Basis for decision

DATE: 6 March 2019

DEPARTMENT: Financial Stability Department, Markets Department, Monetary Policy Department and the General Secretariat

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DNR 2019-00352

Slight reduction in the gold and foreign exchange reserve

Draft Executive Board decision

1. The Executive Board decides not to refinance the foreign currency loans from the Swedish National Debt Office totalling 8 billion US dollars (USD) when they mature in May, July and October 2019.
2. The Head of the Markets Department is tasked with managing repayment of the loans.

Reasons for the decision

The latest assessment is that the Riksbank's contingency need in foreign currency has decreased to about USD 48 billion in the 'base scenario'.[1] This is lower than previous assessments, which is due to several factors. Changes have occurred in banks' balance sheets. The structure of the Swedish banking sector has also changed, due in part to Nordea's relocation to Finland. Overall, this means that the gold and foreign exchange (FX) reserve can decrease slightly. Moreover, the Riksbank has upgraded the gold reserve so that the gold can be converted into liquid funds at short notice.

The Riksbank's assessment is that it is not necessary to refinance the remaining foreign currency loans from the Swedish National Debt Office that mature in 2019. These loans amount in total to USD 8 billion.

The matter at hand

The Riksbank holds a gold and FX reserve to be able to perform its remit and fulfil its commitments. The appropriate size and composition of this reserve is very much a matter of judgement as there are major uncertainty factors. As the FX reserve and the needs it is

[1] Both the size of the gold and FX reserve and the size of the contingency need have been rounded off to the nearest billion.

intended to fulfil are in foreign currency, it is reasonable to express it in terms of foreign currency as well. Therefore, the amounts in this decision are mainly stated in USD, the largest currency in the FX reserve.

The gold and FX reserve currently amounts to almost USD 56 billion. It must be possible to rapidly convert these assets to liquid funds in a crisis situation, which is why the reserve consists mostly of government bonds issued in USD and euro (EUR) as well as gold. To guarantee that the gold can be used at short notice, for example as loan collateral, the Riksbank has recently ensured that the entire gold reserve fulfils the international standard required for trading on the London Bullion Market.

Considerations

The Riksbank's remit requires a sufficiently large gold and FX reserve

The Riksbank is responsible for monetary policy and has the task of promoting a safe and efficient payment system.[2] The gold and FX reserve is central to both these tasks. As Sweden's central bank, the Riksbank basically has unlimited scope for increasing the amount of Swedish krona (SEK). But in order to provide liquidity assistance in foreign currency, a gold and FX reserve is required. If important market participants, such as banks, have liquidity problems, the Riksbank needs to rapidly be able to supply liquidity to them. The capacity to provide liquidity assistance in both SEK and foreign currency allows the Riksbank to safeguard financial stability. The Riksbank's capacity to provide liquidity also helps to maintain well-functioning financial markets, thereby ensuring a high level of efficiency in the monetary policy transmission mechanism.

The FX reserve is also needed to be able to sell and buy currency for monetary and exchange policy purposes, and to meet international commitments, for example in relation to the International Monetary Fund (IMF). Ultimately, a gold and FX reserve creates confidence in the central bank and its capacity to implement monetary policy as well as manage crises at short notice. In turn, this confidence can mitigate the risk of a crisis occurring or deepening.

Rapid borrowing of large amounts can exacerbate a crisis

In light of this, the Riksbank needs to be prepared to perform its remit independently. The Riksbank cannot rely on being able to borrow foreign currency when the need arises or count on foreign central banks providing loans to the Riksbank in foreign currency through what are known as 'swap' agreements. If the state were to rapidly borrow large amounts once a crisis had arisen, there would be a risk of the state's borrowing costs increasing considerably and, in a worst-case scenario, of it becoming difficult to borrow the necessary amounts in time. One reason for this is that rapid borrowing of large amounts can send out the wrong signals. It may be interpreted as the situation in the economy being more serious than previously indicated, and that preparedness in Sweden is substandard, which could undermine confidence in the Swedish economy and hence further exacerbate the economic situation.

