised to develop or further develop their own APIs in cooperation with the central bank.

- **Easy to switch payment service providers**
  It should be easy to switch payment service providers for your e-krona account. The account number and payment history belong to the account itself and are therefore automatically included in the transfer. Under normal circumstances, the migration will take place through interaction and co-operation between the companies. In case of problems, the user should have a technical proof (a private key) to their account, which means that the migration can be carried out and verified even if the previous payment service provider does not want to cooperate.

- **Separating investments from money: zero interest on e-krona accounts**
  We believe that money should be a means of payment, a unit of measurement and a carrier of value over time, not an investment object. In other words, it should not be possible to make money just by owning money and storing it risk-free. Those who want interest lend money and those who want other returns invest money, in both cases taking a risk. This is why we believe that the interest rate on the e-krona should in principle be zero.

5.2 Personal privacy must be guaranteed

It is important that an e-krona is designed in a way that guarantees citizens' privacy. Today, private companies monitor our shopping behaviour. When we shop with a card, up to 9 different companies or organisations may be involved, many of which have access to personal data and information about the purchases. Many companies store such data and extract valuable information from it to help them sell even better and more targeted to the right customer groups.

Positive Money believes that everyone should have the right to pay anonymously without being monitored by either private companies or the state. An advantage of the e-krona is that it can technically guarantee citizens the highest possible level of personal privacy. Using modern cryptographic methods, e-krona transactions can be made completely anonymously without the central bank or intermediaries having access to any personal data.

At the same time, it is important that the e-krona is designed in a way that makes it possible, in principle, to request information and stop large-scale financial fraud in the event of suspected offences. In order to guarantee the highest possible level of personal privacy that is at the same time compatible with detecting and preventing large-scale financial crime, we propose the following:

- As the Riksbank writes in its reports on the e-krona, cash payments are currently completely anonymous. However, cash is primarily used for smaller transactions. We propose that it should be possible to make completely anonymous payments in the same way for small amounts by, for example, loading e-krona onto a payment card or telephone.

- We propose that individuals should own their own personal data and have full control over who accesses the data and how it is stored. This means that actors

who want to collect information about the customer's transactions, for example for commercial purposes, must obtain explicit authorisation from the customer. Without explicit consent

personal data will not be used for any purpose other than onboarding and the execution of e-krona payments. It is important that users who want the highest level of anonymity are not forced to authorise the collection of more personal data than required by law in order to have full access to all e-krona features.

- In order for information to be able to be requested in principle in the event of suspected offences, we propose that it be divided up among several different actors, just as it is today. Different authorities and private companies may hold unique information that they are not allowed to share with anyone else unless there are strong suspicions of a crime. If a crime is suspected, the information must be requested from several organisations and pieced together to get an overall picture of who bought what from whom and where the money comes from.

In this way, a money system can be designed that provides citizens with options they feel respect their privacy, while at the same time storing data from large transactions somewhere so that the information can be retrieved in case of suspected criminal offences.

5.3 Money and payments should be neutral

The payment system should be neutral between seller and buyer and any intermediary so that neither party gains an advantage over the other. This is not the case today; as we explained in chapter 4.2 on the current payment market, some intermediaries - major banks - are unduly favoured by the design of the payment infrastructure itself.

Money should also be designed and issued in a way that enables the Riksbank to conduct a neutral monetary policy that does not unilaterally favour certain parties in the market. Unfortunately, this is not the case today. Today, our digital money, bank money, is primarily created together with a bank loan and then becomes a liability on the banks' balance sheets. More than 98% of our means of payment are bank money. Less than 2 per cent is cash issued by the Riksbank.

As bank money is created in connection with loans, the Riksbank, whose basic task is to ensure that the value of the krona is stable, can only control the value of the krona by trying to influence the banks' interest rate by means of the policy rate and purchases of securities. The idea is that higher interest rates and sales of securities will reduce inflation and lower interest rates and purchases of securities will increase inflation. However, this works poorly because the interest rate and securities trading primarily affect the value of assets, while the value of the krona is measured by consumer price inflation, which does not include asset prices.

