Essays on Growth and Political Transition

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"..Only as creators can we destroy!–
But let us also not forget that in the long run
it is enough to create new ..appearances of
truth in order to crate new <things>. "

– F. Nietzsche "The Gay Science"

To memory of Anahit Berberian

Abstract

This thesis consists of a summary and three self-contained papers related to political regime transition and economic performance with parallel analysis for countries with and without Military Dictatorship (MD) history.

Paper [1]: analysis the experience of 83 countries from the period of 1950-2004 and addresses the following question: *when* do democratic transitions produce bad economic outcomes. Following the theoretical papers of Acemoglu et al. (2004, 2008(a)), an attempt is made to control for both de jure and de facto sides of political power. The results imply that concentration of economic power per se produces bad economic outcomes. Besides, the data seem to contain an indication that democratisation induces additional socially wasteful investments into de facto political power. In addition, the analyses suggest that, when the army assumes political leadership, countries with low concentration of economic power demonstrate better economic performance. In terms of Acemoglu et al. (2007), this may support the idea that the institutional environment switches from a “weak” to a “strong” one. Finally, the potential trade-off between democratisation and political stability seems to be mainly relevant to the degree of severity of reoccurring economic crises in countries with MD history.

Paper [2]: investigates whether and under which conditions democracy renders economic performance more efficient. Efficiency, measured by the ratio of (mean)/ (standard deviation) of output growth, becomes an important indicator of the relative goodness of economic performance when countries face a trade-off between development scenarios with high-mean and low-volatility of output growth. This seems to be a case when economies approach the efficient frontier. However, when countries are far away from the frontier economic efficiency may be improved by simultaneously increasing the mean and decreasing the volatility of growth. This study differs from others on the topic in three basic ways: (i) asymmetric (G)ARCH models are employed to simultaneously estimate the mean and volatility of output growth conditional on the factors of interest; (ii) variations in within-country effects of democratisation on the mean, variance and efficiency of economic growth conditional on cross-country variations in income inequality are analysed; (iii) the asymmetry of deviations from the mean is investigated. The results suggest (do not suggest) that in countries with

no (with) MD history democratisation moves economies towards the efficient frontier. The positive effect of democratisation on the efficiency of economic performance seems to be systematically stronger in countries with lower (higher) income inequality in the countries with (without) consolidated civil governments.

Paper [3]: analyses the survival of four different growth regimes conditional on political regime transitions that occurred during the first or prior year of the economic regime. The results suggest that in countries with no history of MD, the episodes of fast-growing regimes initiated by political democratisation have about 40% lower hazard of termination than the miracle growth episodes that were not started by political transitions. This finding does not hold in countries in which the consolidation of democracy is complicated by the historical role played by the army in the governing process. Additional analyses are carried out for the effect of political transitions on the duration of ongoing economic regimes. The data does not support the argument that “order” and the “rule of law” promote economic growth under more authoritarian regimes, which commonly feature authoritarian leaders during times of economic crisis. Political transitions of both directions under an economic crisis render the ongoing economic regime more durable. In contrast political transitions (of both directions) seem to be economically more efficient under the regime of stagnation.

Keywords: de facto and de jure political power, economic growth, economic crisis, efficient frontier of economic growth, military dictatorship, political regimes, weak institutions

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Lilit Hakobyan,
Yerevan, February 2014

This thesis consists of a summary and the following three papers:

[1]: Hakobyan, L. 2014 “Political transition, economic growth and reoccurring crisis in countries with and without military dictatorship experience” *Umeå Economic Studies No. 871*

[2]: Hakobyan, L. 2014 “Income inequality, competitiveness of political systems and the distance to the efficient frontier of economic growth” *Umeå Economic Studies No. 872*

[3]: Hakobyan, L. 2014 “Economic stagnation and stable growth: persistence and survival of growth regimes under political transitions” *Umeå Economic Studies No. 873*

1. Introduction

Since the beginning of the 2000s, an upsurge in social riots with political context has been noticeable. Both the geography of events and diversity of the political history of the involved countries are worth noticing. The "Arab Spring" uprisings alone include both countries with a mixed experience of civil and military regimes and monarchies, where no political transitions have been recorded for almost half a century. Nonetheless, a substantial variation in subsequent developments of events seems even more important in countries where the riots have brought about changes in political systems. For example, in the two post-soviet republics Georgia and Ukraine peaceful political protests introduced democratic changes in 2003 and 2004, respectively. While in post-transition Georgia the per-capita GDP growth in 2004-2007 averaged 9.2% compared to 6.1% in the pre-transition period 2000-2003; in Ukraine the post-transition GDP growth in 2005-2008 averaged 5.6% compared to 9.1% during 2001-2004.[1] As a result in Georgia the newly established political regime both survived the elections and a war. In contrast, in Ukraine the constitutional amendments, which were adopted in 2004 with the stated purpose of a shifting considerable part of the political power from the president to the parliament, were abolished in 2010. Another example of two contrasting developments of post transitional scenarios in countries with comparable backgrounds is the case of Egypt and Tunisia. While in Egypt in 2013 another coup d'état followed the democratic elections of 2011, in Tunisia the uprisings apparently have brought forth a multi-party democratic model. The

[1]These impressive numbers of economic growth should be partly interpreted as a long lasting recovery effect of the drastic economic decline that both countries experienced in the first half of 1990s. Economic crisis, i.e. negative growth, is recorded in 2009 only, with -3.5% and -15.3% per capita GDP growth in Georgia and Ukraine, respectively.

output growth in Egypt for 2012-2013 averages to 2% compared to 4.9% of pre-transitional 2009-2010, in Tunisia the numbers are 3.3% compared to 3% for the same periods.

