

ISSN: 1991-3494 (Print)
ISSN: 2518-1467 (Online)



**SCIENTIFIC JOURNAL OF
PEDAGOGY AND ECONOMICS**

**№6
2025**

ISSN 2518-1467 (Online),
ISSN 1991-3494 (Print)



SCIENTIFIC JOURNAL OF PEDAGOGY AND ECONOMICS

PUBLISHED SINCE 1944

6 (418)

November – December 2025

ALMATY, 2025

EDITOR-IN-CHIEF:

ABYLKASSIMOVA Alma Yesimbekovna, Doctor of Pedagogical Sciences, Professor, Academician of NAS RK, Director of the Center for the Development of Pedagogical Education, Head of the Department of Methods of Teaching Mathematics, Physics and Computer Science at Abai KazNPU (Almaty, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=57191275199>, <https://www.webofscience.com/wos/author/record/2076124>.

DEPUTY EDITOR-IN-CHIEF:

SEMBIEVA Lyazzat Myktybekovna, Doctor of Economics, Professor of the Eurasian National University (Astana, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=57194226348>, <https://www.webofscience.com/wos/author/record/38875302>.

EDITORIAL BOARD:

RICHELLE Marynowski, PhD in Education, Professor, Faculty of Education, University of Lethbridge, (Alberta, Canada), <https://www.scopus.com/authid/detail.uri?authorId=57070452800>, <https://www.webofscience.com/wos/author/record/16130920>.

SHISHOV Sergey Evgenievich, Doctor of Pedagogical Sciences, Professor, Head of the Department of Pedagogy and Psychology of Professional Education, Moscow State University of Technology and Management named after K. Razumovsky (Moscow, Russia), <https://www.scopus.com/authid/detail.uri?authorId=57191518233>, <https://www.webofscience.com/wos/author/record/2443966>.

ABILDINA Saltanat Kuatovna, Doctor of Pedagogical Sciences, Professor, Head of the Department of Pedagogy, Karaganda University named after E.A. Buketov (Karaganda, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=56128026400>, <https://www.webofscience.com/wos/author/record/4131549>.

RYZHAKOV Mikhail Viktorovich, Doctor of Pedagogical Sciences, Professor, Academician of the Russian Academy of Education, Editor-in-Chief of the journal "Standards and Monitoring in Education" (Moscow, Russia), <https://www.scopus.com/authid/detail.uri?authorId=6602245542>, <https://www.webofscience.com/wos/author/record/13675462>.

BULATBAEVA Kulzhanat Nurymzhanovna, Doctor of Pedagogical Sciences, Professor, Chief Researcher of the National Academy of Education named after Y. Altynsarin (Astana, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=57202195074>, <https://www.webofscience.com/wos/author/record/40173122>.

PETR Hájek, PhD, Unicorn University, Associate Professor, Department of Finance, (Czech Republic), <https://www.scopus.com/authid/detail.uri?authorId=35726855800>, <https://www.webofscience.com/wos/author/record/672404>.

JUMAN Jappar, Doctor of Economics, Professor, Honorary Academician of NAS RK, Honored Worker of Kazakhstan, Director of the Center for International Applied Research Al-Farabi Kazakh National University (Almaty, Kazakhstan) <https://www.scopus.com/authid/detail.uri?authorId=59238481900>; <https://www.scopus.com/authid/detail.uri?authorId=56658765400>, <https://www.webofscience.com/wos/author/record/60977874>.

LUKYANENKO Irina Grigorievna, Doctor of Economics, Professor, Head of Department of the National University of Kyiv-Mohyla Academy (Kyiv, Ukraine), <https://www.scopus.com/authid/detail.uri?authorId=57189348551>, <https://www.webofscience.com/wos/author/record/939510>.

YESIMZHANOVA Saira Rafihevna, Doctor of Economics, Professor of the University of International Business (Almaty, Kazakhstan), <https://www.scopus.com/authid/detail.uri?authorId=56499485500>, <https://www.webofscience.com/wos/author/record/45951098>.

Scientific Journal of Pedagogy and Economics

ISSN 2518-1467 (Online),

ISSN 1991-3494 (Print).

Owner: «Central Asian Academic Research Center» LLP (Almaty).

The certificate of registration of a periodical printed publication in the Committee of information of the Ministry of Information and Communications of the Republic of Kazakhstan

Nº KZ50VPY00121155, issued on 05.06.2025

Thematic focus: «*publication of the results of new achievements in the field of fundamental sciences*»

Periodicity: 6 times a year.

<http://www.bulletin-science.kz/index.php/en/>

© «Central Asian Academic Research Center» LLP, 2025



БАС РЕДАКТОР:

ӘБІЛҚАСЫМОВА Алма Есімбекқызы, педагогика ғылымдарының докторы, профессор, КР ҮФА академигі, Педагогикалық білім беруді дамыту орталығының директоры, Абай атындағы ҚазҰПУ математика, физика және информатиканы оқыту әдістемесі кафедрасының менгерушісі (Алматы, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=57191275199>, <https://www.webofscience.com/wos/author/record/2076124>.

БАС РЕДАКТОРДЫҢ ОРЫНБАСАРЫ:

СЕМБИЕВА Ләззат Мықтыбекқызы, экономика ғылымдарының докторы, Л.Н.Гумилев атындағы Еуразия ұлттық университетінің профессоры (Астана, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=57194226348>, <https://www.webofscience.com/wos/author/record/38875302>.

РЕДАКЦИЯ АЛҚАСЫ:

РИШЕЛЬ Мариновски, білім беру саласындағы PhD, Летбридж университеті педагогика факультетінің профессоры, (Альберта, Канада), <https://www.scopus.com/authid/detail.uri?authorId=57070452800>, <https://www.webofscience.com/wos/author/record/16130920>.

ШИШОВ Сергей Евгеньевич, педагогика ғылымдарының докторы, профессор, К.Разумовский атындағы Мәскеу мемлекеттік технологиялар және басқару университетінің кәсіби білім беру педагогикасы және психологиясы кафедрасының менгерушісі (Мәскеу, Ресей), <https://www.scopus.com/authid/detail.uri?authorId=57191518233>, <https://www.webofscience.com/wos/author/record/2443966>.

ӘБІЛДИНА Салтанат Қуатқызы, педагогика ғылымдарының докторы, профессор, Е.А.Бекетов атындағы Қарағанды университетінің педагогика кафедрасының менгерушісі (Қарағанды, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=56128026400>, <https://www.webofscience.com/wos/author/record/4131549>.

РЫЖАКОВ Михаил Викторович, педагогика ғылымдарының докторы, профессор, Ресей білім академиясының академигі, «Білім берудегі стандарттар мен мониторинг» журналының бас редакторы (Мәскеу, Ресей), <https://www.scopus.com/authid/detail.uri?authorId=6602245542>, <https://www.webofscience.com/wos/author/record/13675462>.

БОЛАТБАЕВА Құлжанат Нұрымжанқызы, педагогика ғылымдарының докторы, профессор, І. Алтынсарин атындағы Үлттүк білім академиясының бас ғылыми қызметкери (Астана, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=57202195074>, <https://www.webofscience.com/wos/author/record/40173122>.

ПЕТР Хайек, PhD, Юниорн университеті, Қаржы департаментінің қауымдастырылған профессоры (Чех Республикасы), <https://www.scopus.com/authid/detail.uri?authorId=35726855800>, <https://www.webofscience.com/wos/author/record/672404>.

ЖҰМАН Жаппар, экономика ғылымдарының докторы, профессор, Қазақстанның Еңбек сіңірген қайраткері, КР ҮФА құрметті академигі, әл-Фараби атындағы Қазақ ұлттық университетінің Халықаралық колданбалы зерттеулер орталығының директоры (Алматы, Қазақстан). <https://www.scopus.com/authid/detail.uri?authorId=59238481900>, <https://www.scopus.com/authid/detail.uri?authorId=56658765400>, <https://www.webofscience.com/wos/author/record/60977874>.

ЛУКЬЯНЕНКО Ирина Григорьевна, экономика ғылымдарының докторы, профессор, «Киево-Могилянская академия» ұлттық университеті кафедрасының менгерушісі (Киев, Украина), <https://www.scopus.com/authid/detail.uri?authorId=57189348551>, <https://www.webofscience.com/wos/author/record/939510>.

ЕСІМЖАНОВА Сайра Рафихқызы, экономика ғылымдарының докторы, Халықаралық бизнес университетінің профессоры (Алматы, Қазақстан), <https://www.scopus.com/authid/detail.uri?authorId=56499485500>, <https://www.webofscience.com/wos/author/record/45951098>.

Scientific Journal of Pedagogy and Economics

ISSN 2518-1467 (Online),

ISSN 1991-3494 (Print).

Меншіктенуші: «Орталық Азия академиялық ғылыми орталығы» ЖШС (Алматы к.).

Қазақстан Республикасының Ақпарат және коммуникациялар министрлігінің Ақпарат комитетінде 05.06.2025 ж. берілген № **KZ50V PY00121155** мерзімдік басылым тіркеуіне койылу туралы қуәлік. Такырыптық бағыты: «іргелі ғылым салалары бойынша жаңа жетістіктердің нағижендерін жариялау»

Мерзімділігі: жылына 6 рет.

<http://www.bulletin-science.kz/index.php/en/>

© «Орталық Азия академиялық ғылыми орталығы» ЖШС, 2025

ГЛАВНЫЙ РЕДАКТОР:

АБЫЛКАСЫМОВА Алма Есимбековна, доктор педагогических наук, профессор, академик НАН РК, директор Центра развития педагогического образования, заведующая кафедрой методики преподавания математики, физики и информатики КазНПУ им. Абая (Алматы, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=57191275199>, <https://www.webofscience.com/wos/author/record/2076124>.

ЗАМЕСТИТЕЛЬ ГЛАВНОГО РЕДАКТОРА:

СЕМБИЕВА Ляззат Мыктыбековна, доктор экономических наук, профессор Евразийского национального университета им. Л.Н. Гумилева (Астана, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=57194226348>, <https://www.webofscience.com/wos/author/record/38875302>.

РЕДАКЦИОННАЯ КОЛЛЕГИЯ:

РИШЕЛЬ Мариновски, PhD в области образования, профессор факультета педагогики Летбриджского университета, (Альберта, Канада), <https://www.scopus.com/authid/detail.uri?authorId=57070452800>, <https://www.webofscience.com/wos/author/record/16130920>.

