Negative Consequences of Smooth Devaluation

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In 2015, many countries had to deal with the weakening of their currencies. Issues regarding exchange rate management by the Central Banks have again become the focal point of heated debate. This article compares two approaches to devaluation of local currency under the pressure of external circumstances: smooth devaluation and swift or instantaneous devaluation (drastic, stepped-up).

Negative consequences of the «smooth» weakening of the exchange rate are shown, including the example of George Soros' famous attack on the British pound in 1992. Using «only» £5 bn. then, Soros managed to break the resistance of the Bank of England, which ended up investing £15 bn. to fight him.

The ideas of Robert Shiller, the Nobel Laureate, have been reviewed which allow this phenomenon to be explained. Recommendations are given regarding a more rational way of managing exchange rate using the example of actions taken by the Bank of Kazakhstan in February 2014.

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2 INTRODUCTION

It is not the first time that Russia is confronted with a sweeping attack on the Ruble. The same thing happened back in 2008. Still greater pressure was brought to bear on the Ruble in 2014. The crux of the matter is that the Central Bank of Russia in all these episodes made the same mistake dubbed «smooth» devaluation.

In order to get a better understanding of the problem, one needs to refer to certain rules, which apply to setting prices. The experience of industrial companies would help us in this respect. Among other things, thanks to this experience, we will understand why George Soros' famous attack on the British pound in 1992 succeeded, why the pressure brought to bear on the Ruble in 2014 turned out to be so powerful and what the Nobel laureate Robert Shiller has to do with it.

3 THEY WILL NEVER LEARN

In 2008 and in 2014, the Ruble exchange rate was under a very strong pressure. In 2008, the exchange rate did not change on such a huge scale (from 23 to 36 Rubles per dollar, a change of 56%), and, at the same time, the Central Bank of Russia spent by far more foreign exchange on currency interventions, more than 200 bn.

USdollars, having bought out in the market more than 5.5 trillion Rubles in order to preclude the weakening of the Ruble.

During 2014, the scale of the Central Bank's operations was somewhat less spectacular, the Bank spent more than 70 billion USdollars' worth of foreign exchange in order to purchase on the order of 3.5 trillion Rubles. While, at the same time, the fluctuation in the Ruble exchange rate, at certain moments, reached 100% even at the «conservative» official exchange rate. From the level of 33.6 Rubles to the USdollar at the end of June 2014, the Ruble exchange rate fell down to 67.8 Rubles to the USdollar in December 2014.

The fact that the Ruble had been falling in synch with the other currencies of the emerging market countries was small consolation, as, in terms of the scale of such depreciation, at a certain moment, (even it was a temporary event) the Ruble broke the world record, having outstripped the Ukrainian grivna. What is the cause of these recurring situations? From further narrative below it clearly follows that the cause of all this is the «smooth» devaluation (which is also sometimes referred to as «velvet devaluation»). And Russia, as somebody who will never learn, did that a second time, with no object lessons having been drawn from the country's past.

4 Four Scenarios of the Price Trend Development and the Market Response

To get at the bottom of the causes of what has been happening, we will resort to marketing, namely a section of marketing which deals with pricing. The economic theory says that when the prices for goods go up, demand goes down (the so-called law of demand). However, marketing (and the economic theory, for that matter) describe such a situation where a price rise for a good boosts sales. And this is accounted for, in certain cases, by the fact that the buyer perceives the price rises to be evidence of the goods high quality or a message signaling that this good is in demand. And he or she buys this good «before the prices have shot up», even if earlier they had not planned to do that. So where does the truth is? Is the economic theory or marketing right?

Let us examine an example from real practice. The Russian truck producer (the company КАМAZ) in early 2011 – in late 2012 sharply jacked up the prices for its core product in the segment of heavy duty dump trucks, the «КАМAZ-6520» dump truck. The spikes in costs were responsible for the price increases, while demand seemed to be no problem. Such an analysis proved to be a mistake (Blinov 2015a). Sales dramatically declined, and based on the year 2012 performance results, KAMAZ ended up having a lower market share in the segment of heavy duty dump trucks which fell down from 44% to 27% compared to 2011. At the same time, gradual increase in the prices for other models caused demand for them to grow.

The conclusion to be drawn from this case is simple enough: key to everything and decisive is often the nature of price increases, whether such price increases are smooth or sharp.

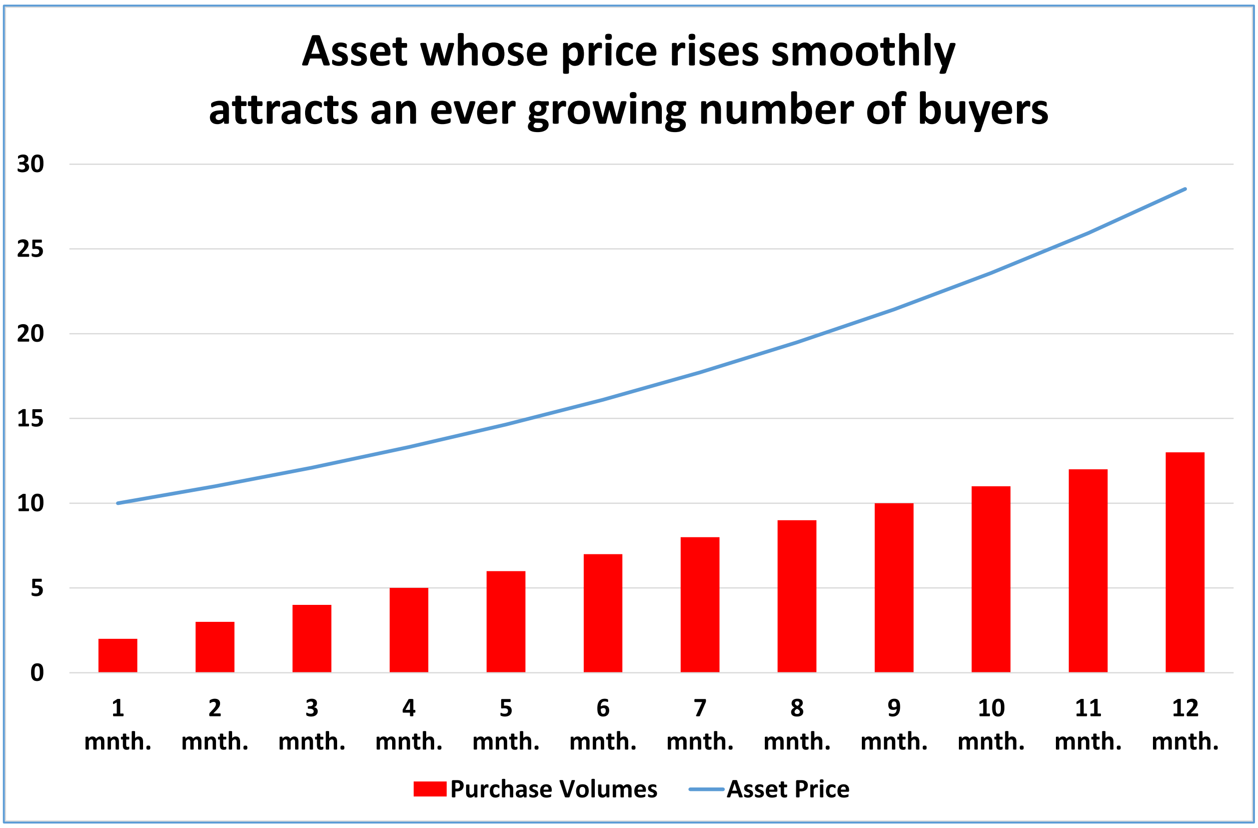
Let us look at smooth and sharp changes both for the case of price increases and price reductions.

