# SECTORAL TRANSFORMATION IN CENTRAL ASIA

Ву

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## ABSTRACT

The current study is concerned with factors which make sectoral transformation possible. A comparative case study of Central Asian countries shows that price fluctuations on the international market of country's leading export commodity structures the choices of political elite in resource dependent countries, and influences elite's calculations regarding revenue allocation. As distribution of benefits to supporters is crucial for regime survival, political elite is interested in investing capital into sectors of the economy which would ensure continuous revenue accumulation. For example, in case of petroleum exporting countries risks were relatively low, as in recent decade energy prices were on rise. Therefore, the leaders of petroleum exporting countries were reluctant to diversify the economy. In case of country's dependence on a less stable commodity such as cotton, international market price volatility breeds uncertainty about the future revenues and affects leader's political strategy with regard to regime's revenue base i.e. production of the leading export commodity.

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#### INTRODUCTION

Turkmenistan and Uzbekistan are energy-rich Soviet successor states whose oil reserves together with those of Kazakhstan make up 3.3 percent, while gas deposits account for 6.3 percent of world proven oil and gas reserves (BP, 2009). In contrast to Kazakhstan which by the time when the Soviet Union was dissolved, did not have a viable alternative to energy export, both Uzbekistan and Turkmenistan inherited from the Soviet period economic base alternative to gas: production and export of cotton. However, the recent data on export structure of these two countries shows that both followed very distinctive paths of development. Turkmenistan chose to develop its energy sector while almost fully abandoning agricultural production. In contrast, Uzbekistan kept production of cotton while extracting mineral fuels, metals and at the same time invested into other sectors of economy such as production of automobiles which by already 2008 accounted for significant share of total exports. Why do institutions and actors in similar settings produce different results in terms of economic transformation? More specifically, what affects the initial choices to develop certain economic sectors? What explains change in sectoral composition of exports over time? The purpose of this study is to elucidate these questions by applying various theoretical approaches to a sectoral transformation in the Central Asian region.

Why study sectors? Studying sectoral composition of the economy is important as sectors which play a significant role in the economy influence distribution of social and political power. Sectors might also affect country's political and economic performance (Shafer, 1994; Karl, 1997). The structure of the leading sector is also important in studying states' capacity to support economic developmental (Shafer, 1994). Sectors shape institutions, state's autonomy and capacity for restructuring. Bases of state revenues and consequently its fiscal policies depend on sectoral configurations. These fiscal patterns in turn shape the capacity of state institutions and interests of the political elite to restructure the economy (Shafer, 1994). Furthermore, the choice of the leading sector is very consequential. On the example of many countries it might be seen that if the country having abundant natural resources decides to deplete its reserves it is most likely to stick with production and export of that single commodity and is less likely to diversify its economy (Shafer, 1994). With regard to political consequences of extractive sector it was widely argued that energy producing countries are less likely to democratize (Ross, 2001). Dutch disease or crowding out effect is one of the economic consequences of extractive sector. Moreover, sectoral configurations have also been related to outbreak of civil wars (Snyder, 2006). All these make research on leading sectors an important field of study.

Sectors are particularly relevant in studying resource-exporting countries like those in Central Asia. Turkmenistan, Kazakhstan and to a lesser extent Uzbekistan heavily rely on export of petroleum products such as oil and gas. According to ITC (2010) statistics, in 2008 energy accounted for 69 percent of Kazakhstan's and 82 percent of Turkmenistan' total exports. Kyrgyzstan's economy is dominated by gold production, while Tajikistan economy is heavily dependent on aluminium production. Uzbekistan is one of the largest suppliers of cotton to international markets, in addition to this the country possess relatively large gas resources and in recent years energy exports of the country doubled. The analysis of sectors might give valuable insights in understanding the economic and political realms of such developing commodity dependent countries.

Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan were chosen for this study as these cases are maximally similar not only in terms of the Soviet legacy, politics, culture, religion but also in their overreliance on primary commodity exports. Kazakhstan, Turkmenistan and Uzbekistan are energy rich countries. Kyrgyzstan has vast reserves of gold, while Tajikistan exports aluminium. Almost 70 years of oppressive Soviet rule, uneven economic development based on exploitation of natural resources, and political institutions imposed by the communist party homogenized the economy and social structure of these countries. However, despite the relative homogeneity states followed distinct trajectories throughout the early 1990s. Some countries were able to develop manufacturing sector and increase agricultural production while others' dependence on primary commodities increased enormously. For example, Uzbekistan launched automobile production. The automobiles produced in Uzbek plants are now exported in relatively large numbers to Russia and to some other CIS countries. At the same time data on exports of Kazakhstan and Turkmenistan shows that petroleum's share in total exports is about 90 percent.

The initial conditions in all five Central Asian countries were very much similar, heritage of the Soviet style economic organization, similar geographical location, and relative homogeneity of socio-political system. However, they have followed different trajectories of economic transformation. The thesis is aimed at studying these transformations by addressing the following questions:

- 1. What is the variation in sectoral composition of these countries?
- 2. How can this variation be explained? What affects the initial choices to develop certain economic sectors? Why do institutions and actors in similar settings produce different results in terms of economic development? What accounts for change and continuity in the leading sectors of Central Asian republics?
- 3. What are the factors that make certain economic transformations possible? What explains change in sectoral composition of exports over time?

The purpose of this work is to find convincing answers to the questions posed in the thesis. In doing so, the study looks at several factors which could have influenced the national

policies concerning the sectors. The work is divided into three stages. On the first stage, using comparative method of analysis, I test existing theories on economic development which predict that institutional design, state institutions, sectors and neoliberal economic reforms foster sectoral transformation. On the second stage, I propose an alternative framework for studying sectoral transformation in Central Asia which provides better explains change and continuity in sectoral composition. I derive the following hypotheses from this theory:

*Hypothesis 1:* In typical autocracies with a stable political system low market prices or declining demand for a country's leading export commodity influences elite's choices of the political strategy of survival increasing their concern for investments into more productive sectors of economy.

*Hypothesis 2*: Elite within the context of authoritarian political system marked by regime instability is less likely to develop political strategy regarding the leading sector.

A comparative case study of Central Asian countries and in-depth case study of development of automobile industry in Uzbekistan confirm the hypotheses. Some of the main findings of this study are:

*First,* the study shows that some of the most prominent theories on economic development fail to explain sectoral transformation in Central Asia, and particularly development of automobile industry in Uzbekistan.

Second, comparative analysis of international commodity markets and political coalitions showed that price fluctuations on the international market for a country's leading export commodity structures the choices of political elite in resource dependent countries and influences elite's calculations regarding revenue allocation. As distribution of benefits to supporters is crucial for a regime survival, political elite is interested in investing capital into sectors of the economy which would ensure continuous revenue accumulation. For example, in case of petroleum exporting countries risks were relatively low in recent decades as energy prices were on rise. Therefore, the leaders of petroleum exporting countries were reluctant to diversify the economy. While in case of country's dependence on a less stable commodity such as cotton, international cotton market price volatility breeds uncertainty about the future revenues and affects leader's political strategy regime's revenue base.

The thesis is divided into four chapters and conclusions. The first chapter presents the puzzle which is a sectoral transformation i.e., change and continuity in export composition of five Central Asian countries. The second chapter provides an overview of some theories of economic development and assess them against empirical evidence. In the third chapter, based on a comparative study of five countries an alternative framework which combines existing literature is proposed. The hypotheses derived from the theory are tested. The purpose of the last chapter is to illustrate how the proposed framework works on a case study of Uzbekistan. The final section discusses the major findings of this study in light of existing theories of economic development.

# **CHAPTER 1 – THE PUZZLE: SECTORAL TRANSFORMATION**

The main purpose of this chapter is to present statistical data regarding export structures of five Central Asian countries with the aim of identifying the variation, change and continuity in their export structure. After presenting the descriptive statistics, drawing on theory the chapter turns to clustering exported items into several categories. A commodity playing a leading role in the countries' exports is also identified and some of its main features are discussed.

# 1.1. Export composition

Kazakhstan, Turkmenistan and Uzbekistan are energy-rich Soviet successor states which together with Russia, Azerbaijan and Iran make up the Caspian basin. Projected estimates (Energy Information Association, 2006) of hydrocarbon reserves in Caspian region range between 17.2 (billion barrels) at the lowest level and 49.7 (billion barrels) at the highest. BP (Statistical Reports of World Energy, 2008) reported that oil reserves on the territory of Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan account for roughly 3,8% of the world's proven oil reserves.

#### Turkmenistan

In contrast to Azerbaijan and Kazakhstan, which did not have a viable alternative to energy exports, both Uzbekistan and Turkmenistan inherited an economic base, cotton which served as an alternative to hydrocarbons. The major share of cotton consumed by the Soviet Union was mainly produced by these two countries. In 1989, Uzbekistan supplied about 60% of total consumption while Turkmenistan produced 15% of the Soviet Union's cotton supply. Following the collapse of the Soviet Union both countries started selling cotton directly to foreign buyers at market prices. In the beginning of 1990's both countries were among top ten producers of cotton in the world. During the Soviet era cotton sector in Uzbekistan comprised more than 65% of overall production (Jones Loung and Weinthal, 2001). However, the recent data on export structure of these two countries shows that both followed distinctive paths of development<sup>1</sup>. As is seen in Figure 1 Turkmenistan's economy relies on export of mineral fuels, mostly gas and to a less extent oil. In 2007, mineral fuels composed 91% of countries gross exports (ITC, 2010a).



Figure 1. Turkmenistan: Export structure, 2004-2008 (in percentage)

Source: International Trade Centre, 2010a

When price value of exported goods is examined the pattern remains. Mineral fuels make up around 7 billion USD while value of cotton exports is just about 244 millions.

<sup>&</sup>lt;sup>1</sup> The data on export structure of Central Asian countries is gathered by International Trade Centre and is based on the partner reported data. The data covers time frame from 2004 to 2008.

	2004	2005	2006	2007	2008
Mineral fuels, oils, distillation, etc.	3,145,607	4,375,822	4,718,420	5,916,144	7,166,429
Cotton	209,003	200,685	243,576	325,906	244,200
Plastics and articles thereof	46,375	63,801	65,833	70,617	88,55

Table 1. Turkmenistan: Export structure, 2004-2008 (export value in thousands USD)

Source: International Trade Centre, 2009b

#### Uzbekistan

In Uzbekistan, share of cotton by 2007 has significantly declined to just 22% of total exports, while exports of mineral fuels and automobiles have increased (ITC, 2010b). Figure 2 shows general patterns of exports from 2004 to 2008 in Uzbekistan.





