

Quarterly Enterprise Survey

June 2019

№2 (68)

Main: Against the background of rising levels of uncertainty, business expectations for the near future continue to be cautious:

Shortly about the main results:

General indicators of business climate and conjuncture:

- The value of aggregated indicator increased from -0.12 in IV-th quarter to 0,01 in I-st quarter of 2019.
- The value of index flow financial and economic situation of enterprise increased a little from -0.08 of I-st quarter to -0.03 of IV-th quarter but it is still negative.
- The value of index of expected changes in financial and economic situation stays on the same level – 0.21 of I-st quarter, 0.28 and 0.24 of tentative quarters of 2019.
- The value of index of current state in business of I-st quarter of 2019 has increased than gone back to the value of III-d quarter of 2018 and now is -0.02
- The index of expected changes in business decreased from 0.23 of IV-th quarter 2018 to 0.13 of I-st quarter of 2019.

The fraction of managers, who think that unfavorable regulation climate is an obstacle for production increasing, decreased from 35.5% of IV-th quarter to 30.8% of I-st quarter.

Production:

- The value of index of production changes continued decreasing from 0.23 of III-d quarter to 0.12 of IV-th quarter 2018 to -0.1 of I-st quarter of 2019.

In prospective of the next 3 months the value of index of expected changes abruptly increased from -0.02 to 0.37.

Demand:

- The index of domestic demand decreased from 0.14 of IV-th quarter to 0.05 of I-st quarter.
- Enterprises' managers were in waiting position of increasing domestic demand – from -0.04 IV-th quarter to 0.27 in I-st quarter.

Employment and labor market:

- The value of index of employment changes increased from -0.09 of IV-th quarter 2018 to -0.11 of I-st quarter of 2019.

The level of search complexity for qualified employees is still high – 0.61 of IV-quarter of 2018 and same of I-st quarter of 2019.

Prices:

- From IV-th quarter of 2018 to I-st quarter 2019 the index of raw price changes hasn't changed and still 0.56 but index of realization price decreased from 0.36 to 0.46.
- The value of index of expected raw price changes decreased from 0.41 to 0.22 same as the index of expected realization prices decreased from 0.26 to 0.1.

A panel of 300 manufacturing enterprises is used to monitor their managers' perceptions and expectations towards changes of business environment and indicators of work of enterprises.

This issue presents the results of the survey conducted from April till May, 2019

Indicator: Q1' 2018 to Q4' 2018

Expectations: Q2' 2019 to Q1' 2019

Business climate: Assessment for April/May 2019, expectation for the next 6 months

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General Indicators

Aggregated indicator of industry prospective

The value of aggregated indicator of industry prospective increased from -0.12 of February to 0.01 of I-st quarter. Such changes exist due to abrupt increasing of present index which is “Expected changes of industry amount” – it increased from -0.02 in February to 0.37 in April. Simultaneously there is an insignificant decrease of two other components of index : “New orders” continued a tendency of tentative quarter – it decreased from -0.32 in February to -0.34 in April; “Stock of finished goods” continued decreasing from 0.03 to 0.01 in April.

Financial and economic situation in enterprises

The value of index of flow financial and economic situation decreased in I-st quarter 2019 compared to IV-th quarter of 2018 but it is still negative - -0.08 - -0.03. The majority of respondents -71.2% - doesn't feel any changes in financial and economic situation. But there is a decrease of respondent percentage who specified on aggravation of situation – 16.2%(18.7% in IV-th quarter) and increase of those who say about improvement of situation – 12.5% instead of 9.7%.

Expected changes in financial and economic situation

Expectations of managers towards financial and economic situation for the next 6 months are still positive, although had a little decrease. Wherein, a value of indicator is the same as 3 quarters before. The value was 0.21 of the I-st quarter of 2019, 0.28 of the IV-th quarter 2018 and 0.24 of the III-d quarter of 2018. According to that, the fraction of “optimists” didn't change – 31.8% (32% before) but fraction of “pessimists” decreased – 10.5% (6.1%). Fraction of people who don't expect any changes has decreased from 61.8% to 57.7%.

Level of uncertainty towards changes in financial and economic situation in 6 months prospective

The fraction of managers who couldn't predict a financial and economic situation for the next 6 months continued increasing – 16.7% of I-st quarter 2019. The indicator increased from 12.8% of III-d quarter to 16% of IV-th quarter of 2018. There was fixed an increasing of fraction of those who couldn't determine – 10.3% to 16.7%.

Expected changes of financial and economic situation for enterprises of different size and branch

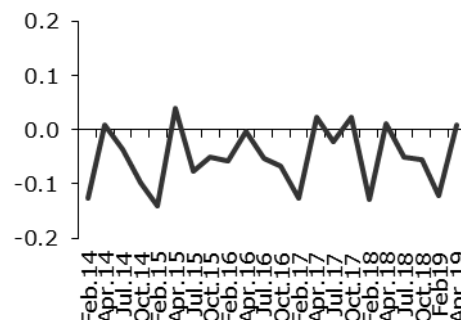
The value of financial and economic situation index changed for enterprises of different size. For small business the value of index is 0.26 (0.22 of IV-th quarter of 2018) but for medium and large enterprises the value of index abruptly decreased from 0.28 to 0.15 and from 0.3 to 0.22. Regarding to expected changes of business situation for different branches of industry – mostly optimistic for constructional material (0.45), woodworking (0.28) and light industry (0.27). The lowest value is for printing industry - -0.07 (0.06 of tentative period).

Business climate

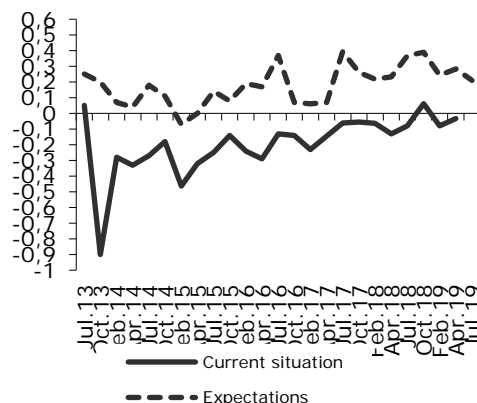
Appraisal of business situation

A value of flowing business climate indicator is still negative - -0.02 of I-st quarter of 2019 but compared to IV-th quarter the value increased (-0.04) Although, a fraction of those who evaluates badly the business climate decreased from 15.9% of IV-th quarter of 2018 to 14% of I-st quarter of 2019. A fraction of those who evaluates business climate satisfactorily almost didn't change – from 72% to 72.8%. A fraction of people who consider the business climate good increased for 1 percent – from 12.2% of IV-th quarter of 2018 to 13.2% of I-st quarter of 2019.

