Commitment devices, opportunity windows, and institution building in Central Asia

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Abstract

This paper studies the institutional reform process in Central Asia from a choice perspective. We compare institutional reform processes of Central Asian countries from 1995 to 2006 to those conducted in their neighbouring countries in Central and (South) Eastern Europe, Russia, and the Middle East. Firstly, the paper identifies contemporaneous factors responsible for the persistence of poor institutional arrangements. Secondly, we identify factors that can act as commitment devices through which institutional change can be achieved and sustained. Based on the findings, it is argued that deficiencies in the education system and preferences of individuals and politicians are responsible for the persistence of poor institutional arrangements. External factors such as real and financial openness, fixed exchange rates and non-trade related international agreements, however, provide strong commitment devices for policy makers to improve institutional arrangements in Central Asia despite poor initial conditions. Moreover, large external shocks may help to shift preferences towards more reliable institutional settings.

JEL Classifications: H11, O10, P20.

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1 Introduction

Stable macroeconomic frameworks and sound economic institutions have been found an essential factor for a country's wealth and long-run growth. Reliable institutions are believed to reduce uncertainty and transaction costs and thereby fostering investment and economic growth (cf. Hall and Jones, 1999; Acemoglu et al., 2005).

This paper analyses the institutional reform process in Central Asia from 1995 to 2006. We compare the reform processes in Central Asia with those conducted in Russia, Central and (South) Eastern European countries (CEEC), and the Middle Eastern and North African (MENA)economies in order to identify the determinants of institutional reforms in Central Asia.[1] Russia, CEEC and MENA economies share several similarities and important differences on the other hand in terms of history, economic structure, and culture such that the set-up provides a natural experiment that allows us to identify those factors. All of these countries can be considered as emerging markets with a large fraction of external trade, whereas CEEC, and Central Asian economies are former socialistic states, as opposed to the MENA economies, which are mostly former colonies of European countries. Similarly, Central Asian and MENA economies have a large commodity export sector as opposed to the CEEC. Also, CEEC, MENA and Central Asian economies all have cooperation agreements with the European Union (EU) at varying levels of intensity ranging from an Accession Country status to a very loose agreement about technical assistance and economic and cultural exchange such as the *Barcelona Process* and Technical Assistance for the Commonwealth of Independent States (TACIS)-programme. We add Russia to the analysis as it is the most important hegemonic state in the region.

Several papers that have analysed the determinants of institutions. Most papers focus on historical and exogenous factors such as abundance in natural resources or colonial and legal origins (cf. Peters, 1996; Acemoglu et al., 2001; Beck and Laeven, 2006). This paper argues that institutional arrangements first and foremost are subject to a political decision making process in which politicians are responsible for setting up institutional arrangements regardless the actual

[1] The terms CEEC and MENA are used very loosely in this study. We define the group of CEEC as all Central and (South) Eastern European countries and the Baltic states that had a (potential) EU candidate status in 2006. The group of the MENA economies is restricted to MENA countries that are part of the *Barcelona Process*. For a detailed description of the country groups see Appendix.

political system. Exogenous factors, by definition, cannot be subject to change in order to achieve better institutional settings and thus, provide little insight for policy recommendations. Looking at institutions from a choice perspective allows identifying factors that can be subject to political reforms and therefore lead to institutional change.

In particular, the paper identifies contemporaneous factors that have hindered institutional reforms in Central Asia and that the lack of reforms in Central Asia is the result of a lack of incentives for policy makers and individuals. Secondly, we provide stylised evidence that external factors can provide important commitment devices for Central Asian economies to reform existing institutional arrangements.

Based on the findings it is argued that deficiencies in the education system and preferences about institutional reforms are responsible for the persistence of institutional settings in Central Asia. Both, preferences and the education received under the old socialistic system are two main channels through which historical factors affect current institutional arrangements and provide an obstacle for implementing more efficient, market-based institutions.

We also provide stylised evidence that factors related to the degree of openness of the economy provide important incentives for policy makers in conducting institutional reforms. External factors such as real and financial openness, fixed exchange rates, non-trade related international agreements, and external shocks have helped to reform economic institutions in Central Asia and have made the reform process more dynamic in recent years.

A high degree of trade and financial openness may provide an incentive to reform institutional settings as countries have a larger share of revenues per gross domestic product (GDP) from external trade and a larger share of foreign investment in total investment. Therefore, opportunity costs in terms of forgone business opportunities as a result of bad governance provide incentives to improve the institutional set-up. Similarly, financial openness provides an incentive to remedy deficiencies in the regulatory framework, and thereby making the economy less prone to sudden capital outflows which may result in financial turmoil and painful economic recessions. Pegging the exchange rate, in combination with financial openness has the same effect or amplifies the effect of financial openness, as undesirable domestic policy measures may result in speculative attacks against the currency regime. We also find that external agreements, such as the TACIS-programme is likely to contribute as an incentive as it explicitly aims for institutional change and more market-oriented institutions which are essential for closer ties with the EU. Lastly, external shocks, such as an economic crisis may shift preferences of individuals and politicians towards better institutional arrangements.