A reduction in the key interest rate means that the buyer of an asset (such as a house or securities) has to pay less interest and can therefore pay more for the asset.
The Riksbank's purchase of securities means that the price of securities increases and the interest rate falls further. The result of the Riksbank's securities purchases and lowered policy rate is thus primarily that assets increase in value. Only later, when and if those who have benefited from the interest rate cut increase their consumption of goods and services included in the CPI, will demand increase and there will be some consumer price inflation. But along the way, as we show in this report, increased asset values have made those who

own assets such as housing, property and securities richer. Business owners have also become richer. Partly directly by

the value of the company increases but also indirectly because the company's debts cost less to maintain so they can take a larger share of the income as profit. Thus, increasing inflation by lowering the policy rate always has the side effect of increasing economic inequality.

Higher policy rates and sales of securities reduce asset values. Inflation is slowed down somewhat by the fact that a larger share of household income has to be spent on interest payments, thereby reducing the demand for consumer goods and services. But declining asset values also mean that assets such as homes, securities and businesses that very often serve as collateral for loans will eventually not be sufficient collateral. Those with highly leveraged homes and highly indebted businesses will then face problems, which in turn can lead to problems for banks.

The fact that the Riksbank must go through the major banks to conduct monetary policy also means that the major banks are unduly favoured. For example, the Riksbank cannot possibly buy securities or lend money directly to non-banks. All monetary policy operations must take place via the major banks, which means that as a side effect they receive more money in their Riksbank account, which then provides interest income from the Riksbank.

In short, the current monetary system, where our means of payment are liabilities on banks' balance sheets, means that..:

- When the Riksbank lowers the key interest rate and buys securities to boost inflation, asset values increase and economic disparities widen.
- When the Riksbank raises the key interest rate and sells securities to push down inflation, the value of assets decreases and they can no longer provide full collateral for loans, putting the payment system at risk.
- When the Riksbank has to conduct monetary policy by going through the major banks that are participants in RIX, they are unduly favoured.

As the current monetary policy toolbox is inefficient and difficult to use with precision, the Riksbank has had to step up to the plate during financial crises, pandemics and wars, using unconventional methods such as quantitative easing and negative interest rates. This has further exacerbated the already serious side effects. During the pandemic, the government invested heavily to save citizens and businesses, and the Riksbank stepped in to prevent the financial sector from crashing. These measures mitigated the economic effects of the pandemic but at the same time drove up asset prices significantly, widening the economic gap and laying the foundation for the high inflation that followed.

As the government and the Riksbank invested at the margin during the pandemic while citizens were unable to spend as much as they wanted, there was a ketchup effect when the pandemic passed. Many people had extra money to spend and demand increased, while the war in Ukraine strangled the supply of certain goods. The result was very high inflation, which forced the Riksbank and other central banks to raise interest rates substantially, leading to large reductions in the value of assets, which in turn risks destabilising the financial markets. If the Riksbank had had a better toolbox, the government and the Riksbank would not have had to rescue the financial market with such large subsidies, the ketchup effect after the pandemic would have been much smaller and they would have fulfilled their task without such large side effects for society as a whole.

To overcome this problem, we recommend that the Riksbank be given a more (i) democratic, (ii) neutral and (iii) monetary policy efficient and effective toolbox to keep the value of money stable. We propose the following:

- **100 per cent e-krona**
  We believe that the e-krona should completely replace bank money as digital means of payment in the currency Swedish krona. The Riksbank would then not have to take the detour via the key interest rate and private banks to conduct monetary policy, but could more effectively conduct monetary policy directly on e-krona accounts.

- **Citizens' share**[2]
  When the Riksbank needs to raise inflation, the Riksbank issues new money as e-krona, the same amount to each citizen, which reduces economic disparities, as opposed to lowering the policy rate, which increases disparities.

