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# Constructing market-based economies in central Asia: A natural experiment?<sup>1</sup>

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## Abstract

This paper reviews the experience of the five Central Asian countries in the two decades since independence. In the 1990s the five countries looked like a natural experiment. They had similar initial conditions, but different transition strategies. Today that does not appear to have been a useful research agenda, which raises some broader questions for comparative economic studies.

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## 1. Introduction

Following the collapse of central planning in Eastern Europe and the Soviet Union, an active and urgent debate ensued on the merits of alternative strategies for the transition to a market-based economy. In econometric studies of economic performance (typically measured by change in GDP) the strongest results were for variables that picked up the difference between Eastern Europe and the former Soviet Union, whether measured as distance from Düsseldorf or years under Communism or levels of human capital, and for some obvious negative correlations (e.g. between growth and war or hyperinflation). The extensive literature produced little or no consensus on the relative merits of gradual versus rapid transition or on the optimum sequencing of reform, because beyond the similarities of a Communist regime and central planning the thirty-something transition economies were a diverse group.<sup>3</sup>

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<sup>3</sup> The dominant textbook on transition (Roland, 2000) extolled the benefits of gradualism, while one of the most widely read books on transition (Åslund, 2007) argued that only drastic and radical reform succeeded. The econometric literature of the 1990s is reviewed in World Bank (2002, 11-20) and Pomfret (2002, chapter 4). After 2000 the econometric growth literature almost dried up; the most influential article (Falcetti et al., 2002) found that country-specific initial conditions dominated, which implies that the group of transition economies was so heterogeneous that cross-country differences in the initial year swamped the impact of policy choices in determining economic performance. Dwindling interest in “transition” as a research topic was reflected in the contrast between the plethora of publications assessing the first decade and relative absence of assessments at the end of the second decade (the September 2009 UNU-WIDER Conference ‘Reflections on Transition: Twenty Years After The Fall of The Berlin Wall’ in Helsinki and Hölischer (2009) are exceptions).

A better basis for comparative analysis may be to take a smaller less heterogeneous group of economies. In this paper I ask whether the five Soviet Central Asian republics provide such a natural experiment. Apart from their similarity of geography and culture, the five Central Asian successor states were, together with Azerbaijan, the poorest Soviet republics in 1991. Their role in the Soviet division of labour was supplying a small range of primary products (cotton, oil and gas, and minerals). The Central Asian republics had no prior history as independent nation states. Their territory had been incorporated into the Russian Empire in the nineteenth century, so that they had roughly similar lengths of experience in the Tsarist Empire as well as the same Soviet history. The republics' borders were more or less arbitrary creations of Stalin; they could conceivably have been amalgamated as the Turkestan Soviet Republic, but instead they gained independence in December 1991 as five separate states. In four of the five republics, First Secretaries appointed by Mikhail Gorbachev became national presidents and quickly established super-presidential political regimes, with power heavily concentrated in the executive branch and with weak parliaments and legal institutions. The exception was Tajikistan which experienced a bitter civil war until 1997, but since then the president has established a super-presidential system.<sup>4</sup>

When the five Central Asian countries became independent in December 1991, the political priority was nation-building. At the same time they faced three major economic shocks: the end of central planning, hyperinflation, and the collapse of demand and supply chains. Although the central planning system had been abandoned in the final years of the Soviet Union, reform had hardly begun in Central Asia, but when Russia introduced a big bang liberalization of prices in January 1992 the Central Asian countries, which still shared a common currency with Russia, were forced to follow. In the transition to a market economy, government spending exceeded revenues and inflation accelerated, turning to hyperinflation in 1992-3, which was exacerbated by the common currency zone. Finally, when transport networks were nationalized and borders were erected, the Central Asian economies were vulnerable to the rapid collapse of Soviet-era demand and supply links.

All five countries suffered serious disruption from the dissolution of the USSR. Falling output and rising prices became much worse after the formal dissolution of the USSR removed residual central control over the Soviet economic space. Attempts to maintain economic links by retaining the ruble as a common currency in 1992-3 were abandoned by the end of 1993.<sup>5</sup> After 1993 each national government had considerable freedom of action in fiscal and monetary policy and in structural reforms.

National strategies for transition to a market-based economy varied among the five countries, ranging from the most rapid reform of any former Soviet republic in

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<sup>4</sup> None of the countries has an effective method for peaceful transfer of power. The only replacement of an incumbent president has been in the Kyrgyz Republic; in March 2005 President Akayev was ousted by the "tulip revolution" and in April 2010 President Bakiyev was forced into exile following street violence. The only other change of leader followed the death of President Niyazov in Turkmenistan.

<sup>5</sup> The situation before independence and the immediate post-independence period (1992-3) are analysed in Pomfret (1995). Islamov (2001), Gleason (2003) and Pomfret (2006) provide accounts of the region's economic development during the 1990s.

Kyrgyzstan to minimal change in Turkmenistan. Despite similar backgrounds and economic challenges and commonalities such as super-presidential political systems under autocratic rulers, rampant corruption, geographical obstacles to trade, and reluctance to engage in serious regional cooperation, during the 1990s the five countries' economies became more differentiated. The divergence of transition strategies among countries with similar initial conditions and unchanging (or hard to change) geographical and cultural constraints encouraged researchers to view the five countries as a natural experiment of the efficacy of alternative approaches to creating a market-based economy.

