

## The Role of Macro-Economic Analysis in the Prediction of Russia's Equity Market Movements

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**Abstract:** One of the key milestones of the modern top down/bottom up analysis is the assessment of a country's economic level and growth prospects. In this study on the basis of leading and confirming macroeconomic indicators we offer a macroeconomic analysis and forecast for the nearest 3-6 months, according to which the RTS dollar index confirmed our expectations while the MICEX demonstrated a distinctly opposite dynamics. The key reason for this is the fact that the two indexes are calculated in different hard currency values: the RTS is done in US dollars while the MICEX-in Russian roubles. Relying on the results of the study, I made a conclusion that what is needed are structural, legal, geopolitical and business changes which introduction would allow us to have a better justified and truer assessment of the economic situation in the country by the equity market.

**Key words:** Portfolio management, macro-economic analysis, top down analysis, macro-economic model, PMI, Russian equity market

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### INTRODUCTION

At the current stage in the development of portfolio investment theory, a truly professional and adequate approach to the issue is that which embraces the best aspects of both top down and bottom up analysis. Cumulatively, this algorithm includes the following steps or phases.

The first step is an analysis of the "general picture". This assumes analyzing macroeconomic statistics by country, understanding and identifying the phase of the economic cycle in which the country finds itself at present. Analysis of the weak and strong sectors for the current period under scrutiny. This stage result is understanding of the general trend of how the equity market, commodity market and bond market might move in the nearest 3-6 months. A manager can start with shrinking the list of potential companies for analysis.

The next step is sectoral analysis. It means the consideration of the general situation within a sector identifying strong and weak companies. Each of the indexes includes sectors and equities inside the sectors which will outplay both the index and the sector by ROE and there are other equities which ROE is worse than the index. The first two steps goal is to formulate general ideas to be implemented to understand the general trend of the cycl of both the country's economy and of each industry individually.

The third step is a detailed analysis of individual companies. It is financial statement analysis. It is at this stage that the ideas are implemented. Financial statement analysis confirms that the ideas formed at the previous steps are correct. In this study we shall consider how efficient can be the first step of macroeconomic analysis for the task of forecasting the movements of Russia's equity market. To comprehend the country's economic situation during the period in question better we will employ leading and confirming macroeconomic indicators proposed by the conference board a not-for-profit organization established in 1916 and active in 60 countries as 1300 consolidated corporations. Its mission is to provide analyses to businesses to help them overcome current economic hardships the conference board (n.d.). (CB, 2015).

Indicators put forward by the conference board were originally designed to forecast and analyze macroeconomic situation in the USA; however, we will accept them as basic ones and relying on available similar indicators in Russia's economy, carry out our analysis of Russia's economic situation.

### MATERIALS AND METHODS

Proceeding from mathematical significance based on descriptive statistics and econometrics we take the following as the leading and confirming macroeconomic indicators for Russia.

**Table 1: Leading indicators**

Date	Manufacturing, Services, PMI markit		Economic sentiment, MNI:		2/10 years treasury bond yield spread
	PMI markit	Services, PMI markit	Deutsche borse group	10 years treasury bond yield	
01.2015	47.6	43.9	70.6	13.2235	-1.7174
02.2015	49.7	41.3	73.1	12.9290	-1.8822
03.2015	48.1	46.1	69.2	11.9781	-1.3135
04.2015	48.9	50.7	73.0	10.5244	-0.5340

Compiled by the researcher

**Table 2: Confirming indicators**

Date	Unemployment rate (%)	Industrial output		Customer inflation	Industrial inflati on m/m
		(% from previous month)			
01.2015	5.6	78.80		3.9	1.3
02.2015	5.6	92.20		2.2	2.1
03.2015	5.4	110.70		1.2	5.5
04.2015	5.3	93.50		0.5	2.7

**Table 3: Confirming macroeconomic indicators**

Date	GDP y/y
2Q 2014	-4.5
3Q 2014	-3.7
4Q 2014	-3.8
1Q 2015	-1.2

Compiled by the researcher

**A list of leading indicators for Russia’s economy:**

- Purchasing Manager’s Index in manufacture (PMI)
- Non-Manufacturing business activity Index (NMI)
- Economic sentiment index
- The 10 years government bond yields. The 2-10 years government bond yield spread
- Compiled by the researcher relying on the conference board leading economic index

**A list of confirming indicators:**

- Job market data (employment figures, new non-farm jobs)
- Inflation values (consumer inflation, manufacturing inflation)
- Real GDP
- Industrial output
- Compiled by the author

