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Perspectives

Book review

The role of context effect in the choice of financial products: An experimental investigation in the Kyrgyz Republic

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Abstract: *Academic research in marketing in recent years has slowly moved away from the idea that individuals make choices based on stable, rational preferences. This paper shows how the context effect – a phenomenon from consumer psychology – can influence the perception and choice of financial products. In an experiment with 90 participants, one group stated its preferences for two financial products; a second group chose from a set of three products -- the two previous ones plus a clearly inferior product, i.e. the context product. The choices of both groups were compared using t-tests. The findings suggest that the introduction of the context product to the choice set significantly changed preferences for at least one of the two basic products. We argue that financial companies can influence customer choices by strategically designing their product portfolios.*

Keywords: *context effect, attraction effect, consumer behavior, cognitive psychology, consumer choice, financial industry*

1. Consumer behavior and context effect – an introduction

Traditional research in marketing and consumer behavior assumes that customer preferences are stable and that customer choices are not influenced by the presence or absence of choice options. Recent research challenges this assumption, indicating that consumer preferences and choices depend on the specific set of alternatives in which an option is considered, i.e. the context effect. The same product may be more desirable in one context and less desirable in another (Busemeyer et al., 2007). The context effect and its variations have significant implications for such marketing practices as pricing policies, product offerings and communication, particularly in the context of competition in the price-quality space (Prelec et al., 1997).

While aspects of the context effect have been researched in such industries as consumer electronics and newspaper publishing, applications to the more complex service context in general, and to the financial industry in particular, are missing. This article reviews the concept of context effect and applies it to the financial industry in the Kyrgyz Republic, proving that banks and other financial players can influence customer choices by changing product offerings and menus. An experiment, involving students of universities in the Kyrgyz Republic, tests for the context effect.

In this article, Section 2 surveys characteristics of the context effect. Section 3 develops the methodology to test whether the effect applies to the financial industry in Kyrgyzstan. Section 4 summarizes the main findings and implications of the experiments. Section 5 discusses limitations of the research and offers recommendations for future research.

2. Theoretical background

2.1 Context effect

Traditional research in consumer behavior builds on decision theory. This assumes that people are rational in their evaluation of products and in their preferences and choices (Busemeyer and Townsend, 1993). In particular, these assumptions rest on the binary independence assumption called the *Axiom M* of *Menu Independence* in decision field theory and other social sciences. In brief, its meaning is this: If option *x* is liked at least as well as option *y* in a choice set containing both options, then *x* will also be liked at least as well as *y* in an expanded choice set containing *x*, *y* and *z*. Thus, if *x* is chosen in the smaller choice set, then it will also be chosen in the expanded set.

The intuitive meaning of the axiom is that the preference ordering must not be altered by a change in the menu from which the individual chose. Eliminating some unchosen alternatives should not affect the selection of *x* as the best option. Vice versa, given preferences over an initial pair of choices, addition of a third option should not change either the preference relation or the preference itself. Debunking the idea of internal consistency of choice as "essentially confused," Sen argues that choice is never independent of circumstances and environmental influences such as objectives, values and norms (Sen, 1993, 1994). He adds that preferences may be sensitive to the choice process itself, including the identity of the chooser, and that choices may have to be made whether or not the judgmental process has been completed (Sen, 1997).

In marketing, consumer behavior researchers challenged the assumption from decision field theory of binary independence based on practical observations, particularly the implication that product choice is always based on rational evaluation. This challenge led to the concept that context affects consumer behavior (Rooderkerk, 2011).

This concept arises from cognitive psychology, which studies mental processes such as attention, thinking and perception. The context effect is "present when a perception of an object changes when its context changes, without […] changes in the object" (Todorovic, 2010). Initial studies of the phenomenon looked, for example, at physical changes of an object's environment, in particular in the visual sphere (Figure 1).

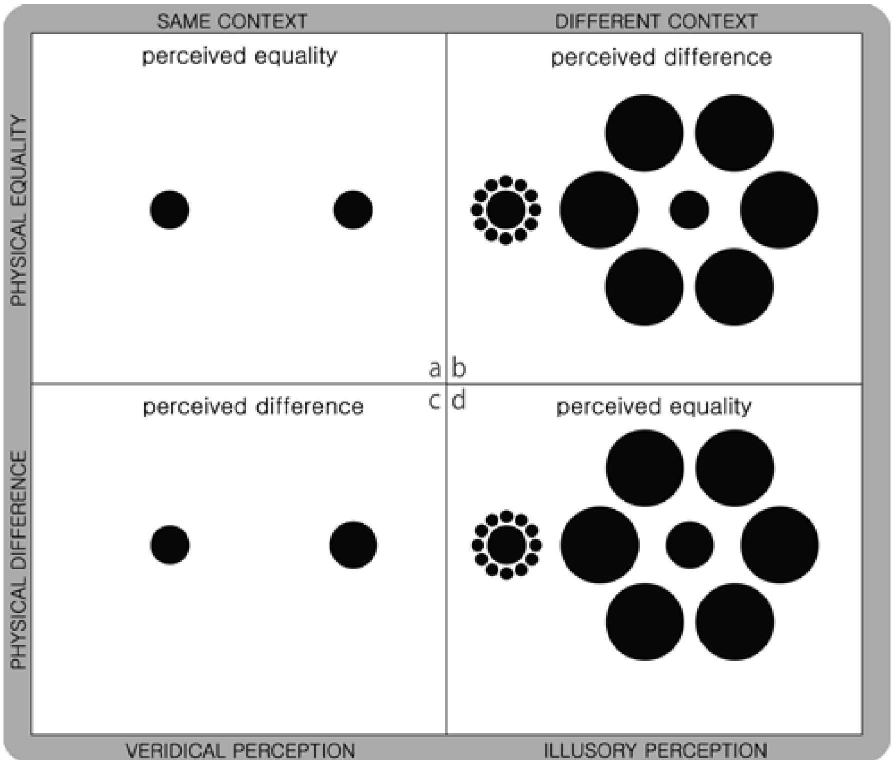

Figure 1. Example of context effect: Perception of object size (Todorovic, 2010).

In addition to the psychological impact of physical changes to an object or its environment, the context effect has implications for business research, especially for marketing. Several studies have found that the choice set greatly contributes to the context effect and not only via physical changes. The perception of objects and the resulting choice can be influenced by the availability (quantity) of options in the choice set and their characteristics. Prelec et al. (1997) refer to the context effect as "the finding that the proportion of subjects choosing a particular product from a set is influenced by set composition in a manner apparently inconsistent with stable preferences."

2.2 Context effect types

Three types of context effect relate to marketing. They have been studied in only the past three decades: The similarity effect (Tversky, 1972), the compromise effect (Tversky, 1972), and the attraction effect (Huber et al., 1982). All three violate the principle from decision field theory of independence of irrelevant alternatives. We will illustrate them with a choice set of two bicycles: Bicycle A has good design and quality but is expensive; bicycle B is affordable but scores low on quality and design.

Similarity effect

This effect occurs when the consumer's preference relationship over the initial pair of choices changes with the introduction of a third option that resembles one of the initial options (Trueblood et al., 2013). Suppose that we add to the choice set {A, B} bicycle C that, like A, is expensive but has good quality and design. This can reduce the preference for A compared to B. In simple terms, when a consumer faces three product options out of which two are similar, the brain tends to group the similar options together. If the initial probability of purchasing A was 50% and for B was 50%, the introduction of C decreases A's probability to 25% while B's probability is still 50% and C's is 25%, gained at A's expense. Figure 2 illustrates the similarity effect.

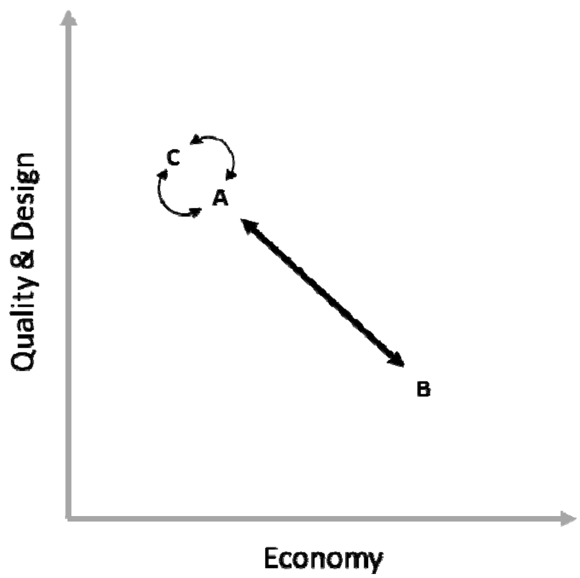

Figure 2. Similarity effect.