- **Liquidity fee**
  When the Riksbank needs to reduce inflation even though the citizen share has already been reduced to zero, a proportionally equal amount is withdrawn from all e-krona accounts, which, unlike raising the policy rate, does not cause financial instability.

The citizen share means that the Riksbank creates an equal amount of money for each citizen directly in the citizen's e-krona account. The size of the amount is adjusted based on the same factors that are currently used to determine the policy rate. If inflation needs to be increased, the citizen's share is raised; if it needs to be reduced, the citizen's share is lowered.

Citizen's share is a democratic method of issuing new money: the people decide directly and democratically how the new money is spent. Citizen's share is also a neutral method: everyone benefits equally from new money, no individual citizen or company should benefit more than anyone else.

Citizen share is also efficient and effective in terms of monetary policy. When newly created money is distributed equally to all citizens, the demand for goods and services included in the CPI will increase immediately. It has a rapid and strong impact on inflation, without the side effect of affecting a range of other variables in the economy such as asset prices, increasing economic inequality and creating risks of financial crises.

To reduce inflation, it is normally sufficient to reduce the citizen share. If inflation needs to be reduced even though the citizen share is zero and the e-krona has completely replaced bank money, the Riksbank needs to be able to use a liquidity fee that removes money in proportion to the amount of money in each account. The liquidity fee continuously withdraws a very small but equal share of all e-krona and thus causes less inflationary pressure. A larger fee results in less inflationary pressure. The liquidity fee can also be used at the same time as the citizen share. Since the citizen share is given equally to all citizens and the liquidity fee is collected proportionally to the amount of e-krona, this has a levelling effect while keeping inflation stable.

[2] Note that the 'citizen share' is a strictly monetary policy tool and should not be confused with the

fiscal variant 'citizen wage', which has a completely different purpose, design and is financed by taxes.

As bank money is completely replaced by e-krona and the Riksbank is given a new monetary policy toolbox, the design of the payment system and the Riksbank's monetary policy will no longer unilaterally favour certain companies and actors in the economy. The Riksbank will no longer steer via the policy rate but instead issue new money directly to citizens. This means that the effect on consumer price inflation will be faster and more effective and that the impact on housing, property and securities prices will be avoided. Banks still handle all lending, but they need to cover their lending with corresponding deposits in various types of fixed accounts, wholesale funding, interest income, incoming amortisation payments or other income. In short, banks need to raise money before they lend it out. The next section discusses how the transition to a 100% e-krona system can be achieved.

5.4 E-krona to be introduced in a seamless process

In a system where e-krona is used as the only official digital means of payment, the payment system is secure. There are currently no risks to financial stability in the form of bank runs. But during a transition phase to a system with 100 per cent e-krona, there may, as the inquiry points out, be risks to financial stability or a problematic reduction in bank lending.

To achieve a controlled transition to 100 per cent e-krona, and to safeguard financial stability throughout the process, ensure that the Riksbank can fulfil its task and keep inflation stable at the inflation target, we propose that the Riksbank's toolbox be expanded with the following two tools:

- **E-conversion credit**
  To enable the e-krona to be introduced and scaled up without affecting the banks' balance sheets, we propose that the Riksbank offer the banks a credit when a net flow occurs from bank money to e-krona. The credit is offered at an interest rate slightly higher than the policy rate so that the banks firstly pay off the credit with the liquidity they do not need to hold as a reserve and secondly choose to use the credit. If the bank has a surplus of liquidity, since the interest rate on reserves is lower than on the e-conversion credit, the bank will pay off the credit with the surplus. Banks do not need to provide collateral for this credit because in the current system they have debts to customers (money in current accounts) without having to provide collateral. When collateral is not required, the bank's balance sheet is not negatively affected when money is moved (exchanged) between bank accounts and e-krona accounts.