Each of the leading macro-economic indicators helps us to a varying degree of significance-to forecast the economic situation in the future. The confirming indicators in their turn, allow us to make certain that our foreseeing was correctly based on the leading indicators. My testing of the significance will rely on the leading macroeconomic indicators for 2015. To understand the situation we need three or 4 monthly indicators this is the reason why the actual shaping of the final idea of Russia’s equity market falls on early may when we have 4 months of whole some statistics for 2015 (Table 1). PMI indexes have a very clear boundary between positive and negative values. If an indicator value is <50 points then it testifies negative expectations in the sector under

consideration; if it is over 50, it testifies positive sentiments among the sector representatives. The manufacture was in the negative zone all the 4 months (below 50 points) which gives us a very strong Short signal. The services sector also demonstrated a negative value during three of the 4 months in the last month, it entered the positive zone while the general trend remained negative. The services situation is better than in the manufacture. Mathematical-based testing of the economic sentiment index showed that with its value under 80 points, the country’s GDP tends to zero and enters the negative zone which leads to stagnation and economic recession. All the 4 months, the economic sentiment was in the negative zone (under 80 points) the 2-10 years treasury bond spread was negative all the time which is a testimony to the continuation of the already present recession or of its nearing if the recession had not set in yet. As soon as 2 years bond yield exceeds that of 10 years bonds this indicates a negative anomaly because the longer is a bond maturity the higher is its sensitiveness (duration) and expected inflation and as a result of this, the higher is the risk which in its turn requires a better yield. Taking it in a simpler way in the normal yield curve, the longer is maturity, the higher is the yield. Here, we observe an anomaly (a negative value) throughout all the 4 months. We can make the following conclusion from the table of the leading indicators: the strong shortage of Russian market with a manifest tendency toward manufacturing companies and we can say long service companies to look for an opportunity to hedge (if needed) (Table 2 and 3).

The confirming macro-economic indicators demonstrate that during the current period under consideration the economy is in a “deplorable state”. The only stable value is the unemployment level. The business performance indicator has been positive only once over the last 4 months. Customer inflation in three of the four last indicators was above the historical mean

inflation which is as much as 0.91%. Industrial inflation, with the historical mean value of 1.02 has all the four indicators higher than the historical one. Finally, two negative GDPs is a sign of a technical recession in Russia there have been four negative GDP values successively which testifies to a very deep recession. Which cumulatively confirms my qualitative-analysis assumptions that the current state of the economy as well as its nearest future will be negative; a recipe here could be looking for opportunities to open short positions on Russia's equity market.

### RESULTS AND DISCUSSION

As of early May 2015, the leading and confirming indicators tell Russia's stock market to sell during the next 3-6 months. Let us analyse the behaviour of the key share indexes of MICEX (covering 30 companies) and of a wider RTS index (50 companies) in the period between early May till the end of 2015. Since, RTS is calculated in USD, we will also have to track the USD/RUB dynamics in this period (Table 4).

It seems to be clear that our macro-economic analysis proved reliable for RTS while MICEX had just the opposite dynamics. As a result, the RTS index dropped by 26.72% over the period under consideration while MICEX at the same time rose by 4.25%. Logically, this can be accounted for by the fact that all the leading indicators (manufacture, services, economic sentiments) include currency risks at work in the country which is dependent on import practically in all realms of its economy. This was the reason why the management of surveyed companies, at their estimation of business perspectives, paid a great attention to how the current tendencies contributed to the weakening of the national currency to risks associated with such weakening and naturally to the escalation of costs due to rising import prices, deepening inflation and insurance against such risks. The leading indicator of economic sentiment also included customer concerns linked to a very rapid rising of import priced and cutting of actual wages. All this added to the shaping of a negative estimation and view of economic perspectives of the country, proceeding from our leading macro-economic indicators. The obtained results speak of a colossal imbalance of Russia's stock market and of the absence of a just, efficient and transparent stock market structure because the country cannot perform good on the key index and enter the bull trend phase (as it happens on the MICEX index) at the time when the key leading and confirming indicators are negative and when the economy is in a technical

Table 4: The yield of key Russia's stock indexes and of the USD/RUB currency pair (May 5th, 2015-December 12th, 2015)

Variables	Percentage
RTS index	-26.72
MICEX index	4.25
USD/RUB	39.00

Compiled by the researcher

recession with four consecutive negative GDP and the fifth one expected. At the same time, another confirmation of our macro analysis is the index expressed in the national currency of another country be it key currency and reserve currency but the one of another country. To solve this problems of Russian stock market inefficiency based on macro view, I propose the following.

Setting up national institutions, companies or stock market subdivisions which would engage in shaping the key significant leading macroeconomic indicators. I mean something like the Institute for Supply Management (ISM) in the USA or Markit company whose indexes were used for this study of mine or MIN: deutsche borse group belonging to Germany's stock market and whose economic sentiment indicator i also drew on here. This would allow us to independently gather more reliable and significant national data on the expectations of the manufacturing sector, the services and customers; this would diminish the impact of foreign institutions on Russia's image.

