Are lions democrats?
The impact of democratization on economic growth in Africa, 1980-2010*

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ABSTRACT – The study of the economic and social effects of political regimes constitutes a growing research agenda. In this context, however, Africa represents a particularly interesting but little studied region. If we look back at the past two decades, timing seems to point to a close connection between democratic reforms and economic growth in sub-Saharan states. Most countries in the area introduced multiparty politics and made dramatic (if incomplete) democratic progress between 1990 and 1994. Quite strikingly, it is exactly from 1994-1995 that the region began to undergo a significant period of economic recovery, initially with positive but less-than-impressive growth rates, and then, from around 2000, with a more significant pace of progress. By 2010-2011, some countries were being touted as new “African lions”, establishing a parallel with the remarkable growth recorded by the so-called “Asian tigers” during the second half of the XX century. Because of the undeniable temporal sequence experienced by sub-Saharan states – i.e. first political reforms, then economic growth – some observers have pointed to a nexus between democratic progress and economic performance. But is there evidence in support of a causal relationship? As of today, little empirical research has been conducted on this topic. We discuss the different theoretical arguments claiming an economic advantage of democracies and carry out an empirical analysis of the growth impact of political regimes in 42 sub-Saharan African states for the 1980-2010 period.

1. The tempo of political and economic developments in contemporary Africa

Does democracy favour economic growth in Africa? If we look back at the past two decades, timing seems to point to a close connection between democratic reforms and economic performance in sub-Saharan states. Indeed, the temporal sequence is quite striking. Between 1990 and 1994, the continent underwent dramatic democratic advances. In the space of a few years, the overwhelmingly predominant one-party or military regimes were replaced by various degrees of political opening and by the systematic introduction of multiparty elections. A large number of the newly-reformed regimes soon turned out to mask old or new authoritarian practices. This was the case, for example, in Gabon, Ethiopia or Chad. Yet several other countries, including the likes of Zambia, Benin, Mozambique or Mali, did make substantial if imperfect progress towards democracy.

Crucially, the two key drivers behind political reforms had raised expectations that political change would also usher in economic progress. On the domestic side, popular protests had largely emerged as a result of economic hardship. African citizens had started demanding leadership changes as a means towards altering the bleak economic conditions and prospects of their countries. At the international level, on the other hand, donors had begun pressurizing for “good governance” reforms, a notion that largely overlapped with the introduction of multiparty elections. These external demands were essentially based on the understanding that reforming Africa’s political institutions was instrumental to fostering the continent’s economic recovery. While the first half of the 1990s saw African countries leaping forward in terms of political development, in the second half of the decade an economic revival was also kick-started. After the largely dismal results of the previous decade, the economic upturn was initially slow and modest in size, but it nevertheless saw sub-

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Saharan economies stabilizing their performances at above 2% annual GDP growth from 1995 on. In a few years, growth rates gradually reached more substantial levels. The continent’s economies progressed at an average pace of over 5% from 2000, with an impressive 6% average during the five years preceding the global crisis. Between 1980 and 1999, Africa’s growth had only averaged 2.1%. Moreover, the 2007-09 global economic crisis did not halt this positive trend. In 2009, when OECD countries recorded a dramatic -3.6%, Africa was the only region experiencing growth (at 2.1%) together with Asia. In spite of the first reduction (-0.3%) of per capita income in a decade, the region managed the crisis better than in the past and better than many other countries. By 2010 and 2011, the effects of the crisis on Africa were over and growth rates were back at, respectively, 5% and 4.2%, with a 6% forecast for 2012, although the uncertain outlook of the world economy will likely take its toll.

In 2011, some African countries were famously ranked among the world’s best performing economies based on IMF data. Six out of ten fastest growing economies for the 2001-2010 period were in sub-Saharan Africa – these were Angola, Nigeria, Ethiopia, Chad, Mozambique and Rwanda – with average rates of 8% or above. Over the previous twenty-year period, only Uganda had made it into this special league. According to forecasts, the 2011-2015 quinquennial will see as many as seven of the world’s ten fastest-growing countries hailing from this region (namely, Ethiopia, Mozambique, Tanzania, Congo-DRC, Ghana, Zambia and Nigeria). The fact that the two lists show a considerable turnover – with less than one in two countries appearing in both – testifies to the relative breadth of the current positive economic trend.

Based on these and similar data, some upbeat specialists replaced the oft-heard references to an African growth “tragedy” with talks of the continent’s emerging growth miracle (Young 2011). And just like the startling multi-decade long Asian miracle had had its “tigers”, so the new century was to be the era of the “African lions”. One key difference being that, thus far, lions are not as clearly identified as tigers. At least to an extent, observers do not agree on who they are. As many as four of the IMF-data based African rising economies – that is, 40% of the group – for example, are nowhere to be found among the seventeen leading countries recognized by a well-known study on “emerging Africa”.

Figure 1 shows the tempo of the abovementioned processes of political change and economic renewal through the trends of a well-known index of democracy (i.e. the Polity2 index, here as a regional average score) and of GDP growth. The GDP growth line largely appears to trail the democracy trends, if only with a lag of a couple or more years. Accordingly, many observers quickly established a nexus between the two phenomena. Even prior to the turn of the century, some had made optimistic forecasts, hinting at the “widening scope for positive interactions between politics and economic performance in Africa … where political freedoms remain, the constraints they impose on government predation will enhance the environment for capital accumulation and growth” (Ndulu – O’Connell 1999:63-64). In trying to explain Africa’s emerging economic upturn, analysts placed great emphasis on the “economic value” of ousting a government (or, more generally, of being able to oust it). An influential magazine, for example, adamantly pointed that economic expansion was “happening partly because Africa is at last getting a taste of peace and decent government. For three decades … not a single one (bar … Mauritius) peacefully ousted a government or president at the ballot box. But since Benin set the mainland trend in 1991, it has happened more than 30 times”. Some went as far as to suggest that democracy had become no less than “a prerequisite for growth and development in Africa” (Wantchekon 2012:197).