ШИШОВ Сергей Евгеньевич, доктор педагогических наук, профессор, заведующий кафедрой педагогики и психологии профессионального образования Московского государственного университета технологий и управления имени К. Разумовского (Москва, Россия), <https://www.scopus.com/authid/detail.uri?authorId=57191518233>, <https://www.webofscience.com/wos/author/record/2443966>.

АБИЛЬДИНА Салтанат Куатовна, доктор педагогических наук, профессор, заведующая кафедрой педагогики Карагандинского университета имени Е.А. Букетова (Караганда, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=56128026400>, <https://www.webofscience.com/wos/author/record/4131549>.

РЫЖАКОВ Михаил Викторович, доктор педагогических наук, профессор, академик Российской академии образования, главный редактор журнала «Стандарты и мониторинг в образовании» (Москва, Россия), <https://www.scopus.com/authid/detail.uri?authorId=6602245542>, <https://www.webofscience.com/wos/author/record/13675462>.

БУЛАТБАЕВА Кулжанат Нурымжановна, доктор педагогических наук, профессор, главный научный сотрудник Национальной академии образования имени І. Алтынсарина (Астана, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=57202195074>, <https://www.webofscience.com/wos/author/record/40173122>.

ПЕТР Хайек, PhD, университет Юникорн, ассоциированный профессор Департамента финансов, (Чешская Республика), <https://www.scopus.com/authid/detail.uri?authorId=35726855800>, <https://www.webofscience.com/wos/author/record/672404>.

ЖУМАН Жаппар, доктор экономических наук, профессор, заслуженный деятель Казахстана, почетный академик НАН РК, директор Центра Международных прикладных исследований Казахского национального университета им. аль-Фараби (Алматы, Казахстан) <https://www.scopus.com/authid/detail.uri?authorId=59238481900>, <https://www.scopus.com/authid/detail.uri?authorId=56658765400>, <https://www.webofscience.com/wos/author/record/60977874>.

ЛУКЬЯНЕНКО Ирина Григорьевна, доктор экономических наук, профессор, заведующая кафедрой Национального университета «Киево-Могилянская академия» (Киев, Украина), <https://www.scopus.com/authid/detail.uri?authorId=57189348551>, <https://www.webofscience.com/wos/author/record/939510>.

ЕСИМЖАНОВА Сайра Рафихевна, доктор экономических наук, профессор Университета международного бизнеса (Алматы, Казахстан), <https://www.scopus.com/authid/detail.uri?authorId=56499485500>, <https://www.webofscience.com/wos/author/record/45951098>.

Scientific Journal of Pedagogy and Economics

ISSN 2518-1467 (Online),

ISSN 1991-3494 (Print).

Собственник: ТОО «Центрально-азиатский академический научный центр» (г. Алматы).

Свидетельство о постановке на учет периодического печатного издания в Комитете информации Министерства информации и коммуникаций и Республики Казахстан

№ KZ50VPY00121155 выданное 05.06.2025 г.

Тематическая направленность: «публикация результатов новых достижений в области фундаментальных наук».

Периодичность: 6 раз в год.

<http://www.bulletin-science.kz/index.php/en/>

© ТОО «Центрально-азиатский академический научный центр», 2025



CONTENTS

PEDAGOGY

N.A. Abdikayumova, G.M. Madybekova, H. Kadayifçi AI-supported learning in secondary chemistry education.....	17
A. Abdrassilov, K. Yeralin, M. Kassymov Methodological principles of using modern digital tools in teaching fine arts.....	30
M.S. Balganova, E.T. Adylbekova, H.I. Bulbul Pedagogical conditions for using blended learning methods in the training of information teachers.....	45
G.S. Bekenova, Zh.A. Abilbek, B.D. Zhumakayeva Using case method in teaching chemistry.....	67
A.M. Berdibek, A.M. Kudaibergenova Enhancing the effectiveness of professional training through the integration of case-study, a systemic approach, and positive psychology.....	80
D.A. Bildebayeva, R.U. Shanayev, K.N. Galay Active-productive reading in grade 7: epic prose of I. A. Odegov and G. K. Belger.....	95
K.N. Bulatbaeva, M.G. Smagulova Pedagogical foundations of training future foreign language teachers.....	110
Zh.B. Burayeva, D.S. Zharkinbayeva, K.K. Kabekeyeva Pedagogical conditions for ridding adolescents of internet addiction.....	130
D. Dauirbayeva, A. Bulshekbayeva Opportunities of multisensory methods in developing connected speech of middle preschool-aged children.....	145
N.N. Dildabekova, A.A. Kudysheva Research based teaching and its role in developing lifelong learning skills in South region of Kazakhstan.....	164
A.Zh. Dossanova, F.Z. Jaxylykova, S.K. Akhtanova The role of M.Zh. Kopeev's poem «Gibratnama» in education of youth in the fundamentals of a humanistic worldview.....	178

G. S. Yeshimbetova, G. Baitasheva, G. D. Yessentureyeva

Development and testing of qualimetric learning materials for measuring the effectiveness of field practice.....196

B.N. Igenbayeva, M.R. Smykova, Y.Zh. Shildibekov

Developing entrepreneurial learning through a society and industry challenges approach.....214

T. Igenbay, G. Apeyeva, Ali Ilgin

Application of digital and differentiated methods in inclusive teaching of literary texts in higher education.....244

B.D. Karbozova, N.N. Orazkhan, A.A. Rakulova

The importance of using artificial intelligence technologies in language learning.....258

Zh.A. Karimova, I.V. Safronova

Problems and prospects of studying literary serials in the educational process....273

G.M. Madybekova, T.B. Zabynbekova, K.Z. Kerimbayeva

The role of project-based learning technology in developing research skills of future chemistry teachers.....293

G.A. Nazarova, R.B. Zhandavletova, A.Zh. Berdenkulova

The potential of constructivist learning theory in mastering science education....307

A.K. Oralbekova, S.B. Begalieva, Zh.D. Abdullayeva

The influence of educational technologies on school–university interaction.....320

P. Pilten, G. Pilten, N. Şahinkaya

Evaluation of prospective teachers in terms of metacognitive thinking skills.....336

Tolkynbayeva A.K., Izmagambetova R.K., Baikulova A.M.

Review of scientific research articles on STEM education in Kazakhstan.....350

A.I. Shertser

Pedagogical conditions for the development of students' research skills through the use of the case study method.....362

A. Shormakova, A. Utegenova, A. Almautova

Genre specifics of the diary and the relevance of his teaching.....373

N.T. Shyndaliev, A.S. Serikkazy, G.F. Nurbekova

The application of big data and artificial intelligence in education.....385



ECONOMICS

M.A. Aitkazina, E.A. Ruziyeva, N. E. Dabyltayeva Digitalization of financial instruments of state regulation in the green economy.....	397
S.N. Alpysbayeva, B.G. Mukan, A.I. Tazabekov Long-term macroeconomic trends in Kazakhstan: projection to regions.....	412
G.B. Bermukhamedova, A.B. Tlessova, Zh. Gabbassova The creative potential of the region's economy.....	426
F.K. Yerdavletova, G.N. Appakova, A.A. Mutaliyeva Digitalization of accounting: theory, practice, and impact on auditing.....	440
J. Juman, K.S. Mukhtarova, Zhang Liao China and Central Asia: prospects for economic cooperation in the context of global changes.....	454
E. Zhussipova, A. Aitymbetova, A. Dossaliyeva Improving financing mechanisms for public services in secondary education.....	472
A.K. Karbozova, T.S. Sokira, S. Manich Identification of core drivers of sustainable socio-economic development of Kazakhstan.....	489
M.O. Kenzhegul, Zh.K. Zhanabayeva, S.A. Azylkanova Innovative and digital technologies in human capital development: foreign experience.....	506
N. Kaparov, M. Zhamkeyeva, A. Kabieva Evolution of Kazakhstan's investment climate and the inflow of foreign direct investment into the real sector.....	521
D.A. Kulanova, K.K. Nurasheva, J.M. Seisenbayeva Formation of an innovative enterprise management structure in cotton processing using artificial intelligence.....	541
E. Maulenkulova, A.N. Aitymbetova, A.M. Appazova Prospects of using technical analysis methods in forecasting the dynamics of the Kazakhstan stock market.....	565

M.R. Salikhov, R.Sh. Takhtayeva

Analysis of the current economic state of the tourism industry in
East Kazakhstan region.....578

A.A. Satmurzaev, T.Zh. Niyazov, R.Zh. Duiskenova

Economic and social benefits of digitalization.....599

Z.K. Chulanova, M.Zh. Konyrbekov, A.A. Kireyeva

Integration of Kazakhstan's regions into R&D and the development
of their intellectual potential.....615

L. Shayakhmetova, A. Bekmagambetov, A. Koval

Occupational safety and social protection in harmful work conditions.....628

МАЗМҰНЫ

ПЕДАГОГИКА

Н.А. Абдиқаюмова, Г.М. Мадыбекова, Х. Кадайифчи	
Орта мектепте химияны жасанды интеллект қолдауымен оқыту.....	17
А.И. Абдрасилов, Қ. Ералин, М. Касымов	
Бейнелеу өнері пәнін оқытуда заманауи цифрлық құралдарды қолданудың әдістемелік негіздері.....	30
М.С. Балғанова, Э.Т. Адылбекова, Х.И. Булбул	
Информатика мұғалімдерін даярлауда аралас оқыту модельдерін қолданудың педагогикалық шарттары.....	45
Г.С. Бекенова, Ж.Ә. Әбілбек, Б.Ж. Жұмакаева	
Химияны оқытуда кейс әдісін қолдану.....	67
А.М. Бердібек, А.М. Кудайбергенова	
Case-study, жүйелік тәсіл және позитивті психология интеграциясы арқылы кәсіби даярлықтың тиімділігін арттыру.....	80
Д.А. Билдебаева, Р.У. Шанаев, К.Н. Галай	
7-сыныптағы белсенді-өнімді оқу: И. А. Одегов пен Г. К. Бельгердің әпикалық прозасы.....	95
К.Н. Булатбаева, М.Г. Смагулова	
Болашақ шет тілі мұғалімдерін даярлаудың педагогикалық негіздері.....	110
Ж.Б. Бураева, Д.С. Жаркинбаева, К.К. Кабекеева	
Жасөспірімдерді интернетке тәуелділікten арылтудың педагогикалық шарттары.....	130
Д.С. Дауірбаева, А.И. Булшекбаева	
Мектеп жасына дейінгі органды топ балаларының байланыстырып сөйлеуін дамытудағы мультисенсорлық әдістердің мүмкіндіктері.....	145
Н.Н. Дильдабекова, А.А.Кудышева	
Қазақстанның Оңтүстік өңіріндегі зерттеуге негізделген оқыту және оның үздіксіз білім алушы дамытудағы рөлі.....	164
А.Ж. Досанова, Ф.З. Джаксылымова, С.К. Ахтанова	
М.Ж. Көпееvtің «Фибратнама» өлеңінің жастарды гуманистік дүниетаным негіздеріне тәрбиелеудегі орны.....	178

