# Tenge devaluation: The role of risk and uncertainty and economic consequences. A comment

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***Abstract:*** *This comment discusses the trade-offs faced by the National Bank of Kazakhstan in the recent tenge devaluation. Expectation of further depreciation will make it difficult for the National Bank to stabilize the exchange rate in the long run. The National Bank must either accept increased dollarization of the economy or move towards greater exchange rate flexibility. Each of these options must look undesirable to the National Bank.*

***Keywords:*** *Exchange rate stability, exchange rate target zones, emerging markets*

## Introduction

On 11 February Kazakhstan experienced the second major devaluation of its currency against the dollar within five years. Since the previous devaluation at the height of the financial crisis in 2009, the National Bank of Kazakhstan (NBK) had effectively defended a trading band of 145 to 155 tenge against the dollar. It now targets the range of 182 to 188 tenge while reiterating that a move towards greater exchange rate flexibility remains a medium term goal (National Bank of the Republic of Kazakhstan, 11 February 2014). In the preceding months, investors had turned against a number of emerging market economies, following signals from the Federal Reserve that the period of ultra- low interest rates in the United States was drawing to a close. While some countries affected had followed previously observed patterns of emerging market economies with an initial negative current account balance (Calvo, Leiderman and Reinhart, 1996), the crisis also reached countries with nearly balanced trade such as Brazil and Indonesia (OECD, 2013). Russia – a surplus country – was initially affected to a lesser extent, but by February 2014 the ruble had lost almost 15% against the dollar compared to the beginning of 2013.

Before the devaluation, Kazakhstan had appeared untouched by the wider market turmoil. Yet market sentiments played a role in the decision of the NBK: In its press statement of 11 February, the bank explicitly cites depreciation expectations and its concern over speculative operations as reasons for why it had to depreciate (National Bank of the Republic of Kazakhstan, 11 February 2014).[2](#_bookmark1) The replacement, four months

1 I wish to thank participants at the Central Asian Studies Center roundtable on tenge devaluation for valuable suggestions and my class in Advanced Macroeconomics at KIMEP University for critical comments. In particular, I am indebted to Kanat Khalilov who made me aware of an omission in an earlier draft.

2 In an interview with Forbes.kz (19 February 2014), Olzhas Chudaibergenov, adviser to the chairman of the NBK, pointed out that net sales of foreign exchange reserves by the National Bank between 1

earlier, of Grigory Marchenko as governor of the NBK did little to allay fears of an impending depreciation. Nevertheless, the bank’s decision, when it finally came, took many market participants by surprise (FT.com, 11 February 2014a).

With its swift and rather secretive operation, the NBK seemingly managed to avoid major costs in terms of higher interest rates or losses of foreign currency reserves. Yet further costs are likely to arise as a consequence of market participants’ changed expectations of policy. An important question, which this paper addresses, is what can be learned from this episode about the objectives of the NBK and the trade-offs it is willing to make.

Section 2 identifies winners and losers of the tenge devaluation; Section 3 assesses the trade-offs faced by the NBK; Section 4 explores the consequences of the devaluation for investor confidence; Section 5 discusses the magnitude of the devaluation. Section 6 concludes.

## Who wins – who loses?

Clear winners include owners of dollar-denominated assets who are indebted in tenge. This category includes companies which produce internationally traded goods and have implicit liabilities in their tenge-denominated wage bill. An example is the mining company Kazakhmys whose shares gained 25% in London trading on 11 February (FT.com, 11 February 2014b). Nevertheless, this case also suggests that problems are likely to reappear in the long term as pressure to save costs is removed in the short term but wage inflation is likely to pick up at some point.

On the other hand, most workers are not likely to lose significantly in the long run. Workers indirectly benefit because currency depreciation removes pressures on export firms to cut costs which could otherwise have resulted in shedding of the work force. Currency depreciation is a protectionist tool and its use may be taken as a signal that deeper structural problems are not going to be addressed (FT.com, 11 February 2014b).