4.1 Smooth Price Increase

A smooth price increase, as a rule, enhances the desire to purchase a good (and generally, any asset).

The case of smooth price increase is schematically depicted in ***graph 1***.

Graph 1. Smooth price increase encourages an ever-growing number of buyers to acquire the goods as soon as possible.



The thoughts of a potential buyer in this case are approximately along the following lines: «The goods are in demand and worth buying as soon as possible before they become too expensive»

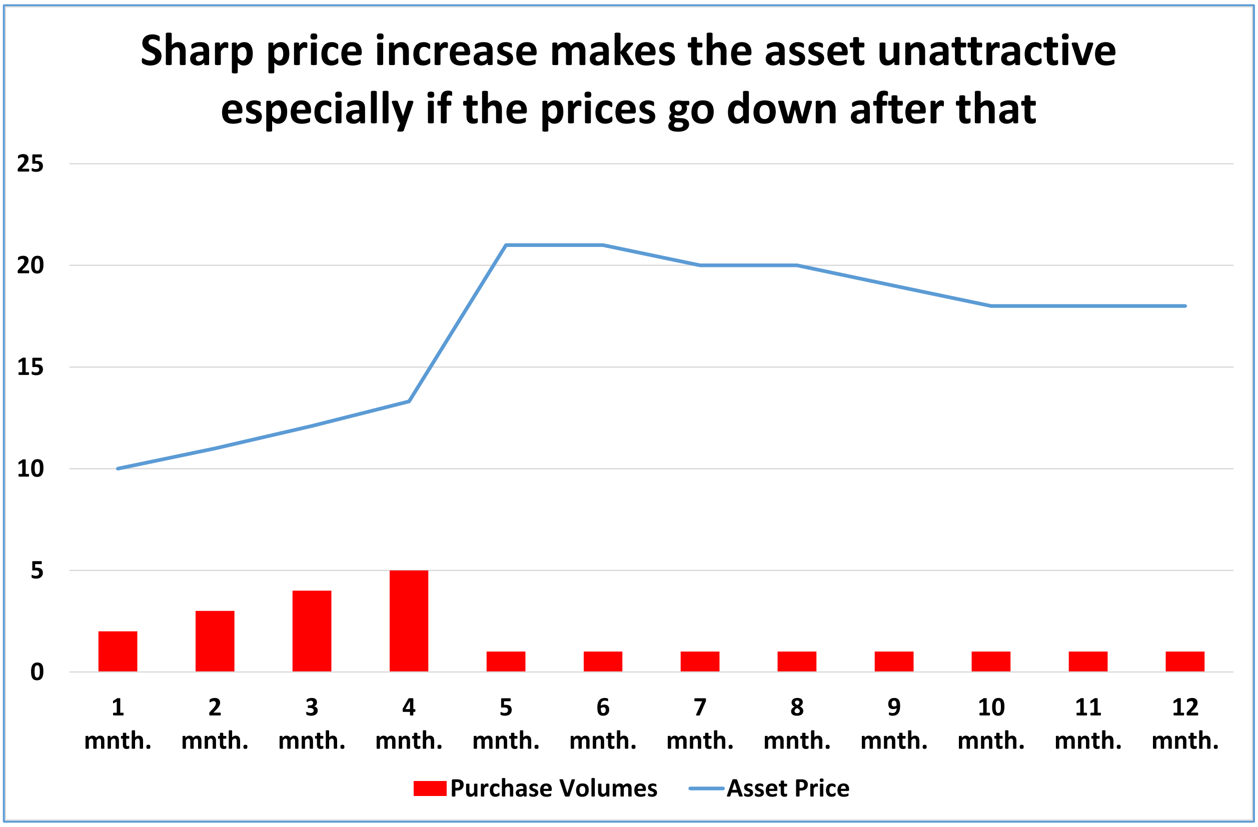
If such a situation happens in the assets market (for example, shares), it is also important to understand the thought of potential sellers, i.e. those who are holding this asset. They, in the case under consideration, are as follows: «My asset is getting more expensive. It was good I bought it earlier. It does not make sense to sell it now, I will wait for the price to rise further». The number of buyers is getting greater, the number of sellers is getting still smaller, which pushes the prices further up.

«The price will continue to rise!» - such is the general mood of the market.

4.2 Sharp Price Increase

If the price increase was sharp, that may reduce demand very considerably (***graph 2***).

Graph 2. Sharp price increase reduces purchase volumes, especially if the prices freeze after that.



After the price shoots up, purchase volumes decrease sharply. The buyer's thoughts are approximately like this: «I have not managed to buy it on time. The prices will now keep falling down (alternative: will not rise), there is no need to rush with the purchase». This is exactly the kind of a situation that happened in the case described above where the company KAMAZ sharply raised the prices for its dump trucks.