Compromise effect

This effect occurs when one option is preferred as a compromise between the two other options (Trueblood et al., 2013). People tend to compromise among extreme options. As Simonson (1989) puts it, they prefer a "middle option" regardless of the real values and characteristics of the choices. Consider a choice set of two bicycles, A and B. The compromise effect occurs when the consumer's preferences between A and B change because of the addition of an extreme product C that makes product A look like a compromise (Figure 3).

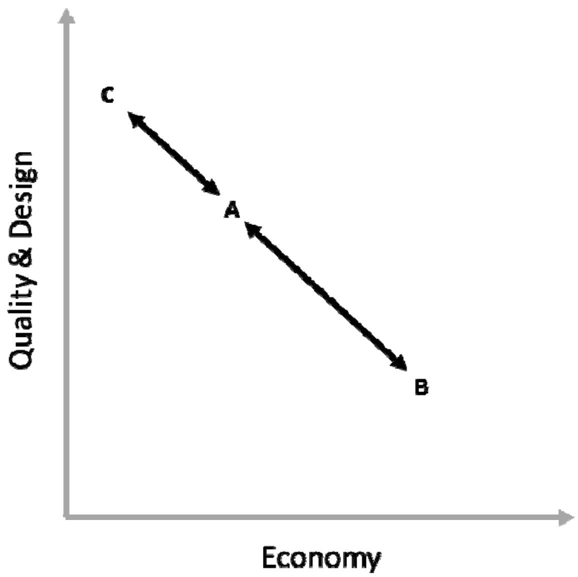

Figure 3. Compromise effect.

Attraction effect

In decision theory, the regularity principle states that the probability of choosing option A from a set containing only A and B should be at least as great as the probability of choosing A from a set also containing B and a new option C. In contrast, the attraction effect occurs if a new option makes an initial option in the choice set "shine out," increasing the preference for it (Trueblood et al., 2013) (Figure 4).

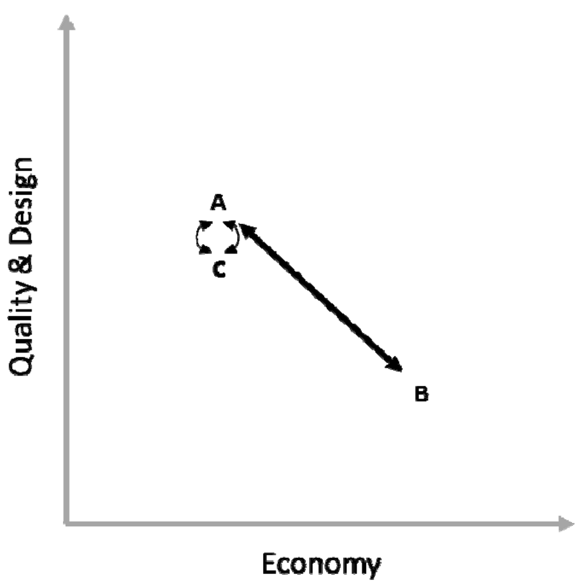

Figure 4. Attraction effect.

2.3 Context effect in the financial industry

While researchers have observed the context effect in a range of industries and markets, its applicability to the service sector has received little attention. Ariely (2008) found that the attraction effect influenced choices in tourism. The initial choice set consisted of a "Rome all-inclusive package" and a "Paris all-inclusive package." Adding a clearly inferior package, "Rome all-inclusive except for coffee," increased the demand for "Rome all-inclusive." He concluded that the attraction effect dominated when consumers found it hard to compare very different options and so chose among options that they could easily compare. Referring to this phenomenon as "trade-off aversion," Hedgcock and Rao (2009) investigated the attraction effect by using a study of functional magnetic resonance imaging. The implication was that the context effect became more significant and relevant when products were harder to compare. Conceivably the attraction effect may prevail more in the service sector than in others, because services are less tangible, more complex, and consequently less comparable than other products. Also, services are closely tied to their providers.

Choosing financial products is an intensive and complex process, since they are manifold. In recent years, they have diversified as banks have expanded their product portfolio and customer base (Finlay, 2012). Choosing financial products is complex because of the special role of money in the economy (Quoidbach et al., 2010). Purchasers of financial products are likely victims of the context effect. They have trouble assessing the differences in such products as savings accounts, time deposits, loans and credits, with respect to interest rates, collateral requirements, terms, etc. Their specific implications for the individual can hardly be predicted by non-experts. Consequently, our research focuses on the application of context effect theory to the financial industry. Financial customers are particularly vulnerable to the attraction effect; adding an inferior product to the set affects choices of the initial products since these become more attractive in the eyes of the customer. We hypothesize that the attraction effect destabilizes consumer preferences and thus induces irrational changes in them:

> *H1: The initial preference relation among two given financial products {A, B} changes with the introduction of a context product C to the choice set.*

3. Methodology

Most investigations of the context effect, in cognitive psychology and marketing, use experiments. The researcher can compare the behaviors of two groups, each exposed to its own choice set, in a way that is easy to administer and control. Ariely's experiment (2008) on the attraction effect used two subscription schemes for the *Economist* newspaper for two groups of university students (Figure 5). We decided upon an experiment to test Hypothesis *H1*, stated above.

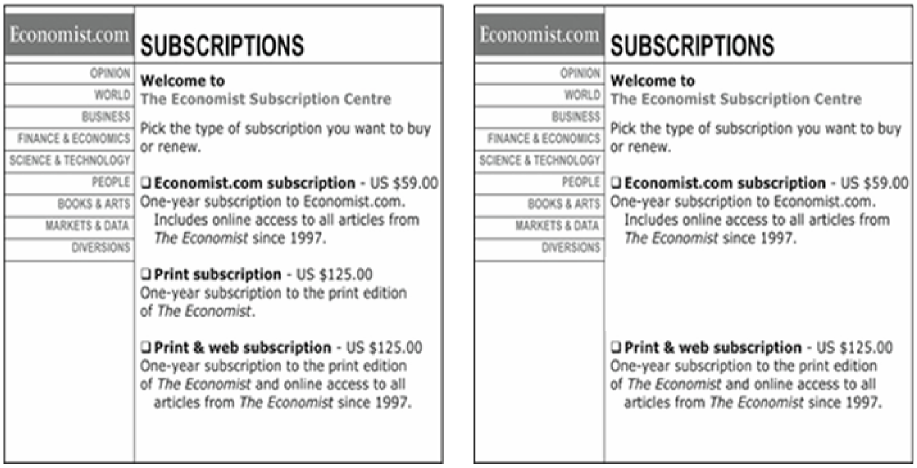

Figure 5. Choice sets of the Economist attraction effect experiment (Ariely, 2008).

3.1 Experimental set-up

The experiment comprised three stages, each leading to the next: Design and pilot a choice set without context; design a context product and add it to the choice set; finally, run the experiment and collect the results.

In the first stage, we developed two loan products that differed in the length of the loan (the period) and the annual interest rate (Table 1). Product A offered a loan for 15 months, with monthly repayments; the interest rate was 22%. Product B offered a loan for 12 months, with monthly repayments; the interest rate was 24%. Most commercial banks in Kyrgyzstan offer annuity plans for consumers to cover their debts. Under such a plan, fixed monthly payments partly cover interest and principal. Table 1 calculates a sample annuity for a loan of 1,000 Kyrgyz *som* (KGS); differences in the resulting values and payments are negligible.

In a pilot test with 30 internet users, neither product dominated the other in consumer choice. Some people preferred product A for its lower annual interest rate and monthly payments while others preferred B for its lower absolute payments of interest. Perhaps each product satisfied a different demand. (The test included a qualitative aspect, asking for an explanation of each choice.)

Loan type	Period (months)	Interest rate (% p.a.)	Monthly annuity payments, KGS	Total repayment amount, KGS
A	15	22%	77	1,152
B	12	24%	95	1,134

Table 1: Choice set of financial products without context.

The next step created a context product. For an attraction effect to occur, this product must be obviously worse than at least one of the others. For comparison to product B, C was created by adding to B a 1% bank commission (Table 2).

Loan type	Period (months)	Interest rate (% p.a.)	Additional condition
A	15	22%	
B	12	24%	
C	12	24%	1% bank commission

Table 2: Choice set of financial products with context.

3.2 Data collection and sample overview

The experiment was conducted at five universities in Bishkek: The Academy of Management under the President of the Kyrgyz Republic, Kyrgyz Economic University, Kyrgyz National University, Kyrgyz-Russian Slavic University, and Kyrgyz State Technical University. With the support of the university administrations, several classes were selected randomly from science and study programs. These classes were visited in February and March 2014. Randomization was employed to select the 50% of the volunteering class students who would participate in the experiment. The randomization was introduced to avoid or at least reduce adverse selection effects. To these students, the two choice sets were distributed randomly, along with a Russian-language questionnaire to provide demographic information and to identify the preferred loan product from the given set. (The English translation is in Appendix A; the Russian version is available on request.) The two groups were filling out the questionnaires separately and at different times. After finding out (with the first group) the preferred product, the context product was introduced to the choice set and a new set was given to the second group. This enabled us to determine which product to create the context for.

