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Abstract

The paper summarizes and evaluates our current understanding of relations between democracy and economic growth and analyzes the mechanisms of the causality from democracy to growth. Specific features of democracy - civil liberties; elections; protection of minorities; peaceful transition of power; and accountability of the government - have set the framework for explaining the mechanism of influence. These mechanisms include: political stability and predictability; distortion of economic institutions; public sector size; investments in human capital; rule of law; economic inequalities and compulsory redistribution; and investments in physical capital. Although some countervailing effects of democracy to growth have been identified in almost every mechanism specified it is evident that on the margin democracy is more likely to be beneficial to economic growth compared with autocracies. The strongest mechanism of positive effect is rule of law. Reverse causality from growth to democracy was recorded with a policy implication that fast-growing autocracies are not politically sustainable in the long run. Democratization does not produce linear effects to economic growth. Nonetheless, the type of the relation is still unclear. The paper ends with the conjecture that democracy is more important to economic growth at higher levels of economic development.

Introduction

The desirability of democracy is frequently considered, both in academic and policy circles, through its intrinsic values: political and civil liberties. Nonetheless, the desirability of democracy should also be considered through its instrumental values, asking questions about the goal that can be achieved via democracy: for example, whether democratization would bring economic growth and ultimately prosperity? For such a question to be successfully addressed we must fully understand the relations between democracy and economic growth.

The aim of this paper is to summarize and evaluate our current understanding of relations between democracy and economic growth and the mechanisms that are crucial for the explanation of the causality from democracy to economic growth. This will be done by exploring the extent to which democratic political institutions, in comparison with autocratic institutions, are beneficial for economic growth. The first step of the analysis is to the explore mechanics of economic growth and its sources. Next, specific features of democracy are analyzed. The core segment of the paper explores the specific mechanisms of causality from democracy to economic growth. The reverse causality from economic growth to democracy is also explored. Finally, some specific issues regarding the level of development or quality of democracy as factors of the relation between democracy and growth are analyzed. Some conclusions and guidelines for future research conclude the paper.

1. Mechanics of Economic Growth

For relations between democracy and economic growth to be considered, the mechanics of economic growth must be understood. There are two sources of economic growth (Weil, 2009):

1. The accumulation of production factors (capital and labor, including human capital);
2. Increasing TFP (total factor productivity) through technological progress and improvements in efficiency.

Economic growth is based on a huge number of mutually independent decisions made by vast numbers of entrepreneurs about investments of their capital and labor in various business endeavors. The higher the expected returns on these investments, the more investments will materialize and the greater accumulation of production factors can be expected, speeding up economic growth. Understanding the incentives of these decision-makers in their investment behavior is crucial for explaining the growth process.

These incentives are created by economic institutions. The crucial economic institutions for the decision making relevant to economic growth are those related to the universal and effective protection of private property rights and unconstrained economic freedom: freedom to exchange and to enter businesses; maintaining free entry and unrestricted competition. The protection of private property rights influences economic agents' decisions to invest; the better the protection of private property rights, i.e. the smaller probability of the expropriation of the returns, the more returns on investments – in either physical or human capital – are appropriated, the greater the accumulation of production factors, hence accelerating economic growth. Furthermore, as technological progress is the result of investment of production factors in research and development (R&D), the greater the protection of private property rights that stem from the R&D process (intellectual property rights), the greater the investment in R&D, hence more technological progress, increasing TFP and thus accelerating economic growth.

More economic freedom produces more opportunities to exchange and greater competition. Greater exchange creates opportunity for specialization (division of labor) and that creates greater TFP through economic efficiency. More unrestrained competition creates competitive pressure and that is an effective incentive for economic efficiency (both allocative and production), which again contributes to economic growth.

Violations of private property rights come from both private predators and predators in the government (public) sectors (Djankov *et al.*, 2003). Public sector violations of private property rights can be illegitimate, such as corruption and/or extortion, or legitimate, based on the statutes, such as excessive taxation.[1] Violations of private property rights from the public sector can be more devastating to economic growth than private predators are. Accordingly, the priority for the government should be to protect private property rights from all types of violations, not only violations from the private sector. Taking into account this mechanism of economic growth, the question is whether a democratic government is more likely to protect private property rights and increase economic freedom compared to an autocratic one.

The relation between political and economic institutions are rather complex and there are still substantial theoretical controversies about them. The dominant contemporary approach is the top-down approach in which political institutions and political decisions within these institutions determine economic institutions (Acemoglu *et al.* 2005). The other one is the bottom-up approach, specifying that it is the dispersed institutional entrepreneurs who create economic institutions, with the aim of solving some specific problems of human interaction (Grief, 2006). Even in this case, political institutions, and decisions made within these institutions, create more

[1] The crucial prerequisite for violation of property rights is expropriation of returns. Taxation as such inevitably expropriates returns, i.e. decreases the effective rate of return. If taxation revenues are used by governments to

or less freedom of action for institutional entrepreneurship and consequently limit the area for it. One way or the other, it is obvious that there is a strong link between political and economic institutions.

Accordingly, the first step of the analysis should be to explore the features of democratic political institutions.

2. Features of Democracy

Instead of the formal definition of democracy, it is more useful to focus, following Kekic (2007), on its several distinctive features:

- Civil liberties: free revelation of all political and economic preferences/interests.
- Regular, free and fair elections, based on the "one person, one vote" principle.
- Protection of minorities (regardless of the type of minority, including political minorities).
- Peaceful transition of power, based on electoral results and constitutional rules.
- Accountability of the government to the general public with the active role of the public.

2.1. Civil Liberties

Civil liberties enable all political and economic preferences/interests to be revealed and to be taken into account in the political process of formulating public policies, i.e. economic institutions. The character of the political process varies: there are huge barriers to entry in autocracies and small barriers to entry in democracies, leading to more intensive competition of interests. This specific "market structure" of political competition provides more balanced public policies in democracies compared to autocracies (Becker, 1983), because small and powerful interest groups without opposition in the political process in autocracies can easily articulate and impose their particular interest as the public one, embodied in public policies, i.e. economic institutions. Because of the high barriers to entry, interest groups in autocracies are inevitably small and that helps them to solve the problem of free riding in collective action (Olson, 1965), making them more efficient than large interest groups in articulation of their private interests, which then distorts.

Nonetheless, low barriers to entry in democracy also mean that more resources are allocated in the arena of political competition, hence more resources cannot be used in wealth creating activities. This is a typical case of allocative inefficiency and effectively it is a type of the rent-seeking behavior. The more resources that are allocated to rent-seeking activities, the greater the inefficiency of the allocation of resources (Murphy *at al.,* 1993). A brief analysis of the first feature of democracy demonstrates that there are countervailing effects of democracy on economic institutions and activities, undermining expectations that there are straightforward findings regarding relations between democracy and economic growth.

