MAQSUT NARIKBAYEV UNIVERSITY

INTERNATIONAL SCHOOL OF ECONOMICS MNU

CER Center for Economic Research

KEY FINDINGS AND RECOMMENDATIONS FROM SELECTED ISE MASTER’S THESES AND DIPLOMA PROJECTS BY ECONOMICS AND FINANCE STUDENTS

ACADEMIC YEAR 2025-2026

FOREWORD

This report presents selected Master's theses and diploma projects completed by Economics and Finance students of the International School of Economics at Maqsut Narikbayev University in the 2025-2026 academic year. It reflects the analytical skills, research discipline, and policy-oriented thinking that we aim to foster at the Center for Economic Research.

The works are organized into three areas: 1) *Behavioral Economics and Finance*, 2) *Macroeconomics and Policies*, and 3) *Finance and Investments*. Together, they cover a wide range of issues, from financial decision-making and consumerpsychology, competitiveness, and the performance of ESG investments. Each study applies rigorous methods to real-world problems, producing findings that have clear relevance for Kazakhstan's economic policy and business practice.

What unites these projects is their practical orientation. The authors move beyond analysis to develop specific, evidence-based recommendations, whether to improve financial literacy, reduce structural trade barriers, or strengthen the governance of major financial institutions.

I congratulate our students and their supervisors for their dedication, and I hope this report will serve as a resource for policymakers, academics, and practitioners seeking informed perspectives on the economic challenges and opportunities facing Kazakhstan.

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Chapter 1. Behavioral Economics and Finance

Determinants of Loan-Financed Consumer Purchases in Kazakhstan

Assem Sagandykova

Supervisor: Binur Yermukanova

SUMMARY

This study investigates the behavioral drivers behind loan-financed consumer purchases in Kazakhstan following the rapid digitalization of financial services. Utilizing 37,290 retail transactions from September 2025 across multiple regions, including Astana and Almaty, the authors estimate a binary logistic regression model to evaluate how transaction price, product category, region, customer type, time, and day influence installment financing versus cash usage. Price proves to be the strongest predictor, with higher-priced goods significantly increasing credit adoption. High-value categories like computer components and large appliances exhibit the highest loan odds, while regional trends show Central Kazakhstan with the greatest tendency toward installment purchases. Achieving 72% accuracy, the findings suggest consumer credit decisions are deliberate rather than impulsive, offering key practical insights for retailers and debt-monitoring policymakers.

KEY FINDINGS

- **Price is the primary driver of credit usage.**
- **Loan uptake varies strongly by product category. High-value items like PC components and large household appliances show the highest propensity for credit, whereas low-cost goods (e.g., tableware) are predominantly paid in cash.**
- **Credit purchases are deliberative rather than impulsive.**

RECOMMENDATIONS

- **Retailers should offer bundled promotions (e.g., tableware packaged with major kitchen appliances) to shift consumer perception toward credit-eligibility.**
- **Focus promotional efforts and in-store credit assistance on weekends and evening hours to align with deliberative shopping habits.**
- **Deploy educational initiatives in regions with high credit reliance to foster responsible borrowing and mitigate over-indebtedness risks.**

The Effect of Internal Locus of Control on Personal Finances in Kazakhstan

Zhan-Aidar Makhambetuly
Supervisor: Nygmetzhan Kuzenbayev

SUMMARY

This exploratory study examines whether internal locus of control linearly predicts healthier financial behaviors in Kazakhstan, or if extreme levels become suboptimal. Using an online survey of 139 respondents, the authors apply nested ordinary least squares regressions to test linear and quadratic relationships across three outcomes—future orientation, financial management skills, and perceived income control—while adjusting for socio-demographic and financial confounders. The results demonstrate that the relationship is distinct and element-specific across all three dimensions. Future orientation exhibits an inverted U-shape, declining at extreme levels of internal locus of control. Perceived income control maintains a positive linear association. Conversely, financial management skills show no statistically significant link once financial situation is controlled. Ultimately, these findings challenge universal assumptions, indicating that strong internal locus of control is not uniformly beneficial across financial outcomes.