Source: International Trade Centre, 2010b

But in fact, the picture is somewhat distorted due to increase of gas exports. When the data in percentage of exports is replaced by price value of exports the picture looks different (see Table 2).

	2004	2005	2006	2007	2008
Cotton	1,237,233	1,211,224	1,439,638	1,440,380	792,415
Mineral fuels, oils, distillation, etc.	316,702	616,829	845,126	950,909	2,293,395
Copper	198,055	291,264	405,354	507,709	430,559
Vehicles	187,644	315,641	499,528	791,658	768,408
Precious stones, metals	185,474	272,701	185,481	215,507	398,724
Edible fruits	151,226	219,777	377,03	280,778	207,919
Inorganic chemicals	86,711	179,758	264,591	482,822	325,488
Edible vegetables	80,009	115,747	122,072	147,899	68,526
Fertilizers	25,122	52,715	34,648	94,109	291,512
Iron and steel	45,212	46,786	44,85	89,379	88,705
Plastics	62,938	90,107	109,069	117,174	103,653
Zinc	32,228	28,492	89,69	157,179	110,123

Table 2. Uzbekistan: Export structure, 2004-2008 (export value in thousands USD)

Source: International Trade Centre, 2010b

From the Table 2 it is evident that cotton production did not decline but rather increased since 2004, the same is true for mineral fuels. The country experienced a seven fold increase in export of petroleum products during a five year period. However, amidst this predictable picture of commodity dependent, resource abundant country's export composition one thing seems to be puzzling: the item under the label "vehicles" which in 2008 accounted for 12% of total exports. In the beginning of 1990's Daewoo Motor Company established an automobile manufacturing joint venture UZ-Daewoo Auto Company. Half of the capita in forming the joint venture was invested by Uzbek government (Oh, Choi and Choi, 1998). Interestingly, Uz-

bekistan made some progress in car assembling. The country's export of automobiles quadrupled since 2004.

#### Kazakhstan

In case of Kazakhstan, production and export of oil comprises the major share total exports. In 2008, export of mineral fuels reached 69%. Figure 3 presents a percentage share of different economic sectors in exports. The second largest sector in Kazakhstan which accounts for about 10% of total exports in 2008 is iron and steel followed by copper.



Figure 3. Kazakhstan: Export structure, 2004-2008 (export value in thousands USD

Source: International Trade Centre, 2010c

Table 3 presents price value of exports. As seen in this Table, since 2004 exports of oil increased four times, from 13 to 49 billion USD. The country's iron and steel sector alongside with cereals productions also quadrupled. As can be seen in the Table a price value of various cereal products and especially wheat was about 1.6 billion USD in 2008, which is four times more than in 2004. However, this sector still has minor share in the total exports, just above 2 %. Although, the production of cereals increased four times it does not seem to be a significant sector in Kazakhstan's economy.

	2004	2005	2006	2007	2008
Mineral fuels, oils, etc.	12,901,907	19,525,360	26,279,308	31,518,616	48,910,888
Iron and steel	2,187,407	2,244,466	2,333,633	3,745,177	6,271,892
Copper	1,182,476	1,507,500	2,631,958	2,805,082	2,906,250
Ores, slaq and ash	723,958	925,584	1,112,620	1,589,138	2,412,308
Inorganic chemicals	438,685	846,212	1,359,195	1,652,450	2,261,874
Pearls, precious stones, etc.	345,600	399,105	696,910	731,525	877,731
Zinc and articles thereof	217,430	312,898	804,394	1,010,193	640,355
Cereals	440,404	240,765	568,961	1,295,857	1,633,794

Table 3. Kazakhstan: Export structure, 2004-2008 (export value in thousands USD)

Source: International Trade Centre, 2010c

#### Tajikistan

The export composition of Tajikistan shows that the country heavily relies on two major sectors: aluminium and cotton. As Figure 4 shows aluminium and cotton account for 80% of total exports. Aluminium production is a dominant sector in Tajikistan's economy. It makes up about 62% of exports. The country also exports cotton, edible fruits, vegetables and some other products more detailed summary of which is given in Table 4. However, export of goods produced by sectors other than those mentioned above is minuscule.



Figure 4. Tajikistan: Export structure, 2004-2008 (export value in thousands USD)

Source: International Trade Centre, 2010c

	2004	2005	2006	2007	2008
Cotton	220,028	174,855	171,403	155,215	138,999
Aluminium and articles thereof	299,561	477,401	586,959	727,402	527,927
Edible fruit, nuts, melons, etc.	23,686	30,951	49,269	62,224	89,989
Edible vegetables, etc.	9,284	9,806	11,692	36,274	89,989
Articles of apparel, accessories, not knit	11,554	15,482	19,148	16,070	16,053
Iron and steel	13,248	11,843	1,843 1,139		10,511
Ores, slag and ash	3,597	5,041	5,585	9,565	7,959
Oil seed, oleagic fruits, grain, etc.	3,803	2,710	4,316	3,557	5,490
Vegetable, fruit, nuts, etc.	5,727	6,575	6,864	6,044	4,890
Raw hides and skins	1,354	1,344	1,877	3,324	4,846
Vehicles other than railway, tramway	5,727	11,597	9,302	2,200	1,442
Plastics and articles thereof	5,071	9,715	3,639	7,863	179
Boilers, machinery; nuclear reactors, etc	10,039	4,255	7,077	4,403	2,555
Electrical, electronic equipment	2,472	4,269	1,687	916	627

Table 4. Tajikistan: Export structure, 2004-2008 (export value in thousands USD)

Source: International Trade Centre, 2010c

As Table 4 shows production and export of aluminium has doubled since 2004, while production of electrical and electronic equipment has declined significantly, from 2 million to 0.63 million. At the same time the country increased exports of edible fruits four times from about 23.7 million to 90 million USD, which might signal deindustrialization. While steady decrease in cotton production over past years and increase in aluminium production might be an indication of ascending dependence on aluminium exports.

The picture is slightly different in Kyrgyzstan. The country exports mainly precious metals like gold, mineral fuels and to a lesser extent edible fruits and vegetables. However, in contrast to other Central Asian countries export composition of Kyrgyzstan is more diverse.



Figure 5. Kyrgyzstan: Export structure, 2004-2008 (in percentage)



The data in Table 5 shows that although the gold ('pearls, precious metals') exports remain significant other economic sectors such as articles of apparel, edible fruits and vegetables, as well as export of raw hides and skins are flourishing.

	2004	2005	2006	2007	2008
Edible fruit, nuts, peel of citrus, etc.	4,329	4,015	10,535	30,103	217,804
Articles of apparel, accessories, etc.	21,505	21,546	44,679	73,387	109,783
Edible vegetables, etc.	15,597	13,624	23,913	47,910	99,527
Raw hides and skins	8,965	11,985	14,060	15,586	61,150
Salt, sulphur, earth, stone, plaster, etc.	12,740	16,933	25,846	44,392	47,348
Mineral fuels, oils, distillation products	81,241	78,793	148,855	279,660	45,418
Pearls, precious metals, etc	291,165	236,199	212,591	228,495	34,103
Cotton	44,254	43,232	39,181	31,643	32,932
Glass and glassware	26,533	33,180	28,277	40,313	32,910

Table 5. Kyrgyzstan: Export structure, 2004-2008 (export value in thousands USD)

Source: International Trade Centre, 2010d

# 1.2. Typology of sectors

To make the study of sectoral diversity of Central Asian economies less complicated the sectors have been classified based on their impact on socio-economic and political life of a country. The first distinction should be made between commodity exporters and those exporting ready goods. As countries in the Central Asian region mainly export goods like oil, gold, cotton, aluminium, they are classified as commodity exporters. Those countries whose revenues from these sectors compose major share in total export revenues might be classified as single commodity dependent economies. Further classification is based on the literature studying recourse rich, primary commodity exporters.

Scholars aimed at analysing the sectors used various classifications. For example, Sacks and Warner (2001) classify minerals and fuels as natural resources. With regard to agricultural products Ross (2001: 332) argues that due to the following factors exporters of agricultural goods should not be considered as rentier states: 1) agricultural commodities generally do not produce rents, 2) export revenues in most cases go directly to private actors, not the state, and 3) agricultural production is more labour and hence employs a larger fraction of the population for a given value exports.

Paul Collier and Benedikt Goderis (2008) distinguish between primary commodities and manufacturing and services. Primary commodities are further divided into agricultural goods which include cotton, wheat and other products listed in Table 6, and non-agricultural goods such as minerals and fuels. As Sachs and Warner (2001) note that agricultural goods can also be classified into two groups: processed agriculture (food) and primary agriculture.

	Prii	nary commod	ity exports		Exports of manufactures
Agricultural goods			Non-agricul	tural goods	Boilers
Bananas	Sunfloweroil	Sisal			Machinery
Cotton	Butter	Tea	Aluminium	Silver	Vehicles
Oliveoil	Groundnutoil	Coconutoil	Gasoline	Coal	Electrical, electronic equipment
Pulp	Palmkerneloil	Hides	Natural gas	Ironore	Inorganic chemicals, precious
Sugar	Rubber	Pepper	Phosphatrock	Nickel	metal compound, isotopes
Barley	Swinemeat	Sorghum	Uranium	Urea	Articles of apparel, accessories,
Fish	Cocoabeans	Tobacco	Copper		knit or crochet
Oranges	Groundnuts	Coffee	Tin		Aircrafts, spacecraft, and parts
Rice	Palmoil	Jute	Oil		thereof
Plywood	Maize	Wool	Zinc		Ships, boats and other floating
Soybeanoil	Poultry	Copra	Lead		structures
Wheat	Soybeans				Organic chemicals

#### Table 6. Export composition

*Source:* Adopted from Collier and Goderis (2008: 33); Ross (2001); Richard Snyder (2006); with author's modifications

Note: Shaded cells were deleted from the typology drawing on empirical compression

For the purposes of this work Collier and Goderis' (2008) classification of natural resources and agricultural products was adopted as it covers the whole variation in Central Asia's export products. Further, as this thesis discusses the whole export spectrum the category including manufactured goods was included based on logic of expansion of the conceptual property to incorporate all the empirical cases.