2.2. Regular Elections

Regular, free and fair elections, whose results are not contested by any party concerned, reduce uncertainty both for political agents and in regard to the public policies that they pursue, i.e. economic institutions that specify the framework for the business environment. Furthermore, certainty in regular elections has consequences on the time horizon (the discount factor) of both the political (referring to both the term in office and the span of the political life of a political agent) and economic agents (referring to the lifetime of their business endeavors). Two types of time horizons for politicians in democracies (term in office and span of political life) are the consequence of the fact that in democracies the end of the term in office does not necessarily mean the end of their political career but only moving political activities to the opposition, with some probability of coming back to office.

Contrary to that, the term in office in autocracies is a one-off event, and a political comeback is virtually impossible. The removal of the autocrat from office has dire consequences on his survival and not necessarily only political survival – the stakes are higher than in democracy. Accordingly, there are not two time horizons as in democracies, but only one. Furthermore, there is no *ex ante* information about the length of the term of autocrat in office, because the prospects, the timing and the effectiveness of the *coup d'état*, the only way to remove the autocrat, are unknown. Taking all this into account, it is evident that the time horizon of the autocrat is, in principle, shorter than office holders in democracy, meaning that the discount factor of the autocrat is inevitably higher.[2]

Furthermore, the "one person, one vote" principle applied in regular elections has a substantial effect on all public policies due to the median vote theorem. The most important effects are the compulsory redistribution of income and wealth and balancing public policies around median voter preferences.[3]

[2] The relevant empirical regularity is that with the increase in the term of an incumbent autocrat the probability of a *coup* diminishes, enhancing the prospect of remaining in office (Knack and Keefer, 1995) and leading towards "institutionalized autocracies".

[3] For example, given the reasonable assumption that politicians have a very low aversion to risk than the median voter, regular elections in democracies means that politicians are exercising higher aversion to risk when considering political projects than in autocracies, even if politicians in both democracies and autocracies have the same aversion to risk.

2.3. Protection of Minorities

Protection of all minorities, including political minorities, decreases the stakes in losing office, particularly because in democracies a political comeback is a regular feature, while to a great extent this is unrecorded in autocracies. Furthermore, the methods used for staying in office are quite distinct. In democracies, this includes various public policies, especially policies of compulsory income redistribution to the decisive segments of the constituency for political support. The social costs of these methods are distortions due to the policy of compulsory redistribution and the opportunity costs of the resources allocated to the government's and opposition's election campaigns. In autocracies, apart from the compulsory redistribution to the political and business elite, usually the method of surviving in office is repression. There are two basic social costs of repression. The first one is opportunity costs of resources used for repression (secret police, concentration camps, etc.) and the second are distortions due to diminished incentives for innovation that repression creates; innovations do not thrive under repression. Nonetheless, there is no theoretical argument for any unequivocal finding that the relative costs of surviving in office are greater in democracies or autocracies.

2.4. Transition of Power

The peaceful transition of power in democracies reduces uncertainties regarding the institutional framework, i.e. the business environment in the country. All political and economic agents know *a priori* what they can expect regarding the process of transition, though not regarding the public policies of the new government. The more mature the democracy is – and the more peaceful the transition of power has been accomplished – the lower the risk (if any) regarding the peaceful transition of power. Not only is this transition of power, its timing and content, unpredictable in autocracies, it is also its method and effectiveness that are not protectable, increasing uncertainty for both political and economic agents. Finally, the maturity of autocracies does not provide any improvement regarding uncertainty of the transition of power.

2.5. Accountability

Finally, democracies are accountable to the general public, i.e. the whole constituency. That helps to establish constraints on the actions of government contributing to balanced public policies, i.e. policies that take care of the substantial share if not all of the interests in society. This helps to correct the errors in formulation and enforcement of these policies and helps the government to build its credibility, contributing to reducing uncertainties, as credible commitment becomes feasible. Autocratic government is not accountable to the general public, but rather to the narrow political and business elite (Bueno de Mesquita *et al.*, 2005). Because it is not constrained, its announcements about future public policies are considered credible.

These are features of democracy that are relevant for economic growth. Now, similar to the approach by Tavares and Wacziarg (2001), the mechanisms by which democracy influences economic growth can be explored.

3.0 Political Stability and Predictability

Political instability can be, following Alesina *et al.* (1996), specified as a propensity for change of government, both executive and legislative, and irrespective of the nature of this change.[4] Such instability leads to unpredictability, since the change of government can produce a change of public policies, i.e. the reshaping of economic institutions and the business environment. This brings uncertainty regarding the returns on investments and consequently entrepreneurs refrain from investment as their future returns are threatened by the possibility of policy changes and their expropriation, such as weaker protection of private property rights, for example, and higher tax rates on returns. This brings fewer investments and lower production factor accumulation, leading to the slowing down of economic growth. All business decisions are taken *ex ante*, meaning that the future must be taken into account, and uncertainty and unpredictability greatly discounts expected returns. This is particularly important in the era of globalization, with free international flows of capital. Political instability in one country, though not only this, creates capital flight out of the country and this is one of the explanations of the paradox that capital is moving from poor countries with high returns on capital to rich countries with low returns (Tornel and Verlasco, 1992).

Furthermore, it has been demonstrated that political instability decreases capital expenditures, i.e. investments funded from the budget in favor of public expenditures. The explanation is that more compulsory redistribution, which is focused on the power base of the government, increases the probability of political survival (Darby *et al.*, 2004). Furthermore, the strategic behavior of the office holders in times of political uncertainty is to decrease public investments, because these investments can speed up economic growth in the time of the new government, i.e. at the time

[4] Alesina *et al.* (1996) focused only on executive government. It is reasonable to include the legislative branch of government, particularly taking into account that in autocracies these two braches of government are not completely separate.

when the incumbent government is the opposition, decreasing the chances of it winning elections (Sutter, 2003 and Lavigne, 2011). From this strategic behavior it is evident that every decrease in the public investment rate that is not compensated by an increase in the private investment rate[5] slows down economic growth.

Political instability also eliminates incentives for the government to stick to institutional reform, especially reform of economic institutions (Svensson, 1998). The point is that the outcome of such a reform is delayed; there is a substantial gap between the initial stage of the reforms, with substantial political costs in terms of the public approval rating for the reformist government, and the final stage of institutional reform, when the political benefits of the reform in the form of high political approval ratings based on economic growth, are harvested. The greater the political uncertainty is, the greater the probability that the benefits of the institutional reform will be reaped by another government. Again, political uncertainty works against economic growth.

