The mixed performances of utilities in Sub-Saharan African low-income economies: the constraints on the concept of 'public'

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Abstract

Though the post-WWII period conceived development as the outcome of active public policies, the 1980s witnessed the spreading on a global scale of a theoretical paradigm viewing state intervention in the economy as detrimental for growth, with as a background the assumption that excessive public spending and fiscal deficits reduce growth. The associated public policies were thus liberalisation and privatisation, which were uniformly conducted across the world, including in low-income economies - for example in Sub-Saharan Africa/SSA, said to display a low level of fiscal revenues and therefore a low ability for the state to finance public utilities. The impact of the privatisation of state-owned utilities have been mixed, particularly in SSA, where public ownership has been a core of post-independence policies, even within the paradigm of service 'unbundling' that aimed at addressing these mixed outcomes. Indeed, even mainstream economics has underscored the existence of market failures and externalities, which justify the public provision or regulation of services, while the developing countries that enjoyed spectacular growth ('developmental states') have relied on interventionist policies. Via the example of SSA low-income economies, the paper argues that this mixed success stems from inaccurate theoretical analysis and policies in view of key constraints weighing on the concept of 'public' in these economies: these constraints refer, in particular, to poverty, geography, taxation, state formation and policy externalisation.

1. Introduction

Utilities may be defined as units that provide services in sectors such as water, electricity, gas, telecommunication, transportation, or sewage. Sub-Saharan African economies appear to be affected by a double 'curse': they are simultaneously affected by a lack of public utilities, which disrupts economic activity, and when these exist, by poor performance. Yet utilities that are efficient foster growth and possibly structural transformation, as is shown by a large literature (Estache, 2007; Calderon et al., 2018). For example, utilities that exhibit an appropriate pricing of their services can contribute

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to refrain premature deindustrialisation and foster structural change (as in the case of electricity, Ravago et al., 2019).

Though the post-WWII period conceived development as the outcome of active public policies aiming at more efficient reallocation of factors of production, the 1980s witnessed the spreading on a global scale of a theoretical paradigm viewing state intervention in the economy as detrimental for economic growth, with the background assumption that excessive public spending and fiscal deficits reduce growth. The associated public policies were thus liberalisation and privatisation ('austerity'), which were uniformly conducted across the world, in both developing and developed countries, and low-income economies in particular. Sub-Saharan Africa/SSA, for example, was said to display a low level of fiscal revenue and therefore a low ability for the state to finance public utilities. At the empirical level, the outcomes of the privatisation of state-owned utilities have been mixed, particularly in SSA, where the public ownership of utilities has been a core of post-independence development policies. Outcomes have been mixed even within the paradigm of service 'unbundling' that was yet aiming at addressing these mixed outcomes. Indeed, even mainstream economics has underscored the existence of market failures and externalities, which justify the public provision or regulation of services, while the developing countries that enjoyed spectacular growth (Asian 'developmental states') have relied on interventionist public policies. The latter were not necessarily aiming at an 'ownership' of the economy via publicly owned utilities (with the related risk of fiscal deficit) and has been centred on the provision of incentives that would be conducive to growth.

Against these questions and with SSA low-income economies as a background, the paper argues that the mixed successes for utilities of the change in the public regime (ownership, management), and opposition between the 'public' and the 'private', stem from inaccurate theoretical analyses and policies regarding the concept of 'public', which, particularly in SSA, have affected the capacity of investors to take risks and venture into profitable activities. These inaccurate analyses and policies refer to the definition of what is 'public' in developing economies, such as those of SSA, e.g., public goods, public policies, public ownership, public management – in view of key constraints that weigh on a clear definition of this concept in SSA economies, as well as on a clear distinction of the 'public' vis-à-vis the concept of 'private': in particular, constraints stemming from poverty, from the nexus geography-demography-infrastructure, from historical processes of state formation in SSA and taxation, and from policy externalisation.