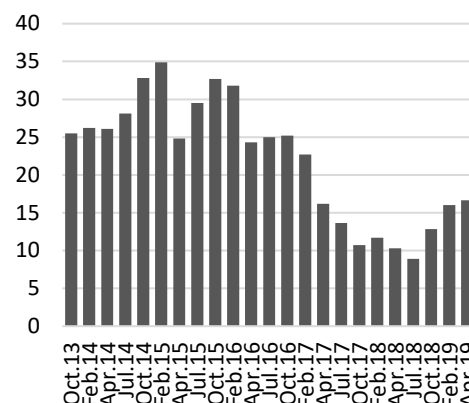
Industrial Confidence Indicator



Index of Business Situation



Uncertainty about expected changes in financial situation, %



Comparing an index of flowing business climate condition of I-st quarter of 2019 to same period of 2018 the increase of the value if indicator is looked on (-0.13 of I-st quarter of 2018 to -0.02 of I-st quarter of 2019). This happened because of 2x increasing of fraction of those who evaluates the business climate as positive – from 6.3% of I-st quarter of 2018 to 13.2% of the same period of 2019. The fraction of “pessimists” decreased from 22% of I-st quarter of 2018 to 14% of the same period 2019. Although, a fraction of enterprises representatives who are satisfied by the business climate almost didn’t change – from 71.8% of I-st quarter of 2018 to 72.8% of the same period of 2019.

Expected changes of business climate

The index of expected changes of business climate almost double decreased – from 0.23 of IV-th quarter to 0.13 of I-st quarter 2019 – and equaled to the indicator of 2018. Herewith, a fraction of managers who don’t expect for changes of business climate for the next 6 months decreased from 61.9% to 58.9%. A fraction of those who expect for improvement decreased from 30.5 % of IV-th quarter of 2018 to 29% of I-st quarter of 2019, a fraction of “pessimists” increased from 7.5% to 12.1%.

Expected changes of business climate for enterprises of different size and branch

The value of expected changes of business climate varies for enterprises of different sizes. The highest value is for small business – 0.3 (this value is any bigger than the value of tentative period – 0.26). As for medium and large enterprises – for them this value abruptly decreased – 0.05 and 0.07 (0.18 and 0.21 of IV-th quarter).

Concerning to expected changes for the branches of industry the most positive value is for light industry enterprises – 0.33 (0.57 of tentative period) and woodworking – 0.33 (0.31) also for constructional material industry – 0.3 (0.1 of Iv-th quarter of 2018. The value for printing industry decreased from 0 to -0.8 and for engineering this value equals 0 (0.07 of tentative period).

Level of uncertainty about changes of business climate on 6 months prospective

A fraction of respondents who couldn’t give an answer to the question about changes of business climate continues a tendency of growth – from 13.2% of III-d quarter to 16% of IV-th quarter 2018 to 18.8% of I-st quarter of 2019. Comparing to the same period of 2018 this value increased by 7 percent – 11.6 % of I-st quarter of 2019.

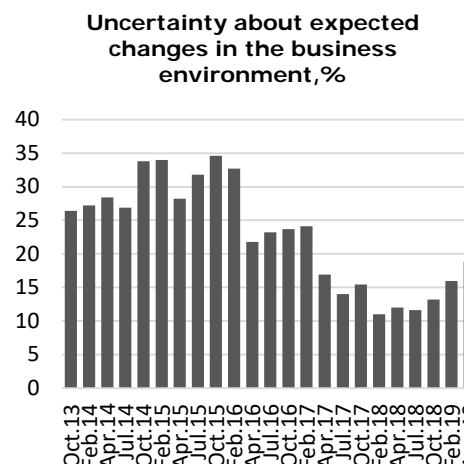
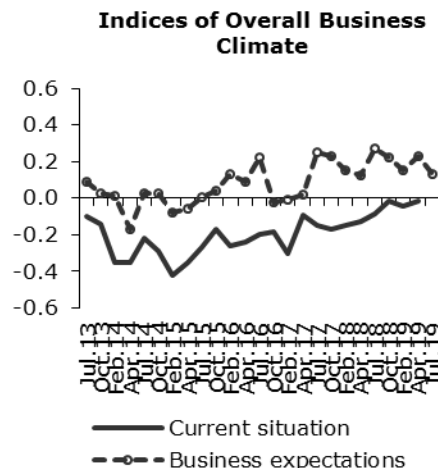
Regulatory climate

Unfavorable regulatory climate is still standing on 5th place as an obstacle of business transaction. However, a fraction of managers who evaluated unfavorable regulatory climate as a real obstacle decreased almost by 5 percent – from 35.5% of IV-th quarter 2018 to 30.8%. Decreasing of composite indicator happened because of decreasing by 3 percent such component as “corruption” from 17.9 to 13.8. Herewith increased the value of “regulatory burden” to 18.8% and «changes in economic legislation» increased by 0.1 percent – 5.8%.

Composite indicator “unfavorable regulatory climate” has different meanings for different-sized-enterprises. The highest value was for small business – 40.6% (41.4% of tentative period), for medium enterprises value decreased from 29.2% to 18.9%, for large enterprises – decreased from 32.8% to 28.3%.

Comparing to the last quarter value of the indicator substantially decreased for medium enterprises but for large ones – almost didn’t change.