While the question whether democratization produces good or bad economic outcomes remains one of the central questions in political economic research, this thesis focuses on: *i) channels contributing to improved or deteriorated economic performance, ii) sustainability of accelerated economic growth initiated by political transitions*.

There seems to be no unanimity among the political economists regarding the role that democracy and democratization play in economic growth. On one hand, within-country analyses based upon panel data, suggest that democratisation is strongly and positively correlated with growth accelerations. On the other hand, the same analyses reveal that transitions to more authoritarian regimes are also positively correlated with growth accelerations.[2] Since it is more challenging to explain a positive correlation between growth accelerations and transitions to more authoritarian regimes, the question *when* democracies produce bad economic outcomes appears to be the more relevant one. Paper [1] addresses this question and makes an attempt to follow the channels of bad economic outcomes. The paper uses the insight of Acemoglu et al. (2004, 2008a), that the economic outcome of a political transition may depend on the distribution of *de jure* and *de facto* political power. The latter, in turn, is crucially contingent on the concentration of economic power. If we go back to the events discussed in this introduction, in this regard, one may notice that both Georgia and Tunisia have considerably higher income inequality than Ukraine and Egypt. Paper [1] also addresses the insight of Acemoglu et al. (2007), who suggest that

[2]Hausman,Prichett and Rodrik(2004), De Haan and Jong-A-Pin (2007).

depending on how strong the institutions are in enforcing property rights, high income inequality may produce either good or bad economic outcomes. In this regard, it is noteworthy to mention that the army has a long history of assuring property rights in Egypt, but not in Tunisia.[3]

The results of previous research seem to be somewhat more ambiguous in cross-country analyses concerning the effect that democracy has on the mean of output growth.[4] In contrast, the volatility of output growth is shown with less ambiguity to be negatively correlated with democratic qualities of political systems.[5] This raises the question of whether democratic systems demonstrate higher efficiency or higher risk aversion in choosing growth policies. Both of the terms, efficiency and risk aversion, are used here in the sense they conventionally have in financial economics. While higher efficiency requires lower volatility for a given level of expected growth, higher risk aversion will accept lower expected growth along with lower volatility of output growth. Quinn and Woolley (2001) argue that while authoritarian regimes tend to choose economic policies according to the risk tolerance of the dictator, the democratic governments tend to choose economic policies taking into account risk aversion of the population. Since, as the authors suggest, dictators are typically more tolerant to risk than the general population is, lower volatility of economic growth recorded in more democratic countries may indicate either higher efficiency or higher risk aversion in choosing growth policies. To my best knowledge

[3] Despite the "medical coup d'état " that brought Zine El Abidine Ben Ali into office, the country had never actually experienced a military regime.

[4] For example Barro (1994, 1996), Przeworski et al. (2000), Przeworski (2006) and Gil, Mulligan and Sala-i-Martin (2003) did not find any robust effect of democracy on economic growth. However, Acemoglu, Johnson and Robinson (2001, 2004) and Rodrik et al. (2004), using an IV approach, concluded that the "historical" quality of domestic institutions plays an important role in the variation in levels of income across countries.

[5] Quinn and Wooley (2001), Tavares and Wacziarg (2001), Acemoglu, et al (2002), and de Haan and Klomp (2009).

no research in the field previously has explicitly addressed this question. The efficiency of growth oriented policies in more democratic versus less democratic countries is addressed in Paper [2]. The paper also investigates how this efficiency varies along with variations in income inequality.[6]

There are few points about which political economists have a strong consensus of opinion. These points seem to mainly concern the role that economic development plays in survival of democratic systems. First, the belief is that democracies survive with higher probability in rich countries.[7] Second, in countries with low per capita income incumbent governments have fairly poor chances to survive economic crisis, and democracies have even harder time than authoritarian regimes do.[8] In this regard with little doubt, the social uprisings were widely boosted by slowdowns in the global economy. Nonetheless, all the four countries discussed in this introduction have comparable per capita GDP (about USD 3500), with Tunisia having slightly higher per capita GDP according to IMF World Economic Outlook. Paper [3] studies two questions, which come into relevance owing to the important role that economic background plays in the sustainability of democratisation. These are: i) how sustainable the accelerated economic growth regimes are when they are brought about by a democratisation; ii) how good newly established political regimes are in terminating the on-going economic crisis relative to older political regimes.