The end of the second decade since the dissolution of the Soviet Union is a good time for reflection because many developments have taken time to work themselves out (Pomfret, 2010a). Table 1 presents summary statistics of initial conditions and outcome indicators, Table 2 provides indicators of reform and Tables 3 and 4 report annual data on growth and inflation.

## **2. Dissolution of the USSR and the Transition from Central Planning**

During the 1990s, the national leaders cemented their personal power by creating super-presidential regimes, in which the balance of power between executive and legislature was overwhelmingly weighted towards the former. In Tajikistan, the only one of the five countries not to evolve peacefully from Soviet republic to independent state under unchanged leadership, the bloody civil war dominated political developments until 1997 and delayed implementation of a serious and consistent economic strategy, but by the end of the decade President Rakhmon had constructed a political system similar to that of his neighbours. In the priority task of nation-building the five countries have been successful; simply surviving for twenty years was an achievement that many did not anticipate in 1991.<sup>6</sup>

What was the economic goal? By 1992 the centrally planned economy had collapsed and there was no alternative to creating a market-based economy (although there was much discussion of the varieties of capitalism). The experiment thus became how to create a market-based economy that could deliver superior economic performance, proxied by increased real GDP.

Which country was most likely to succeed? Viewed from the starting gate, there were several potential favourites. The biggest windfall gain from the shift from Soviet administrative prices to world prices was expected to go to Turkmenistan: Tarr (1994) estimated a terms of trade gain of 50%, second only to Russia among former Soviet republics, and well-ahead of third-place Kazakhstan (19%). Kazakhstan, however, had the best endowment of human capital, reflected in a per capita income roughly twice as high as the average for the four southern Central Asian countries (World Bank, 1992) and the country's substantial energy resources were about to be tapped by the Chevron-Tengiz oil project - the largest foreign investment agreement in Soviet history. Uzbekistan benefitted from the position of Tashkent as the administrative capital of Soviet Central Asia, insofar as the new country inherited greater bureaucratic capacity

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<sup>6</sup> All five countries asserted their sovereignty by joining the United Nations in 1992, and have been universally recognized. They have also been successful in avoiding inter-state wars, unlike the Caucasus. More surprisingly, civil war (with the exception of Tajikistan) and secession have been avoided.

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and material (e.g. the large inherited aeroplane stock gave the new national carrier an initial edge and inherited military equipment reduced pressure on the defence budget). The poorest prospects, apart from Tajikistan which was embroiled in civil war, appeared to be those of Kyrgyzstan, which was poorly endowed with human and resource capital and geographically isolated. However, poor prospects could be an advantage if they pushed the country into more radical (and more appropriate) reform.

Which country won the race in the 1990s? Based on real GDP in 1999 as a percentage of 1989 GDP, the answer is clear. All former Soviet republics experienced a transitional recession, but the decline was least in Uzbekistan. The worst-performing Central Asian economy, unsurprisingly, was Tajikistan. The other three countries had more or less identical performances, with GDP about a third lower in 1999 than in 1989 (Table 3), despite the diversity of transition strategies.<sup>7</sup>

Why was Uzbekistan so successful? The main explanations have been in terms of a gradual transition strategy, favourable world market conditions for its major export, cotton, and good administration (and favourable inheritance from the Soviet era).<sup>8</sup> These are not necessarily competing explanations, and there is some interaction. Gradualism reduced the magnitude of the short-term transitional recession compared to countries adopting rapid reform. Good administration helped to reduce the output fall, e.g. maintenance of irrigation channels and ginning facilities kept cotton output up in contrast to Turkmenistan and Tajikistan where cotton output declined. Compared to elsewhere in Central Asia, some state enterprises were relatively successful in the early and mid-1990s, e.g. Uzbekistan Airways provided the best international air services and turned Tashkent airport into the regional hub. However, what transformed these factors into the best performance in the former Soviet Union was the 1992-5 upturn in world cotton prices (Figure 1) combined with the relative ease of transporting cotton to world markets.

Uzbekistan's success was seized upon by some participants in the virulent debate about the appropriate speed of reform as evidence of the benefits of gradualism.<sup>9</sup> On

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<sup>7</sup> National accounts data for the Central Asian countries should be treated with caution, especially for the 1990s, and data for Turkmenistan are especially dubious. Various biases apply to the levels of GDP (Pomfret 2003), and hence to magnitude of changes reported here. Nevertheless, there is little argument about the rankings of the five countries' performance in the 1990s.

<sup>8</sup> Corruption was, and still is, widespread in all of Central Asia, but available evidence suggested lower levels in Uzbekistan than in the other four countries. Among the twenty transition economies covered by the 1999 Business Environment and Enterprise Performance survey (reported in the European Bank for Reconstruction and Development's Transition Report 1999), Uzbekistan ranked about fourth for lack of corruption, ahead of several European countries generally considered to be transition leaders.

