October 9, 2017

Low inflation in Russia to force the government and businesses to seek new forms of flexibility

Russia 2021 economic outlook update

The forecast has been prepared in accordance with the General Principles of Socioeconomic Indicators Forecasting of ACRA.

See ACRA's forecast as of March 28, 2017 titled Recession knocked out. What next?

- **Barring force majeure events, inflation will remain at around 4% (with deviation of less than 1%) until 2021.** Due to the structure of the contemporary Russian economy, however, shocks boosting inflation are very likely to remain (changes in economic environment, natural disasters, higher taxes and rates). Reaching inflation targets in 2017 was attributable to not only tight monetary policy, but also to favorable environment.

- **Consistently low inflation to reduce potential for Russian companies in employing their traditional cost management approach.** By fixing prices in their supply contracts and freezing wage rates, large businesses managed to save 0.1%-0.2% of their unit costs per 1% of inflation. Industries where prices are more inflation-dependent overall (e.g. infrastructure monopolies and service industry) are more sensitive to the low inflation mode. In addition, low inflation represents a risk for non-financial creditors (power industry, housing and utilities): writing off uncollectible payments will be more expensive.

- **The 2018-2021 forecast update has mainly affected how ruble interest rates will influence FX rates as well as tax system prospects after 2018.** Taxation maneuver beyond the oil and gas sector is not part of our base case scenario anymore. By updating our macroeconomic forecast published in March 2017, we also upgrade our forecast regarding Chinese economy growth; however, we still expect it to slow down. As the labor market was less rigid than expected, Russian economy will move to potential growth rate (1.5% a year) faster and overcome temporary loss of efficiency.

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Table 1. Key Russian and global economy figures in 2014-2021

Indicators	Measurement unit	Actual numbers			Estimate	Forecast			
		2014	2015	2016	2017	2018	2019	2020	2021
Key external environment indicators									
Urals price	USD/bbl	97.9	51.3	42.3	54.0	53.0	54.1	55.2	56.3
Global GDP[1]	%, y-o-y	2.8	2.7	2.4	2.5	1.9	1.8	1.8	1.8
US GDP	%, y-o-y	2.6	2.9	1.5	2.0	1.8	1.9	1.8	1.7
China GDP	%, y-o-y	7.3	6.9	6.7	6.6	5.6	4.5	4.0	4.0
EU GDP	%, y-o-y	1.8	2.2	1.9	2.2	1.9	1.6	1.6	1.7
Production indicators									
Market GDP[2]	RUB bln	79,200	83,233	86,044	91,605	96,694	102,070	108,326	114,965
Real GDP growth rate	%, y-o-y	0.7	-2.8	-0.2	1.3	1.4	1.4	1.5	1.5
Fixed investments	RUB bln	13,903	13,897	14,640	15,606	16,506	17,540	18,568	19,560
Fixed investments real growth rate[3]	%, y-o-y	-1.5	-10.1	-0.9	2.5	1.5	1.4	1.3	1.1
Industrial output index[4]	%, y-o-y	1.8	-0.8	1.3	2.1	1.5	1.1	0.9	0.9
Retail turnover	RUB bln	26,356	27,538	28,137	28,994	30,021	32,100	33,275	35,195
Balance of payments indicators									
Export of goods	USD bln	498	341	279	329	332	345	352	355
Import of goods	USD bln	308	193	191	238	245	253	262	273
Annual average USD exchange rate	RUB/USD	38.5	61.3	67.2	57.8	59.0	59.9	60.9	61.3
Annual average EUR exchange rate	RUB/EUR	50.9	68.0	74.4	63.9	70.8	74.9	76.1	76.7
Labor market and income									
Average wage	RUB/month	32,629	34,012	36,740	39,168	41,948	44,450	46,922	49,530
Real disposable income	%, y-o-y	-0.7	-3.2	-5.9	-0.1	1.0	1.1	1.1	1.2
Population	mln	146	146	147	147	147	147	147	147
Economically active population (EAP)	mln	75	77	77	76	76	75	75	74
Unemployment	% of EAP	5.2	5.6	5.5	5.3	5.2	5.6	5.5	5.5
Financial market prices and indicators									
Inflation (CPI)	%, Dec/Dec	11.4	13.2	5.4	3.2	4.6	4.4	4.0	3.9
Key interest rate (as at year-end)	%	17	11	10	8	7.25	6.5	6.5	5.5
5-year zero-coupon OFZ rate	%	14.2	9.9	8.3	7.3	6.7	6.6	6.6	6.5
Private deposit rate (> 1 year)	%	13.1	9.4	7.8	6.5	6.2	6.0	6.3	5.9
Non-financial sector bank lending rate (> 1 year)	%	15.1	13.7	12.5	9.7	9.3	8.8	8.3	8.1
Budget									
Federal budget balance	% of GDP	-0.4%	-2.3%	-3.4%	-2.5%	-1.8%	-0.8%	-0.7%	-0.7%
Liquid share of sovereign funds (as at year-end)	USD bln	166	122	88	39	46	64	82	98