- **A new liquidity requirement**
  A real-time requirement for banks to hold sufficient e-krona to cover a certain proportion of their customers' bank money. With this requirement, the Riksbank can control the proportion of e-krona in relation to bank money. When the Riksbank has raised the requirement to 100 per cent
  all customers' bank money will have to be covered by e-krona and it will no longer be worthwhile to offer current accounts (bank money). Instead, banks will offer to manage their customers' e-krona accounts.

With these two new tools, in combination with the citizen share described in the previous section, the Riksbank will be able to achieve with full precision a smooth transformation to 100 per cent e-krona, while preserving financial stability and enabling the Riksbank to fulfil its monetary policy task of maintaining a stable value of money (2 per cent inflation) much better than today. Below we describe the transformation in three phases:

Phase 1: Introduction of the e-krona

The purpose of the first phase is to introduce the e-krona, to provide all individuals, businesses and public institutions with e-krona accounts, to allow the e-krona to coexist with bank money for a period of time in order to be tested under real-life conditions, to ensure that everything in the new payment system works as it should, and to allow businesses in the payment industry and the financial system to adapt to the new situation in which e-krona exists for a period of time.

Note that no monetary limits on e-krona accounts are needed to introduce the e-krona. To maintain financial stability and ensure a sufficient level of bank credit in the event of large flows to the e-krona, zero interest on e-krona accounts is sufficient, combined with the more appropriate tool of offering banks an e-conversion credit.
The zero interest rate makes the e-krona initially not very attractive and the e-conversion credit stabilises in case of sudden large flows from bank money to e-krona.

During the first phase, the Riksbank will continue to conduct monetary policy through the policy rate just as today. The only difference is that, with an e-krona that is not interest-bearing, the floor for the policy rate will be 0 per cent, see the Riksbank's e-krona report 2. This means that if inflation is too low and the policy rate would have needed to be cut below zero, the Riksbank will need the new tool, the citizen share.

Phase 2: replacing bank money with e-kronas

Phase 1 is completed when (i) all citizens, businesses and public institutions have received the e-krona accounts and (ii) the Riksbank assesses that the new e-krona system is in place and functioning as planned. Then it is time to start phase 2. The purpose of Phase 2 is to gradually scale up the use of the e-krona until bank money has been completely replaced by e-krona.

Note that, as the e-krona is scaled up, the e-conversion credit involves moving money between banks' current accounts and e-krona accounts (exchanging bank money for e-krona).
e-krona) does not adversely affect the stability of the bank's balance sheet, regardless of the amount transferred. A possible bank run to e-krona accounts is thus neutralised. As the e-conversion credit is available in the same way to all banks, a simultaneous bank run from all banks to e-krona accounts is also neutralised. It also does not matter if there are different flows from different banks or how much flows. Note, however, that a bank run can still occur from the current accounts of one bank to those of other banks. But this risk decreases as the use of the e-krona increases. When the e-krona has fully replaced bank money, the risk of all types of bank runs will have been completely eliminated. We will then have a 100 per cent stable monetary system with secure e-krona without credit risk.

In order to increase the share of e-krona and gradually reduce the share of bank money until bank money is completely replaced by e-krona, we propose that the Riksbank use as its main tool the new liquidity requirement, which means that the banks must hold a certain share of e-krona as a backup for the remaining bank money. The new requirement can quickly be increased to cover the surplus of central bank reserves generated by the Riksbank's securities purchases. With a liquidity requirement of about 20 per cent, the banks would be forced to exchange 1,100 billion[3] in central bank reserves, which currently have an interest rate of 4 per cent, for e-krona with zero interest rate. This would immediately push the banks' profits to somewhat more reasonable levels.

Thereafter, the requirement should be slowly increased to 100 per cent. It will then only be a cost for the banks to operate their own payment infrastructure and offer bank money to customers. It will be a cheaper option to switch to the completely free e-krona system and administer e-krona accounts for customers instead. Virtually all bank money has now been replaced by e-krona.