Private involvement in utilities has certainly been the subject of a vast critical literature, e.g., inappropriate tariff structure, lack of political will, corruption, among others. The contribution of this article is to highlight a process that has been overlooked in this literature, i.e. the constraints that weigh in poor countries on the building of the concept of 'public', and on its separation with that of 'private'.

The paper is organised as follows. Firstly, it briefly reviews the experience with private involvement in SSA utilities from the 1980s onwards. Secondly, it highlights the mixed outcomes of this involvement and its variations across sectors. Thirdly, it shows that the reforms that fostered private involvement in utilities in fact overlooked the constraints weighing on the nature of the 'public' in SSA poor economies.

2. The 'public' and 'private' involvement in Sub-Saharan African utilities from the 1980s onwards: from privatisation to PPPs and PPIs

The fiscal crisis that affected SSA economies from the 1980s onwards has been induced by a distorted market and export structure, i.e. which is dominated by the export of primary commodities. This fiscal crisis, which was simultaneously a debt crisis, has rapidly become structural (Akyuz and Gore, 2001), as commodities prices are inherently volatile. In the context of the low savings rates that characterise SSA economies, this recurrent price volatility obliged SSA governments to call for external financing, and the drying up of international private financial flows during the 'lost decades' (Easterly, 2001) of the 1980s and 1990s left the international financial institutions (IFIs, the IMF and the World Bank) as the main vectors of financing the fiscal deficits of SSA commodity-dependent economies.

Yet IFIs' financing has been conditional to policy reform, and most SSA governments became dependent on external financial institutions, thus witnessing what may be coined as the 'externalisation' of their policies (Sindzingre, 2017a). The reforms on which the IFIs conditioned their financing have been liberalisation and the allocation to private agents of the ownership and management of large tracts of SSA economies, notably utilities.

2.1. Privatisation

The literature is vast on the respective positive and negative sides of 'public' vs. 'private' ownership. Private ownership is typically viewed by mainstream economics as being more efficient: more competition between private agents is per se positive and must be an objective of public policies, 'big government' distorts competition, and privatisation changes the incentives system, which improves efficiency. On the other hand, privatisation transfers control rights to private interests and eliminates public subsidies, which may induce prices increases and be costly for consumers. Equally, in the presence of market failures, e.g. when conditions are non-competitive (such as decreasing costs), the existence of several firms does not generate more efficiency, and a natural monopoly may be economically justified. The ownership of a utility by the state (such as a state-owned-enterprise/SOE) may thus be justified; privatisation may also apply to a monopoly, and in all cases regulating agencies play here a key role (Megginson and Netter, 2001). In this context, utilities are sensitive examples, as in all countries they constitute crucial public services. In developing countries, however, the utilities that are natural monopolies operate in environments characterised by extended market failure: they may abuse market power while users cannot make another choice, as there are no competitors.

The conceptualisation of the domains of the 'public' vs. the 'private' in SSA put forward by mainstream theories has emphasised the inefficiency of public ownership and management (figure 1). These inefficiencies have been explained via notions such as incentives, collusion (collusive behaviour), information asymmetries, discretion (left in excess to politicians) and corruption (Laffont, 1999; 2005). It is recognised that their separation and therefore the efficiency of public utilities, or privately-owned ones with regulating agencies, are blurred by several constraints that are characteristic of poor SSA economies, notably limited regulatory capacity, limited accountability and limited commitment (Estache and Wren-Lewis, 2009).

Equally, the conceptualisation of these respective domains, 'public' and 'private', has relied on the framework of 'state capture' (Hellman et al., 2000; Bortolotti and Perotti, 2007; Chipkin, 2018 on South Africa). For example, the cases of 'remunicipalisation' in the water sector in SSA, i.e. a return to state ownership, have been analysed as in fact maintaining commercialisation rationalities due to the dominance of private interests that prevent the state from efficiently mediating water production and distribution (as was shown by the example of Malawi, Tchuwa, 2018). Other perspectives have emphasised the notion of predation, or that of extraction: for example, SSA bureaucracies and institutions would be characterised by 'extractive' behaviour (Acemoglu and Robinson, 2012).