So, were democratic reforms behind the spectacular growth of the best-performing African economies? For the abovementioned ten sub-Saharan countries that were identified as fastest growing economies for either 2000-2010 or 2011-2015, the average Polity2 score for 1989-2010 was -0.39, inferior to the regional average of -0.12. Even if we isolate the 2000-2010 decade, their +1.65 combined average still lags behind a regional average.

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1 World Bank, *World Development Indicators*, online Databank, accessed 19 September 2011.
5 Radelet (2010a, 2010b) excludes oil-producing state (thus leaving out the likes of Angola or Nigeria) and lists Botswana, Burkina Faso, Cape Verde, Ethiopia, Ghana, Lesotho, Mali, Mauritius, Mozambique, Namibia, Rwanda, Sao Tome and Principe, Seychelles, South Africa, Tanzania, Uganda and Zambia.
score of +1.80, albeit at a marginally reduced distance\(^7\). In both cases, the most democratic fast-performing countries turned out to be Zambia, Ghana and Mozambique, while the most dictatorial were Rwanda, Chad and Angola). This non-representative sample, therefore, does not point to a relationship between democraticness and high growth.

If, on the other hand, we single out the region’s largest economies – namely, South Africa and Nigeria – we get a somewhat different story. South Africa and Nigeria together account for about one half of sub-Saharan Africa’s overall GDP. Figure 2 shows a possible positive relationship between political reforms and economic performance for these two countries. South Africa, whose economy was negatively affected by domestic unrest and external sanctions during the better part of the 1980s, doubled its growth rates from a 1.6% average in 1980-1994 to a 3.3% average for the 1995-2011 post-transition period. Nigeria similarly jumped forward from a 3.6% average growth over the fifteen years prior to the re-introduction of multiparty politics in 1998 to a 6.0% average for 1999-2011. Thus, despite neither country might be fully exploiting its huge potential, the data tell us that, at a minimum, democracy did not prevent Pretoria and Abuja from making some important economic progress. Yet drawing general conclusions from individual cases can be misleading: before we suggest that there has effectively been a causal link between democratic and economic progress in the sub-Saharan region, we clearly need empirical evidence that is both deeper and wider.

This paper offers a systematic empirical account of the impact of democratic reforms on economic growth in contemporary Africa. In the next section, we prepare the ground for a reflection on the role of political variables by reviewing the literature on economic growth in post-independence Africa. We then examine previous works on the relationship between democratization and economic performance on the continent. Finally, we carry out an empirical analysis of the effects of a country’s level and duration of democracy on GDP growth and GDP per capita growth in 42 sub-Saharan countries over the 1980-2010 period. Empirical results confirm our expectation that African polities, most of which traditionally suffer from deep-seated predatory and neopatrimonial practices, tend to reap benefits from democratization processes.


Sources: World Development Indicators (online Databank, accessed 18 July 2012) and Polity IV Project.

Notes: Somalia has been excluded for the years 1991-2010.

\(^7\) The gap might be narrowed if we include nations with less than ten million inhabitants – left out of the fastest-growing economies ranking – as some of them were democratic countries with comparatively good economic performances (e.g. Botswana, Namibia or Cape Verde).
2. The causes of (the lack of) economic growth in Africa

The literature on the determinants of economic growth has focused extensively on sub-Saharan Africa as the locus of the “economic tragedy of the 20th century” (Artadi and Sala-i-Martin 2003; Easterly and Levine 1997). It is a fact that, for the better part of the past 50 years, the countries of independent Africa failed not only to gain an “independence dividend” in terms of overall economic growth, but also to increase their GDP per capita. This is particularly disturbing when compared to what has been achieved in certain other developing regions.\(^8\)

Accounts of why exactly this “tragedy” took place vary. On the one side, it is argued that Africa failed to grow because it is Africa. According to Barro (1991), when an “Africa dummy” is added to regressions including most nations in the world, this variable explains between 1 and 2 percent of the annual growth shortfall experienced by the region since independence (cf. Englebert 2000). On the other side, the economic literature developed an empirical strand specifically focused on Africa which tried to unpack the factors constraining growth in the continent. For some, not even the recent spurt of growth put an end to the economic curse of Africa: the current high growth rates can be ascribed more to “a matter of learning how to avoid economic declines” and to “a movement towards the region’s existing production possibility frontier” rather than to improvements in the structural correlates of growth (Arbache and Page 2009: 21). The puzzle of the missed growth of the African continent, therefore, is yet to be solved.

Neither is the methodology used to untangle this puzzle free of flaws. Cross-country estimates of growth have been widely criticized both on methodological ground as well as for the quality of the underlying data (Kenny and Williams 2001; Jerven 2010). Yet they constitute a large body of literature that, with the

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\(^8\) According to Ndulu and O’Connell (2008: 97), GDP per capita in Africa in 1960 was 136.8% of the GDP per capita in South Asia. Forty years later, GDP per capita in Africa was 93.7% of the GDP per capita in South Asia. (Of course, these numbers hide profound disparities between countries).
availability of new data and more powerful computational software systems, remains “an indispensable resource for country-level growth analysis” (Ndulu and O’Connell, 2008: 28). This section reviews this literature and its most robust findings, with the caveat that, for any single determinant of growth, other works exist which suggest that the effects may be different from those reported hereafter.

