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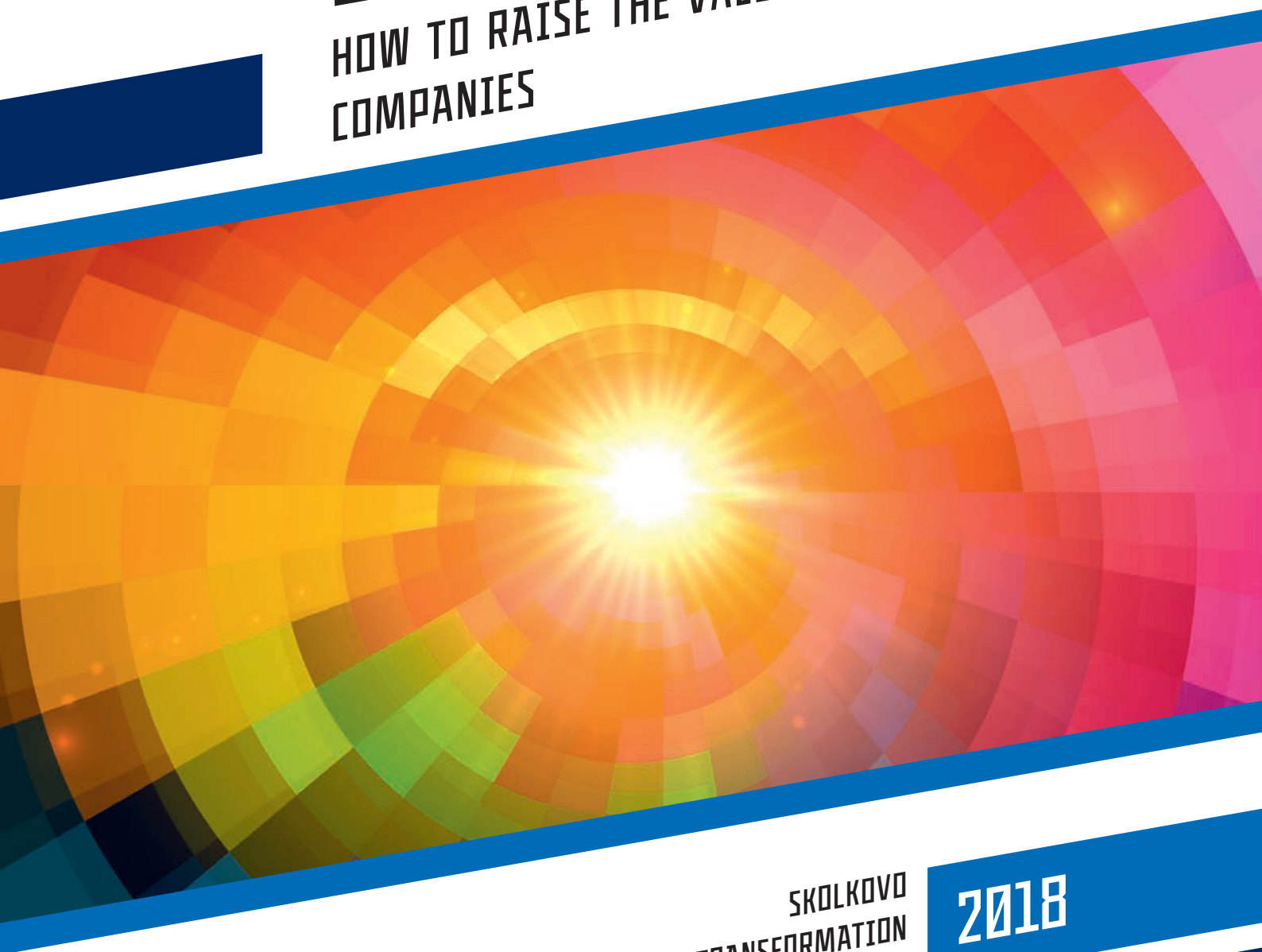
INVESTMENT GROUP

BUSINESS VALUE INDEX

HOW TO RAISE THE VALUATION OF RUSSIAN COMPANIES



SKOLKOVO
WEALTH TRANSFORMATION
CENTRE

2018

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SKOLKOVO Introduction

The recent years have seen the Russian authorities put a lot of effort into removing barriers to doing business in the country. If in 2012 Russia was ranked as 120th in ease of doing business according to the World Bank Doing Business international ranking, just 7 years later Russia rose to the 31st position, 'overtaking' all other BRICS countries (for example, China ranked 46th and Brazil—109th in the 2019 ranking).

Such a radical improvement in the ranking, however, has led neither to any meaningful growth in the small and medium-sized businesses (contribution of small and medium-sized businesses to Russian GDP keeps hovering around 20%), nor to acceleration of economic growth in general.

Why is that? Our hypothesis is that removing barriers and obstacles ('negative' incentives) to doing business in itself may be insufficient to spur economic growth; 'positive' incentives—what rewards a potential businessman can expect to get if his or her business succeeds—are also very important.

As regards these positive incentives, the situation in Russia does not appear to be very promising: a Russian entrepreneur, who decides to sell his business, can expect to get an amount that is several times smaller than that, which his peers from other countries—not only from the largest countries in Western Europe or the USA, but also from most developing countries, including China and Brazil—typically get.

Moreover, this 'Russian discount' to company valuation appears to be only partially caused by the current challenging geopolitical climate or the international sanctions: the valuation of Russian companies has already been significantly lower than the global average even five years ago.

It is fairly obvious that such valuation environment drastically reduces the incentives for potential entrepreneurs: why take risks if the financial return on the effort spent will not be particularly interesting even if the new business venture is a success?

Unfortunately, this problem is virtually ignored in the Russian scientific literature and scholarly discourse. It is often accepted either 'as a given'—an intrinsic feature of the Russian market—or simply as a consequence of the macroeconomic and geopolitical challenges that Russia has been facing in recent years.

In this context, we decided to analyse the reasons for the deviation of Russian valuation from global average by identifying indicators that might be correlating to the differences in valuation of a company between countries, and comparing the value of these indicators among the world's thirty largest economies.

The results of this analysis resulted in designing this Business Value Index, developed jointly by the SKOLKOVO business school (represented by the SKOLKOVO Wealth Transformation Centre

and the SKOLKOVO Independent Directors Club) and United Capital Partners (UCP), one of the leading Russian investment groups.

Unfortunately, the analysis showed that when measured by the selected indicators Russia's position is worse than that of the overwhelming majority of countries around the globe, including the other BRICS countries. In other words, the heavy discount that we see when valuing Russian businesses largely appears to reflect the weaknesses of the business environment where Russian businesses operate.

On the other hand, the data and the examples of other countries give us hope that it should be possible to improve the situation. After all, other countries have managed to do it somehow, haven't they?

Andrey SHPAK

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Chairman of the SKOLKOVO Independent Directors Club

UCP Introduction

United Capital Partners is one of the leading investment groups in the Russian market. Since its establishment in 2006, UCP has successfully completed several dozen successful transactions in different sectors of the Russian economy, including investments in the oil and gas industry, high-tech companies, retail, industrial enterprises and financial organisations.

When we decide to invest in a particular company, we often act as an activist investor and take an active part in improving both the company's operations and the quality of its corporate governance. High-quality corporate governance has become an essential prerequisite for the competitiveness and sustainability of any company, and an indicator of good long-term growth prospects for its investors.

There are now many companies in the Russian market, which can boast world-class operational performance, but those with world-class corporate governance are few and between. Of course, quality of corporate governance is not the only indicator used in valuing a business, but it is undoubtedly one of the important ones. Many Russian and foreign investors view insufficient quality of corporate governance as a deterrent to potential investment.

As investors, we are primarily interested in the practical aspects of valuation of businesses. Identification of the factors, which affect business valuation, should definitely help us better understand the environment and to determine the specific steps that businesses and the government may need to take in order to make Russia more attractive for investment.

The Business Value Index—a joint project of the SKOLKOVO business school and UCP—is a product of experts with both the academic and practical knowledge of the Russian stock market. The index contains five categories of indicators that cover all key aspects of business valuation and help identify the factors that may be the cause for low valuation of Russian companies.

Despite the recent significant government efforts aimed at improving the business and investment climate in Russia, much still needs to be done in order to make Russia genuinely attractive to potential investors. We believe that the weak spots and the challenges, which we identified, show us a path to potential solutions, which could help unlock the huge growth potential of the Russian market.

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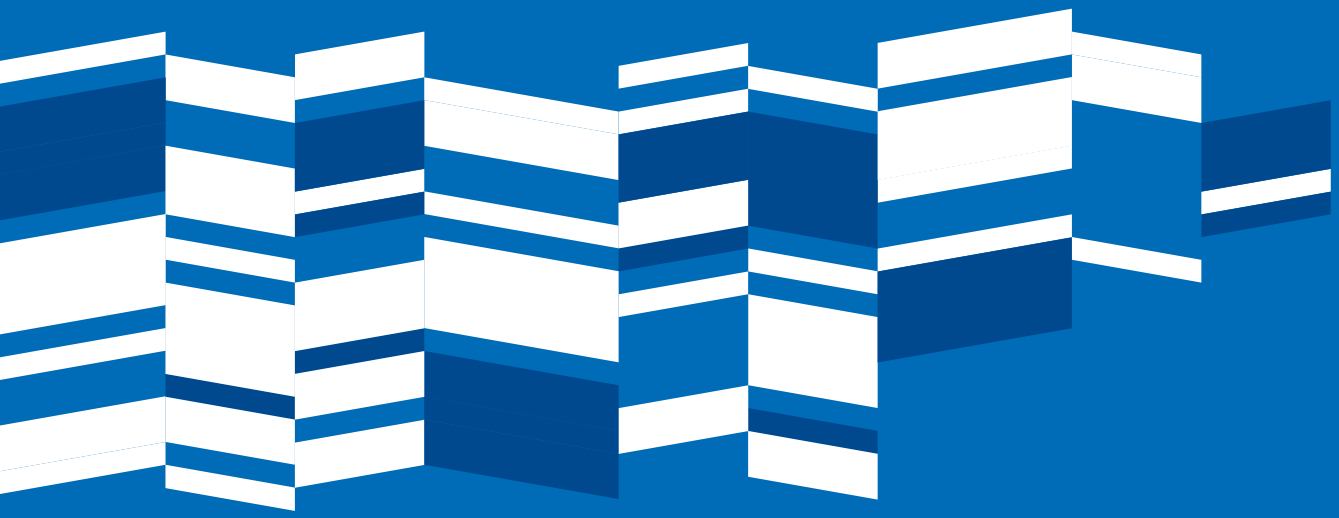

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1. KEY TAKEAWAYS

- Russian companies, as a general rule, are valued at substantially lower levels than those of their peers in other countries. A Russian entrepreneur who decides to sell his company can normally expect to receive a sum that is several times smaller than that received not only by his peers in the Western European countries or the USA, but also those in most developing countries.

- There is no significant correlation between the country's position in the World Bank's Doing Business ranking, which has taken Russia much time and effort to improve, and the average valuation company multiple in the country.

- Since there was no readily available instrument, which could help identify factors that influence the overall level of company valuation multiples in a particular country, we developed our own tool in the form of an index aimed at assessing the overall quality of the environment for selling a business in the country.

- This index was developed based on the analysis of more than four hundred different indicators, out of which we selected just nineteen for the use in the index, and grouped them into five categories. The values of the selected indicators for Russia were then compared with similar values for the thirty largest economies in the world (with Iran excluded).

- The results of this comparison suggest that the low valuation of Russian businesses appears to be due to objective factors. In all selected categories, Russia scored well below the average, when compared to the average both for the thirty largest economies, and for the emerging markets (as well as the average for the BRICS countries).

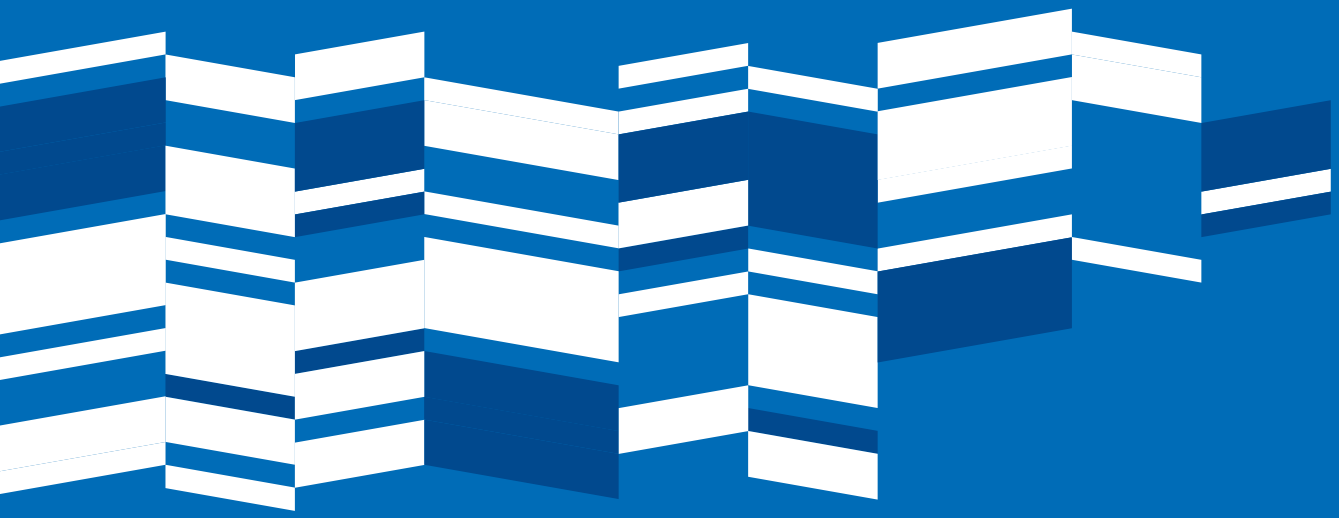
- Although improvement of the currently challenging macroeconomic situation will definitely increase the valuation of Russian businesses, in itself it is unlikely to be sufficient to eliminate the gap between the valuation of Russian companies and that of their peers in other major economies ('the Russian discount'). The investment climate and environment in other areas requires improvement, too.

- Our results provide support for the focused effort in at least several areas aimed at improving the investment climate:

  - Improve legislation and law enforcement practices in protection of the rights of minority shareholders in both public and private companies.
  - Improve the quality of the legal and judicial protection of property rights.
  - Increase the dividend payout ratio (ie the share of profits paid out as dividends).
  - Create a legislative framework for the repurchase of shares at the initiative of the company.
  - Improve financial reporting and auditing standards.
  - Develop the financial market.
  - Increase tax incentives aimed at promoting investment.