		Primary cor		
		Agricultural	Non-	Manufactures
		goods	agricultural	(%)
		50000	goods	
Kazakhstan	2004	4	86	7
	2005	3	93	2
	2006	3	93	3
	2007	4	87	3
	2008	3	92	3
Kyrgyzstan	2004	12	59	11
	2005	14	55	12
	2006	14	54	16
	2007	14	54	17
	2008	49	18	17
Tajikistan	2004	42	51	6
	2005	29	64	5
	2006	28	67	4
	2007	26	71	2
	2008	32	64	3
Turkmenistan	2004	7	90	3
	2005	5	92	2
	2006	5	88	7
	2007	5	93	1
	2008	3	83	1
Uzbekistan	2004	52	30	12
	2005	42	37	17
	2006	36	32	17
	2007	29	33	24
	2008	17	55	24

Table 7. Export composition dynamics, 2004-2008 (in percentage)

Source: Author's calculations based on ITC (2009) statistical data

Classification of countries' exports based on the typology (see Table 6) in given in Table 7. The table shows that manufacturing sector in three (Kazakhstan, Tajikistan and Turkmenistan) out of five countries is relatively small. However, in contrast to Turkmenistan and Kazakhstan, whose exports are mainly composed of oil, gas and some other mineral resources Tajikistan's exports also include agricultural goods, although in the latter case the proportion of agricultural goods has declined in recent years, from 42% in 2004 to 32% in 2008. Interestingly, the same trend can be observed in all other Central Asian republics except for Kyrgyzstan whose exports of agricultural goods has quadrupled in recent years making half of country's total exports, the increase was from 12% in 2004 to 49% in 2008. Two out of three oil rich countries in the region seem to be highly dependent on exports of mineral fuels and metals. Non-agricultural primary commodities comprise on average 90% of Turkmenistan's and Kazakhstan's total exports. In contrast, Uzbekistan's exports seem to be more balanced. If average numbers for five years (from 2004 to 2008) are taken then agricultural goods contribute about 35%, non-agricultural primary commodities account for 37% and manufacturers comprise about 19% of total exports. Another interesting observation is that except for Uzbekistan and Kyrgyzstan there was little or no change in countries' export compositions. In case of Kyrgyzstan a huge decline in exports of non-agricultural commodities and increase in exports of edible fruits, vegetables, animal skin, dairy products and wool occurred in 2008, however, these changes are too drastic and somewhat unsystematic to draw on them conclusions concerning sectoral transformation. Uzbekistan's exports of nonagricultural and agricultural commodities is rather stable, with exception of 2008 when there was a sharp decline in cotton exports and rapid growth of non-agricultural exports, just in one year agricultural exports decreased twice, while non-agricultural commodity export doubled. With regard to manufactured goods the change was not that sharp and unexpected. Export of manufactures was continuously growing from 12% in 2004 it reached 24% in 2008. As this growth was steady and constant I assume that there was a sectoral transformation.

# **CHAPTER 2 – THEORY AND EVIDENCE**

# 2.1. Excursus on Development Theories

There are several approaches that tried to explain economic development in the developing countries. Some scholars related economic development to proper functioning of institutions which protect contracts, and limit government (Olson, 1996). Others find the relationship between the state capacity, autonomy and country's developmental prospects (Evans, 1989). Yet some others (Shafer, 1994) argued that it is the leading sector which determines the capacity of states to restructure. Some economists stressed the importance of market mechanisms for proper allocation of resources. This chapter reviews and discusses some of the major theories explaining political economy of development with a purpose of identifying factors relevant in studying sectoral transformation in the Central Asian region. As a second step, the chapter assess these theories based on comparative analysis of five countries. In doing so, I look at factors like state capacity, extent of liberal economic reforms, and leading sectors in Shafer's understanding of it. Moreover, the chapter outlines some of the differences and similarities among the cases under the study including Soviet legacy, some socioeconomic conditions.

#### State-centred approach

Divergent outcomes in terms of economic structure in countries of post-Soviet Central Asia might also be studied using state-centred analysis. This analysis is concerned with macrolevel effects of ruling elites, institutions and social formations on economic change (Lewis, 2007). In this approach state is a central actor. Interests and capacity of the state determines the economic development.

Max Weber argued that modern capitalism and continuity of capitalist production is impossible without state bureaucracy<sup>2</sup>. As Weber explains (1978, p. 224) "without it [state bureaucracy] capitalistic production could not continue and any rational type of socialism would have simply take it over and increase its importance". Weber believed that "the capitalism in its modern stages of development requires bureaucracy". Later Peter Evans (1989) argued that depending on its impact on economic development state can be put on a continuum from 'predatory' to 'developmental'. Predatory states are those who "extract large amounts of otherwise investable surplus and provide so little in the way of collective goods" (562). They are usually characterized by predominance of informal institutions over formal, corruption and personalization of authority. The state hinders the economic development of the country by advancing arbitrary rule and political constraints on economy, monopolizing and extracting resources and distributing rents to their allies<sup>3</sup>. As political circumstances often make market calculability burdensome private actors are reluctant to take any commitments to fixed assets. This consequently threatens with asset mobility and capital flight which in turn give rise to economic stagnation. Developmental states are "effective in promoting capital accumulation, industrialization, and international competitiveness through a combination of direct interventions and complementary measures to organize markets" (Lewis, 2007: 36). These states make significant investments in human capital and physical infrastructure. Furthermore, there is some degree of accountability and reciprocity between state and society. Developmental states try to increase incentives of private elites to engage in transformative invest-

<sup>&</sup>lt;sup>2</sup> Weber distinguished two basic types of capitalism: *political capitalism* and *modern capitalism*" (Gerth and Mills, 1998). In the former, opportunities for profit come from "the preparation for and the exploration of war-fare, conquest, and the prerogative power of political administration" (1998:66). Weber described modern capitalism as a system where the industrial production replaces the pre-capitalist productions and the profit is earned by "continuous, rational, capitalistic enterprise" (1970: 17).

<sup>&</sup>lt;sup>3</sup> Christopher Clapham (1985) writes extensively about functioning of patron clientelism, *Third World Politics*; see also Paul Hutchcroft (1993), Oligarchs and Cronies in the Philippine State: The Politics of Patrimonial Plunder.

ments, and guarantees minimum risk involved in such investments. This theory would predict that the sectoral transformation in Central Asia might be due to the state capacity, and strength of its bureaucratic apparatus. In other words, from this theory one would hypothesize that if the state is of a developmental type and it is able to create favourable environment for investments and rational revenue accumulation. The states which did not have any sectoral transformation are predatory and are marked by personalism and arbitrary interventions to economy. In contrast to developmental states predatory states are usually reluctant to make productive investments, ensure predictable environment and hence foster economic development.

#### Sectoral analysis

Analysis of sectors and their impact on politics and economic change represent another widely applied approach for studying causes of economic transformation. The approach focuses mainly on composition of economic sectors and their effects on counties political and economic performance. It derives from the assumption that economic sectors playing a significant role in economy influence distribution of social and political power (Lewis, 2007). Bases of state revenues depend on sectoral configurations and these fiscal patterns in turn affect the capacity of institutions and the interests of state elite (Shafer, 1994; Rogowski, 1989).

For example, Shafer (1994) based on capital intensity, economies of scale, production flexibility (ability to adapt the production to rapidly changing market demands) and asset/factor flexibility (specificity of facilities and infrastructure required for production) distinguishes between high/high and low/low sectors. High/high sectors include mining, industrial plantation, crop production and other commodity production demanding high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility. On the opposite spectre is low/low sector. The examples include light manufacturing, peasant cash crop production requiring the low values in all four areas mentioned above (1994: 10). He argues that sectors in developing countries affect state's capacity and autonomy required for restructuring and "the difficulty of restructuring varies by sector" (11). According to the author if a country's leading sector is high/high the state lacks autonomy and capacity to restructure, while countries with low/low leading sectors have states with higher institutional capacity. This is partly due to the fact that small businesses dispersed all over the country typical to low/low sectors require development of more complex tax extracting institutions. In addition, in contrast to large monopolies, small businesses are less powerful in imposing their will on the state. This largely contributes to state's autonomy. The analysis of sectoral effects might give valuable insights as most of Central Asian countries are raw material exporters. Sectoral transformation is less likely to occur in countries exporting minerals, metals, industrial plantation crop, and production of other commodities which require high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility. The implication of this theory to Central Asia would be that continuity and change in export structure might be explained by the type of the leading sector.

### Liberal policy reforms

Another approach that might be used in analysing economic reforms is institutional analysis. This approach is widely used in different disciplines including political economy, institutional economics, political science in general and comparative politics in specific. For example, Varieties of Capitalism debate is (Hall and Soskice, 2001) all about the differences among the institutions in the sphere of economics. Depending on the type of institution the economy of the country has, scholars divide them into several groups, and then by comparing them suggest which institutional settings are best for economic growth. Mancur Olson (1996: 19) in one of his works mentions that "the great differences in the wealth of nations are mainly due to differences in the quality of their institutions and economic policies. [...] country's institutions and economic policies are decisive for its economic performance." He continues that [a]ny poorer countries that adopt relatively good economic policies and institutions enjoy rapid catch-up growth" (Olson, 1996: 20).

Institutions, often defined as a set of formal or informal rules, practices that on the one hand constrain people's action and on the other hand help people to escape uncertainty regarding other's actions. For example, in business when one sings a contract he/she is sure that another person with whom the contract was signed will not cheat, because of laws protecting the rights. According to Douglas North (1990) institutions the "rules of the game in a society, or more formally, are the humanly devised constraints that shape human interaction" or "the incentive structure of a society". Institutions lend regularity to human activities and set out expectations by setting rules or guidelines for collective interaction and imposing restraint.

To encourage investments and bolster economic activity governments should give credible commitments that would ensure transparency of policy incentives and guarantee against arbitrary state intervention into the economy (Lewis, 2007). This may be achieved by limiting the government, creating political institutions that would keep checks and balances on chief executive so that the leader is not able to make any arbitrary decisions because of constraints from the side of the state bureaucracy and parliament (Haber, 2002). In other words, when institutions are weak rulers face few constraints against arbitrary economic intervention. The implication of it is that economic development depends on right policy choices regarding institutional settings. Institutions should ensure limited government, property rights, competitive business environment, and equilibrium prices. From this it is assumed that implementation of liberal reforms including privatization, encouragement of competitive

business environment, and liberalization of financial institutions limits government's role in economy and leads to economic growth and development.