At the empirical level, privatisation in SSA has displayed different periods. After independence in the 1960s, most utilities were SOEs, and when put under the pressure of the first stabilisation and adjustment programmes in the 1980s, SSA governments left to privatisation the sectors that were considered as the least 'strategic', e.g. those of consumer goods or tourism. Large SOEs in the power, telecommunications, transport, and water sectors were open to private participation and competition from the 1990s onwards. Yet transactions have been more difficult because of the size and nature of these utilities, which all SSA governments viewed as strategic and having not only economic, but also political and social dimensions: utilities provide goods and services that are part of households consumption baskets, and are also key tools of governments distributive policies (Wegner, 2005).

2.2. Public-Private Partnerships (PPPs) and Private Participation in Infrastructure (PPIs)

In view of the mixed success of the 'first wave' of privatisations in SSA in the 1980s, and also under the influence of the experience in industrialised countries from the 1990s onwards, the relevance of the argument of the natural monopoly has been acknowledged by the IFIs from the 2000s onwards for the situations where the natural monopoly unambiguously applies, i.e. in the cases where the activity is characterised by decreasing costs and increasing returns, but in other cases privatisation of utilities in SSA has remained the preferred policy objective in the academic and policy literature. The emphasis has been put on the regulation of these utilities – be they privately-owned or SOEs -, by a regulating agency. Such regulating agencies would play a key role in the recurrent debates regarding utilities, for example between price-cap regulation and cost of service regulation. The paradigm regarding the concepts of 'public' and 'private' became that of either keeping the natural monopoly or privatisation, both with regulation.

In addition, the reflection on the sector of infrastructure led the World Bank to evolve in regard to privatisation of network utilities and, more than natural monopolies, to emphasise the separation between activities that have different economic characteristics via the notion of the 'unbundling' of activities (World Bank, 2004): network utilities must be horizontally and vertically unbundled, with competitive segments under separate ownership from natural monopoly components (e.g., electricity, railroads, telecommunications). For example, ownership might remain public while operation

might be privatised (examples of sectors being electricity, water, railways, among others).

In the same vein, the contractual arrangement coined as 'public-private partnership' (PPP), which had gained in popularity in industrialised economies from the 1990s onwards, has also been recommended as a model of public-private relationships for developing countries, including SSA – PPPs being defined as 'an agreement between the government and one or more private partners whereby the private partners deliver the service in such a manner that the service delivery objectives of the government are aligned with the profit objectives of the private partners, and where the effectiveness of the alignment depends on a sufficient transfer of risk to the private partners' (Bayliss, 2009). The type of contract governing the rights and obligations of the public and private partners is indeed crucial. The contract organises the modalities of private participation in the service provision, property rights and management: it defines the entities that will bear the risks, defines ownership, the room for manoeuvre for tariffs and the pricing of the service, and the time frame of the partnership.

The choice by the government and the private entity of the contracts that rule their relationships regarding the ownership and management of a utility is here central. Options depend on the respective objectives of the government and the private investor or constructor, on the sectors implied, and, above all, on the question of 'who bears the risk?' The private participation in a project implies that the private entity is at least partially responsible for cost overruns and operator's failure – a risk that necessarily has a financial counterpart for the private entity, and even more if it operates jointly with the public entity, which is likely to have different objectives. Contracts thus vary in terms of duality of responsibilities for the government and the firm, and acceptance of the commercial risk. Examples of contracts are management and lease contracts, 'build-operate-transfer' (BOT), 'build-operate-own' (BOO), concessions, among others (figure 2)².

Equally, in the context of a consensus in the 2000s of international donors that infrastructure has become a key problem in developing countries, and notably in SSA, private public partnerships centred on the sector of infrastructure. IFIs and other development finance institutions thus promoted the notion of 'private participation in infrastructure' (PPI).