Source: Federal State Statistics Service, Bank of Russia, Federal Treasury, Ministry of Finance, World Bank, national statistics agencies, ACRA estimates

[1] Real change according to the World Bank Methodology.
[2] According to the new Federal State Statistics Service Methodology, based on System of National Accounts 2008.
[3] Physical volume growth index corrected by the investment deflator.
[4] Under the new methodology after adoption of the Russian Classification of Economic Activities 2.

The majority of traditional factors hold inflation down, but some of them have short-term effect

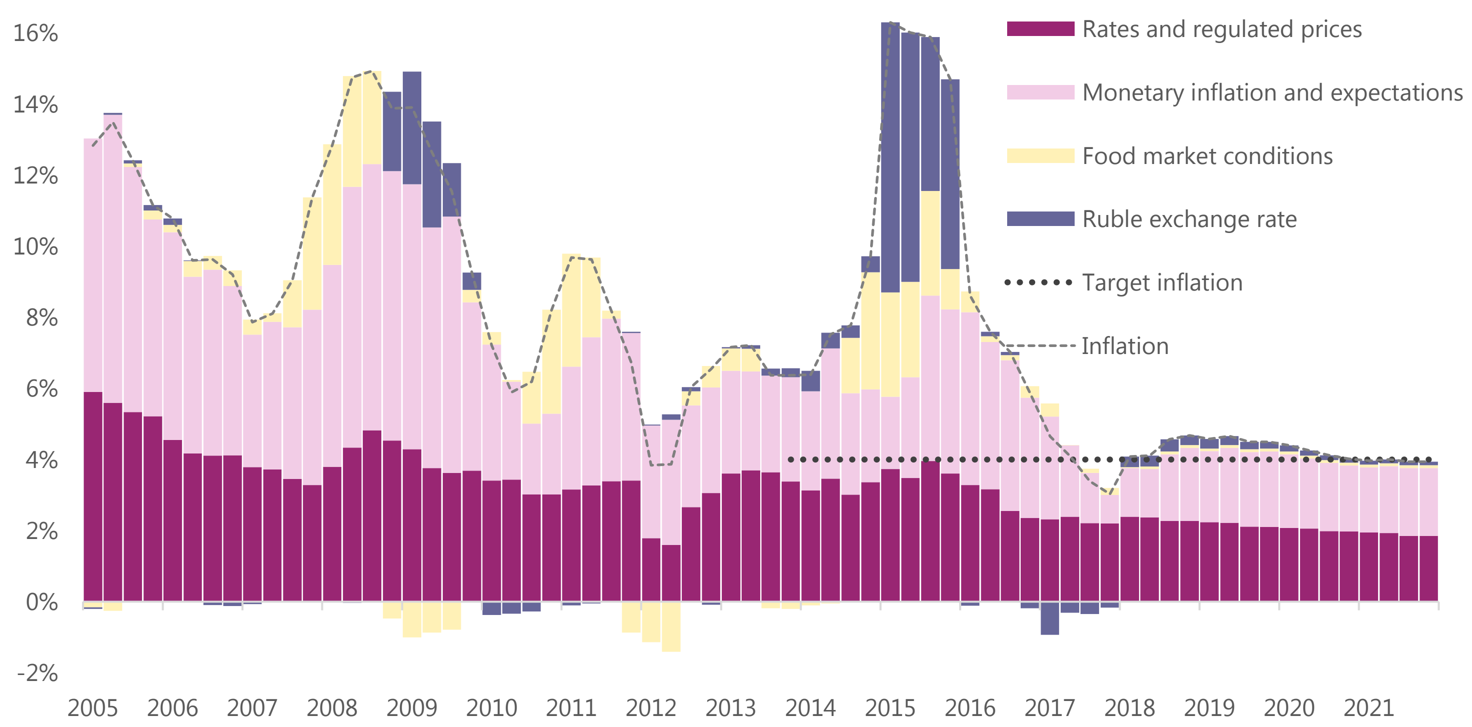
Since July 2017, the observed inflation rate has been below the target set by the Bank of Russia (4% y-o-y). This stems from the interplay of three factors: restricting growth of nominal indicators regulated by the government (rates of natural monopolies, wages in the public sector, and pensions), tight monetary and macroprudential policies of the Bank of Russia (curbing specific types of lending, high real short-term interest rate), and ruble appreciation (-14.4% in dual currency basket, Q2 17 vs Q2 16).