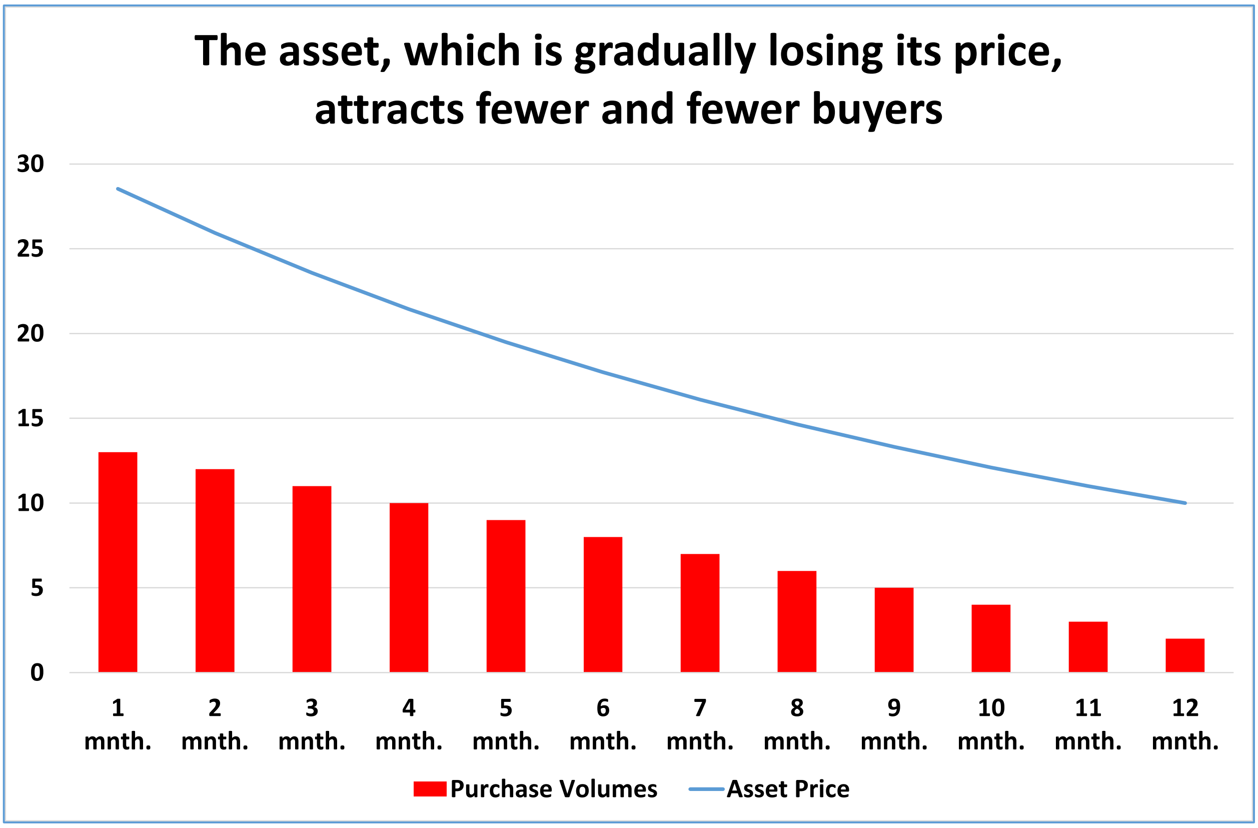
The sellers, on the contrary, think that they will now have a big break and it is the right time to sell the asset, before the prices fall down. The reduction in the number of buyers and the increase in the number of sellers push prices down.

«The price will keep falling down (or it will not be going up)» - such is the general mood of the market.

4.3 Smooth Price Reduction

In the case of smooth price reduction, the buyers are thinning out (***graph 3***)

Graph 3. Smooth price reduction results in reduced number of purchases.



One can relate to the thoughts of potential buyers: why rush if the prices are going down. While those who hold such an asset, are thinking, that the asset needs getting rid of before the prices fall still further down.

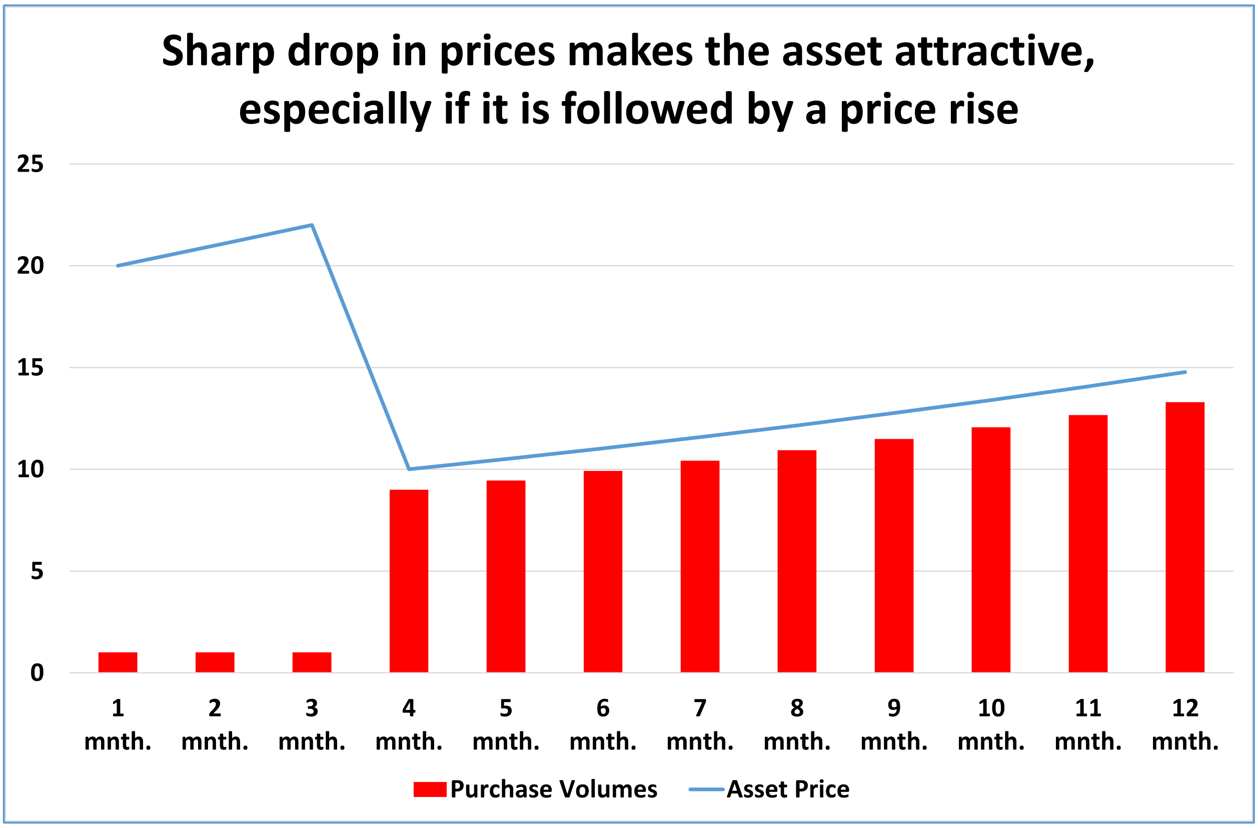
As a result, there are too many sellers and too few buyers in the market and that pushes the prices further down.