- Our analysis suggests that the following steps, if undertaken by individual companies, are likely to be favourably viewed by potential investors, which will definitely contribute to a higher valuation of the company:

  – Maintaining high-quality financial reporting in accordance with recognised international financial reporting standards, with adequate disclosure of non-financial information.
  – Transparent corporate governance procedures.
  – Access to details about the company operations both for investors and board members.
  – Transparent distribution of profits between shareholders / members with a high proportion of profits allocated to the payment of dividends.
  – Developed legal function, correct assessment of legal risks, and active use of legal tools to protect the company's rights.
  – Presence of the company in the financial market—from the bond market to the stock market—and having a reliable credit and financial history.
  – Competent use of investment tax incentives provided by the government.



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2.

ABOUT THE BUSINESS VALUE INDEX

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Why a New Index

There were several triggers that prompted us to start working on this study: our growing dissatisfaction with the state of affairs in the Russian capital market, the small number of transactions for the sale and purchase of companies—much smaller than that in other leading markets,—the continuing tightening of investor access to information, the increasing concentration and nationalisation in the banking sector, and the growing share of state-owned companies in the Russian economy. All the above was accompanied by persistently low valuation of Russian companies, both in private transactions and in the stock market—much lower than that in other countries of similar size.

For example, on average, a Russian entrepreneur who decides to sell his company can normally expect to receive a sum that is two to four times (depending on the type of valuation multiple you use) less than that, which a businessmen not only from the largest countries of Western Europe or the USA but also from most developing countries is likely to receive (please see Exhibit 1).

Unfortunately, this problem of low valuation of Russian companies by investors is hardly ever discussed in the domestic media or scientific literature, although it has fairly concrete negative macroeconomic consequences (please see Exhibit 2):

- First, the low potential future selling price relative to the company's assets or performance (the so-called 'company valuation multiple') reduces the incentives for engaging in entrepreneurial activity: why take any risks if the end result will not be very satisfying even if the new business venture is a success?
- Low valuation multiples discourage established entrepreneurs from going to the stock market for raising capital: why make tremendous effort and take on serious obligations to provide regular reporting to new shareholders and to meet the regulatory requirements, if you can only receive the equivalent of seven or eight annual company profits when listing the company on the stock exchange?
- In the absence of other options, banks become the main source of funding. Entrepreneurs, however, face another problem in this respect: lack of competition from the stock market leads to higher interest rates on loans.
- The high cost of capital and the low potential valuation of the company in the event of its sale lead to excessive hurdle rates against which potential investments get compared. This makes many projects less promising to finance, even though projects with similar fundamentals could have been easily financed in other countries.
- Lack of access to external capital limits the amount of investment, since companies in these circumstances are often forced to rely solely on internal resources and the profits they earn. Lack of investment, in turn, slows down GDP growth.
- Lack of companies of adequate size due to low growth and low company valuations reduce potential inflow of capital from foreign investors.
- Limited opportunities to raise funds in the stock market increase financial fragility of large companies, which increases the risk of their turning to the government for financing or bail-out in difficult times. In the past ten years, we have seen quite a few such examples.

At the same time, it turns out that in itself, removal of legislative barriers to doing business aimed at improving the country's positions in the World Bank's Doing Business ranking[1] does not appear to correlate with the

1 Please refer for more details to http://russian.doingbusiness.org/. In our report we used data from the Doing Business 2018 report (published in 2017) in order to ensure comparability of the data.

valuation multiples in the particular country (please see Exhibit 3).

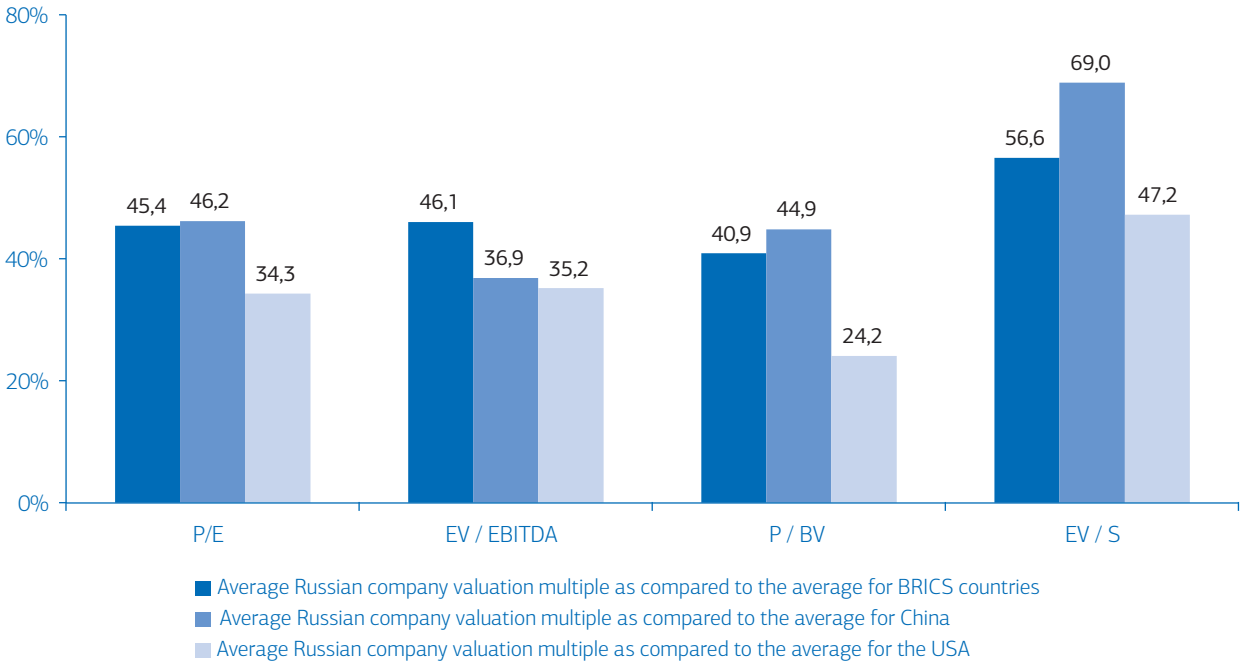
Improvement of legislative environment and removal of many formal barriers to doing business in Russia over the past 5 years have not led to any meaningful growth of small and medium-sized businesses (their contribution to GDP is still about 20%) or to acceleration of economic growth in general.

At the same time, valuation of companies in other emerging markets remains several times higher than in Russia in spite of the far-from-perfect business and tax climate and the foreign policy situation there.

Unfortunately, there is no readily available instrument, which could help identify why the Russian valuation multiples are so much lower than in other countries, and what could be done to increase them.

Despite many large comparative cross-country studies[2], there is still limited research, which would analyse the factors that influence the valuation of companies at the country level. Academic literature tends to

EXHIBIT 1. RUSSIAN COMPANY VALUATION MULTIPLES ARE A FEW TIMES LESS THAN PREVAILING MULTIPLES IN COMPARABLE COUNTRIES



Sources: Bloomberg, Analysis by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Valuation multiples are as of the end of 2017 (please refer to Annex 3 for more details).

2 For example, The Global Competitiveness Report, issued by the World Economic Forum; in our report we used data from the 2017 report to ensure the comparability of data: https://www.weforum.org/reports/the-globalcompetitiveness-report-2017-2018

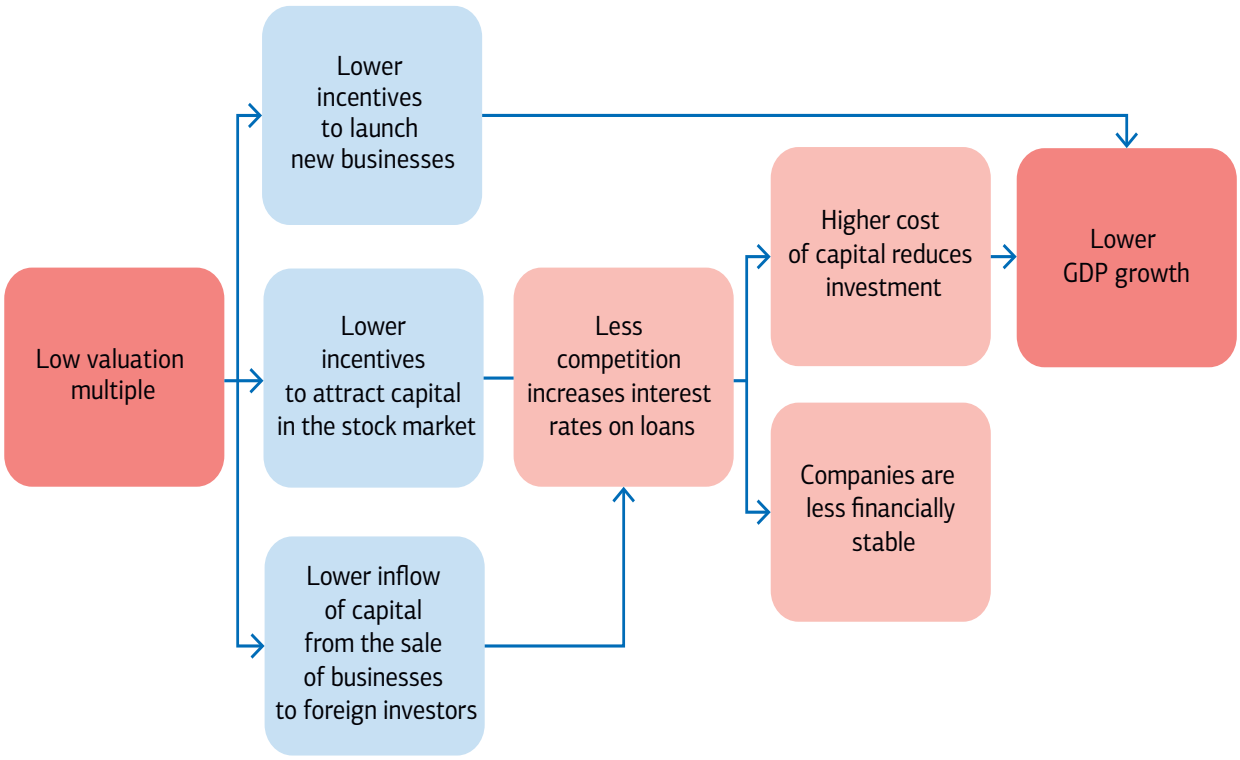
focus on analysing the influence of individual factors on a particular valuation multiple at the company level. Another limitation of these studies is that they are primarily based on the US or other developed markets, which differ significantly from the Russian one.

This prompted us to develop our own tool—in the form of an index—which, we hope, will be useful both in assessing the overall quality of the environment for selling a business both in Russian and in other countries, and in developing measures to improve the quality of this environment.

Methodology Used for Developing the Index

Any attempt to develop a universal mechanism for assessing the value of a business will always have limitations, since real-life transactions are a product of the negotiation process. As a result, the valuation resulting from such negotiations will depend not only on underlying objective fundamental factors, but also on the negotiation skills of the parties.

EXHIBIT 2. NEGATIVE MACROECONOMIC IMPLICATIONS OF LOW COMPANNY VALUATION MULTIPLES



Source: Expert opinion by UCP Investment Group and SKOLKOVO Wealth Transformation Centre.

Nevertheless, since valuation of companies takes into account fundamental factors, these factors can be identified and ranked according to the degree of their correlation to such valuation, despite the presence of subjective and random circumstances.

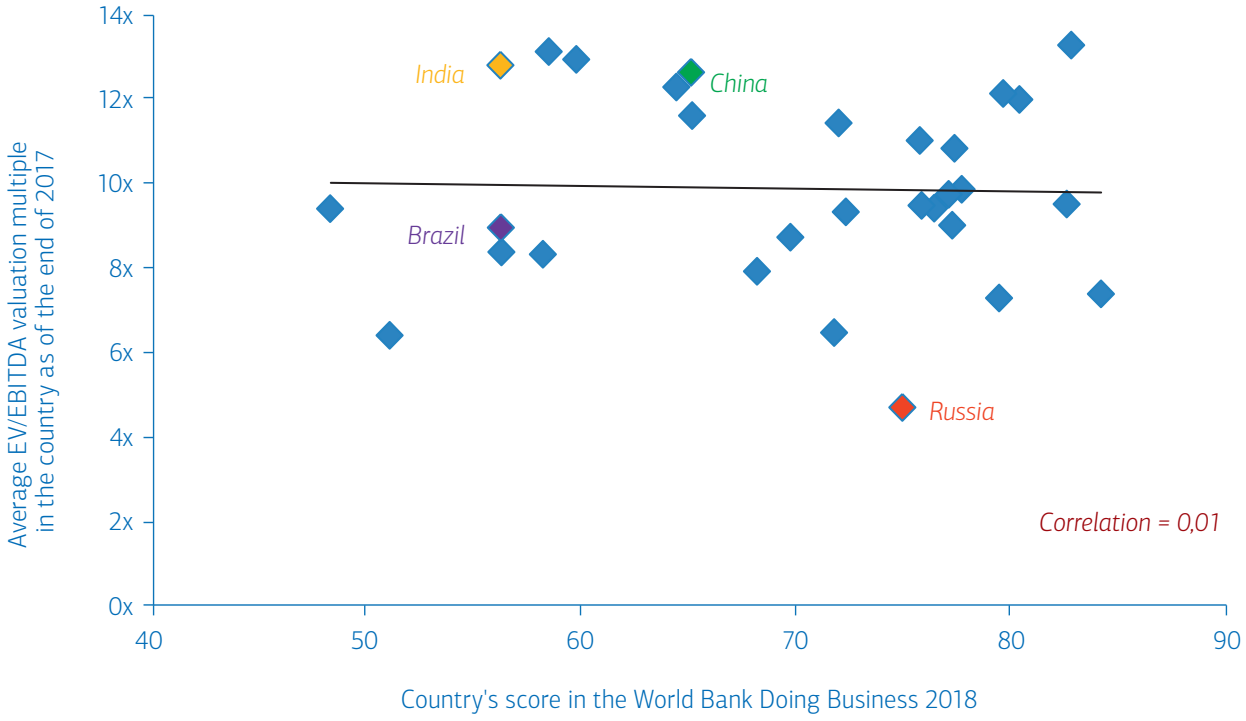
Typically, the following three main approaches are used to value a company or a business:

- based on discounted cash flows (the income approach);
- based on market multiples (the comparative approach);
- based on assets (the cost approach).