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[6] Robinson and Verdier (2004) and Acemoglu et al. (2010) argue that predisposition of countries to phenomena like clientilism or populism may vary along with variations in income distribution.
[7] Przeworski et al. (1996, 1997), Boix and Stokes (2003) argue that per capita GDP is one of the most important factors in determining the survival probability of democratic systems. Though Acemoglu, Johnson, Robinson and Yared(2007) found no evidence for this hypothesis, Acemoglu and Robison (2006a), Acemoglu and Robinson (2008a), and Acemoglu, Aghion and Zilibotti (2006) suggest that the composition of output (i.e. agriculture vs. industry, investment-based vs. innovation-based) may be important in determining political system and the probability of revolutions and coups d’état.
[8] Przeworski et al. (1996, 1997).

The rest of the introductory part is organized as follows. Section 2 briefly presents existing views on the nexus between political institutions and economic performance. Section 3 discuses key concepts used throughout the thesis and connected studies. Section 4 presents the summaries of the papers.

2. Contemporary views on the nexus between political institutions and economic performance

An observed positive correlation between democratic institutions and per capita income leads to the following interpretations: i) the probability of democratisation increases by per capita income; ii) the probability of a democratic breakdown decreases by per capita income; and iii) democratic institutions foster economic growth.[9]

Generally speaking, there are two somewhat competing views on the nexus between political institutions and economic performance. These theories, though they share the idea that both economic performance and democratic institutions are endogenous, still have considerable differences in emphasis.

2.1Grand Transition View

> At a certain stage of development, the material productive forces of society come into conflict with the existing relations of production…. Then begins an era of social revolution. The changes in the economic foundation lead sooner or later to the transformation of the whole immense superstructure.
>
> – K. Marx " Preface to the Critique of Political Economy" (1859)

[9] Acemoglu, Johnson, Robinson and Yared(2007) argue that there is no casual relation between these two variables, but rather both are correlated with other, country specific, variables

The *Grand Transition* view puts the production process as the central dynamical power in a system. The idea is that with an increase in the output volume, the number of transactions also increases, which, in turn, increases the opportunity cost of having inefficient institutions. This encourages administrations to become less corrupt and more transparent. While Marx's theory of historical materialism shares this logic, the modern version of this theory goes back to Lipset (1959). Recent ideas of endogenous democratisation can also be found in modernisation theory. Przeworski and Limongi (1997) distinguish between two hypotheses: i) economic development increases the probability of democratisation, labelled as "endogenous democratisation" and ii) high per capita income reduces the probability of democratic breakdown, labelled as "exogenous democratisation".[10]

The Grand Transition view seems to demonstrate a somewhat agnostic approach to the role of political institutions in economic growth. Przeworski and Limongi (1993) argue that it will be rather problematic to distinguish the effect that the political system has on the economic growth in a cross-country framework owing to the facts that democracies survive with higher probably in rich countries, and that democratic governments survive economic crisis with lower probability than the authoritarian regimes do in poor countries. The paper discusses channels potentially running from democracy to and against sound economic

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[10]Przeworski and Limongi (1997) found the following (non-linear) relationship between income and democratisation: under a per capita income of less than $1000 dictatorships survive or succeed one another, within per capita income of $1000- $6000 dictatorships become less stable as income increases. When per capita income increases to more than $6000, dictatorships become more stable. At the same time, survival probability of democratic systems proved to be linearly and positively correlated with per capita income. The paper concludes that data supports the hypothesis of "exogenous democratisation" and contains no sufficient evidences to supports the hypothesis of "endogenous democratisation".
In contrast Boix and Stokes (2003) have found evidences for both the exogenous and endogenous democratisations.

performance, and argues that assurance of property rights acts both ways: "One liberal dilemma is that a strong state is required to protect property from private encroachments but a strong state is a potential threat itself" [Przeworski and Limongi (1993)].

Nonetheless, Przeworski (2002) addresses the channels of systematic differences in economic performance under democratic and nondemocratic regimes. Contrary to expectations, the author found no evidence supporting the hypothesis that capital is accumulated faster under dictatorships, while investments are more efficiently allocated under democratic regimes. The results suggest that the growth and allocation of the labour force are the major points along which the two regimes differ. The implication is that labour force grows faster under dictatorships, but is more efficiently used in democratic countries.

This thesis, takes into account two main objections of the Grand transition view. First objection concerns the validity of cross-sectional analyses of the casual effect that democracy has on economic growth. Second, Przeworski (2002) argues that population growth rate is significantly higher in authoritarian than in democratic countries. This fact casts doubt on research based upon the long-run growth rates of per capita income. Paper [1] employs within-country framework based upon panel data, and controls for the population growth rates.

2.2 Primacy of Institutions View

If monopoly persists, monopoly will always sit at the helm of government…
If there are men in this country big enough to own the government
of the United States, they are going to own it.