[2] Chapter 1, Article 2 of the Sveriges Riksbank Act.

The Riksbank is Lender of Last Resort in a crisis

Sweden has a large, cross-border banking sector with significant commitments in foreign currency.[3] Its banks have operations in several countries and hence assets and liabilities in several different currencies. The total assets of the Swedish banking system, including foreign banks' operations on the Swedish market, amount to just under 300 per cent of Sweden's gross domestic product (GDP). A significant proportion of its business is conducted in foreign currency. The size and structure of the financial system can pose significant risks to financial stability and ultimately the national economy. It is therefore important that banks themselves have their own insurance by, for example, holding adequate liquidity reserves. But it is also important that the Riksbank has an adequate gold and FX reserve to be able to perform its role as Lender of Last Resort in foreign currency.

The FX reserve functions as a national self-insurance

In connection with its Article IV consultation in 2016, the IMF performed an in-depth study of Sweden's FX reserve. Its assessment was that the FX reserve should not be less than 11 per cent of GDP, which in 2016 was USD 54 billion.[4] As a benchmark, the IMF also uses the relationship between a country's import value and its reserves. This benchmark is that countries shall have reserves equal to a minimum of three months' imports.[5] In Sweden's case, the value of three months' imports amounted to SEK 487 billion for the third quarter of 2018.[6] This corresponds to around USD 54 billion.

When the Riksbank offered liquidity support in USD to banks during the autumn of 2008, the need was very considerable. Over a period of four weeks, the Riksbank lent USD 30 billion. This was funded by leveraging the existing gold and FX reserve, which at that point amounted to about USD 25 billion, and by making swap agreements with the US Federal Reserve (Fed). In the last crisis, the Fed had a special role as the crisis arose in the United States and then spread around the globe. If the next crisis were to be more local, or regional, there would most probably be less incentive for the Fed to assist other central banks. Neither is it possible to count on the European Central Bank (ECB) supplying EUR to the Riksbank in all situations.[7] The Riksbank therefore needs to have an adequate level of national self-insurance.

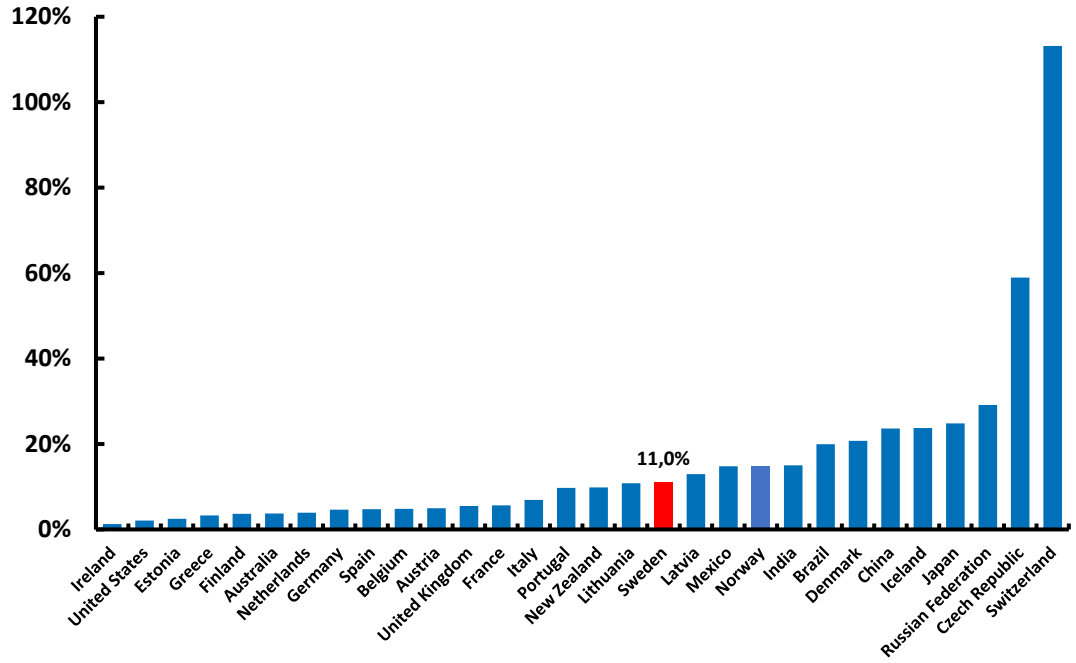
The gold and FX reserve in an international context