The remainder of the paper is organised as follows. Section 2 analyses the sources of persistence of institutional arrangements. Section 3 discusses the external factors that may provide potential mechanisms to overcome persistence in the reform process. Section 4 concludes.

2 Persistence of Institutional Arrangements

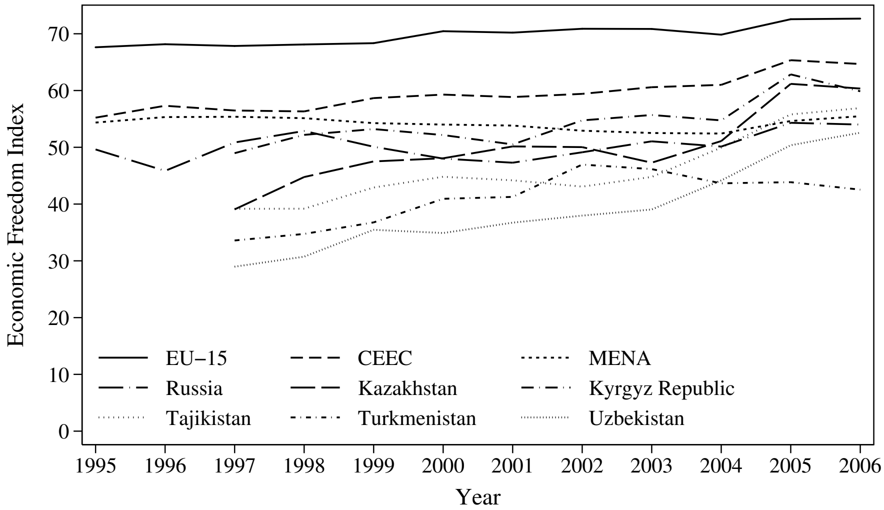
Since the breakdown of the socialistic systems in the early 1990s transition economies in Central Asia are facing the problem of rearranging their institutional framework and finding strategies to steer economic growth in order to cope with unemployment and welfare losses due to the structural adjustment process.

Figure 1 compares the quality of economic institutions in Central Asian economies against an unweighted average of the EU-15, CEEC, and MENA economies as benchmarks using the *Economic Freedom Index* provided by the Heritage Foundation (2008).[2]

The index is a *de facto* measure of institutional quality and defines institutions as mechanisms to ensure property rights and efficient public bodies in order to provide public goods in an efficient way and reduce transaction costs. Institutional quality is measured in 10 different subcategories, namely business and investment regulations; trade and financial sector regulations; monetary and fiscal institutions; property rights protection and corruption; and labour market institutions. Each of the 10 categories is graded on a continuous scale from 0 to 100, with 100 representing a minimum of distortions and costs associated with the existing arrangements.

Figure 1 reveals that the institutional reform process in Central Asia, CEEC and the MENA economies has been heterogeneous. Although Figure 1 suggests that institutional settings in all countries are quite persistent, the transformation economies in CEEC and, lately, Central Asia have been relatively successful in reforming their institutional arrangements. While Central Asian economies have started from a low level in the early and mid-1990s they have caught up with their neighbours in the MENA region in recent years despite poorer starting conditions. Some Central Asian countries, namely Kazakhstan and the Kyrgyz Republic, have even come

[2]Throughout the paper unweighted averages are used for the CEEC, MENA, and EU-15 countries in the graphs in order to compare policies without distorting size effects of countries.



Source: Heritage Foundation (2008). Note: No data available for Central Asian countries prior to 1997.

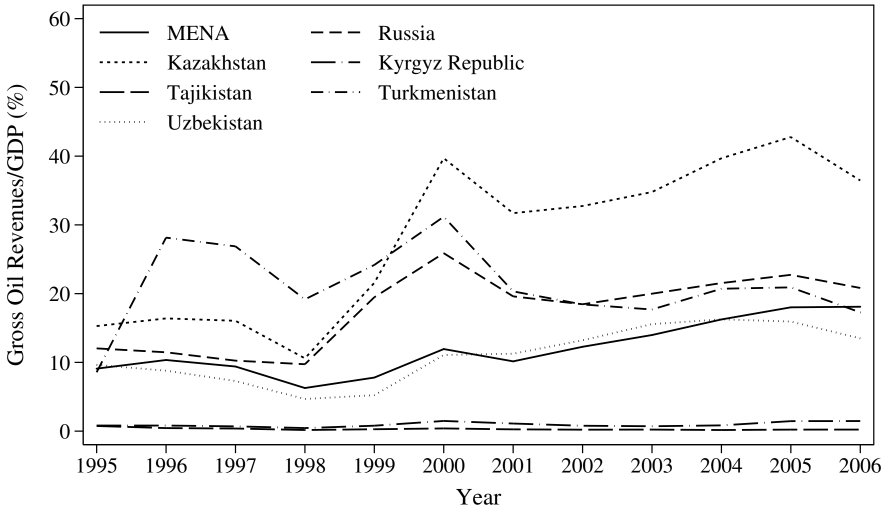
Fig. 1: Institutional Quality 1995 – 2006