The most important was decreasing of “corruption” component for large enterprises – from 12.1% to 5,7%. Along with it, component



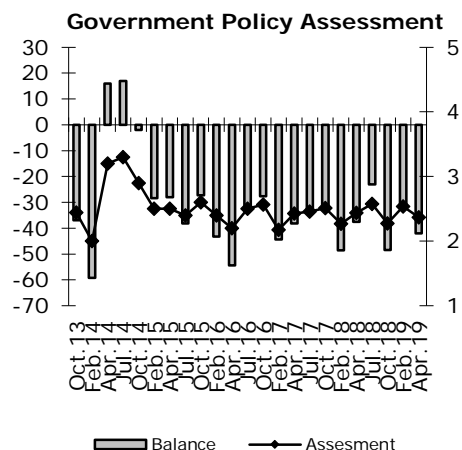
Regulatory climate for enterprises of different sizes						
	50 people		51-250 people		More than 251 people	
	Q IV	Q I	Q IV	Q I	Q IV	Q I
Unfavorable regulatory climate	41.4	40,6	29.2	18,9	32.8	28,3
High regulatory burden	17.3	22,7	18.9	13,7	17.2	18,9
Changes in economic legislation	4.7	6,3	6.3	4,2	6.9	7,5
Corruption	24.4	22,7	10.5	6,3	12.1	5,7

“high regulatory burden” increased from 17.2% to 18.9% of I-st quarter of 2019.

Changes in other components of indicator are not essential and fluctuate within 1 percent.

Assessment of the Government Economic Policy

On five-point scale points of assessment of the government economic policy decreased. Along with it, fraction of “optimists” decreased from 14.4% of IV-th quarter 2018 to 9.35 of I-st quarter of 2019. But percentage of “pessimists” increased from 45.5% to 51.4% in accordance. Percentage of uncertained in accordance decreased from 40.1% to 39.3% of I-st quarter of 2019. In general average point of government economic policy assessment decreased from 2.53 of IV-th quarter of 2018 to 2.37 of I-st quarter of 2019.



Lending climate

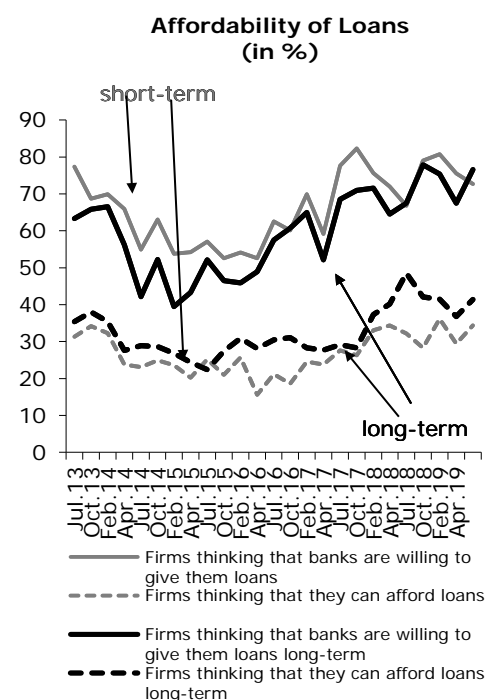
A tendency of decreasing assessment of banks alacrity to give short termed credits continues in I-st quarter of 2019. Indicator decreased from 75.6% of the last quarter to 72.6% of flowing quarter. Increased an assessment of willing taking short-termed credits from 29.4% to 34.4% in accordance.

Increased value of assessment banks giving long-termed credits and alacrity of enterprises to take them – from 67.5% to 76.5% and from 36.8% to 41.4%.

Production indicators

A value of production changes index abruptly decreased from 0.12 of IV-th quarter 2018 to -0.1. This negative value characteristics I-st quarter of 2019.

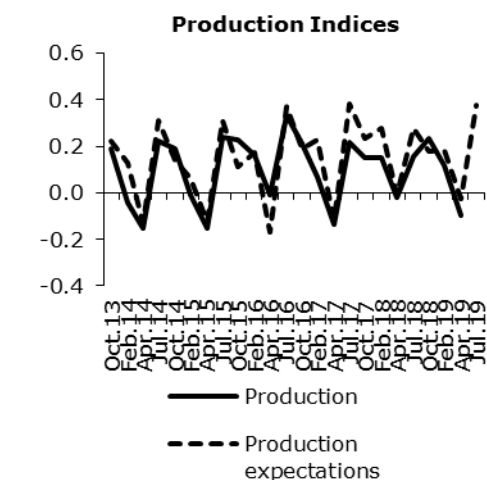
In this case, decreasing of indicator happened at the expense of continuing a tendency increasing a fraction of those who checked out decreasing of a production amount (from 23.3% to 29.6%). Also there is a double decrease of fraction of people who agrees with increasing of production (from 30.5% of IV-th quarter 2018 to 16.1% of I-st quarter of 2019). Herewith, a fraction of those who don't see any changes is still almost the same – 55.5% of IV-th quarter of 2018 and 54.4% of I-st quarter of 2019. Unweighted value of index of production changes is negative - -0.14. The value is different for enterprises of different sizes.



With the distribution by amount of employees you can see that the value of index is negative for large enterprises (1000+) and for small business (50) - -0.15 and -0.26. Also in flowing period this value decreased for medium segment of large enterprises too (501-1000) from 0.09 of IV-th quarter of 2018 to 0.33 of I-st quarter of 2019. The value decreased for medium enterprises (51-250) from 0.15 to 0. A value for lower segments of large enterprises (251-500) decreased too but it is still positive – from 0.33 to 0.04.

An index of production changes changed with distribution enterprises by segments. The value is still positive for a light industry – 0.16 of I-st quarter of 2019 (0.2 of the last quarter). For heavy industry the value equals 0 (0.08 of the last period). Indicators for another types of production are negative, among them the worst are indicators for engineering - -0.25 of I-st quarter of 2019 (0.08 of IV-th quarter of 2018).

For enterprises with different ownership the value of production changes decreased too and now it is negative. The most decreased the value for state enterprises – from 0.29 of IV-th quarter 2018 to -0.11 of I-st quartel of 2019. For privatized enterprises this value decreased from 0.09 to -0.16, for privat business it decreased from -0.02 to -0.12.



In spite of abrupt decreasing of production changes index, managers of enterprises are waiting for increasing of production amount. In I-st quarter of 2019 decreased an index of production changes – from -0.02 of IV-th quarter of 2018 to 0.37. This is possible because of decreasing those who plans to make production slower – from 27.7% to 10.2%. Percentage of those who wishes to make production faster became almost twice bigger – from 18.9% to 46.3%. But percentage of those who don't plan any changes decreased by 10%: from 53.4% of IV-th quarter of 2018 to 43.4% of I-st quarter of 2019.