<sup>9</sup> There are doubts about whether the gradualism - shock therapy dichotomy actually captures Uzbekistan's transition strategy in the mid-1990s. In areas such as small-scale privatization, housing and price reform, Uzbekistan was a relatively quick and extensive liberalizer, and the stabilization program introduced in January 1994 was a standard IMF policy package, even though the government presented it as home-grown macropolicy. Less sensibly, in 1997 the Uzbek government took pleasure in identifying its forex controls with those of Malaysia in a group of high-performing IMF-deniers, although Malaysia's controls were milder and more rapidly dismantled. Uzbekistan's average EBRD transition index was higher than Kazakhstan's until 1998 (e.g. in *Transition Report 1998*, Table 2.2.1, the unweighted average of the EBRD's eight indicators on an ascending scale of 1-4 was for Kazakhstan

the other hand, supporters of “shock therapy” (or Big Bang reforms) argued that Uzbekistan had failed to lay the foundations for sustained economic growth. Their scepticism was borne out by Uzbekistan’s mediocre performance in the next decade, but that had less to do with gradualism than with poor policies. When cotton prices fell in the second half of 1996, Uzbekistan resorted to draconian foreign exchange controls to maintain state control over the rents from cotton. The controls bred a series of policies injurious to a well-functioning market economy, while the systemic nature of the controlled economy inhibited further piecemeal reform.

Turkmenistan illustrated the dangers of gradual or non-existent reform. As in Uzbekistan, the government reaped substantial rents from cotton exports in 1992-6, and responded to the price downturn by imposing forex controls in 1998. By that time the economy was encountering serious problems because cotton output was declining and the other major export, gas, went through pipelines to monopsonist buyers who did not pay their bills; in 1997-9 Turkmenistan cut off gas supplies to Ukraine in an attempt to enforce payment. Meanwhile, the cotton and gas rents had been used for inefficient populist subsidies, spent on grandiose projects to boost the presidential personality cult, and wasted on import-substitution projects with negative value-added (Pomfret, 2001). The regime isolated the country from outside influences and survived by ruthless repression. Economic performance improved in the second decade not because of good policies, but because Turkmen gas became more valuable in the 2000s as bargaining power shifted from buyers to sellers.

Kyrgyzstan embraced rapid change and created the most liberal regime in the region. Prices and foreign trade were fully liberalized and small-scale privatization was completed. In July 1998, the Kyrgyz Republic became the first Soviet successor state to accede to the World Trade Organization. Despite the reforms, however, Kyrgyz performance in the 1990s was average. Critics of shock therapy blamed the policies, while supporters argued that more time was needed before positive results would be seen. In fact, economic performance in the 2000s was not outstanding either. Some argued that poor institutions negated the policy reforms, but without identifying the nature of the poor institutions this was unhelpful.

Kazakhstan was also seen as a rapid reformer, but less consistently so than Kyrgyzstan. In 1992 Kazakhstan followed Russia’s sweeping price reform with fewer exceptions than other Central Asian countries, but as the 1990s progressed Kazakhstan also resembled Russia in the way that privatization created powerful private interests that distorted the reform process. By the end of the 1990s Kazakhstan had similar transition indicators to Kyrgyzstan, with less complete trade liberalization but a better functioning financial sector and more reformed infrastructure (Table 2). These two countries were the most successful in stabilizing the macroeconomy, bringing inflation below fifty percent in 1995 and 1996 respectively, but both had disappointing economic performances in the 1990s.

In Tajikistan the civil war destroyed the planned economy and effectively privatized economic activity without the institutions, such as security of contract, crucial to efficient operation of a market economy. In Table 2 Tajikistan scores highly on price

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2.1, the Kyrgyz Republic 2.9, Tajikistan 1.9, Turkmenistan 1.5 and Uzbekistan 2.3, although in the following year Kazakhstan ranked above Uzbekistan)

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liberalization and privatization, but poorly on enterprise reform or competition policy, and abysmally on financial sector reform or infrastructure. After the 1997 peace agreement Tajikistan was considered to be a delayed reformer with liberalization of trade and financial sector policies, but institutions remained weak. The economic decline in Tajikistan was traumatic; by 2000, with a national income per capita of \$180, Tajikistan was poorer than most of sub-Saharan Africa or the poorest countries of Asia.

### **3. Economic Performance during the Second Decade after Independence**

Central Asia experienced a huge economic shock in the early 1990s. As stated above, Uzbekistan's economy suffered a smaller transitional recession than any other former Soviet republic, and experienced positive economic growth after the mid-1990s. The Uzbek case was cited by supporters of gradual reform, as was the relative failure of more reformist Kazakhstan and Kyrgyzstan. However, most commentators agreed that the real test of the strategies pursued by the Central Asian countries would be their performance in the next decade.

A striking feature of the decade after 1999 was the lack of further progress in creating efficient market economies. As measured by the EBRD Transition Indicators there was little change, apart from limited banking reform in Kazakhstan, Kyrgyzstan and Tajikistan and further price liberalization and small-scale privatization in Tajikistan (Table 2). Turkmenistan was even downgraded on some indicators of its, very limited, transition. The general impression is of a blank slate for reform in the early 1990s to which Central Asian countries responded in differing ways, but by the turn of the century the type of market economy had been fixed in each country and was now only amenable to limited further change.