The sample comprised 90 participants from the five universities. Participants took 7 to 15 minutes to complete our questionnaire. Detailed demographic information was collected to ensure comparability of the two sub-samples. Table 3 is an overview of the sub-samples and total sample.

	Choice set 1 (no context)	Choice set 2 (with context)	Total sample
N	45	45	90
Age			
18-21 years	82.2%	73.3%	77.8%
22-25 years	17.8%	26.4%	22.2%
Gender			
Male	42.2%	40.0%	41.1%
Female	57.8%	60.0%	58.9%
Income (month)			
<5,000KGS	64.4%	62.2%	63.3%
5001-10,000KGS	24.4%	17.8%	21.1%
>10,001KGS	11.2%	20.0%	15.6%
Origin			
Bishkek	44.4%	68.9%	56.7%
Issyk Kul	20.0%	13.3%	16.7%
Naryn	17.8%	8.9%	13.3%
Djalal Abad	4.4%	6.7%	5.6%
Talas	6.7%	0.0%	3.3%
Other	6.7%	2.2%	4.4%

Table 3: Overview of experiment sample.

3.3 Analysis

In the first group of 45 people exposed to the choice set without the context product, 27 participants (60%) preferred product A, while 18 participants (40%) preferred B. In the second group of 45 people exposed to the choice set with the context product, 18 participants (40%) preferred A, while 24 participants (53.3%) preferred B. Product C was chosen by 3 participants (Figure 6).

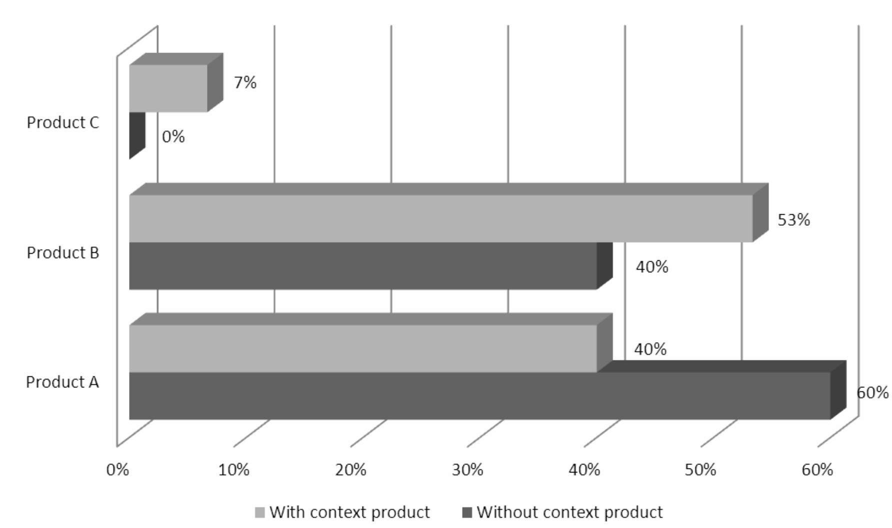

Figure 6. Distribution of choices in context and non-context groups.

Independent t-tests of the differences in the choices of products A and B were conducted for the two groups using SPSS. For product A, the difference in choices between the scenario with and without the context product was statistically significant at the 10% level of significance. Product B was more preferred in the scenario with the context product than in the other (53% versus 40%) although statistical significance in a two-tailed test could not be confirmed due to the small sample size (Table 4). However, since one would expect the context effect to increase preferences for B in this case, a one-tailed test may be appropriate. In that event, the increased preference for B is almost statistically significant at the 10% level.

Product	Group 1 (no context)		Group 2 (with context)		Mean difference		Significance .	
	Q	μ	Q	μ	Δ	Se	t	P
A	27	.60	18	.40	.200	.105	1.90	.061
B	18	.40	24	.53	.133	.105	1.23	.2
C	-	-	3	.07	-	-		

Notes: N_1= 45, N_2=45.

Table 4: Resulting choices of both experiment groups.

We tested for effects of gender, income, origin and field of study on the mean differences, but these were not statistically significant even at 90% significance. These tests included separate mean difference tests for each demographic factor as well as a joint test. Age was not considered as a demographic factor because of the limited age range of the participants.

4. Discussion and implications

Our analysis shows that the context product influenced individuals' relative preferences between the two initial loan options A and B. The introduction of the context loan product C, which is similar to B but inferior to it because of its higher cost, increased the share of participants choosing B while the preference for A decreased. According to decision theory, given stable and rational preferences, the introduction of C should not change the relative preference for A over B. Due perhaps to the attraction effect, however, B became the most popular choice among participants after the context product was introduced.

The practical explanation for this phenomenon is the challenge of comparing alternatives. In the initial situation, A and B were hard to compare. Each product had a certain advantage over the other, in terms of monthly and total payments. The introduction of the context product resulted in a choice set where one could easily compare two of the three products (B and C). Participants focused on these two, ignoring to some extent the third option A. This increased demand for B and decreased demand for A.

These findings suggest that adjusting the availability of options in a given choice set of financial products can influence the demand for a specific product. This is highly relevant to the competitive financial market, with its diverse and complex products. The Kyrgyz banking landscape is characterized by high liquidity and intense competition for potential loan customers. For example, the National Bank of the Kyrgyz Republic (2013) highlights a major increase in the loan portfolio of the commercial banks, which at the end of 2013 amounted to 54b Kyrgyz *som*, a yearly increase of 34.5%. At the same time, the industry was quite liquid (National Bank of the Kyrgyz Republic 2014), indicating sufficient money for loans and significant competition for customers.

If a financial institution wishes to stimulate a long-term loan (for example), it can create loans that are similar to it but less attractive, inducing customers to focus on the most comparable ones. Indeed, consumers could compare financial products across several institutions; the offerings of one company could serve as the context for those of another. Also, companies can try to counter the attraction effect by positioning their products in a way that decreases direct comparability.

Exploiting the context effect has an ethical dimension. On one hand, the context effect could stimulate the sales of desired and useful products; on the other hand, exploiting the effect could be interpreted as misleading consumers by manipulating their perception in favor of irrational, maybe even harmful, choices. As our experiment showed, participants exposed to the initial choice set preferred A to B. Once a context product was introduced, people preferred B to A, although the qualitative differences between the two products had not changed. Rational evaluation of both options was weakened by adding the context product to the choice set, favoring otherwise unwanted products. However, the same ethical dimension is in such key marketing decisions as positioning, pricing and advertising. Before exploiting the context effect, a company must carefully rethink its ethical and socially responsible behavior.

5. Summary

Following Sen's reasoning that individual choice is influenced by environmental and personal characteristics that can eliminate binary independence, this research tested whether the context effect in general, and the attraction effect in particular, can be observed in the financial market. To confirm our hypothesis, we conducted an experiment with 90 students from five Kyrgyz universities. The results indicate that the introduction of a context product that is similar but clearly inferior to an initial option may increase the preference for this option (Figure 7). From this finding we derived several implications for marketing practices in the financial industry, which were discussed in detail in Section 4.

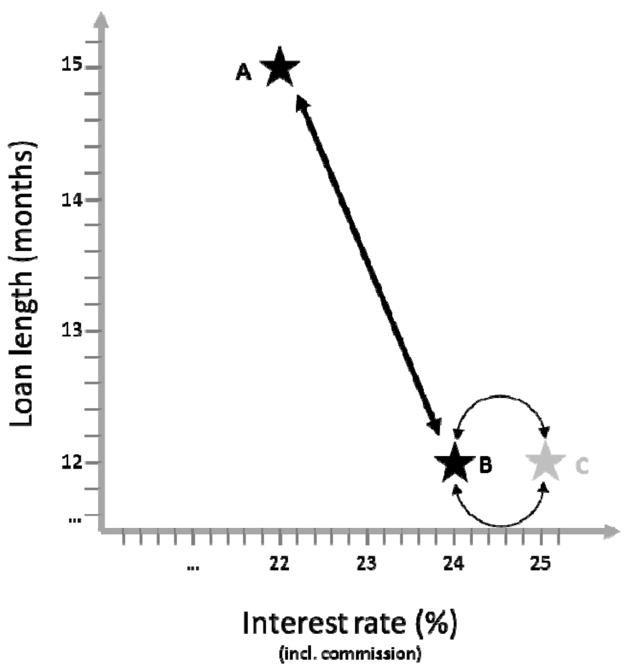

Figure 7. Visualization of attraction effect for financial products A and B with context product C.

Limitations

Our research has several limitations. First, the participants were not in a completely realistic situation for choosing a product. In reality, a person thinking about taking a loan will probably consult family and experts. Extended consultation would likely decrease the context effect, although the customer's own evaluation and perception would still be essential to the purchase decision.

