



Monetary policy after capital controls

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Madame Chairman, honoured guests,

In my speech today, I would like to discuss the monetary policy that might be appropriate for Iceland after the broad-based restrictions currently imposed on capital outflows have been lifted. More specifically, I will discuss the monetary policy framework rather than its implementation, which would naturally depend on economic conditions and prospects at any given time.

But what is meant by monetary policy? In the modern sense of the term, monetary policy entails applying the Central Bank's balance sheet and other instruments at the Bank's disposal so as to affect the economy. In that sense, entering a currency union is not monetary policy; it is currency policy. Only central banks can pursue monetary policy, while governments take decisions on currency policy. In my discussion today, I assume that we will pursue independent monetary policy, at least in the near future.

Designing a monetary policy framework entails deciding what its objectives should be, which policy instruments should be applied, how decisions on the application of those instruments should be taken, how these decisions should be communicated, and how accounting for monetary policy after the fact should be handled. Exchange rate policy is naturally an important part of this framework; i.e., whether the exchange rate is pegged, free-floating, or somewhere in between.

The monetary policy framework must be based on sound theory concerning how monetary policy instruments affect the economy – theory that is well supported by experience and research. Otherwise, there is the risk either that goals will be set which monetary policy has little or no chance of achieving or that appropriate policy instruments will not be used. But the problem is that monetary policy transmission changes with developments in the economy and the financial markets and the effectiveness of different policy instruments can change over time. For example, where financial markets are underdeveloped and repressed, the tendency is to use policy instruments based on various kinds of quantitative restrictions such as lending ceilings and to actively use reserve requirements instead of price instruments such as interest rates, which are usually the most effective tool when financial markets are less restricted and more developed.

In order to lay the groundwork for further discussion of the monetary policy framework, I will give you a broad sketch of the key points concerning monetary policy efficacy that must be considered when the framework is developed. In order to save time, I will paint with a broad brush and emphasise the points that are most important and are well supported by theory and research – including research on Iceland. In addition, these are key points that remain valid in spite of the experience of the financial crisis. In this context, two aspects are most important.

The first is that in the long run, monetary policy primarily affects nominal variables such as the price level and the exchange rate. However, this statement is not, strictly speaking, true, and it probably applies primarily to that which we can call “good” monetary policy. Bad monetary policy can probably have a lasting negative effect on GDP growth and living standards and other real variables that we consider important in connection with economic well-being and stability. An example of this is persistently high and volatile inflation or deflation of the type occurring around the world during the Great Depression of the 1930s.

The second important point is that in the short term, monetary policy can affect real variables such as GDP growth, employment, the real exchange rate, and the current account balance. This is partly because monetary policy measures affect different prices at differing speeds, and until full adjustment has taken place, relative prices and the real variables affected by them will change. An example of this is the impact of interest rate changes on the nominal exchange rate, which emerges quickly and changes the real exchange rate. To the degree that this change is in excess of what is compatible with underlying economic conditions, it will then gradually reverse with an adjustment in prices and wages. A similar story can be told about real wages. Therefore, in the long run, real economic variables are determined mainly by underlying factors such as natural resource utilisation, labour force quality, productivity, and the propensity to save.

It follows from what I have just said that it is of little use to set long-term goals for monetary policy other than price stability or exchange rate stability. Although this is so, monetary policy can also attempt to mitigate volatility in real variables such as GDP and employment and counteract deviations in the exchange rate from equilibrium, particularly when such volatility and deviations originate on the demand-side of the economy.

It also follows from what I have said that monetary policy must be forward-looking, as it takes effect with a time lag. Based on the findings from a number of studies, the rule of thumb is that the full effect of interest rate changes on inflation emerges in 2-3 years, while the bulk of the effect emerges within about a year. The short-term impact on real variables tapers off within the same time frame. And it follows from this that in order to pursue forward-looking monetary policy with any degree of success, it is necessary to make forecasts. These call for economic analysis and modelling. In order to understand the problems associated with monetary policy implementation, one must bear in mind that

statistics relating to the recent past often contain significant measurement errors, that we do not know what the “right” economic model is, and that the future is always in some sense unknowable. In other words, monetary policy is always implemented under conditions of uncertainty – to varying degrees, of course. This is why we consider a large number of economic indicators and use several models. Furthermore, we do not put a single economist in front of a computer and assign that person the task of determining the monetary stance; instead, we have a committee that exchanges opinions and assesses the current situation and outlook at the time in question.

The observations I have just made are general in nature and apply to large and small countries alike. But we know that monetary policy in small, open economies is accompanied by particular challenges – challenges that we must take into consideration when developing a monetary policy framework for Iceland. In this context, it should be noted, first of all, that smaller economies generally have a tendency to be more volatile than larger ones, owing both to less economic diversity and the greater relative weight of individual shocks. Second, the relative weight of the tradable sector is often greater than in larger economies. Because of this, economic developments are more dependent on the exchange rate, and pass-through from the exchange rate to inflation is generally stronger. Third, financial markets are shallower than in larger economies, other things being equal, and this contributes to greater volatility of financial prices. Fourth, in an environment of unrestricted capital flows and increasing international financial integration, the possibility for small economies to affect their own financial conditions through monetary policy diminishes.