KEY FINDINGS

- **The effect of internal locus of control on future orientation follows an inverted U-shape.**
- **Subjective financial comfort was the only significant predictor, while internal locus of control lost significance once economic and demographic controls were included.**
- **Internal locus of control positively associates with perceived income control.**

RECOMMENDATIONS

- **Financial education programs should combine agency cultivation with realistic uncertainty management, contingency planning, and awareness of control limits.**
- **Financial interventions must prioritize tangible economic circumstances, as psychological framing alone cannot substitute for addressing real financial distress.**
- **Tailor the tone and content of financial education, as a single message on personal agency will resonate differently across various levels of locus of control.**

How individuals make financial decisions during economic crises and inflationary periods: a behavioral finance perspective

Ainur Duisenbay
Supervisor: Elmira Mynbayeva

SUMMARY

This dissertation investigates how behavioral biases, institutional trust, and socio-demographic factors shaped the financial crisis strategies of Kazakhstani households during the 2022 economic shock and surge in inflation. Drawing on prospect theory, hyperbolic discounting, and institutional trust concepts, the study utilizes microdata from the 2022 Life in Transition Survey (LiTS IV, N = 493). Using binary logit models with robust standard errors, the empirical analysis evaluates two key outcomes: consumer distress (reducing basic expenditures) and financial distress (debt default or asset liquidation). The results identify present bias as the strongest behavioral driver, increasing consumer distress likelihood by 9.9 percentage points. Conversely, trust in financial institutions reduces financial distress by 3.0 percentage points. Furthermore, urban households proved 14.2 percentage points more vulnerable to consumer distress than rural households due to a lack of consumption buffers. Overall, the research provides novel microeconometric evidence on behavioral finance in Central Asian transition economies.

KEY FINDINGS

- **Present bias significantly increases consumer distress. .**
- **Greater confidence in the banking system reduces the likelihood of financial distress by 3.0 percentage points by enabling households to access formal financial buffers during crises.**
- **Urban residents show a 14.2 percentage point higher probability of consumer distress than rural households due to complete consumption monetization and a lack of subsistence farming buffers.**

RECOMMENDATIONS

- **Develop opt-out savings programs and behavioral nudges adapted to transition economies to help households build buffer savings automatically.**
- **Strengthen deposit guarantee systems and communicate banking sector stability regularly to encourage crisis-resilient financial behavior.**
- **Target anti-crisis support to vulnerable urban populations.**

Association between Trust in the Financial System and Social Mobility among Households in Kazakhstan

Assem Zhumakhan
Supervisor: Daliya Kaskirbayeva

SUMMARY

This paper explores the relationship between institutional trust in the financial system and subjective social mobility expectations among households in Kazakhstan as a post-Soviet transition economy. Because financial decisions rely heavily on trust and forward-looking economic interactions, trust shapes both market participation and perceived socioeconomic prospects. Using an ordinary least squares (OLS) regression model, the study analyzes how institutional trust interacts with individual expectations in an environment where public trust and financial systems are actively evolving. The findings demonstrate that trust in the financial system is strongly associated with how individuals perceive their future economic prospects and upward mobility, rather than directly determining objective economic outcomes. Furthermore, the analysis reveals non-linear dynamics in this relationship, highlighting the crucial role institutional trust plays in influencing public perceptions and long-term economic behavior within Central Asian transition economies.

KEY FINDINGS

- **Trust in the financial system does not drive social mobility expectations.**
- **Younger individuals express significantly higher optimism about future prospects, whereas older cohorts report far more pessimistic expectations.**
- **Geographic disparities in infrastructure and opportunity shape expectations, while traditional factors like income, education, and savings showed no statistically significant effect.**

RECOMMENDATIONS

- **Implement place-based regional policies over uniform national reforms.**
- **Expand lifelong learning, retraining initiatives, and pension security to boost economic optimism among older populations.**
- **Shift focus from promoting institutional financial trust toward directly improving public services, local job creation, and financial inclusion.**

Chapter 2. Macroeconomics and Policies

The Effectiveness of Export Restrictions as a Price Stabilization Tool: Case of the Kazakhstan Beef Market

Aruzhan Yessekenova

Supervisor: Stanislav Yugay

SUMMARY

This study evaluates the effectiveness of live cattle export restrictions as a price stabilization tool in Kazakhstan's beef sector between 2018 and 2024. Despite repeated export bans and quotas implemented since 2019, domestic beef prices surged roughly 25% by 2025 relative to 2020 levels. Using a fixed-effects panel regression across 11 regions over 84 months, the empirical analysis demonstrates that export restrictions have no robust, statistically significant long-term impact on domestic beef prices. Although a temporary price suppression of 1.2–1.9% occurs immediately following a ban, this effect dissipates within two months. Consequently, export bans serve as an ineffective standalone policy; durable beef price stability requires addressing core supply-side drivers—such as reducing feed costs, improving processing competition, and maintaining predictable regulatory frameworks.