– W. Wilson "*The New Freedom*" (1913)

In contrast, the *Primacy of Institutions View* sets the initial distribution of political power as a cornerstone of overall dynamics. Acemoglu, Johnson and Robinson (2004) distinguish between *de jure* political power and *de facto* political power. While the former is prescribed by political institutions,[11] the latter is given by the ability to revolt, use arms and behave in a peaceful but economically costly way. [12]

Acemoglu, Johnson and Robinson (2004) present a scheme with the dynamics of the political institutions and economic performance, which has the following main idea: political institutions prescribe de jure political power to the current political elite, which in turn designs the current economic institutions, thus determining the country's economic performance and the (future) distribution of resources. The distribution of economic resources plays a key role for the overall dynamics: when more resources are concentrated in the hands of those with de facto political power, there is a greater probability that this power will be successfully exercised to redesign current political institutions. However, with de facto political power collective action problem may arise. The problem arises since de facto political power, on the one hand, requires time and material resource investments; while, on the other hand, the combination of costs and benefits of such investments will preclude a single individual from acting. Olson (1971) argues that large and small groups have completely different logics of the collective action, and that only small groups will take action to provide a collective good. This

[11]De jure political power is "a type of political power allocated by political institutions (such as constitutions or electoral systems), de facto political power emerges from the ability to engage in collective action, or use brute force or other channels such as lobbying or bribery. Equilibrium economic institutions are a result of the net effect (sum total) of these two sources of power." [Acemoglu and Robinson (2006b, p.38].

[12]"De facto power is power that is not allocated by institutions (such as elections), but rather is possessed by groups as a result of their wealth, weapons, or ability to solve the collective action problem" [Acemoglu and Robinson (2008b, p.285].

means that it is the elite who will mainly invest in de facto political power.

There are a number of papers demonstrating how inefficient economic institutions may affect economic growth. For example, Acemoglu (2006) discusses several channels through which inefficient institutions will cause inferior economic performance.[13] Acemoglu and Robinson (2000), who suggest the hypothesis of "political losers", argue that the key factor to determine whether economic advances and beneficial changes will be blocked is the effect that these changes have on political power. Acemoglu, Aghion and Zilibotti (2006) suggest that the transition from investment-based to innovation-based economy may be effectively blocked to preserve political status quo.

Acemoglu and Robinson (2006b, 2008a,b) investigate channels through which inefficient political institutions may not only survive but also become more wasteful under a transition to a more democratic system, creating sub-optimal equilibria. This was most likely the case in the Southern US between the Civil War and WWII as suggest Acemoglu and Robinson (2008b). Political reforms were not accompanied by efforts to re-allocate economic resources. "All in all, the Southern equilibrium, based on the exercise of de facto power by the landed elite, plantation agriculture, and low-wage, uneducated labor, persisted well into the 20th century, and only started to crumble after World War II. Interestingly, it was only after the demise of this Southern equilibrium, that the South started its process of rapid convergence to the North." [Acemoglu and Robinson (2008b), p.291]. The economy stagnated

[13] Aside from the hold-up problem, which arises due to the lack of enforcement of property rights and makes the country chronically suffer from a shortage of long-run investments, the paper discusses factor price manipulation and political consolidation problems. Both of these problems may lead to a tax rate set beyond the peak of the Laffer curve.

chronically lacking innovation and became monopolised eventually turning into a substantial threat to the federal government. The policy of political isolation of the black population, being economically inefficient, was supported by the federal government to keep political status quo.

One may expect higher political competition, i.e. more evenly distributed de jure political power, to shift the economic policy to a more growth-oriented one, as the core idea of a larger number of people involved in the decision-making (rent-sharing) process is to make the issue of resource redistribution less relevant.[14] Nonetheless, a high political rent, which is an attribute of a political system where institutions lack effective mechanisms of executive constraint and property right enforcement, makes the combination of *weak institutions* and *competitive political* systems of special interest. On the one hand, high political rent increases the elite's concern for maintaining political status quo hence increasing the probability that inefficient economic institutions will not be abolished. On the other hand, in countries with high concentration of economic power, inefficient economic institutions may effectively assure political status quo through economic relations. The following quotation demonstrates how this mechanism was once at work in Chile. Baland and Robinsson (2008) examine the 1874 suffrage extension in Chile and note that "Interestingly, the 1874 suffrage extension in Chile was opposed by some more progressive Chileans, as they <fully realized that in a predominantly rural society with traditional landlord-peasant ties, the Conservatives would overwhelm their opponents at the polls> (J. Samuel Valenzuela 1985) " [Baland and

[14] Olson (1971) argues that according to the logic of collective action, in a small group the larger is the profit of the individual with the largest share of the collective good , the closer the investment into this collective good (i.e. in de facto political power) will be to its optimal (for the group) level. A larger number of rent-sharing individuals will shrink the profit of the individual with the largest share. It will also complicate the bargaining process.

