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Economic Growth and Institutional Reform in Modern Monarchies and Republics: A Historical Cross-Country Perspective 1820-2000

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Abstract: Standard theoretical arguments suggest that republics ought to grow faster than monarchies and experience lower transitional costs following reforms. We employ a panel of 27 countries observed from 1820-2000 to explore whether regime types and institutional reforms have differential growth effects in monarchies and republics. A set of Barro-type regressions show that there are no significant growth differences between the two regime types and that the effects of incremental reforms do not differ between them, but that those of large-scale reforms do. Specifically, we find a strong "valley-of-tears" effect of large reforms in republics while monarchies benefit from such reforms in the ten-year perspective adopted here. We offer some tentative thoughts on the underlying mechanisms responsible for the results.

Keywords: Growth, Institutions, Reform, Monarchy

JEL codes: D72; N00; O10; P14; P16; P17; P48; P51.

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INTRODUCTION

Historically, by far the most prevalent form of government has been the monarchy, i.e., a form of hereditary autocracy, and throughout history the vast majority of human beings have lived under some more or less hereditary autocracy (Tullock 1987; Tullock 2001). Indeed, not until the end of the 20th century has it become the case that the majority of people live in some form of democratic republic, a fact that alone should make research into the differences between republics and monarchies interesting.

There are, of course, important historical incidences of non-monarchical regimes, even when monarchy was the general rule. The most famous historical example is no doubt the ancient democracy of Athens, yet even here only free men were allowed to vote while women and slaves were excluded from the electorate. Later on, starting with Julius Caesar's adoptive son Augustus, the Roman Republic evolved into a de facto monarchy. As relatively recent (in this picture) as the Middle Ages, all major European countries but Switzerland were ruled by autocrats, be they hereditary or elected (as in Venice and the Papal States). However, through the 19th and 20th centuries, that situation changed. Following the American and French revolutions in the late 18th century, most of the world disposed of their monarchs, Ethiopia and Greece as relatively recent as 1974 and Iran in 1979. As of 2006, of the 202 sovereign nations listed by the *CIA World Factbook* 32 were monarchies, 152 were republics while 17 were in a mixed state as nations under either the British or the Dutch commonwealth.

But despite the important historical and contemporary role of monarchy as a particular constitutional form, social scientists have so far been quite uninterested in studying the consequences of a state being monarchical or

republican in nature. Even public choice scholars, who otherwise have analyzed constitutions and a large set of different political institutions, including autocracies, have—with a few and rather limited exceptions—strangely neglected the potential role of monarchical arrangements.[1] This neglect even goes for those who have focused specifically on the role of veto players in political systems (Tsebelis 1995; Tsebelis 2002) or the economic consequences of constitutions (Persson & Tabellini 2003),[2] despite the possibility that monarchs conceivably might be seen as quite important in both lines of inquiry. Instead, it seems as if many people see the political institution that monarchy is as "a totally obsolete, even childish, institution" (Kuehnelt-Leddihn 1999: 1). As a consequence, the academic study of monarchy, as limited as it is, has strangely tended to become a special abode of libertarian scholars (cf. Hoppe 1999; Yeager 2004).

Given that the institution of monarchy arguably has not received an academic attention to match the popular interest despite the historical prevalence of this institution, we shall in this paper try to make up for this. Specifically, we shall direct the attention to the potential importance of monarchy by exploring its effects on economic growth between monarchies republics and particularly in conjunction with large institutional reforms. The paper is structured as follows. Section 2 provides some simple theoretical considerations of how to consider the comparative consequences of republics relative to monarchies in a rational choice institutional framework. Section 3 describes the data used in section 4 that reports the results of the empirical

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[1] Among the relatively few exceptions are, e.g., Tullock 1987; Tullock 2001; Kurrild-Klitgaard 2000; Kurrild-Klitgaard 2004.

[2] The latter, much heralded study, totally omits whether or not a state is monarchical from its variables. Something similar is the case in most other empirical studies of political regime types, e.g., Lijphart 1999; Lane & Ersson 2000.

analyses. Section 5 discusses the findings and Section 6 summarizes and concludes.

SIMPLE THEORETICAL CONSIDERATIONS

Since the 1950s, the study of different political institutions has been part of political economy and political science under the joint heading of "public choice" and more recently of the "new institutional economics" and the "new public economics", and these lines of research have produced immense amounts of theoretical and empirical results regarding the possible consequences of political institutions. Nonetheless, only very few papers have been devoted to the study of monarchical arrangements. As noted in the introduction, many scholars seem to view monarchy as an essentially outdated institution not even worthy of academic interest. Yet, the study of monarchy as a political institution deserves wider attention: it has been around almost as long as mankind and historically has been the dominant regime type, and it arguably can have real social, political and economic consequences, even in modern times, where a non-trivial number of countries continue to be monarchical in some form. In the following we shall offer some relatively simple, theoretical considerations that hopefully may enlighten our understanding of the potential differences between monarchies and republics on some central issues of political economy.

There is a well-known and obvious correlation between the extent of democracy and the level of prosperity in countries. Perhaps for that reason it would seem to be a premise, at least implicitly, in much of modern political science that democracies will grow faster than non-democracies, and that they

may be more flexible and adaptive. The popular view—often articulated in the footsteps of the "pluralist" tradition in political science (e.g. Dahl 1956; Dahl 1989)—is that the open and pluralistic character of political competition in modern democracies allows a divergence of ideas and interests to be represented in the political decision-making, with the various societal groups influencing decisions in a direction and an extent more or less corresponding to their relative strengths. This, it is argued, often results in consensus-oriented policies, given that it today in democracies with rule of law and separation of powers rarely (if ever) is the case that one group or party can control big parliamentary majorities and all branches of government. The consequence is one of stability and with the political changes that do occur generally reflecting larger societal changes—something that is seen in contrast to other, often earlier, political regimes where decisions were made by unrepresentative political actors and often based in the narrow class interests of particular groups, and hence possibly of a more obvious rent-seeking character.[3] Accordingly, as both pluralists and corporatists have argued, democracies where many and varied groups take part in making the political decisions may also result in a more coordinated and conceivably more effective way of implementing these, e.g., in times of crisis. Together there are, in other words, reasons to expect that democracies will exhibit higher economic growth, an easier way out of crises than what occurs in non-democracies, and less painful institutional transitions.