«Prices will continue to go down» - such is the market’s expectation.

4.4 Sharp Price Drop

A sharp drop in prices attracts buyers (***graph 4***)

Graph 4. After a sharp drop in prices the number of purchases increases



Potential buyers believe that they need to take advantage of the moment while the prices are still low. Whereas those who are holding the asset are probably thinking along the following lines: «I missed the right time to sell. Maybe, it is best to wait this period out until the prices rise rather than sell at a loss». Both buyers and sellers expect the prices to rise.

There are more buyers than sellers and that pushes the prices up.

«The prices will be rising» - such is the expectation of the market players.

4.5 Key Findings

Based on the scenarios just considered, several findings can be listed below:

1. Buyers' behavior and sellers' behavior are predicated by the expected price trend development.
2. This expected trend development becomes a «self-materializing» forecast.
3. Manufacturer (seller), interested in sales growth, if possible, would be advised to stick to the following rule: **«Raise the prices slowly and reduce them quickly»**.

Dynamic pricing rule: **«Raise the prices slowly, reduce them quickly»**

Marketing knows of exceptions to this rule. For example, if it is required to change the goods positioning in the buyers' eyes (to make it be perceived to be prestigious, for instance), the manufacturer may take a different course of action.

Let me refer to another exception. The stock exchange players (speculators) know that an attempt to buy a sharply depreciating asset can be likened to «an attempt to catch a falling knife». That means that the prices for the asset may continue to fall down even further. Peter Lynch (2011) writes that «an attempt to catch the bottom of a falling share is akin to an attempt to catch a falling knife – you invariably grab it at the inopportune moment».

Despite the above exceptions, the general "laws" of price dynamics, described above, operate exceptionally well which can be proven to one's satisfaction using specific examples. This is exactly what we will do now.

5 CASE 1. SOROS' ATTACK ON THE BRITISH POUND IN 1992

During 1992, George Soros, the American financier, then hardly known to the general public, engaged in a speculative game aimed at weakening the British pound sterling. As a result of his actions, the exchange rate of the pound precipitously tumbled, and Soros, according to various estimates, earned between one and two billion US dollars on this transaction.

Simplified scheme[2] of Soros' actions was as follows:

- By pledging the US dollars that he had, he borrowed, on credit, British pounds sterling in the amount of about **BPS 5 bn.**
- These pounds were offered for sale (they were used to buy German marks), which caused the pound exchange rate to plunge vis-à-vis the mark (and, as a consequence, in relation to other currencies as well).
- The Bank of England tried to resist the plunging pound, having bought out **BPS 15 bn.** in the course of its interventions (spending gold and foreign exchange reserves on such interventions). This did not help and on September 16-th 1992, the Bank of England announced the end of its interventions. The pound exchange rate collapsed.

[2] Simplification consists in the fact that in the transactions it is not only the currencies themselves that were used but also assets (shares, bonds) and derivative financial instruments (futures and options) denominated in these currencies were used. For purposes of our exposition, this does not matter and does not change the final findings.

- After collapse of the pound, repayment of the credit facility (in pounds) cost Soros 1 billion (according to other theories, 2 billion) cheaper in the US dollar equivalent. That was his gain generated by this speculative attack.

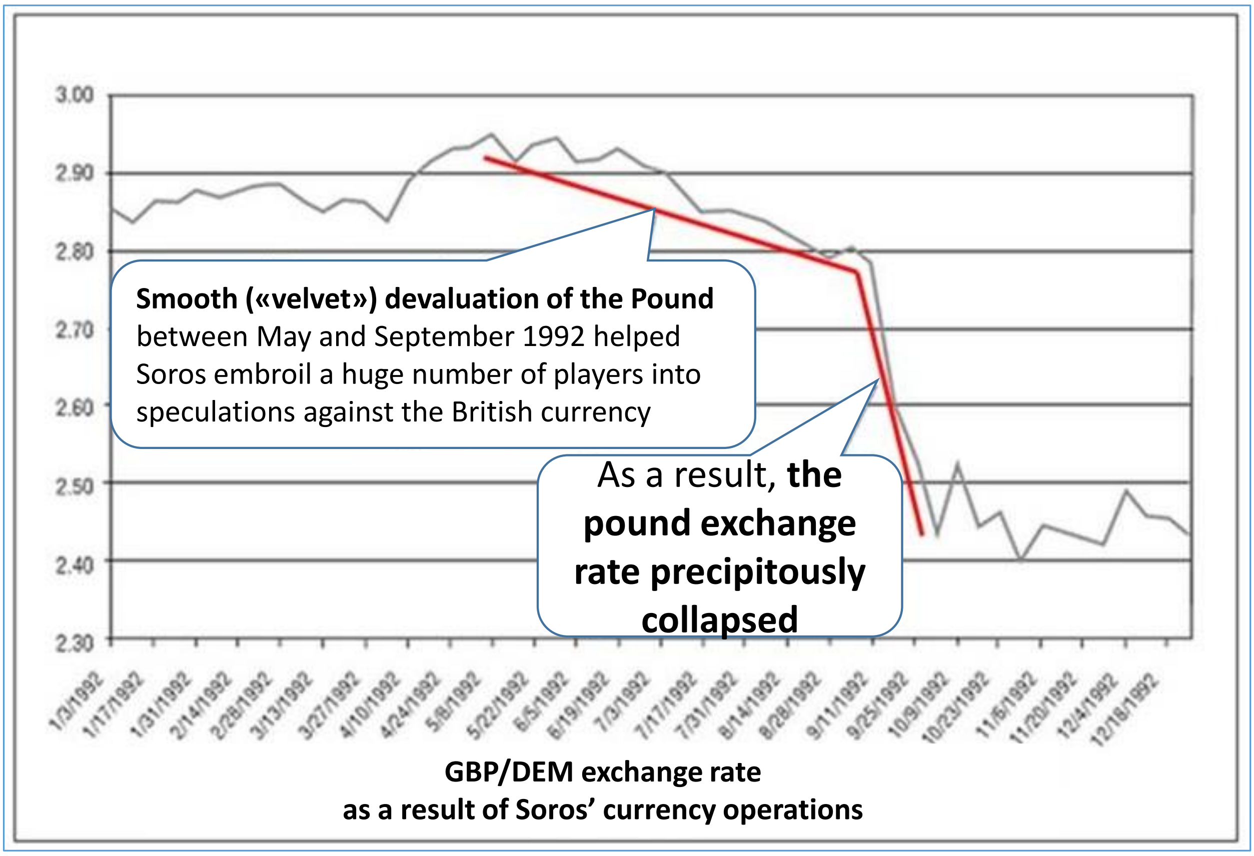
Please pay attention to the amounts highlighted in bold font. The key question for us is as follows: ***how could Soros with a capital of approximately 5 billion pounds sterling have stood up to the interventions of the Bank of England worth 15 billion pounds and win in the process?***