Such a decreasing and increasing of indicators in general is a tendency for decreasing data of I-st quarter and increasing data of the next quarters.

Depending on different branches evaluation of expected changes of production amount almost doesn't differ in I-st quarter. In IV-th quarter every indicator was negative (except heavy and light industry – 0.04 and 0.03) and in I-st quarter this indicator became positive for every branch. The highest point of indicator is for heavy industry and constructional material – 0.6.

With the distribution of enterprises by the amount of employees the value of indicator increased and became positive. Herewith, for the smallest enterprises this indicator is the lowest - 0.17(-0.26 of the last period) and the highest for the medium segment of large enterprises (501-1000 employees) – 0.58 of I-st quarter of 2019 (-0.18 of IV-th quarter of 2018).

Demand, Sales, New Orders

Domestic demand. An index of domestic demand changes decreased in I-st quarter of 2019 but it varies from indicators of I-st quarters of last years, it is still positive – 0.05 (0.14 of IV-th quarter of 2018). A fraction of those who noted that demand didn't change decreased and now it is 51.7% (49.1% of the last period). A fraction of those who noted the increasing of demand decreased almost by 5 percent from 30.3% of the last quarter to 25.1%. A fraction of those who noted the decreasing of demand increased by 3 percent – from 20.6% of IV-th quarter of 2018 to 23.3%.

Value of index of expected domestic demand changes is positive too and now is 0.27 (-0.04 of IV-th quarter of 2018).

A fraction of those who expects an increasing of production became more than twice bigger – from 13.7% of IV-th quarter of 2018 to 37.2% of I-st quarter of 2019. Percentage of those who doesn't expect any changes in domestic demand decreased from 66.5% to 54.1% and percentage of those who expect a decreasing of demand decreased too from 19.8% of IV-th quarter of 2018 to 8.7% of I-st quarter of 2019.

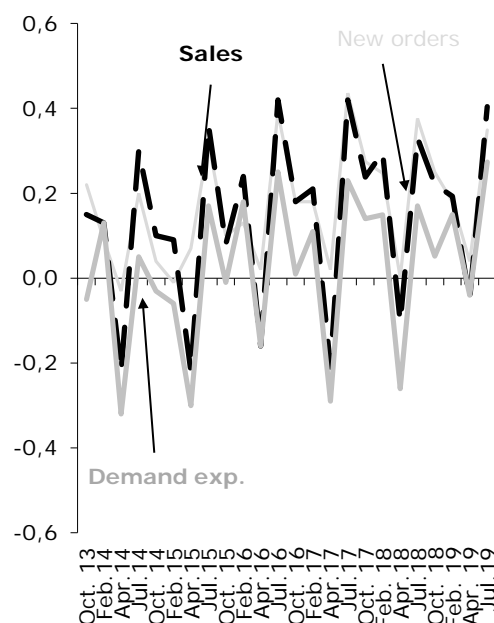
External demand. Value of external demand changes index decreased and now is 0.06 (0.1 of IV-th quarter).

In accordance to that a fraction of those who think that external demand didn't change decreased from 70.9% to 19.4% and the fraction of managers who noted the decreasing of external demand increased from 13.4% to 9,7%.

Percentage of those who doesn't expect any changes I the next quarter decreased from 75.8% to 63.3%. Percentage of managers who noted that external demand increased became almost twice bigger from 11.8% of IV-th quarter of 2018 to 26.5% of I-st quarter of 2019. A fraction of "pessimists" who expect a decreasing of eternal demand decreased from 12.4% of the last quarter to 10.2% of flowing quarter.

Reflected value of index is 0.12 and non reflected is 0.16. The value of index is the same for enterprises of all sizes. This indicator equals 0 for enterprises with the lowest amount of employees (-0.15 of IV-

Domestic demand: indices of expectations



new orders

th quarter of 2018) and it is the highest for medium segment of large enterprises (501-1000) – 0.33 (-0.11 of IV-th quarter of 2018).

Sales. The value of sales changes index became negative and now is -0.07 (0.14 of IV-th quarter of 2018). Percentage of managers doesn't say of increasing of amount of realized production increased from 43.4% to 47.6%; simultaneously, percentage of respondents who notes that amount of realized production increased decreased almost by 10 percent – from 33.8% to 21.5%. Percentage of respondents who noted decreasing of production amount decreased almost the same way – from 22.8% of IV-th quarter of 2018 to 30.9% of I-st quarter of 2019.

Percentage of managers who expect increasing of sales in the next quarter abruptly increased from 21.9% of IV-th quarter of 2018 to 51.8% of I-st quarter of 2019. 38,0% respondents don't expect any changes (46.1% in the last quarter) and only 10.2% respondents expect that amount of realization will decrease (32% in tentative quarter). Because of abrupt increasing of optimists fraction the value of sales changes index increased and now is 0.4 (-0.05 of IV-th quarter of 2018).

New orders. In I-st quarter of 2019 a value of new orders changes index continued decreasing and became negative - -0.03 (0.13 of IV-th quarter of 2018). Percentage of managers who noted that amount of new orders didn't change increased from 51.1% to 60.5%, only 16.9% respondents noted that amount of orders increased (26.5% of IV-th quarter of 2018) and 22.6% respondents reported a decrease of orders amount (16.4% of the last quarter).

In I-st quarter 2019 the fraction of respondents who doesn't have an orders book increased from 5.2% to 7.5% of IV-th quarter.

In the next quarter was a decreasing of managers' percentage who expect an increasing of orders book – from 20.7% of IV-th quarter to 43.7% of I-st quarter. 48,2% respondents don't predict any changes (59% of last period) and only 8.1% respondents expect decreasing of new orders amount (20.3% of last period). The value of expected changes index abruptly increased and now is 0.35 (0.04 of IV-th quarter).