In an international comparison, the current level of the Swedish gold and FX reserve comes somewhere in the middle, at 11 per cent of GDP (see Figure 1). In general, major emerging market economies tend to have larger reserves in relation to GDP. Certain countries, such as Switzerland, Japan and the Czech Republic, have built up large FX reserves after having intervened on the FX market in order to avoid too strong a currency

[3] There are three major Swedish banks: SEB, Handelsbanken and Swedbank. In addition, other banks, such as Nordea, Danske Bank and DNB, conduct substantial operations in Sweden.
[4] See https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Sweden-Selected-Issues-44402.
[5] This rule of thumb is also employed by other analysts. See, for instance, The Economist: https://www.economist.com/economic-and-financial-indicators/2010/08/12/import-cover.
[6] Statistics Sweden
[7] In its statement from May 2017, the ECB writes: "In this respect the ECB notes that the provision of euro liquidity pursuant to currency swap arrangements between the Riksbank and the ECB is not available on an unconditional basis." Link: https://www.ecb.europa.eu/ecb/legal/pdf/en_con_2017_17_signed.pdf.

and deflation. Countries whose national currency is considered a global reserve currency, such as the United States and the euro countries, often have smaller FX reserves.

Figure 1. Gold and FX reserve in relation to GDP, 2018
Per cent



Source: IMF[8]

The contingency need is ultimately a matter of judgement

When assessing the contingency need, the socioeconomic benefits of the gold and FX reserve should be put in relation to its costs.

Depending on how the gold and FX reserve is funded, there may be costs involved in maintaining it. Historically, the gold and FX reserve has been primarily funded via the Riksbank's issuing of banknotes and coins and using its own capital. Both these liability items on the balance sheet are interest-free. Since 2009, some of the FX reserve has been funded by borrowing in foreign currency via the Swedish National Debt Office. On average, this part of the FX reserve has produced negative net interest income as the Riksbank's investments in foreign currency have generated lower returns than the borrowing cost incurred by the Swedish National Debt Office for its borrowing.[9] It is the Riksbank's assessment that this cost amounts on average to about 0.2 per cent of the

[8] The calculations are based on total reserves (gold at market price) from the IMF database *International Financial Statistics* (IFS) for Q3 2018 and the IMF's forecasts for GDP (current prices) for 2018 from *World Economic Outlook* (WEO, Oct 2018).
[9] This is because the interest rate for Swedish government bonds in USD and EUR is typically higher than the interest rate for the government bonds in which the Riksbank invests. On average, therefore, returns are expected to be lower than the funding cost.

borrowed amount per year.[10,11] The cost needs to be compared with the crisis prevention effect of the FX reserve, the benefits to society of being able to supply liquidity assistance at short notice and the time it would take and the costs it would incur to raise funding for an FX reserve in a stressed situation. The Riksbank can choose different funding options, for example exchanging SEK for foreign currency. In this way, the Riksbank would fund some of the FX reserve with a liability in SEK, where the interest rate is linked to the repo rate. Today, this would be expected to lead to positive net interest income for the Riksbank as the returns on, for example, US government bonds are expected to be higher than the average repo rate in the future. On the other hand, the exchange rate risk measured in SEK would increase for the Riksbank.