The answer is to be found in the «laws» of pricing dynamics which we have laid down above, they are also the laws of asset attractiveness:

- The German mark had been ***smoothly*** appreciating in price in the meantime and the number of buyers (apart from Soros) had been getting greater and greater. Whereas the number of owners holding the German mark willing to sell it (those were the «allies» of the Bank of England), had been becoming fewer and fewer.
- The British pound had been ***slowly*** losing value and those wishing to sell it had been becoming more numerous. Moreover, vice versa, the number of those desirous to buy the pound had been becoming fewer and fewer (why buy now if tomorrow you can buy it cheaper).
- George Soros proved to be the one who gave the initial impetus to the «smooth» trend development of the exchange rate, having infected everyone around him with the «virus» to sell the pound. ***«Soros was not the only one: many investors followed his example and sold the pounds off, exerting a huge pressure on the exchange rate of this currency»*** (Lien, 2013).

Soros’ operation is vividly illustrated in ***graph 5***.

Graph 5. «Smooth» devaluation of the pound by the Bank of England enabled Soros to involve an enormous number of followers into the operations against the pound



Source of the diagram: Lien (2013); the author's commentary. Note: downward movement of the graph means the weakening of the pound sterling in relation to the German mark.

The «laws» of pricing dynamics set forth above account well for what happened.

- The German mark was perceived to be a smoothly appreciating asset (ref. **graph 1**). The number of buyers of the mark was rapidly increasing, while the number of those who wished to sell it was becoming less and less, which further contributed to the strength of the mark.
- The British pound was perceived to be a smoothly depreciating asset (ref. **graph 3**). The number of sellers of the pound had been growing fast while those who were willing to buy it had been becoming less and less, which further affected the fall of the pound exchange rate.

A discerning reader will have noticed by now the analogy with the Russian Ruble situation in 2014. We are now proceeding to review this matter below.

6 Robert Shiller About Price Bubbles

The behavior pattern, which we described in our «laws of pricing dynamics», is very well known. Even Nobel prizes are awarded for this.

Thus, for example, the Nobel Prize for economics in 2013 was awarded to three economists, one of whom was **Robert Shiller, Professor of Yale University** (the other two were: Eugene F. Fama and Lars Peter Hansen). The prize was awarded for «empirical analysis of prices for assets».

Here is what the «Vedomosti» newspaper writes about it (Overchenko, 2013): «Shiller could be considered to be the most famous in the broad economic circles from today's prize winners. He has been active in studying dependency between the price of assets on people's psychology, in co-authorship with the Nobel Prize laureate George Akerlof, he wrote, incidentally, the book ***«Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism»***, where he spoke about the special features of human behavior, which had a bearing on microeconomic processes. Shiller can be deemed to be the author of the definition of the «market bubble» — i.e. «a temporary rise in prices for assets which, to greater extent, is explained by the investors' enthusiasm than by real, fundamental assessment of their real value»

«That the bubble will emerge is impossible to foretell. I am inclined to consider them to be social epidemics: they transmit from one human to another approximately the same way as regular infections. The bubble starts to take shape when the level of contagion of the ideas, which shape it, grows. However the level of contagion depends on the thought models and psychological mind set which is a subject that is very difficult to judge about», — he writes. While we shall add to the above that it ***also depends on the smoothness of the price rise*** for the «contagious asset».

In his article in another item in the «Vedomosti» newspaper Shiller (2013) writes: «In the second edition of my book «Irrational Euphoria» I tried to give a better definition of the bubble. «The price bubble, — I wrote then, — is a situation when the news of rising prices stimulates the investor's activity and this enthusiasm is spread by way of, as it were, epidemic, psychosis passed from one human to another, in parallel multiplying explanations of such a price rise… This attracts an ever increasing number of investors despite doubts about the real value of investments, attracted partly by jealousy of success achieved by others and partly by the zeal of a gambler».

It is easy to imagine specific examples of such a price rise rather than the abstract «price rise», mentioned in this quotation. Just picture to yourself that we are talking about, for example, the price of the German mark during the time of Soros' attack on the British pound. Or about the US dollar during the time of the attack on the Russian ruble in 2014.

Shiller is talking more about price rises for assets rather than price decline. However, above we have also dealt with the impact of a price decline on the buyers' and sellers' behavior.