Furthermore, it is not only political uncertainty, but also the polarization of society that is important for investment decisions and thus for economic growth (Alesina *et al.*, 1996) The greater the polarization of the society, the greater the expected change of the public policies with the change of government; hence more constraints on investment decisions and less investment and production factor accumulation.

Democracy provides political stability and decreases unpredictability. Although the mandates of both executive and legislative power are limited in time by general elections, the timeframe of the political process is well-specified in advance, unlike in autocracies. This is not to say that in democracies government cannot be changed before the end of the term in office, but the timeframe of the government is generally specified and well known in advance. Furthermore,

[5] The identified mechanism of adjustment does not affect private investment rates at all.

democracies are less polarized societies, because among other things everyone can freely express their own interest and articulate it politically. Free expression of the political preferences in the general elections activates the median voter theorem – which means that all political parties stand for policies as close as possible to the median voter preferences. The outcome is that policy changes usually are not substantial even if there is a change of government as there is a convergence of public policies around the preferences of the media voter (Yang, 2008), hence increasing policy predictability. Accordingly, regarding political stability and predictability, democracy is predominantly good for economic growth.[6]

4.0 Distortion of Economic Institutions

The distortion of economic institutions is considered to be any departure from free market economic institutions, i.e. institutions that are considered to be the best for economic growth. More economic freedom means more accumulation of production factors because investments are increased due to unrestricted appropriation of the returns from these investments and more TFP (due to both technological progress and economic efficiency).

An important issue of the distortions is the compulsory redistribution of income based on the taxation of returns. The higher the tax burden, the lower the returns, hence fewer investments, which slows down economic growth. Democracy may have a higher tax burden due to the propensity to compulsory redistribution, aimed at reducing the income gap between the rich and the poor. This is due to the fact that political rights in democracies are distributed equally ("one

[6] Olson (1982) suggested that increased political stability facilitates rent-seeking behavior, which is detrimental to economic growth, as demonstrated by Murphy *et al.* (1993). Although the thesis can be appealing, the problem with it is that only one mechanism of causality between political instability and economic growth is considered. Even then the finding can be challenged as increased instability, due to the increased discount factor, creates and strengths incentives for office holders to enter rent-seeking (Caporale and Leier, 2010).

person, one vote") and income/wealth is not. The inevitable consequence is that the median voter – the one that is crucial for public policies, i.e. economic institutions – has a preference for compulsory redistribution from the rich to the poor through taxation, most frequently through a progressive tax burden, and the cash transfers based on it (Meltzer and Richards, 1981). This results in a higher tax burden on investment returns, which is a legitimate violation of the private property rights. Although legitimate, it decreases effective returns, and therefore decreases incentives for investments, undermining the accumulation of production factors and economic growth.[7] With regard to this specific distortion of economic institutions, democracy is not good for growth.

On the other hand, there are smaller barriers to entry in democracies. These barriers are the consequence of the requests of the numerically small business elite to protect themselves from competition so that they may earn substantial rents – nothing short of nontransparent redistribution of income (Acemoglu, 2008).[8] Close links between narrow business and political elites in autocracies enable these barriers to be substantial and sustainable, as they effectively redistribute income to the elite.[9] By contrast, in democracies government is accountable to the whole constituency, i.e. to the general public, not to a specific group of business people. The general public is not interested in supporting barriers to entry; on the contrary, no barriers to entry mean greater competition, resulting in better supply, lower prices, improved quality and increased consumer welfare. Accordingly, democracy lowers barriers to entry (Djankov *et al.*, 2002), clearing the way for unrestricted competition and competitive pressure, creating incentives for

[7] The same mechanism undermines incentives to improve TFP, either via technological progress or via increased economic efficiency – results of the TFP improvement are not entirely appropriated.

[8] Barriers to entry are considered in the most general way, e.g. barriers to free trade, such as customs duties and quantitative restrictions. These barriers enable rent-seeking and substantial non-transparent income redistribution (Grossman and Helpman, 2001).

[9] It was empirically demonstrated (Aidt and Gasenberg, 2010) that autocracies are more prone to trade barriers than democracies.

innovation, which leads to technological progress, and efficiency, the contribution of the TFP and economic growth. Taking this specific influence on economic institutions into account, democracy is good for growth.

These two findings are based on the implicit assumption that policy makers are perfectly informed about future outcomes of their policies. In real life there is no perfect information of that kind and public policies are designed according to imperfect information about their effects.[10] Decision makers in democracies face better though imperfect information because there is no incentive for subordinates of autocrats, particularly dictators, to tell them the truth: that is the source of dictator's dilemma (Wintrobe, 1998). Furthermore, free public debate on policies in democracies provides additional checks and balances to the government and public policies that are adopted and enforced. Competition of ideas brings efficiency (Wittman, 1998).[11] Through this mechanism, democracy is good for growth.

5.0 Public Sector Size

The public sector provides compulsory redistribution and produces private and public goods. Compulsory redistribution, which is inevitably based on taxation, decreases returns on investments, therefore reducing accumulation of production factors and slowing down growth. The redistribution of income/wealth is not based only on (progressive) taxation of the rich and cash transfers to the poor. It is also based on the provision of various public services that are "free of charge" for the beneficiaries. Their provision is paid for by the taxes and even in the

[10] Imperfect information can be attributed to a random or systematic error (Romer, 2003). The latter introduces bias in the decision-making process.
[11] There are indubitable limits to the process due to bounded rationality (Baba, 1997 and Caplan, 2007), but the issue is not prefect rationality but the comparison between competition of ideals and ideological monopoly.

proportional taxation scheme, the tax burden on the rich is above the average cost of providing that service – health or education, for example – and the tax burden on the poor is below-average, enabling subsidizing of these services for the poor, i.e. all people below the median income.

It should be expected that the size of the public sector in democracies is larger than in autocracies. This is due to the abovementioned political pressure of the median voter for redistribution and due to the accountability of the government to the general public. In this way, democracies have a larger public sector than autocracies. Thus, a higher tax burden is required, decreasing effective returns on investments; violating private property rights, though in a legitimate way; and slowing down growth. Accordingly, the larger public sector in democracies, which is focused on redistribution, is bad for growth.

Nonetheless, the public sector produces public goods. Due to their inherent non-rival nature – the consumption of one unit of public goods by one customer does not prevent any other customer from consuming the very same unit of the public good) – and prohibitively high costs of exclusion, the provision of public goods increases returns on all investments, i.e. increases profitability of all business endeavors. If more public goods are provided – such as rule of law – implying higher returns, there are stronger incentives for the accumulation of production factors and for investment productivity to go up, speeding-up economic growth. Democracies produce more public goods than autocracies and this is also the reason why the public sector is expected to be larger in democracies. This is the consequence of the "one person, one vote" principle in regular elections, since more public goods, which are enjoyed by the whole constituency, increases the probability of reelection (Lake and Baum, 2001 and Deacon, 2009). By contrast, the autocrat is accountable only to the narrow political and business elite who prefer income redistribution to them rather than public goods.