Ruble FX rate volatility may decrease by virtue of a shorter investment cycle of shale oil producers. See ACRA September 21, 2017 commentary titled [Russian non-oil exporters benefit on shale oil](#).

If the former two factors will continue to have a restraining effect, according to the official documents and heads of ministries, other factors of inflation will be primarily defined by market or natural forces. For instance, after the period of appreciation, the ruble FX rate is likely to have an accelerating effect resulting in a temporary deviation of inflation from its target level in the period from late 2018 to late 2019. Being temporary, it may have no effect on the Bank of Russia key interest rate decision (subject to inflation expectations to continue declining).

The underlying inflation has become lower indeed, but potential inflation outbursts will not necessarily be smaller, as the structure of the economy (shares of locally produced and consumed goods and services, competitiveness of the markets, consumption structure, etc.) defines the level of response to external factors. The structure of the economy, however, changes slowly.

Figure 1. Breaking down inflation by factor groups with the forecast for 2018-2021



Source: ACRA estimates

Table 2. Inflation factors in Russia[5]

Factors	Mechanism	Estimated dynamics	Risks
Money supply	The complex and multi-stage mechanism is detailed in the quantity theory of money: decrease in the real value of money ensues if the amount of money increases faster than the volume of goods and services the turnover of which they are used to facilitate.	Increase at the middle level of the interval as detailed in the base case forecast of the Bank of Russia (Monetary policy guidelines for 2018-2020).	Materialization of systemic risks of financial stability that require increased money supply. Acceleration of lending in the non-regulated financial market segment.
Inflation expectations	They are incorporated in long-term contracts. They affect consumer and investment decisions. Higher expectations incite consumers to show demand for goods and services earlier to avoid losing the purchasing power of money they have. Additional demand results in higher prices. And thus, the expectations are realized. They also affect indexation of wages in the public sector and the dynamics of pensions, and eventually demand.	Gradual advancement to the observed level of annual average inflation. In the public sector, it is fixed at the target level.	Weakening trust that target inflation will be reached, which results from a force majeure temporary rise in inflation.
Indexing rates and administered prices	They are directly part of the final consumption basket (around 20% of the basket in 2017). They represent costs for manufacturers and service providers, who can translate it into ultimate prices.	The fixed rate part of electricity prices: target inflation +1%. Natural gas rates: 3%-3.4%. Thermal energy rates: target inflation.	Changes in the public policy for regulation of natural monopolies. Lobbyism.
Taxes	Changes in tax rates, excise and customs duties may affect consumer prices, as they are part of manufacturers' costs.	Increase of alcohol and tobacco excise rates in line with the current plan of the Ministry of Finance.	Change of excise rates; taxation maneuver beyond oil and gas industry.
Natural factors in Russia	Anomaly weather conditions and epizootic outbreaks may adversely affect the production cycle in the agriculture and result in surprise declines of internal food production. Food products account for around a third of the consumer basket.	No force-majeure events. This factor will grow in importance should the share of locally produced food increase.	Natural disasters, man-made disasters, and epidemics in Russia. They are unpredictable.
Global food market environment, trade restrictions	The consumer baskets comprises some import goods or goods and services with a significant share of costs based on prices for imported goods. Food prices are the most volatile among such goods. In 2016-2017, imported food accounted for 20%-25% of the total grocery turnover. Internal prices also respond to export good prices due to competition between end markets.	IMF food price index increases 2%-2.5% a year. Food counter-sanctions remain in force.	Natural disasters, man-made disasters, and epidemics. Unforeseen changes in the effective demand in countries that are key food importers.
Ruble exchange rate	The weaker the ruble against other currencies, the higher the ruble prices for imported goods. They may be influence the basket directly or through costs of local consumer goods manufacturers.	Ruble appreciation period is ending. Inertia depreciation against the dollar at 2% a year.	Fluctuations of global energy prices; monetary policies of the countries.