Many foreign observers expected relative economic performance in the second decade to reward those countries which had reformed their systems in the 1990s to create more effective market economies and to punish those countries which had held back on reform. In practice, outcomes were primarily (and overwhelmingly) determined by whether countries had energy resources or not. Kazakhstan and Turkmenistan enjoyed rapid growth driven by the rising world price of oil, which had stagnated in the dozen years before 1998, but then increased from under \$10 a barrel to over \$140 in 2008. Tajikistan enjoyed fairly high growth rates in 2000-4 as domestic peace was established, but this was from a low base and the country remained very poor with a huge percentage of the male population working abroad, mainly in Russia.<sup>10</sup>

The dominant economic influence in Central Asia from 1999 to 2008 was the boom in energy prices. The oilboom was especially important for Kazakhstan whose major Caspian oilfields began to produce large quantities of oil after the turn of the century, as the first independent pipeline through Russia opened in 2001 and the first pipeline to a Mediterranean port opened in 2005. Thus Kazakhstan benefitted from

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<sup>10</sup> To a lesser extent both the Kyrgyz Republic and Uzbekistan experienced substantial out-migration and remittances became an important source of family income in the 2000s. The migrants worked mainly in Russia and secondly in Kazakhstan, where labour demand was driven by construction booms associated with soaring revenues from energy exports.

both higher quantity and higher prices, as well as being in a stronger position to negotiate transit fees.

For Turkmenistan, whose gas reserves are among the world's largest, the increase in energy prices was also a boon. There is no world market for natural gas, whose price is dependent on long-term contracts with customers on the pipeline network, but oil prices affect demand for gas and hence the relative bargaining power of gas suppliers. Higher prices for Russian gas exports to the EU, which are priced by a formula that includes oil prices, created pressure to increase the price of Central Asian gas exports to Russia. The price paid by Russia to Turkmenistan increased from \$44 per 1,000 m<sup>3</sup> in 2005 to \$150 in 2008.<sup>11</sup> The value of Turkmenistan's GDP increased, but gas output grew only slowly and non-gas output stagnated; publicly available data on Turkmenistan are poor, but there is anecdotal evidence of substantial inequality and poverty. Although the death in December 2006 of President Niyazov (or Turkmenbashi the Great as he preferred to be known) fuelled anticipation of policy reform, publicized changes by President Berdymukhammedov were largely cosmetic and serious economic reforms minimal.

Growing energy demand stimulated new projects to harness the huge hydroelectric potential in the mountainous regions of Tajikistan and the Kyrgyz Republic. Any hydro projects are, however, highly controversial because the rivers provide water vital to the irrigated agriculture of Kazakhstan, Uzbekistan and Turkmenistan. In the Soviet era water resources were managed by Moscow; water would be released at appropriate times for downstream agriculture and in return the Kyrgyz and Tajik republics would be provided with energy. Uzbekistan strongly opposes the new hydro projects, and has withheld energy supplies to the upstream country during recent winters.

For Uzbekistan, which is more or less self-sufficient in oil and natural gas, the direct impact of the oil boom was roughly neutral, but the indirect effects were substantial. Tensions with neighbouring Tajikistan and Kyrgyzstan escalated over water/energy arrangements. The economic prosperity of Kazakhstan posed a challenge to the Uzbek government that had seen itself as the regional leader in the 1990s. Tashkent had been the metropolis of Soviet Central Asia and Uzbekistan was the most populous of the new independent Central Asian countries. Kazakhstan had higher per capita income, and the gap in overall economic size increased substantially after 2000. By the mid-2000s, thousands of Uzbek workers were crossing the border to work as migrant labour in Kazakhstan, underlining the widening gap in living standards.<sup>12</sup> Almaty became the regional financial centre and airport hub.

The dichotomy between energy-rich and energy-poor countries was overwhelming in the 2000s, but there may also be a distinction between more and less

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<sup>11</sup> Russia increased the price paid for Turkmen gas, so that it could free up more Russian gas for export to the EU or Ukraine, although before 2005 the payment process was non-transparent (García, 2006; Global Witness, 2006; Pomfret, forthcoming). Central Asian exporters exerted further pressure by seeking alternative pipeline routes with higher long-term price agreements, e.g. to China (pipeline opened in December 2009) or Iran (pipeline opened in 2010) or the EU (pipelines under negotiation).

<sup>12</sup> Olcott (2007) emphasises disappointing economic performance as the main cause of increased unrest and repression in Uzbekistan in the 2000s.

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open economies. Measured by trade/GDP ratios all five are open economies, but this is not a good guide to the openness of the economies to non-resource trade and to ideas or foreign investment. In these latter respects, Uzbekistan and Turkmenistan are much more closed than Kazakhstan or the Kyrgyz Republic. This is difficult to measure, because all five countries have low *de jure* tariffs and other formal trade policies are not restrictive.<sup>13</sup> It is, however, visually self-evident from comparing the shops in Almaty, Astana, Atyrau and Aktau, with those in any other Central Asian city. It is also evident from the Kyrgyz Republic's massive bazaars, Dordoi in Bishkek or Kara-su near Osh, which cater to a regional market.<sup>14</sup> In Turkmenistan and Uzbekistan introduction of forex controls and adoption of import-substituting industrialization strategies reinforced the closed economy because domestic currencies were not convertible and the import-substituting industries opposed opening up the economy to competing imports.