# 2.2. Comparative analysis: Assessing the theories of economic development

This section of the chapter is aimed at giving background information about the post Soviet transformations in the Central Asia and a short review of current economic and social structures of the countries (see Map 1) with a purpose of assessing the theories of economic development and identifying relevant explanations. It provides a short overview of the Soviet economic system, its legacy, and the way this system functioned. It also discusses economic transformations in the countries after the collapse of the Union. Information regarding social structure and equality, as well as corruption, economic performance, and progress report of liberal economic reforms of the post-Soviet Central Asian states is also provided. Furthermore, the section explores state capacity in five countries.





Source: The University of Texas at Austin, 2003

The Soviet legacy

The starting point of economic transformation in Central Asian countries was the legacy of development within the Soviet style economic organization. In this system all the decisions concerning quantity and quality of goods to be produced as well as prices for products were made by central-policy makers, i.e. *Politburo* of the Central Committee. With regard to ownership of assets, all natural resources, fixed production assets, urban housing, and land were owned by the state. Interests of political elite converged with economic processes in the black-market. "Certain kinds of property were protected only for a limited group of people who had privileged relationships with political leaders (Vaksberg, 1991: 22)." As Vaksberg (1991: 23) reports business could flourish if a newly emerging businessman had a support from above. However, if some groups would try to work independently without sharing the spoils with the political elite, they would be at a great loss. It was not mere corruption, only those who had a membership, close connection to political elite could benefit from patron clientalistic relations. The existence of tied linkages between politicians and business people, and flourishing of cronyism was one of the characteristics of the Soviet system.

As Martin Myant and Jan Drahokoupil (2008) report, several clusters of economic development could be observed in the region. The first was production of raw materials; the second was industrialization; and the third autarkic industrialization. Within the first category of *raw material production* in 1989 Uzbekistan supplied 62.4 percent, while Turkmenistan contributed about 15 percent of the USSR's cotton output. Kazakhstan produced 18.7 percent of the Soviet coal, about 10 percent of iron ore, nearly 5 percent of USSR's total petroleum output and contributed a significant share of other minerals to the Union's output.

The second form of development, *industrialization*, envisaged production of semimanufactured goods, machinery, electrical equipment, and production of complex aircrafts in the region. There was an electrical equipment and refrigerator production in Tajikistan. Uzbekistan produced chemical products, cotton farming equipment, as well as complex machinery like aircrafts. A sugar refinery was operating in Kyrgyzstan, while Kazakhstan benefited from tractor producing industry.

*Autarkic industrialization* stipulated production of goods such as cotton, textiles, fruits, vegetables for domestic consumption (within the republic) and export outside of the USSR. Turkmenistan's exports of fuels during the late Soviet period provided relatively small share of exports making just about 7 percent of GDP. Myant and Jan Drahokoupil (2008) also argue that Turkmenistan had relatively high level of autarky. Uzbekistan mainly exported cotton, fruits and vegetables. According to authors high levels of autarky in these countries could provide basis for autonomous development. However, this data might be distorted due to Soviet policy of price assignment. According to this system the price for manufactured goods was overvalued, while the price of raw materials was much lower than world prices.

#### Transformation crisis

An interesting difference among the Central Asian republics is the extent to which their economies were harmed by economic transformation in the early years of independence. Due to specificity of the Soviet economic system the countries were economically interdependent. Shoes produced in Ukraine were exported to Uzbekistan, while cotton produced in Uzbekistan was further processed in Russia. Their economies were tightly linked to that of the Soviet Union. After the dissolution of the Union, the small manufacturing sector in Kyrgyzstan collapsed. Manufacturing sector in Kazakhstan which was heavily dependent on outside trade also collapsed (Myant and Drahakoupil, 2008). Tajikistan suffered from the outbreak of civil war in 1992, which also contributed to economic instability in the country by delaying implementation of economic reforms (Pomfret, 2006). The case of Turkmenistan is difficult to deal with due to lack of reliable data for that period of time.

In contrast, Uzbekistan experienced relatively minor economic downfall. This was partly due to its relatively limited dependence on trade with other countries of the former Soviet Union. Unlike Kazakhstan's mineral resources which required large investments for production and transportation, cotton sector in Uzbekistan and Turkmenistan was less demanding.

Myant and Drahakoupil (2008) note that in addition to economic base, gradual economic reform strategy followed by Uzbekistan helped the country to sustain growth rates, basic services and support some industrial investment. The strategy envisaged implementation of import limiting policies and some policies regarding import-substitution such as food self sufficiency. On the contrary, Kyrgyzstan and Kazakhstan chose the path of neoliberal reforms: privatization and liberalization. Both countries faced deep recession in the beginning of transition, however, in the turn of the century were able to recover. To sum up, during the first years of independence, Kazakhstan and Kyrgyzstan were suffering serious economic depression. Tajikistan was torn by civil war, while Turkmenistan retained high economic centralization, whereas Uzbekistan seemed to have normal growth rates, and relatively stable economy with prospects of gradual change.

#### Socio-economic conditions in the post independence period

Almost 70 years of the oppressive Soviet rule, uneven economic development based on the exploitation of natural resources, and political institutions imposed by the communist party in these countries made their economies and social structure relatively similar. Central Asian republics share similar levels of socioeconomic development, income inequality, level of corruption and industrialization.

	Uzbek	xistan	Turkmenistan		Kazakhstan		Kyrgyzstan		Tajikistan	
Adult illiteracy rate (% aged 15 and older)	1,	0	1, 2		1, 0		1, 3		1,0	
Percentage of	1975	2005	1975	2005	1975	2005	1975	2005	1975	2005
urban popula- tion	39, 1	36, 7	47, 6	46, 2	52, 6	57, 3	38, 2	35, 8	35, 5	24, 7
GINI index	36	, 8	40, 8		33, 9		30, 3		32, 6	
GDP per capita (in USD)	53	33	16	69	3 772		475		35	55

Table 8. The Level of Socioeconomic Development and Equality

Source: UNDP, 2007. Human Development Report

Table 8 shows the level of socioeconomic development measured by percentage of adult illiteracy rate, changes in percentage of urban population and GDP per capita. As is seen from the table literacy rate is equally high in all five countries. With regard to percentage of urban population for year 2005, Kazakhstan enjoys the highest level of urbanization (about 57%) among Central Asian countries followed by Turkmenistan (about 46%). The percentage of total population living in urban areas is very much similar in Uzbekistan (approximately 37%) and Kyrgyzstan (about 36%). Tajikistan has the lowest level of urbanization (just about 25%). Interestingly the percentage of urban population decreased in recent decades, this might be due to de-industrialization in the region which also can be confirmed by increase in agricultural output. However, this might also be due to the fact that after the dissolution of the Soviet Union many Slavs (mainly Russians and Ukrainians), Germans, Jews and Koreans who lived in Central Asia have emigrated.

As is seen from the Table 8 the level of income equality is about the same in all five countries in the region<sup>4</sup>. The numbers range between 30 and 40, Turkmenistan having the most unequal income distribution patterns (41) while Kyrgyzstan (30) and Tajikistan (32) having least inequalities in terms of income (UNDP, 2007). With regard to industrialization, the level of industrialization measured by GDP composition shows that industrial production composed about 33% of total output in Uzbekistan and 41% in Turkmenistan in 2005 (CIA, 2007). In terms of industrial production Kazakhstan was the second after Turkmenistan. Industrial production made up about 40% of Kazakhstan's gross domestic product. Tajikistan (about 30% of GDP) and Kyrgyzstan (about 18%) could be considered as least industrialized countries in Central Asia (see Table 9).

Table 9. Level of Industrialization measured by the GDP Composition, 2007

Country	GDP Composition by industrial
	sector (in percent)
Tajikistan	30.4
Turkmenistan	40.8
Kazakhstan	39.4
Kyrgyzstan	18.9
Uzbekistan	33.1

Source: CIA (2007). The World Factbook

Corruption is a common problem in the whole post-Soviet region. According to Transparency International (2009) level of corruption in post-Soviet states ranges from 1 to 2.9 on the scale from 1 to 10, where 1 is "highly corrupt" and is 10 "least corrupt". Although levels of corruption are relatively high in all post-Soviet states, in most of Central Asian countries, corruption is at extreme levels. In contrast to other post-Soviet countries the level of cor-

<sup>&</sup>lt;sup>4</sup> Income distribution is measured by Gini index. The index is used to show income inequality. It ranges from 0 to 100, where 0 corresponds to perfect equality, while higher Gini coefficient indicates more unequal distribution, with 100 corresponding to perfect inequality.

ruption is extremely high in Azerbaijan and three Central Asian countries of Uzbekistan, Turkmenistan and Kyrgyzstan, in the rest of post-Soviet countries corruption perception index ranges from 2.0 - 2.9.

#### Economic reforms: Marketization

In terms of transition to a market economy even though there were economic reforms, the full transition to a market economy was not completed in any of the former Soviet Central Asian states. According to EBRD economic statistics for countries in transit, none of these countries reached the standards of an industrialised market economy (see Table 10). EBRD assesses economic performance in the following areas: large scale privatisation, small scale privatisation, governance and enterprise restructuring, price liberalisation, trade and foreign exchange system, competition policy, banking reform and interest rate liberalisation, securities markets and non-bank financial institutions, and infrastructure. Their measurement scale for these indicators ranges from 1 to 4 and higher, where 1 represents little or no change from a rigid centrally planned economy and 4+ represents the standards of an industrialised market economy. The average score for the EBRD transition indicators showing the overall level of countries' transition to a market economy was added by the author.

As is shown in Table 10 Kazakhstan and Kyrgyzstan has the highest scores on EBRD's transition indicators among other states in the region. Tajikistan made a step toward a market economy but stagnated in the middle with average score equal 2.5. On the other end of the spectrum are Turkmenistan and Uzbekistan which did not make much success in transforming their economies. For example, average score of transition for Turkmenistan has changed from 1 to 1.5 since the country separated from the Soviet Union and proclaimed its independence. The same is true for Uzbekistan with average transition score of about 2.2.