KEY FINDINGS

- **Export restrictions have no significant effect on domestic beef prices.**
- **Perceived policy impacts are driven by exchange rate fluctuations.**
- **Low price elasticity (0.346) points to market concentration in processing.**

RECOMMENDATIONS

- **Focus on grain market policy, feed subsidies, and logistics to reduce price pressure more effectively.**
- **Enhance processing competition and infrastructure.**
- **Clear triggers for restrictions will reduce policy uncertainty, preventing farm closures and herd liquidations**

The Impact of Macroeconomic Factors and Firm-Specific Characteristics on Telecommunications Firm Profitability: Evidence from Selected Emerging Markets

Manarbek Murat

Supervisor: Balym Zhassybek

SUMMARY

his dissertation study examined how macroeconomic fluctuations affected the profitability of telecommunications firms in selected emerging countries between 2012 and 2024. At the corporate level, return on assets (ROA), return on equity (ROE), and on operating income (EBIT) were studied using unbalanced panel data. The empirical framework combines pooled OLS, fixed effects, random effects, and dynamic specifications with lagged dependent variable to evaluate the influence of the base interest rate, foreign exchange volatility, inflation, GDP growth, leverage, firm size, and capital intensity. Model selection tests support the random effects specification as the preferred model. Based on the random effects results, the majority macroeconomic variables show limited statistical significance through profitability estimates, while leverage has a statistically significant negative effect on ROA and exchange rate volatility has a significant positive effect on EBIT margin. The dynamic specification also found that profitability persists over a period, especially ROA and EBIT margin.

KEY FINDINGS

- **Internal firm dynamics and past performance drive profitability, not macroeconomics.**
- **Financial leverage exerts a strong negative effect on return on assets (ROA), demonstrating that heavy debt burdens reduce performance.**
- **Operating profit (EBIT margin) is positively and significantly affected by currency volatility, reflecting fluctuating accounting costs and revenues in a capital-intensive, import-reliant sector.**

RECOMMENDATIONS

- **Reduce excessive leverage to protect return on assets and improve overall firm profitability.**
- **Hedge against exchange rate risk to stabilize operating margins.**
- **Invest in expanding the core infrastructure base, leveraging past earnings stability to maintain market share in an oligopolistic market.**

The Impact of Renewable Energy Deployment on Electricity Pricing Structure in Kazakhstan

Zhamilya Kenzhetay
Supervisor: Timur Kogabayev

SUMMARY

This study examines the economic impact of expanding renewable energy sources on electricity pricing and macroeconomic outcomes in Kazakhstan as the nation targets carbon neutrality by 2060. While renewable energy offers clear environmental benefits, its influence on electricity prices remains underexplored in Kazakhstan, where energy costs directly affect industrial competitiveness, household welfare, and regional development. To address this gap, the thesis utilizes a quantitative econometric methodology analyzing secondary time-series data from national and international sources. By constructing econometric models that track electricity prices, renewable generation levels, demand, and key macroeconomic indicators, the research assesses how renewable energy penetration shapes local pricing structures. Ultimately, the study seeks to clarify the broader economic trade-offs associated with Kazakhstan's transition toward sustainable energy.

KEY FINDINGS

- **Price movements are overwhelmingly driven by fossil fuel costs, GDP, and demand rather than renewable penetration.**
- **Administrative pricing and hybrid arrangements prevent low-marginal-cost renewable power from directly lowering retail electricity prices.**
- **Current power prices are heavily determined by historical values, with no robust evidence of a long-run equilibrium between renewables and price levels.**

RECOMMENDATIONS

- **Focus policy expectations on carbon neutrality, energy security, and supply diversification rather than immediate tariff cuts.**
- **Transition toward more liberalized wholesale market structures so clean generation can effectively pass cost savings to end-users.**
- **Track hourly and regional data to better isolate short-run merit-order dynamics, system balancing costs, and grid integration needs.**

The Impact of Automation on Employment in Kazakhstan's Labour Market

Zhakhangir Babazhanov
Supervisor: Saule Kemelbayeva

SUMMARY

This study examines the impact of automation on Kazakhstan's labor market by analyzing the routine nature of occupations. The study is based on the theory of "Routine-Biased Technical Change" (RBTC), which describes how technological progress replaces routine tasks and increases demand for more "complex" non-routine cognitive and social skills. The results of the study show significant differences in the level of routine nature across occupations. Regression analysis between the routine index and wages shows that occupations with a higher level of routine tasks are associated with lower income levels. Furthermore, the relationship between routine tasks and employment in the regression analysis showed a weak correlation, indicating that automation has a greater impact on wages than on overall employment levels. The data obtained confirm the relevance of the RBTC theory in the context of Kazakhstan's developing economy and highlight the vulnerability of certain sectors where routine tasks predominate, such as retail, logistics, and manufacturing. Although there has not yet been a large-scale reduction in jobs, the labor market is undergoing structural changes driven by technological progress.