close to CEEC levels, even though CEEC were starting off at a much higher level. Particularly, the Kyrgyz Republic, Taijikistan, and Kazakhstan show a significant upward trend after 2001 and became the most dynamic reformers in the group, while Turkmenistan and, to some extend, Uzbekistan are still lagging behind. Leaving aside Turkmenistan, all Central Asian countries show some co-movements with Russia and their surrounding countries in Central and Eastern Europe. This may suggest that factors that are common to either Central Asia and Russia or Central Asia and CEEC have driven the reform process.

Although, most Central Asian countries show signs of institutional changes in recent years according to Figure 1, it is important to understand factors that cause persistence of lumpy institutions in order to ensure that the reform process will be continued and not be reversed.

Several authors have discussed factors behind the persistence of institutional arrangements (cf. International Monetary Fund (IMF, 2005) for an overview).

The most prominent argument why bad policies persist is that the polity has control over economic rents from natural resources such as crude oil (cf. Sachs and Warner, 2001; Ross, 2001; Sala-i-Martin and Subramanian, 2003; Ramsay, 2006). Access to these rents pose a disincentive for political and economic elites to reform institutions, as (tax) earnings from other economic sectors, which would need sound institutional frameworks for their development, pale in insignificance (Rajan and Zingales, 2006; Congdon Fors and Olsson, 2007). Moreover, poor



Source: International Energy Agency (2008), IMF (2008).
Fig. 2: Oil related GDP 1995 – 2006

property rights protection can be used to block the introduction of new technologies which may reduce the elites' future political and economic power (Rajan and Zingales, 2006; Acemoglu and Robinson, 2006).

Figure 2 shows the share of oil related GDP as a share of total GDP as a measure of resource dependence in Central Asia. Oil related GDPs in Central Asia are compared to the one in Russia and an unweighted MENA average. Looking at Figure 2 shows that Kazakhstan, the Kyrgyz Republic, alongside with Russia, have the highest share of oil related GDP in the graph. All three countries are well above the average MENA country, whereas Uzbekistan is roughly at the same level and Turkmenistan and Tajikistan are below MENA average. Comparing this to Figure 1 suggests that there seems to be no clear relationship between resource dependence and institutions in Central Asia. Kazakhstan and the Kyrgyz Republic are the countries with the highest fraction of oil related GDP and the most sound institutions as well. At the same time, the countries with the poorest institutions in the Central Asian group are also the ones with the lowest degree of resource dependence according to our measure.

Another argument is that being a former colony or having a legal system that roots in European legal tradition has a positive long-term effect on institutional arrangements (Acemoglu et al., 2001; Kuran, 2004; La Porta et al., 2007). Once, modern market-based institutions were implemented during colonial times they have not been reversed after the end of the colonial rule.

Similarly, Beck and Laeven (2006) find that the CEEC were better reformers when compared to their Central Asian counterparts as a result of having spent less time under a socialistic regime with a non-market based institutional framework. In this case individuals find costly to adjust to a new set of rules. And therefore, the old ones stay in place.

Looking at Figure 1 these factors seem to explain initial values in the graph for Central Asia, CEEC, and the MENA economies. But it does not seem to explain the changes of the reform process over time. MENA economies show higher values at the beginning of the sample when compared to Central Asian countries maybe due to a different legal system implemented during colonial times. But despite more favourable starting conditions MENA countries show little change throughout the following years and did not manage to catch up with the EU. Moreover, it does not explain why several Central Asian countries have overtaken MENA economies.

As neither history nor geographical factors can be undone, and thus cannot be subject to political change, it is important to understand the transmission channels trough which historical factors affect current choices.

Even if the effect of the former socialistic regime seems to be not present anymore, some of the transmission channels are likely to be autonomous reasons for persistence in the the Central Asian case. Social norms, habits, or costs arising from adjusting to a new set of rules are likely reasons why agents prefer a status quo or gradual changes rather than a quick adjustment, even if it would be socially desirable.