Areas of reforms/Country		Kazakhstan	Kyrgyzstan	Tajikistan	Uzbekistan	Turkmenistan
Privatization	Large scale	3,00	3, 67	2, 33	2, 33	2, 67
1 IIvatization	Small scale	4,00	4,00	4,00	4,00	3, 33
Enterprise restructuring		2,00	2,00	1, 67	1, 67	1,00
Price liberalization		4,00	4, 33	3, 67	2, 67	2, 67
Trade & Forex system		3, 67	4, 33	3, 33	2,00	2,00
Competition Policy		2,00	2,00	1, 67	1, 67	1,00
Banking reform & interest rate lib.		3,00	2, 33	2, 33	1, 67	1,00
Securities markets & non- bank fin. inst.		2, 67	2,00	1,00	2,00	1,00
Average scor	res	3, 04	3, 08	2, 50	2, 21	1, 50

Table 10. EBRD Transition Indicators

Source: EBRD (2009). Transition indicators

Private ownership is one of the crucial elements of the economy. It includes private ownership of land and the means of production of goods and services on which people depend.

	Table 11. Private sector share in GDP from 1992 to 2008 (	ín	per	cent)
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Country / Year	1992	1996	2000	2004	2008
Kazakhstan	10, 0	40, 0	60, 0	65, 0	70, 0
Kyrgyzstan	20, 0	50, 0	60, 0	75, 0	75, 0
Tajikistan	10, 0	30, 0	40, 0	50, 0	55, 0
Turkmenistan	10, 0	20, 0	25, 0	25, 0	25, 0
Uzbekistan	10, 0	40, 0	45, 0	45, 0	45, 0

Source: EBRD Structural and institutional change indicators, 2009

Owners of the property can use their assets for production of goods or in any other way they please. One of the most convenient ways of measuring privatization is private sector share in GDP (Aslund, 1995; Lane 2007). According to EBRD data the leaders in privatization policies in post-Soviet Central Asia are Kyrgyzstan and Kazakhstan with share of private sector

equal 75 % and 70 % respectively. Private sector in Turkmenistan (25 %) and Uzbekistan (45 %) is very small and composes less than half of GDP. In other countries like Tajikistan private sector accounts for about 40-50 % of total domestic production.

#### State capacity

There are several ways of distinguishing predatory states from developmental states. One is qualitative: this method helps to establish whether informal institutions predominate over formal, and whether members of organization/state owe the obedience to the person in authority as to an individual or due to the rule of impersonal order. In other words, more qualitative work can show whether the state is governed on the grounds of legal-rationality or patrimonialism. Another way of assessing the state is through finding quantitative indicators which would provide at least approximate measures of state capacity. This can be done by looking at states capacity to provide public goods, collect tax revenues, its coercive apparatus and ability to provide infrastructure. Jessica Fortin (2009) constructed an index of state capacity for post-Communist countries. Her index is a compilation of several indicators of state capacity such as: ability to extract taxes, levels of corruption, ability to ensure property rights and ability to provide infrastructure. Her selection of indicators is based on careful review of the literature on state capacity.

When individual components of the index are examined according to data presented on Table 12 in average post-Communist states are able to collect about 20 percent of their GDP through taxation. From five Central Asian countries only Uzbekistan has above average score. Other countries rank lower than regional average with Kyrgyzstan obtaining the least share of its GDP via taxes. With regard to corruption, the data shows that average corruption rate in the post-Communist region is 31 (on the scale from 0 to 100; 100 being least corrupt).

	Tax revenue	Corruption	Infrastructure reform	Property rights	Contract inten- sive money (CIM)	State capacity index capacity Index
Kazakhstan	15.2	18.4	1.9	30	0.68	-0.42
Uzbekistan	25.7	18.5	1.3	30	0.60	-0.49
Kyrgyzstan	13.8	26.4	1.4	30	0.38	-0.99
Tajikistan	14.3	8.7	1.1	30	0.53	-1.22
Turkmenistan	15.6	6.7	1	26	0.46	-1.25
Averages	20.3	31.1	1.9	43	0.72	0.02

Table 12. Country rankings on five measures of state capacity, 1989-1991 to 2006

Source: Adopted from Fortin, 2009: 15.

On this indicator all five countries rank very low, which predicts high level of corruption. However, there is still some variation Turkmenistan and Tajikistan with score 6.7 and 8.7 respectively proves to be most corrupt in Central Asian region. As for infrastructure reform only Kazakhstan stands out with average score of 1.9 for a period from 1989 to 2006. Other countries score lower than average with Turkmenistan and Tajikistan being laggards. All countries rank equally low on both property rights and contract intensity indicators. Another indicator of state capacity according to the author is ability of state to "provide institutions of contract enforcement". The indicator contract intensive money measures the ratio of currency to money held in bank. This helps to indicate the trust level of people and enterprises to countries financial institutions and thus whether the state is able to guarantee enforcement of contracts. Lower levels of CIM predict that large amounts of money are circulated in cash, and cash transactions predominate. This signals underdevelopment of financial sector. As is seen from Table 12, only Kazakhstan and to a lesser extent Uzbekistan have relatively developed financial institutions, however, even these countries have below average scores when compared to other countries in the post-Communist region. When average index of state capacity is compiled it is visible that state capacity in all five countries is below regional average (0.02 is an average score of state capacity in the post-Communist region). Overall Uzbekistan and Kazakhstan seems to score better than other Central Asian countries having state capacity index of (-0.42) and (-0.49) respectively.

With this small variation in state capacity among Central Asian countries it is hard to conclude that the variable plays a significant role in sectoral transformation. Although Uz-bekistan's tax extraction capacities are surprisingly high it would be misleading to derive any conclusions based on this single indicator. This is especially true when high levels of corruption in the country are taken into account. Corruption is an indicator of clientelism and personal use of public office which completely contradicts Weber's vision of state apparatus obeying legal rational order.

# 2.3. Linking the theory to the evidence

The scholarship on economic development outlined several factors which make economic development/sectoral transformation possible in the Third World countries. Some of these factors were the nature of the leading sector, market driven economy, limited government, and Weberian state bureaucracy. Scholars argued that presence of these factors creates conducive business environment and thus fosters economic development. The opposite of this would in contrast result in poor economic performance/resource dependence. In the light of these theories development of automobile industry in Uzbekistan is somewhat puzzling.

Peter Evans argued that predatory states are marked by personalism and arbitrary interventions into economy. Such system is not able to create a favourable environment for investments and rational revenue accumulation. However, in case of Uzbekistan the study showed that the country with a predatory state, low state capacity and strong patrimonial tendencies was able to develop an automobile production. The Uzbek case presents a puzzle also to proponents of sectoral analysis. The logic of this approach is that sectoral transformation is less likely to occur in countries exporting minerals, metals, industrial plantation crop, and production of other commodities which require high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility. According to this theory, Uzbekistan which exports huge amounts of cotton and other primary commodities classified as high/high sector should not have enough institutional capacity and state autonomy to invest capital into more productive sectors including automobile industry. Furthermore, the analyses of five Central Asian countries showed that marketization is not a prerequisite of economic diversification. For example, Kazakhstan in relative terms quite successfully implemented liberal economic reforms, while Turkmenistan did not make any progress in liberalization or privatization. Not much has developed in both of these countries apart from oil and gas industry. At the same time, the country which opted for gradual economic reforms and was labelled for that as a slow reformer launched car industry, and is selling its cars abroad.

# CHAPTER 3 – AN ALTERNATIVE FRAMEWORK

Taking into account conclusions made in previous chapter how come that commodity dependent country with predatory state, overly centralized economy, and unfriendly business environment was able to attract investments, develop automobile industry and sell cars not only on the domestic market but also internationally? In this chapter I propose an alternative framework which to some extent is a compilation of existing theories, but can better explain sectoral transformation in Central Asia. I argue that while studying sectoral transformation special attention should be given to actors and their preferences on the one hand and domestic as well as international stance which conditions actors' decisions on the other. It is important not to overemphasize the role of actors, but at the same time not to overestimate structural constrains. This approach gives more comprehensive and holistic rather than atomistic view on the subject. The holistic approach in many cases was criticized for being idiosyncratic and thus the findings of such research cannot be legitimately generalized to a wide range of cases. However, it must be acknowledged that this approach also provides more complex and accurate picture of the phenomena under the study and might provide some hints (additional variables) for further research and testing.

### 3.1. International commodity markets

Some scholars argue that domestic policies cannot be studied in isolation from the international system. Economic relations and economic changes on the international level constrain the policy choices of domestic actors (Freiden and Rogowski, 1996; Gourevitch, 1978). For example, Frieden and Rogowski (1996) argue that the cost of international exchange which is defined in terms of changes in transport cost, infrastructure and government policies affect the domestic groups and their preferences. Most interestingly, the authors state that international prices influence even closed economies. In other words, even the country such as Turkmenistan or Uzbekistan which could be classified as countries having closed economies are affected by price shocks. Another author calling the attention to the role of the international markets is Barbara Stallings (1992). She argues that "short term fluctuations and long term trends in international markets are important determinants of the availability of external resources that developing country governments require for both economic and political purposes (49)." These trends might bring positive as well as negative results. For example, higher prices for the commodities the Third World country exports on the international market might provide extra resources to gain domestic support, to provide services and invest. In contrast, negative shifts in trade which lower the prices of principal export commodities or when recession hits government policy options become limited. Developing countries are especially vulnerable to external shocks and shifts in international markets regarding the volumes of export commodity the Third World country can sell. Short term price fluctuations and long term trends on the international commodity market affects the behaviour and policies of governments in commodity dependent developing countries. This would mean that price fluctuations on international cotton market could have impact on the government's decision to invest into more productive industry such as for example, automobile manufacturing.

#### 3.2. Political system

In studying sectoral transformation in developing countries the key actor is the political elite. It is the most powerful domestic actor. This is true in countries where economic class is either not developed or has strong connection to political elite. This is partly due to weakness or absence of democratic institution constraining governments from arbitrary economic intervention. Peter Lewis (2007) underlines leadership as one of the key factors in explaining the institutional variation and economic development. He argues that in developing countries, where the formal institutions are weak the leadership plays a significant role. The leader's decisions regarding economic policies have enduring consequences for economic development. The policy agenda set by the leader might take various forms. The decisions might be motivated by purely personal interest and lead to predation, seizure of resources, and arbitrary economic intervention. But the leader's approach to economy might also be of a more developmental character, oriented to economic growth. For example Olson (1993) distinguished between leaders acting as "roving bandits" and "stationary bandits". Because of short term horizon roving bandits have no stake in the growth of the community they govern and therefore their primary interest is self-enrichment through rapid appropriation of wealth. Whereas stationary bandits have longer time horizon, and thus intend to provide stable governance, and create favourable environment for development in order to constantly extract rents from the economy not only in a short run but also in a long run. As this type of leaders has long term plans they are more interested in providing public goods and enhancing growth oriented activities to increase revenues. These decisions might be shaped by a leader's values and perceptions. However, they are heavily constrained by pressures and incentives formed by the political system.