KEY FINDINGS

- **Regression analysis confirms a negative correlation between job routine levels and pay, aligning with routine-biased technological change (RBTC).**
- **The negative impact on overall employment levels is weak and statistically insignificant, showing stable employment despite wage pressures.**
- **While automation depresses wages in routine roles, low statistical significance across employment models suggests digital transformation in Kazakhstan is still in early stages.**

RECOMMENDATIONS

- **Prioritize education and upskilling programs to help workers transition from high-routine tasks to non-routine, technology-driven roles.**
- **Adapt educational frameworks to focus on problem-solving, adaptability, and complex interpersonal skills that resist automation.**

Chapter 3. Finance and Investments

The Impact of ESG Scores on Stock Returns: Evidence from U.S. Firms (2020–2024)»

Maulen Iskakov
Supervisor: Assylbek Tanashikov

SUMMARY

This study investigates whether Environmental, Social, and Governance (ESG) performance significantly determines stock returns for 59 large U.S. firms from the S&P 500 between 2020 and 2024. Utilizing a balanced panel dataset, the author estimates six econometric models—including fixed effects, change-in-ESG, and sector interaction specifications—controlled with robust standard errors. The baseline empirical results demonstrate that ESG performance has no overall statistically significant effect on stock returns (β = -0.00137, p = 0.472), indicating that market return and firm size remain the primary drivers. However, sector interaction analysis reveals a statistically significant positive return premium for ESG performance specifically within oil and gas companies (β = +0.00706, $p < 0.001$). Ultimately, the findings align with the efficient market hypothesis, confirming that while ESG is broadly priced into large U.S. equities, sector heterogeneity creates distinct ESG return differences where environmental materiality is highest.

KEY FINDINGS

- **ESG performance levels and changes do not drive stock returns.**
- **Market returns and larger firm size show strong positive relationships with returns, whereas leverage and profitability exhibit little to no statistical significance.**
- **An interaction effect reveals a significant return premium specifically for oil and gas firms, confirming sector-dependent materiality.**

RECOMMENDATIONS

- **Corporate managers should justify ESG investments as risk-management tools that reduce volatility, lower the cost of capital, and improve financing access rather than short-term price appreciation.**
- **Emerging market firms (e.g., in Kazakhstan) should use ESG performance to meet multilateral lender requirements (such as EBRD or AIIB) and issue ESG-linked bonds.**

Sustainable Investment and Risk Management: The Role of ESG Factors in Portfolio Construction

Dias Beisen
Supervisor: Balym Zhassybek

SUMMARY

This thesis examines the role of ESG factors in portfolio construction and risk management using S&P 500 firms over the period 2015–2024. The analysis focuses on three ESG-related measures: ESG Score, ESG Controversies Score, and ESG Combined Score. Portfolios are formed annually using lagged ESG information, where scores observed in year t are used to construct portfolios held in year t+1. The study compares high- and low-score portfolios using return, volatility, maximum drawdown, Sharpe ratio, Sortino ratio, beta, Treynor ratio, CAPM and Fama-French five-factor regressions, stress-period tests, and robustness checks. The results show that High ESG and High Combined portfolios do not outperform their low-score counterparts. Instead, Low ESG and Low Combined portfolios generate higher returns and statistically significant factor-adjusted alphas. However, High ESG portfolios generally exhibit lower volatility and lower market beta, suggesting a more defensive risk profile. The controversy-based portfolios do not provide robust evidence of abnormal performance or downside protection during market stress periods. The findings suggest that ESG factors are relevant for portfolio construction, but mainly as indicators of risk characteristics and portfolio composition rather than as reliable sources of superior abnormal returns.