The income approach is the most often used one when assessing a profitable business, since it is based on the economic rationale for investing in a company: any investor invests funds in order to get return (income) in the future. Accordingly, when selecting indicators for our index, we primarily focused on their potential impact on the figures or indicators that are normally taken into account when valuing companies using the income method, that is, on the size and likelihood of possible future cash flows, and on the discount rate.

The comparative approach, which allows an investor to draw initial conclusions about

EXHIBIT 3. THERE IS NO CORRELATION BETWEEN THE COUNTRIES' AVERAGE COMPANY VALUATION MULTIPLES AND THEIR SCORES IN THE DOING BUSINESS INDEX (USING EV/EBITDA MULTIPLE)



Sources: World Bank, Bloomberg, Analysis by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Comparison made for the 30 largest economies ranked by GDP at purchasing power parity (PPP) excluding Iran.

the potential prospects of investing in a company by comparing the valuation multiple of a particular company with those of similar companies, is also a commonly used approach in practice. Although we did not include valuation multiples into our index, we compared the resulting index with the average multiples for the country in order to test the potential usefulness of our index. We believe that it is reasonable to use the average valuation multiples for public companies as a proxy for the prevailing multiple in the whole market since public company multiples often influence transactions with private non-public companies.

The cost approach is the least accurate for the purposes of proper valuation of companies, as it does not do a good job of properly accounting for such important factors as business profitability, growth prospects and potential risks. Nevertheless, for comparison purposes we also provide the data on the P/BV multiple, as it is still sometimes used when valuating companies in certain sectors of the economy.

Taking into account the above, we constructed the index as follows:

1. First of all, we decided that the outcome of our study should be an index that would rank the countries among their peers with comparable economic significance and power. Therefore, we limited our analysis to the 30 largest economies in the world in terms of GDP at purchasing power parity (PPP) according to the World Bank and the International Monetary Fund data[3]. The 30 countries that we selected account for 82% of the global GDP at PPP.
2. We used the Distance to Frontier approach, used by both the World Bank and the World Economic Forum when calculating their inter-country comparative indices, as the methodology for calculating our index. The Distance to Frontier (DF) score illustrates the distance of the value of a particular parameter for a country from the 'frontier'—which represents the best performance observed for any of the selected 30 countries for this particular parameter or factor. The Distance to Frontier score is indicated on a scale from 0 to 100, where 0 represents the lowest result, and 100 is the best observed result (that is, the 'frontier'). This methodology, on the one hand, allows us to assess how far a certain country lags behind the actually achieved 'best practices' in a particular area, and on the other hand, shows—using other countries' examples—that these 'best practices' are possible to achieve.
3. When selecting indicators to use in the calculation of the index, we applied the following selection 'filters':
    a. The indicator should reflect or be based, to a reasonable extent, on the empirical (that is, observed) reality[4]—macroeconomic, financial, accounting or other data, or survey results.
    b. The indicator should be economically meaningful: a reasonable investor should be able to take this indicator into account (directly or indirectly) when valuing a company or a business.
    c. The value of a specific indicator in different countries should correlate with one or several valuation multiples for public—that is, listed in the stock market—companies. Moreover, it is desirable that the corre-

3 We excluded Iran from the calculation due to the fact that it has been under financial and trade sanctions for many decades now, as well as due to the limited data for this country as regards the indicators selected for the calculation of the index.
4 This is one of the differences between the logic of our index and the Doing Business rating, which focuses primarily on the 'regulatory performance' that does not always takes into account the actual law enforcement practice.

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Expert commentary

Andrey Sharonov
President of the Moscow School of Management SKOLKOVO

The topic of the study is relevant not only for Russia but also for other countries. Valuation of businesses, its dependence on the company's operating performance, corporate governance, the investment climate in the country, and the prevailing market conditions is important to business founders, investors, and governments in any part of the world. And all governments, investors, and entrepreneurs strive to maximize the value of the business no matter what combination of these factors is.

This is also true for Russia, where many efforts have been spent trying improve the above factors. The results of these efforts, however, have been contradictory. On the one hand, it is impossible not notice improvement, for example, in the Russia's rank in the World Bank Doing Business ranking; but on the other hand, market capitalisation and valuation of Russian companies continues to be consistently lower than those of their peers from both the developed and the emerging markets.

In this context, this study attempts to analyse the different factors that may impact company valuation. Out of a large number of potential factors the authors selected 19 that are most important, and grouped them into 5 categories. The analysis was performed based on the 30 largest economies in the world, which collectively produce more than 80% of the world's GDP.

This analysis highlights the main problems faced by Russian companies, and provides a good basis for potential corrective action by the government regulators, or for providing practical recommendations to companies, especially when it comes to improving operational performance and corporate governance.

The study suggests that both the government regulators and the companies themselves have to go through a difficult and long way in bringing their institutions and performance up to the standard of the best international practices.

At the same time careful selection of indicators by the authors of the study allows such effort to be more focused, and instead of abstract pursuit of improving the elusive "entrepreneurial or investment climate", to pay attention to such entrenched problems as ensuring equal and fair access to justice, balancing the protection of the rights of minority shareholders and the protection of companies from abuse of the right by minority shareholders, development of financial markets, and providing tax incentives for long-term investment.

lation be observed for several years in a row.

d. Existence of independent academic studies, indicating the presence of an interrelationship between the selected indicator and the valuation multiples for public companies, was a plus[5].

Indicators and Data Sources Used in Calculating the Index

Having analysed more than four hundred different indicators, we selected nineteen to use in the index, dividing them into five categories[6]. They are as follows.

A. MACROECONOMIC INDICATORS

Hypothesis about why they may affect valuation: Companies operating in large markets with high economic growth should be more attractive to potential buyers.

1. GDP at purchasing power parity (PPP)
2. Average real GDP growth
3. Stock market capitalisation

B. INVESTMENT PROTECTION PERCEPTION

Hypothesis about why they may affect valuation: Limited opportunities for shareholders to receive information, poor quality of information, the tradition and possibility for majority shareholders to 'manage' profits to the detriment or at the expense of the interests of minority shareholders should increase the risks of making investments. The higher the risks, the lower the price that a potential investor should be willing to pay for a company in such a country. Limited opportunities of the investor to protect the property rights to his/her assets should have a similarly negative impact on the value of the company.

4. Strength of auditing and reporting standards in the country
5. Protection of minority shareholders' interests
6. Dividend payout ratio (ie share of public companies' profits used to pay dividends)
7. Efficiency of protecting property rights
8. Efficiency of challenging regulations
9. Efficiency of settling disputes

It should be noted that out of the several available indicators of the efficiency of protection of minority shareholders' interests and of property rights we chose the indicators used by the World Economic Forum, since they showed a higher correlation with valuation multiples. The other available indicators (for example, World Governance Indicators or assessments of the efficiency of protection of minority shareholders' rights from the World Bank's Doing Business ranking) demonstrated much lower correlation to valuation multiples.

C. INTEREST RATES

Hypothesis about why they may affect valuation: High interest rates should raise the investor's return expectations, thereby, all other factors being equal, reducing the value of the company.

10. Average inflation
11. Sovereign Credit Default Spread (CDS) net of the US level

D. ACCESS TO CAPITAL

Hypothesis about why they may affect valuation: All other factors being equal, better access to

5 For example, such as in the 2013 study of the Institute of Emerging Markets of the Moscow School of Management SKOLKOVO–Williams, Park (2013) –that identified the positive impact of several factors on company valuation multiples observed in the stock market, which included among others auditing and reporting standards, protecting minority shareholders, and dividend payout ratio: https://iems.skolkovo.ru/downloads/documents/SKOLKOVO_IEMS/Research_Reports/SKOLKOVO_IEMS_Research_2013-12-30_en.pdf

6 For more details about data sources and justification for the use of particular indicators in the index, please refer to Annex 2.

capital and a greater number of market players in the capital market should increase the value of the company through increasing demand.

12. Financial market development and access to financial services
13. Stock market liquidity
14. Percent of institutional holding
15. Prevalence of companies with foreign ownership in the domestic market
16. Foreign direct investment inflow

E. INVESTMENT ORIENTATION OF THE TAX SYSTEM

Hypothesis about why they may affect valuation: All other factors being equal, large tax burden should reduce the return on capital for investors, thus reducing the value of the company.

17. Average effective income tax rate for public companies
18. Labor tax burden
19. Tax incentives to invest

We calculated the Distance to Frontier index for each of the selected indicators for each country, using the following formulas:

• in the case of direct (positive) correlation :

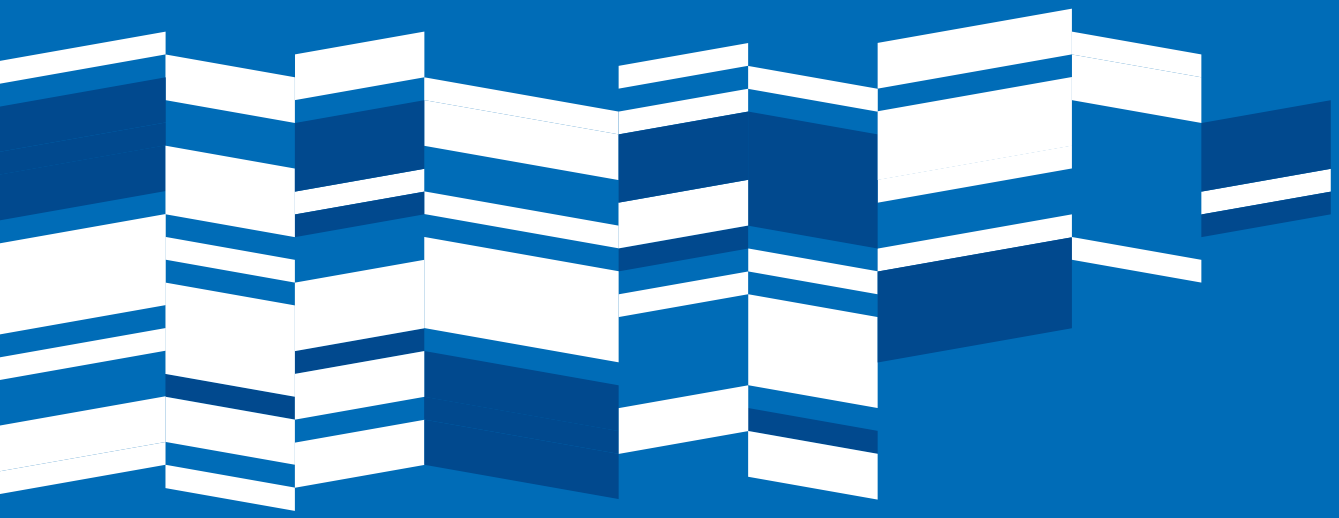
$$\left(\frac{\text{country-specific indicator — minimum value of the indicator among the thirty countries}}{\text{maximum value of the indicator among the thirty countries — minimum value of the indicator among the thirty countries}} \right) \text{x } 100$$

• in the case of negative correlation:

$$100 - \left(\frac{\text{country-specific indicator — minimum value of the indicator among the thirty countries}}{\text{maximum value of the indicator among the thirty countries — minimum value of the indicator among the thirty countries}} \right) \text{x } 100$$

We then used the individual distance to frontier scores to calculate intermediate scores for each category as an arithmetic average.

The integral (cumulative) index was then calculated as an arithmetic average based on the five intermediate distance to frontier scores for each category. The weights of each category were assumed to be equal.



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BUSINESS VALUE INDEX

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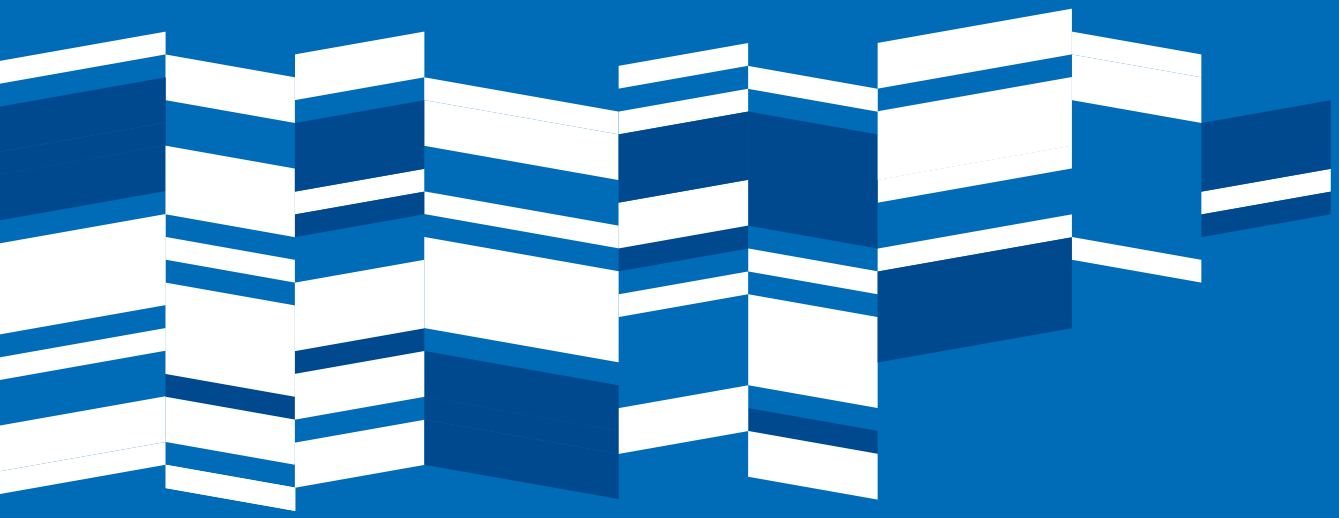
Ranking	Country	Business Value Index	A. Macroeconomic indicators	B. Investment protection perception	C. Interest rates	D. Access to capital	E. Investment orientation of the tax system
1	**United States**	80,66	57,61	82,67	97,28	91,09	74,62
2	**United Kingdom**	72,40	28,59	94,47	97,19	68,86	72,90
3	**Canada**	66,80	28,23	87,43	97,66	46,22	74,48
4	**Netherlands**	65,54	26,77	89,61	98,99	47,14	65,19
5	**United Arab Emirates**	63,88	21,93	83,70	88,97	31,97	92,85
6	**Australia**	61,32	27,21	77,83	97,24	45,16	59,15
7	**Germany**	58,85	23,82	76,36	98,40	36,56	59,13
8	**Malaysia**	58,12	37,64	71,26	87,01	33,29	61,40
9	**China**	57,05	71,00	43,72	89,98	42,13	38,43
10	**Japan**	56,80	28,85	73,90	98,87	42,34	40,05
11	**South Africa**	54,59	44,44	59,55	62,27	46,36	60,31
12	**Thailand**	53,09	30,64	41,80	94,23	28,80	69,98
13	**India**	52,64	52,90	45,75	81,05	26,09	57,42
14	**Saudi Arabia**	51,37	21,34	59,96	85,95	16,27	73,34
15	**Indonesia**	50,18	32,85	54,68	79,96	24,01	59,41
16	**France**	49,86	23,79	67,12	98,88	35,56	23,95
17	**South Korea**	48,23	28,19	33,12	93,22	25,65	60,95
18	**Poland**	46,44	23,57	36,11	92,95	28,63	50,95
19	**Philippines**	46,35	38,38	31,68	87,15	17,68	56,88
20	**Spain**	45,63	25,68	39,34	91,54	31,09	40,51
21	**Mexico**	40,51	22,38	34,68	74,83	31,84	38,79
22	**Turkey**	36,02	30,08	23,19	53,02	15,09	58,71
23	**Colombia**	34,12	18,53	23,43	69,91	24,76	33,95
24	**Pakistan**	33,12	26,91	22,47	53,19	9,78	53,23
25	**Italy**	32,97	16,07	19,44	82,76	16,11	30,47
26	**Brazil**	31,21	7,48	35,51	60,07	26,89	26,10
27	**Russian Federation**	**29,26**	**15,11**	**19,01**	**67,00**	**7,45**	**37,74**
28	**Nigeria**	26,71	10,03	25,88	21,20	14,91	61,55
29	**Egypt**	25,62	23,58	27,80	21,86	9,17	45,69
30	**Argentina**	13,02	12,43	7,65	10,70	10,22	24,11
	Average[7]	*48,08*	*28,53*	*49,64*	*77,78*	*31,04*	*53,41*
	Average for BRICS countries	*44,95*	*38,19*	*40,71*	*72,07*	*29,79*	*44,00*
	Average for emerging markets	*42,58*	*28,47*	*39,05*	*68,73*	*23,55*	*53,09*
	Average for developed markets	*59,08*	*28,66*	*70,82*	*95,88*	*46,01*	*54,05*