Second, although we recruited students from several universities and fields of study, the use of only college students yielded a sample that may not fully represent financial consumers. On the other hand, identifying actual customers without an overall product bias (as they had already made a choice) would be challenging if not impossible. In addition, the choice to compare group means using independent sample t-tests rather than to analyze the absolute choices and their underlying factors should make our findings more transferable, although confirming tests with other samples are recommended.

Thirdly, the lack of statistical significance concerning the choice of product B is unfortunate but due to the small sample size. A similar study with a larger sample could underscore the findings of our work.

Directions for future research

Using our research on the attraction effect in the financial industry as a starting point, two directions of further research seem worthwhile. Firstly, it is reasonable to assume that the similarity and compromise effects also influence individuals' choices of financial products. This assumption can be investigated through similar experiments.

Second, researchers can investigate differences between types of financial products. Finlay (2012) concludes that decision-making processes differ significantly between types. One can investigate if the extent and impact of the context effect also differ across types. This would enable financial institutions to identify products that require caution when they develop a competitive position.

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Appendix A

Questionnaire for choice set without context product

Questionnaire
Hello, thank you for kindly agreeing to take part in this marketing experiment. The information provided will be used for my senior thesis. Please do <u>not</u> share any personal information (cell phone number, names and etc.) for confidentiality purposes.
1) Sex: **M** **F**
2) Age: **18-21** **22-25**
26-29 **>30**
3) Area of study:
____
4) Region (where you are coming from):
Bishkek **Osh**
Issyk Kul **Djalal Abad**
Batken **Talas**
Naryn
5) Approximate monthly income:
0-5000KGS **5001-10000KGS**
10001-15000KGS **15001-20000KGS**
20001-25000KGS **More than**

Questionnaire for choice set with context product

Questionnaire
Hello, thank you for kindly agreeing to take part in this marketing experiment. The information provided will be used for my senior thesis. Please do not share any personal information (cell phone number, names and etc.) for confidentiality purposes.
1) Sex: **M** **F**
2) Age: **18-21** **22-25**
26-29 **>30**
3) Area of study:
____
4) Region (where you are coming from):
Bishkek **Osh**
Issyk Kul

Tenge devaluation: The role of risk and uncertainty and economic consequences. A comment

Gerald Pech,[1]
College of Social Sciences, KIMEP University, Kazakhstan
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Abstract: *This comment discusses the trade-offs faced by the National Bank of Kazakhstan in the recent tenge devaluation. Expectation of further depreciation will make it difficult for the National Bank to stabilize the exchange rate in the long run. The National Bank must either accept increased dollarization of the economy or move towards greater exchange rate flexibility. Each of these options must look undesirable to the National Bank.*

Keywords: *Exchange rate stability, exchange rate target zones, emerging markets*

1. Introduction

On 11 February Kazakhstan experienced the second major devaluation of its currency against the dollar within five years. Since the previous devaluation at the height of the financial crisis in 2009, the National Bank of Kazakhstan (NBK) had effectively defended a trading band of 145 to 155 tenge against the dollar. It now targets the range of 182 to 188 tenge while reiterating that a move towards greater exchange rate flexibility remains a medium term goal (National Bank of the Republic of Kazakhstan, 11 February 2014). In the preceding months, investors had turned against a number of emerging market economies, following signals from the Federal Reserve that the period of ultra-low interest rates in the United States was drawing to a close. While some countries affected had followed previously observed patterns of emerging market economies with an initial negative current account balance (Calvo, Leiderman and Reinhart, 1996), the crisis also reached countries with nearly balanced trade such as Brazil and Indonesia (OECD, 2013). Russia – a surplus country – was initially affected to a lesser extent, but by February 2014 the ruble had lost almost 15% against the dollar compared to the beginning of 2013.

Before the devaluation, Kazakhstan had appeared untouched by the wider market turmoil. Yet market sentiments played a role in the decision of the NBK: In its press statement of 11 February, the bank explicitly cites depreciation expectations and its concern over speculative operations as reasons for why it had to depreciate (National Bank of the Republic of Kazakhstan, 11 February 2014).[2] The replacement, four months

[1] I wish to thank participants at the Central Asian Studies Center roundtable on tenge devaluation for valuable suggestions and my class in Advanced Macroeconomics at KIMEP University for critical comments. In particular, I am indebted to Kanat Khalilov who made me aware of an omission in an earlier draft.

[2] In an interview with Forbes.kz (19 February 2014), Olzhas Chudaibergenov, adviser to the chairman of the NBK, pointed out that net sales of foreign exchange reserves by the National Bank between 1

earlier, of Grigory Marchenko as governor of the NBK did little to allay fears of an impending depreciation. Nevertheless, the bank's decision, when it finally came, took many market participants by surprise (FT.com, 11 February 2014a).

With its swift and rather secretive operation, the NBK seemingly managed to avoid major costs in terms of higher interest rates or losses of foreign currency reserves. Yet further costs are likely to arise as a consequence of market participants' changed expectations of policy. An important question, which this paper addresses, is what can be learned from this episode about the objectives of the NBK and the trade-offs it is willing to make.

Section 2 identifies winners and losers of the tenge devaluation; Section 3 assesses the trade-offs faced by the NBK; Section 4 explores the consequences of the devaluation for investor confidence; Section 5 discusses the magnitude of the devaluation. Section 6 concludes.

2. Who wins – who loses?

Clear winners include owners of dollar-denominated assets who are indebted in tenge. This category includes companies which produce internationally traded goods and have implicit liabilities in their tenge-denominated wage bill. An example is the mining company Kazakhmys whose shares gained 25% in London trading on 11 February (FT.com, 11 February 2014b). Nevertheless, this case also suggests that problems are likely to reappear in the long term as pressure to save costs is removed in the short term but wage inflation is likely to pick up at some point.

On the other hand, most workers are not likely to lose significantly in the long run. Workers indirectly benefit because currency depreciation removes pressures on export firms to cut costs which could otherwise have resulted in shedding of the work force. Currency depreciation is a protectionist tool and its use may be taken as a signal that deeper structural problems are not going to be addressed (FT.com, 11 February 2014b).

The direct effect on workers is a decrease in real wages as a consequence of higher import prices. Because the consumption share of imported goods increases with income, the incidence of this "depreciation tax" is progressive.[3] In the medium term, depreciation will push up inflation. The redistributive effects of inflation are generally complex but with the minimum wage regularly adjusted and the wealthy shielded by better asset management the negative effect of higher inflation is most likely to be felt by those in the middle of the income scale with a significant share of tenge-denominated savings.[4]

December and 10 February were $4.4 bn – almost twice the reduction in foreign currency reserves over the whole year of 2013.

[3] According to Yerbolat Dossayev, Minister of Budget and Planning, 80% of basic goods are produced in the country. See FT.com (11 February 2014a).

[4] The pension fund, for example, had increased its share of government securities over the last few years. See International Monetary Fund (2013).

Currency devaluation also results in a shift in the risk allocation in existing loan contracts (Tirole, 2002, pp. 82-88): Dollar-denominated loans are getting riskier when the income of the borrower and the collateral are denominated in tenge. Although the ratio of external debt to GDP has declined since the financial crisis of 2008, it still exceeds 30%. Thus losers are foreigners who are indirectly exposed to tenge-denominated assets.

Looking at the likely winners and losers, the experience of the recent devaluation is compatible with reluctance on the part of the National Bank to take on the interests of export-oriented firms or to force policies which ultimately have the potential to alienate a substantial section of the work force. Both sentiments could manifest themselves in a preference for devaluation in the future.

3. Trade-offs faced by the central bank

Further insights into the policy priorities of the central bank can be gained by looking at the trade-offs that it faced in the current devaluation.

From the Bank's public statement (National Bank of the Republic of Kazakhstan, 11 February 2014), a main concern was the deteriorating current account balance. Mainly due to an increase in imports, the NBK had experienced a net loss of foreign exchange assets in 2013. Because most exports are invoiced in dollars, the devaluation is likely to address this problem as demand for imported goods decreases.

The formation of a customs union between Kazakhstan, Belarus and Russia in 2010 must have heightened concerns about competitiveness. At the time of the devaluation, the NBK was particularly concerned about an imminent collapse of the nominal ruble exchange rate (McDrum, 11 February 2014). Nevertheless, a recent increase in the non-oil sector's share of global exports suggested an improvement in its competitiveness (International Monetary Fund, 2013) and, despite nominal realignment, the real exchange rate against the ruble had shown little movement in 2013.[5] Only against the euro and the dollar had the real exchange rate significantly appreciated. This does not necessarily signal a serious competitiveness problem.

If it had been the central bank's goals to defend the exchange rate in the face of capital outflows, it could have raised its short term interest rate. Interest rates had come down from their peak in 2008. In 2013 the official policy rate was below 6%. Kazakhstan had more recently experienced moderately high inflation rates with import prices, and in particular food prices, the main drivers in the short term, while demand and money supply played an insignificant role.[6] In 2013, inflation had reached a historical minimum of 4.8% (National Bank of the Republic of Kazakhstan, 11 February 2014). This perhaps explains a reluctance to engage in substantial tightening of monetary policy. Yet in view of a weak monetary transmission mechanism and a professed inflation target of 3-4% the risk would have seemed manageable.