Economic and institutional reforms are often not Pareto-optimal, such that certain groups of the population will be confronted with utility losses due to these reforms. Even though, reforms may be socially optimal on a global scale the non-existence of a political Coase-Theorem, such that winners cannot credibly commit themselves to compensate the losers of the reforms makes reforms less likely (Acemoglu, 2003). Continuing with a reform path that is but sub-optimal for a strategically important group of the voting population or special interest groups bears the risk for politicians of loosing their incumbency (Acemoglu and Robinson, 2006).

In a similar fashion, individuals' risk preferences may yield a congenerous effect. Uncertainty about the outcome of reforms due to interdependence of different institutions may also prevent reform efforts or even worsen existing arrangements unintentionally. Hence, the effect of uncertainty on the individual's utility may provoke risk averse agents to prefer keeping their status quo rather then voting for reforms (Fernandez and Rodrik, 1991). As a result, risk averse policy makers then lack the willingness to reform.

Moreover, individuals may have preferences about the way institutions actually should be designed. It is obvious that these preferences are shaped by either the former institutional system or severe economic shocks and that historically shaped preferences do have an effect on current political outcomes.

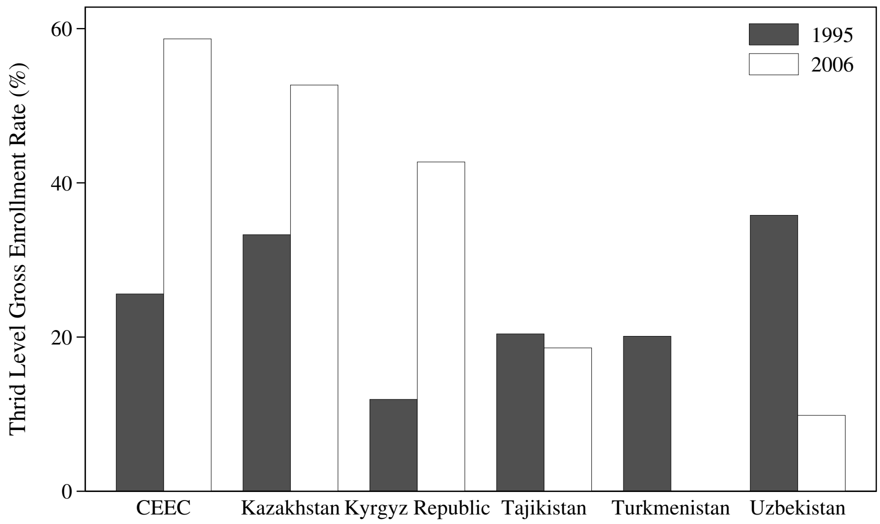
De Grauwe (2004), for example, argues that historical events explain the differences between the French and German inflation target prior to the introduction of the European Monetary System (EMS). Severe inflationary crises in the German history and painful deflationary episodes in the French have shaped preferences among politicians and citizens in favour of more stability oriented or lax monetary policy respectively.

Similarly, Alesina and Fuchs-Schündeln (2007) find that East Germans, who grew up under the socialistic regime, are more in favour of redistribution and state intervention than West Germans. This effect is especially strong for older cohorts, which have spent a longer time of their lives under the Communist regime.

The education system is also likely to be another factor causing persistence of institutions in Central Asia. Sound property rights protection and well functioning factor markets have been found essential preconditions for developing a knowledge-based economy and economic growth driven by ideas. However, having a well developed property rights protection alone does not ensure producing ideas, as it requires a certain level of education among the work force to develop innovations.

Figure 3 shows third level education enrollment rates for Central Asia and the CEEC. Looking at Figure 3 shows that there seems to be no connection between education and institutions around 1995. Kazakhstan and Uzbekistan lead the figures followed by the CEEC, Turkmenistan, Tajikistan, and the Kyrgyz Republic in the last spot. However, third level education enrollment rates roughly mirror the ranking of institutional quality in Figure 1 when looking at 2006 figures. CEEC have the highest share of population with third level education in 2006 followed by Kazakhstan and the Kyrgyz Republic as the countries with the highest share of third level education among Central Asian countries, and Turkmenistan and Uzbekistan with the lowest fraction.

Hence, while education did not seem to matter much at the beginning and mid-1990s education and knowledge of the labour force seem to be associated with the reform process in



Source: World Bank (2008). Note: No data available for Turkmenistan after 1997.

Fig. 3: Third Level Education Enrollment Rates 1995 – 2006

recent years, such that investing in education and human capital increases the preferences for property rights protection and more market-based institutional arrangements in order to ensure that individuals can benefit from their human capital accumulation.