The direct effect on workers is a decrease in real wages as a consequence of higher import prices. Because the consumption share of imported goods increases with income, the incidence of this “depreciation tax” is progressive.[3](#_bookmark2) In the medium term, depreciation will push up inflation. The redistributive effects of inflation are generally complex but with the minimum wage regularly adjusted and the wealthy shielded by better asset management the negative effect of higher inflation is most likely to be felt by those in the middle of the income scale with a significant share of tenge-denominated savings.[4](#_bookmark3)

December and 10 February were $4.4 bn – almost twice the reduction in foreign currency reserves over the whole year of 2013.

3 According to Yerbolat Dossayev, Minister of Budget and Planning, 80% of basic goods are produced in the country. See FT.com (11 February 2014a).

4 The pension fund, for example, had increased its share of government securities over the last few years. See International Monetary Fund (2013).

Currency devaluation also results in a shift in the risk allocation in existing loan contracts (Tirole, 2002, pp. 82-88): Dollar-denominated loans are getting riskier when the income of the borrower and the collateral are denominated in tenge. Although the ratio of external debt to GDP has declined since the financial crisis of 2008, it still exceeds 30%. Thus losers are foreigners who are indirectly exposed to tenge-denominated assets.

Looking at the likely winners and losers, the experience of the recent devaluation is compatible with reluctance on the part of the National Bank to take on the interests of export-oriented firms or to force policies which ultimately have the potential to alienate a substantial section of the work force. Both sentiments could manifest themselves in a preference for devaluation in the future.

## Trade-offs faced by the central bank

Further insights into the policy priorities of the central bank can be gained by looking at the trade-offs that it faced in the current devaluation.

From the Bank’s public statement (National Bank of the Republic of Kazakhstan, 11 February 2014), a main concern was the deteriorating current account balance. Mainly due to an increase in imports, the NBK had experienced a net loss of foreign exchange assets in 2013. Because most exports are invoiced in dollars, the devaluation is likely to address this problem as demand for imported goods decreases.

The formation of a customs union between Kazakhstan, Belarus and Russia in 2010 must have heightened concerns about competitiveness. At the time of the devaluation, the NBK was particularly concerned about an imminent collapse of the nominal ruble exchange rate (McDrum, 11 February 2014). Nevertheless, a recent increase in the non-oil sector’s share of global exports suggested an improvement in its competitiveness (International Monetary Fund, 2013) and, despite nominal realignment,

the real exchange rate against the ruble had shown little movement in 2013.[5](#_bookmark4) Only against the euro and the dollar had the real exchange rate significantly appreciated. This does not

necessarily signal a serious competitiveness problem.

If it had been the central bank’s goals to defend the exchange rate in the face of capital outflows, it could have raised its short term interest rate. Interest rates had come down from their peak in 2008. In 2013 the official policy rate was below 6%. Kazakhstan had more recently experienced moderately high inflation rates with import prices, and in particular food prices, the main drivers in the short term, while demand and money supply played an insignificant role.[6](#_bookmark5) In 2013, inflation had reached a historical minimum of 4.8% (National Bank of the Republic of Kazakhstan, 11 February 2014). This perhaps explains a reluctance to engage in substantial tightening of monetary policy. Yet in view of a weak monetary transmission mechanism and a professed inflation target of 3-4% the risk would have seemed manageable.

5 According to National Bank data, retrieved on 26 April 2014.

6 Coronel et al. (2011) ascribe this observation to the high degree of dollarization in Kazakhstan. Currently, 40% of bank deposits are in dollars (International Monetary Fund, 2013).

## Investor confidence

* 1. **Is the tenge currency risk one-sided?**

Because Kazakhstan exports commodities, one would expect its currency to come under pressure to appreciate. It experienced such pressure as recently as 2011. Yet it is easier for a country to defend its currency against pressures to appreciate than against pressures to depreciate: The former is easily achieved by printing money whilst the latter incurs a cost in the form of loss of foreign exchange reserves or higher interest rates. The NBK had managed in the past to contain inflationary pressures by sterilizing its interventions in the forex market (Coronel et al., 2011) but it now has clearly demonstrated that it is not averse to policies which carry with them a substantial increase in expected inflation.