The standard explanations by early development economists (Lewis 1954; Solow 1956) are those that the literature proves to be more robust. The first accounts using cross-country data, for example, suggested that investment rates indeed matter for growth. Countries with higher levels of physical investments grow more rapidly than countries with lower levels of investments (Barro 1991 and 2003, Levine and Renelt 1992). Investments in Africa have been lower than in other regions of the world. While gross capital formation as a share of GDP in East Asia increased from 29.3% in 1960 to 41.6% in 2010, in Sub-Saharan Africa it only augmented from 17.9% to 20.5%. This is largely due to well-documented problems of investment climate, capital flight (Collier, Hoeffler and Pattillo 2004) and a corruption-driven diversion of resources (Vishny and Shleifer 1993).

The relevance of capital accumulation can be extended to also include human capital, typically measured through education or health indicators. Glewwe et al. (2007) find that, despite important problems with the data, African countries with higher levels of schooling per worker tend to grow more than relatively under-schooled nations. These findings are confirmed by Akyüz and Gore (2001) who compare the development trajectories of East Asia and Africa and link much of Africa’s missed growth opportunities to its comparatively lower levels of schooling. Other studies find a positive relationship between life expectancy and growth (Barro 2003).

According to the conditional convergence hypothesis contained in the Solow model (1956), countries with lower levels of development should, ceteris paribus, grow at a faster rate than countries starting off at a higher level of development. Starting with Barro (2003), economists found evidence that the initial level of development, conditional on other variables being held constant, does indeed affect the growth performance of nations, as diminishing returns of capital reduce the growth rate of richer countries.

Demography is another factor ranked among traditional explanations of growth. When studying growth in Africa, however, demography appears to play an unexpected role (Barro 2003): if “large population has been positively correlated with growth among non-African developing countries […] , this effect is largely absent in SSA, however, where the population-weighted data suggest, if anything, lagging performance by the larger countries” (Ndulu and O’Connell 2008: 15).

While not directly mentioned by early development economists, aid is a further variable contributing to the levels of investments and therefore growth. The literature on the effects of aid on economic development in Africa is vast and inconclusive (Arndt et al 2010; Bourguignon and Sundberg 2007). However, it has been suggested that foreign aid is playing a positive part in Africa’s current positive economic trend (OECD 2010).

Broadly speaking, the literature on the economic failure of Africa can be divided into two main strands: the first explains the region’s shortcomings by looking at its endowments, the second by focusing on its policies, institutions and governance practices. The strand of the literature that focuses on endowments, in turn, offers three main kinds of explanations. First, Africa is underdeveloped because the continent is located at the tropics. This part of the literature suggests that a tropical climate extols a higher price than other climates in terms of human and animal diseases, technical change, agricultural productivity and wearing down of infrastructures (Bloom, Sachs et al. 1998; Gallup, Sachs et al. 1998; Sachs 2001). Second, African states lag behind in terms of development because they are geographically isolated: being landlocked or being distant from the most important markets implies higher transportation costs for exports (Sachs and Warner 1996) and reduces opportunities for accessing developed markets (Redding and Venables 2004). This has an impact on Africa’s ability to trade and thus grow. The third explanation based on Africa’s endowments has to do with natural resources. Dismal growth performances are due to the fact that African countries suffer from the resource curse (Auty 2001). Resource abundance retards development because it encourages rent-seeking behaviors and conflicts (Collier and Hoeffler, 1998; Herbst 2000), while at the same time making economic management more difficult because of resource price volatility and Dutch disease (Poelhekke and Van der Ploeg 2007).

The above endowment-based explanations are discarded by scholars who suggest that Africa’s poor growth record has to do with problems related to its policies and institutions. The idea that governance matters for economic development dates back to Adam Smith (Ndulu and O’Connel 2008:43) and was later expanded by new institutional economists led by Douglas North. The dispute between the natural endowments and the
governance hypotheses has profound policy implications, since the pre-eminence of the natural endowments explanations would “uncover essentially permanent sources of slow growth in Africa” (Ndulu and O’Connell, 2008:43).

A large body of the literature explains Africa’s poor growth performance by looking at its past and at its institutions. In particular, Acemoglu et al. (2001a and 2001b) suggest that natural conditions influenced the type of colonial institutions (i.e. more or less extractive) and therefore the path of development. Nunn (2007; 2004), on the other hand, dates the underdevelopment of Africa back to the slave trade period. Easterly and Levine (1997) suggest that the high ethnic fractionalization of the continent negatively influences the quality of its political institutions, thus hindering growth. Collier et al. (2003) posit that Africa suffers from slow growth due to conflicts, which extol a high price in terms of foregone development. A plethora of other studies (cf. Aron 2000) link various measures of institutional qualities to economic growth, while other authors suggest that the lack of growth experienced by Africa has to do with the poor policies implemented by national governments (e.g. Sachs and Warner 1997; Azam et al. 2002), policies that are at times proxied by such indicators as real exchange rate overvaluation or inflation rates (Easterly and Levine 1997). The level of intervention of the state in the economy can be another factor of poor economic performance: Barro (2003) finds a negative relationship between the share of government consumption and economic growth9. Finally, a few studies have tried to understand what type of political institutions could foster growth in Africa. We come back to this last point in the next section.