Г.С. Ешимбетова, Г. Байташева, Г.Д. Есентуреева

Оку-өндірістік практиканың тиімділігін өлшеуге арналған квалиметриялық оқу материалдарын әзірлеу және апробациясы.....196

Б.Н. Игенбаева, М.Р. Смыкова, Е.Ж. Шильдібеков

Қыындықтарға негізделген тәсілді әзірлеу арқылы кәсіпкерлік оқуды нағайту.....214

Т. Игенбай, Г. Апеева, Али Илгин

Жоғары оқу орындарында әдеби мәтіндерді инклюзивті оқытуда цифрлық және сараланған әдістерді қолдану.....244

Б.Д. Карбозова, Н.Н. Оразхан, А.А. Ракимқурова

Тіл үйренуде жасанды интеллект технологияларын қолданудың маңыздылығы.....258

Ж.А. Каримова, Л.В. Сафронова

Оқу үдерісінде әдеби сериялдарды зерделеудің өзекті мәселелері мен болашағы.....273

Г.М. Мадыбекова, Т.Б. Забынбекова, К.З. Керимбаева

Болашақ химия педагогтерінің зерттеу дағдыларын жетілдіруде жобалық оқыту технологиясының маңызы.....293

Г.А. Назарова, Р.Б. Жандавлетова, А.Ж. Берденқурова

Жаратылыстану білімін менгертуде конструктивистік оқыту теориясының мүмкіндіктері.....307

А.К. Оралбекова, С.Б. Бегалиева, Ж.Д. Абдуллаева

Білім беру технологияларының мектеп пен университеттің өзара әрекеттесуіне әсері.....320

П. Пилтен, Г. Пилтен, Н. Шахинкайя

Болашақ мұғалімдерді метакогнитивті ойлау дағдылары тұрғысынан бағалау.....336

Ә.К. Толқынбаева, Р.К. Измагамбетова, А.М. Байкулова

STEM білім беру бойынша Қазақстандағы ғылыми зерттеу мақалаларына шолу.....350

А.И. Шерцер

Case study әдістемесін пайдалану арқылы оқушылардың зерттеу дағдыларын дамытудың педагогикалық шарттары.....362

А. Шормақова, А. Өтегенова, А. Алмаутова Күнделіктің жанрлық ерекшелігі және оны оқытудың өзектілігі.....	373
Н.Т. Шындалиев, Э.С. Серікқазы, Г.Ф. Нурбекова Білім беру саласында үлкен деректер мен жасанды интеллектті қолдану.....	385
ЭКОНОМИКА	
М.А. Айтказина, Э.А. Рузиева, Н.Е. Дабылтаева Жасыл экономикадағы мемлекеттік реттеудің қаржылық құралдарын цифрландыру.....	397
С.Н. Алпысбаева, Б.Ғ. Мұқан, А.И. Тазабеков Қазақстанның ұзақмерзімді макроэкономикалық үрдістері: аймақтарға проекция.....	411
Г.Б. Бермухамедова, А.Б. Тлесова, Ж.Ж. Габбасова Аймақ экономикасының шығармашылық әлеуеті.....	426
Ф.К. Ердавлетова, Г.Н. Аппакова, А.А. Муталиева Бухгалтерлік есепті цифрландыру: теориясы, тәжірибесі және аудитке әсері.....	440
Ж. Жұман, К.С. Мұхтарова, Liao Zhang Қытай және Орталық Азия: жаһандық өзгерістер жағдайындағы экономикалық ынтымақтастықтың болашағы.....	454
Ә. Жусипова, А. Айтымбетова, Ә. Досалиева Орта білім беру саласында мемлекеттік қызыметтерді қаржыландыру тетіктерін жетілдіру.....	472
А.К. Карбозова, Т.С. Сокира, С. Манич Қазақстанның тұрақты әлеуметтік-экономикалық дамуының индикаторларын айқындау.....	489
М.О. Қенжеғұл, Ж.К. Жанабаева, С.А. Азылқанова Адам капиталын дамытудағы инновациялық және цифрлық технологиялар: шетел тәжірибесі.....	506
Н.М. Қапаров, М.К. Жамкеева, А.Т. Кабиева Қазақстанның инвестициялық климатының эволюциясы және шетелдік инвестициялардың тікелей нақты секторға келуі.....	521

Д.А. Қуланова, К.К. Нурашева, Ж.М. Сейсенбаева

Жасанды интеллект көмегімен макта өндеуде кәсіпорынды басқарудың
инновациялық құрылымын қалыптастыру.....541

Г.Е. Мауленқулова, А.Н. Айтымбетова, А.М. Аппазова

Қазақстанның қор нарығы акциясының динамикасын болжау кезінде
техникалық талдау әдістерін қолдану перспективалары.....565

М.Р. Салихов, Р.Ш. Тахтаева

Шығыс Қазақстан облысындағы туристік индустрияның қазіргі
экономикалық жағдайын талдау.....578

А.А Сатмурзаев, Т.Ж. Ниязов, Р.Ж. Дүйсенова

Цифрландырудың экономикалық және әлеуметтік жағынан пайдалы
әсерлері.....599

З.К. Чуланова, М.Ж. Қонырбеков, А.А. Киреева

Қазақстан өңірлерінің ГЗТКЖ-га интеграциясы және олардың зияткерлік
әлеуетін дамыту.....615

Л.М. Шаяхметова, А.Б. Бекмагамбетов, А.П. Коваль

Зиянды еңбек жағдайларында еңбек қауіпсіздігі және әлеуметтік
қорғау.....628

СОДЕРЖАНИЕ

ПЕДАГОГИКА

Н.А. Абдиқаюмова, Г.М. Мадыбекова, Х. Кадайифчи Обучение химии в средней школе с поддержкой искусственного интеллекта.....	17
А.И. Абдрасилов, К. Ералин, М. Касымов Методические основы использования современных цифровых инструментов в преподавании изобразительного искусства.....	30
М.С. Балганова, Э.Т. Адылбекова, Х.И. Булбул Педагогические условия использования методов смешанного обучения при подготовке преподавателей информации.....	45
Г.С. Бекенова, Ж.А. Абильбек, Б.Ж. Жумакаева Использование кейс-метода в обучении химии.....	67
А.М. Бердібек, А.М. Кудайбергенова Повышение эффективности профессиональной подготовки интеграцией case-study, системного подхода и позитивной психологии.....	80
Д.А. Билдебаева, Р.У. Шанаев, К.Н. Галай Активно-продуктивное чтение в 7 классе: эпическая проза И.А. Одегова и Г.К. Бельгера.....	95
К.Н. Булатбаева, М.Г. Смагулова Педагогические основы подготовки будущих учителей иностранного языка.....	110
Ж.Б. Бураева, Д.С. Жаркинбаева, К.К. Кабекеева Педагогические условия преодоления интернет-зависимости подростков.....	130
Д.С. Дауірбаева, А.И. Булшекбаева Возможности мультисенсорных методов в развитии связной речи детей среднего дошкольного возраста.....	145
Н.Н. Дильдабекова, А.А. Кудышева Обучение на основе исследования и его роль в развитии навыков непрерывного образования в Южном регионе Казахстана.....	164

А.Ж. Досанова, Ф.З. Джаксылышова, С.К. Ахтанова

Гуманистическое мировоззрение М. Ж. Копеева в стихотворении
«Гибратнама» и его воспитательный потенциал для молодежи.....178

Г.С. Ешимбетова, Г. Байташева, Г.Д. Есентуреева

Разработка и апробация квалиметрических учебных материалов для
измерения эффективности учебно-полевой практики.....196

Б.Н. Игенбаева, М.Р. Смыкова, Е.Ж. Шильдикбеков

Усиление предпринимательского обучения через развития подхода,
 основанного на вызовах.....214

Т. Игенбай, Г. Аpeeва, Али Илгин

Применение цифровых и дифференцированных методов в инклюзивном
 обучении литературных текстов в высших учебных заведениях.....244

Б.Д. Карбозова, Н.Н. Оразхан, А.А. Ракимкулова

Важность использования технологий искусственного интеллекта
 при изучении языка.....258

Ж.А. Каримова, Л.В. Сафонова

Проблемы и перспективы изучения литературных сериалов в учебном
 процессе.....273

Г.М. Мадыбекова, Т.Б. Забынбекова, К.З. Керимбаева

Значение технологии проектного обучения в развитии исследовательских
 навыков будущих учителей химии.....293

Г.А. Назарова, Р.Б. Жандавлетова, А.Ж. Берден

Возможности конструктивистской теории обучения в освоении,
 естественно-научного, образования.....307

А.К. Оралбекова, С.Б. Бегалиева, Ж.Д. Абдуллаева

Влияние образовательных технологий на взаимодействие школы
 и университета.....320

П. Пилтен, Г. Пилтен, Н. Шахинская

Оценка будущих учителей с точки зрения метакогнитивных навыков
 мышления.....336

А.К. Толкынбаева, Р.К. Измагамбетова, А.М. Байкулова

Обзор научно-исследовательских статей по STEM-образованию
 в Казахстане.....350

А.И. Шерцер

Педагогические условия развития исследовательских умений учащихся
через использование методики case study.....362

А. Шормакова, А. Утегенова, А. Алмаутова

Жанровая специфика дневника и актуальность его преподавания.....373

Н.Т. Шындалиев, А.С. Серикказы, Г.Ф. Нурбекова

Применение больших данных и искусственного интеллекта
в сфере образования.....385