If the NBK were to commit itself once more to an exchange rate target, in the long run the tenge would look like a one-sided bet: When faced with the same set of conditions, why would the NBK choose a different course of action the next time around?

## Investor rationale and capital flows

Assume that an investor has to choose between an investment in a dollar- denominated asset and a tenge-denominated asset. If this investor is an American or a Kazakhstani who wishes to consume tradables, she will be interested in the dollar return on this investment. If dollar-denominated assets yield an interest rate of 1%, any investment in tenge must afford a return which is at least as great after correcting for an appreciation or depreciation of the tenge against the dollar. Assume that the interest rate in tenge-denominated assets is 5%. If the investor expects that the annual depreciation of the tenge against the dollar is 4% – which leaves her with a net return of 1% – and she does not mind the risk of the tenge investment, then she would be exactly indifferent between the options of investing in dollars or tenge. Yet if the investor dislikes the risk of investing in tenge because she is concerned about maintaining her consumption in dollar- priced goods, she would only be willing to hold the tenge-denominated asset if it pays her an overall return which exceeds the return on the dollar-denominated asset. This extra return requested on an asset which is perceived to be risky is called the risk premium.

The following indifference or arbitrage condition for this investor between the tenge and dollar investments neatly summarizes this argument:

*interest rate ($) = interest rate (kzt)  % expected depreciation (kzt) – risk premium (kzt)*

As we have argued, the situation in Kazakhstan makes further depreciation more likely and we would expect interest rates in Kazakhstan to exceed those in the US. This tended to be the case even when the tenge was under pressure to appreciate which suggests a lingering effect of previous episodes of monetary instability which continue to affect risk perceptions. Countries that peg their currency in order to establish a reputation for monetary stability and do so against devaluation expectations face a cost in terms of

higher interest rates.[7](#_bookmark6) For Kazakhstan, possibly after a honeymoon period with the new exchange rate target, this cost is likely to increase.

But shifts in the perception of risk not only affect portfolio investment but also the attractiveness of Kazakhstan as a destination of foreign direct investment. Whilst firms producing commodities are not adversely affected by future currency depreciations, firms that aim at the Kazakhstani market clearly are.

## Transparency

When a central bank faces speculative purchases of foreign currency, it is reasonable to leave market participants in the dark about such purchases taking place or about their effect on the central bank’s war chest. More generally, though, it is less likely that the central bank becomes the target of a speculative attack if market participants trust it to behave transparently at all times.

This, at least, is the message of third generation models of currency attacks with self-fulfilling features following Morris and Shin (1998). Assume that the central bank is willing to defend the peg up to a particular threshold value of a fundamental, which may be the amount of foreign currency reserves. Moreover, assume that market participants have different risk preferences and that they are uncertain about the true realized value of the fundamental.[8](#_bookmark7) The market participants may either hold tenge or dollars where holding tenge is risky and the dollar investment incurs a cost because some purchases have to be done in tenge or the interest rate on tenge-denominated assets is higher. In such an environment, the deterioration of the fundamental will increase the likelihood that a critical number of market participants want to reduce their tenge holdings, thus forcing the central bank to give up the peg.

Heinemann and Illing (2002) show that if signals of the fundamental become less exact, the likelihood of a speculative attack will increase. Now assume that the market is also uncertain about the threshold at which the central bank wants to give up the peg and that this uncertainty takes the form of a “mean-preserving spread,” i.e., the central bank is more likely to give up the peg at a higher or lower level without affecting the perceived average preference. In such an environment, citizens will clearly become more reluctant to hold tenge – i.e., even less risk-averse market participants will find it in their interest to move into dollars. The critical level of speculation where the central bank gives up the peg is more easily reached.