The question then arises: should there be an exchange rate target or an inflation target? The answer is not always straightforward. Other things being equal, an inflation target is more appropriate because it stands closer to the factors important to economic well-being, and it is easier to decide what an inflation target should be than to estimate the “right” exchange rate target. In other respects, the answer is determined by the structure and cyclical behaviour of the economy in question, the maturity of its markets, and whether cross-border movement of capital is largely unrestricted or not. The more open an economy is, the stronger the arguments for an exchange rate target because inflation is determined to a greater degree by the exchange rate. On the other hand, the less correlated shocks and cycles are with those in trading partner countries, the stronger the arguments for an inflation target and a floating exchange rate. Therefore, the two characteristics of small economies that I mentioned earlier pull in opposite directions. This does not change the fact that, other things being equal, smaller economies are likelier than larger ones to have an exchange rate target.

Underdeveloped financial markets can be obstacles to the pursuit of an inflation target and a floating exchange rate. An example of this is the conditions in Iceland before the 1990s, when we lacked a money market for krónur and an interbank foreign exchange market. Less restricted movement of capital pulls in the other direction, however, as it can be more difficult to achieve an exchange

rate target, and the negative implications for financial stability, when central banks are forced off the target, have often proven more pronounced. As a result, it is no coincidence that countries around the world shifted from exchange rate targeting to inflation targeting as capital movements were liberalised in the late 1980s and the 1990s.

The answer to the question of inflation target versus exchange rate target therefore differs from country to country and from time to time, as our own history shows so clearly. From the time the Central Bank of Iceland was established in the early 1960s until the beginning of the 1990s, the Bank pursued an exchange rate target, with fixed-exchange rate episodes of varying lengths interrupted by periodic devaluations, apart from one revaluation in 1973. The markets were underdeveloped, and reserve requirements and lending restrictions were the main policy instruments, but they were relatively toothless because of the Treasury's unrestricted borrowing from the Central Bank and, for a time, the partial relending of reserve requirements as inventory credit to exporters. At the beginning of the 1990s, the interbank markets for money and foreign exchange were developed, which created the conditions for the conduct of monetary policy as we now know it, with the Bank's interest rates for transactions with deposit-taking institutions as the main policy instrument. Restrictions on movement of capital were lifted in the first half of the decade. At the same time, the exchange rate target took the form of a target zone, which was then widened over the course of the decade, in part because capital movements increased exchange rate volatility and it was considered risky to eliminate investors' exchange rate risk entirely. When growing economic imbalances were added to increased movement of capital, exchange rate targeting became even more difficult, until the dam was about to burst right before the inflation target was adopted and the króna floated in March 2001.

The monetary policy framework adopted in 2001 was based on foreign models that were in the ascendant at the time. But it also reflected the broader ideas about economic policy, prudential regulation, and supervision that had gained currency but have proven in retrospect to be flawed. To simplify, it can be said that these ideas were based on separation and independence of individual aspects of economic and prudential policies, but without sufficient attention to their interactions. Monetary policy was to focus primarily on the inflation outlook, and it was largely to be implemented through a single tool: interest rates. Intervention in the foreign exchange market was to be avoided. Supervision was supposed to ensure that individual financial institutions were sound. Fiscal policy was supposed to be neutral over the business cycle. And the markets would take care of the rest.

This did not turn out to be the case. Apart from the question of interactions, insufficient attention was paid to risks in the financial system as a whole. Furthermore, central banks have more instruments than just interest rates, as was revealed during and after the financial crisis, and these instruments have some impact on financial stability. The interactions between monetary policy and financial stability are therefore important. The exchange rate and the foreign

exchange markets have proven to be more disorderly than theory on the benefits of floating exchange rates has generally admitted. Some market intervention could therefore play a role in improving outcomes. Of course, this topic is more complex than my broad paintbrush can capture, and at present, there is considerable discussion internationally of how the experience of the financial crisis and its aftermath should affect which policy instruments central banks should use and how, in order to preserve long-term price stability, conduct some short-term output stabilisation, and promote financial stability. The main points that I mentioned earlier concerning the efficacy of monetary policy and its possible objectives remain largely unchallenged by this experience, however.

These flaws were also present in Iceland's economic policy framework. As a result, there was inadequate response to the excessive capital inflows that contributed to credit and asset price bubbles and domestic residents' significant foreign exchange risk, which was to a large extent unhedged. Furthermore, monetary and fiscal policy were not well enough aligned, and the same can be said of other Government decisions that affected demand. The burden on monetary policy was therefore greater than it would have been otherwise, which further stimulated capital inflows. This, together with strong demand, pushed the real exchange rate higher than it would have been otherwise and exacerbated macroeconomic imbalances, as could be seen most clearly in a sizeable current account deficit. These developments and the banking crisis contributed to the currency crisis that struck in the first half of 2008.