Robinson (2008), p. 1747]. In his seminal book G. Mosca (1939) argues that "when wealth is so distributed that we get, on the one hand, a small number of persons possessing lands and mobile capital and, on the other, a multitude of proletarians who have no resource but the labor….to proclaim universal suffrage…is merely ironical; and just as ironical is it to say that every man carries a marshal's baton in his knapsack…. *Where the class is inadequate to its task because of deficiencies in cultivation or in education or in wealth, parliamentary government bears its worst fruits, as would any other political system."* [G. Mosca (1939), pp.143-144]

In addition, Acemoglu, Ticchi and Vindigni (2010) argue that the armies, being established by authoritarian regimes to suppress revolutionary movements, become an economic burden for newly born democracies. Threat of military coups makes the democratic governments increase the expenditure on the military service at the expense of other public goods. Moreover, because of the risk that the army will be demolished once the democracy survives, the cost of the military sector will be higher under a young democracy than under an authoritarian regime. Along with Acemoglu, Johnson and Robinson (2004) and Acemoglu and Robinson (2006a) this may have the following implication for the countries with MD history. For this group of countries the army is a party with strong de facto political power, which is exercised from time to time to reshape de jure political power. As a party with strong de facto power the army should either compete or cooperate with the elite, which is endowed by economic power. The insight in Acemoglu and Robinson (2006a) is that these two parties will cooperate with higher probability in countries with high income inequality (or high concentration of economic power). Furthermore, Acemoglu and Robinson (2008a) argue that the probability that socially wasteful additional investments into de facto political power will take place under democratisation is positively correlated to the probability that the country will turn back to a more authoritarian regime. The latter probability is considerably higher in countries with MD history and high income inequality (Acemoglu and Robinson 2001, 2006a). Hence, one may reasonably expect the economic outcome of democratisation to differ significantly in countries with and without MD history.

Finally, it is worth mentioning that back in the 30s of the last century Mosca (1939) seemed to tacitly distinguish between de jure and de facto political powers, recognize the collective action problem potentially arising with the execution of de facto power and, as it is evident from the following quotation, realize the complex interrelations and tense competition, which potentially arises inside de facto political power between the wealth concentration and the army. “And yet, in order to gain an influence proportionate to its real importance every political force has to be organized, and before it can be well organized, a number of factors…. are indispensable. That is why, in one country or another at one time or another, we see an actual disproportion between the importance that a class has acquired in society and the direct influence it exerts in the government of the country. There is almost always some one political force, furthermore, that manifests an invincible tendency to overreach or absorb the others, and so to destroy a juridical equilibrium that has gradually been established. That is true both of political forces of a material character, such as wealth and military power and of forces of a moral character, such as the great currents of religion or thought.” [G. Mosca (1939), p.145]

3. Key concepts used in the thesis and connected studies

This thesis is closely associated with the papers by Acemoglu, Johnson and Robinson (2004), Acemoglu and Robinson (2008a), and Acemoglu et al. (2007). The concepts of *de facto* vs. *de jure* political power and *strong* vs. *weak* intuitions, addressed in the three aforementioned papers, are central to this thesis.

The distribution of de jure political power in this thesis is measured by the competitiveness of political systems, which, in turn, is approximated by the POLITY index in the POLITY IV database. In Paper [1] de facto political power is considered by its economic aspects and approximated by the concentration of economic resources in countries. Additionally, in countries with MD history the army is considered as another party, which possesses effective de facto political power.[15] Aside from the cooperation vs. competition problem (which has already been mentioned in Section 2), this brings into relevance the problem of strong vs. weak institutions. Acemoglu et al. (2007) argue that while in the environment of "weakly institutionalized policies" high (low) income inequality may lead to better (worse) property rights, while under "strongly institutionalized policies", high (low) income inequality will lead to the captured (competitive) politics. The following scheme is reprinted from Acemoglu et al. (2007):

[15]Though, according to Acemoglu and Robinson (2008b), de facto power is one that ".. is possessed by groups as a result of their wealth, weapons, or ability to solve the collective action problem", the history proves that in a vast majority of countries where the opposition possessed weapons and was able to find a somewhat sound solution to the collective action problem, a military regime was a response to the threat. Hence the approximation seems to be accurate in this regard as well.

Scheme 1: Policy outcome under weak vs. strong institutions and high vs. low inequality

	High economic inequality	*Low economic inequality*
Weakly institutionalized polities	better property rights	worse property rights
Strongly institutionalized polities	captured politics	competitive politics

Source: Acemoglu, Bautista, Querubin and Robinson (2007; p.8)

Acemoglu and Robinson (2008a) define pro-elite economic institutions as a "labour-repressive economic state, which allows the elite to use their political power to reduce wages below competitive levels". Though the definition implies distorted competition, the authors do not rule out the case of the pro-elite economic state being more conducive to growth than the competitive sate. Paper [1] tests the hypothesis that pro-elite economic institutions are harmful to economic growth, and concludes that concentration of economic power per se hinders fast growth in countries. Acemoglu and Robinson (2008a) also argue that under a transition to a more democratic system additional socially wasteful investments will be made into de facto political power, resulting in captured politics with persisting pro-elite economic institutions. Paper [1] makes an attempt to test this hypothesis as well. Finally, for the countries with MD history Paper [1] argues that a transition from a civil to a military regime switches the environment from one with weakly to one with strongly institutionalized politics. In countries with high income inequality this switch will imply a switch from a situation with *better property rights* to one with *captured politics*. Intuitively, weak institutionalisation hinders an effective control over the economic institutions; in contrast, when the army assumes the political leadership, it provides sound institutions, which are able to both assure property rights and enforce effective control over the economic institutions. Under lower income inequality such an institutional switch, though unable to provide *competitive politics*, may still assure better economic performance by better provision of property rights. In this case transition from a democratic to a military system may potentially induce economic growth.