## 3.3. Deriving hypotheses

According to Bueno de Mesquita et al. (1999: 150) to hold on power a leader must distribute benefits to those whose support is essential for his survival in office. The circle of supporters can be pictured as a chain of "nested groups" (148). The largest group is general population of a given country. A part of the population who has a right to vote and participate in electing politicians is called 'selectorate'. The smallest group of supporters whose support is essential to maintain incumbent leader's hold in office is called 'winning coalition'. Politicians buy support of selectorate by providing public goods while support of the winning coalition is bought through distribution of rents and special privileges. As Bruce Bueno de Mesquita et al. (1999: 150) highlight, "[t]o hold on to power, a leader must provide sufficient benefits to the winning coalition so that the least satisfied member still prefers to support the incumbent rather than defect to a rival." Thus, I assume, continuous inflow of revenues is needed to ensure regime stability and as a consequence incumbent's stay in office. The more vulnerable is country's leading export commodity to price fluctuations the less secure is the leader. This insecurity concerning the future earnings and consequently increasing risk of losing the post influences elite's<sup>5</sup> calculations regarding capital investments into more productive sector which would ensure continuous revenue generation. To put it simple, in durable regimes in which domestic political coalitions are stable price fluctuations on the international market influence elite's calculations concerning the political strategy of survival. Thus, the choices of elite should be studied in relation to stability of political coalitions and thus regime in authoritarian settings and price fluctuations on the international commodity markets. Low market prices or declining demand for the commodity structures the choices of the political elite influencing their concerns for more developmental strategy in agenda setting. In other words, the state leaders play a significant role in sectoral transformation. However, the actors' choices should be studied in a relation to domestic politics and national and international economic context. This should not necessarily be true in volatile regimes marked by unstable political coalitions. Continuous breaks in regime durability and hence volatile winning coalitions

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<sup>&</sup>lt;sup>5</sup> Political elite includes the leader, his family members and closest supporters.

do not permit political elite to form a coherent, long run political strategy concerning the leading export sector.

To sum up, this framework underlines the importance of two factors in studying the sectoral transformation: 1) stability of political coalitions and hence regime stability; and 2) international commodity market. From these the following hypotheses can be derived:

*Hypothesis 1:* In typical autocracies with a stable political system low market prices or declining demand for a country's leading export commodity influences elite's choices of the political strategy of survival increasing their concern for investments into more productive sectors of economy.

*Hypothesis 2*: Elite within the context of authoritarian political settings marked by regime instability is less likely to develop political strategy regarding the leading sector.

# 3.4. Testing the hypotheses

This subsection is aimed at testing the above mentioned hypotheses. To do so, first, I look at durability of regime to see whether stable coalitions exist and political elite could have formed a systematic strategy concerning its economic base. On the second stage, I look at international commodity prices for the leading export commodity of countries with a stable regimes and countries' capacity to either continue or expand the volumes of exports of the leading commodity. For measuring regime stability I follow Benjamin Smith's (2004) strategy. He measures regime stability or failure using Polity data set from 1800 to 1999. I use more updated version of Polity which includes data for all five Central Asian countries from 1991 to 2008 (Mashall and Jaggers, 2009a). Within Polity data set the variable labeled 'DURABLE' is used. Regime durability on Polity data set is measured and calculated in a following way.

The number of years since the most recent regime change (defined by a threepoint change in the POLITY score over a period of three years or less) or the end of transition period defined by the lack of stable political institutions (denoted by a standardized authority score). In calculating the DURA-BLE value, the first year during which a new (post-change) polity is established is coded as the baseline "year zero" (value = 0) and each subsequent year adds one to the value of the DURABLE variable consecutively until a new regime change or transition period occurs. Values are entered for all years beginning with the first regime change since 1800 or the date of independence if that event occurred after 1800 ((Mashall and Jaggers, 2009b: 16).

As is seen from the Table below for Kyrgyzstan, there were two breaks one following the other after 2004, the exact year from which export composition data is available. This means that even if there was a political strategy concerning the leading sector prior to regime failure we cannot assess it due to lack of data. In Tajikistan, the regime is quite volatile. There were four breaks or regime failures since 1991. This proves Tajikistan regime to be quite unstable. The regime in Kazakhstan, Turkmenistan and Uzbekistan is absolutely durable, without any breaks at all.

	Kyrgyzstan	Kazakhstan	Tajikistan	Turkmenistan	Uzbekistan
1991	0	0	0	0	0
1992	1	1	0	1	1
1993	2	2	1	2	2
1994	3	3	2	3	3
1995	4	4	3	4	4
1996	5	5	4	5	5
1997	6	6	0	6	6
1998	7	7	0	7	7
1999	8	8	1	8	8
2000	9	9	2	9	9
2001	10	10	3	10	10
2002	11	11	4	11	11
2003	12	12	5	12	12
2004	13	13	6	13	13
2005	0	14	7	14	14
2006	0	15	8	15	15
2007	1	16	9	16	16
2008	2	17	10	17	17

Table 13. Regime durability (1991-2008)

Source: Mashall and Jaggers, 2009b

The data shows that the regimes in Kyrgyzstan and Tajikistan have been less stable in comparison to the other three Central Asian states. Two consecutive regime breaks in Kyrgyzstan after 2004 makes it impossible to assess its political strategy or to claim that there is one. I assume that to form a strategy the elite needs to be in office for a sufficient period of time. Unstable regime in Tajikistan also raises some doubts regarding stability of political coalitions and the leader's ability to provide sufficient benefits to the winning coalition. However, although Tajikistan experienced several breaks since its independence the data shows that the Emomali Rahmon's (Tajikistan's current president) regime was quite durable since the time it was established in 1998. Thus, to see whether the hypothesis regarding the use of revenues as political strategy of survival is true in this case I look at Tajikistan's policies regarding its leading export sectors. All in all, I take four countries skipping Kyrgyzstan as cases to study.

## International commodity markets and domestic production

As is seen in the Table, on average, in Turkmenistan and Kazakhstan which exports mostly non-agricultural primary commodities and did not experience a significant change in their export structure, petroleum is a leading export commodity. Aluminium production is the major export commodities in Tajikistan. In contrast to mainly metal and petroleum exporting neighbouring countries Uzbekistan's leading export product is cotton (27%) followed by petroleum (19%) and vehicles like automobiles (10%).<sup>6</sup>

	Leading sector 1	Leading sector 2	Leading sector 3
Kazakhstan	Petroleum (68)	Steel (7)	Copper (5)
Tajikistan	Aluminium (60)	Cotton (21)	Edible fruits (6)
Turkmenistan	Petroleum (88)	Cotton (5)	Plastics (1)
Uzbekistan	Cotton (27)	Petroleum (19)	Vehicles (10)

Table 14. Leading export commodity average share in total exports, 2004- 2008 (in %)

Source: International Trade Centre, 2010

#### Cotton: Uzbekistan

In one of the recent articles John Baffes (2005) reports that the cotton market proved to be highly volatile. For the past several decades cotton prices fell enormously. Real prices

<sup>&</sup>lt;sup>6</sup> However, this trend at least in case of Uzbekistan might change as cotton's share in total exports has been in decline in recent years. In 2008 its share declined dramatically, from 22% in 2007 to 12% in the following year.

for cotton dropped by 55 percent since 1960. This was mainly caused by changes on both demand and supply sides. Due to technological advancement and discovery of new ways of growing cotton using chemical fertilizers, spread of genetically modified technology, new ways of irrigation made production of cotton more efficient and thus boosted yields. At the same time, demand driven by consumption by leading textile industries has also decreased. Production of new fibres which has most of cotton's features using chemicals and other technological innovations became more cost effective. Thus, consumption of cotton fibres decreased in relation to other fires. John Baffes (2005) in his work shows that since 1960 world population has been growing by 1.8% per year, cotton consumption has been growing with the same pace, which means that consumption was more or less stagnant. Whereas, consumption of polyester has been growing 2.2% per year. Figure 7 illustrates consumption trends of cotton since 1960. As is seen on the Figure cotton's share in the market of fiber has been slowly declining. If in 1960, about 70 percent of textile products were made of cotton by 2000 this number has decreased twice. At the same time demand for polyester fibre is growing.



Figure 6. Cotton's share in total fiber consumption and polyester to cotton price ration

1963

1966

1969

1972

1975

1978

30

1960

1981

1984

1987

1990

1993

1996

1999

2002

Source: Baffes, 2005: 114.

As a result of these trends cotton market showed to be rather volatile. As can be seen form Figure 8 price fluctuations were especially dramatic in 1987, between 1992 and 1993, and in 2001 cotton prices were the average and reached the lowest point.

Another factor which as Baffes (2005) argues triggered surplus in supply is subsidies provided by state to cotton industry. Dues to low prices for cotton on the market cotton some of the biggest cotton producing countries introduced commodity programs supporting cotton producers. The United States of America among other channels of support compensates cotton producers the difference between market price and targeted price. Major cotton producers in Europe, Spain and Greece after accession to EU became eligible for EU agricultural programs which also provides generous subsidiaries to farmers in Spain and Greece. All this made production of cotton profitable to producers, but this is mainly achieved through high state spending on cotton industry. As Baffes (2005) argues if the USA and EU would remove subsidies cotton prices on the world market would increase.



Figure 7. Monthly cotton prices, January 1985-December 2004 (in USD per kilogram)

Source: Baffes, 2005: 127

Any negative changes in the market prices for cotton are very harmful for developing countries depending on cotton exports. Uzbekistan is one of such countries. In contrast to other developing countries exporting non-agricultural goods, countries producing agricultural commodities are more sensitive to any changes including technological changes. Major technological breakthroughs in many fields including irrigation, chemical fertilizing, and genetic modification are mostly made in developed countries, while the Third World countries suffer from lack of it. In addition, the Third World governments in many cases are either not willing or not able to support domestic producers. That makes their economies extremely vulnerable to any price changes.

As it was already mentioned above cotton prices were particularly low during the period between 1992 and 1993 and later in 2001. The first dates, 1992-93 coincide with the date when the agreement between Uzbek government and Korean automobile company concerning the development of auto industry in Uzbekistan was signed. The decision regarding the development of the sector which would bring the country inflow of foreign currency might be due to high volatility and uncertainty in the cotton market (principal commodity and major source of foreign currency).