ЭКОНОМИКА**М.А. Айтказина, Э.А. Рузиева, Н.Е. Дабылтаева**

Цифровизация финансовых инструментов государственного регулирования
в зелёной экономике.....397

С.Н. Алпысбаева, Б.Г. Мұқан, А.И. Тазабеков

Долгосрочные макроэкономические тренды Казахстана:
проекция на регионы.....411

Г.Б. Бермухамедова, А.Б. Тлесова, Ж.Ж. Габбасова

Креативный потенциал экономики региона.....426

Ф.К. Ердавлетова, Г.Н. Аппакова, А.А. Муталиева

Цифровизация бухгалтерского учета: теория, практика
и влияние на аудит.....440

Ж. Жуман, К.С. Мухтарова, Liao Zhang

Китай и Центральная Азия: перспективы экономического сотрудничества
в условиях глобальных перемен.....454

Э. Жусипова, А. Айтymbетова, А. Досалиева

Совершенствование механизмов финансирования государственных услуг
в сфере среднего образования.....472

А.К. Карбозова, Т.С. Сокира, С. Манич

Определение ядерных драйверов устойчивого социально-экономического
развития Казахстана.....489

М.О. Кенжегул, Ж.К. Жанабаева, С.А. Азылканова

Инновационные и цифровые технологии в развитии человеческого капитала:
зарубежный опыт.....506

Н.М. Капаров, М.К. Жамкеева, А.Т. Кабиева Эволюция инвестиционного климата Казахстана и приток иностранных инвестиций в реальный сектор.....	521
Д.А. Куланова, К.К. Нурашева, Ж.М. Сейсенбаева Формирование инновационной структуры управления предприятием по переработке хлопка с использованием искусственного интеллекта.....	541
Г.Е. Мауленкулова, А.Н. Айтymbетова, А.М. Аппазова Перспективы применения методов технического анализа при прогнозировании динамики акции фондового рынка казахстана.....	565
М.Р. Салихов, Р.Ш. Тахтаева Анализ текущего экономического состояния туристской индустрии в Восточно-Казахстанской области.....	578
А.А. Сатмурзаев, Т.Ж. Ниязов, Р.Ж. Дүйсекенова Экономические и социальные преимущества цифровизации.....	599
З.К. Чулanova, М.Ж. Конырбеков, А.А. Киреева Интеграция регионов Казахстана в НИОКР и развитие их интеллектуального потенциала.....	615
Л.М. Шаяхметова, А.Б. Бекмагамбетов, А.П. Коваль Охрана труда и социальная защита работников с вредными условиями труда.....	628

© N. Kaparov¹, M. Zhamkeyeva², A. Kabieva^{3*}, 2025.

¹Turan University, Almaty, Kazakhstan;

JSC “Kazakhstan Industry and Export Center QazIndustry”, Astana, Kazakhstan;

²K. Kulazhanov Kazakh Technological University, Astana, Kazakhstan.

E-mail: asem_kt_1985@mail.ru

EVOLUTION OF KAZAKHSTAN’S INVESTMENT CLIMATE AND THE INFLOW OF FOREIGN DIRECT INVESTMENT INTO THE REAL SECTOR

Kaparov Nurtaza — PhD student (3rd year), Turan University, Almaty, Kazakhstan,

E-mail: librarymil@gmail.com, ORCID: <https://orcid.org/0000-0003-4613-1148>;

Zhamkeyeva Makhabbat — PhD, JSC “Kazakhstan Industry and Export Center QazIndustry”, Astana, Kazakhstan,

E-mail: zh.makhabbat@mail.ru, ORCID: <https://orcid.org/0000-0003-4465-4754>;

Kabieva Asem* — PhD, Assistant Professor, Department of Finance and Accounting, K. Kulazhanov Kazakh Technological University, Astana, Kazakhstan,

E-mail: asem_kt_1985@mail.ru, ORCID: <https://orcid.org/0000-0002-8465-6984>.

Abstract. *Relevance of the study* is determined by the strategic importance of enhancing Kazakhstan’s investment attractiveness and increasing foreign direct investment (FDI) inflows into the real sector. Over the period 2000–2024, the country’s investment climate has undergone significant transformation under the influence of external shocks, institutional reforms, and shifting development priorities, necessitating comprehensive analytical assessment. *The purpose of the study* is to analyze the evolution of Kazakhstan’s investment climate and assess its impact on FDI inflows into the real sector from institutional, macroeconomic, and structural perspectives. *Research methods* include comparative and economic-statistical analysis based on data from the National Bank of the Republic of Kazakhstan, the Bureau of National Statistics, UNCTAD, the World Bank, and the OECD, as well as econometric techniques such as OLS regression, the ARDL model, and cointegration analysis. *Research results* indicate a gradual decline in the share of the extractive sector in the FDI structure, accompanied by increasing investment in manufacturing, logistics, the financial sector, the agro-industrial complex, and the IT industry. Kazakhstan has strengthened its position as a regional industrial and transit hub by attracting capital from the Netherlands, the United States, Switzerland, China, and

Turkey. The findings also confirm that macroeconomic stability, institutional quality, and economic openness are key determinants of FDI inflows, whereas resource dependence negatively affects long-term investment growth. *Practical significance* lies in applying the results to improve investment policy, develop diversification strategies, and support sustainable foreign capital inflows into the real sector.

Keywords: investment climate, FDI, institutions, econometrics, KICI, Kazakhstan

© Н.М. Қапаров¹, М.К. Жамкеева², А.Т. Кабиева^{3*}, 2025.

¹Тұран университеті, Алматы, Қазақстан;

²«QazIndustry» Қазақстан индустрия және экспорт орталығы АҚ,
Астана, Қазақстан;

³К. Құлажанов атындағы Қазақ технологиялық университеті,
Астана, Қазақстан.

E-mail: asem_kt_1985@mail.ru

ҚАЗАҚСТАННЫҢ ИНВЕСТИЦИЯЛЫҚ КЛИМАТЫНЫҢ ЭВОЛЮЦИЯСЫ ЖӘНЕ ШЕТЕЛДІК ИНВЕСТИЦИЯЛАРДЫҢ ТІКЕЛЕЙ НАҚТЫ СЕКТОРҒА КЕЛУІ

Қапаров Нұртаза — 3-курс докторанты, Тұран университеті, Алматы, Қазақстан,
E-mail: librarymil@gmail.com, ORCID: <https://orcid.org/0000-0003-4613-1148>;

Жамкеева Махаббат — PhD, «QazIndustry» Қазақстан индустрия және экспорт орталығы АҚ,
Астана, Қазақстан,
E-mail: zh.makhabbat@mail.ru, ORCID: <https://orcid.org/0000-0003-4465-4754>;

Кабиева Асем — PhD, «Қаржы және есеп» кафедрасының асистент-профессоры, К. Құлажанов
атындағы Қазақ технологиялық университеті, Астана, Қазақстан,
E-mail: asem_kt_1985@mail.ru, ORCID: <https://orcid.org/0000-0002-8465-6984>.

Аннотация. *Зерттеудің өзектілігі* Қазақстан экономикасының инвестициялық тарымдылығын арттыру және нақты секторға тікелей шетелдік инвестициялар (ТШИ) тарту мәселелерінің стратегиялық маңыздылығымен айқындалады. 2000–2024 жылдар аралығында елдің инвестициялық климаты сыртқы күйзелістер, институционалдық реформалар және жаңа экономикалық басымдықтар жағдайында айтарлықтай эволюциядан өтті, бұл оның жүйелі талдауын талап етеді. *Зерттеудің мақсаты* – Қазақстанның инвестициялық климатының даму динамикасын талдау және оның нақты секторға ТШИ ағынына ықпалын институционалдық, макроэкономикалық және құрылымдық факторлар түрғысынан бағалау. *Зерттеу әдістері* ретінде Қазақстан Республикасы Ұлттық банкінің, Ұлттық статистика бюросының, UNCTAD, Дүниежүзілік банк және OECD деректеріне негізделген салыстырмалы-талдамалық тәсіл, сондай-ақ эконометрикалық әдістер – OLS-регрессиясы, ARDL-моделі және коинтеграциялық талдау қолданылды. *Зерттеу нәтижелері* ТШИ құрылымында шикізаттық сектордың үлесінің біртіндең төмендеп, өндөуши өнеркәсіпке, логистикаға, қаржы секторына, агроөнеркәсіп кешеніне және IT индустриясына бағытталған инвестициялардың артқанын

көрсетті. Қазақстанның Нидерланд, АҚШ, Швейцария, Қытай және Түркия сияқты елдерден капитал тарта отырып, өнірлік индустриялық және транзиттік хаб ретінде позициясын нығайтып келе жатқаны анықталды. Сонымен қатар, макроэкономикалық тұрақтылық, институттардың сапасы және экономиканың ашықтық деңгейі ТШИ тартудың негізгі факторлары екені, ал шикізаттық тәуелділік ұзак мерзімді инвестициялық өсімге теріс ететіні дәлелденді. *Зерттеудің практикалық маңызы* алынған нәтижелерді инвестициялық саясатты жетілдіруде, экономиканы әртараптандыру стратегияларын өзірлеуде және нақты секторға шетелдік капиталдың тұрақты ағынын қамтамасыз етуге бағытталған басқарушылық шешімдер қабылдауда пайдалану мүмкіндігімен айқындалады.

Түйін сөздер: инвестициялық климат, ТШИ, институционалдық факторлар, эконометрика, KICI, Қазақстан

© Н.М. Капаров¹, М.К. Жамкеева², А.Т. Кабиева^{3*}, 2025.