So a reduction in transparency in terms of clarity of policy objectives and of the quality of public information makes adverse flows of capital more likely from an ex ante point of view. The experience of the recent tenge devaluation raises some concerns about whether the NBK’s information policy has been entirely transparent.[9](#_bookmark8) The removal of some uncertainty over policy objectives may tend to weaken the NBK’s conservative policy credentials.

7 For theory and evidence on currency pegs with devaluation expectations see e.g. Mizrach (1995).

88 See e.g. Baikenova and Pech (2014) for a currency crisis model with these features.

9 See, for example, zakon.kz (18 February 2014).

## Why not 10%?

Why did the NBK depreciate by roughly 20% and not by, say, 10%? Tim Ash of Standard Bank London (FT.com, 11 February 2014a) suggested that after the substantial depreciation, the NBK ended up with an exchange rate that it could defend comfortably. This deserves a pause for thought: If the “panic or multiple equilibria view” of exchange rate crises were true, any exchange rate could come under attack, and this could eventually force the hand of the central bank. Capital controls – which the president of the Republic of Kazakhstan is authorized in principle to impose – would probably be a more potent weapon in such a scenario (Tirole, 2002, p. 45). If, on the other hand, the “fundamental view” is correct, an exchange rate below the “shadow exchange rate,” i.e., the market exchange rate that would prevail in the absence of central bank intervention (Flood and Garber, 1984), could be defended.[10](#_bookmark9) Yet in the case of Kazakhstan, this concept of an alternative market rate as the equilibrium exchange rate is particularly elusive. If it is the exchange rate at which the current account balance is zero, the central bank could have continued with its monetary policy at the old exchange rate. Also, foreigners need not finance a current account deficit, so their willingness to provide funds provides no valid yardstick. An alternative concept to determine the equilibrium exchange rate is purchasing power parity, which assumes that the prices of goods should not diverge between countries when expressed in one currency. Purchasing power parity implies a constant real exchange rate. Yet as we have seen, in Kazakhstan the real exchange rate has been fairly stable, suggesting that purchasing power parity does not justify exchange rate realignment either. With all other explanations failing, all we can say in the case of Kazakhstan is that the equilibrium exchange rate is simply the one that the market is willing to play along with while the central bank sees no reason to change its monetary policy!

A smaller depreciation might have created the expectation that further cuts are on the way. This could have cut short the honeymoon period and exposed the tenge to speculative capital outflows. But as a step towards a more flexible exchange rate regime, a smaller rate cut would have made sense. So, why not 10 percent? Because the market- based explanations are not entirely convincing, we conclude that competiveness considerations might have played once more a crucial role in determining the magnitude of the intervention by the NBK. [11](#_bookmark10)

## Conclusion

If promises cannot be kept and everybody knows that they will not be kept, there is no point in making them. Because a promise explicitly or implicitly given by the NBK to keep the tenge pegged to the dollar will ultimately result in a one-sided bet, there is now a strong case for moving towards a more flexible exchange rate regime. The NBK indicated as much in its statement of 11 February (National Bank of the Republic of

10 The “third generation” model which we introduced in the previous section combines aspects of the “fundamental” and the “panic or multiple equilibria” views.

11 Such considerations appear to have played a role in its previous market interventions. See International Monetary Fund (2011), p. 16.

Kazakhstan, 11 February 2014). In so doing, it would follow earlier advice by the IMF (International Monetary Fund, 2011, 2013). Historically, the tenge peg was a response to the hyperinflation of the 1990s and was designed to establish credibility of the NBK. A benign side effect has been to prevent appreciation of the tenge – a tendency often experienced by resource-rich countries which carries the risk of more quickly contracting the Dutch disease. The possibility for the tenge to appreciate would make holding the currency more attractive. So the choice is between more flexibility, with the risk of ending up with a stronger currency, and a non-credible renewal of the peg, with the threat of further dollarization. Neither prospect looks desirable from the perspective of the NBK. The fact that these are the choices left demonstrates that reneging on an exchange rate target has long-term economic costs.

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