Source: please refer to Annex 1

7 Hereinafter, the average values for developed markets are calculated on the basis of the data for Australia, Canada, France, Germany, Italy, Japan, the Netherlands, Spain, the UK and the United States. Emerging markets include the other twenty countries. The BRICS countries include Brazil, Russia, India, China and South Africa.

The closer the index value is to 100, the closer the country is to the 'Frontier' (ie the best performance among the analysed thirty countries) in respect of the indicators used for comparison. The closer the index is to zero, the worse the country's performance is. For more details about the values of the individual indicators and the ranking of countries in each of the categories, please refer to Annex 1.



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4.

ANALYSIS AND CONCLUSIONS

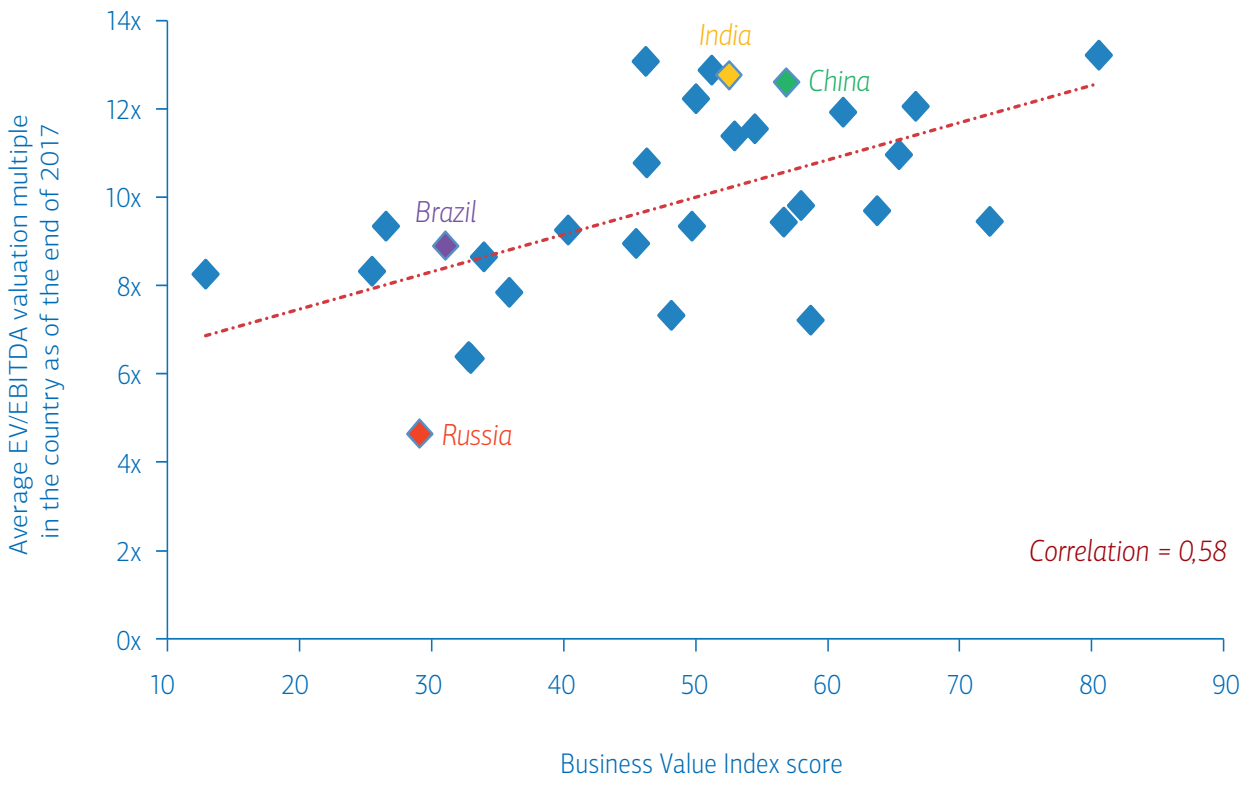
Conclusions

As a way to check the results we obtained, we analysed the correlation between the values of the index and the average company valuation multiples in different countries. It turned out that in general, a higher value of the index correlates to a higher company valuation multiples in a given country (please see Exhibit 4).

Although such a correlation in itself does not necessarily suggest a cause-and-effect relationship, it provides basis to at least argue that the index appears to adequately reflect the overall quality of the environment for valuing and selling a business in a particular country as compared to the other largest economies.

The Business Value Index score for Russia is 29.26. This implies that the Russia's performance based on the selected indicators falls into the lower (worst) third of the range among the thirty largest economies in the world. This resulted in Russia being ranked as only 27 out of 30.

EXHIBIT 4. CORRELATION BETWEEN THE COUNTRIES' AVERAGE COMPANY VALUATION MULTIPLES AND THEIR BUSINESS VALUATION INDEX SCORES (USING EV/EBITDA MULTIPLE)

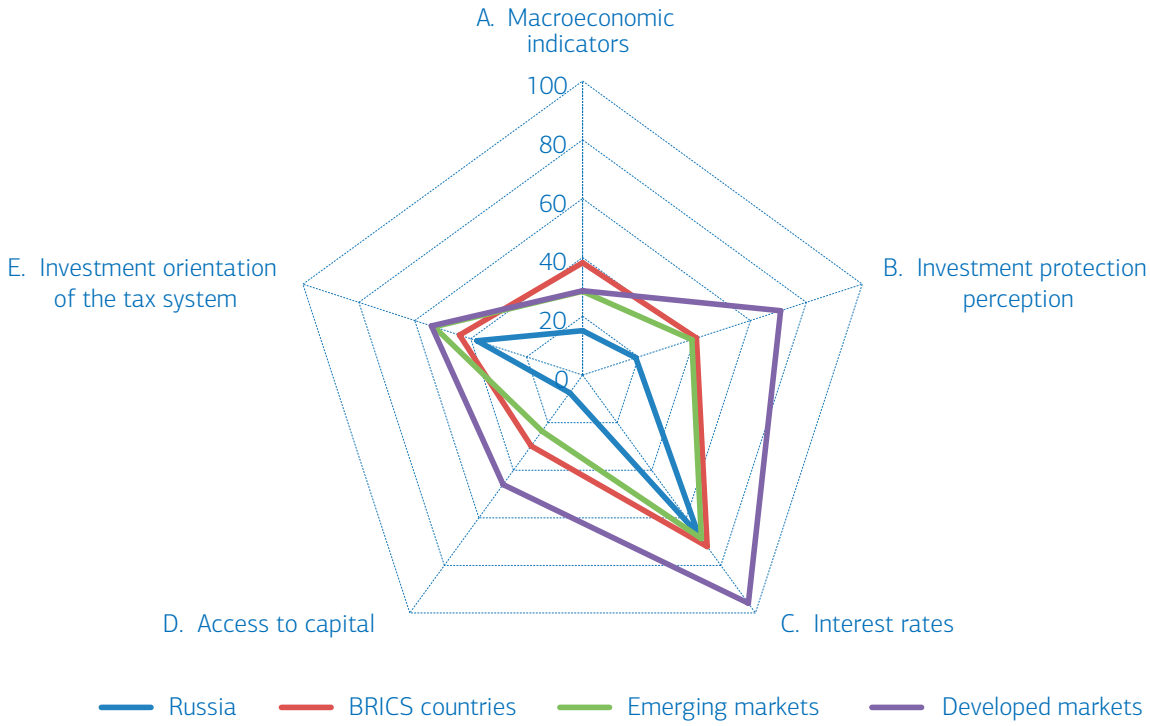


Sources: Bloomberg, Analysis by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Comparison made for the 30 largest economies ranked by GDP at purchasing power parity (PPP) excluding Iran.

The results of the analysis also suggest that the low valuation of Russian businesses (as compared to valuation multiples in other countries) appear to be caused by objective factors. The Russian scores were below the average in all categories, both if compared to the average for the thirty largest economies of the world as a whole, and to the average for the BRICS countries[8] (please see Exhibit 5).

Analysis the of correlation between the individual components of the index (please see Exhibit 6) allows us to put forward another important thesis: although improvement in the macroeconomic situation itself will likely contribute to the increase of the valuation of Russian businesses, it is not enough to eliminate the 'Russian discount', ie the gap between the valuation multiples of Russian companies and of their peers in other major economies. Other elements of the investment environment need to be improved, too. We outline below which areas, in our view, require improvement in the first place.

EXHIBIT 5. COMPARING RUSSIA'S INDIVIDUAL CATEGORY SCORES WITH BRICS COUNTRIES, EMERGING AND DEVELOPED MARKETS



Source: Analysis by UCP Investment Group and SKOLKOVO Wealth Transformation Centre.

8 Comparison with the indicators for the BRICS countries and China, in particular, may look controversial from a purely macroeconomic point of view, in view of the differences in the structure of the economy, demographic situation, geographical location, level of development of the financial market and the historical path between these five countries. At the same time, taking into account that in practice comparison between the BRICS countries is an established and widespread phenomenon in the investment market, we use this comparison throughout this paper.

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EXHIBIT 6. CORRELATION BETWEEN DIFFERENT INDEX COMPONENTS

	Business Value Index	A. Macroeconomic indicators	B. Investment protection perception	C. Interest rates	D. Access to capital	E. Investment orientation of the tax system
Business Value Index		0,57	0,91	0,81	0,85	0,65
A. Macroeconomic indicators			0,29	0,37	0,50	0,26
B. Investment protection perception				0,67	0,77	0,59
C. Interest rates					0,58	0,32
D. Access to capital						0,38
Price to Earnings valuation multiple (P/E), 2017	0,28	0,36	0,25	0,15	0,34	0,01
Enterprise value to EBITDA valuation multiple (EV/EBITDA), 2017	0,58	0,60	0,46	0,36	0,47	0,43
Price to Book value valuation multiple (P/BV), 2017	0,37	0,53	0,30	0,06	0,45	0,24
Enterprise value to Sales valuation multiple (EV/S), 2017	0,31	0,23	0,30	0,13	0,06	0,52

Sources: Bloomberg, Analysis by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Correlation for other period may differ.

Analysis of Individual Components of the Index[9]

CATEGORY A. MACROECONOMIC INDICATORS

For this category, we selected three indicators for our analysis: GDP at purchasing power parity (PPP), the average growth rate of real GDP over the previous three years, and the stock market capitalisation.

The Russian GDP at PPP is one of the largest in the world: as of 2017, the Russian economy ranked 6th in the world by this measure. At the same time, Russian GDP in absolute terms is less than those of the leaders—China and the USA—almost fivefold.

The average economic growth rate in Russia over the past three years—minus 0.4%—is one of the lowest among the thirty largest economies in the world (the only country that showed worse results was Brazil), especially if compared to relatively high average annual economic growth rates of 2.83% across the thirty countries.

9 For detailed data please refer to Annex 1

The data on the stock market capitalisation also leave much to be desired. According to 2016 data published by the World Bank, capitalisation of the stock market in Russia was less than 50% of GDP. For comparison, the average for the thirty countries under analysis was close to 75% of GDP, exceeding 100% of GDP for BRICS countries.

As a result, the Russian Distance to Frontier score for macroeconomic indicators was 15.11, placing the country in the 27th position among the thirty countries. For comparison, China—the leader in this category—has an index value of 71.00.

CATEGORY B. INVESTMENT PROTECTION PERCEPTION

In this category, we selected six indicators for the analysis: three of them characterising perception about the corporate governance environment in the country (perception about the strength of auditing and reporting standards in the country, perception about the quality of minority shareholders' rights protection, and the dividend payout ratio for public companies), while the other three assess the perception about the quality of legal protection of assets (efficiency of property rights protection, efficiency of challenging regulations, and efficiency of settling commercial disputes).

Five of the six indicators, with the exception of the dividend payout ratio, are based on the results of the extensive Executive Opinion Survey among business leaders, conducted by the World Economic Forum (for Russia, the number of respondents exceeded 500 people). We believe that use of the survey and sentiment data is perfectly acceptable and justified for our purposes both due to the fact that the findings of these surveys (unlike many other similar indicators) did show meaningful correlation with the company valuation multiples, and because any company valuation is influenced by the perception (ie sentiment) of the value of the business and the risks associated with the business by potential buyers.