#### 4. The Case of Kazakhstan

A major obstacle to fulfilling Kazakhstan's economic potential after independence was related to the oil sector. The only outlets for Kazakhstan's oil were pipelines through Russia, and Russia exploited its monopoly position by regulating flows and levying high transit fees. Nevertheless, the country's oil and mineral wealth played a key role in Kazakhstan's economic and political development as the privatization program of the mid-1990s led to insiders and politically well-connected people gaining control over the valuable assets. The regime became more autocratic and the system more corrupt. Economic reform stalled in the mid-1990s. The limited economic reform and establishment of crony capitalism inhibited healthy economic development in the 1990s. Kazakhstan's economy was hard-hit by the 1998 Russian crisis. Although the crisis itself was exogenous, the contagion effect reflected a relative failure to diversify Kazakhstan's international economic relations away from Russia.

After 1999 the economic situation in Kazakhstan turned around. The recovery from the 1998 crisis was driven by market forces and by good fortune. A sharp real depreciation of the currency stimulated exports; the positive market response to changed prices helped to validate policymakers' understanding of market mechanisms, and increased their confidence in economic reforms. Recovery of world oil prices, which had stagnated from 1986 to 1998 (Figure 2), reinforced the positive trade developments, while large new offshore oil discoveries and new pipeline routes created unbounded

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<sup>13</sup> The main restrictions are administrative and monetary. Although Uzbekistan claimed in 2003 to have ended forex controls and established currency convertibility on current account, obstacles to obtaining foreign currency remain. In Turkmenistan President Berdymukhammedov unified the exchange rate system in 2007, but there too traders seeking to obtain foreign currency encounter obstacles.

<sup>14</sup> Reported imports by the Kyrgyz Republic from China are a small fraction of China's reported exports to the Kyrgyz Republic (e.g. in 2008 China reported exports to the Kyrgyz Republic of \$9,213 million, while the Kyrgyz statistics indicate imports of \$728 million from China (Mogilevsky, 2009, Table 5), which the Kyrgyz authorities explain by the predominance of re-exports, but it is impossible to trace these trade flows through the free-wheeling entrepôts (Kaminski and Raballand, 2009). According to estimates by the World Bank (2009), Dordoi employs 55,000 people (and may generate a further 100,000 jobs indirectly) and has annual sales of around \$2.5 billion, making it by far the largest shopping mall in Central Asia (albeit if the infrastructure is containers piled three-high).



optimism. By 2010 Kazakhstan had the dominant regional economy, and Almaty was the preeminent regional financial centre.

Kazakhstan is difficult to characterize because the institutional developments in the 1990s were rapid and idiosyncratic - and subject to further evolution. Jones Luong and Weinthal (2010) identify Kazakhstan as a resource-curse country because the natural resources were being exploited by foreign private companies under weak state control. They highlight the poor institutional development when the state does not rely on taxation of individuals and hence does not need the population's acquiescence in tax rates and expenditure decisions. Moreover, the process of privatization and granting of oil concession was associated with massive corruption (Pomfret, 2005). Yet despite the unpropitious institutional development in the 1990s, institutions are not immutable and the management of Kazakhstan's economy improved during the 2000s. A fortunate conjuncture of rising oil prices, increasing oil output and proliferation of transport routes for oil exports substantially eased the national budget constraint, allowing the President to act as a benevolent father of the nation while those who had benefited during the 1990s welcomed establishment of stronger property rights so that they could consolidate their gains.

The 2007-9 financial crisis in Kazakhstan was a symptom of success. A well-functioning financial system makes risky loans, and in the mid-2000s many would-be borrowers were wildly over-optimistic about the economy's prospects. Kazakhstan's banks erred on the side of overoptimism or poor judgment and made too many bad loans, creating a financial crisis. However, the government had built up sufficient reserves during the oilboom years that it could act on a large scale to resolve the crisis in 2008-9 (Pomfret, 2010b).

This case study highlights the point that any econometric exercise testing relationships between policies and performance in transition economies will encounter the difficulty that policies and their consequences are not static. Kazakhstan's transition indicators were set in the 1990s and changed little after 2000, but the economic environment evolved in a positive way in the 2000s. In contrast, Uzbekistan's gradualism became associated with poorer performance in the 2000s in large part due to the fateful decision in 1996 to renege on a commitment to currency convertibility and the subsequent policy stasis. The path dependence in these two countries was related to specific events, policies and perhaps presidential personality rather than to a choice between gradualism and shock therapy.

## **5. Conclusions**

Economic performance in the 1990s was not correlated with the speed and extent of transition. Kyrgyzstan, Kazakhstan and Turkmenistan had almost identical GDP performance over the decade 1989-99, despite the extensive reforms in Kyrgyzstan and the absence of reforms in Turkmenistan. Civil war explains Tajikistan's poorer performance. Uzbekistan was associated with the best GDP performance of any Soviet successor state during the 1990s, but the outcome was less positive in the second decade. The other large economy, Kazakhstan, appeared to underperform in the 1990s, but in the second decade Kazakhstan has been one of the best-performing economies in the world. The three smaller countries' economic performance in their second decade has been less positive. Tajikistan is one of the poorest countries in Asia with

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characteristics of a failed state. The Kyrgyz Republic has also had a disappointing economic outcome, despite having introduced market-friendly reforms during the 1990s. Turkmenistan, despite mismanagement under its first President, has more options because of its abundant energy resources, but the nature of the regime remains opaque and the unreformed economy is grossly inefficient.