The Riksbank regularly reviews the size of the gold and FX reserve and the appropriate contingency need. The estimated contingency need may in the future both increase and decrease depending on, for example, international developments and the actions of banks. If the gold and FX reserve was to be less than the contingency need, the Riksbank can fund a larger FX reserve in a number of different ways. As mentioned above, the Riksbank can borrow via the Swedish National Debt Office and create funding by exchanging SEK for foreign currency. Furthermore, the Riksbank can raise funding in foreign currency in its own name. Both monetary policy and other considerations may affect the combination of funding that is appropriate at the time funding is required.

The size of the Riksbank's contingency need depends on several factors:

- banks' need for foreign currency in a financial crisis
- the need to be prepared for FX interventions
- the size of international commitments
- the need for creating confidence in the Riksbank having adequate resources to be able to perform its remit

No model exists for estimating these needs exactly. Instead, the Riksbank's method generates intervals for the contingency need which are dependent on a number of assumptions. Within the framework given by these intervals, the size of the contingency need is ultimately a question of judgement in which several factors must be considered.

Stress test of banks' liquidity needs

The Riksbank estimates banks' liquidity needs using stress tests, the construction of which resembles calculations of the Liquidity Coverage Ratio, LCR.[12] When calculating the LCR, banks' net cash outflows in a stressed situation are compared to their liquidity reserves.[13]

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[10] This is in line with the estimates in the inquiry into "The Riksbank's financial independence and balance sheet", which calculates the cost to be between 0.2 and 0.3 per cent as well as in line with the Swedish Government's calculations of the cost for the borrowed part of the FX reserve amounting to SEK 500 million a year. See links: https://www.riksbank.se/globalassets/media/remisser/riksbankens-remissvar/svenska/2017/remiss_fid_170427.pdf and https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2013/01/sou-20139/.

[11] The Riksbank has previously discussed the issue of funding the FX reserve, for example in its consultation response to the Government's inquiry into the Riksbank's financial independence (SOU 2013:9). The Riksbank's proposal has been that banks that take considerable liquidity risks in foreign currency shall also pay the costs for the part of the FX reserve that the Riksbank holds in order to be able to give them liquidity support.

[12] The data material used in these estimations is known as the Maturity Ladder and is collected by Finansinspektionen.

[13] LCR is calculated as the ratio of the bank's liquidity reserve to its stressed net outflows during a 30-day period. In the Riksbank's assessment, the bank's liquidity needs are calculated as the difference between its liquidity reserve and its stressed net outflows during a 3-month period: $Liquidity\ needs^{Bank\ A} = Liquidity\ reserve^{Bank\ A} - Net\ outflow_{3\ mths}^{Bank\ A}$

The liquidity support that the Riksbank may be required to give banks in a stressed situation is thus estimated as the liquidity deficit that remains after the banks have used their own liquidity reserves to the extent deemed possible.

Regarding the period of time to be covered by this contingency, the Riksbank's stress test stretches over a horizon of three months instead of the 30 days used when calculating the LCR. As a significant share of banks' short-term funding needs to be refinanced within three months, the Riksbank considers this to be a more relevant test period than a period limited to 30 days. This assumption is further justified by the fact that banks' liquidity needs in foreign currency under stress can be built up and persist for a substantially longer period than 30 days, as was the case during the financial crisis of 2008/2009.

When a bank encounters liquidity problems, it is often an early sign of the market perceiving a risk that the bank has solvency problems. Confidence in the bank among investors and financial institutions can then be considerably weakened. This can lead to an increase in the bank's funding costs or, if the worst comes to the worst, to the bank's access to market funding disappearing completely. The bank may then be forced to reduce its lending to households and companies, or discontinue it entirely. The Riksbank's objective of promoting a stable and safe payment system is about avoiding exactly this situation – liquidity shocks leading to the financial system no longer being able to fulfil its key functions (e.g. credit supply).