However, one should bear in mind that there is a second factor related to education which can be linked to persistence of institutional settings. A large number of public and private employees in Central Asia, still in key positions after the breakdown of the socialistic regime, were educated under the socialistic system. It is obvious that a curriculum in socialistic book-keeping, banking supervision, and legal treatment of property rights differed remarkably from what a market-based economy demands. In this case persistence may simply arise from the complexity of setting up market based institutions and policy makers' lack of knowledge about how to implement and to execute certain institutional arrangements. The accumulated knowledge of these employees, therefore, does not assist them in executing their tasks and probably makes redesigning institutions impossible.[3]

3 Openness, Commitment, and Economic Reforms

So far, preferences of individuals and politicians, alongside with the deficiencies in the education system appear to be the major obstacles in the reform process in Central Asia, whereas the

[3]Vaclav Klaus (1990) summarised this as *"When we want to play chess, we must know how to play."*

resource curse does not apply to Central Asian countries. Reforming the education system might help the reform process. But educational reform efforts are subject to the same problem as institutional reforms themselves, namely a lack of willingness to reform. Because educational reforms will only pay off in the long-run, politicians are likely to favour reform projects that will pay off in the short-run.

In this section, we are going to argue that economic openness and factors that are related to it play an essential part in reforming institutions in Central Asia and are the reason for why CEEC economies, have been even more successful in reforming their institutions than Central Asian economies. Alesina and Fuchs-Schündeln (2007) argue that preferences about institutions in East and West Germany will converge over time as a result of cultural and economic exchange within a highly integrated economy. While there certainly is an effect on preferences due to economic exchange between Central Asian countries and the rest of the world, we focus more on the disciplining effect external factors have on the policy agenda in small open economies and thereby help to overcome reform-unwillingness.

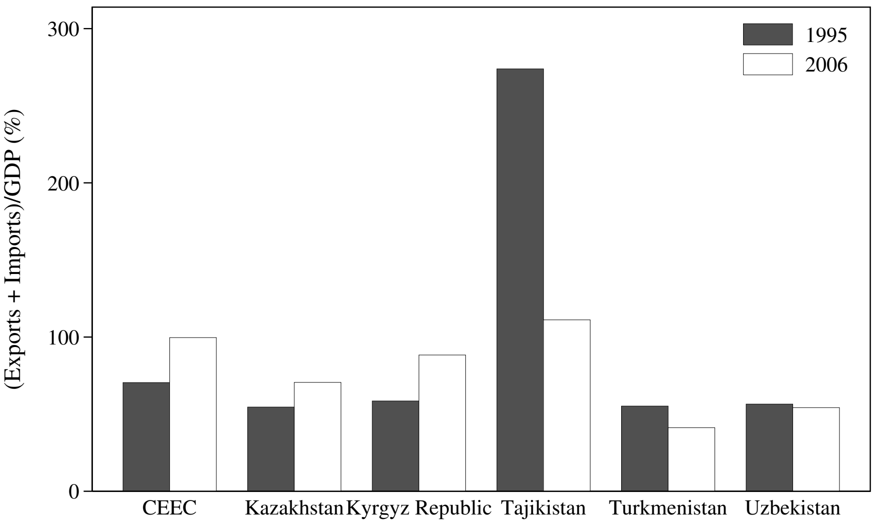
A number of papers have underscored the importance of commitment devices in order to cope with time-inconsistency and credibility problems in individual decisions and policy making (Schelling, 1960; Barro and Gordon, 1983; Kydland and Prescott, 1997; Benjamin and Liabson, 2003). Commitment devices can work twofold: Firstly, they encourage policy makers not to sacrifice reform efforts that would be beneficiary in the long-run for short-term policy objectives. Secondly, they also signal that already conducted reforms will not be reversed.

In particular, countries with a higher degree of openness have a larger share of revenues per GDP from external trade and a larger share of foreign investment in total investment. Therefore, opportunity costs in terms of forgone business opportunities as a result of bad governance provide an incentive to improve institutional arrangements.

Figure 4 shows the degree of trade openness measured as total imports and exports in goods and services as a percentage of GDP in Central Asia and CEEC.

Looking at Figure 4 shows that CEEC, Kazakhstan, and the Kyrgyz Republic have opened up over time, while trade as a share of GDP has declined in Turkmenistan, Uzbekistan, and especially in Tajikistan. Again, focussing on changes over time rather than on absolute levels in 1995 and 2006, this reflects approximately the ranking in Figure 1.

