

The stability of money demand in Kazakhstan

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Abstract

The objective of this research paper is to identify and analyze and investigate the domestic money demand in Kazakhstan. While in other countries money demand relies on the several factors such as: income among the population, inflation rates, real foreign interest rates, stock prices and exchange rates, we will try to find out the key dependent elements for Kazakhstan, since each country is unique and has its own benefits in terms of economy. To do so, different articles, starting all the way from the years of 2000 will be used, due to the limited amount of information available in this **related topic**.

Keywords: money demand, inflation, stock price.

Introduction

It all slowly started back in 1998, falling prices for the energy resources, increasing demand for the US dollar and intense geopolitical risks in Russian Federation lead to the crisis, which had a massive negative impact on the Russian Ruble that eventually lead to the depreciation of Kazakh Tenge, since all of the economies of post Soviet Union countries were connected and depended on Russia. Because of that crisis and depreciation of the local currency, in 1998 government of Kazakhstan decided to move from a fixed exchange rate to a floating, with one of its well-known benefits of less interventions from the central bank and the government, which allows automatic stabilization and corrections in cases of disbalance. However, on the other hand, floating exchange rate is very risky due to its high volatility and uncertainty, which creates a feeling of fear and disbelief during the trade activities, since the tomorrows value is completely unknown and anything could happen.

Literature review

According to Mesut, Y., Oskembayev, Y. & Kanat, A. (2010), after accepting the floating exchange rate, Kazakh tenge (KZT) faced an instant effect in the exchange rate market, and starting from 1998 until 2003 tenge lost its value in comparison to the US dollar. It almost doubled, from 76KZT per 1 USD, all the way till 156 KZT to 1 USD. It all influenced the exports and trade of Kazakhstan, because compared to the partnering counties, national currency worsened and lost its value.

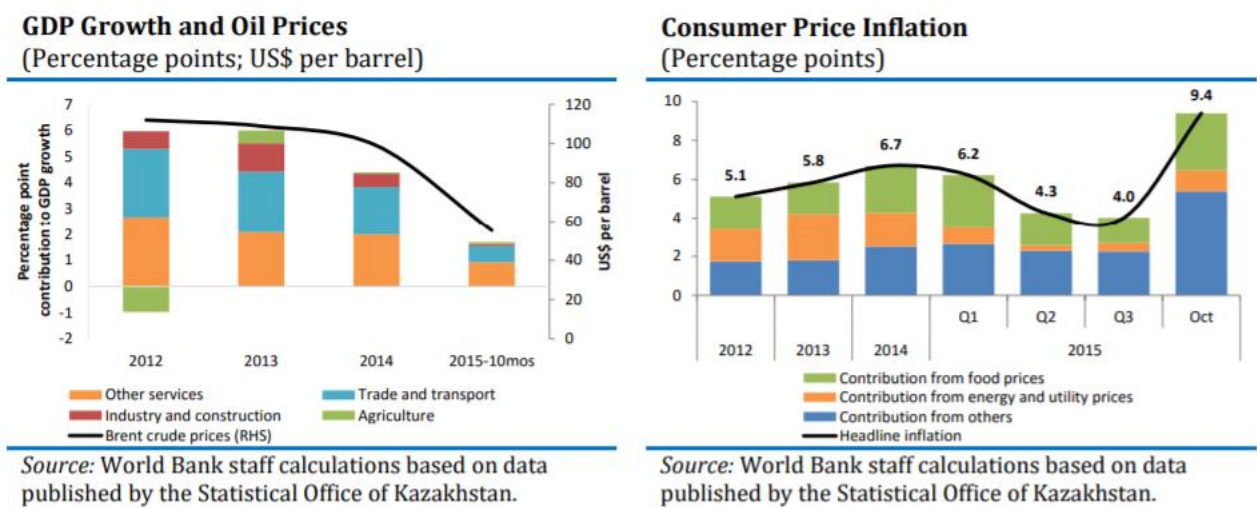
Due to the floating exchange rates and open borders for currency exchange, people started losing their trust in the local currency, because of that started using and buying more of foreign currency, in our case US dollar. High demand for the foreign currency, eventually lead to the

inflation and depreciation of the Kazakh Tenge and interest rates, which will be discussed later on.