It is important that banks, first and foremost, have their own self-insurance against liquidity risk by holding adequate liquidity reserves. This is something that the Riksbank has emphasised on many occasions. However, it is difficult to know in advance what share of their own liquidity reserves banks can utilise before market confidence is undermined. In other words, how much of their liquidity reserves banks can utilise in a stressed scenario can vary and in its estimates, the Riksbank therefore analyses several levels of remaining liquidity reserves to highlight the uncertainty in the assessments.

Once banks' total liquidity needs have been calculated, the next step is to estimate what this means for the size of the Riksbank's contingency need. As banks' operations are cross-border, they are the counterparties of several central banks in addition to the Riksbank. One starting-point is, therefore, that liquidity supply is shared among several central banks. It is, however, not possible in advance to know how other central banks will act in a crisis, which also needs to be considered when assessing one's own contingency. The Riksbank has analysed how the responsibility for liquidity supply can be distributed among different central banks based on various perspectives and models. The size of banks' operations in each country, where their headquarters are located and whether they are subsidiaries or branches are important elements to consider in the assessment.

The stress test is designed to capture outcomes in a very uncertain scenario, namely when the Riksbank needs to act in its role as Lender of Last Resort. In the stress test's 'base scenario', the contingency required to meet banks' liquidity needs is calculated at USD 36 billion (see Appendix for details of the calculations). This amount can fluctuate considerably, however, if the underlying assumptions are changed. The method is therefore based on testing the effects of several different assumptions in order to estimate an interval. As discussed above, some of the most central assumptions in the stress test concern the time period to be covered by the contingency, how much of their own liquidity reserves banks can utilise and how serious the stress is. For some of these

assumptions, the Riksbank tests different feasible alternatives. As previously noted, there are no simple models with which to estimate this contingency need, instead it is ultimately a question of assessments in which several factors need to be considered.

The Riksbank works constantly on improving its calculation method. In addition, changed conditions affect the outcome of the calculations. Banks' balance sheets are constantly changing as is the structure of the Swedish banking sector, for example as a result of Nordea's relocation to Finland. Because of this, the allocation of responsibility has changed between the Riksbank on the one side and the ECB or the Bank of Finland on the other. However, Nordea's relocation does not entail any significant changes to Nordea's banking operations in Sweden. The challenges caused by the concentration and interconnectedness in the Swedish banking system remain.

The current contingency need in the base scenario of USD 36 billion is lower than what was calculated for a corresponding scenario in April 2017 in connection with the Riksbank's consultation response to the draft proposal on the Riksbank's financial independence and balance sheet referred to the Council on Legislation for consideration.[14] This is partly due to structural changes in the Swedish banking sector and banks' updated balance sheets.

International commitments and preparedness for FX interventions

The Riksbank's international commitments can require the use of some of the FX reserve. This primarily concerns Sweden's commitments in relation to the IMF. Although it is possible to ask the IMF to defer such commitments during an ongoing crisis in Sweden (this occurred during the 1990s crisis, for example), it cannot be ruled out that parts of the FX reserve may already have been utilised to meet international commitments when it also needs to be used to supply liquidity to Swedish banks. Sweden's total IMF commitments currently amount to USD 27 billion.[15] When IMF calls in these commitments, it almost exclusively asks for payment in USD.

The Riksbank has used the IMF's own calculations of the funding needs in a global systemic crisis as a starting-point and compared these to Sweden's member's quota in the IMF. For the Riksbank to be able to cover its share of the funding needs, a minimum of USD 5.5 billion is required.[16] The Riksbank also needs to be prepared to buy and sell Special Drawing Rights (SDR) at the request of other member countries. In recent years, however, SDR trading has more often added USD to the FX reserve rather than burdened it, due to other countries requesting to buy SDR (and pay the Riksbank in USD) rather than sell them. This indicates that the potential need in the FX reserve as a result of trading in SDR is limited.