Analysing these indicators, one can see that Russian business leaders rated the strength of auditing and reporting standards in Russia at 4.05 on a seven-point scale. This implies that they are not sure that they are satisfied with the quality of these standards. This is one of the three worst results among the thirty largest economies; only the Argentina and Pakistan business leaders rated their auditing and reporting standards lower than Russia. Russia lags significantly behind not only the developed markets, where the average satisfaction with the auditing and reporting standards was 5.67 points on a seven-point scale, but also behind the emerging markets (4.73 points on average).

As for the quality of protection of minority shareholders' rights, business leaders rated it at 3.56 on a seven-point scale, which is broadly equivalent to the statement "the rights are more likely not protected, than protected". It is also one of the three worst results among those of the thirty largest economies.

On the one hand, Russia's low rank as regards minority shareholders' rights protection and the strength of auditing and reporting standards may seem surprising, considering that the Russian Central Bank, the Moscow Exchange, and the Russian Government have been making considerable efforts in recent years to improve corporate governance and the quality of reporting in Russian public companies and to make them adopt the best practices in these areas. For example, there is a special programme aimed at improving corporate governance[10], under which new laws are adopted and the Central Bank's experts actively advise the largest Russian public companies on application of these standards. Over the past few years, preparation of financial statements under international standards (IFRS) has been a mandatory requirement for listing on the Moscow Exchange. Importance

10 Resolution of the Russian Government No 1315-n "On the plan of measures ('road map') on improving the corporate governance" dated 25 June 2016

and relevance of these efforts must not be underestimated.

On the other hand, these efforts mainly focused on several dozen major Russian public companies. Smaller and private companies have hardly been affected by these reforms so far. This could have influenced the overall sentiment about the quality of protection of minority shareholders' rights and the quality of auditing and reporting standards by the respondents of the World Economic Forum Executive Opinion survey.

As for the share of profits paid out by public companies as dividends, in absolute terms the situation at the first glance does not look too bad: the average dividend payout in the past few years was 31.68%, This, however, was significantly lower not only than the average dividend payout for the thirty largest economies (64.55%), but also the average for the emerging markets (62.86%) and for BRICS countries (50.73%).

As for the perception about the efficiency of asset protection, business leaders rated it at less than 4.0 on a seven-point scale for each of the three business-relevant indicators—efficiency of protecting property rights, efficiency of challenging regulations, and efficiency of settling disputes. In other words, Russian business leaders believe that the Russian judicial system hardly copes with the task of ensuring reliable protection of property rights and efficiently and effectively resolving disputes. This assessment of the Russian judicial system by its 'users' was lower than the average for both the developed and the emerging markets.

As a result, the Russian Distance to Frontier score as regards the investment protection perception was as low as 19.01, placing the country in the sad 29th position out of thirty. The score of the leader in this category—the UK—was 94.47.

CATEGORY C. INTEREST RATES

In this category, we selected two indicators for our analysis: the average inflation rate over the preceding three years and the sovereign Credit Default Swap (CDS) for the country net of the US level. The index for both indicators was calculated assuming the negative correlation between the values of the selected indicators and their potential impact on the valuation, that is, the higher the value of this indicator, the lower the value of the index.

Despite a significant decline in recent years, the inflation rate over the three preceding years in Russia averaged 6.84%. This is higher than the average inflation rate in the emerging markets (5.96%) and significantly higher than the inflation rate in the developed markets (1.07%).

As regards the sovereign Credit Default Swaps (CDS), Russia was at a level close to the average for the emerging markets.

As a result, the Russian Distance to Frontier score in this category was 67.00, which places the country in the 23rd position among the thirty largest economies. For comparison, the Netherlands—the leader in this category—had the score of 98.99.

CATEGORY D. ACCESS TO CAPITAL

In this category, our analysis included assessments of the level of financial market development and availability and access to financial services, stock market liquidity, the percent of institutional holding of shares in public companies, perception of prevalence of companies with foreign ownership in the domestic market, and the absolute size of foreign direct investment inflow.

As regards the development of the financial market, Russia was among the few countries where this indicator was rated lower than 4.0 on a seven-point scale (the other eight countries were Argentina, Brazil, Egypt, Italy, Nigeria, Pakistan, South Korea, and Turkey).

Russia was also ranked the lowest among the thirty largest economies in terms of the business leaders' perception of the prevalence of companies with foreign ownership in the domestic market. Lack of access of foreign companies to the domestic market may result in lower competition, as well as in decline in demand for Russian assets from foreign investors.

The liquidity of the Russian stock market (slightly above 10% of GDP) is low as compared not only to the best examples among the thirty largest economies, but also to the average value for these thirty countries (52.64%), and to the average for the emerging markets in general (37.90%).

It is quite possible that one of the causes of low liquidity is the relatively low share of institutional (professional) investors' holdings of Russian companies shares. It averaged less than 12% of the free float shares, which is below the averages for both the developed markets (26.73%), the BRICS countries (21.74%), and the emerging markets (14.93%).

The inflow of foreign direct investment in Russia is significantly lower than in the leading countries—the USA, China and the UK, but higher than in France and Germany, as well as than the average for the emerging markets in general.

Overall, the Russian Distance to Frontier score as regards access to capital was 7.45, placing the country in the last position among the thirty largest economies. For comparison, the USA—the leader in this category—had a score of 91.09.

CATEGORY E. INVESTMENT ORIENTATION OF THE TAX SYSTEM

In this category, we selected three indicators for our analysis: average effective income tax rate for public companies, labour tax burden, and the business leaders' assessment of availability of tax incentives to invest.

We found that the average effective income tax rate for Russian public companies was broadly in line with that, which was typical for the emerging markets, although slightly above the average level of the developed markets.

According to World Bank estimates, the labour tax burden in Russia—36.3%—is one of the highest among the thirty largest economies in the world. Only three other countries (Brazil, China and France) had higher labour tax burden.

Russian business leaders do not find the domestic tax system favourable for investment: their perception of whether the tax system provides incentive to invest is rather low (3.18 on a seven-point scale), placing Russia ahead of only five countries—Argentina, Brazil, Colombia, France and Italy.

Overall, the Distance to Frontier score for Russia in terms of investment orientation of the tax system was 37.74, ranking Russia as 25th out of thirty. The leader in this category was the United Arab Emirates with a score of 92.85.

Recommendations on the Institutional and Government Policy

As noted above, the possible future improvement in the macroeconomic situation in Russia in itself is unlikely to eliminate the 'Russian discount' in the valuation of Russian companies. What, then. could or should be improved to reduce this 'Russian discount'?

The above analysis helped us identify at least several areas for improvement:

a. Improve legislation and law enforcement practices in protection of the rights of minority shareholders' in both public and private companies.
b. Improve the quality of the legal and judicial protection of property rights.
c. Increase the dividend payout ratio (ie the share of profits paid out as dividends).
d. Create a legislative framework for the repurchase of shares at the initiative of the company.
e. Improve financial reporting and auditing standards.
f. Develop the financial market.
g. Increase tax incentives aimed at promoting investment.

We expect that, in addition to the likely positive impact on the valuation of Russian businesses, successful implementation of these actions should also contribute to eco-

nomic growth, since the above problems fit well into two of the three groups of major obstacles to economic growth, as described in the Hausmann-Rodrik-Velasco Growth Diagnostics Framework[11]. These are obstacles caused by low return on economic activity (low appropriability) and obstacles caused by the high cost of finance. Correcting the shortcomings in these areas can ensure higher and more sustainable economic growth.

Let us discuss these recommendations in more detail.

a. Improve legislation and law enforcement practices in protection of the rights of minority shareholders' in both public and private companies

As we noted above, the Executive Opinion survey by the World Economic Forum showed that Russian business leaders believe that the Russian legislation and law enforcement practice do not cope with the task of protecting minority shareholders: they rated it at 3.56 on a seven-point scale, which is equivalent to stating that 'the rights of minority shareholders are more likely not protected than protected'[12].

Of the thirty analysed countries only Argentina and Italy ranked lower than Russia. Moreover, these two countries can hardly serve as good examples—similar to Russia, they are outliers in respect of most of the indicators included in our index.

This implies that an average Russian investor or businessman believes that the efforts undertaken by the Russian Central Bank, the Moscow Exchange, and the Russian Government in recent years to improve corporate governance in the largest Russian public companies, have not yet brought the desired effect. This may be due to both insufficient promotion and explanation of these measures, and to the fact that these efforts have so far been focused on a narrow segment of the major public companies and aimed primarily at improving the relevant legislation. The law enforcement practices in respect private companies, which a much larger number of people normally deal with, has been not been seriously affected so far.

On the other hand, we also cannot ignore the commonly expressed view that it may be more difficult for countries with the continental law system (with Russia being one of them) to ensure a high level of protection of minority shareholders' rights as compared to the countries with the Anglo-Saxon law system (such as the USA or the UK). There is some truth to it: for example, the concept of 'fiduciary duty' of top managers and directors to the company and its shareholders, as well as more flexible rules for discovery and disclosure of the relevant information in the event of a commercial dispute indeed give minority shareholders in countries with the Anglo-Saxon law system more opportunities to protect their rights.

On the other hand, the example of leading countries with continental legal system, such as Germany or the Netherlands, where investors assess the opportunities for protecting the rights of minority shareholders as high, suggests that there should be a lot of potential for improving Russian legislation and law enforcement practice in this area.

Developing a specific set of actions that could improve the situation as regards minority shareholders rights protection not only for public, but also for private companies, requires separate analysis which should take into account the experience of the leading continental law countries (such as Germany and the Netherlands), the leaders among the emerging economies (for example, Malaysia), as well as learning from experience of improving corporate governance at the largest Russian public companies that has already been developed by the Moscow Exchange and the Central Bank of Russia.

11 Hausmann, Rodrik, Velasco (2005): Hausmann, Ricardo, Dani Rodrik, and Andrés Velasco, 2005, "Growth Diagnostics," John F. Kennedy School of Government, Harvard University (Cambridge, Massachusetts).

12 For more details, please refer to Annex 2, Category 'B. Investment protection perception', '5. Protection of minority shareholders' interests'

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Expert commentary

Alexander Shevchuk
Executive Director
Association of Professional
Investors (API)

The approach chosen by the authors of the study is important and interesting. They analyse correlation of various factors with one of the key objectives for any business - its value (capitalisation).

Interestingly, the study did not reveal any correlation between the valuation of businesses and improvement in Russia's rank in the World Bank Doing Business ranking, which has been so important for the country's government officials in the last few years. Russia did make a significant jump in the ranking over the past few years, reaching 31st place. Despite the fact that it is the best result among BRICS countries (closest rivals are China and India take only 46th and 77th places respectively), this had no effect on macroeconomic indicators, nor on the size of the 'discount' of the valuation of Russian businesses relative to the value of their foreign counterparts, which over the past decade has been consistently at the level of around 50%.

The authors note that weak protection of the rights of minority shareholders in comparison with the leading countries of the world is one of the factors that affects the size of this 'discount' and the low valuation of Russian businesses.

Although much has been done recently to promote the best practices in corporate governance and protection of minority shareholders, unfortunately, this is not enough. In my opinion, a significant step forward in this direction would be:

- complete ban on voting with quasi-treasury shares;
- expansion of the right of access of shareholders, who own at least 10% of shares, to all documents necessary both for making investment decisions and for going to court
- extension of the right of shareholders to access information not only about the company, in which they own a direct stake, but also about its subsidiaries; the current legislation makes obtaining information on the activities of subsidiaries almost impossible;
- professional disqualification of persons prosecuted for inflicting damages to companies and its shareholders

The need for change in the areas suggested by this study is evident to many. However, despite progress in many areas, the most difficult reforms tend to be constantly delayed. In order to achieve the desired result in this case, political will and willingness to take responsibility for further changes is required, but if reforms happen this can have a profound positive effect on the value of Russian companies.

b. Improve the quality of the legal and judicial protection of property rights.

In our opinion, the quality of the Russian judicial system in the three areas which are most relevant for business— efficiency of protecting property rights, efficiency of challenging regulations, and efficiency of settling commercial disputes—is similar to that of protection of minority shareholders' rights.

The results of the Executive Opinion survey about the quality of the Russian legal system showed that its performance as compared to the world's best practices is low[13]: Russia was rated at less than 4.0 on a seven-point scale for each of the three indicators. This implies that Russian business leaders believe that the Russian judicial system hardly copes with the task of ensuring reliable protection of property rights and efficient resolution of disputes.

The good news is that the average ranking of the above 'quality of the legal services' elements in Russia has improved by about 25%[14] in the past 10 years and is now at the level of Poland and Italy. Nevertheless, it is still 10–15% below the average for the BRICS countries, not to mention the developed markets.

It is also curious that, in the opinion of its 'customers', the English law, which has been very popular among Russian businessmen in large transactions, is not the indisputable leader in terms of quality of legal and judicial protection of property rights. The Netherlands was rated higher, which confirms its reputation as being one of the leading European centres of holding companies. This confirms the above premise that the fact that the legal system adheres to continental law is not in itself an obstacle to its effectiveness (as is also confirmed by Germany and France, which also received high scores in this area).

c. Increase the dividend payout ratio

Achieving sustainable and stable systemic improvements in the above two areas is unlikely to be easy. Moreover, it may take a lot of time.

A promising interim solution is to encourage Russian public companies to increase the percentage of profits paid out as dividends. To some extent, this will prevent the management from using the company's profits inefficiently—eg by investing into projects with questionable return on invested capital—thereby indirectly increasing the protection of minority shareholders' rights.

The Russian authorities have already taken important steps in this direction, first obliging state-owned companies to allocate 25% of profits to paying out dividends, and more recently—to allocate 50% of their IFRS net income for this purpose. We believe that this share should be increased even further, given that the average share of profits allocated for paying dividends by public companies in many foreign countries is much higher than 50%.

It also seems appropriate to encourage non-state companies to increase the payment of profits as dividends. This could be done, for example, through relevant recommendations of the Moscow Exchange.

d. Create a legislative framework for the repurchase of shares at the initiative of the company.

The current Russian legislation considers dividends to be the key mechanism for the payment of income and return of capital to shareholders by public joint-stock companies. The opportunities to repurchase shares with their subsequent redemption at the company's initiative (share buy-back or 'share repurchase') are currently considerably limited procedurally, in particular, by the Russian law on joint-stock companies[15], that requires the company to determine the repurchase price in advance. In developed stock markets the share repurchase mechanism has long been as important

13 For more details, please refer to Annex 2, Category 'B. Investment protection perception', indicators 7-9
14 Taking into account the data from the WEF The Global Competitiveness Report 2009-2010
15 Federal Law No 208-ФЗ dated 26.12.1995

as paying out dividends, thus contributing to an increase in the investment attractiveness of the companies in the countries where this mechanism exists.