To maximally diversify the country's trade balance both by commodity type and by export/import geography. To get rid of the "dutch disease" (dependence on the oil and gas industry) to increase the share of other exported goods and create new goods for export. In what concerns export, the most important first steps have already been made and we shall have to closely monitor that they are being implemented as planned and as scheduled. In April 2014, Russia's cabinet approved a new version of a national program "on the development of industry and enhancing its competitiveness" (executive order No. 328 of April 15th, 2014). One of the key goals of the program-valid until 2020 is to slash the share of goods including those used by local manufacturers, being imported to Russia. A month later, president vladimir putin signed several executive orders on the implementation of additional measures to stimulate economic growth, including imports phase-out in manufacture and agriculture. In compliance with these presidential orders, Russia's government prepared a plan to promote imports phase-out in manufacture. As of late 2014, an imports phase-out program in farming was approved and signed (governmental Decree No. 1948-r of October 2nd, 2014). Allocation of funds for the imports phase-out takes place in the form of subsidizing and co-financing of research and as provision of grants and/or preferences at public procurement tenders. Thus in the fall

of 2014, the government endorsed a program of support to investment projects implemented in Russia on the basis of project financing (governmental Decree No. 1044 of October 11th, 2014). This program was developed to increase lending to the real sector economy on long-term preferential terms. Within this program, only projects chosen on a competitive basis are financed to be implemented before 2018 in a range of sectors as follows:

- Farming
- Manufacturing industry
- Chemical industry
- Mechanical engineering
- Residential housing
- Transport
- Telecommunications
- Energy industry

In compliance with the program requirements, the state financial backing is provided to investment projects with the cost of 1-20 bln. rub. Minimum 20% of the project cost is to be covered by the fund receiver. The borrower receives a target loan from a designated bank in roubles at 9 percent per annum as per Garant (2015). The total volume of funds earmarked for this program in the current year is as much as 60 billion roubles (par. 8, section 1.1, Appendix 39 to Federal Law No. 384-FZ of December 1st “On the Federal Budget for year 2015 and for the planning period of years 2016 and 2017”) as per Garant, (2015).

To tighten Federal Law No. 224-FZ of July 17th, 2010 (rev. of July 21st, 2014) “On combating the unlawful use of insider knowledge and market manipulation and on amending individual legislative acts of the Russian Federation” as per ConsultantPlus (2010) because in the period under consideration there were many a statement about possible privatization of key national companies in order to raise money for the state budget and about a compulsive increase of dividends in state-owned companies. Even prior to any official statement, the MICEX share index skyrocketed and showed its historical maximum. All this took place in the recessive period of the country’s economy. What is needed is to widen the circle of individuals classified as insiders. In EU countries for instance it is regulated in minute detail that the spouse(s), children and other persons who shared lodging for at least 1 year with the holder of insider information are also regarded to be insiders as per cyprus securities and exchange commission (CSEC, 2014). Another, in Russia, the main role in the monitoring of unusual and

doubtful transactions is played by the auction organizer (the exchange) while in the USA, for instance, the securities and exchange commission also chips in the process which of course, enhances the control grip on transactions. It is very desirable that Russian Central Bank should also partake in the procedure.

To support and lobby the interests aimed at reducing the country’s dependence on US dollar in its trade in critical raw materials (oil and gas). This will lessen the economy dependence on and the influence of the US currency because today when US monetary policies look in the direction of tightening (October 2014 ended the third US state program of quantitative easement and in December 2015 the base rate was raised in USA for the first time in 9 years) this leads to a lack of US dollars and the strengthening of the currency and as a result, provides another stimulus for raw commodities weakening because they are traded for US dollars worldwide.

In February 2016, Iran’s authorities declared their plans to reckon with European partners in Euro; in 2007, Tehran tried to convince their OPEC partners to abandon US dollar which then Iran president Mahmoud Ahmadinejad called “a useless piece of paper” according to Reuters (2016) but to no avail. Russi’s strategy ought to be providing support for such endeavours of the key oil producers.

As the positive tendencies in the countr’s economy gain strength and the influence of US economy and currency diminishes due to the aforementioned measures, Russia has to convert all payments and settlements to the national currency used in the RTS index which will hopefully be the final divorce of Russia’s stock market from foreign payment instruments and any devoid it of a direct dependence on them.

## **CONCLUSION**

Based on macro model we have evidence of the efficiency of the model on one key index (RTS) and an opposite result (model inefficiency) on the second main Russian index (MICEX). It is very hard to imagine because leading and coincident macro indicators provided negative prospects for the whole economy. The reason for this is different currency base of indexes and great country dependency on oil and gas fields and as a result greater dependency on US dollar. It looks like Russian stock market inefficient that must be solved by establishing affective departments, institutions that will independently gather more reliable and significant national macro data, significance of trade balance

diversification according to plan, importance of more involvement of the authorities in trading control and stock market inside trading regulation, support and suggest interest aimed at reducing the country's dependence on US dollar in its trade in critical raw materials (oil and gas).

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