Source: ACRA

[5] Whereas we understand that a model representation is certainly incomplete, we list a minimal set of factors that allow describing 2003-2017 inflation dynamics with an acceptable degree of precision and, at the same time, that are easily observed. Alternatives for representing inflation could include budget deficit dynamics, labor market indicators, monetary policy, output gap, competitiveness of markets, propensity to save, and many other indicators that affect the goods and services market balance as a result of the overall balance in the economy. Their dynamics affects the dynamics of factors listed in the table above.

To illustrate conventionality of a point forecast, we detail below the probability of some force majeure events that may put temporary upward pressure on inflation. If the below events (excluding leading indexation of rates and tax increase) are regarded as independent, there is a 69% probability for at least one of them to occur next year.

Table 3. Weight of hardly predictable shocks for inflation

Events	Maximum short-term contribution to inflation, in bps	Event's probability to occur next year
A short-term 10% increase in global food prices within six months	0.35	40%
A one-off 8% indexation of electricity and heat rates	2.15	20%
A natural disaster in one or several agricultural regions of Russia	2.51	15%
Yearly average crude oil prices fall to 35 USD/bbl within one year	5.20	15%
Pro-inflationary tax hike (a 4 bps VAT increase)	0.55	10%

Source: ACRA estimates

The above estimates should not be interpreted as that the inflation will exceed the target level by more than 1 bps. First, a list of probable events with an opposite effect can be compiled, i.e. of those holding inflation down. Second, the Bank of Russia can use the monetary inflation mechanism as a countermeasure. The regulator may be susceptible of temporary inflation deviations from its target if they do not propel into a significant shift in inflation expectations. In such case, the 69% figure is indicative of how wide is in fact the confidence interval for an inflation forecast. If, however, the Bank of Russia will be less tolerant of alike events, this figure will be indicative of the degree of uncertainty for the key interest rate and short-term money market rates forecast.

Low inflation challenges to seek new forms of flexibility, induces competition and longer-term planning

A low inflation mode will promote three key trends: higher importance of nominal rigidity, lower cost of debt, and extension of the planning horizon.

Nominal rigidity is the lack of price reaction to market changes. Such rigidity may be related to various long-term contracts (e.g. employment contracts) as well as psychology: prices are more flexible in responding to growing than slowing demand; prices more easily increase than fall.

Nominal rigidity. Switching to a new mode reduces availability of traditional forms of flexibility for businesses and the state in managing their costs (for details see p.7-11). By temporary fixing raw materials and labor costs, 1% of inflation translated into up to 0.2% in savings for mineral production, crude oil refining, construction, and public services sectors, and into up to 0.1% for the chemical, electric power, transportation, communications industries, and in the HoReCa segment. The lower the inflation, the smaller the benefit in real terms. Among the above industries, the most sensitive to low inflation mode will be those focused on the domestic market where the overall inflation context affects prices the most. Those industries are infrastructure monopolies (by virtue of regulation) and the services sector.

Amid low inflation, net interest margin in the banking sector is likely to decline further in the next few years. The reason is that loan interest rates decline faster than the funding costs that will be affected by competition for liabilities between the banks. Although the overall interest margin in the banking sector is likely to stabilize at around 3.5% in the medium term, differentiation of banks with respect to this indicator will increase resulting in rapid elimination of banks with low margin and less competitive business models.