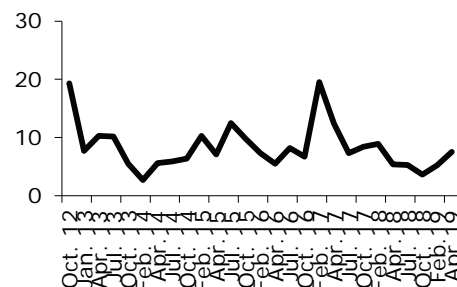
Employment. In I-st quarter of 2019 percentage of respondents who noted the increasing of employees decreased from 8.7% of the last period to 4.8%; 15.9% respondents indicated decreasing of employment level (20% of the last quarter) and the amount of managers who didn't indicate any changes of employment level decreased from 71.3% to 79.3%. The value of employment changes index is still negative and increased from -0.09 of IV-th quarter of 2018 to -0.11 of I-st quarter of 2019.

In spite of that, 8.9% indicated possibility of amount employee increasing in the next 3 months (6% of the last period); only 4,4% expect decreasing of employee amount (13.6% of last quarter) and 86.7% don't expect for changes (80.4% of IV-th quarter 2018).

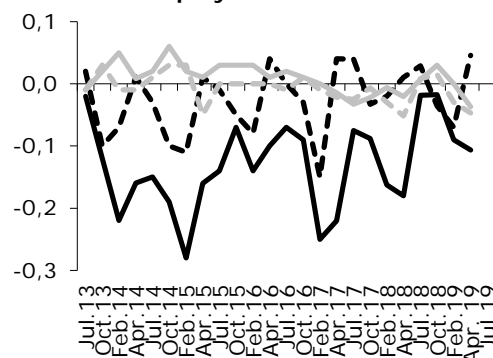
Because of that value of employment changes index increased from - 0.07 of IV-th quarter to 0.05.

Labor market. In I-st quarter of 2019 there is a tendency – qualified employees are easier to find than unqualified. Index of complexity finding qualified employees equals IV-th quarter's indicator – 0.61. And index of complexity finding unqualified employees increased from 0.38 to 0.39 of I-st quarter of 2019.

No orders book, % of enterprises



Employment Indices



- Number of workers on floor
- - - Number of workers on floor expectations
- Workers on forced leave
- - - Workers on forced leave expectations

Obstacles to production growth

In I-st quarter the biggest problem for production growth is “low demand”. Herewith, percentage of this indicator decreased comparing to the previous quarter – from 61.1% to 51.1%. An obstacle “high competitive pressure” increased by 10 percent from 40.7% to 50.7% and took 2nd place, “liquidity orders” decreased by 8.3% from 52.9% to 44.6%. “Unfavorable politic situation” lost 8.5% and decreased to 27.5% of I-st quarter and decreased from 4th place to 6th. On 4th place is “excessive taxation” (31.5% of I-st quarter of 2019). The less important in I-st quarter of 2019 is “access of credits”: comparing to the IV-th quarter of 2018 this value decreased from 7.9% to 6.5% and “changes in economics” increased by 0.1% - 5.8%.

In I-st quarter of 2019 the value of production growth obstacles varies for enterprises of different sizes. For the smallest enterprises the most important is “shortage of orders” and “high competitive pressure” (48.4% each). And the less important is “changes in economics”(6.3%). “High competitive pressure” is the most important for medium-sized enterprises – 54.7% and the less important for this category of enterprises is “access of credits” – 3.2%. An obstacle “orders liquidity” is the most important for large enterprises (54.7%) and the less important obstacle for large enterprises is “shortage of skilled workers” – 3.8%.

Financial indicator

Price

Comparing I-st quarter of 2019 to IV-th quarter of 2018 distribution of answers about raw price almost didn't change. 56.6% managers indicated that prices for raw and materials increased, 38.6% think that price are the same and 4.8% indicated the decreasing of price. The value of price changes index in I-st quarter of 2019 doesn't differ from IV-th quarter of 2018 and now is 0,56 (0.59 of III-d quarter of 2018).

In I-st quarter of 2019 the value of realization price index stopped decreasing and became equal to the indicator of I-st quarter 2018 and now is 0.46 (0.36 of IV-th quarter of 2018). Herewith, percentage of respondents who thinks that price is stable almost the same – 48.5% and 47.4% (38.4% and 58.8% of IV-th quarter of 2018). Percentage of respondents who indicated the increasing of price increased almost by 2% - from 2.9% to 4% of the previous period.

For the next three months managers forecast a slowdown of price growth for raw and final product. The value of expected price changes index is 0.22 (0.41 of IV-th quarter). The value of index of expected realization price changes is 0.1 (0.26 of the previous period).

Profitability

In I-st quarter of 2019 percentage of managers who didn't notice any changes of profitability increased from 65.9% of the previous quarter to 69.1% of the flowing quarter. Percentage of managers who indicated increasing of profitability decreased from 14.1% of the last period to 10.4%. Percentage of those whose opinion is that the level of profitability decreased almost didn't change 20.4% (19.9% of IV-th quarter of 2018). Weighted value of profitability index continues decreasing and now is -0.08 (-0.01 of the last period), not weighted - -0.10 (-0.22 of the last period). The difference between this two indexes means that the index varies for enterprises of different size. Profitability for medium enterprises – -0.01 (0.06 of the previous period), for large enterprises this index decreased to -0.13 (0.05 of the previous period), for small business this value is -0.19 (-0.04 of the previous period).

Obstacles to production growth				
	III18	IV18	I 19	I 19 to IV 18
Low demand	57.6	61.1	51.1	-10.0
High competitive pressure	42.7	40.7	50.7	10.0
Liquidity problems	49.0	52.9	44.6	-8.3
Unfavorable regulatory climate	36.1	35.5	30.8	-4.7
High regulatory pressure	20.5	17.9	18.8	1.0
Corruption	14.2	17.1	13.8	-3.4
Changes in economics	10.8	5.7	5.8	0.1
Excessive taxation	29.5	30.0	31.5	1.5
Unstable political situation	27.8	36.1	27.5	-8.5
High credit rates	29.5	23.6	26.1	2.5
Shortage of skilled workers	33.3	25.7	24.6	-1.1
Shortage of raw	31.3	24.3	21.0	-3.3
Problems with energy supply	7.3	5.4	15.9	10.6
Outdated technology	11.8	12.9	13.8	0.9
Lack of capacity	10.4	6.1	9.4	3.3
Access of credits	5.9	7.9	6.5	-1.3