In providing greater public goods, do democracies increase or decrease economic growth? The balance is between the decrease of returns on investments due to taxation needed to fund the production of public goods and the increase of returns due to that provision. If there is strong pressure for an efficient public sector, and there are both theoretical arguments and empirical evidence (Adam *et al.,* 2010) that this pressure is more effective in democracies, then democracy can be good for growth even in the case of a large public sector.[12] The crucial issue is whether a large public sector undermines economic freedom and produces distortion of the economic institutions, increasing the size and scope of the compulsory redistribution, as is often the case,[13] or whether it provides public goods. In short, democracies are expected to have a larger public sector and the size of this sector has countervailing effects on economic growth.[14]

Furthermore, the size of the public sector and composition of the public expenditures vary significantly among democracies – not all democracies are the same. It has been demonstrated, both theoretically and empirically (Mileso-Ferreti and Perotti, 2002 and Persson and Tabellini, 2004) that proportional representation produces a larger public sector, more compulsory redistribution and more frequent budgetary deficits. Although this is to a great extent uncharted territory, it seems, according to available evidence, that majority representation provides some benefits to economic growth.

[12] If there is strong pressure by the general public to minimize organizational slack in the provision of public goods, maximizing the gap between the benefits of that provision (increased returns) and costs (tax burden), then efficiency in provision can be expected. This pressure is expected to be much higher in democracies. Organizational slack in the provision of public goods in the public sector can be compared to managerial slack in the private sector, i.e. the X-inefficiency phenomenon (Leibenstein, 1966).

[13] As pointed out by Alesina and de Ferrara (2005), the share of public expenditures in the GDP used for provision of public goods in OECD countries remained the same in the last two decades of the 20th century, and the GDP share of transfers, the main mechanisms for compulsory redistribution, had doubled during the same period. The composition of the public consumption shifted significantly in favor of compulsory redistribution, undermining economic freedom.

[14] An increased compulsory income redistribution in democracies and an increased size of the public sector on these grounds can be expected during the period of the reform of economic institutions and the restructuring of the economy. The point is that for the economic reform to be sustainable, the government must at least partially compensate the losers (Fernandez and Rodrik, 1991).

6.0 Investments in Human Capital

Investments in human capital are good for growth, because there is a greater accumulation of production factors and greater labor productivity, increasing TFP. Like all other investments, they feature diminishing returns – the crucial improvements happen at the low level of human capital. Investments in human capital have two components. One is time and effort of the individuals who are improving their own human capital (by learning, for example) and the other is the investment in resources that are also involved in the process (time and effort by teachers, for example). Hence the crucial question is how the costs of these resources are funded. If there is a liquidity constraint on some of the people who are ready to invest their time and effort in their own human capital, the level of this type of investment will be lower with the detrimental effects to economic growth.

Public expenditures on education and healthcare solve this type of liquidity constraint. Since democracies take care of the whole constituency, not only the narrow economic and political elite, it can be expected that political support for investment in human capital will be substantially greater in democracies compared to autocracies. From the other viewpoint, the same conclusion is made. Since democracies are more prone to compulsory redistribution from the rich to the poor, and since publicly funded education – "free" for the user – is nothing but a form of this type of income redistribution, democracies are expected to provide more education than autocracies and even less inequality due to the more equal investment in human capital (Saint-Paul and Verdier, 1993). It can be expected that democracy speeds up growth in both these ways.

Nonetheless, there are conflicting incentives in autocracies for public support of education. On the one hand, investment in human capital increases emancipation of labor, i.e. the whole constituency, increasing the probability of pressure on the political elite for autocracy to be dissolved. On the other hand, increased human capital increases TFP and increases the tax base, hence generating more wealth that can be redistributed from the constituency to the narrow elite. Furthermore, schooling as the crucial mechanism for investment can be used for indoctrination, which can be a relevant mechanism for political survival of the incumbent government in autocracies (Lott, 1999). Obviously, there are countervailing incentives for autocracies to invest in human capital.

It is undisputable that some autocracies, such as communist totalitarian regimes, provided rather ample investments in human capital as the unintended consequence of indoctrination, which was the primary motive — communist countries schooling was good in science and mathematics. There are a few brief notes about indoctrination as a motive for investment in human capital that should be made: First, indoctrination requires an ideology – a consistent doctrine that many modern, pragmatic autocracies lack. Second, indoctrination, as prevention of removal of autocracy, works only in the long run, hence only autocracies with long time horizons – low discount factor – can afford it. Third, indoctrination as such is not an investment in human capital, but rather investments in human capital are the side effects of indoctrination. Accordingly, the share indoctrination and investment in human capital within the framework of schooling should be taken into account.

Accordingly, it is not surprising that empirical research has yielded inconclusive results.[15] Nonetheless, it seems that only mature, stabile autocracies could offer real competition to democracies in the field of investment in human capital.

[15] Using total public expenditure for education as a proxy for investment in human capital, Lott (1999) found some evidence that autocracies invest more in human capital, while Mulligan *et al.* (2004), using average years of

7.0 Rule of Law

Rule of law, i.e. the universal protection of private property rights, which includes protection of contractual rights, is beneficial for growth. Investments take place only if private property rights are universally and efficiently protected, as investors are eager to avoid expropriation of their returns and the investment itself. Without investments there can be no accumulation of production factors. Furthermore, protection of intellectual property rights is crucial for investment in R&D, which is a key source of technological progress. Finally, universal protection of contractual rights enables and encourages market exchange. The more intensive this exchange is, the stronger the competitive pressure, which creates incentives for economic efficiency. Accordingly, rule of law contributes to economic growth via two mechanisms: the accumulation of production factors and TFP increase. Perhaps rule of law, specified as the universal and efficient protection of property rights, is a crucial precondition for economic growth.

Establishing and maintaining rule of law is perhaps the greatest advantage of democracies' economic growth. Because democracies are accountable to the general public, i.e. to the whole constituency, and the government is elected by that constituency on the "one person, one vote" principal, they have strong incentives to protect property rights of all the people in the constituency in an attempt to establish and maintain universal and efficient protection of property rights, i.e. the rule of law. Contrary to that, autocracies have incentives to discriminate and to protect private property rights of only the narrow political and economic elite since they comprise their main power base.

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schooling as the proxy, found no statistically significant difference between democracies and autocracies. Nonetheless, both proxies, particularly the former, are flawed because they neglect the efficiency and quality of schooling.