Paper[1] demonstrates that:

i. In countries with MD history, low concentration of economic resources sharply increases the probability of growth accelerations under a military regime. In contrast, under a civil government (in this group of countries) the recorded negative correlation between economic resource concentration and growth acceleration is about 3.5 times smaller and statistically not significant.
ii. Under a transition to a military regime countries with high concentration of economic power have a significantly higher probability of economic slowdowns.
iii. The previously recorded[16] positive correlation between growth accelerations and transitions to more authoritarian regimes is relevant only for countries with MD history.

These results suggest that a military regime may be economically more efficient in countries with low concentration of economic power (i, iii), and inefficient in countries with high concentration of economic power (ii). This seems to support the hypothesis that transition to a military government switches the environment from a "weakly" to a "strongly" institutionalized one.

[16] Hausman et al (2004)

Probably the two most widely known cases of sustainable fast growth episodes initiated under military regimes are the cases of South Korea and Chile. Remarkably in South Korea, which has the second lowest concentration of economic power in the group of countries with MD history,[17] general Park Chung-Hee was actually elected as president in December 1963, only two years after a coup d'état had seized the constitutional power. An acceleration in per capita GDP growth was recorded in 1966, three years after the elections (not surprisingly Park was re-elected in 1967 defeating his opponent with less difficulty). In contrast in Chile, which is a country with median concentration of economic power in the group of countries with MD history, general Pinochet failed to become elected president in 1988, i.e. fifteen years after the power was captured in a coup d'état and two years after the accelerated growth was recorded. Moreover, the episode of sustainable accelerated growth in Chile is recorded to commence in 1986 (i.e. only four years before the fall of the military regime) and after the dramatic crisis of 1982.[18]

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[17]In Indonesia, which is the country with the lowest concentration of economic power, a sustainable growth acceleration is recorded in 1968, the year following the coup d'état, and slowdown is recorded in 1998, when a transition from a military to a civil regime took place.

[18] Mosca (1939) recognizes two types of state: feudal and bureaucratic. "At bottom… a bureaucratic state is just a feudal state that has advanced and developed in organization…; and a feudal state may derive from a once bureaucratized society that has decayed in civilization and reverted to a simpler, more primitive form of political organization...". The feudal state is a "type of political organization in which all the executive functions of society- the economic, the judicial, the administrative, the military- are exercised simultaneously by the same individuals.." [Mosca G. (1939),p. 80-81]. In this essence "captured politics" under military regime may be regarded as a succumb to a feudal state; whereas in an alternative case of countries with low concentration of economic power the army may supply stronger administrative institutions for more complicated organization of the state. Remarkably, general Park established economic development agencies like Economic Planning Board, Ministry of Trade and Industry, Ministry of Finance. In contrast, general Pinochet in Chile attempted to establish free-market oriented economy of neoliberal "Chicago Boys", which essentially became a clientilistic state. Nonetheless, it was Pinochet but not Park, who was recognized by a US money laundering investigation to have a network of over 125 bank accounts

Throughout this thesis the concept of weak vs. strong institutions is used by three mutually not exclusive definitions. Such diversity is aimed to utilize those aspects of the concept which are more suitable or relevant to the current framework. While in Paper [1] the strength of institutions is considered by their ability to assure property rights, Paper [2] considers two additional aspects of weak political institutions. First, the strength of institutions is approximated by the degree of control the society has over the executive power. Second, by the number of political transitions recorded in the country. The second definition utilizes the following argument of Acemoglu and Robinson (2006a). Redesigning of political institutions is mainly important for those social groups who do not have strong bargaining power in daily life for pursuing their common interests and are able to solve the collective action problem with a stochastic probability. This implies that de facto political power is not evenly distributed over time and makes redesigning of de jure political power a relevant problem any time, when the weakly organized social groups feel that temporary bargaining strength is achieved. For example, if labour is organized in well-functioning labour unions with sound bargaining power in daily life, there is no need to insist on legislative changes every time when the labour class obtains relative bargaining strength. The same is true for national minorities or any other social group with common interests. Indeed, legislative changes are required to compensate for the weakness in de facto political power. In other words, the stronger and better the social groups are organised, and the more evenly the power is distributed over time, the less relevant the design of political institutions become. Not surprisingly this definition of strong

at U.S. financial institutions used to move millions of dollars. In a country, where the economic role of the state was successfully minimized, this wealth should imply considerable economic power.

institutions comes very close to the notion of political stability, since political stability rests on the strength of political institutions. “Politically speaking ... the state is nothing more than the organization of all social forces that have a political significance. In other words, it is the sum total of all the elements in a society that are suited to exercising political functions and have the ability and the will to participate in them. In that sense, the state is the resultant of the coordination and disciplining of those elements.” [G. Mosca (1939), p.158]

4. Summary of the papers

Paper [1]: Political Transition, Economic Growth and Reoccurring Crisis in Countries with and without Military Dictatorship Experience

The paper investigates the experience of 83 countries in 1950-2004 and addresses the channels of bad economic outcomes under democratisation. Previous research suggests that both transitions to more democratic and authoritarian regimes are positively correlated with the probability of growth accelerations. This raises the question of whether young regimes (either democratic or authoritarian) are better at producing growth accelerations, or whether other mechanisms are at work.