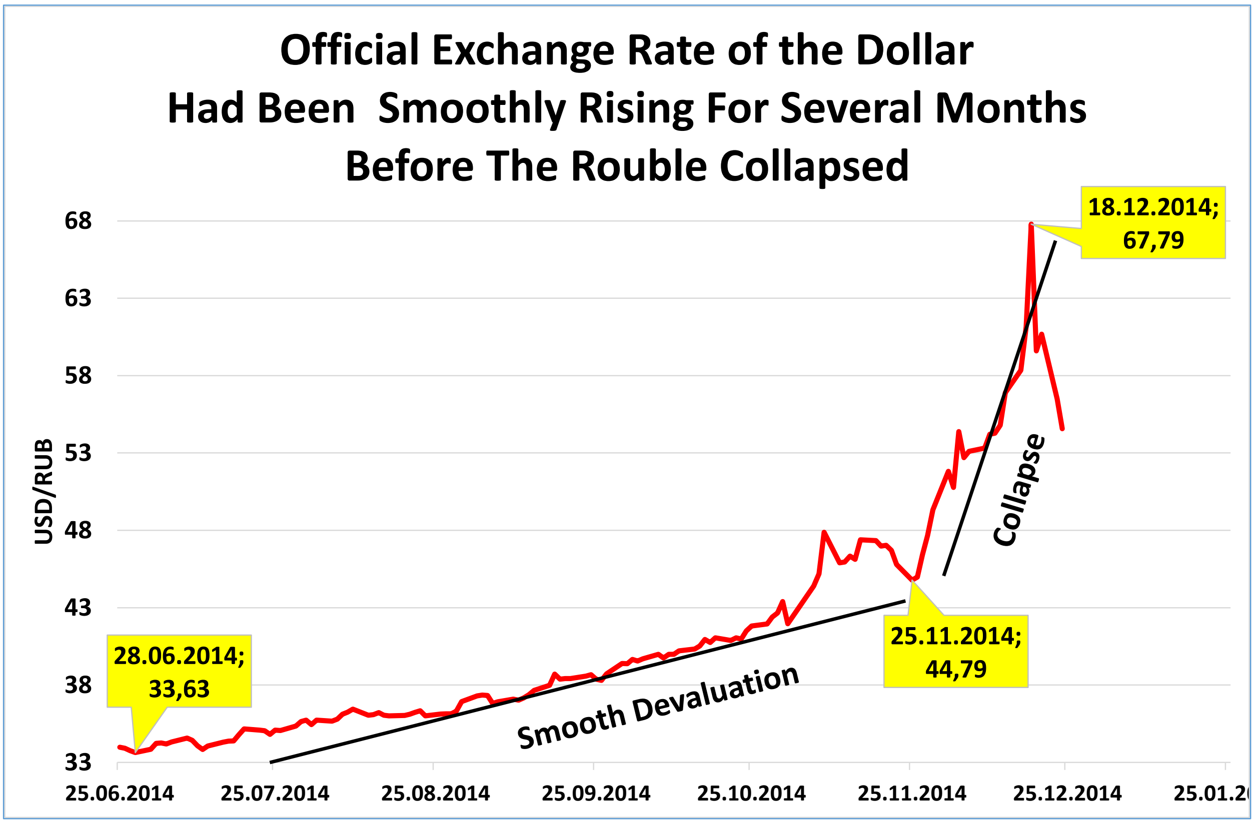
To those who are interested to read more on the subject, in an exciting and easy to understand presentation, I would recommend the book by ***Elena Chirkova,*** the author of «Anatomy of a Financial Bubble» (Chirkova, 2010), which abounds in multiple interesting examples from literature.

It was exactly the behavior pattern described by Shiller that helped George Soros bring the British pound down.

7 Case 2. Bank of Russia, in 2014, Made the Same Mistake As the Bank of England Made in 1992

In 2014, the situation in the foreign exchange market was unfolding for the Ruble very much the same way as it had happened to the pound in the far-off year 1992. First off, the Ruble, for several successive months, had been gradually devaluing (from June to November). Then, in December 2014, there happened a precipitous collapse of the ruble exchange rate (***graph 6***).

Graph 6. Smooth Devaluation of the Ruble Embroiled an Ever Increasing Number of Players Against It in 2014.



Source: Central Bank of the Russian Federation, official exchange rate (Rubles per one dollar). Note: movement of the graph upwards stands for the weakening of the Ruble against the US dollar.

Now many people are trying to get their heads around the cause of such a precipitous collapse. However, to those readers who have read the basics of the «theory of pricing dynamics» set forth above and who know the reasons why George Soros succeeded in his attack on the British pound, one of the reasons is crystal clear. This is the involvement of an ever increasing number of players into the game against the Ruble due to the «smoothness» of devaluation.

Here is what, in December 2014, Sergey Alexashenko (2014) wrote about this situation: «However, it is those who have today given in to panic that are determining what has been happening to the Ruble. Someone, while furious with oneself for not having bought the dollar for 40-50-60 Rbls, goes out to buy it at 70. Someone else, while blaming oneself for having sold the dollar at 40-50-60, has sworn not to sell it if it is less than 100. As a result, the Ruble is roller coasting down a steep incline and it is not clear where it will have a rally and when»

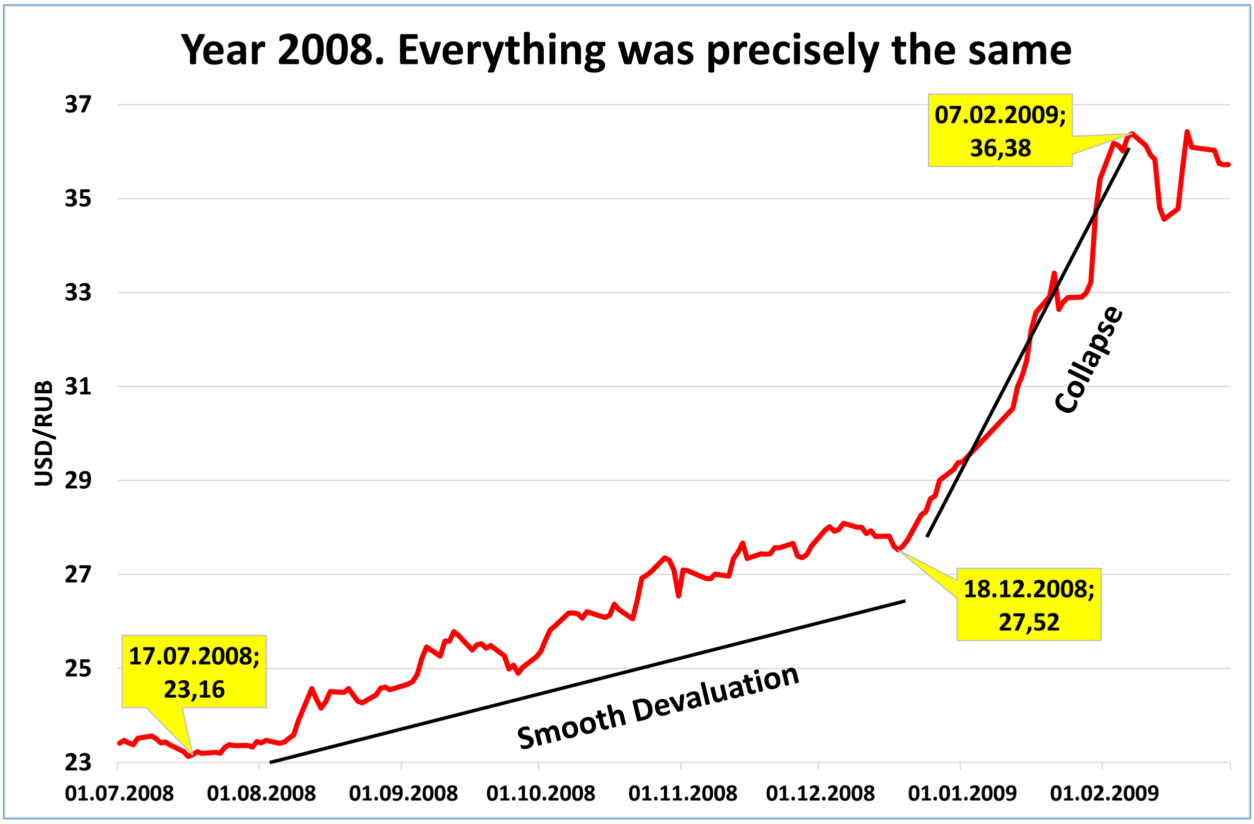
Involvement of an ever-increasing number of people can be seen with a naked eye. Even **Elvira Nabiullina**, Head of the Bank of Russia, in her interview for «Russia 24»

TV channel, on November 10-th 2014, said: «On the expectations of the weakening exchange rate (of the Ruble) drawn into this game, unfortunately, is everyone, including the general public, - explained the Head of the Bank of Russia. – This involves both banks and companies. Exporters may delay sale of foreign exchange earnings, while importers may buy foreign exchange to set it aside, because they need to pay for contracts. This kind of behavior stems from the constant expectation of the weakening exchange rate».