Contrary to this finding, it has been pointed out that nothing prevents an autocrat from exercising universal protection of private property rights (Barro, 2000), however, there are considerable drawbacks to that proposition. First, because the establishment of rule of law, i.e. the universal and efficient protection of private property rights, is the consequence solely of the autocrat's free will, there is a lack of creditability in the sustainability of rule of law. The reason is that the autocrat is not constrained by anyone. No costs are incurred on the autocrat for his decisions. Thus, there is no creditability to his commitment about future action (Olson, 1993). If for whatever reason the autocrat changes his mind, universal protection of private property rights will immediately cease. In other words, there is no ground for *ex ante* credible commitment by the autocrat. Considering that investment decisions are inevitable *ex ante* decisions, taking into account only expected returns, i.e. returns that will be appropriated in the future. For that reason future development of the business environment,[16] including protection of property rights, is essential for investment decisions. Due to the mentioned lack of *ex ante* credible commitment by the autocrat, rule of law in autocracies is not a very attractive business environment. The additional reason that makes *ex ante* credible commitment virtually ineffective in autocracies is the uncertainty regarding the time span of autocrats in office. Not only can the autocrat be removed from the office at any time but also he can have no reason to continue the policies of the previous one. If the previous autocrat sticks to the policy of universal protection of the property rights, that protection can vanish in a short time under the rule of his successor.

Second, there are substantial constraints to the autocrat when pursuing a rule of law policy, i.e. universal and efficient protection of property rights, as the autocrat's power base is narrow,

[16] The *ex ante* character of investment decisions means that investors are considering on future, the expected development of the business environment. Historical developments are irrelevant as such, but are relevant only as the source for prediction of the future development.

including only the political and economic elite of the country, whose interests are in violation of the property rights of others (Sonin, 2003). Universal protection of private property rights would undermine the redistribution interests of the autocrat's power base.[17] In such cases a *coup d'état* could be the political price of such a move – hardly a strong incentive for an autocrat to establish rule of law.[18] These incentives for the autocrat to violate private property rights of some, and in more cases that not, a majority of the majority of economic agents, are widely known to the general public, investors included, hence undermining the idea of his *ex ante* credible commitment to rule of law.

There is a higher probability that universal protection of property rights is achieved in democracies rather than in autocracies. However, not all democracies are equal. If a democracy is newly established, the rules of the game are still not very well specified and institutions needed for their enforcement are missing or incomplete. This is not a great environment for establishing rule of law even if there is a strong political will. At least with strong political commitment in a young democracy, rule of law can be established in the long-run, as it does take time for the process of institutional building to yield results.[19] Finally, young democracies are vulnerable to being undermined by the proponents of an autocracy, the political and business groups whose ambition it is to return autocracy to the country. Due to this, the *ex ante* credible commitment of

[17] The autocrat has incentive to protect some property rights of all economic agents. This is due to the "stationary bandit" argument (Olson, 1993), which states that a bandit who is not roaming, has incentive to protect some property rights of the people he is plundering, as to increase the wealth of the plunder. If there is no protection of private property rights at all, the economic agents have no incentive to produce wealth and no wealth can be plundered.

[18] Whether the *coup d'état* will happen or not depends also on the level of repression by the autocrat and the issues of collective action by the elite.

[19] Clague *at el.* (1996) provided empirical evidence that countries with longstanding democratic tradition, measured by uninterrupted period of democratic political institutions, provide better protection of private property rights.

democratic governments to establish rule of law is effectively not so credible, because no one can be sure whether in the future a government will be democratic or autocratic.[20]

Taking all this into account, it is evident that stabile, well-established democracies, with a commitment to respect and uphold property rights, provide rule of law. Hence, rule of law is a long-term effect of democracy. It is perhaps the most important beneficial effect of democracy on economic growth.

8.0 Economic Inequalities and Compulsory Redistribution

The link between economic inequalities and economic growth is very complex: it is based on many mechanisms – some of them with countervailing effects – and the theoretical predictions heavily depend on the assumption of the models (Aghion and Williamson, 1998 and Aghion *et al.*, 1999). Consequently, there is no possibility of retrieving unambiguous theoretical findings about whether economic inequalities are good or bad for economic growth without a substantial amount of information. This includes information about the character of the returns of the business endeavors of the economic agents, the operations of the capital market – how far it is from a perfect market, the magnitude of positive marginal propensity to save, and the level of inequality in a given country. Without all this information it is impossible to predict the effects of economic inequality or rather its change on economic growth. On the other hand, relations between democracy and economic inequalities are also rather complex (Gradstein and Milanovic,

[20] Rule of law is associated with higher level of economic development (Rosenberg and Bridzell, 1985 and Eggertson, 1990). The explanation can be that provision of rule of law in a country is linked to the substantial fixed costs of institutional building for rule of law, basically the entire legal system. These costs can be born only by a society that is rich enough that the tax burden is not unsustainable for business endeavors. Looking for the other side, in a poor society the level of wealth is so small that the damage from violation of property rights is also small and can justify the tax burden that should be introduced, leaving protection of the private property rights to informal institutions.

2004). Due to the political pressure for compulsory redistribution, it can be expected that democracy decreases economic inequality.

Taking this into account, it seems that it is promising to focus on how democracy can affect the relation between economic inequality and economic growth. The most important mechanism of this kind is the aforementioned political pressure for compulsory redistribution from the rich to the poor. This kind of redistribution decreases incentives to invest and increases the efficiency of these investments in both physical and human capital of both the rich – whose returns are taxed away – and the poor – who receive transfers irrespectively of their investments and efforts).[21] Taking into account this mechanism, compulsory redistribution is not good for growth. The larger the economic inequalities, the stronger the political pressure for compulsory redistribution, hence increased economic inequality is detrimental to economic growth (Persson and Tabellini, 1994).[22]

Still, the crucial question is whether autocracies are more resistant to this political pressure than democracies. Although the median voter theorem is based on the election process in democracies, in autocracies, even without any elections, there are median "would-be voter" preferences. Again, these cannot be revealed through elections, but they still exist and can be communicated in different ways such as rebellions and subversion. Nonetheless, the other ways are not as effective as elections, and the effects of these specific, communicated signals depends on the levels of repression and the commitment level of the autocratic government to the political and business

[21] This finding is based on the assumption that revenues that are generated by additional taxation are used entirely for the transfer of wealth to the poor. If part of these revenues is used for provision of public goods, this can increase the returns on investments and incentives to invest. This is the reason for identified nonlinear relations between the tax rates and rates of economic growth (Barro, 1991). Nonetheless, the increase of tax rates due to political pressure for compulsory redistribution provides no incentive to the government to use additional tax revenues for providing public goods.