Lower cost of debt. In the next two to three years, the monetary policy will remain moderately tight; however, following lower inflation expectations interest rates for long-term financing will take hold at a lower level. This would enable increasing the amount of debt, if necessary, while maintaining the debt load at the existing level. For example, interest payments accounted for 45%-46% of debt servicing by individuals just a year ago, and the rest represented repayment or refinancing of the short-term part of loans. By reducing the weight of the former component, the banks will be able to grow their loan portfolios. This applies to the majority of ruble debt relationships.

See ACRA research publication as of July 27, 2017 titled Russian government to become a net borrower and Kazakhstan government to remain a net creditor in 2018.

Planning horizon. In a 10% inflation environment, the principal of a debt loses half its value in 8 years, while a 4% inflation extends this period to 18 years. Throughout the entire post-Soviet era, uncollectible debts could have been easily forgotten owing to high inflation. Leaving the non-payment problem unsolved now entails risk for large involuntary creditors (e.g. electric power industry and housing and utilities sector) as it will increase costs for provisioning and writing off debts. In a low inflation environment, accepted liabilities will maintain their value for a longer period, and thus, extending the planning horizon for investments, debt policy and market strategy.

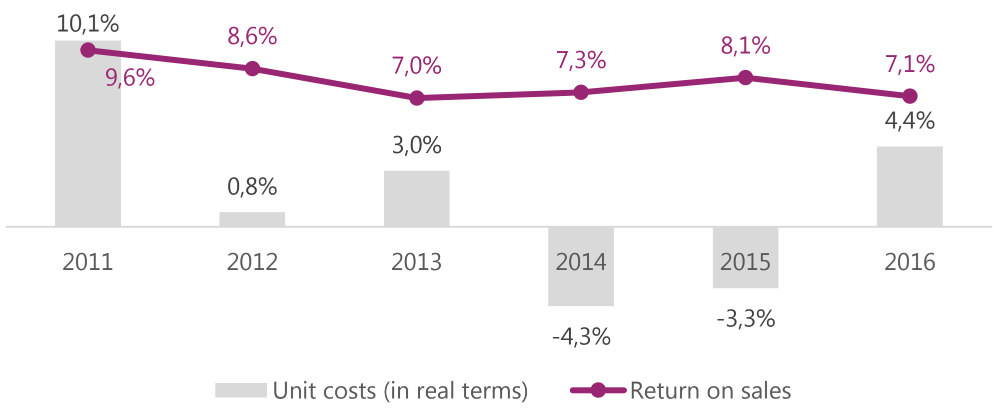
Businesses to lose flexibility in managing real costs due to low inflation

Unit costs are costs per unit of manufactured goods.

Although inflation accelerated 26.1% and the producer price index added 19% in 2014-2015, nominal unit costs in the Russian economy grew by 16.7% in the same period. However, in real terms (adjusted for price behavior), unit costs declined 7.6% in the above period. Declining costs in real terms is how companies responded to crisis: return on sales (7.3% in 2014 and 8.1% 2015) was even higher than in 2013 (7%). 80% of the decline in real unit costs is attributable to weak growth of prices and wages, and only 20% of that decline is related to quantitative factors (job cuts and consumption of resources).

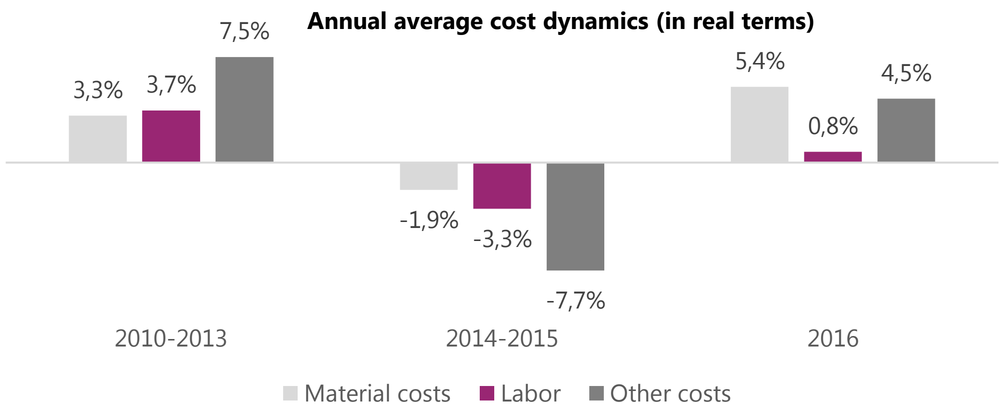
High inflation is instrumental for Russian companies in adjusting to crisis developments more easily; due to a low inflation mode, however, they lose flexibility in managing costs. If prices increase, a company with a strong position on the job or vendor market can reduce its real costs by freezing wages or vendor prices. Large businesses and some public authorities do have strong positions in these markets: they managed to lower their costs in non-fuel mineral production to 6.4% in 2014-2015 by freezing wages and vendor contracts. In the public sector, the above measures propelled cost reduction to 5.9% in education in the same period.