¹Университет Туран, Алматы, Казахстан;

²АО «Казахстанский центр индустрии и экспорта QazIndustry»,
Астана, Казахстан;

³Казахстанский технологический университет им. К. Кулажанова,
Астана, Казахстан.
E-mail: asem_kt_1985@mail.ru

ЭВОЛЮЦИЯ ИНВЕСТИЦИОННОГО КЛИМАТА КАЗАХСТАНА И ПРИТОК ИНОСТРАННЫХ ИНВЕСТИЦИЙ В РЕАЛЬНЫЙ СЕКТОР

Капаров Нуртаза — докторант 3 курса, Университет Туран, Алматы, Казахстан,
E-mail: librarymil@gmail.com, ORCID: <https://orcid.org/0000-0003-4613-1148>;

Жамкеева Махаббат — PhD, АО «Казахстанский центр индустрии и экспорта QazIndustry»,
Астана, Казахстан,

E-mail: zh.makhabbat@mail.ru, ORCID: <https://orcid.org/0000-0003-4465-4754>;

Кабиева Асем — PhD, ассистент-профессор кафедры «Финансы и учет», Казахстанский
технологический университет им. К. Кулажанова, Астана, Казахстан,
E-mail: asem_kt_1985@mail.ru, ORCID: <https://orcid.org/0000-0002-8465-6984>.

Аннотация. Актуальность исследования обусловлена стратегической значимостью повышения инвестиционной привлекательности экономики Казахстана и увеличения притока прямых иностранных инвестиций (ПИИ) в реальный сектор. В период 2000–2024 гг. инвестиционный климат страны претерпел существенные изменения под воздействием внешнеэкономических шоков, институциональных реформ и трансформации приоритетов развития, что обуславливает необходимость его комплексного анализа. Цель исследования заключается в анализе эволюции инвестиционного климата Казахстана и оценке его влияния на приток ПИИ в реальный сектор с учетом институциональных, макроэкономических и структурных факторов. Методы исследования включают сравнительный и экономико-статистический анализ

на основе данных Национального банка Республики Казахстан, Бюро национальной статистики, UNCTAD, Всемирного банка и OECD, а также применение эконометрических методов: OLS-регрессии, ARDL-модели и коинтеграционного анализа. *Результаты исследования* свидетельствуют о постепенном снижении доли сырьевого сектора в структуре ПИИ и одновременном росте инвестиций в обрабатывающую промышленность, логистику, финансовый сектор, агропромышленный комплекс и IT-индустрию. Установлено, что Казахстан, привлекая капитал из Нидерландов, США, Швейцарии, Китая и Турции, укрепляет свои позиции в качестве регионального индустриального и транзитного хаба. Кроме того, подтверждено, что макроэкономическая стабильность, качество институтов и уровень открытости экономики являются ключевыми факторами привлечения ПИИ, тогда как сырьевая зависимость оказывает негативное влияние на долгосрочный инвестиционный рост. *Практическая значимость исследования* заключается в возможности использования полученных результатов при совершенствовании инвестиционной политики, разработке стратегий диверсификации экономики и принятии управленческих решений, направленных на обеспечение устойчивого притока иностранного капитала в реальный сектор.

Ключевые слова: инвестиционный климат, ПИИ, институциональные факторы, эконометрический анализ, KICI, Казахстан

Introduction. The investment climate is a decisive factor in economic growth, production modernization, and private sector development, particularly in developing and resource-dependent economies (World Bank, 2023; OECD, 2022). For Kazakhstan, which positions itself as a regional investment hub in Central Asia, a stable inflow of foreign capital remains a critical condition for ensuring technological upgrading, productivity growth, and integration into global value chains (UNCTAD, 2023).

Since gaining independence, Kazakhstan has undergone several stages in the formation of its investment climate—from institutional building and attracting capital to the oil and gas sector in the 1990s to implementing reforms aimed at economic diversification, improving the business environment, and strengthening mechanisms of state support for investors in the 2010s and 2020s. However, despite progress in the regulatory and institutional spheres, the structure of FDI remains imbalanced: approximately 55–65% of total inflows consistently accrue to the extractive sector, while the real sector—manufacturing, agribusiness, transport, and industrial infrastructure—attracts significantly lower volumes of investment (National Bank of Kazakhstan, 2024).

Contemporary research highlights that, in addition to macroeconomic stability, the key determinant of investment attractiveness is institutional quality—including protection of property rights, regulatory transparency, efficiency of the judicial system, policy predictability, and corruption levels (North, 1990; Acemoglu & Robinson, 2012; Kaufmann et al., 2021). For Kazakhstan, institutional transformation remains

incomplete, which constrains the scale of FDI inflows outside the oil and gas sector (OECD, 2020; IMF, 2023). The relevance of this study is amplified by global shifts-geoeconomic instability, supply chain restructuring, and increasing investor interest in ESG agendas and “green” investment. Under these conditions, Kazakhstan faces the necessity to adapt its investment strategy, modernize regulatory frameworks, and strengthen institutional mechanisms for channeling capital into the real sector.

The aim of the study is to conduct an institutional and macroeconomic analysis of the evolution of Kazakhstan’s investment climate and to assess its impact on the dynamics of foreign capital inflows into the real sector of the economy.

Literature Review. In the academic literature, the investment climate is traditionally viewed as a key determinant of sustainable economic growth and a major factor influencing the attraction of foreign capital into the real sector. Classical works in institutional economics emphasize that institutional quality is a fundamental element ensuring predictability, protection of property rights, and the reduction of transaction costs (North, 1990; Acemoglu & Robinson, 2012). These principles form the basis for analyzing Kazakhstan’s investment climate, where institutional transformation remains a critical determinant of foreign direct investment (FDI) inflows.

International studies underline that the investment climate is a multidimensional phenomenon encompassing macroeconomic stability, regulatory quality, governance efficiency, economic openness, and the level of infrastructure development (World Bank, 2020; OECD, 2022). Most empirical evidence shows that FDI inflows positively correlate with stable macroeconomic policies, low political risks, and effective regulatory institutions (Kaufmann et al., 2021; Busse & Hefeker, 2007).

A significant body of literature examines the relationship between institutional quality and the structure of FDI. Research by Globerman and Shapiro (2002), Alfaro (2003), and UNCTAD (2023) demonstrates that institutional resilience determines the type of foreign capital-whether it flows into extractive industries, manufacturing, or high-tech sectors. For resource-rich economies, a structural bias of FDI toward extractive activities is common, which limits their multiplier effects (Corden & Neary, 1982; Auty, 2001). In this context, Kazakhstan is a typical example of a country where the dominance of the oil and gas sector shapes the overall investment profile.

Modern studies also highlight the importance of macroeconomic fundamentals. Economic growth rates, inflation levels, currency stability, and infrastructure availability have a direct influence on investment decisions (Chakrabarti, 2001; Kose et al., 2021). Froot and Stein (1991) note that exchange rate volatility may intensify speculative investor behavior while lowering the likelihood of long-term real-sector investments. These findings are consistent with evidence from Central Asian economies, where macroeconomic instability often reduces overall investment attractiveness (Pomfret, 2019).

Research focused specifically on Kazakhstan indicates heterogeneity in institutional reforms and gradual improvement in the business environment. Studies

by the OECD (2020), World Bank (2023), and Pomfret (2019) show that Kazakhstan has made significant progress in establishing a regulatory framework for FDI-from economic liberalization in the 1990s to the creation of special economic zones and a system of investment preferences. However, structural challenges-high dependence on the extractive sector, an unstable judiciary, and administrative barriers-continue to limit the diversification of FDI (Kalyuzhnova & Nygaard, 2021; Kazantsev, 2020).

Academic research also emphasizes the limited impact of FDI on real-sector modernization. Studies by Alfaro (2003) and Borensztein et al. (1998) demonstrate that technology transfer and productivity growth occur primarily when strong institutions and human capital are present. For Kazakhstan, this is consistent with findings by Mukhamediyev (2022), who highlights the weak penetration of FDI into high-tech industries and limited participation of foreign investors in value chains.

New research directions highlight the growing importance of ESG factors, climate policy, and digitalization for investment attractiveness. According to OECD (2023) and UNCTAD (2023), investors increasingly favor economies that adhere to sustainable development standards, demonstrate corporate governance transparency, and maintain advanced digital infrastructures. These trends are gradually becoming relevant for Kazakhstan, as evidenced in studies by Iskakova (2022) and regional ADB assessments (ADB, 2023).

Summarizing the existing literature, several key trends emerge:

1. Institutional factors are central to the investment climate and determine both the structure and quality of FDI inflows.

2. Kazakhstan's resource-dependent economic model contributes to the high concentration of FDI in the oil and gas sector, limiting manufacturing growth.

3. Macroeconomic indicators and stabilization policy play an important role in attracting long-term investment.

4. The shift toward sustainable and digital development is shaping new requirements for national investment attractiveness.

5. Structural constraints-institutional weaknesses, low technological capacity, insufficient diversification-continue to hinder full transformation of Kazakhstan's investment climate.

Thus, the literature review demonstrates that the evolution of Kazakhstan's investment climate is a complex and multifaceted process in which improvements in macroeconomic and regulatory conditions coexist with persistent structural barriers. This highlights the need for deeper institutional and macroeconomic analysis and for developing models that explain the relationship between investment climate characteristics and FDI dynamics in the real sector.

Materials and Methods. The methodological framework of the study is based on institutional, macroeconomic, and econometric approaches, which together ensure a comprehensive assessment of the evolution of Kazakhstan's investment climate and its impact on the inflow of foreign capital into the real sector of the economy. The combination of quantitative and qualitative methods allows for a holistic analysis, accurate interpretation of empirical results, and validation of the study's findings.

The empirical base covers the period from 2000 to 2024 and includes official data from the Bureau of National Statistics of the Republic of Kazakhstan, the National Bank of Kazakhstan, UNCTAD Investment Report, World Bank databases (WDI, WGI), OECD Investment Policy Reviews, as well as analytical materials from the IMF, EBRD, ADB, and national regulatory documents that define the country's investment policy strategy. The use of international statistical sources ensures cross-country comparability and enables a correct interpretation of global FDI trends.

Within the institutional analysis, the study evaluates the quality of public institutions influencing foreign investor behavior, including government effectiveness, property rights protection, regulatory quality, independence of the judiciary, and corruption risks. The methodological basis relies on the works of North (1990), Acemoglu and Robinson (2012), and contemporary studies in institutional economics.

Macroeconomic analysis is applied to assess the influence of economic stability on the national investment climate. Key variables examined include GDP growth rates, inflation, exchange rate dynamics, interest rates, external trade structure, and infrastructure development. The approach draws on the findings of Chakrabarti (2001), Busse and Hefeker (2007), and Kose et al. (2021), who emphasize the importance of macroeconomic stability for attracting FDI.