Such points have been made from a wide variety of analytical perspectives—just as arguments have been made in opposite directions, e.g., that more stable and well-established democracies may lead to more

[3] On rent-seeking by special interest groups, see Tullock [1967] 2004); Tollison 1982); on rent-seeking in non-democratic societies, see, e.g., Ekelund & Tollison 1982.

entrenched special interest group policies harmful to the general welfare (see Olson 1982), while, e.g., more autocratic regimes may be may better at making efficient decisions because they more easily can withstand pressure from special interest groups and exclude these from the decision process (Przeworski & Limongi 1993). For the present purposes, we shall suffice to give a simple argument, with inspiration from public choice theory that may both illustrate the previous points summarized and subsequently serve to interpret the empirical results. Specifically, we shall—by borrowing an analysis (Justesen & Kurrild-Klitgaard 2007)—sketch an extensive form game tree as done in Figure 1, which we shall use for the analysis of two different scenarios: one where political decision-making is concentrated in the hands of a single political actor and another where decision-making requires the consent of several actors, who thus are "veto players" (Tsebelis 2002).

We first assume that the interaction takes place between a government, *G*, which possesses discretionary political power, including whether to seize the property of citizens (*S*) or not doing so (*S'*), and a market actor (*E*), who must decide whether or not to invest in future activities (*I*) or not doing so (*I'*). The interaction takes place with consecutive moves over two time periods (t_1 and t_2). The symbols at the end-nodes give the relevant payoffs of the individual players at t_3 given alternative strategies, with the first symbols giving *G*'s payoff and the second giving *E*'s: if the investor invests and the government respects (*I*, *S'*), then they both get the pay-offs β, while if the investor invests and the government seizes (*I*, *S*) the latter receives the benefits of gaining *E*'s property (α) but also incurs some costs in terms of loss of future credibility, etc. (*C*), while the investor receives a reduced pay-off of δ. Finally, if *E* decides that the risks are too high, he may decide not to invest at all, in which case they both get the pay-off λ. *G*'s utility function is presumed to be given by: $u_G(\alpha) > u_G(\beta) > u_G(\lambda)$, while *E*'s utility function is given by: $u_E(\beta) > u_E(\lambda) > u_E(\delta)$.

Given these assumptions the collectively optimal result is one, where *E* chooses to invest, while *G* chooses to respect the former's property rights. However, if the value of the property that may be seized from *E* is relatively large and the costs *C* relatively small, then the rational course of action for *G* is to play *S*—in which case the subgame perfect equilibrium will be for *E* not to invest, whereby he will be guaranteed a payoff λ, giving himself the better of the two worst outcomes. However, the outcome will then be one where they find themselves in a Pareto-inferior outcome when compared to (*I*, *S'*).

One could imagine that the government at time t_0 could issue a promise about his own future behavior, should *E* choose to invest—for example not to expropriate or increase taxation on *E*'s investment. However, the relative success of such a strategy will depend upon how relatively credible it is. In political systems where the government in reality is only one political decision-maker, and where it is plausible that $C \approx 0$, *E* may reasonably expect that *G*'s promise is not credible, since the incentives will be incompatible *ex post*. The result will be the suboptimal payoffs $|\lambda, \lambda|$.

The problem of incentive incompatibility is exacerbated when the political decision-maker has discretionary power and may unilaterally and arbitrarily renege on non-enforceable agreements (including his own policies), such as could be and indeed often has been the case for autocrats. Accordingly, it is to be expected that political systems that institutionalize a high degree of political power in one, single political decision-maker (e.g., a more or less absolute monarch) will impose a negative effect on the incentives of economic agents with regard to investing and producing and thereby a negative effect upon economic growth.

However, there are exceptions to this. First of all, the time-horizon may often vary among political actors. If the power position of a near absolute political actor is relatively unchallenged and secure, he will have a strong incentive to

act in a future-oriented, long-term manner (Olson 2000). Second, the representation of other interests in the political system has consequences for the ability of governments to credibly commit themselves to private property and other growth promoting institutions and policies—especially if these interests are given a status as institutionalized veto players (North & Weingast 1989; Olson 2000: 14-23; Weingast 2005). The reason for this is that the power-base and political and financial supporters of a political veto player may reap benefits from specific policies, and veto players whose support is dependent on actors and groups with considerable capital, production and investment related interests will often have a particular interest in protecting and enforcing property rights and contracts, etc. In other words, if more political actors are drawn into the decision-making and receive veto powers over the policies, the promises of governments will become more credible, and one may expect that the tendency of the government to make decisions harmful to the general welfare will decrease. More democratic regimes, at least those with institutionalized checks-and-balances, may be better at committing convincingly, e.g., to strategies of respect for private property, sound fiscal policies, etc.[4] Furthermore, since periods of reform by definition are times when institutional arrangements are up for reconsideration, and hence may result in changes in the distribution of both power and resources, such are likely to result in considerable uncertainty with regard to future property rights. As such, the credibility of institutional reforms may also be influenced by the presence of checks-and-balances.