Figure 2. Return on sales of Russian companies increased in the crisis years of 2014 and 2015



Source: ACRA estimates

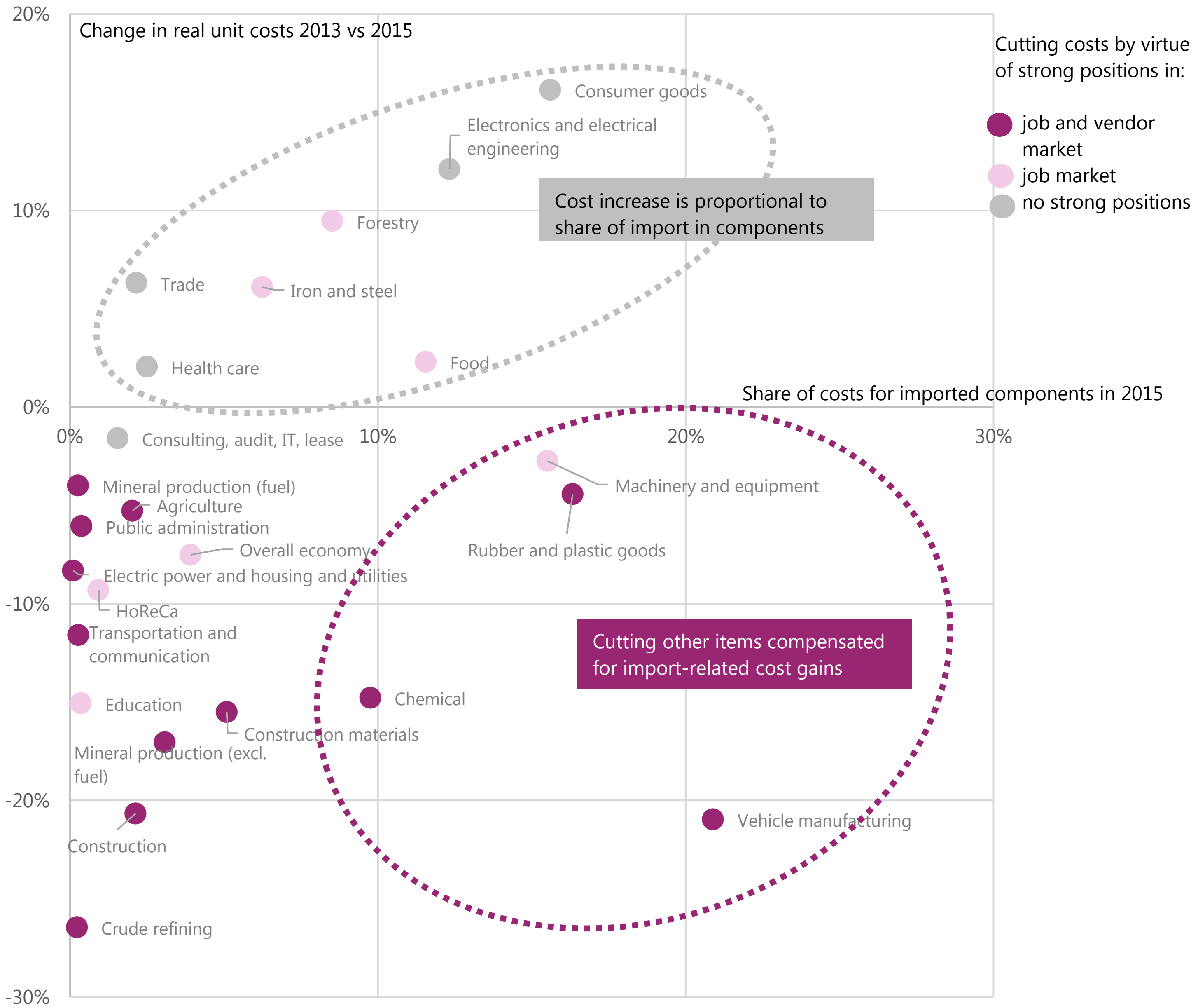
Figure 3. In 2010-2016 of all the cost items, labor costs of Russian companies increased the least