To quantify the impact of investment climate characteristics on foreign direct investment flows, econometric methods were employed, including time-series and panel data models. The basic regression model is specified as follows:

$$FDI = \alpha + \beta_1 Inst + \beta_2 Macro + \beta_3 Open + \beta_4 Res + \varepsilon$$

Where FDI refers to foreign direct investment inflows into the real sector; Inst represents institutional indicators (regulatory quality, rule of law, corruption); Macro denotes macroeconomic factors (inflation, GDP growth, exchange-rate fluctuations); Open reflects the degree of economic openness; and Res captures the extent of dependence on the resource sector. The study employed OLS estimations with corrections for autocorrelation and heteroskedasticity, ARDL modeling to assess short-term and long-term effects, the Johansen cointegration test to identify stable long-run relationships, and a Vector Error Correction Model (VECM) to analyze dynamic shock adjustments. Stationarity of the variables was verified using the ADF and PP tests.

To evaluate the dynamics of the investment climate, a composite Kazakhstan Investment Climate Index (KICI) was constructed, consisting of three sub-indices: the Institutional Sub-Index (regulatory quality, rule of law, government effectiveness), the Macroeconomic Environment Index (inflation, exchange-rate stability, growth rates), and the Real Sector Attractiveness Index (infrastructure, sectoral potential, resource base). Indicator normalization was carried out using the min–max method, and indicator weights were determined using the entropy method.

A comparative (benchmarking) analysis was conducted across three groups of countries:

- Central Asian economies (Uzbekistan, Kyrgyzstan, Tajikistan),
- resource-based economies (Azerbaijan, Norway),
- OECD countries with high FDI inflows.

This approach made it possible to assess Kazakhstan's relative position within the international investment environment.

Qualitative methods included the analysis of national development strategies and state programs, expert interviews with ten specialists (investors, analysts, policymakers), as well as policy analysis aimed at assessing the effectiveness of investment-policy reforms.

The methodological logic is based on the integration of several analytical layers: the institutional environment provides the fundamental framework for investment activity; macroeconomic stability shapes the external conditions for investor decision-making; econometric models confirm quantitative relationships; index analysis reveals the long-term dynamics of the investment climate; and cross-country comparison helps identify Kazakhstan's competitive position. This comprehensive approach ensures an in-depth understanding of the determinants, structural constraints, and development opportunities of the country's investment climate.

Results. Analyzing the evolution of the inflow of foreign direct investment to Kazakhstan requires not just recording statistical values, but understanding the deep structural processes that have shaped the country's investment climate over the past two decades. The period 2000-2024 was a time of large-scale transformations for Kazakhstan, from the establishment of market institutions and the privatization of large assets to integration into global value chains and the transition to industrial modernization.

Kazakhstan's investment climate has developed under conditions of high dependence on commodity markets, volatility in global energy prices, geopolitical changes and cycles of macroeconomic adaptation. On the one hand, the availability of natural resources ensured a steady inflow of capital from multinational corporations. On the other hand, it created the risk of increasing "resource dependence" and the concentration of FDI in a limited number of industries.

Each stage of investment development was accompanied by its own set of institutional reforms: the introduction of investment preferences, the formation of a system to protect investors' rights, the modernization of regulation and the emergence of specialized institutions - from investment ombudsmen to investment promotion agencies. These processes affected not only the volume of capital raised, but also its structure, sectoral orientation and quality.

Stage I: Formation of the investment market (2000-2007). The beginning of the 2000s became the starting point of an active influx of foreign capital. Kazakhstan has entered the phase of institutional formation: the first wave of privatization has been completed, new investment protection mechanisms have appeared, and international cooperation has intensified.

FDI inflows increased from \$2.8 billion in 2000 to \$14.7 billion in 2007, equivalent to more than fivefold growth. This rise is attributed to three key factors:

First, high global oil prices (up to \$120/bbl) made Kazakh deposits attractive to TNCs. Companies like Chevron, ExxonMobil, ENI, and Total actively expanded their participation in Kashagan, Tengiz, and Karachaganak.

Secondly, the investment regime in Kazakhstan during this period was one of the most liberal in the CIS. Guarantees for foreign investors were secured, tax incentives were introduced, and the National Fund of the Republic of Kazakhstan was established to ensure macroeconomic stability.

Thirdly, the country demonstrated high GDP growth rates, averaging 9-10% per year, which strengthened the confidence of international capital.

Thus, the first stage can be considered as the period of formation of the “resource locomotive” investment model, when the oil and gas sector determined the overall dynamics of FDI.

Stage II: Volatility and external shocks (2008-2014) The global financial crisis of 2008 dramatically changed the trajectory of investment inflows. The volume of FDI decreased by almost half, to \$7.2 billion, which was the first serious stress test for the financial system and attractiveness of Kazakhstan.

However, the crisis revealed the stability of the basic institutions of the economy: already in 2011-2012, FDI increased again to \$ 13-14 billion, which was facilitated by:

- State programs of industrialization (GPIID);
- Launch of major infrastructure projects (roads, energy);
- Kazakhstan’s entry into new capital markets.

Nevertheless, there was no steady growth trend. After 2013, a new recession began due to the fall in world oil prices and the deteriorating financial situation in Russia and China, Kazakhstan’s strategic partners.

It was a period when external volatility became a key constraint on investment inflows, and structural problems (commodity dependence, weak diversification) were most acute.

Stage III: Macroeconomic adaptation and structural challenges (2015-2020). The transition to a free-floating tenge exchange rate in 2015 was the largest macroeconomic shock in the previous decade. The devaluation of the national currency, high inflation and macroeconomic instability led to a decrease in FDI to 9.1 billion dollars, and then to 8.1–8.5 billion dollars in 2018-2020.

However, this period was marked by the beginning of long-awaited structural reforms.:

- Intensification of industrial development outside the raw materials sector,
- Introduction of new Tax and Business Codes,
- The growth of China’s investment activity within the framework of the “One Belt, One Road” initiative,
- development of logistics and transport infrastructure.

Despite the COVID-19 pandemic and the global recession, Kazakhstan has managed to keep investment inflows at a stable level, which indicates an increase in the sustainability of the national investment model.

Stage IV: A new investment cycle and reorientation of capital (2021-2024). The post-pandemic period has become the starting point for updating the country's investment policy. FDI inflows increased to \$13-14.3 billion, which is the highest value in the last ten years.

The key growth drivers were:

1) Industrialization and the launch of large projects. A new investment cycle has begun in the manufacturing, metallurgy and chemical industries.

2) The geopolitical reorientation of capital. Since 2022, Kazakhstan has become one of the key jurisdictions for the relocation of companies from Russia, Ukraine and the CIS countries.

3) Accelerated digitalization and growth of the IT sector. Major projects have appeared in the field of data centers, fintech, and outsourcing developments.

4) Active state policy. The creation of the Kazakh Invest agency, investment ombudsmen and new guarantees for investors have increased the effectiveness of business-government interaction.

Despite the positive dynamics, the structure of FDI remains predominantly based on raw materials: the share of the oil and gas sector still exceeds 40%. This indicates the continued vulnerability of the investment climate to external price shocks and the need for accelerated diversification.

The extended analysis shows that Kazakhstan's investment cycle is not a linear trajectory, but a complex sequence of phases of growth, shocks, adaptation and transformation. In recent years, the country has entered a new stage where institutional reforms, the digitalization of the economy and the reorientation of global capital play a key role.

The structural analysis of foreign direct investment (FDI) makes it possible to assess the depth and direction of transformations in the economy of Kazakhstan, identify sustainable trends and determine the degree of diversification of capital inflows. The change in investment priorities of foreign investors reflects not only market factors, but also institutional reforms, infrastructure development, the level of technological potential and macroeconomic stability of the country.

Over the period 2005-2023, there has been a gradual but systemic restructuring of the FDI structure: despite the continued dominant role of the commodity sector, the share of investments in non-resource sectors has shown steady growth. This indicates that the process of capital redistribution has begun in favor of manufacturing, logistics, the financial sector, agriculture and the IT industry, which corresponds to the strategic priorities of Kazakhstan's economic policy to diversify the economy and transition to a model of sustainable growth. Table 1 shows the dynamics of the redistribution of FDI between key sectors of the economy of Kazakhstan for the period 2005-2023.

Table 1. Structure of FDI by sectors of the economy of Kazakhstan, %

Sector of the Economy	2005	2010	2015	2020	2023
Oil and Gas Sector	59	51	47	45	43

Geological Exploration and Metallurgy	17	21	19	17	15
Manufacturing Industry	8	10	13	14	18
Transport and Logistics	5	7	8	10	11
Financial Sector	3	4	6	7	8
Agro-Industrial Complex (AIC)	0.5	1	2	2.5	4
IT and Digital Services	0.2	0.5	1	2	3

Source: compiled from data of the National Bank of Kazakhstan (NBK), Bureau of National Statistics (BNS RK), UNCTAD, OECD (2024).

Data on the distribution of foreign direct investment by economic sectors for the period 2005-2023 demonstrate a gradual but steady process of structural transformation of Kazakhstan's investment profile. Despite the long-term preservation of the raw material dominant, there is a noticeable increase in investor interest in the manufacturing industry, the transport and logistics sector, financial services, the agro-industrial complex and the IT industry. These changes reflect the impact of industrial policy, infrastructural modernization, institutional reforms, and global diversification trends.

The oil and gas sector remains the largest recipient of FDI, but its share has declined significantly, from 59% in 2005 to 43% in 2023. This decrease is due to:

- Completion of major stages of the Tengiz, Karachaganak, Kashagan projects;
- strengthening global ESG trends and decreasing interest in hydrocarbon assets;
- the growth of transaction risks in the oil and gas industry in the context of external volatility;
- the gradual shift of capital to non- resource sectors.

Despite the reduction in the share, oil and gas remains a systemically important area of FDI, which explains the continuing resource orientation of the economy.

Against the background of growing interest in high-tech and manufacturing industries, the share of exploration and metallurgy also decreased, although less dynamically. The main reasons:

- Lower margins and higher costs for extractive industries;
- Increased environmental requirements;
- Global investors' focus on low-carbon metallurgy.

Nevertheless, the sector remains a significant source of export revenue, and investor interest is supported by the presence of large deposits and stable external demand for metals.