A similar argument can be made with regard to financial openness. Lane and Milesi-Ferretti



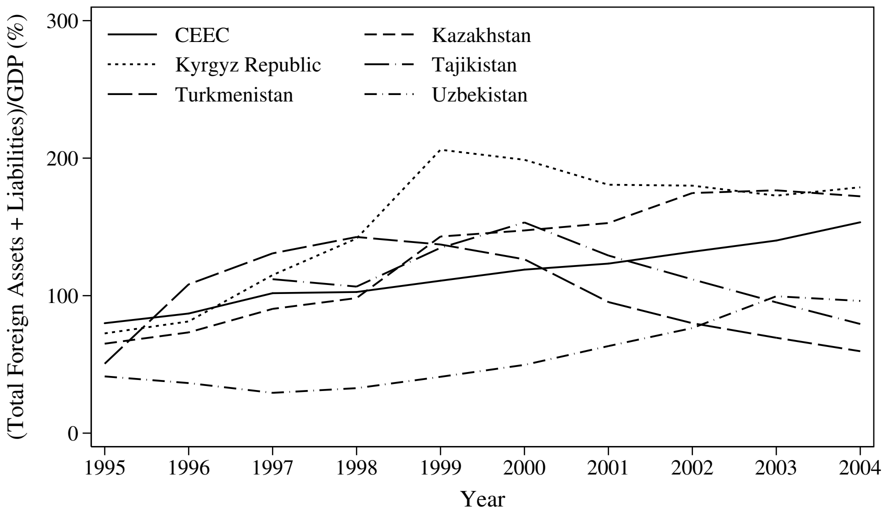
Source: IMF (2008).
Fig. 4: Trade Openness 1995 – 2006

(2006) report that in the early 1990s the CEEC have gradually liberalised their capital accounts which has led to a number of reforms that strengthened the financial sector development in these countries. The disciplining effect of financial openness stems from the fact that financial openness not only improves access to international capital markets and foreign investment, but it also comes at the risk of sudden stops and sudden reversals and thus, painful economic crises. Therefore, it provides an incentive to improve regulatory framework in order to avoid recessions, as well as reducing sovereign risk, borrowing costs abroad.

Figure 5 shows financial openness measures for Central Asian economies and the CEEC as a benchmark from 1995 to 2004. Estimated stocks of total foreign assets plus liabilities as a share of GDP provided by Lane and Milesi-Ferretti (2007) adjusted for exchange rate valuation effects are used as a measure.

Figure 5 shows that the CEECs and Central Asian countries had similar levels around 1995 except for Turkmenistan and Uzbekistan. CEEC show a constant upward trend over the 1990s and early 2000s similar to Kazakhstan and the Kyrgyz Republic. While all Central Asian countries, except for Uzbekistan, overtook CEEC for a short period in the following years, only Kazakhstan and the Kyrgyz Republic sustained high levels of financial openness similar to the CEEC after the year 2001, which coincides with the changes documented in Figure 1.

While financial openness per se presumably does not provide an incentive to improve regu-

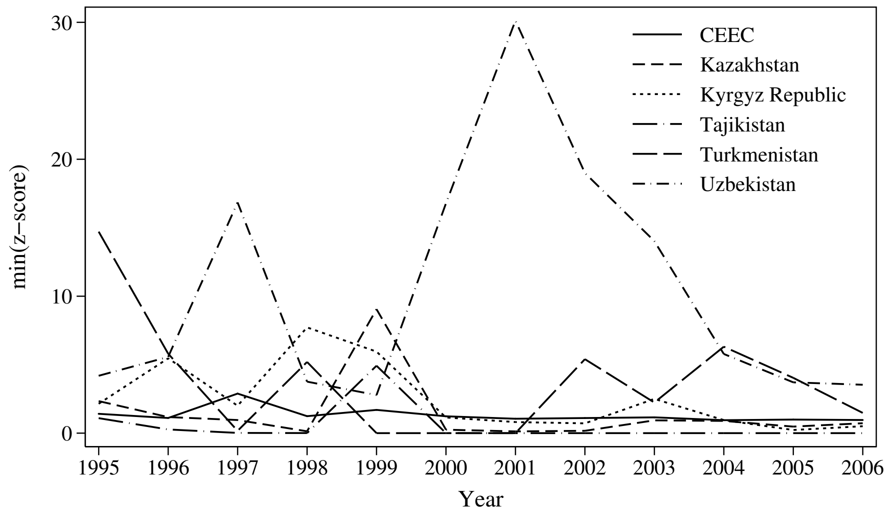


Source: Lane and Milesi–Ferretti (2007) , IMF (2008). Note: No data available for Tajikistan before 1997.

Fig. 5: Financial Openness 1995 – 2006

latory frameworks, Giavazzi and Pagano (1988) have argued that fixed exchange rate rates, as opposed to flexible ones, have a disciplining effect on the policy agenda in small open economies. Fixed exchange rates are often a necessity in transition countries, because of the inability to borrow in domestic currency and to hedge the exchange rate risk due to underdeveloped capital markets, as well as the inability to conduct stability oriented monetary policy autonomously. On the other hand, fixed exchange rates provide a target for speculative attacks. In case agents expect undesirable policies, they are likely to speculate against the country's currency which may force monetary authorities to abandon the peg which is likely to trigger default of governments and firms on foreign currency loans. Thus, *tying up* the government's hands by fixing the exchange rate is likely to change priorities on the agenda in favour of reforms towards more market-based institutions such as sound financial regulation and property rights protection in order to prevent sudden capital outflows and speculative attacks on the exchange rate regime.