Another important purpose of maintaining an FX reserve is to be prepared for FX interventions. Since November 1992, however, Sweden has had a floating exchange rate. The need of an FX reserve to implement FX interventions is therefore limited, as it is possible to achieve a stronger exchange rate by increasing the policy rate. However, using the policy rate as a tool to achieve a stronger exchange rate can be associated with several

[14] See https://www.riksbank.se/globalassets/media/remisser/riksbankens-remissvar/svenska/2017/remiss_fid_170427.pdf.
[15] Exchange rate USD/SDR 1.3971 (29 January 2019). This also includes the Riksbank's commitments linked to the Special Drawing Rights (SDR), which differ from other loan commitments to the IMF for subsequent lending to other countries.
[16] This is based on an IMF scenario with a systemic crisis including 15 countries.

negative effects, such as increased unemployment. In exceptional circumstances, FX interventions can therefore be used as a complement to more conventional monetary policy in order to attain the inflation target or to support general economic policy objectives. The last time the Riksbank implemented FX interventions was in 2001.

The Riksbank considers the need for an FX reserve to be able to implement FX interventions aimed at strengthening the krona exchange rate to be limited, but not non-existent. However, it is very difficult to assess in advance how great the need is. Given the size of the flows taking place on the FX market, a rough estimate of the need for FX interventions during a short period of time could amount to at least the equivalent of USD 6.5 billion. But significantly larger sums may be needed to implement FX interventions. If the Government were to decide to introduce a fixed exchange rate (for example, if Sweden were to become a member of the European Exchange Rate Mechanism, ERM II), the need would be significantly greater.

Uncertainties and assessments

The Riksbank's calculations of the contingency need include banks' liquidity needs in a stressed scenario, the scope for implementing FX interventions and the capacity to fulfil the Riksbank's international commitments. The calculation model and assumptions have a major impact on the assessment of the contingency need. The outcome in the Riksbank's calculations in the 'base scenario' is tabulated in Table 1.

Table 1. Various components of the base scenario
USD billions

Contingency need	Amount
Banks' liquidity needs in foreign currency	36
International commitments	5.5
FX interventions	6.5
Total	**48**

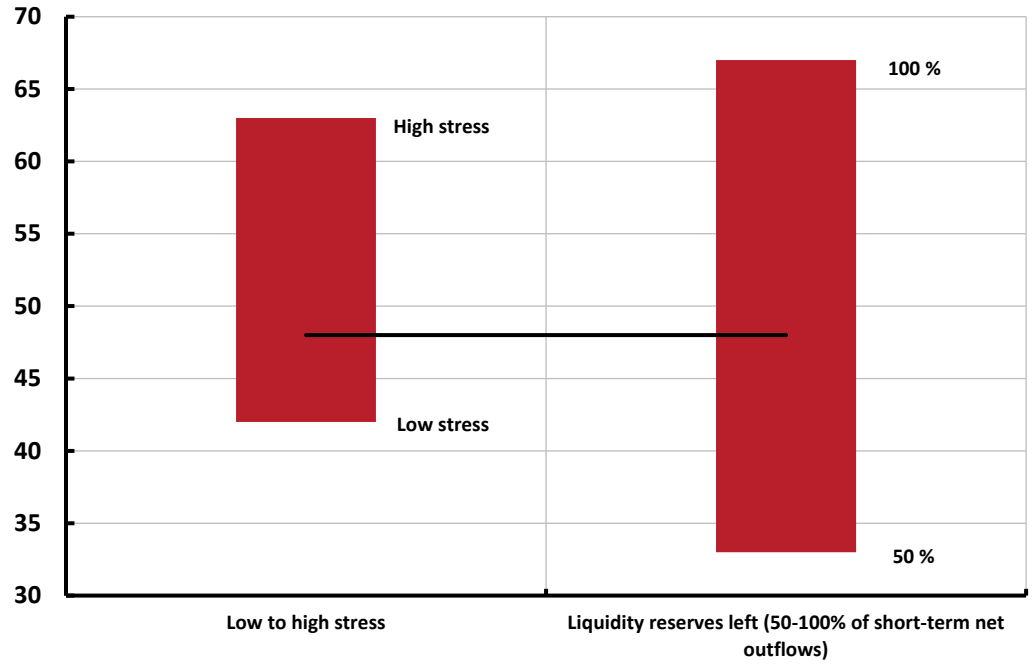
The outcome has been affected by various assumptions. As regards banks' liquidity needs, sensitivity analyses have been carried out that expose banks to both softer and harder stress. If the stress in the base scenario is reduced by allowing a tightening of banks' lending and by including several asset types in their liquidity reserves, the estimated contingency need decreases. But if the stress is instead greater than in the base scenario, for example if there were to be a bigger bank run from households and companies, the contingency need would increase.