KEY FINDINGS

- **Low ESG and Low Combined portfolios generate higher annualized returns, Sharpe ratios, and positive Fama-French five-factor alphas.**
- **Low controversy-risk portfolios provide no statistically significant abnormal performance or downside insurance during market downturns.**

RECOMMENDATIONS

- **Evaluate ESG integration based on risk exposure, market beta, and volatility management rather than expecting superior returns.**
- **Apply broader cutoffs and value-weighting to mitigate extreme-cutoff and small-firm distortions in equal-weighted portfolios.**
- **Construct sector-neutral portfolios to isolate true ESG effects.**

Investment Strategies and Performance Evaluation of the Kazakhstan National Fund: Comparative Analysis and Benchmarking

Nursipat Katbek

Supervisor: Elmira Mynbayeva

SUMMARY

This thesis evaluates the governance, risk-adjusted performance, and recent domestic asset pivot of the National Fund of the Republic of Kazakhstan (NFRK) relative to six peer sovereign wealth funds. Facing limited official return observations, the author constructs a monthly shadow portfolio using disclosed asset weights mapped to public benchmark indices from 2001 to 2025. The empirical results reveal a US dollar geometric mean return of 3.93%, a Sharpe ratio of 0.41, and a Sortino ratio of 1.01, reflecting competent capital-preservation management. However, benchmarking against the Santiago Principles and the Global SWF GSR scoreboard (where NFRK scores just 16%) underscores critical governance deficits—notably the absence of an independent governing board, undisclosed holdings, and repeated dilution of fiscal transfer rules. The study concludes that bridging NFRK's performance gap requires binding transfer rules, enhanced transparency, and structural governance reform.

KEY FINDINGS

- **The fund demonstrates solid investment management with a 3.93% USD geometric mean return, a 0.41 Sharpe ratio, and a 1.01 Sortino ratio, reflecting strong downside protection.**
- **Despite competent portfolio management, the fund's 16% score on the 2025 Global SWF GSR scoreboard highlights severe transparency and governance deficits alongside unsustainable withdrawal rates (~17% annually).**

RECOMMENDATIONS

- **Binding transfer rule (3–5% cap; constrain targeted channel; entrench in law)**
- **Publish GAPP self assessment; join IFSWF**
- **Peer-standard disclosure (allocation, holdings, policy).**

Digital Transformation of Insurance Services

Adil Abeldinov
Supervisor: Bizhigit Sagidolla

SUMMARY

This dissertation investigates the financial and economic impact of digital transformation across four distinct insurance markets from 2015 to 2024: the United States, Germany, South Korea, and Kazakhstan. Utilizing a qualitative comparative framework and secondary data analysis, the research evaluates technological maturity, financial performance, and institutional regulation. The findings demonstrate a strong link between InsurTech adoption and enhanced operational efficiency, highlighted by improved claims ratios in the US and higher returns on equity in South Korea. Crucially, the regulatory environment acts as a vital mediator; specialized frameworks—such as regulatory sandboxes and modernized capital standards—are essential to unlock digital potential. For emerging markets like Kazakhstan, establishing targeted regulatory mechanisms is paramount to converting rapid digital transaction growth into broader InsurTech market maturity.

KEY FINDINGS

- **Positive Correlation Between Digitalization and Operational Resilience.**
- **Strategic, targeted regulatory tools (e.g., dedicated regulatory sandboxes, modernized capital standards like South Korea's K-ICS) are far more effective at catalyzing InsurTech innovation than broad, general regulatory quality indices.**
- **Kazakhstan has achieved high broad digital payments and e-government adoption (~89% digital transactions), yet its insurance penetration remains low (~0.9% of GDP). High industry ROE in Kazakhstan (~15–18%) reflects market concentration and limited competition rather than digital efficiency gains**

RECOMMENDATIONS

- **Adopt the South Korean Incentive Model: Transition from basic compliance oversight to active state-driven innovation. Expand the Astana International Financial Centre (AIFC) and National Bank of Kazakhstan (NBK) regulatory sandboxes to accelerate product testing.**
- **Invest in centralized, open actuarial databases as a public good to reduce underwriting data deficiencies for domestic firms.**
- **Partner with dominant digital payment/banking ecosystems (e.g., Kaspi.kz) to scale embedded insurance and reduce customer acquisition costs.**

About the MNU Center for Economic Research

The MNU Center for Economic Research is a leading research institute at Maqsut Narikbayev University, dedicated to generating innovative solutions for the most pressing economic challenges both locally and globally. Our mission is to drive the advancement of economic knowledge and provide evidence-based insights that influence policy, business practices, and societal well-being.

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