3. The economic effects of political regimes

The relationship between regime type and economic growth has been extensively examined by a vast political and economic literature. Interest in this topic, in particular, flourished in the course of the 1990s, as a debate was sparked by scholars who looked at the introduction of democracy in poor countries during the so-called Third Wave and expressed pessimistic concerns about the economic impact of political reforms. Broadly speaking, three main theoretical viewpoints have been advanced on this subject, namely a compatibility (democracy and economic growth are mutually reinforcing), a conflict (a trade-off exists between democracy and development) and a sceptical view (the two are potentially compatible, but no universal relationship exists) (Huntington 1987, in Sirowy – Inkeles 1990:128). The compatibility and the conflict perspectives, in particular, draw upon, respectively, Milton Friedman’s idea that political and economic freedoms mutually reinforce each other, and Mancur Olson’s notion that democracy shifts resources from growth-enhancing savings and investments to more immediate consumption (Plumper – Martin 2003:28). As a whole, however, the cross-country literature on whether democracies grow faster, slower or much the same as authoritarian governments has been repeatedly criticised for being largely inconclusive, both theoretically and empirically (Sirowy – Inkeles 1990, Barro 1996, Brunetti 1997, Plumper – Martin 2003).

A vast body of theoretical work has been devoted to supporting the notion that democracy is instrumental to economic growth, and thus fosters development. Specific arguments, as mentioned, are abundant and nuanced (for an overview, see Tavares – Wacziarg 2001:134ff.). At the most general level, democratic elections are assumed to introduce competition and accountability mechanisms that generate incentives for people in government to achieve the best possible macroeconomic performance by choosing good policies, and thus tend to promote a country’s economic progress. Democratic procedures, in addition, imply that rules for alternation in government are more clear and transparent. This discourages illegitimate attempts to take-over power, thus reducing political instability and uncertainty that would otherwise hinder growth. Besides underpinning political stability, democracy also strengthens the rule of law, including the protection of property rights and the enforcement of contracts, and in this way it encourages investments and the accumulation of physical capital. Democracy is further said to favour economic growth by fostering macroeconomic stability (in terms of economic policy, growth rates and inflation) and by promoting trade openness. Finally, the claim is made that popular demands for a better education and a more equitable wealth distribution also contribute to accelerate growth by raising the level of human capital – and thus economic

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9 Government consumption could however be a proxy for the level of development of a country, according to Wagner’s Law.

If any of the theories specifying the ways in which democratic governance is linked to better economic performance were correct, the key implication would be that we are not confronted with a trade-off between democracy and development: democracy would deserve being promoted not just as a universal value, but also because political reforms and regime change contribute to a country’s struggle for economic development. In other words, there is no need to wait for a country to be mature for democracy. This is the position implied by the “good governance” agenda that gained prominence since the late 1980s and the early 1990s. Initially focussed only on transparency, rule of law and accountability, the good governance agenda ended up promoting political competition and democratic reforms in response to the poor performance of structural adjustment programs. This was an indirect challenge to an established tradition in political science – the theories of the so-called modernisation school – whose main tenet was that economic development and social changes occurred prior to the establishment of democracy.

A radical interpretation of modernisation theories implied that substantial economic progress required authoritarian regimes – possibly in the guise of a benevolent “developmental dictatorship” – as opposed to the fragile establishment of “premature” democracies (cf. Huntington 1968, Wade 1990). This seemed to be proved by the experience of some Latin American countries during the 1970s (notably Chile and Brazil), by Romania in the 1950s, by East Asian countries such as South Korea, Taiwan and Singapore, and even, more recently, by China. In all these cases, fast growth was directly linked to the presence of non-democratic regimes, showing that economic freedoms and property rights can be protected under authoritarian regimes as well as, if not better than, democratic states can do (Barro 1996).

The specific arguments against democracy, according to which pluralist political systems hinder growth, are almost as numerous and detailed as the arguments for democracy (for a review, see Sirowy and Inkeles 1990:129ff.). The bulk of them points that democracy makes state institutions responsive to the demands of the poor by expanding welfare policies and lowering income inequality, but do so at the expense of physical capital accumulation (Tavares and Wacziarg 2001; cf. Gasiorowski 2000; Oatley 2003; Serieux 1999; Crozier et al. 1975:157ff.; Przeworski et al. 2000 on wages). A related set of arguments focuses on the efficiency of participatory governance. The new demands raised by democratic participation tend to overload the state. Electoral politics foster short-term promises as opposed to long-term development, reduce the efficiency of decisions while generating instability, and tend to escalate social conflicts based on communal diversity. Overall, democratic political participation reduces the degree of social order and political stability that a country needs to attract investments and promote industrial change. All the arguments pointing at the growth-retarding effects of democracy imply the existence of a trade-off and thus of a hard choice: if fast economic growth is what developing countries are really after, political liberty and equality should be renounced, or at least postponed for some time.

As much as the theoretical debate has been fiercely fought, several reviews of the existing body of empirical works have shown its conflicting results (Plumper – Martin 2003:28). Not much has changed since, over twenty years ago, Sirowy and Inkeles (1990:150) summed up the findings of existing research with this tentative conclusions: democracies do not grow faster, but it is still unclear whether they slow down economic growth or whether there is no systematic relationship.

Some recent studies appear to confirm a moderately negative effect of democracy, and thus suggest that “political freedom emerges as a sort of luxury good. Rich places consume more democracy because this good is desirable for its own sake and even though the increased political freedom may have a small adverse effect on growth. Basically, rich countries can afford the reduced rate of economic progress” (Barro 1996:24; cf. Tavares – Wacziarg 2001). Other research, however, insists not only that, whether democratic or authoritarian, political regimes have actually little or no systematic impact on economic performance, but also that democracies are associated “with significant reductions in economic volatility” (Rodrik – Wacziarg 2005:50; Przeworski et al. 2000).

The reason why the political science and economics literature is largely inconclusive is possibly due to the fact that democratisation may entail both economic costs and economic benefits. In other words, even though democratic reforms impact on the sources of growth, these effects tend to counter-balance each other, explaining why democracy itself may be ambiguous (Pinto – Timmons 2005, Tavares – Wacziarg 2001:1344).