[4] For an already classic statement of this line of reasoning, see North & Weingast 1989). See also, e.g., Hammond & Miller 1987; Miller & Hammond 1989. For an empirical study of the importance of veto-players for supporting economic growth, see Justesen & Kurrild-Klitgaard 2007).

Out of this set of admittedly somewhat loose theoretical considerations, some testable hypotheses can be drawn. To the extent that the claims made about democracies versus non-democracies are aspects that also may capture some of the essential differences between republics (where we for the moment assume that there will be more political actors with veto powers relative to each other) and monarchies (where we presently assume that powers will be relatively concentrated), we should then expect these hypotheses to be true:

Hypothesis 1: Republics grow faster economically than monarchies.
Hypothesis 2: Republics more quickly adapt to recessions following political reforms.

In the following section, we describe the data to test these hypotheses.

DATA

The data used in the following sections derive from a number of sources. All GDP data derive from the Penn World Tables, Mark 6.1 (Heston, Summers & Aten 2002), combined with the historical series collected by Angus Maddison (Maddison 2006). As such, all data are, as far as possible, denoted in purchasing-power adjusted 1995 US dollars (PPP). From these data, we derive our dependent variable in the following, which is the annual GDP growth rate, averaged over each ten-year period. This choice implies both that we avoid picking up business cycle effects that could induce noise in analyses with higher-frequency data, and allows the sample to start further back in time, due

to the unavailability of annual data in most countries before the end of the 19th century.

Our second main variable derives from the Polity IV dataset (Marshall & Jaggers 2004), which measures the state of the democracy in each year since 1800 for a large set of countries. The Polity scores are distributed discretely from zero to ten, with zero implying a state of no democracy such as North Korea and ten the situation in which the population enjoys full democratic rights such as is the case in most of Western Europe and the Western offsprings (North America, Australia and New Zealand). As such, we only use the democracy component of the Polity data, not the complementary autocracy component, which a set of tests showed is inconsequential. As opposed to other measures of democracy (e.g., Freedom House's index of democracy), the Polity dataset has the advantage of covering 181 countries dating back to 1800 and that it is, with the exception of periods of occupation by foreign powers or institutional planning guided directly by the executive branch, fairly complete. Even though we ideally would have wanted a measure of the overall quality of institutions, it is well known that civil, economic and political liberties (democracy) tend to be highly correlated in the long run, which we are focussing on in the present paper.[5] We therefore believe that the Polity scores, when taken over sufficiently

[5] Using the alternative Freedom House data that distinguishes civil liberties and political rights, the correlation between the two measures in the 5,129 observations in the 1975-2002 data is .92. As the Polity democracy data (excluding the autocracy component) have correlations with both Freedom House series above .9 in most samples, we believe that the democracy data capture the overall institutional environment sufficiently for the present purposes. For some discussions and comparisons relating to alternative empirical measures of democracy, see Munck & Verkuilen 2002; for specific discussions of the Polity data, see Treier & Jackman 2008. As democracies also tend to trade more, it may be worth noticing that the Polity scores also pick up some of the long-run variation in trade policies; cf. also Milner, Mansfield & Rosendorff 2000.

long periods of time, also can serve as feasible and adequate proxies for the quality, capacity and strength of economic and judicial institutions. By observing countries over the 180-year period, we thereby capture the full variation in overall institutional quality in a group of fairly similar countries, as opposed to studies focussing on more recent time periods. This also means that we capture the full transition of the objective, constitutional political role of monarchs from players with real power to varying degrees of symbolic figureheads.

In addition to capturing the quality of the overall institutional environment, we use these data to form two sets of variables capturing episodes of institutional reform. The first is termed "Polity shift" and is the simple difference between the average Polity scores in two following ten-year periods; it therefore attains both positive and negative values, reflecting institutional reforms as well as institutional setbacks. The other is termed "Large shift", and is a dummy taking the value one if the Polity period average changes by three points or more. As the Polity scores are distributed from zero to ten, this variable therefore captures the occurrence of large-scale institutional reforms, which we expect to lead to "valley-of-tears" effects, i.e., that of a short-term negative reaction in which any positive institutional effects are dominated by transitional costs followed by a more positive reaction in the longer run.

In section 4, we estimate a set of Barro-type growth regressions with what is necessarily a relatively simple baseline specification due to the very limited availability of historical national accounts data. The baseline consists of the logarithm to GDP per capita at the beginning of each ten-year period, dummies for communist countries and monarchies, and dummies for each decade to capture global business cycles; these dummies also capture the possible effects of the two world wars of the 20th century. Information on when countries abolished monarchy (and reinstated it) and when countries adopted and

abandoned communism are from *Encyclopaedia Britannica*.[6] We do not distinguish between different types of monarchy or different monarchical traditions, as no scheme along which to make such distinction is agreed upon.

The full dataset summarized in Table 1 and used in Section 4 therefore consists of 339 decadal observations from 27 countries: Albania, Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia (the Czech Republic), Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom, the United States, and Yugoslavia. Obviously, some of these countries do not have full data over the entire period, partly because data are missing, partly because some gained their independence or (as in the case of, e.g., Italy and Yugoslavia) were "fused" into their present larger entities after 1820, and the average country is therefore observed in 130 years. Even while the sample is limited by the availability of historical data to covering only 27 countries,[7] it may be worth noting that these countries form the bulk of what is sometimes termed the "Western Hemisphere". As such, the sample consists of a set of culturally homogenous countries, which reduces the potential problem of effect heterogeneity (Brock and Durlauf, 2001).

Insert table 1 about here

All growth estimates are obtained by random effects GLS as Hausmann tests strongly favour the use of random effects over the alternative fixed effects

[6] Cf. Encyclopaedia Britannica 2006).