[5] According to National Bank data, retrieved on 26 April 2014.

[6] Coronel et al. (2011) ascribe this observation to the high degree of dollarization in Kazakhstan. Currently, 40% of bank deposits are in dollars (International Monetary Fund, 2013).

4. Investor confidence

4.1 Is the tenge currency risk one-sided?

Because Kazakhstan exports commodities, one would expect its currency to come under pressure to appreciate. It experienced such pressure as recently as 2011. Yet it is easier for a country to defend its currency against pressures to appreciate than against pressures to depreciate: The former is easily achieved by printing money whilst the latter incurs a cost in the form of loss of foreign exchange reserves or higher interest rates. The NBK had managed in the past to contain inflationary pressures by sterilizing its interventions in the forex market (Coronel et al., 2011) but it now has clearly demonstrated that it is not averse to policies which carry with them a substantial increase in expected inflation.

If the NBK were to commit itself once more to an exchange rate target, in the long run the tenge would look like a one-sided bet: When faced with the same set of conditions, why would the NBK choose a different course of action the next time around?

4.2 Investor rationale and capital flows

Assume that an investor has to choose between an investment in a dollar-denominated asset and a tenge-denominated asset. If this investor is an American or a Kazakhstani who wishes to consume tradables, she will be interested in the dollar return on this investment. If dollar-denominated assets yield an interest rate of 1%, any investment in tenge must afford a return which is at least as great after correcting for an appreciation or depreciation of the tenge against the dollar. Assume that the interest rate in tenge-denominated assets is 5%. If the investor expects that the annual depreciation of the tenge against the dollar is 4% – which leaves her with a net return of 1% – and she does not mind the risk of the tenge investment, then she would be exactly indifferent between the options of investing in dollars or tenge. Yet if the investor dislikes the risk of investing in tenge because she is concerned about maintaining her consumption in dollar-priced goods, she would only be willing to hold the tenge-denominated asset if it pays her an overall return which exceeds the return on the dollar-denominated asset. This extra return requested on an asset which is perceived to be risky is called the risk premium. The following indifference or arbitrage condition for this investor between the tenge and dollar investments neatly summarizes this argument:

interest rate ($) = interest rate (kzt) – % expected depreciation (kzt) – risk premium (kzt)

As we have argued, the situation in Kazakhstan makes further depreciation more likely and we would expect interest rates in Kazakhstan to exceed those in the US. This tended to be the case even when the tenge was under pressure to appreciate which suggests a lingering effect of previous episodes of monetary instability which continue to affect risk perceptions. Countries that peg their currency in order to establish a reputation for monetary stability and do so against devaluation expectations face a cost in terms of higher interest rates.[7] For Kazakhstan, possibly after a honeymoon period with the new exchange rate target, this cost is likely to increase.

But shifts in the perception of risk not only affect portfolio investment but also the attractiveness of Kazakhstan as a destination of foreign direct investment. Whilst firms producing commodities are not adversely affected by future currency depreciations, firms that aim at the Kazakhstani market clearly are.

4.3 Transparency

When a central bank faces speculative purchases of foreign currency, it is reasonable to leave market participants in the dark about such purchases taking place or about their effect on the central bank's war chest. More generally, though, it is less likely that the central bank becomes the target of a speculative attack if market participants trust it to behave transparently at all times.

This, at least, is the message of third generation models of currency attacks with self-fulfilling features following Morris and Shin (1998). Assume that the central bank is willing to defend the peg up to a particular threshold value of a fundamental, which may be the amount of foreign currency reserves. Moreover, assume that market participants have different risk preferences and that they are uncertain about the true realized value of the fundamental.[8] The market participants may either hold tenge or dollars where holding tenge is risky and the dollar investment incurs a cost because some purchases have to be done in tenge or the interest rate on tenge-denominated assets is higher. In such an environment, the deterioration of the fundamental will increase the likelihood that a critical number of market participants want to reduce their tenge holdings, thus forcing the central bank to give up the peg.

Heinemann and Illing (2002) show that if signals of the fundamental become less exact, the likelihood of a speculative attack will increase. Now assume that the market is also uncertain about the threshold at which the central bank wants to give up the peg and that this uncertainty takes the form of a "mean-preserving spread," i.e., the central bank is more likely to give up the peg at a higher or lower level without affecting the perceived average preference. In such an environment, citizens will clearly become more reluctant to hold tenge – i.e., even less risk-averse market participants will find it in their interest to move into dollars. The critical level of speculation where the central bank gives up the peg is more easily reached.

So a reduction in transparency in terms of clarity of policy objectives and of the quality of public information makes adverse flows of capital more likely from an ex ante point of view. The experience of the recent tenge devaluation raises some concerns about whether the NBK's information policy has been entirely transparent.[9] The removal of some uncertainty over policy objectives may tend to weaken the NBK's conservative policy credentials.

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[7] For theory and evidence on currency pegs with devaluation expectations see e.g. Mizrach (1995).
[88] See e.g. Baikenova and Pech (2014) for a currency crisis model with these features.
[9] See, for example, zakon.kz (18 February 2014).

5. Why not 10%?

Why did the NBK depreciate by roughly 20% and not by, say, 10%? Tim Ash of Standard Bank London (FT.com, 11 February 2014a) suggested that after the substantial depreciation, the NBK ended up with an exchange rate that it could defend comfortably. This deserves a pause for thought: If the "panic or multiple equilibria view" of exchange rate crises were true, any exchange rate could come under attack, and this could eventually force the hand of the central bank. Capital controls – which the president of the Republic of Kazakhstan is authorized in principle to impose – would probably be a more potent weapon in such a scenario (Tirole, 2002, p. 45). If, on the other hand, the "fundamental view" is correct, an exchange rate below the "shadow exchange rate," i.e., the market exchange rate that would prevail in the absence of central bank intervention (Flood and Garber, 1984), could be defended.[10] Yet in the case of Kazakhstan, this concept of an alternative market rate as the equilibrium exchange rate is particularly elusive. If it is the exchange rate at which the current account balance is zero, the central bank could have continued with its monetary policy at the old exchange rate. Also, foreigners need not finance a current account deficit, so their willingness to provide funds provides no valid yardstick. An alternative concept to determine the equilibrium exchange rate is purchasing power parity, which assumes that the prices of goods should not diverge between countries when expressed in one currency. Purchasing power parity implies a constant real exchange rate. Yet as we have seen, in Kazakhstan the real exchange rate has been fairly stable, suggesting that purchasing power parity does not justify exchange rate realignment either. With all other explanations failing, all we can say in the case of Kazakhstan is that the equilibrium exchange rate is simply the one that the market is willing to play along with while the central bank sees no reason to change its monetary policy!

A smaller depreciation might have created the expectation that further cuts are on the way. This could have cut short the honeymoon period and exposed the tenge to speculative capital outflows. But as a step towards a more flexible exchange rate regime, a smaller rate cut would have made sense. So, why not 10 percent? Because the market-based explanations are not entirely convincing, we conclude that competiveness considerations might have played once more a crucial role in determining the magnitude of the intervention by the NBK. [11]

6. Conclusion

If promises cannot be kept and everybody knows that they will not be kept, there is no point in making them. Because a promise explicitly or implicitly given by the NBK to keep the tenge pegged to the dollar will ultimately result in a one-sided bet, there is now a strong case for moving towards a more flexible exchange rate regime. The NBK indicated as much in its statement of 11 February (National Bank of the Republic of

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[10] The "third generation" model which we introduced in the previous section combines aspects of the "fundamental" and the "panic or multiple equilibria" views.

[11] Such considerations appear to have played a role in its previous market interventions. See International Monetary Fund (2011), p. 16.

Kazakhstan, 11 February 2014). In so doing, it would follow earlier advice by the IMF (International Monetary Fund, 2011, 2013). Historically, the tenge peg was a response to the hyperinflation of the 1990s and was designed to establish credibility of the NBK. A benign side effect has been to prevent appreciation of the tenge – a tendency often experienced by resource-rich countries which carries the risk of more quickly contracting the Dutch disease. The possibility for the tenge to appreciate would make holding the currency more attractive. So the choice is between more flexibility, with the risk of ending up with a stronger currency, and a non-credible renewal of the peg, with the threat of further dollarization. Neither prospect looks desirable from the perspective of the NBK. The fact that these are the choices left demonstrates that reneging on an exchange rate target has long-term economic costs.