### Petroleum: Turkmenistan and Kazakhstan

Exporters of agricultural commodities are more disadvantaged in comparison to nonagricultural exporters. For example, even if petroleum market is considered to be volatile thanks to mutual agreement of 1960 among major oil producing countries the prices are not fully driven by the consumption as production volumes are regulated by OPEC countries and therefore prices do not fall below some limit. According to World Bank reports energy prices were and continuous increase since mid 1990s. This partly explains continuity of sectoral composition in energy exporting countries, namely Kazakhstan and Turkmenistan (see Figure 8).



Source: World Bank, 2010

Table 15.	Central	Asia: Energ	gy reserves
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2007	Oil						
ls)	Country	Country Proven Reserves		Possible Reserves	Total		Share of total world reserves
ves arre		Low	High		Low	High	
eserv on B	Kazakhstan	9	40	92	49	80	3.2%
Re (Billic	Turkmenistan	0.546	1.7	38	2.246	3,4	less than 0.05%
-	Uzbekistan	0.3	0.594	2	0.894	1.188	less than 0.05%
Gas							
(fcf) Country		Proven	Reserves	Possible Reserves	То	tal	Share of total world reserves
keserves	Kazakhstan	65		88.3	153.3		1%
	Turkmenistan	71		158.9	229.9		4.3%
<u> </u>	Uzbekistan	6	6.2	35	10	1.2	0.09%

Source: BP Statistical Review, 2009

Another major difference among the energy rich Central Asian countries is the volume of proven reserves. In contrast to Uzbekistan, both Turkmenistan and Kazakhstan has vast energy reserves. As is seen on the Table below Turkmenistan's gas reserves twice exceed those of Uzbekistan accounting for 4.3% of world total reserves. Uzbekistan's gas reserves (0.9% of world total) are even less that of Kazakhstan (1% of world total). With regard to oil reserves both Turkmenistan and Uzbekistan account for less than 0.05% of world total while Kazakhstan's deposits make up 3.2% of world total oil reserves.

#### Aluminium: Tajikistan

In contrast to other three cases under the study the case of Tajikistan is somewhat sensitive. Unstable political coalitions, four regime breaks since independence, civil war between pro-government forces and Islamist and other groups which claimed about 20, 000 lives devastated the country. Although, ceasefire between government and opposition was signed in 1994, in 1996 rebels capture towns in southwestern Tajikistan. Only since 1997 peace in the country was finally established (*BBC News*, March 3, 2010). Tajikistan economic was nearly destroyed. Civil war eroded agricultural and industrial production left from the Soviet period. Aluminium production plant in the country was nearly disabled. Supplies of bauxite required for aluminium production were cut off. However, in 1996, Avaz Nazarov, started large-scale shipment of material needed for production of aluminium to the Tajik plant and also financed transportation costs of export shipments of aluminium to Russia and Estonia. From 2000 steadily financial balances of the production plant has recovered (Helmer, 2007). As John Helmer (2007) reports in 2004, Rahmon, the incumbent president of Tajikistan arranged official criminal proceedings against Nazarov accusing him and his companions in corruption. The management of Tajikistan' aluminium production plant Talko was trans-

ferred to loyalists of Rahmon. However, by that time Nazarov signed an agreement with Norwegian company on metal supplies from Talko. In 2005 Norwegian company started trial against Talko for failed supplies of aluminium. According to London court orders Talko had to pay Norwegian company 150 million USD (for failing to supply metal for 145 millions USD). After long tolaks among interested sides including the Norwegian company, Talko, Rahmon, and creditors (EBRD) of Nazarov's company Rusal which was accused by the Tajik government, finally in 2006 Talko established long term contracts with the Norwegian company for supply of metals. In 2007, Rahmon's (who previously was Rahmonov) probably as a part of de-russification program the aluminium company previously called TadAZ (Tadzhikskiy Aluminiviy Zavod) was changed to TALCO (Tajik Aluminium Company).





Source: World Bank, 2010

With regard to international market prices and supply of aluminium from the Figure presented above it can be seen that the metal price was on rise from beginning of 2000 making its production rather profitable business. By establishing control over the country's leading commodity Rahmon eventually consolidated his power and stabilized political coalitions

by eliminating powerful economic groups including Nazarov and his companions. At the same time, high aluminium prices on the international market ensure stable revenues and hence stability of political coalitions. This is further fuelled by benefits distributed to the winning coalition by the leader.

Table 16 summarizes the main claims and findings of this chapter. Comparative analysis of international commodity markets and regime stability confirms the hypotheses presented in the thesis.

	Political strategy regarding sectoral transformation	Political coali- tions	Commodity market
Kazakhstan	Continuity	Stable	Stable
Kyrgyzstan	Absent	Unstable	-
Tajikistan before 1998	Absent	Unstable	-
Tajikistan since 1998	Continuity	Stable	Stable
Turkmenistan	Continuity	Stable	Stable
Uzbekistan	Change	Stable	Unstable

Table 16. Political coalitions, international markets and political strategies

# CHAPTER 4 – A CASE STUDY OF UZBEK CAR MANUFACTURING INDUSTRY

Sectoral transformation appeared only in Uzbekistan. In addition, the development of automobile industry in the country questioned some of the most prominent theories of economic development which would not predict this. Therefore, the case of Uzbek automobile industry is worth studying. This chapter examines development of automobile industry in Uzbekistan. The development process is viewed from different perspectives. The chapter separately reviews the roles, interests and choices of actors in the light of domestic and international factors like international trade, commodity prices, interests of TNCs, and opportunities that markets create. First, some information about the launch of the enterprise is given then each of factors outlined above is discussed in turn.

## 4.1. The first steps: Development of automobile assembly plant in Asaka

A year after the independence in June, 1992 the president of Uzbekistan Islam Karimov paid a first official visit to the Republic of Korea. During his visit the president also got acquainted with plants of one of the South Korean major *chaebol* (conglomerate) Daewoo. A month after the sides signed an agreement about construction of automobile plant in Uzbekistan. The agreement was signed by Uzbek state company Uzavtosanoat and Korean corporation The Daewoo Group. In 1993, Uzbek-Korean Joint Venture (JV) Uz-DaewooAvto Co, was registered. The Uzbek state contributed half of the start up capital via state machine manufacturing company Uzavtosanoat to the joint enterprise (Oh, Choi, Choi, 1998). The control package, 51 percent of JV Uz-DaewooAuto stocks belonged to Uzbek state company, while Korean side owned the rest 49 percent. Four years later after the agreement was signed, in July 1996, the automobile plant was launched in Asaka, a city in the Andijan province located to the east of Andijan in the Ferghana Valley, about 200 miles from the capital Tashkent (see Map 2). The city was formally known as Leninsk.



#### Map 2. Uzbekistan

Source: The University of Texas at Austin, 1994.

The same year, in 1996, all three assembly lines of the plant were launched. The company started producing three models of automobiles, namely Damas, Tico, and Nexia. Manufacturing of a new model Matiz was launched in 2002. A year later large-block assembly of Lacetti model was launched; in 2008 the company started Lacetti's serial manufacturing. Recently, in 2007 the company increased the variety of automobile models by starting block assembly of Tacuma, Epica and Captiva. By 2008 the Uzbek-Korean JV produced 1 000 000 cars. Automobiles produced in the Asaka city plant are sold on the domestic market or exported mostly to Russia and some other countries in the Commonwealth of Independent States (CIS). About twenty branches of Uz-DaewooAuto have been opened in Russia alone. Another Uzavtosanoat's project is production of buses and lorries by Uzbek-Turkish Joint Venture SamCosAuto. Recently, in 2010 another agreement was signed by Uzavtosanoat and Mercedes on assembly of Mercedes buses in Uzbekistan.

Currently, about 5, 341 people work on the Asaka plant, while the company Uzavtosanoat employs more than 10,000 people. Local youth comprises the largest segment of employees on the plant. The company is also working on increasing efficiency of its workers. For this purpose a system of special training was introduced. The system operates on three levels: 1) at working place, 2) at education centre of the company, 3) and practical training at the plant. Special method named "Management by Objectives" is used for the purposes of education. The method helps inform employees on all management levels about the strategic goal of the company. And most importantly in order to prepare well-qualified personnel carmaking college was established in the city of Asaka, and a branch of Polytechnic University of Turin was founded in Tashkent. Moreover, in 2009 in Samarkand was opened a new automobile college. The college was founded according to the decree of the president of Uzbekistan. To ensure that the college posses all the necessary equipment a special committee of trustees was organized, among them are Samarkand automobile plant SamAuto, regional representatives of Uzavtotehhizmat, and representative of local governments, media and universities. The college's committee of trustees agenda for 2010 includes improving qualifications of professors and instructors, giving students practical knowledge in the field of automobile construction, and providing financial aid to students in need. Currently, 402 students study at this college. It is also planned to expand college facilities by building student dorm, and other amenities (Uzavtosanoat, 2010, May 15).

Some parts of the automobiles are made domestically. Within the framework of the localization program, the new enterprises specializing in the production of units and component parts for the car making factories have already been opened and continue to be established. In particular, the factories specializing in the production of seats, absorbers, silencers, fuel tanks, inner trim units, automobile enamel and many others are operating in the republic. Just in Andijan region there are several joint ventures working on production of parts. Some of them are UzTongKhong, UzKoran, UzDongYang, UzDongZhu, UzKodzhi, UzSemyung, Uz-DongVon. In addition, there are some firms located in Ferghana including Avtooyna producing vehicle glass, and UzSozon producing steering columns and mechanisms. Another factory UzEksayd, producing automobile parts is located in Dzjizakh, the factory produces car accumulators. As Regnum (2009) reports recently, current manager of the localization department Kandiyor Asadov stated that the level of localization for one of the automobile models the company produces reached 54 %. Further, it is planned to increase level of localization to 70 %. In 2006, about 80 varieties of automobile parts were produced domestically. The company is planning to launch production of automobile engines with capacity of 1, 1.2 1.4 and 1.5 liters by spring 2011.

According to the decree issued by the president of Uzbekistan on liquidation of Uzavtosanoat from 2003, the company have became Stock Company (SC). It was decided that 51% of stocks should remain in the hands of the state while the rest 49% are available for potential buyers. Another Uzavtosanoat's project is production of buses and lorries by Uzbek-Turkish Joint Venture SamCosAuto. Recently, in 2010 another agreement was signed by Uzavtosanoat and Mercedes on assembly of Mercedes buses in Uzbekistan.