2. 3. Additional financial flows towards Sub-Saharan Africa from the 2000s onwards: China and international capital markets

China has gained a prominent importance in SSA from the 2000s onwards, through its trade, investment and cooperation with the continent. In particular, China's state, state-backed enterprises and private firms have contributed to the construction and rehabilitation of crucial infrastructures and utilities across SSA in all sectors – transportation, water, electricity, telecommunications, with Chinese projects being financed by Chinese entities or being only contracts with Chinese firms (e.g. in the construction sector). With the Belt and Road Initiative (launched by China in 2013), China's financing has put an emphasis on transportation (e.g., railways), ports, or

²For more details, see the World Bank PPPs and PPIs websites: e.g., <u>https://ppp.worldbank.org/public-private-partnership/agreements/concessions-bots-dbos; http://ppi.worldbank.org/methodology/glossary</u>

industrial parks (Chen, 2018). For example, hydropower projects constitute a minor part of projects loans in SSA (Brautigam and Hwang, 2019). China is in fact less an investor in SSA than a service provider, notably in the construction sector (Pairault, 2018). The contracts used by Chinese firms that finance SSA utilities have been of the type 'resources-for-infrastructure', i.e. an exchange of Chinese financial flows for primary commodities produced by the SSA country and which China considers as central for its economic growth (e.g., oil, metals) – but Chinese firms also implement projects (finance or contract) in SSA countries that are not resource-rich.

Equally, the 2000s witnessed high international commodity prices, and this contributed to the growth of the many SSA economies that display an export structure in which primary commodities are dominant and to the easing of their fiscal deficits. Hence, after two decades of difficult access to international capital markets since the international debt crisis of the 1980s (excepting large economies, e.g., South Africa, Nigeria), many SSA countries benefitted from an easier access to international capital markets. Many SSA governments issued international bonds (Eurobonds), particularly in order to finance large infrastructure projects, e.g. in the sectors of power, water or transportation: this enabled SSA governments to reduce their dependence on IFIs conditional lending and IFIs externally devised policy reforms.

3. The uneven performance of utilities, the mixed outcomes of private involvement, and the persistence of poor infrastructure in Sub-Saharan Africa

The outcomes of private involvement in utilities have been mixed, however, and the performance of utilities in Sub-Saharan Africa has remained poor, though with high variations across countries and sectors (figure 3).

The sale of utilities to private investors in the water sector has met limited success, but outcomes have been more positive regarding telecommunications. For example, while private investment in SSA has given a significant importance to the power sector, performances in this sector have been uneven: while Kenya or Tanzania appear to fare relatively well, other SSA countries exhibit the worst performances in the world. SSA is the region that displays the largest deficit in access to electricity, with more than one in two people lacking access, and 20 SSA countries having in 2017 the lowest electrification rates in the world. Burundi, Chad, Malawi, the Democratic Republic of the Congo and Niger were the four countries with the lowest electrification rates in 2017 (World Bank, 2019) (figure 4) – which is confirmed by the map of world night lights (figure 5). In the wealthiest economy of SSA, South Africa, the pricing policies and management of the electricity and water sectors have been accompanied by many failures (e.g., shortages), and SOEs in the energy and telecommunication sectors have been viewed as abusing their monopoly power (Robb and Mondliwa, 2018), while private involvement in the power sector in other SSA countries have witnessed successes (such as Zambia³).

³E.g., a parentship between a private entity and donors (e.g. the World Bank) in a project in solar power launched in March 2019. <u>https://www.lusakatimes.com/2019/03/12/president-lungu-commissions-zambias-largest-solar-power-plant-producing-54-megawatts-of-power</u>

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For the World Bank-inspired literature, an explanation of utilities' poor performance is that in SSA the implementation of the private involvement in utilities has in fact often not been fully achieved, and variations in the performance of utilities also stem from countries characteristics such as geography and demography, the income group of the country (low-income economies fare worse than middle-income ones), the size of the power system, and specificities of political systems (lack of political will appear to be crucial for the success of the reform of utilities) (Foster et al., 2017). The mainstream literature (e.g., from the World Bank) still considers that state utilities in SSA are affected by important inefficiencies: e.g., for the power sector, excess transmission and distribution losses, overstaffing costs, bill collection failure and under-pricing (Bacon, 2018), with tariffs that do not always reflect the costs structure (Huenteler et al., 2017).