Source: Federal State Statistics Service, ACRA estimates

Ruble devaluation was the most acute challenge in the crisis years of 2014-2015. Industries with a substantial share of imports in their costs (consumer goods, forestry, food, electronics and electrical engineering sectors) saw their unit costs increase pro rata ruble exchange rate movement (see Figure 4). Some industries, however, managed to reduce their unit costs even with a high share of imported raw materials, components and equipment in their overall costs: vehicle manufacturing (share of import in costs is 21%), machinery equipment (16%), rubber and plastic goods (16%), and chemical industry (10%). They achieved the above by cutting other cost items (and namely those that the companies have more flexibility in managing owing to their ability to fix vendor prices and payroll if inflation rises).

Figure 4. For the majority of companies costs increased due to higher import prices for raw materials, components and equipment

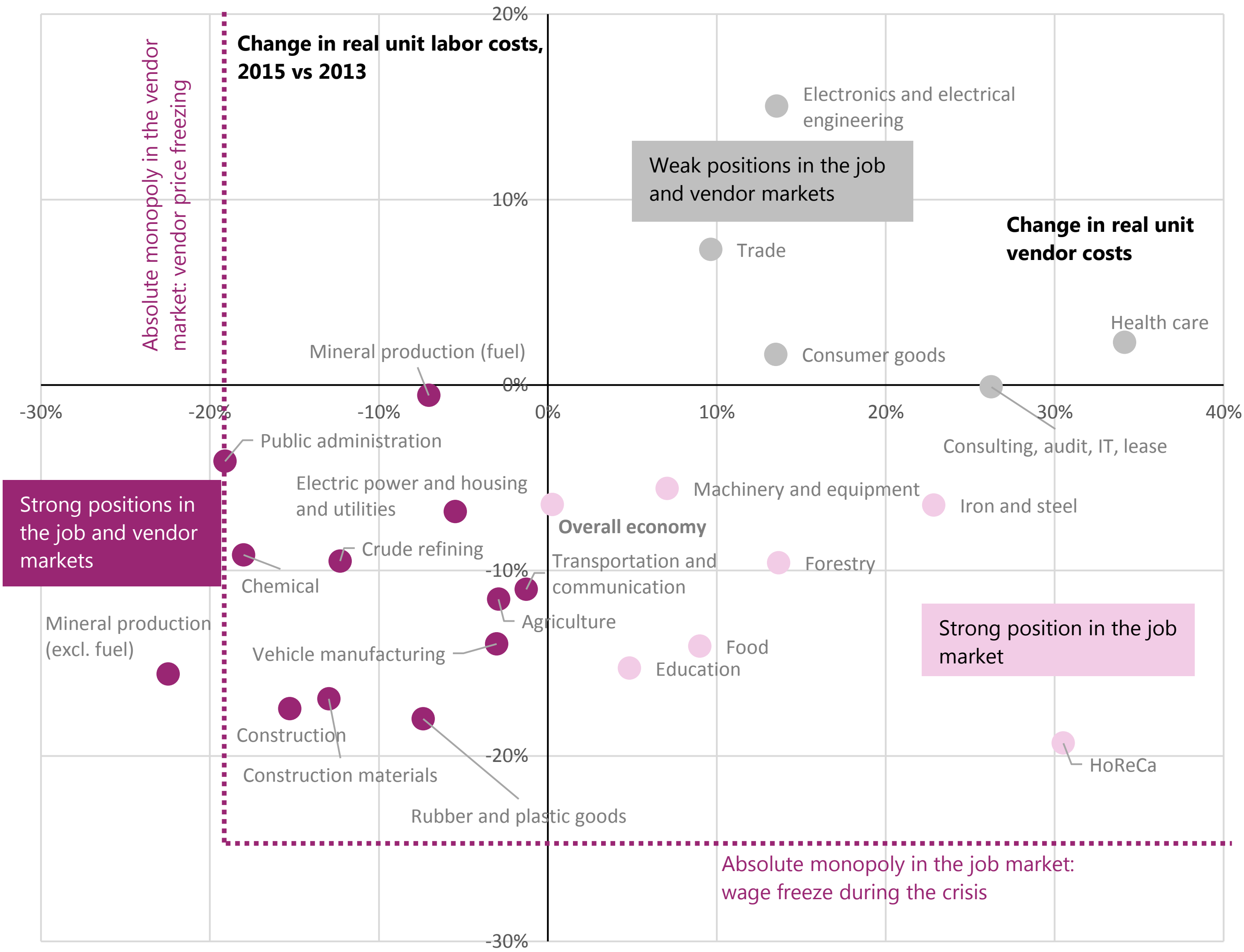


Source: Federal State Statistics Service, ACRA estimates

Almost every industry was in a position to save on indexation of wages during the crisis except health care (due to the "May Orders"), trade, consumer goods (low wages), electronics and electrical engineering sectors (see Figure 4). Labor input costs declined 7.3% in real terms in 2014-2015: job cuts accounted for 1.5%, and the rest of the decline (5.8%) was attributable to the wage factor. During the crisis years of 2014-2015, construction and construction materials, rubber and plastic goods, and HoReCa industries demonstrated the strongest positions in the job market, with their nominal labor costs increasing by 5%-7% maximum while declining 20% in real terms.