Therefore, in order to expand the opportunities and practical tools available to the management and the board of directors for the return of capital to shareholders, we consider it important to introduce into the Russian legislation the possibility of such share repurchase with subsequent redemption on the initiative of the company, removing or significantly simplifying the restrictions that exist currently.

e. Improve financial reporting and auditing standards

Possibility to receive dividends by minority shareholders strongly depends on the quality of the underlying financial statements and the financial reporting standards, which serve as a basis for calculating the company's profits.

Russian business leaders assess the quality of Russian financial reporting and auditing standards as low[16]. Of the thirty leading economies in the world, only Argentina and Pakistan had worse scores. User satisfaction with the quality of financial reporting and auditing standards in the other BRICS countries is higher than in Russia by 10–35%.

The good news is that there are enormous opportunities for improvement in this area as greater tax transparency and increasing use of digital technologies and electronic document management systems makes maintaining the current rigid and obsolete traditional Russian accounting and mandatory reporting system with its excessive requirements for paper documents, focused primarily on the calculation of tax liabilities, hardly justified.

It seems more promising to make a complete transition to international financial reporting standards (IFRS), including standards for disclosure of non-financial information, and at the same time easing the requirements for maintaining paper documents as evidence of business transactions.

Widespread introduction of IFRS, without limiting it to just the public companies listed on the Moscow Stock Exchange, should enable better protection of minority shareholders' rights as compared to the current situation, where the majority shareholders have ample opportunities to manipulate reporting.

Wider introduction of IFRS would also require removing the current legislative limitation on the maximum size of dividends, according to which dividends cannot exceed the net profits calculated under the Russian Accounting Standards for the relevant period. For companies that already report in accordance with IFRS, it is necessary to legally allow using the net profit under IFRS as the basis for calculating dividends.

f. Develop the financial market

The level of the financial market development, availability of financial services, as well as access to capital for Russian companies are the lowest among the thirty leading economies that we analysed. This can hardly be considered adequate for the sixth largest economy in the world.

There is no doubt that lack of comfortable access of businesses to long-term capital on competitive and market conditions is a significant obstacle both to the adequate valuation of Russian companies and to economic growth in general.

Although in recent years the Russian Central Bank has made a lot of effort to clear the banking system from participants conducting overly risky and / or dubious operations, availability of financial infrastructure that could ensure comfortable access of the population to various reliable long-term investment instruments is still far from perfect.

16 For more details, please refer to Annex 2, Category 'B. Investment protection perception', '4. Strength of auditing and reporting standards in the country'

It seems to us that it is imperative to aim at least to reach the same level of financial market development as other countries that comparable from the macroeconomic perspective, eg BRICS countries, or the 'upper-middle-income countries' (according to the World Bank classification).

g. Increase tax incentives aimed at promoting investment.

Representatives of the Russian Ministry of Finance tend to claim that the overall tax burden as a percentage of GDP in Russia is comparable with that of other leading economies of the world. This is indeed the case.

However, we did not find any meaningful correlation between the overall tax burden and the cross-country differences in the valuation multiples.

At the same time, our analysis suggests that there is a correlation between the valuation multiples and three other tax indicators: average effective income tax rate for public companies, labour tax burden, and how investment-friendly the tax system is.

Regrettably, Russia is far from perfect on all these indicators.

For instance, the effective (actual) income tax rate for public companies in most developed markets is lower than that in Russia despite the fact that Russian nominal profits tax rate is fairly low. The business leaders also assess that the Russian tax system as being not very much geared to promoting and supporting investment. Although the exact causes for such assessment require a separate analysis, we believe that this might be a lack in the Russian tax system of many incentives for invested capital that are available in most other countries' tax systems (for example, tax exemption of capital gains on the sale of a business after a pre-determined holding period, special deductions for R&D investments etc).

Russia also has one of the highest employer tax burdens on wages in the world. In other countries, employees themselves pay part of such tax or insurance costs.

In other words, the Russian tax system requires additional fine-tuning in order not to be an obstacle to investment.

Practical Value of the Study Results for Russian Companies

In our research, we focused primarily on cross-country comparisons to identify the correlation between the valuation of companies and the individual macroeconomic and performance indicators that characterise the business environment of a particular country. Following the analysis, we made several recommendations for improving the government policy, which can hopefully contribute to an increase in the valuation of Russian companies.

The results of the study, however, can also be useful for individual companies. Our analysis suggests that the following steps, if undertaken by individual companies, are likely to be favourably viewed by potential investors, which will definitely contribute to a higher valuation of the company:

- Maintaining high-quality financial reporting in accordance with recognised international financial reporting standards, with adequate disclosure of non-financial information.
- Transparent corporate governance procedures.
- Access to details about the company operations both for investors and board members.
- Transparent distribution of profits between shareholders / members with a high proportion of profits allocated to the payment of dividends.
- Developed legal function, correct assessment of legal risks, and active use of legal tools to protect the company's rights.
- Presence of the company in the financial market—from the bond market to

Expert commentary

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for Tax Policy,
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The study is very interesting both in terms of its methodology, and the results it produced.

In the area of tax policy, the authors found a correlation between the value of the valuation multiples and three tax factors:

- Effective tax rate for public companies
- Labor tax burden, and
- Investment-oriented tax incentives

The values of these indicators for Russia for all three are well below those of most of the other largest economies, and the authors suggest that the regulator should focus on increasing the investment orientation of the Russian tax regime.

The thesis of the extremely high tax burden on wages in Russia from a macroeconomic point view is not obvious: the Russian social tax burden is levied on the employer, while in most of the other countries, it is divided almost equally between the employer and the employee, and therefore the data in the "Tax Payment" section of the World Bank Doing Business ranking, partly used in this study, takes into account only a fraction of the full tax burden. This results in the social tax burden, which is from the macroeconomic perspective fairly moderate, classified as ultra-high as compared to the rest of the sample.

Developing practical tax policy measures in this area is not an easy task. Practice shows that simply shifting part of the tax burden to the employee often does not produce the savings that a business expects, as it often leads to a comparable increase in the salary expectations. More nuanced solutions appear more promising: first of all in moving to the payments of the true insurance nature (as regards social and medical insurance) and of the defined contributions nature (as regards pensions), as well as increasing the tax burden only in the periods of fast growth of the economy and of the wages.

The rest of the results and recommendations are consistent with empirical ideas, although may require further elaboration. In particular, speaking of the need to upgrade the tax system to support investment, I believe, we should talk not only about investments in the tangible capital, but in human capital also.

In summary I want to express my appreciation to the authors for an interesting and bright material, that provides a lot of food for thought and stimulates deep and constructive discussion.

the stock market—and having a reliable credit and financial history.
- Competent use of investment tax incentives provided by the government

Of course, the above list of factors that may have impact on the valuation of a company is far from exhaustive. At the same time, we are confident that reasonable steps in these directions will be a good start, and the costs of their implementation will pay off handsomely through the likely increase in the company's valuation and capitalisation.

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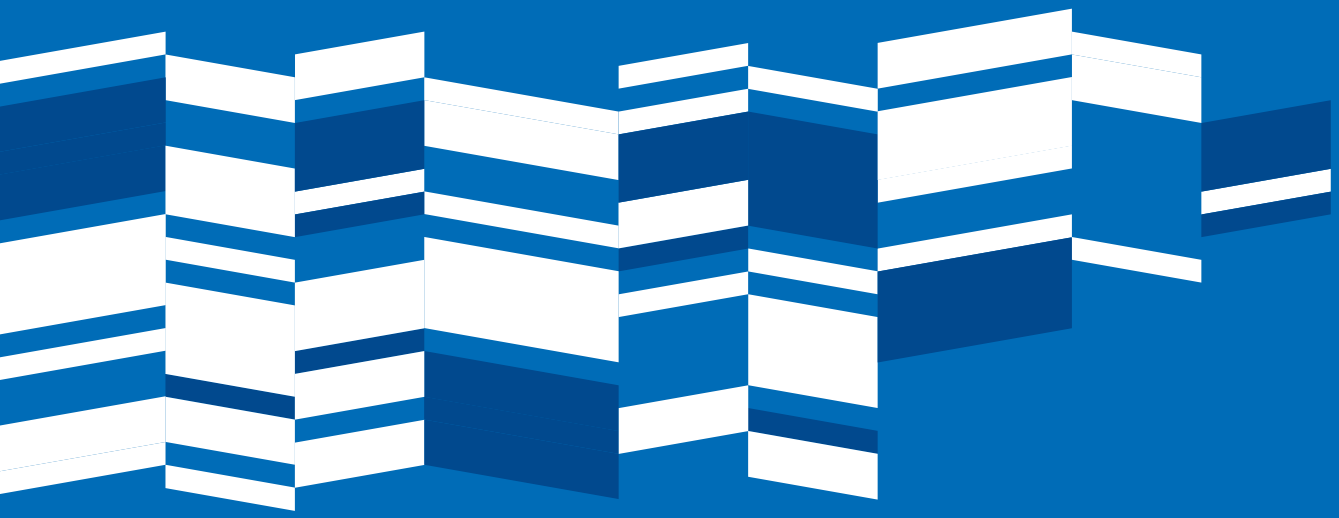

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ANNEX 1. DETAILED DATA ON INDEX COMPONENTS

Please refer to Annex 2 to learn more abaout sources of data.

Category A. Macroeconomic indicators

Country	Category Index	Category Rank	1. GDP at purchasing power parity (PPP), US$ bln		2. Average real GDP growth, %		3. Stock market capitalization, % of GDP	
			Value	Index	Value	Index	Value	Index
Argentina	12,43	28	920,2	1,04	1,23	34,9	11,66	1,37
Australia	27,21	14	1246,5	2,49	2,46	48,01	105,3	31,13
Brazil	7,48	30	3240,3	11,36	-2,04	–	42,23	11,08
Canada	28,23	12	1769,3	4,82	1,8	40,96	129,81	38,92
China	71	1	23159,1	100	6,83	94,56	65,37	18,44
Colombia	18,53	25	714	0,12	2,29	46,13	36,75	9,34
Egypt	23,58	20	1201,2	2,29	4,3	67,62	10,01	0,84
France	23,79	19	2835,7	9,56	1,37	36,31	87,57	25,49
Germany	23,82	18	4170,8	15,5	1,96	42,61	49,34	13,34
India	52,9	3	9459	39,04	7,33	100	69,21	19,66
Indonesia	32,85	7	3242,8	11,37	4,99	75	45,67	12,18
Italy	16,07	26	2310,9	7,23	1,09	33,4	31,24	7,59
Japan	28,85	10	5428,8	21,1	1,33	35,97	100,12	29,48
Malaysia	37,64	6	930,8	1,09	5,05	75,6	121,33	36,22
Mexico	22,38	22	2458,4	7,88	2,74	50,96	33,51	8,31
Netherlands	26,77	16	916,1	1,02	2,53	48,68	103,67	30,61
Nigeria	10,03	29	1118,8	1,92	0,6	28,15	7,36	–
Pakistan	26,91	15	1057	1,65	4,61	70,95	32,94	8,13
Philippines	38,38	5	875,6	0,84	6,55	91,65	78,63	22,65
Poland	23,57	21	1121	1,93	3,75	61,76	29,42	7,01
Russian Federation	**15,11**	**27**	**4007,8**	**14,78**	**-0,4**	**17,49**	**48,48**	**13,07**
Saudi Arabia	21,34	24	1773,6	4,84	1,66	39,46	69,43	19,73
South Africa	44,44	4	765,6	0,35	1,05	32,98	321,98	100
South Korea	28,19	13	2029	5,97	2,9	52,69	88,9	25,91
Spain	25,68	17	1773,9	4,84	3,25	56,44	56,94	15,76
Thailand	30,64	8	1233,7	2,43	3,4	58,03	106,37	31,47
Turkey	30,08	9	2173,2	6,61	5,43	79,63	19,89	3,98
United Arab Emirates	21,93	23	686,8	–	2,46	47,94	63,49	17,84
United Kingdom	28,59	11	2914	9,91	2,02	43,32	109,72	32,53
United States	57,61	2	19390,6	83,23	2,21	45,26	146,86	44,34
Average	*28,53*		*3497,48*	*12,51*	*2,83*	*51,88*	*74,11*	*21,21*
Average for BRICS countries	*38,19*		*8126,37*	*33,11*	*2,56*	*49,01*	*109,45*	*32,45*
Average for emerging markets	*28,47*		*3108,39*	*10,78*	*3,24*	*56,28*	*65,13*	*18,36*
Average for developed markets	*28,66*		*4275,66*	*15,97*	*2,00*	*43,10*	*92,06*	*26,92*

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Category B. Investment protection perception