As for the recent times, the economy of Kazakhstan faced a difficulty in terms of adjusting to the lower oil prices, which started after 2011. The country experienced a shock to which it was not fully prepared, which led to a decrease of domestic as well as foreign demand. The main decrease happened during the third quarter of 2014, and continued the trend of going down in 2015. According to the World Bank Group – “Adjusting to Lower Oil Prices; Challenging Times Ahead” (n.d.), as we may observe from the figure below, it 53 USD per barrel in 2015 from 105 USD per barrel in 2012 (100 percent decrease), which decreased the level of domestic consumption and at the same time affected the confidence of investors.

On the other hand, since the decrease and increase of oil prices did affect the world’s economy overall, since almost all of the countries depend somehow on it. For the economy of China, their growth of Gross Domestic Product (GDP) slowed down to the index of less than 7 percent. As for the economy of the Russian Federation, it influenced their GDP in 2015 by 3.5 percent. According to Zholamanova, M., Arzayeva, M., Doszhan, R., Turlybekova, A. & Kukiev, A. (2018), since Kazakhstan massively depends on trade, especially from their neighboring countries like China and Russian Federation, the country experiences low demand for exporting products which lead to the inflation of the local currency and slow economic growth compared to the expected. Because the demand for mainly metal and metal products decreased from partnering countries – China and Russia, Kazakhstan faced a loss of export revenues from 62.7 billion US dollar on the beginning of 2014 to 36.4 billion US dollar until the third quarter of 2015. Also, it increased the imports from Russia, due to the lower prices compared to the local goods.

As stated by the “The World Bank in Kazakhstan” (n.d), all the inflation and low oil prices, impacted the consumers purchasing power, due to the increase of the prices. Because of that, the consumer price inflation drastically grew in October of 2015 showing 9.4 percent compared to the 4 percent during the third quarter of 2015. As for the effect of it on food prices, it decreased to 3.5 percent in August 2015 compared to 8.7 percent in January of 2015, however it went back to 3.8 percent in September and to 8.0 later on October of the same year. There have been volatilities of the price inflation on energy and utility and others, which can be observed below:



The Gross Domestic Product of Kazakhstan decreased from 4.1 percent during the early periods of oil price decrease, all the way to 1 percent in 2015.

As we may observe from the table below, in the first half of the 2014 domestic massively decreased from 2.0 percent to all the way down to 0.3 percent, as well as other indicators followed the same path. In addition, to the decreased oil prices, there was a huge decrease from the side of foreign direct investment (FDI). All of that environment in combination of all the factors listed above, created a massive pressure on the local currency.

Contribution to Real GDP Growth, 2012-15

(Percentage points)

	2012	2012	2013	2013	2014	2014	2015
	H1	H2	H1	H2	H1	H2	H1
GDP growth	5.6	4.4	5.1	6.9	3.9	4.7	1.7
<i>of which contribution from:</i>							
Domestic demand	7.7	10.3	13.3	2.0	0.3	3.2	1.8
Consumption	6.9	5.4	7.1	5.2	0.3	-0.2	1.0
Government	1.4	1.4	0.2	0.2	1.4	0.7	0.3
Households	5.3	4.0	6.9	4.9	-1.1	-1.2	0.7
Gross capital formation	0.8	4.9	6.1	-3.2	0.0	3.4	0.9
Fixed capital investment	0.5	3.4	1.2	0.9	0.8	-0.8	0.5
Net exports	-5.1	-2.9	-7.7	5.5	3.5	2.6	0.4
Exports of goods and services	-1.1	4.9	-5.2	6.9	-0.7	-3.3	-1.8
Imports of goods and services	-4.0	-7.8	-2.5	-1.5	4.2	5.9	2.2
Statistical discrepancy	-3.0	3.1	0.4	0.6	-0.1	1.1	0.5

Source: World Bank staff calculations based on data from the Statistical Office of Kazakhstan.

Note: Some totals may not add up exactly due to rounding.

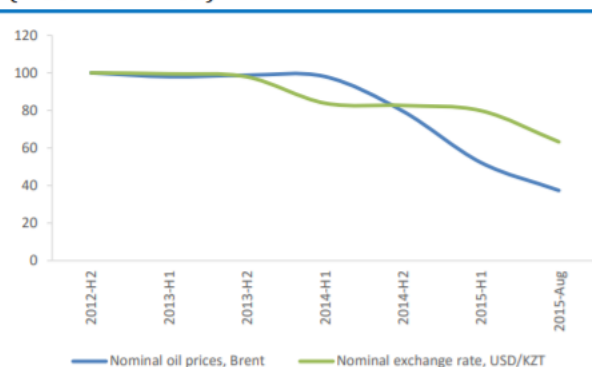
Just in eight months, inflation rates experienced a huge decline, starting in the beginning of 2015 from 7.5 percent to 3.8 percent in August of 2015, all due to the weaker demand for the local currency and decreased priced for oil. However, the inflation rate have been going up during the exchange rate adjustments after August of 2015.