[22] This statement deliberately overlooks the issue of vertical mobility. It has been demonstrated (Barbanaou and Ok, 2002) that in societies with higher vertical mobility there is less political pressure. Furthermore, it is the perception of the prospects for vertical mobility that is important rather than actual mobility itself (Alesina and De Ferrara, 2005).

elite. Taking this into account, autocracies are less vulnerable than democracies regarding pressures for compulsory redistribution. Hence, they are more resistant to the negative effect of economic inequality to growth.

9.0 Investments in Physical Capital

Investment in physical capital is an indispensible method of production factors accumulation as a source of economic growth. These investments are funded by savings. Hence, the question is how democracy influences saving rates, i.e. the share of income that is saved for investment rather than used for consumption, assuming for the moment that domestic investments are funded only by domestic savings.

There is an empirical regularity that wages are higher in the manufacturing sector in democracies than in autocracies (Rodrik, 1999). This regularity can be explained as the consequence of the impact of several factors, which is not restricted solely to manufacturing. First, as pointed out by Rodrik (1999), democracies enable free and unrestricted unionization of labor, as one of the basic political liberties. A higher level of unionization means higher wages and lower profits for the given market conditions. Second, as already pointed out, democracies are less robust to political pressure for compulsory redistribution from the rich to the poor. Because of this, government interventions in the labor market are enforced and aimed at the protection of employees. The consequence is an increase in wages compared to profit. Finally, as pointed out by Acemoglu (2008), autocracies are prone to erect barriers to entry in order to support the business elite enabling them to extract rents. The consequences of such policies include the establishment of market power, a decrease in the output, and consequently, decreased demand for labor, leading to lower equilibrium wages compared to democracies where there are no strong incentives to establish barriers to entry.

Given market conditions, higher wages, i.e. labor income, means lower profits, i.e. lower capital income. The consequence of this change is a lower savings rate. The mechanism is rather simple: there is a positive marginal propensity to save – positive marginal saving rate – meaning that rich people save a greater part of their income compared to poor people (Kaldor, 1957). Since people whose main income is based on capital are expected to be rich and people whose main income is based on labor are expected to be poor, redistribution of income from capital to labor inevitably decreases the savings rate, total saving, and total investments in physical capital. This, in turn, slows down economic growth and suggests democracy is detrimental to growth.

Nonetheless, this conclusion is based on the very restrictive assumption that investments in one country are funded only by domestic savings. If the import of savings is introduced to the model, then this drawback of democracy can be compensated for. Free international flow of capital – its exports and imports – is one of the pillars of the modern globalization process.[23] The crucial prerequisite for the import of savings is rule of law, i.e. efficient protection of the private property rights of investors and creditors,[24] and it has been demonstrated that democracy provides rule of law. Considering this very mechanism, democracy is good for growth.

[23] Empirical research has demonstrated that in the most developed countries the share of retained domestic savings, i.e. share of the savings invested domestically, fell from 0.89 in the period from 1960 to 1974 (Feldstein and Horioka, 1980) to 0.60 in the period from 1990 to 1997 (Obstfeld and Rogoff, 2000).

[24] The result published in Feldstein and Horioka (1980) was labeled the Feldstein-Horioka paradox because profit rates in the most developed, rich countries are by far lower than profit rates in developing poor countries, yet only 10% of capital was exported, contrary to the prediction of economic theory. The crux of the paradox, as was demonstrated by (Yasutiomi and Horioka, 2011), is the protection of private property rights. If the protection of private property rights is good in poor countries, including free and swift repatriation of profit, then capital flows from rich to poor countries according the prediction of economic theory. This also explains reverse flow of capital (Torell and Verlasco, 1992.)

10.0 Is There a Reverse Causality from Growth to Democracy?

There is substantial empirical evidence that the level of income *per capita* influences the political system in such a way that the higher the level of income *per capita*, i.e. the higher level of economic development sustained, the greater the probability that the country is a democracy.[25] The important point is that economic growth influences democracy only indirectly through income *per capita* since the increase of this income is the consequence of economic growth.

There is still no comprehensive theoretical explanation of the mechanism of this causality, though two specific mechanisms have been identified. The first one is based on the emergence of the middle class (Lipset, 1959 and Acemoglu and Robinson, 2006) and the creation of civil society networks, which are autonomous from the government – a vibrant public life that the government cannot control. The other one is the increase of human capital though education. More educated people are less likely to submit to authoritarian rule, as they demand their own participation in political life (Boone, 1996). Obviously, it is much harder to sustain an autocracy in a more developed society, i.e. in a society with higher income *per capita*.

Alternatively, the supply side explanation of the influence of income *per capita* on democracy can be found in the conjecture that democracy is established if political competition cannot produce an absolute winner (Olson, 1993). Accordingly, for equilibrium to be established the winner must provide some concessions to the loser. If an increased level of income *per capita* provides more room for such compensation, this can be the mechanism of causality, though the

[25] By applying a cross-section econometric model, the most important empirical research in the field (Barro, 1990) demonstrated that there is a statistically significant relation between the level of income *per capita* and democracy. Furthermore, it was demonstrated that the longer a country is a democracy, the higher is probability that is will remain a democracy. Somewhat different results were obtained by panel date econometric models (Acemoglu *et al.*, 2008) as the fixed coefficient parameter was statistically significant and income *per capita* was not. The explanation that there is a variable that is correlated with both democracy and income *per capita* is not a significant insight.

explanation is rather far from being well-developed. Nonetheless, a recent contribution (Przworski, 2005), which focuses on the issue of compulsory redistribution, looks promising: an increased level of income that can be redistributed increases the probability of democracy.[26] Irrespective of the still rather underdeveloped economic theory of democracy,[27] empirical regularity seems rather robust. The consequence of this empirical regularity is relevant to policy: fast-growing autocracies are not sustainable as autocracies in the long run. Economic growth apparently carries the seed of demise for autocratic regimes.

11.0 Transition from Autocracy to Democracy

If democracy is good for growth – and there are enough arguments to support this thesis – then the crucial question regarding democratic transition is the one about time lag. There are two main reasons to assume that such a time lag exists and that it can be substantial. First, investment decisions are made *ex ante*, based on the expectations, and following political change time is needed for the expectations of investor to materialize. Furthermore, there is a span of time from the firm decision to invest to the moment that the investment is operative, i.e. when it contributes to the GDP and its growth. Second, democratization, i.e. the change of political institutions in a county, increases political instability in the short-term and it has been demonstrated that such instability creates uncertainties about the business environment, which decreases incentives to invest. In such a framework, investors prefer a "wait-and-see" policy, i.e. they wait for some credible commitment by the new democratic government regarding a specific business

[26] This explains not only the increased probability of emerging democracy, but also the decreased probability that democracies will demote to autocracies with the increase of income *per capita*.
[27] Perhaps the most developed framework of economic theory of democracy can be found in Acemoglu and Robinson (2006).

environment. If there is such a time lag, then it should be expected that democratization brings the growth rate down – even below zero – and that steady recovery and the increase of the growth rate will happen with a time leg, ending up in the growth rates higher than at the time transition from autocracy to democracy. The drop should be sharp and recovery should be protracted – described by the J-curve. Empirical evidence was found to support the existence of such a curve (Papaionnou and Siourounis, 2008). In the short-run democratization is not good for economic growth, but on the long-run it is.