Two channels of bad economic outcomes are tested in a mid-term framework (meaning that at least a five-year period is required between consecutive growth accelerations and slowdowns) based on within-country analyses. The first channel concerns the hypothesis that democratisation may induce additional socially wasteful investments into de facto political power, which potentially hinders (accelerates) economic growth (as suggested by Acemoglu and Robinson 2008a). The second one is related to the argument that in countries with MD history, a transition from a civil to a military regime may switch the environment from a “weak” to a “strong” institutionalised one (as suggested by Acemoglu et al. 2007). In countries with high concentration of economic power, the latter leads to a shift from “better property rights” to “captured politics” according to scheme 1 above.

The analysis begins with an endogenous search for structural breaks in the per capita GDP time series of each individual country. As a result the years of growth accelerations and slowdowns are recorded. Then, probit regressions are run for the probability of growth accelerations (slowdowns) conditional on the variables of interest. Such a framework moves the focus from the casual effect between democracy and economic performance to democratisation and economic performance (i.e.; from cross-country to within-country effect of democracy). This relieves the problem of (potential) endogeneity and appropriate instruments. The results suggest that the positive correlation between growth accelerations and transition to more authoritarian regimes found in Hausman et al. (2004) is relevant only to countries with MD history. Moreover, further analyses indicate that in the group of countries with MD history, those with lower concentration of economic power have a higher probability of growth accelerations under a military regime. Besides, the results show that countries with higher concentration of economic power have higher probability of economic slowdowns under transition to a military regime. This is consistent with the hypothesis that in countries with high concentration of economic power, a transition from a civil to a military government leads to a switch from "better property rights" to "captured politics", which hampers the economic growth. The results also seem to support the hypothesis that democratisation induces additional socially wasteful investments into de facto political power.

The paper also investigates two other hypotheses in a long-run framework of cross-country analysis: (1) that young political systems, democratic or not, are more conducive to economic growth than the old ones [19] (in which case no systematic differences should be recorded in the long-run economic performance of democratic and authoritarian countries), and (2) that the potential trade-off between democratisation and political stability is harmful for the overall economic performance even if democracy is conducive to a long-run economic growth. The analyses are conducted in Markov regime switching framework with two states of *stable growth* and (reoccurring) *crisis*.[20]

[19] This hypothesis may well be in line with the findings of Rodrik and Wacziarg (2005), which suggest that young democracies (up to 5year old) economically outperform both older pre-transitional less democratic regimes and themselves, when they become older (10 yearold).

[20] The crisis regime refers to the state with lower long-run growth, which in two thirds of the countries turns out to be negative. The state with higher growth rate then correspondingly refers to the stable growth regime.

Probabilities of avoiding (staying in) the crisis regime and growth rates in the stable growth and crisis states are calculated for all the countries individually. The results suggest that democracy plays its best role in making reoccurring economic crises milder. Even in countries with MD history, where political instability seems to have large (thought statistically not significant) effects on the degree of severity of crisis, democratic qualities of political institutions still have a stronger alleviating effect. The framework of long-run cross-country analysis brings up the problem of endogeneity of political institutions and the problem of appropriate instruments. Two alternative sets of instruments are used in a 2SLS framework, where the probabilities and growth rates of the regimes are regressed on cross-country variables. These sets of the instruments include: i) the POLITY index at the beginning of the period, a dummy for countries with MD experience and a dummy for the countries that were colonies up to WWII; ii) the mortality of European settlers,[21] a dummy for countries with MD experience and a dummy for the countries that were colonies up to WWII. Mortality of European settlers is used, since it has proved to be an effective instrument in the prediction of the quality of political institutions such as a democracy index or protection against expropriation risk. [22]

[21] Data are taken from Acemoglu, Johnson and Robinson (2000)
[22] Acemoglu et al. (2004), Rodrik et al. (2004))

Paper [2]: Income Inequality, Competitiveness of Political Systems and the Distance to the Efficient Frontier of Economic Growth

This paper addresses the question if competitive political systems are more efficient in choosing economic growth policies compared to less competitive ones. To my knowledge none of the previous studies which recorded a negative correlation between democratic qualities of political systems and the volatility of output growth explicitly addresses the question of whether this correlation stems from higher efficiency or risk aversion of policy makers. The paper additionally investigates if the effect that democratisation has on the efficiency of economic growth varies with the income distribution. This seems to be a relevant question, since the probability with which inefficient economic policies, such as clientilism or populism, may rise in countries under democracy, are shown to be dependent on income inequality.[23] Finally, the paper addresses asymmetry of responses to positive and negative external shocks and asks which political systems have better capability in utilizing positive external shocks.