Variations in economic performance during the 2000s were overwhelmingly determined by energy endowments. High energy prices in 1998-2008 powered Kazakhstan's rapid growth, at least until the country ran into a financial crisis in 2007-8, and also supported high growth rates in Turkmenistan despite poor policies. Meanwhile, Uzbekistan's regulated economy slipped into the low growth familiar from many import-substituting countries of the 1950s and 1960s. The resource-poor and landlocked, economies of Kyrgyzstan and Tajikistan fared even worse.

The concept of a natural experiment is seductive. However, even among apparently similar countries, simple correlations between economic performance and policies measured by metrics like the EBRD Transition Indicators are weak. Growth is more complex than implementing good policies, having good institutions or managing resource endowments efficiently. Growth is like opening a rusty combination lock; several tumblers need to be in place, or at least sufficiently aligned so that one can force the lock open. Categorizing policies is also more complex than simple rankings by EBRD transition indicators or a taxonomy like that of Jones Luong and Weinthal.<sup>15</sup> Uzbekistan was a cautious reformer in the 1990s, but the crucial distinction is between relatively good economic policies in 1994 and 1995 and poor policies after the summer of 1996. Kazakhstan started off as a shock therapy reformer in 1992, but quickly became distracted by rent-seeking; yet the poor ownership structure of the oil and gas sector highlighted by Jones Luong and Weinthal (2010) was not static, and the regime continued to pursue relatively liberal economic policies.

All five countries have established super-presidential political regimes, although the degrees of repression differ.<sup>16</sup> Prospects for significant change in economic policies in the near future are limited because the entrenched political regimes have little incentive to sponsor major reforms. Economic growth may trigger pressures for reform, as may change in the domestic political environment, especially in the two largest economies where the succession to Presidents Karimov and Nazarbayev is unclear. A

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<sup>15</sup> Jones Luong and Weinthal (2010) categorize resource-based economies by ownership structure and state control over resource rents; Uzbekistan and Turkmenistan have public ownership and state control, Russia private domestic ownership and state control, Azerbaijan private foreign ownership and state control, and Kazakhstan private foreign ownership without state control (the worst of all combinations in their view). In the 2000s, however, Kazakhstan's efforts to increase the participation of the national energy company in oil and gas projects is similar to the strategies of Russia and Azerbaijan despite their different positions in the taxonomy (Pomfret, 2010b).

<sup>16</sup> This may complicate the assessments of economic performance. The greater liberty in the Kyrgyz Republic underpins a flourishing market culture and the two largest bazaars, near Osh and in Bishkek, cater primarily to Uzbeks; lack of consumer choice and extensive bureaucratic allocation in Uzbekistan (and in Turkmenistan) may be associated with lower economic well-being for a given real GDP. On repression in Turkmenistan and Uzbekistan, and why they number among the worst of the worst repressive regimes in the world, see Gleason (2007) and Olcott (2007).

fundamental question across Central Asia concerns the extent to which an autocratic and repressive political regime is consistent with a flourishing market-based economy.

In autocracies the personality of the leader matters.<sup>17</sup> Kazakhstan's President Nazarbayev is not Mobutu or Turkmenbashi, and he has been willing to change policies and act in the common good, as long as it does not affect his grip on power. His role model appears to be Singapore's Lee Kuan Yew, the father of the nation delivering widely shared prosperity. The Kyrgyz Republic has the best prospects for democratic evolution, in part because President Akayev went quietly in 2005, rather than turning to repression in order to hang on to power. In 2010 the autocracies seem more stable than the Kyrgyz Republic, and that will continue as long as the strongmen are strong. But there is potential for huge instability when a strongman dies; peaceful successions in Turkmenistan and Azerbaijan do not necessarily predict peaceful successions when Nazarbayev or Karimov dies; the model could be post-Soeharto, post Shah of Iran or Nigerian power struggles.

The dichotomy between the more open and more closed Central Asian economies is also important for long-run economic development. The openness of the Kazakh and Kyrgyz economies contributes to institutional evolution. Civil society is relatively strong in Kazakhstan, despite the restricted political system, and emphasis on competitiveness is associated with a more open-minded evidence-based approach to economic policy. The Kyrgyz Republic has the best immediate prospects of democratic political reform and has relative economic freedom, but these benefits could easily evaporate if poverty remains widespread.<sup>18</sup> Closed economies have less dynamic institutional evolution. Uzbekistan enjoyed favourable initial conditions in terms of administrative capacity and in 1993-5 adopted a pragmatic approach to economic policy, but after 1996 forex controls and import-substituting industrialization led to policy stasis, and an economy closed off from external influences was not exposed to demonstration effects that might stimulate change. Turkmenistan is more isolationist, and even a change in president has not resulted in significant change to what is an obviously malfunctioning economy.

In sum, simple cross-country comparisons can easily be misleading because economies evolve and simple dichotomies such as gradualism/shock therapy or democracy/autocracy are too general and indicators are too static. Unicausal explanations are invariably inadequate; Uzbekistan's success in the 1990s reflected a combination of gradual reform, relatively efficient economic management and favourable world cotton prices, while the magnitude of Kazakhstan's post-2000 growth

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<sup>17</sup> This implies that policy choices matter, although a dictator may be more prone to making extreme choices in the absence of checks and balances.