The crucial question regarding the existence of J-curve is what is its starting moment. The conventional theoretical argument is that it starts at the moment of democratization. Nonetheless, a theoretical alternative is that the negative slope of the J-curve describes the time before democratization, i.e. possibly the growth crisis of the autocracy, and the actual minimum of the J-curves comes with democratization. This would mean that democratization is good for growth both in the short-run and the long-run, and there is some empirical evidence to support this thesis (Rodrik and Wacziarg, 2005).

The way out from these contradictory results can be found in exploring the reason for democratization: why did democratization occur or why did autocracy collapse? If democratization was the consequence of the growth crises of the autocracy, this means that growth rates before democratization were low or negative as a result of the bad business environment in autocracies. Consequently, the removal of such an autocracy sends a very good signal to investors that expectations are bright because virtually any new business environment will be better than the one left over from the autocracy. If this is the case, the short-term effects of democratization will be good for growth.

Nonetheless, even in this case of democratization that is endogenous to economic growth, there is a space for some time-lag. Inefficient autocracies that entered the growth crises due to the poor business environment leave a legacy not only of the poor business environment, which can be sorted out rather quickly, but also of the inappropriate industrial structure: uncompetitive industries, obsolete technology and loss-generating firms. For economic growth to resume, this legacy must be sorted out through an industrial restructuring process, based on closing or scaling down the operations of inefficient firms. Not only does this process take time, but it inevitably leads to a decrease of output. This is the reason for the transitional recession that all CEE countries experienced in the 1990s, after the collapse of communism. Nonetheless, the transitional recession ended with the conclusion of the restructuring, recovery was vibrant and very high growth rates were recorded in the second half of the last decade of 20th century and first decade of 21st century up to the 2008 global financial crisis.[28]

Nonetheless, the collapse of autocracy and democratization can be compactly exogenous to economic growth for entirely different reasons as is seen in the examples of the death of a well-established dictator (e.g. in Spain in 1975) and international pressure (e.g. in the Dominican Republic in 1978). Since there was no growth crises as the reason for the collapse of the autocracy, it can be assumed that economic institutions, i.e. business environment, was not so bad and the short-term effect of democratization is only the increase of political uncertainty, i.e. uncertainty regarding future economic policies of the new democratic government and the form

[28] More about the dynamics of CEE economies and the pattern of transitional recession can be found in Aaslund (2007) and (2010).

of business environment. In these cases, a decrease in the growth rate can be expected in the short term.[29]

Hence, if democratization puts an end to an autocracy that is bad in terms of economic institutions, i.e. economic policies that caused a growth crises in the country, more precisely if a growth crisis is the reason for the collapse of the autocracy, there is a probability that even the short-term effects of the democratization on growth are beneficial because these bad policies will be swiftly reversed. The crucial precondition for such a development is that the economic legacy of the autocracy remaining under an industrial structure is such that it can be dealt within a short period of time. If this is the case and if democratization is perceived by investors as a prospect for an investment-friendly business environment, then there will be no slowing down of growth in the short run. In all other cases, a J-curve development can be expected: a short-term drop and long-term increase of the growth rate following democratization.

Taking into account the increased political instability and vulnerability of the business environment in the short run, which occurs with democratization, a relevant normative question regarding sequencing emerges: should economic liberalization – a reform of economic institutions into investment friendly – precede the political one –democratization – or vice versa? There is a firm position that because democracies are more vulnerable to pressures for compulsory redistribution, rule of law and protection of private property rights should be established before democratization (Barro, 2000). Furthermore, it was demonstrated that foreign trade liberalization is more effective before democratization than after (Giavazzi and Tabellini, 2005). Contrary to that, recent experience, particularly the experience of transition of the

[29] This is exactly what happened both in Spain (from 5.4% to 0.3%) and in the Dominican Republic (from 4.3% to 1.6%). For more information, please refer to Rodrik and Wacziarg (2005).

countries in Central and Eastern Europe, demonstrated that political and economic reforms mutually reinforce each other (Fidmuc, 2003 and Haan and Sturm, 2003).

The way out of this puzzle at the policy level is rather straightforward. Policy makers are seldom in a position to make a choice. The collapse of autocracies is frequently a chaotic process with political developments unfolding on a daily basis. The collapse of the political institutions of autocracies has two consequences. First, new democratic political institutions must be built, because of the institutional void that has been created. Second, the collapse of autocracies removes political barriers to economic reforms. Frequently, it is a prerequisite for economic liberalization, i.e. building of investors-friendly economic institutions. In this sense, political and economic liberalization can be considered as a society's unified transition project.[30]

Thorough and radical reforms of economic institutions are the consequence of deep economic crises, i.e. growth crises in the country (Pitlik and Wirth, 2003 and Lal, 2005). Political motives for such a reaction are intuitive, preventing the shrinking of the tax base and reducing the possibility for redistribution.[31] The question then is whether democracies are more sensitive to growth crises. It has been empirically demonstrated (Pitlik and Wirth, 2003 and Cavallo and Cavallo, 2008) that democracies are better prepared to swiftly change their economic policies, i.e. to carry out the reform of the economic institutions in an attempt to make them more investor-friendly. Accordingly, growth crises are a much greater threat to the political survival of autocracy than democracy.

[30] This cannot be true in the case of autocracies with liberal economic policies and an investor-friendly business environment. Nonetheless, in these situations, the probability that the autocracies collapsed because of the growth crises is very small. If it collapsed for some exogenous reason, then (as in the case of Spain in 1975) the slowing down of growth is very likely. Finally, and perhaps the most importantly, if economic liberalization has already taken place in autocracy, for whatever motive of the autocrat, there is no sequencing question. Only political liberalization remains.

[31] Perhaps the most important reason for such a development is that growth crises break strong redistribution coalitions that are usually the main obstacles to economic reforms (Rodrik, 1996).

12.0 Level of Development and Quality of Democracy

The relevant issue is whether mechanisms that link democracy and economic growth work in the same way for every level of economic development, i.e. for any income *per capita*. Are there some mechanisms that work only in the case of rich and others that work only in the case of poor countries?

Economic growth of poor countries is driven predominantly by the accumulation of production factors. These countries are far from the technological frontier. They use traditional technologies, and hence technological progress is not a very important source of their growth. Accordingly, economic institutions that create incentives for investment of production factors are crucial in providing incentive to the investors/entrepreneurs and therefore in speeding up economic growth. The crucial precondition for that is efficient and universal protection of private property rights, and one of the most dangerous violations of private property rights for growth is taxation aimed at compulsory redistribution.