In the calculations, the Riksbank assumes that banks only use some of their liquidity reserves to cover the liquidity needs that arise prior to the need for liquidity support from the central bank. To calculate the uncertainty band in Figure 2, it is assumed that banks contact the central bank when their liquidity reserves are equal to 50-100 per cent of their short-term net outflows.

Figure 2 below illustrates the outcome using these different assumptions. The black line shows the outcome in the stress test's base scenario including the contingency need for FX interventions and international commitments. This gives a total of USD 48 billion. As is

clear from the figure, the outcome varies considerably depending on the underlying assumptions made. Outcomes can also vary even more as the uncertainty regarding the Riksbank's international commitments and contingency for FX interventions has not been included in Figure 2. In a scenario in which many or major countries need to borrow from the IMF, the Riksbank would need to contribute significantly larger amounts than those included in the base scenario. Significantly larger sums may also be needed to implement FX interventions.

Figure 2. The Riksbank's contingency need based on various assumptions
USD billions



Note. See Appendix for details of the assumptions made in the calculations.

In addition to the Riksbank's own calculations, there are also other important factors to consider. As stated in a previous section, IMF assessments and benchmarks point to an FX reserve of about USD 54 billion, although parts of this assessment were based on previous conditions, for example prior to Nordea's relocation. The fact that Sweden still has a large, cross-border banking sector with substantial commitments in foreign currency constitutes a vulnerability that needs to be considered in the overall assessment.

Composition of currencies

The currency composition of the contingency need is adjusted to reflect the needs described in earlier sections. As regards Swedish banks' liquidity needs in foreign currency, it is mostly a question of USD, EUR and British pounds (GBP), but also Danish krone (DKK) and Norwegian krone (NOK). In the autumn of 2018, the Riksbank made a decision to change the composition of currencies, in part to better reflect the liquidity risks taken by banks. The changes to the currency composition mean that the FX reserve is based on liquidity needs of about 75 per cent USD, 20 per cent EUR and 5 per cent other currencies, broken down into about 3 per cent GBP and 1 per cent each of NOK and DKK.

However, it is of the utmost importance that banks themselves primarily manage their short-term liquidity risks in all significant currencies. When the Riksbank prices emergency liquidity assistance to banks, the risks taken by the counterparty historically are considered in the assessment.[17]

Size of the gold and FX reserve

The assessed contingency need in foreign currency needs to be put in relation to the value of the gold and FX reserve. As of 30 November, the gold and FX reserve amounted to about USD 56 billion, of which the equivalent of USD 5 billion consists of gold. For the gold reserve to be considered a liquid asset, the gold bars must fulfil a special standard called London Good Delivery (LGD). In 2017, the Riksbank upgraded the part of the gold reserve that did not fulfil the standard by replacing some of the reserve with new gold bars. As a result, the entire gold reserve now fulfils the LGD standard.[18]

Parts of the FX reserve are financed via loans from the Swedish National Debt Office. On two occasions, in 2009 and 2012, the Riksbank has decided to strengthen the FX reserve by raising loans via the Swedish National Debt Office totalling SEK 200 billion. The loans have been taken out in both USD and EUR and currently amount to USD 22.5 billion and EUR 5.5 billion.