The multifaceted character of the connection is also stressed by Plumper and Martin (2003), who find evidence in support of what they call “the Barro effect” (an inverse u-shaped relationship whereby
democracy favours growth at low levels of political liberty, but the opposite happens when certain levels of political liberty are achieved) as well as by Gerring and his colleagues, who show that time is crucial, as it is “long-term democracy [that] leads to stronger economic performance” (Gerring et al. 2005).

A third way to explain and overcome some of the contradictions in the findings of scholars working on the link between democracy and development is by examining more closely the temporal and regional factors. Kriekhaus highlights how the analysts’ choice of a specific time period is crucial, with democracy producing, on average, a negative effect on growth during the 1960s, a positive effect during the 1980s and no effect at all during the 1970s and 1990s (Kriekhaus 2004). As for geographical differences, in those regions where social groups clamour for redistribution, such as in Latin America, democracy may lead to populism and poor economic performances. Similarly, in areas of the world where state elites are generally committed to promoting rapid industrialization, as in parts of Asia, democratic pressures may hinder effective economic policy. However, in regions where neo-patrimonial practices are chronic, and notably in Sub-Saharan Africa, democracy may provide a useful mechanism for evicting grossly corrupt politicians and may therefore facilitate the achievement of higher rates of economic growth (Kriekhaus 2006).

Ultimately, the vast democracy-growth literature has not produced broadly accepted empirical results. While the relatively scant qualitative studies did often uncover the presence of a significant regime effect – whether positive or negative – many quantitative studies, which constitute the bulk of this literature, have largely reached a more skeptical conclusion (Sirowy – Inkeles 1990, Przeworski et al. 2000): political regimes seem to make little or no difference.

Africa’s recent political and economic evolution, as pointed out, demands a specific investigation into their plausible connection. Few studies have tried to systematically examine the relationship between regime type and economic growth in the region. These works are listed in Table 1, which also sums up their main findings. Overall, they appear to have uncovered a positive if limited impact of democratic reforms upon economic performance.

Nkurunziza and Bates (2003), for example, did find a positive and significant impact of regime type, although their analysis was only based on a subset of 22 sub-Saharan countries and their timeframe limited to the 1970-1990 pre-reform period. In a pioneering and influential study, van de Walle (1999, 2001) examined the 1986-1998 period – i.e. the times of greatest democratic progress in Africa – and found that democratization generated no growth dividend. Both Ferree and Singh (2006:32) as well as Narayan et al. (2011) looked at a longer period – namely, the 1970s, 1980s and 1990s – and confirmed van de Walle’s conclusion that democracy per se had not favoured better economic performances. Tiruneh (2006:14) was similarly very cautious as he pointed out that, because his investigation of the 1991-2000 period (inclusive of north Africa) only produced “some but not strong and consistent evidence”, the question essentially remained open.

A second set of studies has been more confident in relating political regimes to the region’s economic growth. Kriekhaus (2006) stressed how the continent is best placed to reap the economic benefits of democratic reforms due to its historically dysfunctional polities. Lewis (2008) also found evidence of a link between the regime type and economic performance, although he warned of a “growth without prosperity” paradox that took shape in Africa over the two decades from 1986 to 2006: in spite of good economic performances, the continent seemed to have missed an opportunity for reducing poverty and improving welfare10.

Other scholars tried to address the question of when democratic reforms are supposed to affect the economy. In this vein, Rodrik and Wacziarg gauge the immediate payoffs of democratic transitions as, after examining African countries from independence to 2000 through a within-country effects method, they highlight a short-term boost in growth as well as lower growth volatility. Democratization, they point out to pessimists, appears “to follow rather than precede declines in growth” (Rodrik – Wacziarg 2005:54). But Ferree and Singh disagree, as they claim that time gradually made it possible for those African democracies that survived to begin delivering growth dividends (Ferree – Singh 2006:42). What Rodrik and Wacziarg (2005) and Ferree and Singh (2006) share, however, is the idea that sooner or later democratization positively affects the economy.

10 More recent data, however, have shown an important decline of poverty rates in the continent (World Bank 2012). Whether the reduction of poverty is related to political reforms – something suggested by Mattes (2008) – is beyond the goal of this paper.
In sum, many of these studies highlight a moderately positive effect of democracy on economic performance, while a few of them found no effect at all. With one partial exception, no study found evidence of a negative effect of democratization. Thus, the shared, key finding of this literature is that democratic progress does not seem to have inhibited nor hindered growth in sub-Saharan Africa.

None of these works, however, provides a full account of Africa’s impressive economic performances during the first decade of the new century. The majority of them only covers some period up to the year 2000. The two works that reach farther still stop at around the middle of the decade. The study by Fosu (2009) only reaches 2004, includes a subset of 30 sub-Saharan states and fails to include most standard variables of growth regressions. Lewis’s (2008) analysis of 36 countries of the region reaches somewhat further, at 2006, but, while being much better grounded into African affairs than most of the other cited studies, has evident methodological shortcomings, including no information on how regimes are classified by the author and the absence of any controls. In addition, some of these studies use decadal average data that imply a significant loss of information.