In formulating the monetary policy framework after capital controls, we must take into consideration the experience that has been gained in recent years in pursuing independent monetary policy in small, open economies with unrestricted capital flows in a world that is increasingly integrated financially. This is becoming ever more difficult, as we saw in New Zealand and in Iceland before the crash, and more recently in countries such as Switzerland and Sweden. We ourselves got a taste of what can happen under these conditions last summer and autumn, when strong inflows of capital into the domestic bond market turned the slope of the yield curve around. This is because capital markets are growing more effective at smoothing out the difference in risk-adjusted asset returns in different countries, with the result that monetary policy transmission along the interest rate channel is severely weakened in small, open, and financially integrated economies where long-term interest rates are determined to an increasing degree by rates in large countries. In such cases, monetary policy transmission takes place to an ever greater degree through the exchange rate channel. But transmission through the exchange rate channel is uncertain and volatile, as the exchange rate is also an asset price that fluctuates with speculative capital flows and can deviate from equilibrium over extended periods and then correct quite suddenly. Unless the financial system is that much better protected, this process can interact negatively with financial stability, as was the case in Iceland during the financial crisis. From a theoretical standpoint, it is possible to resolve or mitigate the problem facing small countries in this regard in three ways: by joining a currency union, adapting monetary policy to that prevailing in larger economies even though it is not suitable for domestic conditions, or

imposing restrictions or other measures that directly reduce non-residents' profits on carry trade. As has already emerged, such measures are being examined by the Central Bank, and they could constitute part of our arsenal of policy instruments after the capital controls have been lifted. But we mustn't think that they represent some sort of magic bullet. Such instruments would have adverse side effects and could push international obligations to their limits, particularly if they are designed for maximum efficacy. But experience shows that it could be risky not to have them if they are needed, but we must attempt to conduct other matters so as to ensure that they will be needed as seldom as possible.

I would now like to summarise all of this and give you a sketch of how the post-capital controls monetary policy framework might look, after accounting for the points I have discussed today. In this context, I would also like to refer you to several reports issued by the Central Bank in recent years, including *Monetary policy after capital controls* (2010), *Prudential rules following capital controls* (2012), and *Iceland's currency and exchange rate policy options* (2012). A number of the things I have said today can be found in these reports, which have stood the test of time quite well. It should also be noted that a number of measures have already been put in place, such as, for instance, increased intervention in the foreign exchange market and more effective prudential rules to reduce foreign exchange risk in the banking system. But in this context, I would like to emphasise that at present, foreign exchange market intervention is to a large degree aimed at building up the reserves during the prelude to capital account liberalisation.

What would the monetary policy framework be?

The main objective of monetary policy would still be price stability, and it would be specified as a formal numerical inflation target, as is currently done.

Instead of a pure float, as we had before the financial crisis, we would have a managed float. However, there would not be any explicit exchange rate target; instead, the objective would be to mitigate excess volatility due to temporary capital flows and to smooth out short-term fluctuations in the exchange rate.

The institutional framework would be the same as it is now, based on an independent monetary policy committee that takes decisions on the application of the Bank's policy instruments, releases statements explaining its decisions, and gives account of its policies to Parliament and the nation through other channels. This system is broadly in line with best practice abroad and has worked well.

Under normal conditions, interest rates on Central Bank transactions with financial institutions would continue to be the Bank's main monetary policy instrument. Foreign exchange market intervention is also a monetary policy instrument, as I have mentioned, and other instruments can also be used, such as reserve requirements and direct intervention in the bond market. Their efficacy

is generally less certain than with interest rates, however, and as a result they are used less often. The MPC would be entrusted with a capital flow management tool or tools to affect carry trade, of the type I mentioned a moment ago. These tools would not be used against the regular flows that are a normal part of monetary policy transmission; instead, they would primarily be used when flows became too strong and there is the risk that monetary policy transmission along the interest rate channel would be weakened excessively

In implementing monetary policy, the MPC takes into account the impact of monetary policy and its interactions with other aspects of economic and prudential policies, insofar as this is consistent with medium-term price stability. There will be reliable processes for exchange of information, discussion, and analysis of the interactions among these various factors. This will take place through consultations between the Ministry of Finance and the Central Bank; through the proposed macroeconomic council, where the interactions between economic policy and labour market decisions would be discussed; or in the Systemic Risk Committee and Financial Stability Council and joint meetings of the Monetary Policy Committee and the Systemic Risk Committee. The Central Bank plans to strengthen these processes still further by launching a new publication next year. The report, which will be issued at least once a year, will focus on the external position of the economy and its sustainability, the outlook for the balance of payments, and the exchange rate and signs of major deviations from the equilibrium exchange rate.

Honoured guests: The revised monetary policy framework will be finalised in the next few months, before capital controls on residents are lifted. Its final form will be a joint declaration by the Government and the Central Bank, like that dating from 2001. The discourse will therefore continue. In this context, I would like to thank the Confederation of Icelandic Employers for having this topic on its agenda today and for giving me the opportunity to express my views on the subject.

But we must keep one thing in mind. The new framework will be better than the one we had before the crisis, but it will not be a panacea. Monetary policy is limited in terms of what it can deliver in the long run, and it will continue to be implemented under conditions of uncertainty in a constantly changing world. Under most circumstances, however, it should be able to provide us with medium-term price stability, and that is no small achievement.