Figure 6 shows average annual exchange rate volatilities of national currencies from 1995 to 2006 against the US dollar (USD), the euro, and the German Mark (DM) prior to the introduction of the euro. Exchange rate volatilities are calculated as Z-Scores as proposed by Ghosh et al. (2002). For each country, the volatility measure z_{jt} against the j-th foreign currency at time t is calculated as $z_{jt} = min(\sqrt{\mu^2_{\Delta e_{jt}} + \sigma^2_{\Delta e_{jt}}})$, whereas $\mu_{\Delta e}$ and $\sigma_{\Delta e}$ represent the mean and the standard deviation of the currency returns against the j-th currency (USD or euro/DM)



Source: IMF (2008).

Fig. 6: Exchange Rate Volatility 1995 – 2006

in year t respectively. The minimum volatility is chosen in order to identify the manipulated, policy relevant exchange rate. Annual figures are calculated from monthly data for each year.

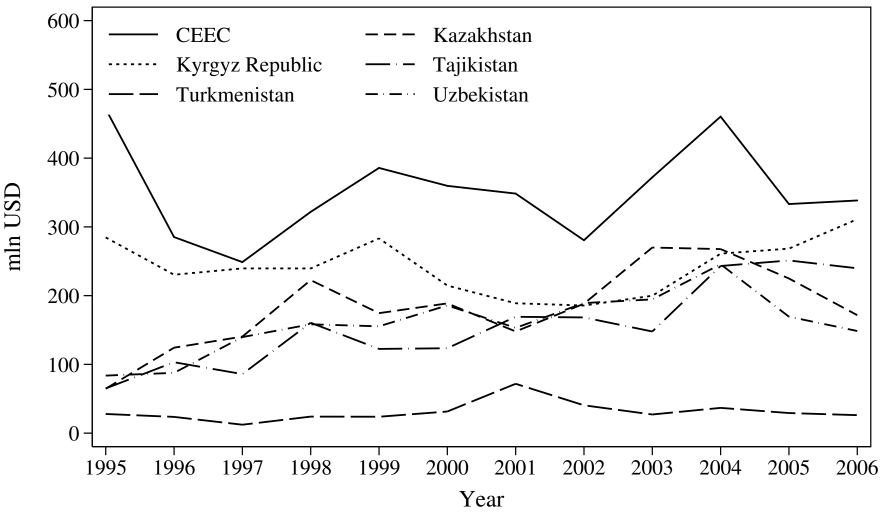
Figure 6 shows that the CEECs have constantly kept their exchange rate volatilities at very low levels while most Central Asian countries show higher volatility between 1995 and the year 2000. However, after that, Kazakhstan, the Kyrgyz Republic, and Tajikistan have converged to CEEC levels in terms of volatility. Turkmenistan and Uzbekistan show higher volatility even after 2000, which maybe is a result of their poor institutional performance. Thus, credibility in economic policy making can be crucial in avoiding speculative attacks on the country's currency or unnecessarily high exchange rate volatility which also harms external trade and long-term capital flows.

While the incentive of financial openness in combination with fixed exchange rate regimes consists in preventing an economic crisis, economic crises themselves can have a positive effect in the long-run despite painful short-run effects. As already discussed in the previous section, preferences are often shaped by historical events. Periods of systematic instability can shift preferences in favour of better regulations among the population and policy makers and open a *window of opportunity* for reforms as they reveal weaknesses in institutional arrangements (Acemoglu and Robinson, 2001; Brückner and Ciccone, 2008). In the aftermath of the crisis agents may have a higher willingness to reform and prefer better institutions in order to avoid future costly recessions. Looking at Figure 1 shows that this coincides with the increased reform efforts in Central Asia after the Russia crisis in 2001 which also spread over the Central Asian countries and the CEEC.

Beside these market factors, international agreements, such as IMF and World Bank programmes that specifically target economic improvement may provide a form of commitment as well. IMF lending schemes such as the Poverty Reduction and Growth Facility (PRGF) provide credit to emerging markets and transition economies linked to binding structural and social policy changes (IMF, 2007). Thus, these programmes should have a direct effect on the political agenda.