### TABLE 1. Scholarly literature on democracy and economic growth in Africa.

<table>
<thead>
<tr>
<th>Study</th>
<th>Time coverage</th>
<th>Cases</th>
<th>Democracy definition</th>
<th>Controls</th>
<th>Dependent variable</th>
<th>Methodology</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narayan et al. (2011)</td>
<td>1972-2001</td>
<td>30 SSA</td>
<td>Freedom House (Political Rights) / LIEC</td>
<td>Absent</td>
<td>GDP growth</td>
<td>Granger causality test</td>
<td>No effect</td>
</tr>
</tbody>
</table>

### 4. Hypotheses and operationalization

Our starting point is that, largely due to certain political dynamics that are deeply-rooted in much of Africa, the impact of democratic reforms on the continent’s economic growth should be positive. In countries characterized by high socio-economic inequalities (such as in Latin America) or strong elites’ commitment to development (as in a number of Asian nations), democracy is likely to generate a multiplicity of popular demands and redistributive policies that may turn out to actually hamper economic growth (Kriekhaus 2006). But in societies affected by deep-seated predatory practices – as in many sub-Saharan states – the introduction of democratic institutions and competition often helps strengthening economic performances by making it easier to replace inefficient leaders. Neither of the above underlying dynamics (redistributive
demands, elites’ commitment, wealth predation, etc.) are obviously exclusive to any geographical area. Rather, they probably exist everywhere. But their relative intensity and prevalence vary across world regions, and so do their overall net effects (Kriekhauš 2006). In addition, we agree with Gerring et al. (2005), Ferrée and Singh (2006) and others that the establishment of democracy may not immediately produce economic gains, as its full effects only become apparent with time, when the functioning of the new institutional set up and political practices are allowed to regularize, deepen and flourish.

Our hypotheses are thus as follows, starting with our key political variables. First, we expect that the more democratic a country, the better its growth performance. We determine a country’s degree of democracy through a standard Polity2 variable produced by the PolityIV Project. This variable ranges between -10 (most autocratic) and +10 (most democratic). Secondly, we also consider that the impact of democracy over the economy may take time to become manifest. To account for this, we include a “duration of democracy” variable and we expect that the longer a country has been democratically-ruled, the better its growth performance. For this purpose, we measure the age of an existing democratic system as the number of years a given country has been uninterruptedly assigned a score of 6 or above on the Polity2 scale\textsuperscript{11}.

Besides our democracy variables, we include several standard variables normally employed in the literature on the determinants of economic growth in Africa. According to the standard neoclassical convergence hypothesis, a country’s level of development affects its growth rates, with poorer countries likely to achieve stronger performances than richer ones. We measure this through a country’s level of per capita income in the year prior to the beginning of the period under investigation (i.e. 1979). Human capital – appraised either through health or education indicators – is also deemed to be a crucial factor favouring economic progress. Based on data availability, we choose to proxy human capital through life expectancy at birth\textsuperscript{12}. We also include a measure of government consumption that, following standard economic models (Barro 1990; 2003), we expect to negatively affect growth. Finally, to control for autocorrelation, we also add a variable for the growth rate of GDP (or GDP per capita) at time t-1.

In addition, we bring in six control variables to our base model. The real exchange overvaluation is included as a proxy for the lack of economic reforms (cf. Easterly and Levine 1997), with its effects expected to be negative. Oil production (as a share of GDP) and per capita aid are both presumed to sustain – if not to “artificially” inflate – growth performances. Following Easterly and Levine (1997), ethnic divisions are assumed to be a possible constraint on the pace of economic development. For this purpose, we use the ethno-linguistic fractionalisation data produced by Alesina et al. (2003). Population growth is also a standard regressor for economic growth that we include, although economists disagree on whether its effects are positive or negative (Ndulu – O’Connell 2008). Our sixth control variable is a dummy that we construct to account for the legacy of British colonialism in a number of African states, a way to incorporate in our analysis the major finding of the literature on the legacy of colonial institutions and growth.

5. Empirical analysis: method and model

In assembling a satisfactory cross-national time-series dataset of African countries, we face three constraints. First, for every single country-year, we need measures for both our dependent as well as all our independent variables. Second, each time-series must be long enough. Third, each time-series must be about the same length. Due to data availability, we were only partly able to satisfy these criteria. The resulting dataset, which covers 42 sub-Saharan countries from 1980 to 2010, has the largest total N (upwards of 900) yet analyzed in the literature on democracy and growth in Africa\textsuperscript{13}. Moreover, as the univariate statistics in Table 2 show, the

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\textsuperscript{11} A score of 7 or more is more often taken as the threshold necessary to classify countries as democratic. Yet the very authors of PolityIV at times lower this threshold to 6 points. Marshall and Cole, for example, explain that “countries with Polity scores from +6 to +10 are counted as democracies in tracking ‘Global Trends in Governance, 1946-2010’” (2011:9). We believe that in the African context, which has been historically dominated by nondemocratic rule, a score of 6 signals a remarkable democratic achievement.

\textsuperscript{12} Data on the level of schooling (a variable much used in the literature) include many missing observations and have therefore been discarded from the analysis.

\textsuperscript{13} Due to missing information, 6 sub-Saharan countries are excluded from the analysis, these are Djibouti, Eritrea, Nigeria, São Tomé and Príncipe, Seychelles and Somalia. South Sudan is not part of our sample since it only came into existence as an independent state in 2011. Nigeria is a particularly important case and we are working towards its re-inclusion in future versions of this paper.
dataset affords a very large variance in the key variables under consideration. For example, GDP growth rates range from -17.1% (Zimbabwe 2003) to 71.2% (Equatorial Guinea 1997), the highest value for government consumption is more than twenty-five times larger than the lowest value (Equatorial Guinea versus Gambia 1984), life expectancy at birth ranges from 26.8 (Rwanda 1993) to 73.8 (Cape Verde 2010). This great variance reduces the risk of bias and increases the efficiency of our estimation.