According to “Monetary Policy Guidelines of the Republic of Kazakhstan for 2010” (n.d.), despite all the negative trends, the financial sector was not impacted the way it did during the global financial crisis, which happened in 2007 and in 2009 Kazakhstan foreign exchange in Kazakhstan experienced roughly 50 percent of the total bank lending. As part of the monetary policy, it massively influenced the interest rates during the three quarters of 2015. In order to save the local currency from the further loss, central bank decided to intervene by preparing the necessary policies and legal work.

As we may observe from the graphs below, starting from February 2014 to June 2015, the local currency KZT continued its depreciation in regards of the US dollar, as stated by “Impact of the Kazakhstan national bank monetary policy on credit institution activities” (n.d.). In July it started going up and central bank announced the central parity of 185 KZT for an exchange to 1 USD.

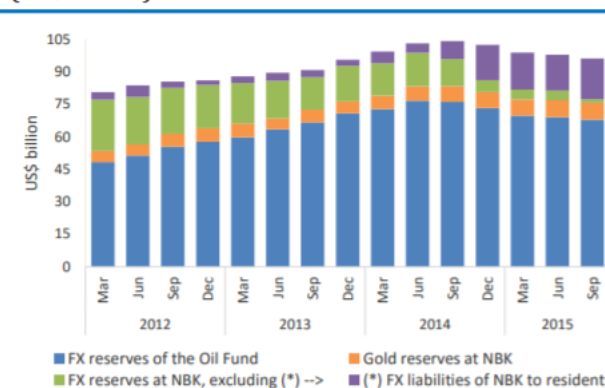
Unfortunately, another negative wave affected the country, when Chinese Yuan devaluated by 4.4 percent in August and followed by an additional decrease of the oil prices. Since Kazakhstan mainly relying on exports to China, the Tenge again faced a loss in this time by 26 percent of its previous value. Now, the exchange rate changed from 188 KZT to 1 US dollar to 254 KZT per 1 USD.

Oil Prices and the Exchange Rate
(Index 2012=100)



Source: World Bank staff calculations based on data published by the National Bank of Kazakhstan.

Total Official International Reserves
(US\$ billion)



Source: World Bank staff calculations based on data published by the National Bank of Kazakhstan.

As from the macroeconomic stand point, government and other authorities created rapid fiscal adjustments, together with the support of exchange rate policy adjustments and monetary corresponding.

Data description

Money demand that includes stock market prices takes the following form:

$$\ln(m)_t = b_0 + b_1 \ln(y_t) + b_2 ir_t + b_3 ir_t^* + b_4 \ln(sp_t) + u_t$$

where m is the real money stock, y is the scale variable and represented by real income(GDP/CPI),ir is the short-term domestic rate of interest (as well as alternative proxy to

measure the opportunity cost of holding money), and sp is the real stock prices. The asterisk (*) denotes the foreign variable and real variables are created by dividing nominal values by the consumer price index (CPI).

This article used the ARDL model to analyze the effect of money demand in Kazakhstan. The ARDL procedure can distinguish between dependent and explanatory variables. In our case, there was taken the period of time between 2005:Q1 to 2017:Q4 years (52 observations). The period was taken from available data on Money Demand(M2), domestic interest rate(IR), foreign interest rate(FIT),stock price were taken from World Bank, KASE, National Bank of Kazakhstan, International Monetary Fund.

Empirical Results and Data

In this case, the error correction representations of the ARDL specification model equation are given by:

$$\Delta m_t = a_0 + \sum_{i=1}^p b_i \Delta m_{t-i} + \sum_{i=0}^p c_i \Delta y_{t-i} + \sum_{i=0}^p d_i \Delta ir_{t-i} + \sum_{i=0}^p e_i \Delta ir_{t-i}^* + \sum_{i=0}^p f_i \Delta sp_{t-i} + \delta_1 m_{t-1} + \delta_2 y_{t-1} + \delta_3 ir_{t-1} + \delta_4 ir_{t-1}^* + \delta_5 sp_{t-1} + \varepsilon_t$$

where Δ denotes the first difference operator, a_0 is the drift component, error is the usual white noise residuals, and the variables m , y , ir , ir^* and sp are a standard VAR model in which a linear combination of lagged-level variables are added as proxy for lagged error terms which measures the departure of the dependent variable from the independent variables.