There is only one thing that Elvira Nabiullina cannot second guess: these expectations that the Ruble exchange rate may fall down are of the making of the Central Bank itself under her leadership. The main reason being the «smoothness» of the exchange rate weakening, which draws more and more players into sales of the Ruble. Moreover, the number of those wishing to sell their dollars is getting fewer and fewer and far between in this case. This is all as simple as the «ABC».

It is small consolation for Elvira Nabiullina but an additionally alarming circumstance for the whole of Russia is the fact that this is happening a second time. Precisely the same kind of situation happened back in 2008 (***graph 7***).

Graph 7. In 2008, the situation followed absolutely the same scenario as in 2014.



Source: Central Bank of the Russian Federation, official exchange rate (Rubles per dollar). Note: movement of the graph upwards stands for the weakening of the Ruble against the US dollar.

Whilst for Elvira Nabiullina, a repeat of the year 2008 situation may serve as some kind of rationale («I was not the only one who did it»), for the Central Bank, as the institute, and for economic authorities at large, this is a very alarming signal. Since, making the same mistake twice may mean one of the two things: either the system's so-called «engineering memory» does not work, when unsuccessful practices are rejected and never repeated. Or, (which is also possible), no correct conclusions were drawn from the year 2008 mistakes. While the conclusion which has been confirmed by two unsuccessful practices (2008 and 2014) is only one: smooth devaluation is a very unfortunate solution for the stability of the foreign exchange rate (whereas the Central Bank, under the law, shall be responsible for such stability).

8 What Is the Right Thing To Do?

Analysis of the causes that brought about the setbacks in the foreign exchange rate policy steered by the Central Bank is an interesting and useful thing to make. However, there always arises the same question: what is the right thing to do? What would have been the right course of action for the Central Bank to follow? In this respect, fortunately, we do not have to look far and wide for such experience. Our immediate neighbor, Kazakhstan, may serve as a remarkable example.

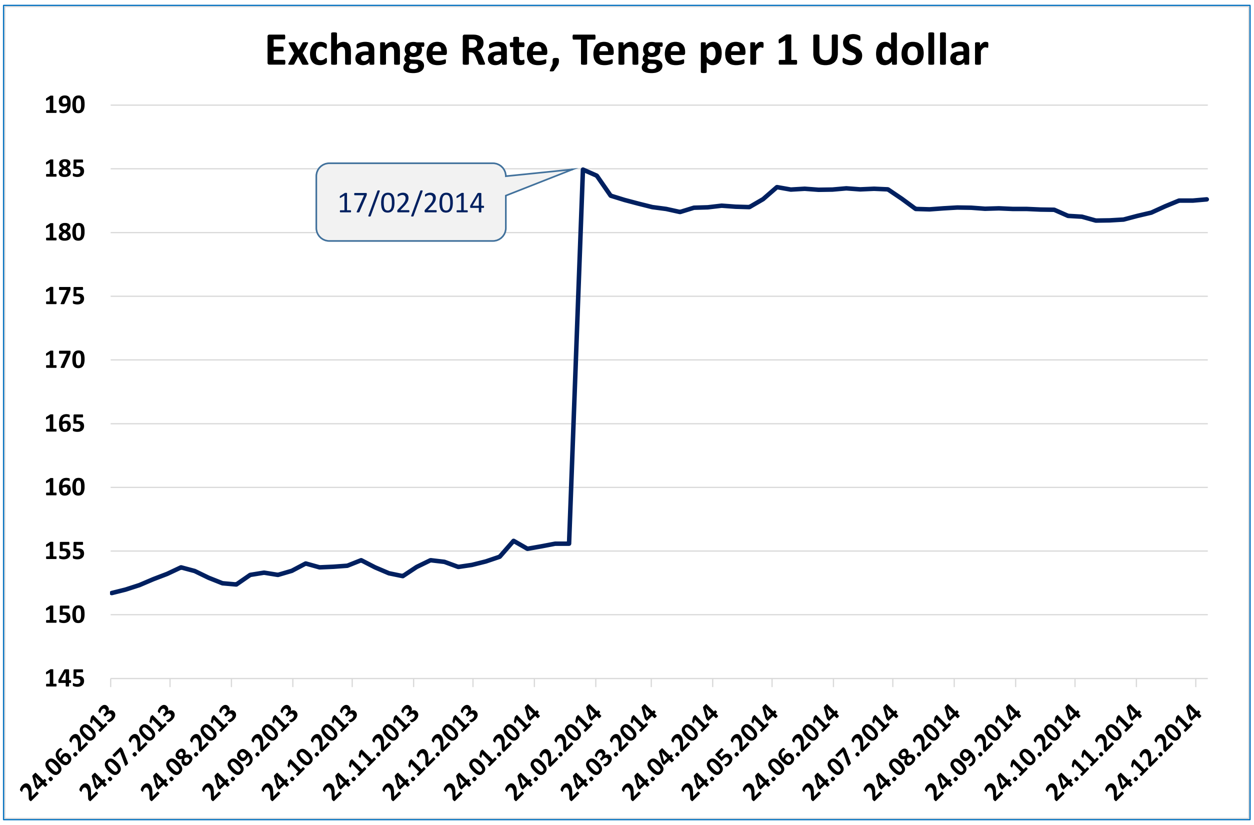
8.1 Successful Example of Devaluation – Kazakhstan in 2014

The Central Bank of Kazakhstan, unlike the Central Bank of Russia, during the spring of 2014, structured its foreign exchange rate course more professionally. As early as March 2014, when the pressure on the gold and foreign exchange reserves of Kazakhstan was building up, the Central Bank stopped defending the tenge (Kazakhstan's official currency) exchange rate at the level of 156 tenges to the dollar. It passed over to «well prepared defense positions» at the level of 186 tenges to the dollar.