[7] The lack of available historical data means that we cannot include Russia, as well as certain Asian and Latin American countries that have been independent since the 19th century.

while Breusch-Pagan tests show support for the existence of random effects. The test statistics are reported in all cases. Even so, it is worth stressing that all results hold in both simple OLS regressions, OLS with panel-corrected standard errors, and fixed effects GLS regressions.

RESULTS

Before proceeding to the formal regression results, a few simple statistics may be worth mentioning. Prior to 1938, the average Polity score in republics was 3.9, whereas it was 4.7 in monarchies, a difference that is strongly significant. Even before 1930, the difference was a significant .4 points, indicating the somewhat counterintuitive fact that monarchies may have tended to liberalize politically earlier than republics. A second simple difference is that in 2000, the 10 monarchies in our sample had an average PPP-adjusted GDP per capita of 20,688 USD, while the republics had an average GDP per capita of 13,926 USD. On the other hand, the richest country in the sample is the US with an average income of 28,403 USD, the seven poorest countries are all postcommunist and the average difference between monarchies and republics without a communist past is only 900 USD. Simple statistics are obviously not sufficient.

Growth effects of institutional reforms

Turning to the formal results instead, Table 2 explores the potential growth effects of monarchical institutions. As noted above, the data (when

available) go back to 1820 and the specification therefore is necessarily very simple since there are no reliable data on other growth factors such as economic institutions, government consumption or openness to trade. As a first, the basic specification in column 1 shows strong conditional convergence, i.e. that relatively poor countries in the sample have grown faster than richer countries, all other things being equal. It also shows the effects of improved institutional quality (i.e. democratization), as a one-standard deviation shock to the Polity score (an increase of four points) in the long run is associated with an increase in the growth rate of roughly a quarter of a standard deviation.

Furthermore, the simple baseline also suggests that neither communist dictatorships nor monarchies grow at different rates than republics, once one controls for democratization. As such, the markedly worse growth performance of the formerly communist countries is entirely explained by their consistently poor institutional performance.

Insert table 2 about here

In column 2, we allow for the effects of negative medium-run transitional costs by including the decadal changes in the Polity index. Even as none of the other variables are affected, the results show that while the coefficient, as expected, is negative such changes are not significantly associated with growth in this perspective. Yet, allowing for differential effects between monarchies and republics in column 3 changes this result. Although the changes and their interaction with monarchy are only individually significant at $p < .10$, they are highly significant jointly, indicating the existence of a small decadal "valley of tears" in republics but not in monarchies.

In column 4, we instead allow for negative medium-run effects of large institutional changes (large shift), which we define as increases in the Polity

score of at least three points over a ten-year period. As would be expected, such shifts are more strongly associated with growth dips since large disruptions in the economy are always associated with significant transitional costs. Yet, this variable is also only significant at $p < .10$, indicating that in the decadal perspective adopted here, these effects are on average large but vary considerably.[8] In column 5, we therefore include an interaction term between large shifts and monarchies, thereby allowing for differential effects of large shifts between monarchies and republics. As such, we test hypothesis 2 of the paper that republics adapt and grow faster than monarchies following political reforms.

Splitting the medium-run effects of large institutional changes between monarchies and republics reveals the main empirical finding in this paper: that while substantial institutional reforms in a decadal perspective are associated with a sizeable growth decrease, even though they generate growth in the very long run, similar reforms in monarchies are associated with growth *spurts*. Hence, while large institutional reforms in republics are necessarily accompanied by a recession long enough to be felt in the economic performance across an entire decade, any recession induced by considerable reform in monarchies is much less costly and actually leads to an increase in the growth rate in the medium run *over and above* what could be expected from the increased institutional quality.

Testing for alternative explanations

[8] Including both change variables shows that only large changes are significant. As such, the weak significance of Polity shifts in column 2 is entirely due to the large shifts. These results are not shown but can be obtained from the authors on request.

As always, our results could in principle be spurious. Further explanations for the difference in the medium-term effects of large reforms could for example be sought in two possible factors: the *timing* of reforms within a decade, and the *size* of the reforms. First, it may be noted that because we use decadal growth rates, a potential reason for this effect could be that monarchies reform earlier in any given decade. While this would most likely be a random statistical peculiarity, it would have the effect of placing the bulk of any transitional costs earlier in the decade and thus allowing for growth to resume to a higher level at the end of the decade, compared to republics. If this was so, the results in Table 2 would simply reflect that transitional costs in monarchies are placed temporally differently in relation to the decadal start and ending points for growth rates. However, within this sample, monarchies on average introduced large reforms in year 5.3 of any decade while republics introduced similar reforms in year 4.6, a difference that is insignificant and even in the "wrong" direction. As such, this potential explanation seems unlikely, in particular as there is also no difference between the years in which more incremental reforms were implemented (year 4.6 versus 4.4).

Second, the results could reflect that the size of large reforms is different. Specifically, it should be expected – as the results in Table 2 also suggest – that more extensive reforms entail deeper growth dips due to transitional costs. As such, the results could reflect that reforms in monarchies, even when defined as "large", have tended to be more conservative than in republics. Table 3 therefore reports simple summary statistics on the size of reforms in the dataset.

Insert table 3 about here

The table shows that this has not been the case. Institutional reforms, on average, have been reflected as changes of .34 points (the "reform size") in the Polity index in both republics and monarchies, and large reforms, defined as movements of at least three points *in any direction* have on average also been similar in the two systems. However, when splitting the large reforms in institutional setbacks – negative reforms – and institutional improvements, the data reveal a difference. The negative reforms during the period 1820-2000 have had a tendency to be slightly larger in monarchies than in republics. Although this difference is significant at $p < .10$, it may be a reflection of the fact that monarchies for some reason were overrepresented among the occupied countries during the two world wars. On the other hand, this cannot be the explanation for the considerable difference between large positive reforms. While the large reforms in republics have averaged an increase of 3.8 points on the Polity index, monarchies have, when deciding to introduce extensive institutional reforms, on average implemented much larger reforms. The theoretically possible explanation for the different growth performance in monarchies following large institutional improvements can therefore not be attributed to their being more conservative. On the contrary, monarchies have for some reason tended to make sweeping institutional improvements, which *a priori* would be expected to generate larger transitional costs. That this has not been the case, as shown in Table 2, only strengthens the case for considering monarchical institutions different from the analogous arrangements in republics.