Conclusion

This article employs a relatively new cointegration technique to show that Kazakhstan's real money balance (M2) is cointegrated with real income, inflation, real foreign interest rates, and

stock prices. The empirical analysis based on the bounds test, supports the stable money demand model for Kazakhstan. In fact, we show that the existence of the long-run money demand equation can only be firmly established when foreign interest rates (US interest rate), inflation, and the stock prices are included in the model.

To conclude everything mentioned above, it is important to highlight that one of the main concerns here is the currency substitution phenomenon in Kazakhstan, which is an important factor for any other country that is in the process of stabilizing the demand of the local currency. The currency substitution issue basically appears due to the uncertainty for the local currency, when the people of the country have a low trust in their own currency and prefer the stronger foreign ones, in case of Kazakhstan – Euro and US dollar. To stabilize the money demand for the local currency, this issue should be resolved by implementing different monetary policies that could lead to reversed currency substitution. Also, another important factor is a huge dependency of Kazakhstan on the exports to China and Russia. Such dependency creates a weakness in the economy of the country, since as we observed from the examples of 2014, any major changes in the currencies of Russian Ruble or Chinese Yuan creates a massive down/up shift for the economy of Kazakhstan. Even though it would be easy to diversify the economic dependence from those countries, in the long run it is possible since other countries overcame similar issues.

As for the current situation inside the country and its economy, Kazakhstan is the fast growing market located in the heart of Eurasia that connects South Asia, China and Western Europe and Russian Federation by different road and rail systems, as stated by “Kazakhstan: Short-Term Vulnerabilities, Positive Prospects” (2014). Also, the country has an access to the port on the Caspian Sea. Overtime, the economy of the country has been growing, with the GDP per capita growing from around 1,658 USD in 2002 to 9,812 USD in 2018. Continuous economic

development lead to an increase of minimum wage by 8.9 percent as for 2019. Also, with the official unemployment rate being under 5 percent, the country does showcase the prosperous future in the upcoming years.

Unfortunately, nowadays the Kazakh Tenge is experiencing another loss compared to the US dollar due to the pandemic and low oil prices. The global COVID-19 pandemic impacted the world's economy and almost all of the industries and counties. Biggest areas of business which experienced the current crisis are retail, tourism, hospitality, restaurants and many other sectors.

There are

several reasons why businesses are suffering, such as: loss of customers purchasing power - due to the salary cuts and unemployment rates going up; huge barriers for to international trade – majority of counties closed their boarders for exports; fear of infection among the consumers – people prefer staying at home. All of which created barriers for businesses to run as they did before, effecting the overall economy and exchange rates.

References

- “Adjusting to Lower Oil Prices; Challenging Times Ahead” (n.d.). *World Bank Group*. Retrieved May 3, 2020 from <http://documents.worldbank.org/curated/en/619601467991052702/pdf/101506-REVISED-NWP-PUBLIC-Box394815B-KAZ-FOR-WEB.pdf>
- “Impact of the Kazakhstan national bank monetary policy on credit institution activities” (n.d.). *Articles*. Retrieved May 3, 2020 from <https://articlekz.com/en/article/28008>
- “Kazakhstan: Short-Term Vulnerabilities, Positive Prospects” (2014). *World Bank Group*. Retrieved May 3, 2020 from <http://documents.worldbank.org/curated/en/903641468272386036/pdf/878550WP0Kazak00Box385206B00PUBLIC0.pdf>
- Mesut, Y., Oskembayev, Y. & Kanat, A. (2010). Demand For Money in Kazakhstan: 2000-2007. *Romanian Journal of Economic Forecasting*. Retrieved May 3, 2020 from http://www.ipe.ro/rjef/rjef1_10/rjef1_10_9.pdf
- “Monetary Policy Guidelines of the Republic of Kazakhstan for 2010” (n.d.). *National Bank of Kazakhstan*. Retrieved May 3, 2020 from <https://nationalbank.kz/?docid=3331&switch=english>
- “The World Bank in Kazakhstan” (n.d.). *World Bank Group*. Retrieved May 3, 2020 from <https://www.worldbank.org/en/country/kazakhstan/overview#3>

Zholamanova, M., Arzayeva, M., Doszhan, R., Turlybekova, A. & Kukiev, A. (2018). Devaluation in Kazakhstan: History, Causes, Consequences. *European Research Studies Journal*. Retrieved May 3, 2020 from <https://www.ersj.eu/journal/1250/download>