Contrary to that, growth of rich countries is driven predominantly by technological progress. These countries are on the technological frontier. Actually, it is research and development in these countries that drives this frontier. Accordingly, economic institutions that create incentives for investments in research and development and for the adoption of new technologies, which increases productivity, are crucial for accelerating economic growth in rich countries. These institutions should provide efficient protection of intellectual property rights and free entry for newcomers, since it has been demonstrated that newcomers are crucial for the innovation process much more than incumbent companies. The conclusion is that economic institutions that are a crucial prerequisite for economic growth of rich countries are not so relevant for poor countries, and vice versa. The composition of desirable economic institutions varies with the level of development (Davis, 2010).

The link between the influence of political institutions to economic institutions, nonetheless, does not depend on the level of development: the features of democracy and their impact to economic institutions are the same irrespective of income *per capita* or distance from the technological frontier. It is evident that there is strong political pressure for compulsory redistribution in democracies, and this is perhaps the greatest threat to economic growth that democracy produces. This kind of pressure leads to the violation of private property rights and legitimate expropriation of the returns. It has been demonstrated that autocracies – where governments are accountable to the narrow political and business elite – are much more robust to these political pressures. This feature of democracy can be especially dangerous for poor countries where efficient protection of private property rights is a crucial prerequisite for economic growth based on the accumulation of production factors. On the other hand, this type of violation of private property rights – high marginal tax rate on returns – is not so important for the rich countries where growth is driven by technological progress.

Economic growth of rich countries is highly vulnerable to the barriers to entry. If barriers to entry are high, there are fewer new entries, fewer innovations that come with them, and less technological progress, hence productivity growth is slowed down. Because productivity growth is the crucial source of economic growth for rich countries, barriers to entry are a critical threat to their growth.

It has been empirically demonstrated that democracies feature smaller legal barriers to entry in comparison with autocracies (Djankov *et al.*, 2002). The main reason for small barriers to entry in democracies is that the median voter is indifferent to barriers to entry and democracies are accountable to the general public, represented by the median voter. Contrary to that, autocracies are prone to barriers to entry precisely because they are accountable to narrow political and business elite (Acemoglu, 2008). The interest of the elite is to extract rent and the most efficient way to do so is through high barriers to entry, which restrict competition and create the rent. In this sense, autocracies are a far worse solution for rich countries than for the poor, when economic growth is concerned. These findings are included in the theoretical model with some empirical support that demonstrates that democracy is much more important for the economic growth of countries that are on the technological frontier compared to those that are far from it (Aghion *et al.*, 2007).

The other relevant issue is the one of the different levels of democracy. The implicit assumption in this analysis was that there are only two possible forms of political institutions: autocracy and democracy. Nonetheless, there are different democracies. Countries do differ in regard to the level of political and civil freedom and the quality of democracy. Furthermore, it is reasonable to assume that democratization is a process and that the democratic quality of the country improves over time following the collapse of the autocracy. If this is the case, then the issue is the character of "returns" of democracy to the economic growth. If the early stages of democratization, for example, establish rule of law, i.e. efficient and universal protection of private property rights, and later stages clear the ground for pressure regarding the compulsory redistributions, then democracy has diminishing returns from the aspect of growth, hence some kind of inverted U-shape curve can be assumed (Barro, 1996). Accordingly, there should be a specific optimum level of democracy for the economic growth.

Nonetheless, it is not reasonable to assume that early, low-quality democracy can provide rule of law, as it has been demonstrated (Clague *et al.*, 1996), and that it takes time for efficient protection of property rights to work. On the other hand, it is reasonable to assume that political liberalization enables political pressure for compulsory redistribution to work effectively in the early stages of democracy. This means that at a lower level of democracy, its effects are detrimental to economic growth and that the beneficial effect becomes dominant at the higher levels of democracy, when rule of law is established. This constellation leads to the U-shaped curve (Campos and Coricelli, 2009). If the later shape is relevant, the consequence is that the maximum level of democracy is the optimal one regarding economic growth.

13.0 Conclusion

Obviously, there are evident regularities in relations between democracy and economic growth and undisputed causality from democracy to economic growth. Nonetheless, the causality mechanisms are complex, overlapping and with frequent countervailing effects. There is no simple rule or straightforward conclusion. It has been demonstrated that in some cases democracy can even be detrimental to economic growth, particularly on the issue of compulsory redistribution of income, and autocracies can more efficiently discard such political pressure. Episodes of fast growth in autocracies should be taken into account as corroboration of this conjecture.

Perhaps the most compelling theoretical finding supported by empirical evidence is that democracy speeds up economic growth by reducing political instability and by producing rule of law, i.e. universal and efficient protection of private property rights. This is the reason why these two mechanisms through which democracy supports economic growth should be further explored in detail, hopefully providing insights on the details of these mechanism and factors within these mechanisms that influence the outcome. Better measurement of rule of law, governance and political indicators that have been accomplished in the recent years promises input for better empirical research, which should provide more insights on the topic.

Furthermore, there is enough evidence to support the view that democracy works in the long run, i.e. that it is beneficial for economic growth in the long run, especially because the main mechanism of influence is rule of law, which cannot be established swiftly immediately after democratization.

Although it has been demonstrated that in general democracy is beneficial for economic growth, it is not a panacea that miraculously cures poverty and moves societies towards prosperity. As democracies become more focused on providing rule of law and more efficient in containing political pressures for compulsory redistribution, they better increase their rates of economic growth. Nonetheless, we still do not understand what the crucial incentives are for the government to go one way or the other. We do not know which kind of democratic government will have which of the two priorities.

Three areas of research look promising. The first one is the democratization process and its consequences on economic growth. We still do not fully understand the difference in economic growth that different sources or reasons for democratization produce. This research can be included in the broad topic of determinants of democracy, an area where we still do not have a consistent theory and robust empirical results. Kinks between political and economic liberalization also provide ample space for research.

The second area is the proposal that the mechanism that links democracy and economic growth differs on different levels of development. Although the differences in some of the mechanisms have been explained, we still do not have a consistent explanation how and with what effect the level of development influences all the mechanisms of the causal link between democracy and economic growth.

The third area of research is based on the differentiation of democracies. Not all democracies are equal. They differ in the level of political and civil liberties, level of maturity and stability, electoral representation and types of government. Seminal research about the link between the level of democracy and economic growth looks promising. A controversy has already been established, but we still do not understands the process well, hence a consistent theoretical explanation is needed rather than *ad hoc* empirical research.

Clearly, areas for future research of the links between democracy and economic growth are not in short supply.

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