As such, it is unlikely that the results are driven by differences in the size or timing of large reforms. However, the point estimates and their difference between monarchies and republics could be biased due to omitted variables or influential outliers, two points that we address in Table 4.

Insert table 4 about here

First, the findings could reflect special instances of historical circumstances and thus be outliers. Yet, the results in column 6 in which we remove outliers remain the same while the postcommunist dummy becomes significant. The 17 outlier observations are mainly postcommunist countries in the 1990s (Bulgaria, Romania, Yugoslavia), known growth spurts induced by policy shifts (Ireland in the 1990s, Greece and Spain in the 1960s, Germany in the 1930s and 1950s), and the effects of 20th century wars (Spain in the 1930s, Austria, Greece and Germany in the 1940s). As such, there is nothing mysterious about the outliers that might challenge the main findings.[9]

Second, Table 4 illustrates that the effects of reforms as well as the difference between monarchies and republics are stable to the inclusion of other variables. We add Henisz's political constraints III index (Henisz 2000), which is a direct measure of the number of veto players, (the logarithm to) state age, the (logarithm to) the years since the last institutional reform, termed "time since reform," a dummy whether the country is mostly Protestant as opposed to Catholic or Orthodox, and the number of years that the monarch has been in power, termed "longevity of monarch." We thus control for a wide set of

[9] It is also worth noting that we have conducted other robustness tests. These tests show that the results are not sensitive to excluding specific time periods or single countries, and robust to including other institutional measures with similar time-country coverage. Additional tests also show that the institutional effects in both levels and reforms only arise from the Polity Democracy index, not the corresponding Autocracy index for which there are no significant effects. While it could also be argued that constitutional monarchies, i.e. the existence of monarchy within a democratic framework, might drive some of our results, the additional tests also reveal that this is not the case, as there are no differences between the long-run effects of institutional quality in monarchies and republics.

alternative explanations: 1) Republics may be younger and thus less stable when they reform (controlled for by state age); 2) monarchs may simply be extra veto players (political constraints); 3) republics could arguably introduce reforms temporally closer to each other and thus get a cumulative effect (time since reform); 4) Protestant countries exhibit more social stability, all other things being equal, cf. arguments in the social capital literature (Zak and Knack 2001; Bjørnskov 2007); and 5) monarchies may differ simply because monarchs introducing reforms have been in power for long and have had time to build a reputation (longevity of monarch).

The results in Table 4 show that the differential effect of reforms in monarchies is robust to controlling for these alternative explanations. Only two variables affect our results while a third – time since last reform – is significant in itself. Adding an interaction between state age and large reforms, which is insignificant (not shown), reduces the significance of large shifts, and adding an interaction between the longevity of the monarch and large reforms inflates the point estimate of large reforms in monarchies. However, this result appears to be the consequence of a weakly significant and spurious interaction between longevity and reform (not shown).[10] Overall, the additional tests show that our main results are robust to controlling for these alternative explanations.

Do monarchies lose importance with democratic development?

[10] This result is probably spurious as it appears to be driven by the four large reforms in Austria, France, Italy and Portugal that were associated with the abolition of the monarchy. The average growth rate around these episodes was negative and significantly smaller than the growth rates associated with large reforms in monarchies, irrespective of the longevity of the residing monarchs.

As a final exercise before proceeding to assessing the size of effects, it might be expected that the effects of monarchies during large-scale institutional reforms would depend on their having real political power. However, with the development of modern democracy, monarchical heads of state have usually lost most or all of the objective powers they have and eventually become not only constitutional monarchs but often mere figureheads. Indeed, one of the characteristics of the evolution of European political institutions since the British Glorious Revolution has been the steady erosion of the real powers of the monarchy along with a transfer of power to the elected bodies. If the effects identified above depend on monarchs having actual and direct political influence, we would expect the effect to wear off with increasingly democratic institutions.

Adding an interaction between the level of democracy and the dummy for large institutional reforms reveals that such reforms have had larger transitional costs when undertaken from low initial levels of democracy. The coefficient (not shown in tables) of the interaction term is .257 with standard error .079, which with an estimate on large reforms of -2.134 (std. error .464) implies that reforms undertaken from a medium level of democracy (about 5-6 on the Polity index) imply substantially smaller transitional costs. However, the estimate of the growth effects of reforms in monarchies is only marginally affected, indicating that such differences cannot be an explanation for the difference between monarchies and republics.

Furthermore, we can at closer inspection reject the notion that the importance of monarchy disappears with the objective powers of the monarch. Had the effects been restricted to polities in which monarchs had actual powers, we would expect the statistical leverage of such observations to exceed that of observations in which the Polity score is higher, i.e. countries in which

democracy had reached an intermediate to high level. Measuring such leverage by calculating DFBetas, we can nonetheless reject that monarchical institutions only played a role in reducing transitional costs when monarchs had real powers, as there are no differences between the average leverage of observations below average and above average Polity scores ($p<.85$). As such, the stabilizing effects of monarchies in episodes of large institutional reforms thereby also extend to constitutional monarchies.

Are the differences economically significant?