Loans from the Swedish National Debt Office totalling USD 10 billion mature during 2019: 2 billion in March, 2.25 billion in May, 2.75 billion in July and 3 billion in October. Overall, the Riksbank's calculations and benchmarks indicate that the current size of the gold and FX reserve is approximately on the right level but that the Riksbank does not need to refinance the loans that mature in May, July and October totalling USD 8 billion. This means that the gold and FX reserve decreases to about USD 48 billion. The new size of the gold and FX reserve roughly corresponds to the currently estimated contingency need and international benchmarks – the latter given that the need can be expected to have fallen slightly compared with the IMF's calculation prior to Nordea's relocation.

[17] See the Riksbank's policy for pricing emergency liquidity assistance in accordance with the decision on 6 March 2019.
[18] A few gold bars of special significance for Sweden's economic history and the cultural heritage managed by Swedish authorities have been preserved in their original form.

Appendix: The stress test scenario

Method

The Riksbank has access to data on banks' future cash flows on a quarterly basis. Based on these, the liquidity needs in a stressed scenario are calculated for each individual bank at each observation point. An individual bank's contribution to the overall contingency need is then calculated as a percentile of the historical outcomes. The maximum liquidity needs are derived if the 100th percentile is used. The calculations in the base scenario are based on the 90th percentile, however. The choice of percentile is not self-evident and is ultimately a matter of judgement.

Base scenario

The following stressed scenario is used to calculate the liquidity needs:[19]

- Maturing market funding can no longer be renewed.
- Households withdraw 5 per cent of their deposits.
- Non-financial corporations withdraw 25 per cent of their deposits.
- Banks renew all lending, i.e. there is no credit tightening.
- In the liquidity reserve, only central bank deposits and government bonds can be used to obtain liquidity.

There is also a threshold value for when market confidence in banks disappears. This is difficult to estimate, but the calculations use a threshold value that corresponds to when banks' liquidity reserves fall below 75 per cent of their short-term net outflows.

Sensitivity analysis

The basis for the sensitivity analysis is the base scenario described above. With these assumptions, the contingency need, which in the calculations falls within the Riksbank's responsibility, amounts to USD 36 billion. The points below show how the liquidity needs change when one or a few of the assumptions vary one at a time.[20]

- The base scenario assumes that banks renew all their lending and that the liquidity reserve consists only of high-quality liquid assets and central bank deposits. If the liquidity reserve is expanded to include covered bonds and allows a credit tightening of 10 per cent, the liquidity needs decrease to USD 30 billion.
- In the base scenario, there is a bank run of 5 per cent on household deposits and 25 per cent on company deposits. If these parameters increase to 15 and 40 per cent respectively, the liquidity needs amount to USD 52 billion.
- In the base scenario, central bank liquidity is required when banks' liquidity reserves fall below 75 per cent of their original short-term net outflows. If banks were instead able to utilise more of their reserves (down to 50 per cent of short-term net outflows), the liquidity needs would be USD 21 billion. If, on the other

[19] The assumptions about cashflows in the Riksbank's base scenario are generally comparable with the assumptions made in LCR calculations in accordance with the Basel Accord and the EU regulatory framework.
[20] These amounts only refer to banks' liquidity needs. In Figure 2, international commitments and FX interventions have also been added (which together amount to USD 12 billion). This enables amounts in the various scenarios to be compared with the figure of USD 48 billion, which is the outcome in the base scenario (36+12=48).

hand, banks were able to utilise less of their reserves (up to 100 per cent of short-term net outflows), the liquidity needs would be USD 54 billion.