<sup>18</sup> The ethnic violence in the southern part of the country in spring 2010 highlighted the danger. Although many ethnic Russians had emigrated in the 1990s, the large Uzbek majority remained in their Kyrgyz homes in part because they enjoyed greater freedom than in Uzbekistan, including better conditions for producing and selling their crops. This was despite ethnic conflicts in 1990 over land rights. In the next two decades relations between Kyrgyz and Uzbeks in the southern regions were peaceful, but the violence reignited in May-June 2010. Whatever the catalyst for violence, poverty fuelled the increased ethnic tension.

depended on having attracted foreign investment before the oilboom.<sup>19</sup> For deeper understanding detailed case studies are necessary... but that poses a challenge for comparative economic studies!<sup>20</sup>

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<sup>19</sup> In the econometric context, the problem is not just that uncausal explanations are inadequate. In multiple regressions explaining growth, interaction terms, threshold effects and endogeneity are pervasive, in addition to classical econometric problems such as multicollinearity (e.g. the Düsseldorf/years under Communism/human capital problem) or heteroscedasticity.

<sup>20</sup> This is not an argument for abandoning comparative economic studies. Serious economic analysis requires consideration of unobserved counterfactual situations. We can either construct model-based counterfactuals or identify useful controls (e.g. compare countries facing similar problems while making allowance for differences between the countries). The key in the latter approach is identifying which differences are significant, and that requires knowledge of the countries involved. In the Central Asian case it is insufficient to rely on EBRD indicators to capture differences in transition strategies and policies.

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## Appendix

Table 1: Demographic Data, Output and Income, 1990-2 and 2008.

	1990-2					2008			
	Population (million) 1990	GDP (USD billion) 1990	GNP per capita (PPP) 1990 1992	Life expectancy (years - 1990)	Adult literacy (percent) 1990	Population (million)	GDP (USD billion)	GNI per capita (PPP)	Exports/ GDP (percent)
Kazakhstan	16.3	26.9	5,120 4,510	68	98	15.5	132.2	9,690	61
Kyrgyzstan	4.4	2.7	1,810 1,480	68	97	5.2	4.4	2,140	45*
Tajikistan	5.3	2.6	2,210 1,480	63	97	6.7	5.1	1,860	17
Turkmenistan	3.7	3.2	2,710 2,440	63	98	5.0	18.3	6,210	47
Uzbekistan	20.5	13.4	n.a. 1,290	69	97	26.9	27.9	2,660	42

Source: World Bank World Development Indicators at [www.worldbank.org](http://www.worldbank.org) (accessed 9 March 2010)

Notes: na = not available; \* = 2007

Table 2: EBRD Transition Indicators, 1999 and 2008

	Large scale privatisation	Small scale privatisation	Enterprise restructuring	Price liberalisation	Trade & Forex system	Competition Policy	Banking reform & interest rate liberalisation	Securities markets & non-bank financial institutions	Overall infrastructure reform
Kazakhstan 1999	3.00	4.00	2.00	4.00	3.33	2.00	2.33	2.00	2.00
2009	3.00	4.00	2.00	4.00	3.67	2.00	2.67	2.67	2.67
Kyrgyz Republic 1999	3.00	4.00	2.00	4.33	4.33	2.00	2.00	2.00	1.33
2009	3.67	4.00	2.00	4.33	4.33	2.00	2.33	2.00	1.67
Tajikistan 1999	2.33	3.00	1.67	3.67	2.67	2.00	1.00	1.00	1.00
2008	2.33	4.00	1.67	3.67	3.33	1.67	2.33	1.00	1.33
Turkmenistan 1999	1.67	2.00	1.67	2.67	1.00	1.00	1.00	1.00	1.00
2009	1.00	2.33	1.00	2.67	2.00	1.00	1.00	1.00	1.00
Uzbekistan 1999	2.67	3.00	2.00	2.67	1.00	2.00	1.67	2.00	1.33
2009	2.67	3.33	1.67	2.67	2.00	1.67	1.67	2.00	1.67

Source: EBRD at <http://www.ebrd.com/country/sector/econo/stats/index.htm> (accessed 9 March 2010).

Note: Indicators are measured on a scale from 1 (no reform) to 4, with pluses and minuses, e.g. 3+ and 3- are represented by 3.33 and 2.67.

Table 3: Growth in Real GDP 1989-2008 (per cent)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	1999; 1989=100
Kazakhstan	0	0	-13	-3	-9	-13	-8	1	2	-2	2	63
Kyrgyz Rep	8	3	-5	-19	-16	-20	-5	7	10	2	4	63
Tajikistan	-3	-2	-7	-29	-11	-19	-13	-4	2	5	4	44
Turkmenistan	-7	2	-5	-5	-10	-17	-7	-7	-11	5	16	64
Uzbekistan	4	2	-1	-11	-2	-4	-1	2	3	4	4	94

Source: European Bank for Reconstruction and Development Transition Report Update, April 2001, 15.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Kazakhstan	-2	3	10	14	10	9	10	10	11	9	3	1	6
Kyrgyz Rep	2	4	5	5	0	7	7	0	3	8	8	2	-4
Tajikistan	5	4	8	10	9	10	11	7	7	8	8	3	6
Turkmenistan	7	17	19	20	16	17	15	13	11	12	11	6	11
Uzbekistan	4	4	4	4	4	4	8	7	7	10	9	8	8

Source: EBRD data at <http://www.ebrd.com/country/sector/econo/stats/index.htm> (accessed 7 December 2010).