As a final point, the empirical results above only exhibit the differences in statistical significance between effects even though it is well known that the economic significance may be quite different (cf. McCloskey 1985). As a final exercise, we therefore quantify the different economic reactions to large reforms, keeping in mind all the usual qualifications to such exercises. Evaluated at the mean income, a large reform episode on average cost 500 USD per capita in "lost" growth over a decade in republics while the same size reform implemented in a monarchy gave a growth *boost* worth on average an additional 800 USD per capita, compared to a decade of unchanged growth. Evaluated in another way, this means that monarchies for every large reform episode get 10-15 years ahead in terms of economic development, compared to otherwise similar republics. As such, the effects of monarchies in conjunction with large institutional reforms are sizable and worth discussing.

DISCUSSION

We have in this paper explored the long-term growth rates in monarchies and republics as well as the growth effects in the medium and long run of institutional reforms in the two types of systems, and in particular of large reform. While economic growth and growth effects of reforms have also been the objects of several previous papers, the innovation of this paper lies in focusing specifically on republics and monarchies and in distinguishing between reforms in the two.

The results of regressing decadal growth rates in the period 1820-2000 in 27 Western countries on institutional quality and reforms, as measured by the Polity IV index, reveal that large-scale reforms induce a sizeable reduction in growth in republics, but a growth spurt in monarchies. As such, we find evidence of a "valley of tears" effect of substantial transitional costs in the former but not in the latter countries. This result is robust to excluding potential outliers and does not depend on differences in the timing of the reforms. Furthermore, monarchies have on average been able to introduce more sweeping reforms than republics when deciding on large-scale institutional reorganization.

As such the results must be seen as falsifications of the two hypotheses tentatively suggested here, namely that republics will grow faster than monarchies and that the former also will recover faster from the initial adverse economic effects of larger reforms. The findings therefore give rise to a set of questions that we dare not attempt to answer in detail at present but nonetheless believe are necessary to raise in the context of our empirical results. For example, have monarchs exerted real influence over policy decisions? Have they instead exerted an indirect influence as political veto players or otherwise constrained governments' discretionary power? Or do monarchs instead

perform a socially stabilizing role, which insures countries against large social conflicts and economic disruptions following institutional reform episodes? Our results give rise to these questions but we cannot provide any answer to them. However, we may speculate about the reasons and suggest some possible interpretations.

Monarchs as future-oriented political actors

One reason that has been offered by others for why monarchies in fact might perform better than non-monarchies is that monarchs share one important feature, which is unobtainable by ordinary politicians: their time horizon when considering public action by definition extends to the rest of their life and probably longer, given their concern for their children and perhaps also for the preservation of the monarchy.[11] Monarchs will therefore tend to focus more on the long run consequences of actions than political players that face either the risk of being voted out of power in the short-to-medium run or – in non-hereditary autocracies – being deposed of in coups or violent revolutions. To the extent that the monarch has real influence on policy making, it should be expected that social and economic policies are more focused on the long run consequences as re-election considerations gain less weight in the political objective function and losses of credibility gain more weight (reflected in the *C* of our model).

[11] See Hoppe 1999. On the time-horizons of autocrats and the economic consequences thereof, see, e.g., Clague, Keefer, Knack & Olson 1996; Olson 2000. For some points relating this to the choice of succession rules by monarchs, see Kurrild-Klitgaard 2000; Kurrild-Klitgaard 2004.

A typical counterargument is that in most modern monarchies, the constitution stipulates that the monarch is only a symbolic figure without any real or formal influence (e.g., Sweden), or that this at least is the case *de facto* (e.g., the United Kingdom). This is—as we shall touch upon below—to a large extent correct, but two replies against this position can be given. The first is that in the specific context of this paper, we focus on the relatively long historical perspective as the data used go back to 1820. Hence, for a substantial part of the time in most of the countries considered here, monarchs may actually have held real political power, either positively (in the form of *de facto* executive power) or negatively (in the form of being a veto player who might block policies, cf. Tsebelis 2002). Yet, this only explains the effect when monarchs had real powers while our empirical results indicate that the effect is not restricted to such situations.

Monarchs as veto players vis-à-vis politicians

The second possible interpretation is that the very fact that monarchs have only very limited political power or very rarely exercise what powers they have does not necessarily lead to the conclusion that their political role in modern society is insignificant or even non-existent. In an interview in 1999, the former speaker of the British House of Commons, Lord Weatherill, argued that the main institutional advantage of modern monarchies is precisely *not* to exercise power directly, but to keep other people from having that power, which logically then will not be exercised at all (interview with Brian Lamb on C-Span, 26 November 1999). To illustrate the point we may consider a constitutionally limited monarch who nonetheless formally is the one appointing the leader of a

parliamentary government (as in, e.g., the United Kingdom or Denmark). Even if it is highly unlikely in our day and age that a monarch should appoint someone for whom there was not a parliamentary majority, the mere fact that this could be done might put a break on more radical policies of, say, left-wing governments. One might in fact imagine that such possibilities have been considered by several socialist governments in, say, the 1920s and 1930s. As such, combining monarchy with modern democratic institutions might have the potential effect of constraining the discretionary power of government, in much the manner outlined in Section 2, here in the case of veto players. This is particularly the case if the alternative is one of a "sovereign" parliament, that has assumed control of the executive and itself is not effectively constrained by a constitutional court or an upper chamber. North and Weingast's seminal work on the Glorious Revolution point to qualitatively similar explanations, as the monarch exercised executive power and balanced the parliament, which in turn constrained the monarch (North & Weingast 1989). In other words, the constitutional constraints on the monarchs seemed to increase the latter's ability to credibly commit himself to sound policies in the future, while in contrast in modern democracies the presence of a constitutional monarch may lead to more careful decisions because they conceivably could block an out -of -control parliament, even if this power is one that actually never or very rarely is used.