### TABLE 2. Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth (%)</td>
<td>939</td>
<td>3.910</td>
<td>5.855</td>
<td>-17.163</td>
<td>71.188</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>GDP per capita growth (%)</td>
<td>939</td>
<td>1.413</td>
<td>5.956</td>
<td>-19.687</td>
<td>65.694</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Polity2 (most autocratic = -10; most democratic = 10)</td>
<td>939</td>
<td>-1.063</td>
<td>6.259</td>
<td>-10</td>
<td>10</td>
<td>Polity IV</td>
</tr>
<tr>
<td>Duration of democracy (threshold = 6)</td>
<td>939</td>
<td>2.771</td>
<td>7.531</td>
<td>0</td>
<td>44</td>
<td>Polity IV</td>
</tr>
<tr>
<td>Life expectancy at birth (years)</td>
<td>939</td>
<td>52.556</td>
<td>7.003</td>
<td>26.819</td>
<td>73.774</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>GDP per capita 1979 (log)</td>
<td>939</td>
<td>6.091</td>
<td>0.751</td>
<td>4.987</td>
<td>8.427</td>
<td>World Development Indicators</td>
</tr>
<tr>
<td>Government consumption (% of GDP)</td>
<td>939</td>
<td>14.955</td>
<td>6.213</td>
<td>2.288</td>
<td>54.515</td>
<td>World Development Indicators</td>
</tr>
</tbody>
</table>

### TABLE 3. Democracy and economic growth in sub-Saharan Africa, 1980–2010

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (dependent variable: GDP growth)</th>
<th>Model 2 (dependent variable: GDP per capita growth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>degree of democracy</td>
<td>0.092</td>
<td>0.035</td>
</tr>
<tr>
<td>duration of democracy</td>
<td>0.064</td>
<td>0.028</td>
</tr>
<tr>
<td>level of development (1979)</td>
<td>-1.867</td>
<td>0.559</td>
</tr>
<tr>
<td>life expectancy</td>
<td>0.053</td>
<td>0.043</td>
</tr>
<tr>
<td>government consumption</td>
<td>-0.125</td>
<td>0.042</td>
</tr>
<tr>
<td>lag GDP growth</td>
<td>0.088</td>
<td>0.068</td>
</tr>
<tr>
<td>lag GDP per capita growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>real exchange overvaluation</td>
<td>-0.308</td>
<td>0.061</td>
</tr>
<tr>
<td>oil production</td>
<td>0.131</td>
<td>*0.064</td>
</tr>
<tr>
<td>population growth (%)</td>
<td>0.449</td>
<td>**0.228</td>
</tr>
<tr>
<td>aid (per capita)</td>
<td>0.031</td>
<td>*0.016</td>
</tr>
<tr>
<td>ethnic fractionalization</td>
<td>-3.777</td>
<td>*1.983</td>
</tr>
<tr>
<td>British colony</td>
<td>0.950</td>
<td>*0.506</td>
</tr>
<tr>
<td>constant</td>
<td>14.001</td>
<td>***4.295</td>
</tr>
</tbody>
</table>

R-sq: 0.180 ; wald chi2 (sig.): 0.000 ; sigma_u: 0.000 ; sigma_e: 5.083 ; rho: 0.000 ; number of countries: 42 ; number of observations: 939

Note: *p<0.1; **p<0.05; ***p<0.01; ****p<0.001
We carry out our empirical analysis through a longitudinal regression model on a long unbalanced panel dataset. Since the number of countries is greater than point time numbers, a random effects model is more efficient than a fixed effects model, as it has N more degrees of freedom and it also uses information from the between estimator (which averages observations over a unit and regresses average $y$ on average $x$ to look at differences across units). Since we found some heteroskedasticity, we used the robust standard errors option because it is robust to cross-sectional heteroskedasticity producing consistent standard errors.

As for the choice of the dependent variable, a large part of the literature uses GDP growth per capita rather than GDP growth per se. Measuring the growth of per capita income implies a more direct focus on variations in the average wealth available to a country’s citizens. Yet we also need to know when and whether our variables foster increased economic activities as such, even where these economic advances may not add to the wellbeing of individual citizens because they are offset by population growth. Therefore, we decided to use both variables. This not only allows us to further validate our empirical results (given that the two models using the two dependent variables produce similar results), but also to compare them with those obtained by all other scholars.

The equations, as estimated, offer a potent explanation of GDP growth (Models 1 in Table 3) as well as GDP per capita growth (Models 2). Statistically, the models fit the data well, with an overall R2 of at least 16.9%. Following the empirical findings in Model 1, we can argue that our central hypothesis – the notion that, in Africa, democratic progress may positively affect the pace of economic progress – is supported by the data. When the level of democracy increases, so does the rate of economic expansion ($b=0.092$). Political regime type can make a difference among sub-Saharan African countries. Moreover, for regimes that are more fully democratic (i.e. Polity2 > 6), duration breeds economic performance ($b=0.064$).

Of course, a number of economic factors and other standard growth regressors also play a role. In line with convergence expectations, countries that had a lower initial level of GDP (as of 1979) were more likely to achieved higher growth rates. There is virtual consensus, among economists, that excessive levels of government consumption have a negative effect on growth performances. Inefficient governments often tend to squander public resources in exchange for political support via overconsumption, or even corruption, rather than using them for investment expenditures or tax reduction programmes. The empirical literature is consistent with this theoretical argument. Our model provides further evidence for this hypothesis: countries where government consumption is comparatively low tend to grow more rapidly.

With the exception of life expectancy, our base hypotheses are all confirmed. These results essentially hold when we control them through a number of standard economic and demographic variables. High levels of aid per capita help foster economic growth ($b=0.031$), while a country’s ethno-linguistic fractionalization tends to reduce it ($b= -3.777$). Real exchange overvaluation, population growth and British colonial legacy also affect a country’s economic performance in the expected direction (Model 2).