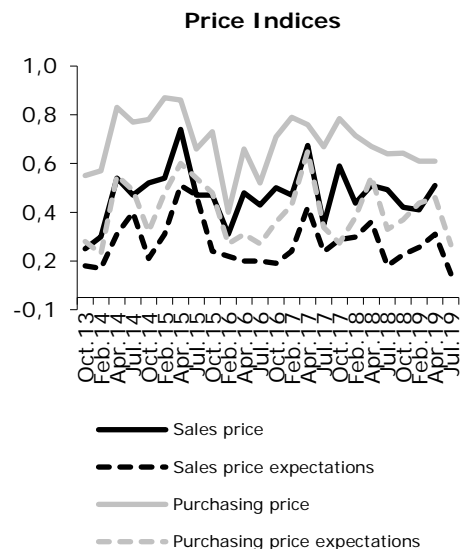
In branch cut indicators of profitability vary and they decreased for every branch. In IV-th quarter of 2018 this indicator was positive for wood industry (0.13), for paper branch it equaled 0 and in I-st quarter of 2019 all indicators became negative. For printing industry this indicator is the worst - -0.13 and for nutritional industry indicator is almost zero - -0.04.

Majority of managers didn't expect for changes of profitability for I-st quarter of 2019 and don't expect for changes for II-d quarter of 2019. But this percentage increased by more than 10 percent – 75.9% (from 63.1%). Percentage of respondents who expect for decreasing of profitability decreased from 24.2% to 8.6% and 15.5% (12.7% of the previous period) respondents forecast increasing of profitability. Due to this changes the value of expected profitability changes index improved and became positive – from -0.07 of IV-th quarter of 2018 to 0.08 of I-st quarter of 2019.

Competitive pressure

As managers think their biggest competitors are domestic producers and this indicator continues to grow – 0.31 of I-st quarter of 2019 (0.23 of IV-th quarter 2018). Managers also of increasing of competition: other countries of CIS - -0.02 (-0.18 of the last period); other foreign product producers – the value of index from negative became positive – 0.05 (-0.1 of the previous period).

In distribution by branches the highest pressure of domestic producers is on construction materials industry – 0.48; printing industry – 0.43 and on light industry – 0.42. And the lightest pressure on machinery building – 0.



Appendix 1: Methodology

IER Business Survey is a monitoring, forecast and analysis of business activity based "on the information received "from the ground up"– judgments and anticipations of economic agents – managers of firms and enterprises. **Project goal is** to investigate the impact of economic policy on business development through monitoring perceptions and expectations of managers.

Method of Business Tendency Survey (BTS) is applied for achieving project outcome. BTS method is well-known tool for collecting information about a business and economic cycle. Priority is given to variables which measure the early stages of production (e.g. new orders) respond rapidly to changes in economic activity (e.g. inventories) and measure business expectations or are sensitive to expectations (e.g. overall economic situation).

The result of conjunctive research is concise picture of economy or single branch. Leading "hints" concerning economic tendency in short- or middle-run for whole economy or single branch, future "turning points" of the business cycle.

Main objectives of the Project is to get independent and reliable data about the economic situation at the micro-level; to identify the key problems faced by firms in Ukraine and provide with independent and non-biased evaluation of business climate and forecast main economic tendencies.

In the study of enterprises conjunction the following indicators are used:

Index of changes in the business environment – measures the short-term changes in the business environment (within three months);

Index of expected changes in the business environment – measures forecasts for changes in the business environment for doing business (within six months);

Index of business activity of the enterprise – measures of short-term changes in the financial and economic situation at surveyed enterprises (within three months);

Index of expected changes in business activity of enterprises – measures forecasts for short-term changes in the financial and economic situation at surveyed enterprises (within three months)

Index of state (quality) of the business environment – measures the current state of the environment for doing business.

Index of status (quality) of business activity – assesses the current state of the financial and economic situation at the surveyed enterprises.

Industrial confidence indicator is calculated as the arithmetic mean of the expected changes in production, the estimation of the volume of new orders and the evaluation of finished product stocks (the last with a minus sign).

The general indicator of "adverse regulatory climate" consists of three components: (1) high regulatory pressure. (2) frequent changes in legislation and (3) corruption and reflects the proportion of respondents who chose at least one of the factors listed above.

The index of competitive pressure is a measure of evaluation of competitive pressure in the last 3 months.

All indexes were calculated alike. The calculation of each indicator is used as a net balance (net balance). When the head of the company replies that the indicator has increased. the responses are counted as +1. if it has not changed - 0 and -1 - if decreased. For example, if 100 of the respondents. 20 indicated the increase in production. 50 respondents reported a decrease and 30 indicated that everything remained unchanged. then the corresponding index value would be -0.30. The positive (negative) value of the index means that the share of enterprises where production has increased has been greater (less) than the number of those where production has decreased.

Every index that is higher than +0.05 or lower than -0.05 is important and varies from 0 with probability of deviation 5%.

For further information concerning the sample characteristics, the questionnaire, the index methodology and full data sets please contact Oksana Kuziakiv kuziakiv@ier.kiev.ua.

Appendix 2: Sample

The sample survey is based on the panel used for the Quarterly Enterprise Survey and includes 300 manufacturing enterprises located in four regions of Ukraine. The response rate is 94.0%. The sample structure reflects the structure of the panel. The enterprises are located in Kiev, Lviv, Kharkiv, Odessa, Khmelnytsky, Sumy, Ternopil, Rivne, Vinnytsia and Ivano-Frankivsk regions. About 76% enterprises are located in regional centers, 24% represent other settlements.

The average size of the enterprise measured by the number of employees is 261. We distinguish the following groups of enterprises by size: small (up to 50 employees), medium (51-250 employees), and large medium (251-500 employees), large (501-1000 employees) and the largest (more than 1000 employees).

The sample includes enterprises of mechanical engineering, building materials, wood processing, light industry, food industry, printing and heavy industry.