As a result, devaluation proved to be abrupt rather than smooth. That was exactly why «broad popular masses», like in Russia, did not get involved into the act. This made things easier for the Central Bank of Kazakhstan to stabilize the exchange rate, to conserve the country's gold and foreign exchange reserves.

The tenge exchange rate to the dollar, for 10 months, after abrupt devaluation, remained stable and even strengthened slightly (***graph 8***). This is an absolute proof of our «theory of pricing dynamics». The shape of graph 8 is a replica of the case of the rapid price increase (ref. ***graph 2*** and the commentary to it), where the dollar is acting as the sharply appreciated asset. The dollar began to devalue smoothly and this motivated its further sales by the holders of foreign exchange. The tenge exchange rate started to be supported by the market.

Graph 8. The tenge exchange rate to the dollar, after «one-off» devaluation, in February 2014, continued to be stable for a long time, strengthening slightly.



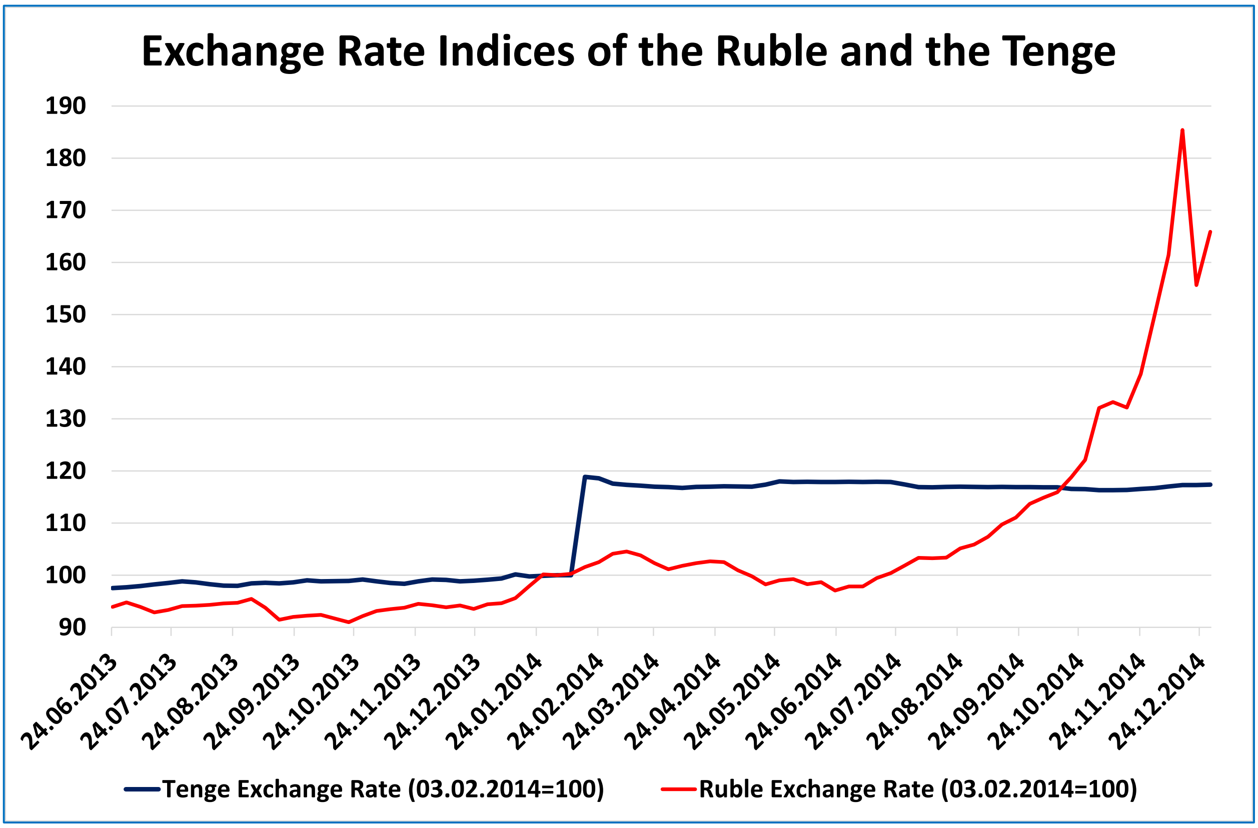
Source: www.finam.ru

As a result, Kazakhstan at the end of 2014 was faced with quite a different set of problems. It was preoccupied with the tenge's excessive strengthening including in relation to the sinking Ruble rather than its weakening.

An interesting question comes up: in Kazakhstan there has been a sharp jump at the initiative of the Central Bank of Kazakhstan, whereas in Russia such a leap occurred after a period of smooth weakening. What is the difference? Isn't the ultimate result the same, as it may seem at first sight – both here and there was a sharp surge in the exchange rate?

As a matter of fact, there are two key differences. We will be able to see the first one, if we try to compare the magnitude of exchange rate fluctuations in Kazakhstan and Russia: these differences are just enormous (***graph 9***).

Graph 9. Stepped-up devaluation in Kazakhstan allowed great exchange rate variations to be avoided. In Russia, due to erroneous «smooth» devaluation, there happened a run on the foreign exchange in the foreign exchange market and at certain moments, the Ruble was twice weaker than its exchange rate a year before.



Source: Finam, author's calculations.

The second important difference is the spending of gold and foreign exchange reserves. Kazakhstan managed without spending gold and foreign exchange reserves thanks to one-off devaluation. The Russian Central Bank had to spend dozens of billions of dollars on interventions to stabilize the Ruble exchange rate (which did not succeed).

Besides, spending gold and foreign exchange reserves are not just dangerous by itself, they are detrimental also because in the process of foreign exchange interventions the Ruble money supply contracts (as withdrawn by the Central Bank), and this is exactly what leads to a crisis in the economy (Blinov, 2015c).

9 CONCLUSION

It is entirely possible that underlying the above described behavior are some in-depth, general principles which even influence animals' behavior. If a group of predators (for example, wolves, hyenas) sense that resistance put up by their victims gets weaker, they step up their attack. The same thing is likely to happen in social life, too. Gradual and continuous concessions made, for example, to terrorists, only make their appetites bigger and, as it were, bear out the opposing side's weakness.

It would be very useful for the Central Bank of Russia to record in large letters into its «engineering memory» all the downsides of the «smooth» devaluation and learn the hard way once and for ever to avoid making the same mistake twice.

The dilemma of «smooth or abrupt» devaluation is not the only issue of the well thought-out foreign exchange rate policy. However, this is the subject matter of more articles to come.

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