Notes: 2010 = preliminary figures.



Table 4: Inflation (change in consumer price index) 1991-2008 (per cent)

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Kazakhstan	79	1,381	1,662	1,892	176	39	17	8	7
Kyrgyz Republic	85	855	772	229	41	31	26	36	12
Tajikistan	112	1,157	2,195	350	609	418	88	28	43
Turkmenistan	103	493	3,102	1,748	1,005	992	84	24	17
Uzbekistan	82	645	534	1,568	305	54	59	29	18

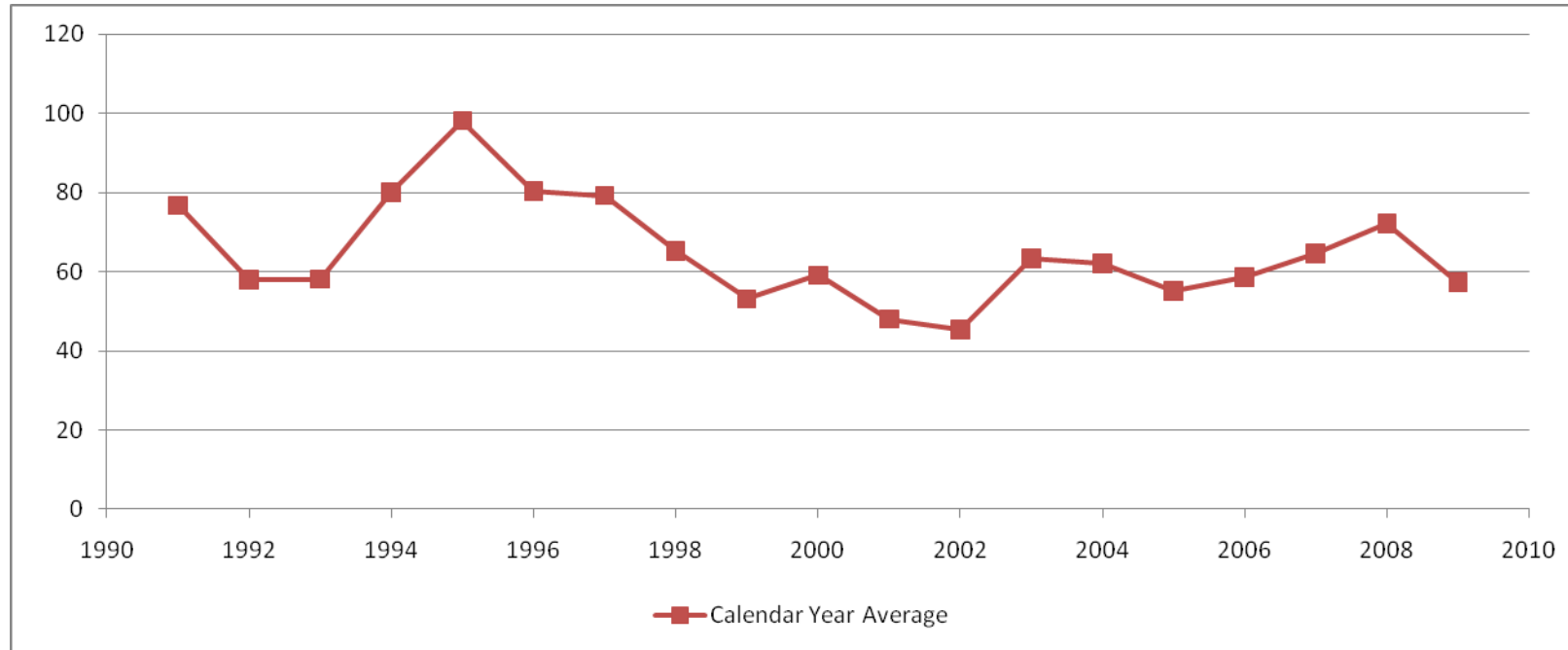
Source: European Bank for Reconstruction and Development Transition Report Update, April 2001, 16.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Kazakhstan	7	8	13	8	6	6	7	8	9	11	17	7	7
Kyrgyz Republic	11	36	19	7	2	3	4	5	6	10	25	7	6
Tajikistan	43	28	33	39	12	16	7	7	10	13	21	6	8
Turkmenistan	17	24	8	12	9	6	6	11	8	6	15	-3	5
Uzbekistan	29	29	25	27	27	12	7	10	14	12	13	14	10

Source: EBRD at <http://www.ebrd.com/country/sector/econo/stats/index.htm> (accessed 7 December 2010).

Notes: 2010 = preliminary figures.

*Figure 1: World Cotton Prices (Cotlook A Index), Annual Averages, January 1991 to July 2009, US cents per pound.*



*Figure 2: Oil Prices 1987 - 2009, US dollars per barrel*



Source: US Energy Information Administration at <http://tonto.eia.doe.gov/dnav/pet/hist/ntotworldv.htm>