Country	Category Index	Category Rank	4. Strength of auditing and reporting standards in the country		5. Protection of minority shareholders' interests		6. Dividend payout ratio		7. Efficiency of protecting property rights		8. Efficiency of challenging regulations		9. Efficiency of settling disputes	
			Value	Index	Value	Index	Value	Index	Value	Index	Value	Index	Value	Index
Argentina	7,65	30	4,01	8,06	3,5	3,32	6,12%	–	3,55	–	2,76	16,33	2,76	18,17
Australia	77,83	6	6,07	90,36	5,15	75,84	87,62%	86,81	5,8	81,83	4,04	60,38	4,69	71,73
Brazil	35,51	19	4,78	38,79	4,07	28,17	82,53%	81,39	4,31	27,6	2,77	16,9	2,83	20,21
Canada	87,43	3	6,31	100	5,51	92,1	81,40%	80,18	6,03	90,19	4,66	81,72	5	80,36
China	43,72	15	4,55	29,57	4,51	47,74	34,11%	29,81	4,58	37,27	4,09	62,19	4,12	55,72
Colombia	23,43	25	4,76	37,91	3,98	24,43	42,21%	38,45	3,88	11,93	2,64	12,43	2,66	15,45
Egypt	27,8	23	4,37	22,38	4,06	27,96	29,85%	25,28	3,93	13,69	3,42	39,26	3,48	38,24
France	67,12	10	5,73	77,05	4,86	63,28	63,15%	60,75	5,37	66,36	4,21	66,18	4,6	69,14
Germany	76,36	7	5,66	74,12	5,26	80,78	49,39%	46,09	5,56	73,1	5,07	95,83	5,29	88,21
India	45,75	14	4,57	30,31	4,46	45,45	34,84%	30,6	4,36	29,38	4,39	72,53	4,49	66,21
Indonesia	54,68	13	4,63	33,02	4,49	46,68	292,11%	100	4,62	38,81	3,84	53,67	4,12	55,86
Italy	19,44	28	4,29	19,18	3,43	–	81,49%	80,28	4,03	17,19	2,28	–	2,1	–
Japan	73,9	8	5,76	77,96	5,33	83,84	32,23%	27,81	6,07	91,69	4,53	77,11	5,17	84,99
Malaysia	71,26	9	5,47	66,59	5,2	78,12	55,17%	52,25	5,36	65,8	4,65	81,33	5,12	83,49
Mexico	34,68	20	4,84	41,11	3,98	24,34	90,87%	90,27	3,97	15,34	2,87	20,12	2,71	16,9
Netherlands	89,61	2	6,28	98,73	5,31	83,3	66,85%	64,69	6,21	96,83	5,17	99,14	5,53	94,96
Nigeria	25,88	24	4,64	33,12	4,08	28,63	51,23%	48,05	3,78	8,12	2,65	12,52	3	24,82
Pakistan	22,47	27	3,81	–	3,59	7,16	56,07%	53,21	3,6	1,72	3,35	36,67	3,41	36,08
Philippines	31,68	22	5,02	48,42	4,3	38,52	34,95%	30,71	4,26	25,91	3,07	27,14	2,8	19,4
Poland	36,11	18	4,85	41,6	3,96	23,57	128,62%	100	4,07	18,72	2,56	9,41	2,95	23,37
Russian Federation	**19,01**	**29**	**4,05**	**9,6**	**3,56**	**6**	**31,68%**	**27,23**	**3,59**	**1,41**	**3,15**	**29,71**	**3,55**	**40,1**
Saudi Arabia	59,96	11	5,13	52,97	4,76	58,91	61,18%	58,65	5,05	54,61	4,05	60,65	4,77	73,99
South Africa	59,55	12	5,41	63,98	4,87	63,5	70,47%	68,55	4,52	35,05	3,97	57,95	4,57	68,27
South Korea	33,12	21	4,69	35,23	3,67	10,63	18,33%	13,01	4,94	50,4	3,51	42,36	3,81	47,13
Spain	39,34	17	4,75	37,76	4,03	26,44	63,54%	61,16	4,65	39,97	3,18	30,81	3,54	39,91
Thailand	41,8	16	4,96	46,28	4,53	48,47	51,55%	48,4	4,09	19,63	3,3	35,1	4,02	52,94
Turkey	23,19	26	4,33	20,97	3,88	19,76	31,48%	27,01	4,35	29,19	2,68	13,63	3,14	28,57
United Arab Emirates	83,7	4	5,68	75,04	5,69	100	53,79%	50,78	5,92	86,17	4,91	90,22	5,71	100
United Kingdom	94,47	1	6,03	88,83	5,44	88,91	100,69%	100	6,3	100	4,99	92,99	5,57	96,09
United States	82,67	5	5,81	80,26	5,5	91,55	52,89%	49,82	5,72	78,85	5,19	100	5,55	95,53
Average	*49,64*		*5,04*	*49,31*	*4,5*	*47,25*	*64,55%*	*54,38*	*4,75*	*43,56*	*3,73*	*49,81*	*4,04*	*53,53*
Average for BRICS countries	*40,71*		*4,67*	*34,45*	*4,29*	*38,17*	*50,73%*	*47,51*	*4,27*	*26,14*	*3,67*	*47,85*	*3,91*	*50,1*
Average for emerging markets	*39,05*		*4,73*	*36,75*	*4,26*	*36,57*	*62,86%*	*48,68*	*4,34*	*28,54*	*3,43*	*39,51*	*3,7*	*44,25*
Average for developed markets	*70,82*		*5,67*	*74,43*	*4,98*	*68,6*	*67,93%*	*65,76*	*5,57*	*73,6*	*4,33*	*70,42*	*4,71*	*72,09*

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Category C. Interest rates

Country	Category Index	Category Rank	10. Average inflation, %		11. Sovereign Credit Default Spread (CDS) net of the US, %	
			Value	Index	Value	Index
Argentina	10,7	30	24,8	–	3,27	21,39
Australia	97,24	7	1,69	94,49	0	100
Brazil	60,07	25	6,59	74,46	2,26	45,67
Canada	97,66	5	1,49	95,32	0	100
China	89,98	13	1,83	93,91	0,58	86,06
Colombia	69,91	22	5,59	78,53	1,61	61,3
Egypt	21,86	28	18,1	27,37	3,48	16,35
France	98,88	2	0,72	98,48	0,03	99,28
Germany	98,4	4	1,13	96,81	0	100
India	81,05	19	4,5	83,01	0,87	79,09
Indonesia	79,96	20	3,33	87,8	1,16	72,12
Italy	82,76	18	0,43	99,65	1,42	65,87
Japan	98,87	3	0,37	99,91	0,09	97,84
Malaysia	87,01	16	2,64	90,6	0,69	83,41
Mexico	74,83	21	4,07	84,76	1,46	64,9
Netherlands	98,99	1	0,84	97,98	0	100
Nigeria	21,2	29	14,43	42,4	4,16	–
Pakistan	53,19	26	3,43	87,4	3,37	18,99
Philippines	87,15	15	2,45	91,37	0,71	82,93
Poland	92,95	11	0,79	98,16	0,51	87,74
Russian Federation	**67**	**23**	**6,84**	**73,42**	**1,64**	**60,58**
Saudi Arabia	85,95	17	0,52	99,3	1,14	72,6
South Africa	62,27	24	5,57	78,63	2,25	45,91
South Korea	93,22	10	1,31	96,06	0,4	90,38
Spain	91,54	12	0,9	97,74	0,61	85,34
Thailand	94,23	9	0,34	100	0,48	88,46
Turkey	53,02	27	9,74	61,56	2,31	44,47
United Arab Emirates	88,97	14	2,39	91,64	0,57	86,3
United Kingdom	97,19	8	1,43	95,58	0,05	98,8
United States	97,28	6	1,67	94,57	0	100
Average	*77,78*		*4,33*	*83,7*	*1,17*	*71,86*
Average for BRICS countries	*72,07*		*5,07*	*80,68*	*1,52*	*63,46*
Average for emerging markets	*68,73*		*5,96*	*77,02*	*1,65*	*60,43*
Average for developed markets	*95,88*		*1,07*	*97,05*	*0,22*	*94,71*

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Category D. Access to capital

Country	Category Index	Category Rank	12. Financial market development and access to financial services		13. Stock market liquidity, % of GDP		14. Percent of institutional holding		15. Prevalence of companies with foreign ownership in the domestic market		16. Foreign direct investment inflow, bln US$	
			Value	Index	Value	Index	Value	Index	Value	Index	Value	Index
Argentina	10,22	27	3,1	1,94	0,8	0,19	12,98	11,71	4,37	35,33	7,52	1,92
Australia	45,16	6	5,45	89,76	65,99	29,1	16,41	18,6	5,51	77,01	36	11,35
Brazil	26,89	17	3,7	24,24	31,24	13,69	30,04	46	4,21	29,47	65,34	21,07
Canada	46,22	5	5,44	89,14	75,1	33,14	16,81	19,4	5,46	75,14	44,77	14,25
China	42,13	8	4,23	44,01	163,36	72,27	12,87	11,49	4,48	39,55	132,6	43,34
Colombia	24,76	20	4,64	59,22	5,02	2,06	19,07	23,94	4,35	34,54	13,83	4,01
Egypt	9,17	29	3,89	31,23	3,03	1,18	7,15	–	3,72	11,83	6,55	1,6
France	35,56	10	4,53	55,27	41,01	18,02	17,91	21,62	5,45	74,84	26	8,04
Germany	36,56	9	5,03	74,08	32,32	14,17	20,53	26,87	5,13	63,07	15,6	4,6
India	26,09	18	4,37	49,39	34,99	15,35	12,81	11,36	4,53	41,34	41,04	13,02
Indonesia	24,01	21	4,5	54,25	9,7	4,13	13,7	13,16	4,62	44,53	13,7	3,97
Italy	16,11	24	3,05	–	95,54	42,2	14,8	15,38	3,83	15,63	23,84	7,32
Japan	42,34	7	4,89	68,6	105,68	46,69	17,15	20,08	5,45	74,71	6,58	1,61
Malaysia	33,29	11	4,96	71,17	33,14	14,53	15,38	16,54	5,08	61,27	10,64	2,95
Mexico	31,84	13	4,51	54,43	10,69	4,57	17,5	20,79	5,33	70,34	29,14	9,08
Netherlands	47,14	3	4,63	58,94	54,13	23,84	37,42	60,83	5,29	69,04	71,34	23,05
Nigeria	14,91	26	3,7	24,29	0,37	–	7,91	1,52	4,72	47,98	4,07	0,78
Pakistan	9,78	28	3,64	22,17	9,87	4,21	10,89	7,51	3,81	15,02	1,72	–
Philippines	17,68	22	4,19	42,44	11,76	5,05	10,58	6,89	4,29	32,52	6,2	1,48
Poland	28,63	16	4,17	41,85	9,68	4,13	25,76	37,39	4,94	56,01	13,03	3,75
Russian Federation	**7,45**	**30**	**3,45**	**14,81**	**10,88**	**4,66**	**11,97**	**9,68**	**3,4**	**–**	**26,23**	**8,11**
Saudi Arabia	16,27	23	4,16	41,35	47,4	20,85	7,33	0,37	3,86	16,73	7,87	2,04
South Africa	46,36	4	4,35	48,73	136,21	60,23	41,01	68,03	4,89	54,3	3,26	0,51
South Korea	25,65	19	3,9	31,78	113,44	50,13	11,95	9,65	4,35	34,56	8,07	2,1
Spain	31,09	14	4,01	35,67	47,48	20,89	21,38	28,6	5,17	64,65	18,74	5,64
Thailand	28,8	15	4,44	51,87	79,85	35,24	10,25	6,22	4,77	49,9	4,02	0,76
Turkey	15,09	25	3,82	28,72	32,63	14,3	9,02	3,75	4,08	24,63	13,9	4,03
United Arab Emirates	31,97	12	4,76	63,91	13,92	6,01	10,48	6,68	5,61	80,68	9,53	2,59
United Kingdom	68,86	2	5,03	73,84	77,97	34,41	56,92	100	6,14	100	110,55	36,04
United States	91,09	1	5,73	100	225,89	100	47,93	81,94	5,42	73,52	303,7	100
Average	*31,04*		*4,34*	*48,24*	*52,64*	*23,17*	*18,9*	*23,53*	*4,74*	*48,94*	*35,85*	*11,3*
Average for BRICS countries	*29,79*		*4,02*	*36,23*	*75,33*	*33,24*	*21,7*	*29,31*	*4,3*	*32,93*	*53,69*	*17,21*
Average for emerging markets	*23,55*		*4,12*	*40,09*	*37,9*	*16,64*	*14,9*	*15,63*	*4,47*	*39,03*	*20,91*	*6,36*
Average for developed markets	*46,01*		*4,78*	*64,53*	*82,11*	*36,24*	*26,7*	*39,33*	*5,29*	*68,76*	*65,71*	*21,19*

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Category E. Investment orientation of the tax system

Country	Category Index	Category Rank	17. Average effective tax rate for public companies, %		18. Labor tax burden, %		19. Investment-oriented tax incentives	
			Value	Index	Value	Index	Value	Index
Argentina	24,11	29	23,4	19,53	29,3	46,28	2,1	6,52
Australia	59,15	13	7,78	78,48	21,1	63,69	3,33	35,27
Brazil	26,1	28	13,96	55,16	40,2	23,14	1,82	–
Canada	74,48	3	3,98	92,83	12,9	81,1	3,94	49,5
China	38,43	24	15,82	48,12	48,1	6,37	4,42	60,8
Colombia	33,95	26	24,15	16,71	18,6	69	2,51	16,13
Egypt	45,69	20	17,28	42,64	27,3	50,53	3,7	43,91
France	23,95	30	15,15	50,65	51,1	–	2,73	21,21
Germany	59,13	14	15,37	49,82	21,4	63,06	4,58	64,52
India	57,42	16	16,96	43,83	20,5	64,97	4,53	63,45
Indonesia	59,41	12	18,2	39,15	11,5	84,08	4,17	54,99
Italy	30,47	27	20,99	28,61	23,2	59,24	1,97	3,57
Japan	40,05	22	28,57	–	18,5	69,21	4	50,93
Malaysia	61,4	9	16,59	45,23	16,4	73,67	4,61	65,29
Mexico	38,79	23	21,96	24,96	25,6	54,14	3,41	37,27
Netherlands	65,19	7	14,49	53,15	19,8	66,45	5,07	75,97
Nigeria	61,55	8	14,99	51,26	13,5	79,83	4,11	53,55
Pakistan	53,23	18	16,82	44,37	14,5	77,71	3,43	37,62
Philippines	56,88	17	17,44	42,01	8,7	90,02	3,47	38,6
Poland	50,95	19	11,7	63,67	25	55,41	3,26	33,76
Russian Federation	**37,74**	**25**	**15,31**	**50,06**	**36,3**	**31,42**	**3,18**	**31,73**
Saudi Arabia	73,34	4	6,94	81,64	13,5	79,83	4,32	58,56
South Africa	60,31	11	19,02	36,05	4	100	3,74	44,89
South Korea	60,95	10	14,55	52,91	13,5	79,83	3,96	50,11
Spain	40,51	21	14,95	51,42	35,6	32,91	3,41	37,22
Thailand	69,98	6	12,99	58,81	5,4	97,03	4,13	54,09
Turkey	58,71	15	10,32	68,9	19,9	66,24	3,57	41,01
United Arab Emirates	92,85	1	2,08	100	14,1	78,56	6,1	100
United Kingdom	72,9	5	10,66	67,62	10,9	85,35	4,63	65,73
United States	74,62	2	10,48	68,3	9,8	87,69	4,72	67,88
Average	*53,41*		*15,1*	*50,86*	*21,01*	*63,89*	*3,76*	*45,47*
Average for BRICS countries	*44*		*16,2*	*46,64*	*29,82*	*45,18*	*3,54*	*40,18*
Average for emerging markets	*53,09*		*15,5*	*49,25*	*20,3*	*65,4*	*3,73*	*44,61*
Average for developed markets	*54,05*		*14,2*	*54,09*	*22,43*	*60,87*	*3,84*	*47,18*