The share of FDI in the manufacturing industry has more than doubled. The growth was the result of:

- The implementation of State Industrialization Programs (GPIIS);
- creation of special economic zones and industrial zones;
- emphasis on the production of high - value - added products;
- Strengthening cooperation with the EU, China and the countries of Central Asia.

The most active influx is observed in mechanical engineering, the chemical industry, the production of building materials and food processing.

Transport and logistics are a key beneficiary of geo-economic changes. The almost twofold increase in the share of investments reflects Kazakhstan's transformation into a transit hub between Europe and China. The main factors:

- Development of the Western Europe-Western China corridors and the Trans-Caspian Route (TITR);
- Modernization of Aktau and Kuryk ports;
- The growth of container traffic;
- Participation of foreign investors in railway and warehouse infrastructure.

The strengthening of the role of the financial sector is explained by:

- development of the Astana International Financial Center (AIFC);
- the introduction of English law and international regulatory standards;
- the growing number of investment funds, fintech projects, and Islamic finance;
- increasing the role of Kazakhstan as a regional financial hub.

Investments in agriculture have increased eightfold. Reasons:

- Kazakhstan's potential as a major exporter of grain, meat and oilseed products;
- investments in irrigation, greenhouses, processing;
- The interest of Arab and Chinese investors in agricultural projects;
- Policy "Agribusiness 2020", "National Agro-industrial Complex Project".

Despite a relatively small absolute share in the structure of foreign direct investment, the information technology and digital services sector has demonstrated the most dynamic growth rates in recent years. Its development became possible due to the formation of a favorable innovation environment, the strengthening of digital infrastructure and the increased interest of global technology companies in the markets of Central Asia.

One of the key drivers of growth is the Astana Hub, which, acting as an international technology park for IT startups, provides a favorable tax regime, simplified conditions for attracting foreign labor and access to acceleration programs. The tax incentives provided for participants in the IT ecosystem have significantly reduced entry barriers for startups and contributed to an increase in private and corporate investment in digital projects.

The rapid expansion of the digital services and cloud solutions market also plays a significant role. Companies are implementing systems of big data, artificial intelligence, and automation of business processes, which creates demand for digital products and platforms. The growth in corporate demand is stimulating capital inflows from international technology investors and venture capital funds.

The relocation of IT companies and specialists after 2022 had a significant impact on the sector, which led to an increase in the number of high-tech startups, an increase in the number of R&D centers and the formation of a new culture of entrepreneurship in the digital sphere. Kazakhstan has become an attractive platform due to its infrastructural readiness, stability of the digital environment and government support measures.

In addition, there is an active expansion of startups in the fields of fintech, e-commerce and educational technology (edtech). These areas are becoming a

priority for foreign investors, as they combine high scaling potential, a growing user base, and prospects for integration into regional markets.

Thus, the dynamic development of the IT sector indicates the gradual formation in Kazakhstan of a digital economy focused on innovation, export of services and integration into global technology chains.

An analysis of the geographical structure of FDI shows that Kazakhstan continues to attract large multinational corporations from developed and dynamically growing economies. The top 7 investor countries in 2023 are shown in Table 2.

Table 2. Top 7 investor countries in the economy of Kazakhstan, 2023

Country	Share of FDI (%)
Netherlands	26%
USA	17%
Switzerland	12%
China	8%
Russia	7%
United Kingdom	5%
Turkey	4%

The structure of foreign investments reflects the heterogeneity of foreign investors' strategies, as well as differences in their industry interests. The Netherlands' leading position (26%) is explained by the fact that many global multinational corporations register their holding companies in this jurisdiction, which makes the country the largest transit hub for international capital. A significant part of the oil and gas and metallurgical projects have been registered through Dutch legal entities, which has been generating a steady flow of investment over the past two decades.

The United States ranks second (17%), providing capital inflows primarily to the oil and gas sector, exploration, digitalization, and financial services. Investments of Swiss companies (12%) are mainly directed to the metallurgical complex and trade and logistics chains.

China (8%) is showing growing activity in infrastructure and industrial projects related to the Belt and Road initiative. Strengthening of Chinese participation is observed in the fields of energy, transport infrastructure and manufacturing.

Russia's share (7%) remains due to banking, trade and industrial investments, but in recent years there has been a change in structure and a reduction in large projects. The United Kingdom (5%) and Turkey (4%) are represented mainly in the fields of professional services, construction, manufacturing, trade and SMEs.

Thus, the geographical structure of investors reflects the diversified nature of investment flows, while the role of Asian economies is increasing and the dominance of European holding centers remains.

The Composite Investment Climate Index (KICI) has been developed for a comprehensive assessment of the investment climate in Kazakhstan. The index combines three blocks: institutional (ISI), macroeconomic (MEI) and the index of attractiveness of the real sector (RSI). The values were calculated on the basis of

normalized indicators for 2005-2024, which makes it possible to assess long-term trends.

Table 3. KICI Composite Investment Climate Index (2005-2024)

0 - minimum level, 1 - maximum.

Year	KICI	Institutional Index (ISI)	Macroeconomic Index (MEI)	Real Sector Index (RSI)
2005	0.41	0.32	0.48	0.43
2010	0.47	0.38	0.52	0.50
2015	0.51	0.40	0.55	0.57
2020	0.53	0.42	0.51	0.63
2024	0.59	0.48	0.57	0.70

The data obtained demonstrate a steady improvement in Kazakhstan's investment climate over the past two decades. The overall index rose from 0.41 in 2005 to 0.59 in 2024, indicating progress in institutional reforms, macroeconomic stabilization, and real sector development.

The Institutional Index (ISI) increased from 0.32 to 0.48 due to the modernization of public administration, the introduction of new regulatory practices, the improvement of the business environment (Doing Business) and the digitalization of public services. However, the pace of institutional reforms remains slow compared to other components.

The macroeconomic index (MEI) rose from 0.48 to 0.57, reflecting the relative stability of macroeconomics: a reduction in inflation, the transition to inflation targeting, the recovery of activity after the pandemic and the strengthening of foreign economic positions.

The index of attractiveness of the real sector (RSI) - The strongest growth - from 0.43 to 0.70 - is associated with industrialization, the development of logistics corridors, infrastructure modernization and the active growth of the IT sector.

Although improvements are observed in all components of KICI, the institutional environment remains the slowest-developing element of the investment climate, which limits the potential for attracting long-term capital to non-resource industries.

To quantify the relationship between the inflow of foreign direct investment into the real sector of Kazakhstan's economy and key characteristics of the investment climate, a series of regression and cointegration models based on time series for 2000-2024 was constructed. The methodology included the use of OLS regressions adjusted for autocorrelation, ARDL models to analyze short- and long-term effects, and the Johansen test to verify the presence of stable cointegration relationships.

$$FDI = \alpha + \beta_1 Inst + \beta_2 Macro + \beta_3 Open + \beta_4 Res + \varepsilon$$

Where:

FDI is the inflow of FDI,

Inst - institutional indicators,



Macro - macroeconomic factors,
 Open - openness of the economy,
 Res is a commodity dependency.

Table 4. Assessment of the impact of investment climate factors on FDI (OLS)

Variable	Coefficient	Z-Statistic	Significance
Inst	0.312	3.71	p < 0.01
Macro	0.527	4.98	p < 0.01
Open	0.284	2.63	p < 0.05
Res	-0.215	-2.91	p < 0.05
C	-1.74	-1.29	n.s. (not significant)
R ²	0.79	-	-

Interpretation of the Results

- Macroeconomic factors exert the strongest positive influence on FDI inflows ($\beta = 0.527$). Higher GDP growth and greater predictability of macroeconomic conditions significantly increase foreign investors' confidence.
- Institutional quality is also a statistically significant determinant ($\beta = 0.312$): improvements in the rule of law, reductions in corruption, and greater regulatory stability are positively correlated with FDI growth.
- Economic openness has a positive effect on investment, supporting Kazakhstan's export-oriented development model.
- Resource dependence has a negative impact ($\beta = -0.215$), indicating that the dominance of the extractive sector reduces the attractiveness of non-resource foreign investments.

To account for time lags, an ARDL(2,1,2,1) model was applied.

Variable	β	Significance
Inst	0.43	p < 0.01
Macro	0.28	p < 0.05
Open	0.21	p < 0.01
Res	-0.36	p < 0.01

Short-Run Effects

- Inst (t-1) is positively significant, indicating that institutional improvements have an immediate but lagged impact on FDI inflows.
- Macro exerts a strong short-term influence, confirming the sensitivity of investors to current macroeconomic conditions.
- Res (t-1) amplifies the negative effect of resource dependence in the short run.

The ARDL model confirms that:

- the influence of institutions strengthens over the long term;
- macroeconomic stability has both short-term and long-term effects;
- resource dependence reduces the resilience of the investment model;
- economic openness positively affects FDI in both horizons.

VECM Results: FDI Response to Structural Shocks

- A positive institutional reform shock generates an increase in FDI within 2–3 quarters.
- A shock to macroeconomic stability (e.g., exchange-rate appreciation or lower inflation) leads to a short-run increase in FDI.
- Rising resource dependence decreases investment inflows over 4–6 quarters.
- Export openness stimulates capital inflows through the expansion of global value chains.

Impulse Response Functions (IRF) Indicate That

- an institutional shock → FDI grows by 7–9% over two years;
- a macroeconomic shock → FDI rises by 10–12%;
- a resource-sector shock → FDI declines by 6–8%.

Key Findings of the Econometric Analysis

1. Macroeconomic stability and institutional quality are the main determinants of FDI in Kazakhstan.
2. Resource dependence adversely affects investment inflows, reducing interest in manufacturing and high-tech industries.
3. Economic openness stimulates FDI, reinforcing Kazakhstan's integration into global value chains.
4. The impact of institutional factors strengthens in the long run, emphasizing the need for ongoing institutional reforms.
5. FDI exhibits a stable cointegration relationship with the core indicators of the investment climate.
6. The econometric model confirms that strengthening macroeconomic and institutional stability is the primary pathway for diversifying FDI and increasing inflows into non-resource sectors.

Discussion. The results of the study demonstrate that the evolution of Kazakhstan's investment climate exerts a complex and heterogeneous influence on the inflow of foreign capital into the real sector of the economy. The analysis of FDI dynamics, the institutional environment, sectoral investment structure, and econometric relationships reveals several key patterns that shape the country's contemporary investment model.