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Labor productivity and school reform in Kazakhstan

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Abstract: *By specializing, workers can boost economic growth. But they could be hindered by high coordination costs, which discourage firms from screening, and by low production of knowledge, due to low incentives for learning.*
Keywords: *education, shirking, division of labor, specialization, screening*

1. Introduction

Adam Smith (1776) in his magnum opus, *The wealth of nations,* states that "the greatest improvement in the productive powers of labor, and the greater part of the skill, dexterity, and judgment with which it is anywhere directed or applied, seem to have been the effects of the division of labor." How important is the division of labor (known today as "specialization") to economic growth in Kazakhstan?

Borland and Yang (1991, p. 475) developed a formal version of the proposition, from Smith (1776) and Allyn Young (1928, p. 539), that increases in the division of labor will raise the rate of economic growth as long as specialization has evolved sufficiently and can continue. This in turn depends on transaction efficiency, which is affected by government policies, institutional arrangements and urbanization (Borland and Yang, 1991, p. 478). Becker and Murphy (1994, p. 1138) propose that specialization is limited not solely by the extent of the market but by costs of coordinating specialized workers. As human capital grows, teams get larger and workers become expert over a smaller range of skills (p. 1146).

In Kazakhstan, production of knowledge is weakened by insufficient incentives, due to a sluggish labor market, and by needlessly high transaction costs, which slow evolution of the division of labor.

2. Forces that affect the division of labor

The increasing returns from concentrating on a narrow set of tasks raise the productivity of a specialist above that of a jack-of-all-trades. Workers divide the production process into specialized parts that each performs herself. The final good emerges from the team. Members must cooperate, so transaction costs are inevitable.

Becker and Murphy (1994) illustrate coordination costs: "If each historian specialized in the events of only a few years, they would become more expert on developments during these shorter time periods. But since events over a few years are not isolated from those in prior and subsequent years, each one would then have to coordinate his research with that of several other specialists" (p. 1143).

Throttling entrepreneurship, and weakening market capacity to coordinate transactions, will lower specialization in centrally planned economies (Becker and Murphy, 1994, p. 1144). The comment is crucial since post-Soviet Kazakhstan has retained a needlessly large role of the state. Further, since teams may include workers in different firms, coordination costs also depend on market efficiency, contract enforcement, trust among workers, and stable and effective laws (pp. 1141, 1157). Formal and informal institutions become indispensable.

Kazakhstan's weakness is its inability to assist division of labor, exacerbated by needlessly high transaction costs (imposed by, for example, red tape or distrust among firms). Becker and Murphy (1994) argue that companies are less vertically integrated when it is cheaper to coordinate specialized team members through market transactions. To cut transaction costs, firms locate near each other and specialize (p. 1144). Infrastructure facilitates communication between firms, reducing coordination costs.

3. Knowledge and specialization

Greater knowledge raises the benefits from specialization and thus raises the optimal division of labor. Increased specialization in turn increases benefits from investments in knowledge, allowing an economy to continue to develop (Becker and Murphy, 1994, p. 1157).

Engineers of the early 19th century were not highly specialized. But growth of industries based on new scientific technologies led to many engineering specialties. The British Institute of Civil Engineering started in 1818; mechanical engineers started their own society in 1847; electrical engineers, in 1871; automobile engineers, in 1906; and so on until chemical and other specialized societies had emerged (Buchanan, 1989). Much growth in specialization has been due to extraordinary growth in knowledge (Becker and Murphy, 1994, p. 1145). In Kazakhstan, impediments to education and to the absorption of knowledge retard the division of labor. The labor market fails to provide incentives to invest in good education and new skills.

4. The state of the labor market and the incentives it creates

The problem may lie in screening and monitoring, which affect the incentives of individuals to acquire education. Needlessly large transaction costs reduce monitoring and screening by firms. The principal-agent problem, which is the core of shirking, gets little attention. In addition, the general quality of education leaves much to be desired, as individuals who enter the labor market know little about how to use their skills. As Stiglitz (1973b, p. 11) argued, training for one machine does not equip one for operating another. This imposes training costs on firms – costs that might crowd out investment in screening. Indeed, skills taught in schools fail to match those required in the labor market, partly because schools act on outdated information. General education and skills must be strategically placed in order to absorb technologies.

Akerlof (1984, p. 82) and Stiglitz (1987) suggest that employees who feel unfairly treated will not only fail to indulge in the game but may help change its rules so that its outcome is less advantageous to the firm. Akerlof (1980, 1982) and Schlicht (1981a, 1981b) develop theories of the employer-employee relationship in which psychological and sociological considerations lead to a dependence of productivity on wages. Akerlof (1984) describes some experiments in which different workers are assigned identical jobs and paid identical wages but believe that they are either under- or overpaid. These perceptions may curtail productivity. Absence of screening eliminates competition and rewards for the skilled who feel underrated and perform worse.

Individuals differ in their comparative skills and in the ease with which they learn skills (Stiglitz, 1973b, p. 10). If the firm can identify the proper characteristics of individuals and assign each worker to her proper place, then -- following Adam Smith's thought -- productivity will increase. Stiglitz (1973b, p. 3) argued that schools are major institutions for providing information about the individual, about his capabilities, strengths and weaknesses. Able individuals have an economic incentive in being identified, since assigning each to her own specialization increases her production and wages (p.5). This requires screening for ability. But bureaucratic costs make screening too expensive for some firms.

The full screening equilibrium benefits able individuals since they receive greater wages – but it reduces wages of the less able (Stiglitz, 1973b, p. 6). It is in the interests of poorer workers to obscure identification of the best workers (p.14). Corporate insiders may prevent screening in order to avoid competition. Moreover, if students know nothing about their abilities, which is common in Kazakhstan, then no screening may occur even if it would increase net national product (p. 16).

5. Conclusion

Specialization boosts economic growth, but several forces could slow down this evolution: High transaction costs among firms, which increase coordination costs and decrease screening; low production of knowledge, due to low incentives to learning; and insufficient screening, which slows down specialization and weakens incentives to get a good education. What can be done?

First, education should improve. Many researchers argue that the quality of schooling is more important than the quantity; the latter is measured, for example, by years of attainment. Barro and Lee (1998) discuss cross-country aggregate measures of the quality of education. Hanushek and Kimko (2000) find that scores on international examinations – indicators of the quality of schooling capital – matter more than years of attainment for subsequent economic growth. Firms, in turn, may rely more heavily on quality of education indices to predict performance, e.g., test scores, creating incentives to perform better in school (Stiglitz, 1973a, p. 293). Generally, the educational process can be improved by making resources available to students. These resources can be measured by such indicators as the pupil-teacher ratio, expenditure per pupil, the teacher's salary and educational attainment, and availability of teaching materials. Fuller (1986) reviews studies that show a positive relationship between pupil achievement and the availability of textbooks and related materials. Barro and Lee (1998, p. 6) expected the pupil-teacher ratio to correlate negatively with test scores, because students can learn more rapidly by interacting more often with teachers. Moreover, teachers in large classes tend to focus on rote learning, not problem-solving skills (Psacharopoulos and Woodhall, 1985, p.176). Nutrition of children is an important factor too; Pollitt (1990) summarizes nine studies that report a significant relation between protein-energy malnutrition and cognitive test scores of student performance. The teacher's salary and highest degree earned could be indicators of her quality. Higher salaries attract qualified and productive teachers who help students achieve. Several studies show that teacher quality strongly affects student achievement (Behrman and Birdsall, 1983; Card and Krueger, 1990).

Second, general transaction costs should be reduced and communication networks improved via development of infrastructure. This will reduce the coordination costs of specialization.

Third, one way to provide incentives to get a good education is by screening and demanding skilled performance. Foreign firms, with their own standards of working, may lead the way for home firms (Sachs and Warner, 1995, p. 2).

Quality education and new knowledge are vital to economic growth. However, in developing economies, educated people often leave the country. This shifts the focus to the provision of incentives to stay.

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A stadium for Almaty?