We also propose the following measures to further establish the e-krona as the primary digital means of payment in Sweden:

- The e-krona will become legal tender, which means that all businesses will be obliged to accept e-krona as a means of payment in Sweden. In Sweden, it should not be possible to negotiate away the obligation for businesses to accept payments with Sweden's legal tender: Swedish kronor issued by the Riksbank.

- The public sector will start keeping all its money in e-krona accounts and will make all payments and collect all fees and taxes via e-krona accounts. The public sector will not accept privately issued means of payment and will only accept payments in Swedish krona.

Any residual bank money remaining after the implementation of the above measures should be definitively converted into e-krona by either (i) transferring it to the corresponding e-krona account of the residents/businesses, or (ii) converting the remaining bank money accounts into e-krona accounts, without any impact on the customer.

When all bank money has been completely replaced by secure e-krona with no credit risk, government subsidies and guarantees of bank money will no longer be needed. All subsidies and guarantees, including the possibility for a bank to obtain additional e-conversion credit from the Riksbank or the possibility to pay other banks in RIX, can then be abolished. This also means that large parts of the capital adequacy requirements and liquidity requirements, which exist to make bank money safer, can be abolished or greatly simplified.

During phase two, bank money and e-krona exist in parallel. The Riksbank continues to use the policy rate, but as the proportion of e-krona increases, the Riksbank gains greater control and can conduct monetary policy more effectively directly in relation to e-krona accounts. As bank money is replaced by e-kronas and the banks amortise and pay interest on
The e-conversion credit creates deflationary pressures that the Riksbank needs to compensate for.

[3] As a result of the Riksbank's large purchases of securities since 2015, but especially during the pandemic, the major banks now have around SEK 1,100 billion in their accounts. They receive 4 per cent interest on these, 44 billion per year.

In the event that inflation is too high, even though the citizen's share has been reduced to zero, the Riksbank can accelerate the transformation to 100 per cent e-krona by raising the liquidity requirement faster and/or increasing the policy rate, thereby increasing the interest rate on the e-conversion credit.

Phase two is completed when (i) all bank money is transferred to e-krona accounts, (ii) all government subsidies and guarantees to banks are removed, and (iii) capital and liquidity rules are simplified and adapted to the new situation.

Phase 3: E-conversion credit is amortised

During phase 2, a large loan (the e-conversion credit) from the Riksbank to the banking sector arises. This loan is a residue, a remaining subsidy to the banks, from the previous monetary system and is balanced by generally elevated asset values and debt levels in society. It is unreasonable that banks should be allowed to have a large loan with a low interest rate without requiring collateral from the Riksbank. This last remaining subsidy to the banks must now finally be abolished.

A third phase is therefore needed in which the banks repay these loans over a longer period of time. When all debts have been repaid, the banks stand on their own feet and finance their lending on market terms without the support of the Riksbank, just like all other companies in the economy.

As asset prices, and thus house prices, will increase less quickly, or even decrease, the time period must be long but still predetermined. This is to allow buyers and sellers of assets to adjust and to avoid sudden changes due to this repayment. The Riksbank controls the pace of repayment by very slowly and continuously increasing the interest rate on the e-conversion credit. The banks will then sell assets and amortise when the assets yield less than the cost of the credit.
the e-conversion credit.

When banks use the e-krona they receive through interest income, repayments and asset sales to amortise the e-conversion credit, the money supply shrinks. This will cause deflationary pressures that the Riksbank compensates with a citizen's share as part of its normal inflation targeting.

5.5 Impact of our proposal

During the transformation, there is no problematic impact on the balance of the financial system. In the banks' balance sheet, bank money is replaced on the liability side by a debt to the Riksbank (the e-conversion credit), which is then slowly amortised over a longer period of time. On the contrary, as bank money is replaced by e-krona, a number of positive effects on competition in the payment market, monetary policy and financial stability emerge:

- **Increasing financial stability**
  The higher the proportion of e-krona in the money supply, the lower the risk of bankruptcy.

bank runs. E-kronas are secure means of payment without credit risk, which increases the safety and stability of the financial system.