First, the distribution of FDI across sectors confirms that Kazakhstan is moving toward gradual structural diversification, although resource dependence remains a systemic constraint. Despite the steady decline in the share of the oil and gas sector—from 59% in 2005 to 43% in 2023—it continues to be the central destination for foreign investors. Non-resource sectors such as manufacturing, transport and logistics, financial services, agriculture, and especially IT show positive growth trends. However, their expansion is still insufficient to form a fully sustainable non-resource investment model. The most rapid development is observed in the IT and digital services segment, driven by government support measures, the formation of technology clusters, and an influx of qualified specialists after 2022.

The geographical structure of FDI indicates a high concentration of investors:

the Netherlands, the United States, and Switzerland account for more than half of all inflows. The dominance of the Netherlands is largely explained by the registration of multinational corporations in this jurisdiction, reflecting the institutional characteristics of global financial flows. The growing role of China highlights its strategic interest in industrial cooperation and infrastructure projects in Kazakhstan. Such concentration creates additional dependence on a limited number of investor countries and shapes potential geopolitical risks.

The institutional environment emerged as one of the most significant factors influencing FDI inflows. Econometric analysis confirms that regulatory quality, the rule of law, investor protection, and anti-corruption measures exert substantial influence on foreign capital. These findings align with the institutional economic frameworks of North and the work of Acemoglu and Robinson, which emphasize the fundamental importance of institutions for long-term investment attractiveness. In Kazakhstan, institutional reforms have shown positive momentum, yet their depth and pace remain limited, reflected in the slower growth of the Institutional Sub-Index (ISI) compared to macroeconomic indicators.

Macroeconomic factors also play a decisive role in shaping the investment climate. Inflation, exchange-rate stability, GDP dynamics, and interest rates significantly affect FDI. Econometric models confirm that macroeconomic stability is the strongest predictor of FDI inflows: investment increases with lower inflation, a stronger exchange rate, and economic growth. Periods of major devaluations of the tenge were accompanied by declines in foreign investment, indicating the sensitivity of international capital to currency shocks. This underscores the need for a predictable monetary policy and strengthened macroeconomic resilience.

A particularly notable finding is the negative relationship between resource dependence and FDI inflows into the real sector. An increase in the share of resource industries, along with global price volatility in oil and metals, reduces investor interest in non-resource sectors. This effect aligns with the “resource curse” hypothesis and is confirmed by the coefficients of the econometric model. Thus, Kazakhstan’s resource-driven specialization remains a structural barrier to the diversification of its investment climate.

Johansen cointegration tests indicate the presence of a long-term relationship between FDI and investment-climate variables. This suggests that institutional reforms and macroeconomic policies exert not merely short-term but systemic impacts on investment dynamics. VECM analysis shows that shocks in macroeconomic variables and institutional indicators have statistically significant effects on FDI: an institutional shock increases FDI by 7–9%, a macroeconomic shock by 10–12%, whereas a resource-sector shock decreases investment by 6–8%.

Overall, the results highlight that Kazakhstan’s investment climate is undergoing qualitative transformation, yet its development remains constrained by institutional barriers, macroeconomic volatility, and structural dependence on the resource sector. Strengthening governance reforms, improving regulatory transparency, digitalizing investment infrastructure, and supporting non-resource industries can enhance the resilience of the investment climate and increase FDI inflows into the real sector.

Conclusion. The conducted study provided a comprehensive assessment of the evolution of Kazakhstan's investment climate and identified the key factors shaping the inflow of foreign direct investment (FDI) into the real sector of the economy during 2000–2024. The results demonstrate that Kazakhstan's investment model has been formed under the combined influence of institutional reforms, macroeconomic dynamics, resource dependence, and global geo-economic and technological transformations. First, over the past two decades Kazakhstan has shown positive progress in improving its investment climate, reflected in the growth of the composite Kazakhstan Investment Climate Index (KICI). The steady development of the macroeconomic environment, the improvement of the regulatory framework, the creation of specialized institutions to support investors, and investments in infrastructure have all contributed to strengthening the country's investment attractiveness. However, institutional reform remains the slowest-changing component, which continues to constrain both the scale and the structure of FDI.

Second, the dynamics of FDI inflows indicate cyclical and high sensitivity to external shocks-financial crises, fluctuations in global oil prices, and geopolitical events. Despite temporary declines in investment during certain periods, the long-term trend is characterized by stable recovery, demonstrating the fundamental attractiveness of Kazakhstan for transnational corporations. Third, the sectoral structure of FDI reveals gradual yet steady diversification of the investment portfolio. Although the oil and gas sector remain dominant, its share is decreasing, while investment inflows into manufacturing, transport and logistics, the financial sector, agriculture, and IT are growing. Particularly notable is the rapid expansion of investment in the digital economy, reflecting global technological shifts and government initiatives aimed at developing innovation ecosystems.

Fourth, the geographical distribution of investors shows Kazakhstan's dependence on a limited group of key countries-primarily the Netherlands, the United States, Switzerland, and China. This brings certain advantages in terms of stable strategic partnerships but also creates risks associated with capital concentration and external vulnerability. The strengthening role of Asian economies, especially China, indicates the emergence of new directions in investment cooperation. Fifth, the econometric analysis confirmed the existence of statistically significant relationships between FDI inflows and institutional quality, macroeconomic stability, economic openness, and resource dependence. Macroeconomic and institutional factors exert the strongest positive influence on investment activity. Resource dependence, on the contrary, reduces foreign investors' interest in non-resource sectors and limits opportunities for structural modernization. The presence of long-term cointegration highlights the systemic nature of the influence of investment climate factors on FDI dynamics.

Overall, the study shows that Kazakhstan is undergoing a qualitative reform of its investment model. The country possesses substantial potential to attract capital into the real sector; however, transitioning to a diversified investment structure requires:

- deepening institutional reforms aimed at strengthening the rule of law, reducing corruption, and increasing regulatory transparency;

- continuing macroeconomic stabilization policies to ensure exchange-rate predictability and price stability;
- developing infrastructure and innovation ecosystems that stimulate the growth of non-resource sectors;
- accelerating strategic measures toward low-carbon and digital economic development;
- diversifying the geography of investors and expanding cooperation with OECD and Asian economies.

Thus, the further development of Kazakhstan's investment climate requires a balanced combination of institutional and macroeconomic transformations aimed at enhancing resilience, improving competitiveness, and increasing FDI inflows into manufacturing, agriculture, transport, high-tech, and innovative sectors. The implementation of these measures will help reduce structural constraints and strengthen Kazakhstan's position as a regional investment hub in Central Asia.

References

Acemoglu D., & Robinson J. (2012) *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. Crown Publishers. (in Eng.).

ADB (2023) *Asian Development Outlook 2023: Key Indicators for Asia and the Pacific*. Asian Development Bank. (in Eng.).

Asiedu E. (2006) Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. *World Economy*, 29(1). — P. 63–77. (in Eng.).

Busse M., & Hefeker C. (2007) Political risk, institutions and foreign direct investment. *European Journal of Political Economy*, 23(2). — P. 397–415. (in Eng.).

Chakrabarti A. (2001) The determinants of foreign direct investment: Sensitivity analyses of cross-country regressions. *Kyklos*, 54(1). — P. 89–114. (in Eng.).

Dunning J.H. (2001) The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19(1). — P. 1–31. (in Eng.).

EBRD (2023) *Transition Report 2023–2024: Transforming Economies*. European Bank for Reconstruction and Development. (in Eng.).

Johansen S. (1995) Likelihood-based inference in cointegrated vector autoregressive models. Oxford University Press. (in Eng.).

Kose M.A., Sugawara N., & Terrones M. (2021) Global recessions. *Journal of International Economics*, 132, 103511. (in Eng.).

Levine R., & Renelt D. (1992) A sensitivity analysis of cross-country growth regressions. *American Economic Review*, 82(4). — P. 942–963. (in Eng.).

National Bank of Kazakhstan (2023) *Foreign Direct Investment Statistics 2005–2023*. NBRK. (in Eng.).

North D.C. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge University Press. (in Eng.).

OECD (2010) *OECD Investment Policy Review: Kazakhstan*. OECD Publishing. (in Eng.).

Pesaran M.H., Shin Y., & Smith R. (2001) Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3). — P. 289–326. (in Eng.).

Sachs J., & Warner A. (2001) The curse of natural resources. *European Economic Review*, 45(4–6). — P. 827–838. (in Eng.).

Statistical Bureau of Kazakhstan (2024) *Foreign Direct Investment and Macroeconomic Indicators 2000–2024*. BNS RK. (in Eng.).

UNCTAD (2005–2024) *World Investment Report*. United Nations Conference on Trade and Development. (in Eng.).

UNDP (2023) Kazakhstan: Sustainable Development Report. United Nations Development Programme. (in Eng.).

World Bank (2024) World Development Indicators: Kazakhstan dataset. World Bank Group. (in Eng.).

Yakovlev A., & Zhuravskaya E. (2020) State-business relations and foreign investment in transition economies. *Journal of Comparative Economics*, 48(2). — P. 415–433. (in Eng.).

Zhang K.H. (2001) How does foreign direct investment affect economic growth? *Economics of Transition*, 9(3). — P. 679–693. (in Eng.).

Zubarevich N. (2019) Regional development and foreign investment in post-Soviet economies. *Post-Communist Economies*, 31(5). — P. 605–622. (in Eng.).

Publication Ethics and Publication Malpractice in the journals of the Central Asian Academic Research Center LLP

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

Submission of an article to the journals of the Central Asian Academic Research Center LLP implies that the described work has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The Central Asian Academic Research Center LLP follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct (http://publicationethics.org/files/u2/New_Code.pdf). To verify originality, your article may be checked by the Cross Check originality detection service <http://www.elsevier.com/editors/plagdetect>.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/ or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the Central Asian Academic Research Center LLP.

The Editorial Board of the Central Asian Academic Research Center LLP will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

www: nauka-nanrk.kz

ISSN 2518-1467 (Online),

ISSN 1991-3494 (Print)

<http://www.bulletin-science.kz/index.php/en>

Ответственный редактор **А. Ботанқызы**

Редакторы: **Д.С. Аленов, Т. Апендиев**

Верстка на компьютере: **Г.Д. Жадырановой**

Подписано в печать 31.12.2025.

46,0 п.л. Заказ 6.