Yet other World Bank studies are more cautious, and no longer view private ownership as automatically generating economic gains in developing countries (Estrin and Pelletier, 2018). Even the mainstream literature acknowledges that PPPs have not been successful in several cases in developing countries, due, e.g., to excessive profits, or governance issues, such as limited competition for the choice of the private partner or difficult relationships between the latter and the public provider (e.g. of energy) (Leigland, 2018). PPPs appeared with time and practice to be costly devices, sometimes more costly than 'traditional' public procurement, and utilities operated via PPPs did not appear to be indisputably more efficient. The contracts governing the relationships between the public entity and the private partner (concession, BOT, among others) may be a locking-in device for the public contractor, which has difficulties in renegotiating the terms of the contract if it considers that the outcome of the partnership becomes detrimental to the economy of the country or the welfare of its citizens. Equally, the total payment that the public entity has contractually agreed to make to the private partner who has built the utility and taken the associated risk, may in fine appear to be higher than what the state would have spent via traditional public procurement. Likewise, according to the type of contract, private partners within a PPP may enjoy a large room for manoeuvre regarding the increase of the price of their services and access to the infrastructure (e.g., tolls on bridges and roads, access to piped water, etc.), which may have triggered the users' protest (including in developed countries).

Equally, the governance of utilities and functioning of the terms of the contracts between the public and private entities has been uneven. For example, in poor countries, even with the presence of a regulating agency, the increase in prices of a service may not be bearable for the population, and private investors may put an end to the contract (as for the water utility in Mali in the 2000s, where social unrest obliged the government to subsidise the private buyer, who finally left the country, Estache and Wren-Lewis, 2009). For example, in Uganda, in 2005-06 and 2010-12, droughts created difficulties for the private distribution utility relying on a concession contract, and led to a relaxation of the latter's regulatory performance targets, while the extension of the private concession to financially unviable rural areas was a failure, which obliged the government to take the lead regarding rural networks - with donors' financing (Godinho and Eberhard, 2019a). On the other hand, some countries witnessed positive performances in the power sector: e.g., in Kenya from the 1990s onwards and under the influence of donors, regulatory functions were separated from commercial activities and with tariffs reflecting costs, independent regulation was reinforced, and in parallel with

partial privatisation of the generation company, the state has remained an important investor and expanded electrification (Godinho and Eberhard, 2019b).

4. The constraints weighing on the nature of the 'public' in Sub-Saharan African low-income economies

For a privatisation to be effective, for a theory of a utility (as a private entity, a private one with regulation, or as a public one, e.g. a 'natural' monopoly) to be accurate, one must have a full understanding of the concepts at stake: notably the concepts of the 'public' and that of the 'private' in the dichotomy public-private – public policies, public good vs. a private good, public provision vs. private one.

4.1. The variations in time and space of the concept of 'public' (public policies or ownership)

Institutions, norms and values are historical and path-dependent phenomena and those referring to what should be 'public' or 'private' at a given time and territory differ across time and space, e.g., in France, United Kingdom or East Asia. The concept of 'public' and that of 'private' – and what falls within the 'public' or 'state' domains, in contrast with what falls within the private domain – depend on path dependent processes.

Different parts of the developing world have constructed different paradigms of states, and thus of public policies, public goods and public provision of goods and services. This can be read in the significant variations across comparable countries of the tax ratio. For example, for some countries, goods such as security (police, prisons, social security, etc), public health, education, transportation, etc, are considered as being provided more efficiently by private agents and firms, whereas for other countries these are typically public goods (e.g., some European countries), even if this status of public goods negatively affects the profitability of their provision, because as public goods governments give them other objectives than profitability (e.g. maintaining the continuity of the territory, equity among citizens, etc). For example, the tax ratio (revenue/GDP) of the US in 2016 was thus 18.7% while, e.g., that of France was 44.2% and that of Norway 44.9%⁴.