- **Increasing monetary policy effectiveness**
  The larger the share of the money supply that consists of government money, the more effective the Riksbank's monetary policy toolbox becomes. It is no longer necessary to take the detour via the policy rate and private banks' balance sheets, customers' creditworthiness and willingness to borrow, and homeowners' financial situation to influence inflation. The Riksbank can now directly control the entire money supply through the citizens' share and liquidity fee instead of using the policy rate. In this way, inflation can be controlled with much greater precision than at present without negative side effects such as a rise in asset prices, an increase in economic inequality or an increase in financial instability and the risk of financial crises.

- **Competition on a level playing field**
  Once the e-conversion credit is paid off, there are no longer any remaining government guarantees or subsidies to the banking sector. Money and payments are now completely neutral. Everyone can use money and make payments without the design of the monetary system itself unilaterally favouring any particular large corporation in an undue way. Banks must now finance themselves on market terms, just like any other business in the economy.

- **Reasonable bank profits. As** customers switch their bank money to e-kronor and as the Riksbank increases the new liquidity requirement, it is important to ensure that
  the banks' current reserves at the Riksbank of 1,100 billion, which generate 4 per cent interest income from the Riksbank, will be reduced to zero, and then replaced by an e-conversion credit on which the banks will instead have to pay slightly more than 4 per cent interest. This means that the banks' surplus profits will disappear. Note that the Riksbank could already today introduce the new liquidity requirement at a level of around 20 per cent and introduce a rule stating that the banks receive 0 per cent interest on the money they must hold in reserve at the Riksbank. This would mean that SEK 960 billion of the banks' current reserves would start to yield 0 per cent interest and only the remaining SEK 140 billion would generate 4 per cent policy rate income. At a stroke, the Riksbank's interest payments to the banks would decrease by an annual rate of SEK 38.4 billion. This would immediately lead to a somewhat more reasonable profit level for the banks. But note that for fully reasonable profits, all subsidies to the banks need to be abolished.

- **Healthy division of roles between the state and the private sector**
  The government is responsible for providing e-krona, executing real-time settlement of payments through the e-krona system and earning the profit from creating money (seigniorage), which is distributed to citizens. The market is responsible for e-krona user interfaces, customer relations and credit granting. Banks and payment industry companies earn money by providing high-quality services and products, as well as from the interest rate differential between deposits and loans.

- **Socially more optimal level of credit provisioning**

As the e-conversion credit is amortised, banks must gradually and increasingly

to finance themselves without cheap deposits from the government. This means that banks' funding costs increase, reducing their profits and lending. However, banks have long been criticised for lending too much. They have expanded the money supply by an average of 8.8 per cent annually between 1999 and 2022, while inflation has averaged just over 1.2 per cent and growth 2.5 per cent. Such a rapid rate of increase is not economically optimal. When the banks have to finance themselves on market terms, their lending will probably be lower, which is more optimal.

If lending were to fall to a level that is lower than what is economically optimal, inflation would probably also fall. This means that the Riksbank will need to increase inflation by creating more money to be distributed as a citizen's share to stabilise inflation at 2 per cent. This will increase the amount of money in circulation that the banks or others can borrow for investment.

In the event that the granting of credit is not economically optimal from any point of view, despite a stable inflation rate of 2 per cent, we at Positiva Pengar believe that this is a poor argument for general government subsidies to the banks. If the state wants to interfere in the loan market, it should not be apolitical officials at the Riksbank who grant loans to companies or to banks so that they can then blindly invest in whatever they find profitable. Rather, fiscal policy, for example via a state investment bank, should choose to lend earmarked money in a more targeted manner to subsidise certain markets that it considers politically desirable to stimulate and subsidise.

For a more detailed explanation of the potential impact of the proposal and answers to common questions and misunderstandings, see our website.