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Abstract: *The author describes the planning, building and operation of a football stadium. Economists use cost-benefit analysis to see whether a project should go forward. For a football stadium the analyst may obtain either result -- build or not build. First the project requires the acquisition of appropriately located land. As it proceeds, making a stadium generates jobs, thus stimulating the local economy. When it is finished, successful management may bring forth a profitable enterprise. There is a multiplier effect which further aids the region's economy. Comparison to an arena shows that the smaller arena may be operated more efficiently. However, a properly managed facility can also be used frequently, leading to a similar level of efficiency. Over the years a stadium may require maintenance and even remodeling. Wise planning can lead to a stadium that other cities wish to emulate. Technical analysis done elsewhere leads to a critical mass for such a project. Proper consideration of opportunity cost may be an important item leading to support or opposition for a football stadium. It takes years to take the stadium from the drawing board to full realization and the costs (and benefits) may be billions of dollars.*
Keywords: *Stadiums, project analysis, cost-benefit analysis, sports economics*

1. Introduction

Almaty is the leading city in Kazakhstan, so it seems natural to pose the question in the title. However, economic analysis indicates that the decision is not so simple. In particular those who favor such a project would emphasize the benefits to the exclusion of important costs. Their opponents would trumpet the costs and downplay the benefits. Robert Baade and Richard Dye (1990) analyze the impact of a stadium on urban development. Their finding refutes the received wisdom that said impact is always positive. Kenneth Shropshire (1995) suggests that cities chase teams. Teams are thought of as a non-polluting industry, at least at the first level of analysis. Rodney Fort and James Quirk (1995) refer to the cross-subsidization that occurs in professional sports. This could be greater if sports teams did not insist on exclusive rights to stadium use. Thus a football stadium could be used in the off-season for musical events, political speeches, other sports events and so forth in the absence of exclusive rights. Dennis Zimmerman (1997) inquires as to the burden and benefit of stadium subsidies. Asking the public to foot the bill for millionaires or even billionaires to build and own a sports palace is a hard sell in these days of tight budgets. Rodney Fort (2003) in his sports economics book devotes two chapters to this question. One is titled subsidies and economic impact analysis (page iii) and the other the stadium mess (ibid.). He analyzes the problem of free riders; he could supplement with forced riders as well. Andrew Zimbalist (2011) devoted a chapter to what he called facilities finance. Some stadiums are publicly financed, some privately and there are those with partial subsidies. Finally Ahmed Khalid et al. focus on the value of the stadium to the city. Their work emphasizes the benefits but warns that the cost may be overwhelming.

While economic analysis is used, this is a paper written for understanding by the educated lay level reader as well as the professional scholar. The author continues the paper with the planning, building and operation of the stadium in sections II, III and IV respectively.

2. Planning

The successful execution of a football stadium project requires careful planning. Failure to consider the weather has doomed stadiums and even teams. Location is also an important matter as a city center site may minimize transportation costs but prove a crime magnet. The ideal stadium should provide service for several generations. Renovation to increase team revenue should not be an ongoing affair. Some localities require environmental impact statements and this requirement should be viewed in a positive light. Thus if a plot of land is earthquake prone, subject to hurricanes, floods, tornadoes or similar problems, resistance to bad weather should be designed into the project. Similarly the requisite infrastructure must be considered as the planning goes forward. “If you build it, they will come” is a pleasant motto, but much more work must go into such an endeavor. Fortunately a national football team in Almaty is not likely to move to Karaganda at the drop of a hat the way sports teams move in the US. Let us look at the land requirement for the stadium.

Buying the land can be very expensive, whether done by a private owner or by the public under the rubric of eminent domain. The stadium requires parking facilities which pay off in the form of parking fees. Likewise concession stands that sell food and souvenirs can be designed into the stadium. There is a university stadium that even doubles as a dormitory, but that seems unusual. A media center and skyboxes may seem like unnecessary expenses, but they draw favorable coverage and money from the wealthy who enjoy such luxury. One must think ahead of time so that it is not necessary to move a team’s base of operations from one location to another. Once the land is developed for use as a football stadium, other uses might require its demolition. Thus it would be wasteful to choose one place, then go to another and perhaps even a third just because of inadequate foresight. Usually the plan is to buy the land rather than lease it and such specialized status as severed improvements or mineral rights are too arcane for the ordinary experience.

After acquiring the land, the organization must hire such essential personnel as an architect and a contractor. Proper design can lead to a world-famous building that serves its purpose especially well. An aging stadium, even if a well-known landmark, may need to be renovated or even replaced. The Almaty Football Stadium, if it is ever built, should not be known for its rats and reeks. A stadium is considerably larger than an arena and the architectural skills are employed differently in building the one as opposed to the other. Thus a football stadium would be designed as a multilateral building as opposed to an arena which could be rectangular. Actually the first step would be the internal design with focus on the playing surface. If it is a multi-purpose facility, the various uses would need to be represented in a series of overlays. Clear plastic layers can show the various requirements and prevent costly alterations as the project proceeds. Concession stations, restrooms, first-aid areas all need to be planned for right along with the media facilities and skyboxes. A properly designed stadium should be useful for many purposes. The old adage that it will pay for itself only applies if it is used and the tenants remain there year after year. Research into various stadiums with a view to their strengths and weaknesses can lead to an Almaty stadium that is both functional and beautiful and that fulfills its destiny.

3. Building

The building of the stadium is an important generator of employment and allied economic activity. From landscaping to parking lots, from the stadium itself to furnishing it appropriately, from raising the money to spending it, the building of any stadium is quite a long and involved project. Even if the economic analysis shows that the stadium is only a marginal plus for the local economy, the value of the construction is measured in jobs well done, and as a facility that tourists seek out for visits and vacations; in short it should be built. One concern is that corruption can raise the cost of any endeavor. However, the person who takes the money but does not build the building is vulnerable to the reach of the powerful people he has disappointed. Some would say that the majority of the jobs are concentrated in the building part of the project. However, a sports facility requires routine maintenance and an operating labor force as well as the employees needed for the building part. Let's walk the building part through its various subordinate tasks.

First the land must be prepared for the construction. Thus landscaping, road grading, and leveling of the stadium area are all essential before the cornerstone is laid. Gardeners, concrete finishers, heavy equipment operators must be hired and directed. Also the raw materials and other supplies have to be gathered. Trees, flowers and paint sound trivial, but the land should meet high standards before the building is begun.

Building a stadium on the land is a multi-year endeavor. The work crews must be hired and supplies assembled in order for the project to run smoothly. Technically we refer to material requirements planning and notice that critical path management, just-in-time inventory orders and the like can help keep costs under control. It may be necessary to train skilled workers for highly specialized work. Thus the sound system requires the work of stage engineers to insure that broadcasting to the live crowd and the television and radio audience runs well. A scoreboard can be constructed and people can be trained in its use. Maintenance personnel can be hired and prepared for the emergencies that occur during the construction phase and afterwards. Steel-walkers are an important part of making the roof solid and watertight. The concrete finishers can continue their work as the floors and stairs are finished. Carpenters are hired to install the chairs that ergonomic engineers have designed for the audience. Even construction of kitchen areas and provision of appliances is necessary. A security force must be trained so that the events held in the stadium can run without untoward incident. The stadium has to include space and chairs for the ticket takers and ushers. Transportation of goods and other materials for the building of the stadium imply that the early work of road builders and landscapers was essential. The construction of the stadium is an event of long duration, but eventually the construction manager gives way to the building manager.

4. Operation

The building manager is operating the stadium successfully when it is profitable and the clientele is satisfied. All too often a football stadium loses money because it is only in use a few dates a year. If an arena can play three hundred dates a year and only be down for routine maintenance, why can't the same be true for a stadium? Anytime fifty thousand people are brought together, the building manager should be asking why aren't they using my stadium. The size of the football stadium is an important factor for events. An arena may seat twenty thousand, but a stadium could seat a hundred thousand people or even more.

Operating costs for the stadium can be considerable, but any event that can cover the marginal costs should be booked there. Olympic venues may include football stadiums or buildings suitable for such activities. Unfortunately the history of the Olympics is one of costs and corruption rather than profit and pride. How does one guarantee that the same would not happen to the hypothetical Almaty Football Stadium? If the facility manager has a contract that pays a base salary and performance incentives that promote stadium use, the principal-agent problem may be lessened or even solved. An advertising campaign should make everyone aware that the edifice exists, that exciting events are held there, and that each person attending such events is special. Tourists pump up the value of the stadium to the city.

Anyone attending a football match in Almaty would be eating at restaurants as well as at the game, staying overnight, and buying souvenirs. A well-run stadium, like a well-run university, would have a large positive impact on the region in general and the city in particular. The right location can lower operating costs and simultaneously raise revenues. There is competition for the entertainment tenge and drawing people to the stadium may be a fulltime position. Advertising costs, but the failure to make the public aware of your business can be fatal. A winning football team can lead to standing-room-only crowds and that is the province of the players, coach and owner. What the stadium personnel can do is give every opportunity for the team to succeed and thus for the stadium to earn a profit. Some events may not draw crowds sufficient to offset the rent, but repeat business can teach which are likely to become repeat customers. Can the stadium host more than one attraction in a day? That may be the manager's dream, but it may also increase the eventual cleanup costs. Attendance at a football game can be a matter of civic pride and that helps the stadium make money. Tight security can minimize the probability of a terrorist attack and the police and military can aid in the information collection to insure that the public is safe. A stadium is more than bricks and mortar and its operation draws more than a live gate. Thus we can add to the bottom line concessions revenue, parking revenue, stadium naming rights, radio broadcast rights, local television rights, national broadcast rights and souvenir sales; these ancillary items may turn a loss into a profit. The value of having a team in the city can add to the importance of football in Almaty.

The economist generally thinks of spillovers and multiplier effects. Thus a live gate of fifty million tenge has implications far beyond that amount. The multiplier effect occurs as the money gets spent and re-spent so that anything happening in the stadium is important. If a plan does not succeed, that may be due to cultural differences. Thus something famous in one nation may be a failure in another. A tractor pull or a demolition derby or even a recreational vehicle show may not be the ticket in Almaty.