Percentage of enterprises, 1 quarter 2018

<i>Sector of industries, %</i>		<i>Regions, %</i>		<i>By size, %</i>	
	Q1'18				Q1'18
Heavy ¹ industry	10.3	Lviv	11.2	Fewer than 50	46.4
Machine-building	20.3	Kyiv	21.7	51 — 250	34.4
Wood processing	5.4	Kharkiv	23.2	251 — 500	9.8
Light industry	11.6	Vinnitsa	7.2	501 — 1000	4.3
Construction Materials	9.4	Khmelnytskyi	11.6	Over 1000	5.1
Food Industry	25.0	Sumy	5.8		
Printing industry	9.1	Odessa	4.3		
Other	8.7	Ternopil	2.9		
		Rivne	7.2		
		Ivano-Frankivsk	4.7		

¹ For heavy industry we include the enterprises of metallurgy, chemical, petrochemical and fuel industries.

Appendix 3: The main indicators of the industrial sector (April/May 2019)

Indicators	Size				Sector of Industries							
	All	Small	Middle	Large	Heavy	Mach	Woodpr	Const	Light	Food	Print	Other
Quality of the business environment	-0.2	+0.03	0.00	-0.12	+0.4	-0.17	+0.20	-0.23	+0.16	+0.16	-0.16	-0.13
Expected changes in business quality environment	+0.13	+0.30	+0.07	+0.04	+0.8	0.00	+0.33	+0.30	+0.33	+0.19	-0.08	+0.26
Business activity of the enterprises	-0.03	-0.05	0.00	-0.08	+0.10	-0.27	+0.07	-0.24	+0.01	+0.17	-0.21	-0.13
Expected changes in the financial-economic situation	+0.21	+0.26	+0.15	+0.22	+0.08	+0.09	+0.29	+0.45	+0.27	+0.22	-0.07	+0.43
Production	-0.10	-0.26	0.00	-0.10	0.00	-0.25	-0.07	-0.22	+0.16	-0.17	-0.08	-0.27
Expected volume of production	0.37	+0.17	+0.51	+0.54	+0.62	+0.43	+0.40	+0.57	+0.22	+0.25	+0.23	+0.38
Domestic demand	+0.05	-0.07	+0.15	0.00	+0.16	+0.02	+0.07	-0.15	-0.13	+0.18	-0.09	-0.12
Expected volume of production	+0.27	+0.21	+0.37	+0.31	+0.35	+0.43	+0.31	+0.24	+0.20	+0.27	+0.20	+0.16
External demand	+0.06	-0.14	+0.17	+0.12	+0.28	-0.03	-0.14	-0.18	+0.00	+0.10	+0.22	0.00
Expected changes of external demand	+0.12	0.00	+0.25	+0.24	+0.31	+0.40	+0.14	-0.11	+0.14	+0.04	+0.29	+0.14
Sales	-0.07	-0.19	+0.01	-0.06	0.00	-0.29	0.00	-0.22	+0.13	-0.03	0.00	-0.23
Expected changes of sales	+0.40	+0.29	+0.57	+0.45	+0.57	+0.52	+0.53	+0.57	+0.41	+0.23	+0.27	+0.50
New orders	-0.03	-0.13	+0.01	0.00	+0.22	-0.09	-0.13	-0.37	+0.03	+0.03	-0.08	-0.15
Expected changes in new orders	+0.35	+0.27	+0.47	+0.35	+0.50	+0.49	+0.57	+0.56	+0.24	+0.28	+0.23	+0.12
Employment	-0.11	-0.13	-0.04	-0.19	-0.04	-0.21	-0.07	-0.22	+0.07	-0.13	-0.04	-0.08
Expected changes of employment	+0.05	+0.03	+0.07	+0.04	+0.09	+0.00	+0.14	+0.21	+0.07	0.00	+0.04	-0.04
Raw material price	+0.56	+0.40	+0.58	+0.67	+0.68	+0.74	+0.27	+0.63	+0.45	+0.43	+0.50	+0.27
Expected changes of raw material price	+0.22	+0.16	+0.27	+0.32	+0.43	+0.30	+0.14	+0.40	+0.08	+0.22	+0.10	+0.09
Sale price	+0.46	+0.40	+0.49	+0.46	+0.52	+0.52	+0.33	+0.59	+0.57	+0.32	+0.46	+0.31
Expected changes of sale price	+0.10	+0.06	+0.09	+0.20	+0.05	+0.16	+0.07	+0.26	-0.04	+0.06	+0.11	+0.14

Indicators	Size				Branch							
	All	Small	Middle	Large	Heavy	Mach	Woodpr	Const	Light	Food	Print	Other
Profitability	-0.08	-0.16	-0.01	-0.13	-0.09	-0.11	-0.07	-0.11	-0.09	-0.04	-0.13	-0.24
Expected changes of profitability	+0.08	-0.01	+0.14	+0.11	0.00	+0.17	+0.15	+0.05	+0.10	+0.02	-0.06	+0.08
Competitive pressure of domestic producers	+0.31	+0.25	+0.42	+0.25	+0.25	0.00	+0.20	+0.48	+0.42	+0.37	+0.43	+0.43
Competitive pressure of CIS producers	-0.02	-0.20	+0.08	+0.05	0.00	-0.30	0.00	+0.06	+0.17	-0.05	-0.24	+0.21
Competitive pressure of foreign producers	+0.05	-0.14	+0.09	+0.21	0.00	-0.19	+0.14	+0.15	+0.30	-0.05	-0.21	+0.26

Appendix 4: Obstacles to growth production (April/May 2019)