# 4.2. TNCs: The Daewoo Group

Daewoo Corporation is the oldest and one of the fourth biggest Korean conglomerates. The company was launched in 1967 as a joint venture. By mid 1990 the company was involved in a wide variety of activities including shipbuilding, car manufacturing, production of TV sets, electronics, and semi-conductors. After the company separated from General Motors in 1992, Daewoo started to build foreign subsidiaries in Central Eeasten Europe (CEE) and Former Soviet Union (FSU). After signing contract for the joint corporation in Uzbekistan (Uz-DaewooAuto), another JV contract with Romania (RODAE) was completed in 1994, two years later, Daewoo singed yet another with Poland (Daewoo-FSO). The main goal of the company was to expand overseas production, with a goal of producing two million cars overseas by 2001 (Moo An, 2002).

As Jung Moo An (2002) explains, there were several motives for Daewoo to expand its overseas productions. One of such reasons was related to domestic market which was not large enough to sustain production capacity of Korean automobile companies. About half (54 percent) of total output of all Korean car manufacturers were sold in Korea, while 46 percent were exported. The importance of overseas production became most noticeable during the Asian financial crisis, when domestic sales shrunk (from 1, 512, 935 to 780, 263 units), while exports increased. In addition, increasing wage costs made production of automobiles in Korea less efficient. Costs of wages were significantly lower in CEE and FSU.

In case of investments to CEE Moo An (2002) argues that domestic economic and social environment was another incentive for Daewoo. For example, Poland had big market and high economic growth, about 6.7 percent GDP growth. In case of Uzbekistan, from the analysis presented in the previous chapter in contrast to other countries of Central Asia and even FSU in mid-1990s the country had the lowest rates of inflation, and was able to partly retain its growth rates by following gradualist approach to economic transformation.

The author also pinpoints Daewoo's motivation to use Poland and Romania as a platform to European Union's (EU) market as these countries were expected to enter EU. As in case of CEE, Central Asian market as well as market of FSU in general was attractive target. Uzbekistan itself has a population of 26 million. One might assume that through Uzbekistan Daewoo aimed to reach other CIS countries especially Russia, hoping for low tax rates for export of cars produced in Uzbekistan to CIS and neighbouring countries.

The fourth reason was that Daewoo could enjoy first-mover advantage in these emerging markets. These underdeveloped potential markets were neglected by other automobile manufacturers and therefore created opportunities for the second tier company in the industry to benefit from first-mover advantage.

# 4.3. The initiative of local government: The Uzbek state

If saturation of Korea's domestic market, high labour cost in Korea, a chance to benefit from first-mover advantage in the emerging markets, and an opportunity to expand overseas production was one part of the story, local governments' initiatives was the other. The incentive packages provided by the local Uzbek government included tax exemptions to the company for imported equipments and raw materials. The government itself contributed half of the start up capital for construction and launch of the automobile plant. In addition, the company is exempted from tax payment on all the material components imported from Korea. Moreover, according to agreement between governments of Russia and Uzbekistan automobiles produced by Uzbekistan do not pay import taxes in Russia. This makes Uz-DaewooAuto one of the cheapest cars in Russian market. Prices of Uz-DaewooAuto's cars are only comparable to those of AvtoVAZ, Russian domestic car manufacturing company. Furthermore, the automobile parts produced in Korea and exported to Russia via Uzbekistan are 15-20 percent cheaper as auto components imported from Uzbekistan to Russia are exempted from import taxes. That makes car repair services and supply of components easy and inexpensive.

However, this is just a small part of all benefits Uz-DaewooAuto receives. Another, very crucial factor is high import taxes for cars imported to Uzbekistan. Imported cars are obliged by 30 percent of import duty which make their price extremely high. This is also coupled with difficulties with foreign exchange, in particular with problem of converting sums in Uzbek currency to other currencies. As *RIA Novosti* (Strelec, April 10, 2009) reports AvtoVAZ recently complained about regulations regarding money exchange in Uzbekistan. Uzbek banks decline to convert money in accordance with instructions given by the Uzbekistan. The company says that because of limited exchange opportunities AvtoVAZ's representative branch in Uzbekistan, importing Lada automobile models to Uzbekistan, cannot pay to AvtoVAZ for car supplies to Uzbekistan.

Interest of Uzbek state in automobile industry is not limited to huge investments to and support of infant industry. Daewoo's bankruptcy once again showed the importance of this industry for Uzbek government and governments interest in keeping Uz-DaewooAuto's plant functioning. After Daewoo's collapse in the mid of Asian financial crisis the company (The Daewoo Group) was purchased by General Motors (GM), however GM refused to buy Daewoo's foreign actives including those in Uz-DaewooAuto. In 2005, Uzavtosanoat purchased Daewoo's shares (49 percent) in Uz-DaewooAuto. In one of the interviews to *Kommersant* (Yemelyanova and Chusov, October 25, 2004) the head of Uzavtosanoat, Kudrat Parpiyev stated that if GM would not renew the contract with Uzbekistan, they would search for another partner as the company has no capabilities to launch production of new models or renovate old ones. Thus, in late 2007, Uz-DaewooAuto signed an agreement with GM concerning

the launch of GM Uzbekistan on the base of Uz-DaewooAuto plant. GM bought 25 percent of the new company GM Uzbekistan, while Uzavtosanoat retained 75 percent of shares. By the end of 2007 the president of Uzbekistan Islam Karimov ordered to evaluate market demand and further perspectives of production expansion. In the process of further agreement GM and Uzavtosanoat agreed on production of Chevrolet automobile models instead of old Daewoo models.

To sum up, if comparative case study of five countries shows that international market prices influence elite's political strategy, in-depth case study of sectoral transformation in Uzbekistan shows the importance of actors, and the political leader specifically. Unstable market prices for Uzbekistan's leading export commodity influenced Karimov's calculations concerning regime's revenue base. Further, president's personal assistance once again shows the leader's deep concern about continuous flows of revenues which can be distributed to his personal clique, cronies in other words his winning coalition in exchange for support.

# **DISCUSSION AND CONCLUSIONS**

How can variation in sectoral composition of exports be explained? What affects the initial choices to develop certain economic sectors? Why do institutions and actors in similar settings produce different results in terms of economic development? What accounts for change and continuity in the leading sectors of Central Asian republics? The main purpose of the thesis was to elucidate these questions and to find relevant explanations of the divergent trajectories in development of economic sectors in post-Soviet Central Asia.

The scholarship on economic development outlined several factors which make economic development/sectoral transformation possible in the Third World countries. Some of these factors were the nature of the leading sector, market driven economy, limited government, and Weberian state bureaucracy. Scholars argued that presence of these factors creates conducive business environment and thus fosters economic development. The opposite of this would in contrast result in poor economic performance/resource dependence. In the light of these theories development of automobile industry in Uzbekistan is somewhat puzzling.

Peter Evans argued that predatory states are marked by personalism and arbitrary interventions into economy. Such system is not able to create a favourable environment for investments and rational revenue accumulation. However, in case of Uzbekistan the study showed that the country with a predatory state, low state capacity and strong patrimonial tendencies was able to develop an automobile production. The Uzbek case presents a puzzle also to proponents of sectoral analysis. The logic of this approach is that sectoral transformation is less likely to occur in countries exporting minerals, metals, industrial plantation crop, and production of other commodities which require high capital intensity, high economies of scale, and high production inflexibility and asset/factor inflexibility. According to this theory, Uzbekistan which exports huge amounts of cotton and other primary commodities classified as high/high sector should not have enough institutional capacity and state autonomy to invest capital into more productive sectors including automobile industry. Furthermore, the analyses of five Central Asian countries showed that marketization is not a prerequisite of economic diversification. For example, Kazakhstan in relative terms quite successfully implemented liberal economic reforms, while Turkmenistan did not make any progress in liberalization or privatization. Not much has developed in both of these countries apart from oil and gas industry. At the same time, the country which opted for gradual economic reforms and was labelled for that as a slow reformer launched car industry, and is selling its cars abroad. All these raise a question: How come that commodity dependent country with predatory state, overly centralized economy, and unfriendly business environment was able to attract investments, develop automobile industry and sell cars not only on the domestic market but also internationally? A comparative case study showed that fluctuations on the international commodity markets influence a leader's political strategies.

In typical authoritarian systems a leader buys support of his clique by distributing rents and special privileges. As Bruce Bueno de Mesquita et al. (2003) highlight, "[t]o hold on to power, a leader must provide sufficient benefits to the winning coalition so that the least satisfied member still prefers to support the incumbent rather than defect to a rival." Thus continuous inflow of revenues is needed to ensure regime stability and as a consequence leader's stay in office. The more vulnerable is country's leading export commodity to price fluctuations the less secure is the leader. This insecurity concerning the future earnings and consequently increasing risk of losing the post influences elite's calculations regarding capital investments into more productive sector which would ensure continuous revenue generation.

Careful analysis of socio-economic and political structure of five Central Asian countries, international commodity markets for cotton, petroleum and aluminium, together

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with a thorough case study of automobile industry in Uzbekistan showed that instability of market prices structures the choices of the political elite, making them to change political strategies regarding leading export commodity. For example, in case of petroleum, the leading export commodity of Turkmenistan and Kazakhstan, no significant price falls on the market were observed. Same is true with regard to aluminium, Tajikistan's leading export commodity. There were no changes in sectoral composition in these countries. In recent decades demand for cotton, Uzbekistan's main export commodity, decreased due to technological innovations which allow replacing cotton by polyester fiber (which has majority of cotton's features). Moreover, new methods of irrigation, cotton ginning and other technologies made production of cotton easier and more efficient in developed countries leading to increased harvests. Agricultural subsidies given to growers of cotton in EU and USA created oversupply of cotton and hence lowered the prices on the international market. All these taken together made cotton market more volatile and cotton production less profitable. Instability of market prices and declining demand for the country's leading export commodity influenced elite's calculations concerning development of a more productive sector which would ensure stable revenue base. The study also showed that this logic does not work in countries with volatile political coalitions and unstable regimes. A case of Kyrgyzstan confirms this observation. There were two breaks in Kyrgyzstan's regime since 2004. It seems that the country lacks any particular strategy, as its exports composition is inconsistent and marked by sharp declines and increases in production of gold and agricultural goods.

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