Monarchs as cultural focal points

There is, however, also a different, more "cultural" arena, in which monarchs may continue to play a role. A recent study by Bjørnskov for example reports hard evidence that people living in monarchies are, all other things being equal,

on average eight percentage points more likely to trust their fellow citizens (Bjørnskov 2007). As the social capital literature shows, trust differences of eight percentage points – more than half a standard deviation in the currently available cross-country data – is associated with considerable political and economic effects (cf. Zak & Knack 2001; Knack 2002). While controlling for monarchy in the particular study could potentially capture confounding variables allowing for more social trust as well as serving to protect the preservation of the monarchy, the paper makes note of the fact that even countries that have in historically recent times disposed of the monarchy do not share any of the trust advantage of current monarchies.

Instead, one could—albeit in a way not easily compatible with the approach of this paper—argue that monarchs qua their institutionalized adoption of the very long run may serve as role models and natural "rallying points" for the population, thereby providing a degree of social stability that republics typically do not enjoy. In particular when considering deep economic recessions and the inevitable social and political turmoil caused by large-scale reforms, monarchs may serve as a stabilizing force in the country--be it in the "soft", social sense of being a unifying figure, or in a more direct and political role. Such episodes are analogous to games with multiple equilibria due to widespread uncertainty in which the position of the monarch, in the sense of Schelling (1960), serves as a focal point of the game. Schelling describes a focal point as a point for which a "person's expectation of what the other expects him to expect to be expected to do" is clearly defined. This may arguably be an accurate description of one of the traditional roles of monarchs vis-à-vis their population (Schelling 1960: 57).

Examples of the latter include, e.g., the 2006 military coup in Thailand, in which the vastly popular King Bhumibol played a still unknown role. Whereas a democratically elected president was deposed in a non-violent coup, the

population remained remarkably calm as the King publicly argued for giving the military leaders a chance. The country, which was in a rather real way robbed of its elected leader, remained calm and continued almost as if nothing had happened. During World War II, royal families in the United Kingdom, Denmark, Belgium and a number of other countries likewise used their popular authority to lessen the social tensions created by the situation. In the occupied countries, monarchs such as Leopold III of Belgium and Christian X of Denmark – much to the chagrin of their governments – refused to cooperate with the German forces and served as personalized national rallying points, thus contributing to what in want of better terms may be called "national optimism"—a role also attempted by King Mihai I of Romania during the same war, first against the Fascists and subsequently against the Communists. On the other hand, the monarchs of the Netherlands and Norway went into exile where they served as rallying points for the foreign-based resistance movements. Indeed, it might seem that monarchy may be a force for social cohesion, even when there are ethnic, linguistic, cultural and religious tensions between different groups. Belgium and Luxembourg, for example, are good examples of the monarch being the only thing that really unifies the various linguistic and religious groups.

Summing up, one might speculate that to the extent that monarchs, due to their longer time horizons and more consensus-oriented and non-partisan function, in general may cause economic and social policies to have a long-run perspective instead of potentially costly short-run properties, it should be expected that monarchies grow faster than republics, all other things being equal. If monarchs instead mainly serve a socially stabilizing role in society, growth effects *per se* may not occur but monarchies may still recover faster from recessions and reforms may entail substantially smaller transitional costs than in republics.

CONCLUSIONS

The results of the present analysis show that there, in essence, is no observable long-term difference between monarchies and republics when it comes to economic growth, but that while large-scale political reforms are typically associated with short term growth declines, reflecting what has become known as the ”valley of tears”, the historical data we consider here indicate that this valley does not appear in monarchies. In fact, if anything it has the opposite effect. In other words, even though they are based on standard theoretical considerations from political science we have not found support for any of the two hypotheses regarding republics initially outlined here; in contrast, the particular political institution of monarchy seems to have had a tendency to insulate economies in the Western Hemisphere from certain transition problems.

Finally, we should note that part of the interpretation offered in the previous analyses rests on the initial equivocation made here between democracies/republics and non-democracies/monarchies no longer being empirically accurate. It may have been so earlier, but the consolidation of a number of constitutional monarchies in the 20th century has meant that states such as Denmark, Norway, Sweden, the Netherlands, the United Kingdom and Spain are all both monarchies and among the countries that rank as the most democratic.

If these insights are correct, then it may actually be because our initial framing of the research problem has been partly erroneous: we have cast it as if it was between monarchies or republics, whereas the important differences is

not really between monarchies and republics as such, or between degrees of democracy, but between the extent to which a political system has alternative power centres that, more or less, may act as checks-and-balances relative to each other or in other ways serve as stabilizers. Given that the findings can be conceptually stretched to this interpretation, it may be worth noting that they consequently could hold implications for the discussion of the relative merits of "big bang" versus gradual institutional transitions that emerged after the fall of communism (Wei 1997).

As a final comment, most social scientists probably view the monarchy as a nicely romantic but ultimately outdated political institution without any real importance. Our findings in this paper rather clearly show that historically, this has not been the case, and it does not seem to be the case today either. The present study is not intended to be a defense of monarchy as a political program or as a constitutional solution: whatever one may think about the justice or consequences of monarchies relative to non-monarchies, it is certainly the case that there may be more than trivial differences between them. Monarchy as an institutional form has been neglected for long in the social sciences. We hope with this contribution to show that there is reason to pursue equally serious research in this institution as has been devoted to many other political institutions.