Obstacles of growth production	Size				Branch							
	All	Small	Middle	Large	Heavy	Mach	Woodpr	Const	Light	Food	Print	Other
Shortage of qualified employees	24.6	24.2	26.3	22.6	27.6	34.6	33.3	34.6	18.8	10.1	8.0	20.8
Shortage of new orders	51.1	48.4	52.6	54.7	41.4	50.0	33.3	50.0	50.0	40.6	76.0	41.7
Shortage of raw materials	21.0	18.8	21.1	26.4	34.5	23.1	0.00	23.1	18.8	21.7	12.0	0.0
Liquid problem	44.6	39.8	49.5	47.2	51.7	61.5	26.7	61.5	37.5	44.9	52.0	29.2
Unstable politic situation	27.5	26.6	25.3	34.0	24.1	19.2	33.3	19.2	25.0	29.0	16.0	45.8
Shortage of production power	9.4	13.3	7.4	3.8	6.9	19.2	0.00	19.2	9.4	10.1	4.0	16.7
Access of credits	6.5	7.8	3.2	9.4	6.9	7.7	13.3	7.7	9.4	5.8	0.0	0.0
Corruption	13.8	22.7	6.3	5.7	6.9	19.2	20.0	19.2	21.9	17.4	8.0	20.8
Energy supply problems	15.9	16.4	15.8	15.7	24.1	23.1	20.0	23.1	18.8	13.0	4.0	16.7
High regulatory pressure	18.8	22.7	13.7	18.9	13.8	26.9	20.0	26.9	25.0	13.0	20.0	20.8
Level of taxes	31.5	37.5	30.5	18.9	20.7	34.6	33.3	34.6	40.6	37.7	24.0	45.8
Outdated technology	13.8	16.4	12.6	9.4	10.3	23.1	20.0	23.1	9.4	13.0	16.0	8.3

High credit rate	26.1	20.3	33.7	26.4	31.0	26.9	53.3	26.9	15.6	31.9	16.0	25.0
Changes of economics	5.8	6.3	4.2	7.5	6.9	15.4	0.00	15.4	6.3	2.9	12.0	4.2
High competitive level	50.7	48.4	54.7	49.1	58.6	50.0	60.0	50.0	50.0	62.3	56.0	54.2
Other	6.2	9.4	2.1	5.7	10.3	11.5	0.0	11.5	9.4	2.9	12.0	4.2

Appendix 5: Indices over the years

Indicator	2016				2017				2018				2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Business environment	-0.24	-0.20	-0.18	-0.30	-0.09	-0.15	-0.17	-0.15	-0.13	-0.08	-0.02	-0.04	-0.2
Expected changes of business environment	0.22	-0.02	-0.01	+0.01	+0.25	+0.23	+0.15	+0.13	+0.27	+0.22	+0.15	+0.23	+0.13
Finance and economics situation	-0.29	-0.13	-0.14	-0.23	-0.15	-0.06	-0.05	-0.06	-0.13	-0.08	+0.06	-0.08	-0.03
Expected changes of finance and economics	+0.37	+0.07	+0.06	+0.07	+0.39	+0.26	+0.22	+0.23	+0.37	+0.39	+0.24	+0.28	+0.21
Production	-0.01	+0.33	+0.21	+0.07	-0.14	+0.22	+0.15	+0.15	-0.02	+0.15	+0.23	+0.12	-0.10
Expected changes of production	+0.37	+0.19	+0.23	-0.12	+0.38	+0.23	+0.28	-0.01	+0.28	+0.18	+0.18	-0.02	+0.37
Domestic demand	-0.02	+0.18	+0.12	+0.07	-0.19	+0.21	+0.07	+0.11	-0.08	+0.09	+0.10	+0.14	+0.05
Expected changes of domestic demand	+0.25	+0.01	+0.11	-0.29	+0.23	0.14	+0.15	-0.26	+0.17	+0.05	+0.15	-0.04	+0.27
External demand	-0.07	0.00	-0.01	-0.07	-0.10	+0.07	+0.06	+0.01	+0.01	+0.05	+0.07	+0.10	+0.06
Expected changes of external demand	0.07	-0.04	+0.10	-0.07	+0.07	+0.03	+0.10	-0.09	+0.05	+0.06	+0.16	+0.02	+0.12
Sales	-0.02	+0.33	+0.21	+0.11	-0.16	+0.30	+0.16	+0.20	-0.01	+0.21	+0.24	+0.14	-0.07
Expected changes of sales	+0.42	+0.18	+0.21	-0.21	+0.42	+0.24	+0.30	-0.10	+0.33	+0.22	+0.19	-0.05	+0.40
New orders	-0.05	+0.22	+0.06	+0.09	-0.02	+0.29	+0.21	+0.14	+0.03	+0.21	+0.21	+0.13	-0.03
Expected changes of orders	+0.39	+0.18	+0.18	+0.02	+0.44	+0.27	+0.25	0.00	+0.38	+0.25	+0.18	+0.04	+0.35
Employment	-0.10	-0.07	-0.08	-0.25	-0.22	-0.07	-0.09	-0.16	-0.18	-0.02	-0.02	-0.09	-0.11
Expected changes of employment	+0.04	0.00	-0.03	-0.15	+0.04	+0.04	-0.03	-0.02	+0.01	+0.03	-0.04	-0.07	+0.05
Raw material price	+0.61	+0.47	+0.66	+0.74	+0.71	+0.62	+0.73	+0.66	+0.62	+0.59	+0.59	+0.56	+0.56
Expected changes of raw material price	+0.22	+0.31	+0.38	+0.60	+0.29	+0.22	+0.33	+0.50	+0.28	+0.32	+0.39	+0.41	+0.22
Realization price	+0.43	+0.38	+0.45	+0.42	+0.62	+0.30	+0.54	+0.39	+0.46	+0.44	+0.37	+0.36	+0.46

Expected changes of realization price	+0.15	+0.14	+0.19	+0.37	+0.19	+0.24	+0.25	+0.31	+0.13	+0.18	+0.21	+0.26	+0.10
Profitability	-0.12	+0.02	+0.01	+0.01	-0.03	+0.11	+0.06	+0.06	-0.05	+0.06	+0.11	-0.01	-0.08
Expected changes of profitability	+0.10	0.0	0.0	-0.04	+0.19	+0.11	+0.10	-0.10	+0.13	+0.10	+0.01	-0.07	+0.08
Index	2016				2017				2018				2019
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Competitive pressure	+0.12	+0.21	+0.15	+0.12	+0.19	+0.16	+0.38	+0.20	+0.29	+0.23	+0.08	+0.23	+0.31
Competitive pressure of CIS producers	-0.18	-0.23	-0.18	-0.26	-0.31	-0.39	-0.18	-0.27	-0.10	-0.12	-0.15	-0.18	-0.02
Competitive pressure of foreign producers	-0.10	-0.14	-0.18	-0.15	-0.29	-0.28	-0.16	-0.28	-0.05	-0.04	-0.20	-0.10	+0.05