Having a strong position in the vendor market is typical of the least number of industries and primarily results from the fact that large businesses are mostly in the base material sector of the Russian economy. Mineral production and chemical industries as well as public administration are close to a monopoly status in their vendor markets (during the crisis, vendor prices in these industries did not increase nominally).

Figure 5. Almost all industries of the economy have strong positions in the job market



Source: Federal State Statistics Service, ACRA estimates

Table 4. Large businesses and the government saved on high inflation more than others

	Cost cutting in 2014-2015 by virtue of strong positions amid high inflation	including labor costs	including vendor costs	Cost cutting capacity per 1% inflation
Extraction of non-fuel mineral resources	-6.4%	-1%	-5.3%	-0.2%
Education	-5.9%	-5.9%	0%	-0.2%
Construction	-5%	-2.5%	-2.4%	-0.2%
Public administration	-4.4%	-1.4%	-3%	-0.2%
Crude oil refining	-4.3%	-1%	-3.3%	-0.2%
Chemical industry	-3.8%	-0.9%	-2.9%	-0.1%
Transportation and communication	-3.5%	-3.1%	-0.4%	-0.1%
HoReCa	-3.5%	-3.5%	0%	-0.1%
Construction materials	-3.4%	-1.6%	-1.8%	-0.1%
Rubber and plastic goods	-3.1%	-2.6%	-0.5%	-0.1%
Electric power and housing and utilities	-3%	-1.4%	-1.6%	-0.1%
Vehicle manufacturing	-2.3%	-1.9%	-0.4%	-0.1%
Extraction of fuel mineral resources	-2%	-0.4%	-1.5%	-0.1%
Food	-1.9%	-1.9%	0%	-0.1%
Iron and steel	-1.5%	-1.5%	0%	-0.1%
Agriculture	-1.3%	-1.1%	-0.2%	-0.1%
Machinery and equipment	-1.2%	-1.2%	0%	0%
Economy overall	-1%	-1%	0%	0%
Forestry	-0.2%	-0.2%	0%	0%
Consulting, audit, IT, lease	-0.1%	-0.1%	0%	0%
Consumer goods, electronics and electrical engineering, trade, and healthcare	0%	0%	0%	0%

Source: Federal State Statistics Service, ACRA estimates

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