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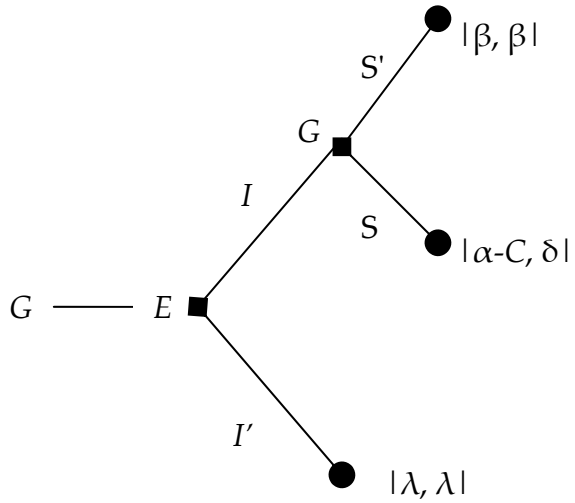
Figure 1: A game between a government and a market actor.



t_0 ----------t_1 ----------t_2 ----------t_3

Table 1. Descriptive statistics

Variable	Mean	Standard deviation	Observations
Growth	1.77554	1.620	375
Log initial GDP	8.030	.879	407
	(4,564)	(4,467)	
Polity score	5.681	4.196	396
Communist	.072	.259	486
Monarchy	.597	.491	447
Polity shift	.626	2.619	361
Large shift	.096	.294	396
Political constraints	.274	.216	361
State age	364.052	393.090	347
Time since last reform	30.037	25.924	356
Protestant	.518	.500	407
Longevity of monarch	10.798	15.188	405

Table 2. Growth and reforms in republics and monarchies

	1	2	3	4	5
Sample:	All	All	All	All	All
Log initial GDP	-.804***	-.807***	-.788***	-.854***	-.859***
	(.203)	(.205)	(.205)	(.204)	(.201)
Polity score	.099***	.102***	.095***	.099***	.092***
	(.026)	(.028)	(.028)	(.026)	(.026)
Communist	-.365	-.319	-.369	-.358	-.392
	(.328)	(.330)	(.331)	(.327)	(.323)
Monarchy	.030	.003	-.043	.008	-.091
	(.151)	(.158)	(.160)	(.151)	(.152)
Polity shift		-.036	-.067*		
		(.029)	(.035)		
Polity shift in monarchy			.104*		
			(.063)		
Large shift				-.455*	-.989***
				(.248)	(.303)
Large shift in monarchy					1.482***
					(.495)
Observations	339	339	339	339	339
Countries	27	27	27	27	27
Adjusted R square	.603	.563	.557	.615	.631
Within	.458	.472	.478	.464	.479
Chi squared	274.73	263.54	267.85	280.13	296.17
Breusch-Pagan	7.58***	6.92***	6.77***	7.60***	7.53***
Hausman test	14.68	20.18	19.73	14.13	18.42

Note: all regressions include period dummies; *** (**) [*] denotes significance at $p < .01$ ($p < .05$) [$p < .10$]. Large shifts are defined as shifts of three or more points. The average Polity shift is .54 points while the average large shift is 6.7 points. An F-test for joint significance of Polity shifts and the interaction term is strongly significant ($F = 3.843$; $p < .000$).

Table 3. Reform sizes in republics and monarchies

	Average	Large	Negative	Positive
Monarchies	0.340	0.018	-3.925	5.344
Republics	0.341	0.021	-3.134	3.827
Difference	.001	-.003	-.790*	1.517***

Note: reform size is the absolute size of the variable 'Polity shift' in the 'average' column and the absolute size of the variable 'Large shift' in the 'Large' column. In columns 3 and 4, we split the negative and positive values of the former; *** (**) [*] denotes significance at $p < .01$ ($p < .05$) [$p < .10$] in two-tailed, unequal variance t-tests.

Table 4. Growth and reforms, robustness tests

	1	2	3	4	5	6
Sample:	All	All	All	All	All	All
Log initial GDP	-.886***	-.954***	-.757***	-1.039***	-.921***	-.864***
	(.166)	(.213)	(.209)	(.219)	(.215)	(.202)
Polity score	.086***	.070**	.071***	.098***	.087***	.093***
	(.021)	(.032)	(.028)	(.026)	(.027)	(.026)
Communist	-.594**	-.375	-.509	-.448	-.427	-.389
	(.263)	(.329)	(.334)	(.326)	(.327)	(.324)
Monarchy	-.091	-.079	-.130	-.129	-.121	-.118
	(.120)	(.156)	(.156)	(.155)	(.157)	(.177)
Large shift	-.887***	-.973***	-1.036***	-1.043***	-.992***	-.999***
	(.242)	(.307)	(.303)	(.305)	(.303)	(.305)
Large shift in monarchy	1.499***	1.449***	1.185**	1.460***	1.469***	1.494***
	(.415)	(.501)	(.530)	(.497)	(.495)	(.497)
Political constraints		.723				
		(.574)				
State age			-.018			
			(.046)			
Time since last reform				.200**		
				(.099)		
Protestant					.139	
					(.173)	
Longevity of monarch						.002
						(.005)
Observations	322	331	326	334	339	339
Countries	27	27	27	27	27	27
Adjusted R square	.699	.621	.592	.567	.623	.627
Within	.588	.479	.487	.487	.481	.479
Chi squared	424.10	290.20	292.88	297.22	296.50	295.40
Breusch-Pagan	5.05**	7.00***	5.70**	6.23**	7.25***	7.49***
Hausman test	11.57	18.34	23.65	23.39	17.93	18.50
With interaction						
Large shift		-.924***	-1.125*	-2.250*	-1.075***	-.812**
		(.312)	(.644)	(1.223)	(.318)	(.323)
Large shift in monarchy		1.402***	1.207**	1.496***	1.135*	1.745***
		(.505)	(.549)	(.498)	(.628)	(.516)

Note: all regressions include period dummies; *** (**) [*] denotes significance at $p < .01$ ($p < .05$) [$p < .10$]. Outliers in column 1 are defined as observations with a residual of more than ±2 standard deviations.

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