Most Central Asian economies, as well as their neighbours in Eastern Europe and the MENA were part of various development programmes of the World Bank, the IMF, or the OECD. Although these programmes intend to foster market-oriented reforms, empirical evidence suggests a negative effect of IMF programmes on institutions (cf. Przeworski and Vreeland, 2000; Dreher and Rupprecht, 2007). It is often argued that the conditionality of these programmes does not work due to weak constraints and misguided policy recommendations. However, the effect of these programmes is hard to evaluate empirically. Firstly, there might be long time lags until policy reforms triggered by e.g. IMF programmes show an effect. Secondly, countries qualify for these programmes by being in a disastrous economic state and have to agree on becoming part of an IMF lending scheme or another programme. Thus, a positive effect would be even, if these programmes could ensure that institutions are not getting worse.

Other types of agreements such as agreements with the EU or other international entities might work in a similar way. So far, the CEEC have been the most successful reformers among the former communist countries. A major difference between CEEC and other emerging markets at the EU periphery is that the countries in Eastern Europe have a reasonable prospect of entering the EU at some day. There is evidence that the prospect of an EU membership has become an anchor for domestic economic policy making in many CEEC (Babetskii et al., 2004). A (prospective) EU membership imposes important constraints on national fiscal and monetary policy, as well as on other policy areas such as governance, as compliance with the *Acquis Communitaire* is a key requirement for entering the EU (European Commission (EC, 2007)). And thus, the prospect of entering the EU is likely to explain the transition observed in the CEEC.



Source: World Bank (2008).

Fig. 7: Net Development Assistance 1995 – 2006

Although weaker, other forms of cooperation between the EU and countries without an EU membership perspective may also provide a disciplining effect on institutional reforms. Russia and economies in Central Asia are part of the TACIS-programme. The EU has underscored the strategic importance of its neighbours in Central Asia and the EU has already become an important export market for members of the TACIS-programme (European Comission (EC), 2007). Although the TACIS-programme is not a political agreement in the first place it explicitly stresses institutional, legal and administrative reforms in the former Soviet countries by providing technical assistance and training to public employees (EC, 2007). This explicitly tackles some of the points related to education discussed in the previous section. Moreover, the TACIS-programme became the basis for an ongoing political and economic integration process between the EU and Central Asian economies (EC, 2007).

Figure 7 shows the amount of net development assistance as a fraction of GDP received by CEEC and Central Asian countries. As shown by the graph CEEC have constantly received more development assistance than Central Asian countries from 1995 to 2006. However, those countries in Central Asia that have turned out to be better reformers, namely Kazakhstan and the Kyrgyz Republic, followed by Tajikistan, are also those which have received more assistance than Uzbekistan and Turkmenistan. And again, this can be also seen in institutional changes depicted in Figure 1

4 Conclusion

This paper studies institutional reforms from a choice perspective in Central Asia from 1995 to 2006. By comparing the reform processes in Central Asian economies to those of their neighbours in Central and Eastern Europe, Russia, and the Middle East and North Africa, we identify shortcomings in education and preferences of individuals and policy makers about reforms as the main obstacles in the reform process. Based on this, we identify factors that can act as commitment devices for Central Asian economies to reform existing institutional arrangements.

We provide stylised evidence that external factors such as real and financial openness and factors that are related to both provide an incentive for policy makers to sustain institutional change.

Real and financial openness, fixed exchange rates, non-trade related international agreements, as well as external shocks have helped to change institutions in Central Asia and has made the reform process more dynamic in recent years. This results from the fact that small open economies, by definition, are more exposed to external shocks and international capital and trade flows.

A high degree of trade and financial openness may provide an incentive to reform institutional settings as small and open countries have a larger share of revenues per GDP from external trade and a larger share of foreign investment in total investment. Therefore, opportunity costs in terms of forgone business opportunities as a result of bad governance provide incentives to improve the institutional set-up. Similarly, financial openness provides an incentive to remedy deficiencies in the regulatory framework, and thereby making the economy less prone to sudden capital outflows which may result in financial turmoil and painful economic recessions. Pegging the exchange rate, in combination with financial openness, has the same effect as undesirable domestic policy measures may result in speculative attacks against the currency regime.

We also find that external agreements, such as the TACIS-programme is also likely to contribute as an incentive for Central Asian countries, as institutional reforms towards more market-oriented institutions are essential for closer ties with the EU. Lastly, external shocks, such as an economic crisis may shift preferences of individuals and politicians towards better institutional arrangements.

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Appendix

Table A. Definitions of Country Groups

Central Asia				
Kazakhstan	Kyrgyz Republic	Tajikistan	Turkmenistan	Uzbekistan
CEEC				
Albania	Bulgaria	Croatia	Czech Republic	Estonia
Hungary	Latvia	Lithuania	Macedonia	Poland
Romania	Slovakia			
EU-15				
Austria	Belgium	Denmark	Finland	France
Germany	Greece	Ireland	Italy	Luxembourg
Netherlands	Portugal	Spain	Sweden	United Kingdom
MENA				
Algeria	Egypt	Israel	Jordan	Lebanon
Libya	Morocco	Syria	Tunisia	