The issue of oil deserves a few more words. The question of the impact of oil on contemporary African economies is often addressed in either of two ways. On the one hand, from what may be termed an external perspective, observers stress that oil exports and prices played a significant part in the region’s current growth trends. In this view, oil is merely part of what Africans produce, and international demand for it, going up over recent years, sustained good economic performances in oil-producing states. Whether this is viewed as something positive (“the region has plenty of it, and must fully exploit it”) or negative (“current economic performances are simply driven by commodity exports, they have little or nothing to do with structural economic transformations”). On the other hand, in the more domestic-centred perspective employed in the study of Africa’s political economies, oil is said to be the quintessential source of the so-called “resource curse”. That is, an oil-dominated economy is likely to display a syndrome combining such unattractive phenomena as high corruption rates, Dutch disease, economic and revenue volatility, conflict and authoritarian rule. Ultimately, oil may turn out to make more damage than good, and, in particular, oil-producing countries may paradoxically grow and develop less than non-oil states. Our data seem to point that being an oil-producer did help African countries grow better over the thirty years we examined. This runs counter to the key conclusion reached by the resource curse literature, namely that oil hinders growth. It may be the case that, for the oil states within our sample, the economic advantage of plenty were not offset by

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14 The software used is STATA.
15 Following the economic growth literature on Africa, we experimented with various standard growth regressors, including investments, trade openness, conflicts, landlockedness or decade. However, these variables present serious problems of collinearity.
whatever aspects of the syndrome (more corruption, real exchange rate overvaluation, volatility, etc.)
materialized in these same states. In terms of sheer rates of growth, oil was more of an asset than not.
When we use GDP per capita growth as our dependent variable, the results we obtain are very similar. The
apparently contradictory outcomes concerning the impact of population growth – which is significant in both
Models, but with opposite signs – are easily explained. The effect hinges on the type of measurement of
economic growth, i.e. on the choice of the dependent variable. Thus, an increase in population size appears
to increase a country’s human capital and to positively affect economic growth so long as we measure it as a
national aggregate (Model 1). If, however, we turn to changes in per capita income, as in Model 2,
population growth impacts negatively on the dependent variable by reducing an individual’s share of the
national income.

6. Conclusions

The vast literature on economic growth in Africa that has been produced from the 1990s failed to closely
examine the impact of democratic political systems, as opposed to autocratic regimes, on the continent’s
development. Over recent years, the need to address head-on this topic has become ever more pressing. On
the one hand, the very timing of the stellar growth performances experienced over the last decade by the so-
called “African lions” (that is, diverse countries, with different institutional frameworks, growing at an
astonishing pace) raises the question of a possible link between regime type and economic advancements. On
the other hand, more than twenty years have now passed since the continent embarked in an unprecedented
period of democratic transitions. Today we have enough data to analyze the democracy-growth issue from an
empirical point of view. This paper conjugates the existing scientific knowledge on the determinants of
economic growth with reference to Africa with that on the economic effects of political regimes, with the
aim of better understanding whether, in the sub-Saharan area, democracy favored or rather hindered growth.
A casual observation of African affairs suggests that economic progress is being achieved in contemporary
Africa after the continent made significant democratic progress. Fears that democracy would slow down the
economic development of sub-Saharan countries – fears that were frequently voiced both when pluralistic
institutions were abandoned in the 1960s-1970s, as well as when multiparty reforms were undertaken in the
early 1990s – have so far proved unfounded. However, a more systematic approach is needed to fully
investigate the possibility of a causal link between the two phenomena. A review of existing knowledge
allowed us to say, at most, that the continent’s democracies were not outperformed by its authoritarian
regimes. Yet existing studies are limited in both time and geographical coverage, as they typically observed
only a subset of sub-Saharan countries and did so only for periods that normally excluded the recent high-
growth years. We thus set out to conduct an expanded empirical analysis on the determinants of economic
growth in Africa, with a focus on democracy and its duration as key regressors in our cross-country growth-
accounting equation. Our findings provide firmer empirical ground that allows us to claim that the degree
and the duration of a country’s democracy significantly contributed to promoting economic progress in
contemporary Africa.

What are the main implications of these findings? First, democracy is far from being a luxury, that is, a cost
that poor African countries should avoid. Rather, it appears to be a factor that can contribute to speeding up
their development. There is no need for authoritarian “developmental” rule until these societies “mature”. It
is rather the contrary.
Secondly, the economic impact of democracy may be part of a virtuous cycle in which democracy helps
delivering economic growth and economic growth, in turn, helps further strengthening recently-established
democratic regimes. This should sound as a warning to some “African lions” tempted by neo-authoritarian
projects: growth is not enough. Neither to further sustain growth, nor to ensure the loyalty of their own
citizens. At the same time, the case of Mali, a quasi-success case of economic development and democracy
which in 2012 quickly fell into a semi-failed state, suggests that there is no perfect and universal recipe for
success, and that, in Africa, even those countries that have been praised for trailing a good path still rest on
fragile foundations.
A third conclusion concerns the nature of African political economy. Where the democracy-growth nexus
turns out to be virtuous, those misbehaviors tormenting the development of sound economic and political
institutions in Africa (for example, government overconsumption, or the negative effects of ethnic
fractionalization and tensions) tend to be discouraged. This however suggests that there might be a
divergence between good and bad performers among African countries. Whereas the “African lions” started to run like gazelles, countries not touched by either growth or democracy are still at risk of falling prey to a poverty-autocracy trap.
References

Oatley, Thomas, “Why is stabilization sometimes delayed? Reevaluating the regime-type hypothesis”, *Comparative Political Studies*, 37 (3), 2003, pp. 286-312


Radelet, Steven, *Emerging Africa: how 17 countries are leading the way*, Washington, DC, Center for Global Development, 2010(a)


Rodrik, Dani, “Participatory politics, social cooperation, and economic stability”, *American Economic Review*, 90 (2), 2000, pp. 140-144


Sachs, Jeffrey D., *Tropical Underdevelopment*, NBER working paper no. 8119 (February).