Yet certain suggestions such as a musical concert or a political or religious rally may resound with the public anywhere. The staging of a new gathering may tax the imagination of the facility manager and her work crew, but success leads to success as an activity doing well one year may be repeated the next. If the stadium is conveniently located, it may draw business from locals and visitors alike. Block booking may help guarantee a profitable month. The technology involved in the completion and operation of a football stadium in Almaty may be replicated in other cities as rival teams lead to demands for other football stadiums. A rule of thumb is that any city of one million people in the US can support an American style football team. As population grows over time, there may be increasing demands for more football stadiums elsewhere in Kazakhstan.

The lessons learned in Almaty can be put into practice in Astana, Karaganda, Shymkent, Karaganda, Aktobe and other cities over time. A Kazakhstan Professional Football League might posit a rule of a football stadium of a certain size or larger for membership. Alternatively a national team could represent Kazakhstan versus teams of neighboring nations or even in international events such as the World Cup. Having a football stadium would be essential in preparation for participation in such contests. A decent venue can assist in the promotion of the nation. Never again would my neighbor in the US ask "Where is Kazakhstan? I think it's in Africa, but my wife believes that it is in Asia!"

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Marlene Laurelle and Sebastien Peyrouse, 2012, "*Globalizing Central Asia: Geopolitics and challenges of economic development,*" M.E. Sharpe

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This book is a comprehensive analysis of how countries influence the economic and geopolitical development of Central Asia, emphasizing obstacles related to globalization. The book first focuses on the goals of world powers and trading partners in establishing military, economic and geopolitical relations with the region. Then it turns to strengths and weaknesses of the region's economies.

Central Asian countries have much in common: A history of Soviet planning and weak governance; a continental climate; low population density (aside from the Ferghana Valley); and abundant natural resources. Nevertheless, the degree of economic openness and cooperation with major powers varies. Turkmenistan and Uzbekistan are among the world's most isolated countries, but Kyrgyzstan has the region's most open economy and is the only country that overcame the model of an authoritarian president. Although Turkmenistan and Uzbekistan suspect Russian influence, they serve Russian interests in opposing the West. The degree of economic development also varies. Kazakhstan's economy is the most advanced; Tajikistan, characterized in the book as on the road to "state failure," depends on remittances, primarily from Russia, and is disrupted by drug trafficking.

For each major player, the book traces the history of relations with Central Asia from the 1990s, when governments here strengthened ties with countries other than Russia, to the present, when foreign objectives are clearer and relations more stable. Color revolutions and the global financial crisis challenged Russian influence. Georgia and Ukraine have pro-western governments (for the moment). GUAM (Georgia, Ukraine, Azerbaijan and Moldova) has promoted European values; Russia perceives it as a counterbalance. The Kremlin's influence was also weakened by the 2008 South Ossetia war, which surprised Central Asian leaders, who believed that the borders of countries in the Commonwealth of Independent States (CIS) should remain fixed.

The book illustrates persistent problems of dependence upon such traditional industries as the extraction of raw materials. Though a major cotton producer, Uzbekistan lacks facilities for processing. The government revoked its promises to encourage processing through lower export taxes and discounts on cotton purchasing, and it still has not made the *sum* easily convertible. Turkmenistan has taken half-measures. It invested heavily in its textile industry, and it has helped create joint enterprises with Turks, but it must modernize equipment to redevelop its wool sector and produce artificial fibers and chemical dye.

The outstanding example of potential outstripping performance is Kazakhstan. It holds 8% of all reserves of ferrous minerals, almost one-third of the world's chrome reserves, and it ranks second for manganese reserves. In 2009, it became the world's ninth largest coal producer. SSGPO and KarMet had accounted for almost one-fourth of Soviet capacity for producing coal; in 1995 Ispat International bought KarMet, which eventually became ArcelorMittalTemirtau. Metallurgical enterprises provide 19% of industrial jobs and 35% of industrial exports. Kazakhmys and ENRC are the largest metallurgical holdings, closely tied to the government. Yet the industrial base remains "structurally weakened."

The book contrasts state-run agriculture in Uzbekistan, Turkmenistan and Tajikistan with private farms in Kyrgyzstan and, to a lesser extent, in Kazakhstan. No Central Asian state has completed land reforms, and privatization has not reduced rural poverty. On the other hand, in Uzbekistan, Turkmenistan and Tajikistan, all levels of agricultural production suffer from coercion. Farmers regarded as inefficient risk losing their land to the government, which redistributes it to state elites. Child labor is common on cotton farms in Uzbekistan and, to a lesser extent, in Tajikistan and Turkmenistan. Electricity is under-produced throughout Central Asia – except in Turkmenistan which is sparsely populated.

The book assesses the region's modernization of transport. Uzbekistan and Kazakhstan have improved railways somewhat, but Uzbekistan still bars Kazakhstani trains. Worst off are Kyrgyzstan and Tajikistan, since their railways were not designed as separate entities. In spite of its isolation, Uzbekistan has focused on upgrading airlines.

Politics hamper not only transport but also new communications technologies. In 2010, the government of Turkmenistan expelled the Russian telephone company MTS in order to prevent people from accessing the Internet easily through their mobile phones.

Neither have governments resolved housing problems. The shortage of cheap housing in Kazakhstan, in spite of a surplus of luxury housing, leaves migrants homeless. Spillovers are unfortunate: Fluctuations of the real estate market, for example, destabilized the cement market. The global financial crisis reduced cement prices and bankrupted producers. The government intervened by supporting infrastructure and financing construction through such programs as its partnership with Zhilstroysberbank.

The book critiques such populist projects as creating a tourist site in Turkmenistan (Avaza, a Turkmen "tourism Mecca") to rival those in the United Arab Emirates. Avaza is poorly developed and its staff ill-trained. It is hot in the summer and far from the oil complexes that could supply tourists. Visas are difficult to obtain. Foreign companies are willing to invest in the project only in a *quid pro quo* for more profitable contracts.

The book explores the impact of corruption on trade in Central Asia, particularly the role of Uzbekistan's customs and visa procedures. But it does not fully address exchange rate policy. Central banks in the region set exchange rates without considering consequences for neighbors. Kazakhstan devalued the tenge in 2009 and 2014, pressuring the Kyrgyzstani *som* to fall in those years as well, by 11% and 5%, respectively. Uzbekistan and Turkmenistan overvalue the *sum* and the *manaty*. Tajikistan's *somoni* lost 20 percent of its value between January and May 2009 but was substantially stable in 2014.

The possible launching of a common currency is controversial. In spite of two devaluations, Kazakhstanis have become used to strictures on the exchange rate of the tenge to the dollar. The corridor has been narrow since 2007. Many citizens may support this practice despite its limits on monetary policy. The abolition of exchange rate targeting may not reduce inflation much, and stabilizing the exchange rate may be harder for a common currency than for a national one. On the other hand, decreasing dollarization has been a popular idea in the CIS since the beginning of the global financial crisis. Pro-Russian citizens of Eurasian Union countries may hope, without much reason, that a new currency can compete with the dollar and the euro as a global reserve currency. However, the slowing down of the Russian economy due to low productivity and recent sanctions may retard integration, leaving room for opponents to hinder this process before pacts are signed.

The Customs Union between Russia, Belarus and Kazakhstan, which Kyrgyzstan and Tajikistan may join someday, deserves more discussion in a book like this. The Union, which evolved into the Eurasian Economic Space and will soon become the Eurasian Union, may continue to shape economic policy and geopolitics in the region, in the face of growing tensions between Russia and the EU. One can view the Eurasian Union as a counterbalance of authoritarian former Soviet republics to the European Union.

Given EU problems and widespread propaganda about economic and social dilemmas in the United States and Western Europe, mostly from Russian TV channels, the Eurasian Union may be both appealing and repelling. On one hand, the Eurasian Union may strengthen ties to Russia, protecting Kazakhstan and Kyrgyzstan from Western influences that spark the instability and ethnic tensions associated with color revolutions. On the other hand, the Eurasian Union may seem a poor imitation of the EU.

Although the book was published before the conflict in Ukraine, it could have addressed growing tensions between Russia and the US, which were apparent in 2012. Also, the claim that the Customs Union does not reduce China's gains from trade with Kazakhstan, since the latter may join the WTO, is dubious. Growing pressures on members of the Customs Union may slow accession. Although Kazakhstan abstained from voting on the United Nations resolution on Crimea, President Nursultan Nazarbayev still says he regards economic integration with Russia as pragmatic. Kyrgyzstan, with strong ties to the US, Russia and China, may lose from joining the Eurasian Union in terms of trade and foreign relations.

I recommend "Globalizing Central Asia" for economics students and others interested in the region's economies and geopolitics. It is an objective treatise on economic and geopolitical issues in Central Asia. Perhaps the next edition could delve into integration of regional trade and exchange rates.

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