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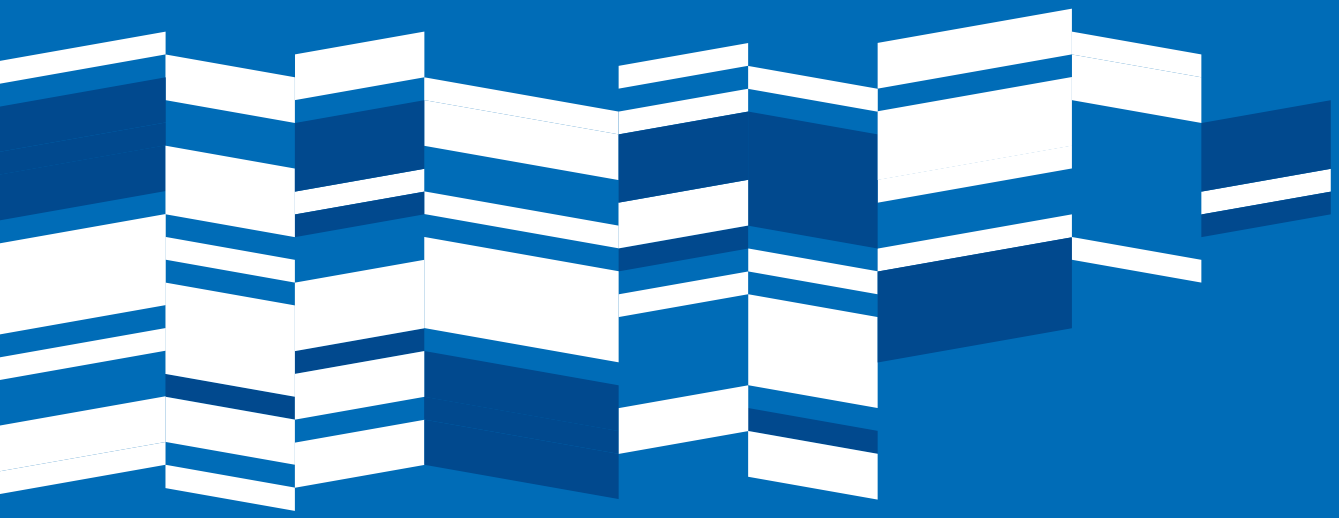

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ANNEX 2. DATA SOURCES AND JUSTIFICATION FOR THE USE OF PARTICULAR INDICATORS IN THE INDEX

Indicator	Data sources	Comments
A. Macroeconomic indicators		
1. GDP at purchasing power parity (PPP)	In billions US Dollars. Data for 2017. Source: International Monetary Fund, World Economic Outlook (April 2018)	Correlation of this indicator with country valuation multiples EV/EBITDA and P/BV[16] based on the data for 2015-2017 ranged from 0.21 to 0.42. It is interesting to note that we observed a similar correlation to the size of the country's population, whereas there was no stable correlation with GDP per capita figures. This gives grounds to argue that investors may value the market potential more than the current purchasing power of the consumers in this market.
2. Average real GDP growth	%, average for 2015-2017 as calculated by UCP Investment Group and SKOLKOVO Wealth Transformation Centre using the primary data from: International Monetary Fund, World Economic Outlook (April 2018)	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.19 to 0.46. Examples of research supporting the use of this indicator: White (2000)[17], Shamsuddin, Hillier (2004)[18]
3. Stock market capitalisation	In % of GDP as of 2016 or for the latest earlier year available. Source: Market capitalization (as % of GDP), World Bank	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.22 to 0.62.
B. Investment protection perception		
4. Strength of auditing and reporting standards in the country	«Strength of auditing and reporting standards» indicator from The Global Competitiveness Report 2017-2018, by the World Economic Forum (WEF) based on answers in the Executive Opinion Survey to the question « In your country, how strong are financial auditing and reporting standards?». Responses were provided on a 1–7 scale.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.25 to 0.57. Example of research supporting the use of this indicator: Williams, Park (2013)[19]
5. Protection of minority shareholders' interests	«Protection of minority shareholders' interests» indicator from The Global Competitiveness Report 2017-2018 by the World Economic Forum (WEF) based on answers in the Executive Opinion Survey to the question «In your country, to what extent are the interests of minority shareholders protected by the legal system?». Responses were provided on a 1–7 scale.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.37 to 0.61. Example of research supporting the use of this indicator: Williams, Park (2013)

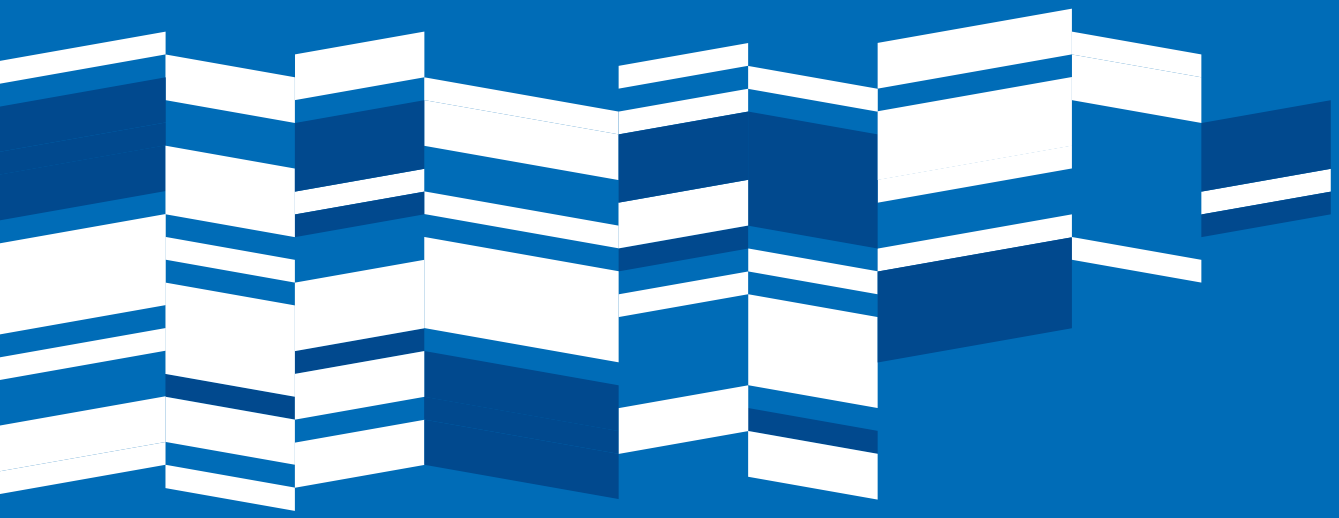
16 For most indicators, the correlation to the P/E valuation multiple turned out to be unstable, which can potentially be explained by its dependence on the debt-to-equity ratio, which can vary considerably from company to company and from country to country.
17 *White C.B. (2000), What P/E will the US Stock Market Support? Financial Analysts Journal, 56(6)*
18 *Shamsuddin A.F, Hillier J.R. (2004), Fundamental Determinants of the Australian Price-Earnings Multiple. Pacific Basin Finance Journal, 12(5)*
19 *Wilson W.T., Park S.H. (2013), Money Left on the Table: Why Some Emerging Stock Markets Sell at a Discount, Institute for Emerging Market Studies (IEMS) at Moscow School of Management SKOLKOVO, IEMS Emerging Market Brief, Vol. 13-10*

Indicator	Data sources	Comments
6. Dividend payout ratio	%, average for dividend payout ratios during 2015-2017 or for the latest earlier year available as calculated by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Source of primary data: Bloomberg	Correlation of this indicator with country valuation multiple EV/EBITDA based on the data for 2015-2017 ranged from 0.13 to 0.27. For the purposes of calculating the index, the maximum value was assumed to be 100%. The index value for countries in which the indicator exceeded 100% was assumed to be 100. Example of research supporting the use of this indicator: Deaves, Miu, White (2008)[20]
7. Efficiency of protecting property rights	«Property rights» indicator from The Global Competitiveness Report 2017-2018 by the World Economic Forum (WEF) based on answers in the Executive Opinion Survey to the question «In your country, to what extent are property rights, including financial assets, protected?». Responses were provided on a 1–7 scale.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.14 to 0.44.
8. Efficiency of challenging regulations	«Efficiency of legal framework in challenging regulations» indicator from The Global Competitiveness Report 2017-2018 by the World Economic Forum (WEF) based on answers in the Executive Opinion Survey to the question «In your country, how easy is it for private businesses to challenge government actions and/or regulations through the legal system?». Responses were provided on a 1–7 scale.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.24 to 0.48.
9. Efficiency of settling disputes	«Efficiency of legal framework in settling disputes» indicator from The Global Competitiveness Report 2017-2018 by the World Economic Forum (WEF) based on answers in the Executive Opinion Survey to the question «In your country, how efficient are the legal and judicial systems for companies in settling disputes?». Responses were provided on a 1–7 scale.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.26 to 0.46.

20 *Deaves R., Miu P., White C. (2008), Canadian Stock Market Multiples and Their Predictive Content. International Review of Economics and Finance, 17(3)*

Indicator	Data sources	Comments
C. Interest rates		
10. Average inflation	%, average for 2015-2017 or for the latest earlier year available as calculated by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Source of primary data: International Monetary Fund, World Economic Outlook (April 2018)	Correlation of this indicator with country valuation multiples EV/EBITDA, and P/BV based on the data for 2015-2017 in some years reached -0.28 and -0.20 respectively (negative correlation).
11. Sovereign Credit Default Spread (CDS) net of the US	%, as of 2017 г. Source: Aswath Damodaran http://people.stern.nyu.edu/adamodar/New_Home_Page/data.html. For UAE: estimate was used based on its credit rating.	Correlation of this indicator with country valuation multiple EV/EBITDA, based on the data for 2017 was -0.39 (negative correlation).
D. Access to capital		
12. Financial market development and access to financial services	«Financial Market Development» indicator from The Global Competitiveness Report 2017-2018 by the World Economic Forum (WEF) based on assessments in the Executive Opinion Survey of: availability of financial services, affordability of financial services, access to financing through local equity market, ease of access to loans, venture capital availability, soundness of banks, regulation of securities exchanges, and degree of legal protection of borrowers' and lenders' rights.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.35 to 0.57.
13. Stock market liquidity	Stocks trade volume as % of GDP as of 2016 or the latest year available. Source: Stocks traded total value (as % of GDP), World Bank	Correlation of this indicator with country valuation multiples EV/EBITDA, and P/BV based on the data for 2015-2017 ranged from 0.15 to 0.35.
14. Percent of institutional holding	%, average for 2015-2017 as calculated by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Source of data: Aswath Damodaran http://people.stern.nyu.edu/adamodar/New_Home_Page/data.html	Correlation of this indicator with country valuation multiples EV/EBITDA, and P/BV based on the data for 2015-2017 ranged from 0.17 to 0.33.
15. Prevalence of companies with foreign ownership in the domestic market	«Prevalence of foreign ownership» «Property rights» indicator from The Global Competitiveness Report 2017-2018 by the World Economic Forum (WEF) based on answers in the Executive Opinion Survey to the question «In your country, how prevalent is foreign ownership of companies?». Responses were provided on a 1–7 scale.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.11 to 0.52.

Indicator	Data sources	Comments
16. Foreign direct investment inflow	In billions of US Dollars, average for 2014-2016 as calculated by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Source of primary data: FDI Inflow, UNCTAD World Investment Report 2017	Correlation of this indicator with country valuation multiples EV/EBITDA, and P/BV based on the data for 2015-2017 ranged from 0.33 to 0.46.
E. Investment orientation of the tax system		
17. Average effective tax rate for public companies	%, average for 2015-2017 as calculated by UCP Investment Group and SKOLKOVO Wealth Transformation Centre. Source of data: Aswath Damodaran http://people.stern.nyu.edu/adamodar/New_Home_Page/data.html	Correlation of this indicator with country valuation multiples EV/EBITDA, and P/BV based on the data for 2015-2017 ranged from -0.20 to -0.46 (negative correlation).
18. Labor tax burden	%, «Paying Taxes - Labor tax and contributions (% of commercial profit)» indicator from Doing Business 2018 report by the World Bank	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from -0.18 to -0.40 (negative correlation).
19. Investment-oriented tax incentives	«Effect of taxation on incentives to invest» indicator from The Global Competitiveness Report 2017-2018 by the World Economic Forum (WEF) based on answers in the Executive Opinion Survey to the question «In your country, to what extent do taxes reduce the incentive to invest?». Responses were provided on a 1–7 scale.	Correlation of this indicator with country valuation multiples EV/EBITDA, P/BV, and EV/S based on the data for 2015-2017 ranged from 0.27 to 0.57.



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ANNEX 3. AVERAGE COUNTRY COMPANY VALUATION MULTIPLES

Country	Price to Earnings valuation multiple (P/E)	Enterprise value to EBITDA valuation multiple (EV/EBITDA)	Price to Book value valuation multiple (P/B)	Enterprise value to Sales valuation multiple (EV/S)
Argentina	17,49	8,27	2,03	1,47
Australia	17,78	11,94	2,05	2,78
Brazil	19,12	8,91	1,78	1,93
Canada	18,61	12,07	1,9	2,79
China	16,08	12,59	1,76	1,74
Colombia	16,49	8,67	1,29	2,15
Egypt	16,55	8,33	1,95	2,63
France	16,5	9,36	1,52	1,3
Germany	14,85	7,23	1,8	1,13
India	22,56	12,75	3,16	3,08
Indonesia	22,48	12,23	2,51	2,8
Italy	11,6	6,41	1,17	1,2
Japan	16,72	9,43	1,82	1,32
Malaysia	16,88	9,81	1,77	3,29
Mexico	21,26	9,28	2,53	2,06
Netherlands	16,1	10,96	1,89	1,65
Nigeria	13,96	9,35	1,71	1,75
Pakistan	9	6,36	1,47	1,25
Philippines	22,19	13,07	2,48	3,43
Poland	12,17	10,78	1,34	2,52
Russian Federation	**7,43**	**4,65**	**0,79**	**1,2**
Saudi Arabia	16,11	12,89	1,6	3,93
South Africa	16,65	11,56	2,16	2,62
South Korea	12,85	7,33	1,06	0,99
Spain	14,71	8,96	1,48	2,07
Thailand	17,63	11,38	2,03	2,03
Turkey	9,14	7,86	1,36	1,42
United Arab Emirates	11,03	9,69	1,49	4,05
United Kingdom	14,28	9,46	1,88	1,5
United States	21,68	13,22	3,27	2,54
Average	*16*	*9,83*	*1,83*	*2,15*
Average for BRICS countries	*16,37*	*10,09*	*1,93*	*2,12*
Average for emerging markets	*15,85*	*9,79*	*1,81*	*2,32*
Average for developed markets	*16,28*	*9,91*	*1,88*	*1,83*

Source: Bloomberg, as of 31 December 2017

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