Efficiency is measured by the ratio of (mean)/(standard deviation) of output growth, denoted as efficiency ratio.[24] It is shown that in countries with the highest efficiency ratios, the correlation between the mean and variance of output growth is negative. This (potential) trade-off makes it possible to build an efficient frontier of economic growth. Nonetheless, for countries far away from the frontier, efficiency may be

[23] Robinson and Verdier (2004), Acemoglu et al. (2010)

[24] The ratio is known in financial economics as Sharpe reword-to-variability ratio. The concept the *efficient frontier of economic growth* utilizes the concept of *efficient investment frontier*, widely used in financial economics and Modern Portfolio Theory (MPT), originally proposed by Harry Markowitz.

addressed by simultaneously increasing the mean and decreasing the volatility of growth.

Autoregressive Conditional Heteroskedasticity models ((G)ARCH, E(G)ARCH and GJR-(G)ARCH) are implemented for simultaneous estimation of mean and variance of GDP growth. To address potential endogeneity of political institutions in the panel specification, a Vector Autoregressive (VAR [1,1,1]) model is alternatively employed with three endogenous variables: the five year rolling average of POLITY index, the five year rolling average of per capita GDP growth, and the five year rolling variance of GDP growth. Because in VAR specified models, all three variables are simultaneously endogenous to the lags of each other, estimation of the models gives an opportunity to account for the effect that the dynamics of economic performance has on the competitiveness of the political system. An additional two-stage analysis is implemented to address variations in the effect that democratisation has on economic growth and its efficiency conditional on the income distribution. First, EARCH models are employed for all countries where political transitions are recorded. Second, the partial derivatives of the mean and variance of GDP growth with respect to the POLITY index, and the partial effect of the POLITY index on the efficiency ratio, are regressed on the measure of income inequality in a cross-country framework.

The results show that in countries without (with) MD history, democratisation moves (does not move) the economy towards the efficient frontier. The positive effect of democratisation on the efficiency of economic performance seems to be systematically stronger in countries with lower (higher) income inequality and with (without) consolidated civil governments. The recorded positive correlation between democratic regimes and the probability that the economy responds more to negative than to positive external shocks, may imply that authoritarian regimes are more capable in utilizing favourable external shocks. However, if the channel runs from economic performance to the political system (meaning that economic performance is the cause, and the survival of the political system is an effect), then authoritarian regimes seem to survive with lower probability in countries where economic performance implies a stronger reaction to negative than positive external shocks.

Paper [3]: Economic Stagnation and Stable Growth: The Persistence and Survival of Growth Regimes under Political Transitions

This paper investigates four different growth regimes based on data for 149 countries during the period 1950-2004. Previous studies suggest that episode analysis may be enlightening for understanding growth mechanisms in developing countries (Prichett (2000); Rodrik (2003)). The paper addresses the survival of economic regimes conditional on political transitions taking place during the first year of the economic regime or the prior year and focuses on (among other things) the following two questions. The first is whether miracle growth episodes initiated by new political systems are systematically more sustainable than miracle growth episodes initiated by old political systems. The second question is whether the governments do systematically better in terminating economic crisis in countries where a political transition was recorded under an economic crisis regime.

Cox proportional hazard models are implemented to analyze the survival of four economic regimes of *miracle growth, stable growth, stagnation* and *crisis*. The crisis regime refers to the cases with negative or zero growth rates. Stagnation is defined to have a growth rate between 0 and 2%, where 2% is the lowest average per capita GDP growth observed in OECD in the period. Stable growth refers to cases with annual growth observed between, 2% and 6.5%, where the upper boundary is set at 6.5% such that this boundary exceeds the highest average growth rate observed in the countries during the period under consideration. All the cases with annual growth higher than 6.5% are defined to belong to the miracle growth regime.

The results suggest that in countries with no history of MD, the episodes of fast-growing regime initiated by political democratisation have about 40% lower hazard of termination than the miracle growth episodes that are not started by political transitions. This finding does not hold in countries with MD history. In contrast, in this group of countries the pattern demonstrated by the survival probability of the *stable growth* regime seems to resemble the pattern of the *miracle growth* regime survival in countries with no MD history. This may suggest that unlike countries with consolidated civil governments, in countries with MD history new democratic governments mainly intend to consolidate stable growth regimes rather than to initiate miracle growth. The results also indicate that in those countries, where at least one political transition is recorded under crisis regime, the economic regime has about 75% higher (16% lower) hazard of termination in countries with (without) MD history, compared to when political transition is not recorded under the regime. Because the competition for political status quo is considerably stronger in countries with MD history this may indicate how this competition influences the will of governments to terminate ongoing economic crises.

Additional analysis addresses the effect of political transitions on the duration of ongoing economic regimes. To correct potential endogeneity problems, Average Treatment Effect models with: i) Heckman correction for selection bias, and ii) 2SRI (two stage residuals inclusion), are employed. Two questions are in focus. The first concerns the effects of the political transitions (in both directions), which occur under the *miracle growth* regime, in terms of the duration of the ongoing economic regime. The second is whether young or old political regimes are better in terminating an economic crisis. The results suggest that political transitions (in both directions) do affect the duration of the fast growing regime. In addition, old political systems seem to do better in coping with economic crisis than new political systems, which are born during the crisis. In contrast, political transitions (in both directions) seem to be economically more efficient under the regime of stagnation; meaning that newly established political regimes seem to be more capable in driving the economy out of the stagnation (to stable or miracle growth) than the old regimes are.

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