Other parts of the developing world have devised other conceptions, which are variations on views on public property (nationalisation) and effectiveness of public policies (e.g., growth-oriented policies). For example, the so-called Asian 'developmental' states, which witnessed spectacular growth from the 1970s onwards, relied on low tax ratios, but they implemented policies that heavily intervened in the economy (Amsden, 1989; Wade, 1990). Rather than nationalising the economy, governments intervened in the economy via policies that generated incentives for economic agents to create wealth (e.g. within a policy framework assuming that exports induce growth) (Huff et al., 2001).

⁴Source: World Bank World Development Indicators database: <u>http://wdi.worldbank.org/table/4.12</u>

4.2. A first series of constraints weighing on the concept of 'public' in SSA lowincome countries: poverty, geography, state formation, externalisation of policies

Yet the concept of 'public' in SSA low-income countries does not necessarily correspond to the concept implied by the 'public-private' dichotomy or to the respective efficiency of 'public' vs. private ownership or management, which policymakers and theoreticians of privatisation elaborated with industrialised economies and old democracies of the Western world as a conceptual background. Industrial country-inspired theories of the state and the public in SSA that have underlain the construction of administrations and large utilities may have been inaccurate given the history and process of state formation after independence, and have overlooked the constraints these have induced in many SSA economies.

Regarding the concept of 'public', a key constraint that characterises low-income countries is that of poverty and the vicious circles poverty entails, as poverty has economic effects of its own. Poor countries typically have lower revenues/GDP ratios than high-income countries (the so-called 'Wagner law') (Besley and Persson, 2014). The tax ratio of many SSA low-income economies revolves around 10-20% of GDP, with even lower ratios for some countries (e.g., Nigeria). Such low tax ratios severely hamper the capacity of states to provide public goods and services, and have been an argument for the World Bank to recommend the private provision of public services, e.g. in health and education (World Bank, 2003). Poverty and low public revenues also constitute a case for relying on domestic and foreign investors for the rehabilitation of utilities. Yet such a poverty and state limited capacity have a negative impact on the representations that citizens have of state legitimacy, particularly in aid-dependent countries, and on the legitimacy of taxation (Kaldor, 1963): this may trigger vicious circles of low tax, low provision of public goods, and low state legitimacy (Sindzingre, 2007). Equally, utilities do not function in isolation, and be they public or privately operated, they require for their effectiveness the presence of 'complementary' public goods, e.g. security, health, education, transportation, electricity, telecommunication, which are provided by other utilities. In low-income countries these other utilities may be inefficient and the complementarities cannot operate. Negative externalities, particularly in low-income countries, may have negative impacts on the efficiency of a utility. Equally, poverty has an effect *per se* on public utilities, as in contexts of poverty utilities necessarily have social objectives in addition to efficiency ones: these social objectives are explicitly demanded by citizens and constitute significant constraints on public policies.

Geography, and the associated issue of demography, have been under-addressed in regard to their impact on the functioning of states and public entities, as these constitute a constraint that weigh on utilities, beyond issues of public vs. private ownership or management. Africa is by far the largest continent in the world (Krause, nd, figure 6), which implies a large proportion of landlocked countries. This also simultaneously implies very large transaction and connection costs and very large needs in public services. Low demography with adverse geography (e.g. being landlocked) and poor infrastructure imply high transportation costs, and therefore high costs in the collection of revenues, including the payments for the services provided by utilities. The geography of SSA affects the balance between revenue and redistribution, and hence the viability of states in low-income countries (Herbst, 2000), including the profitability and viability of public utilities, especially in sectors that cannot be easily digitalised and

remotely operated, such as water. The inherent difficulty of taxation induced by adverse geography and low demography has historically induced public policies centred on 'easy-to tax' schemes, e.g. a preference for the collecting of revenue from external trade (Aizenman and Jinjarak, 2009). The collection of due payments is confronted with obstacles; the maintaining of an administration in order to collect payments may thus be costly in regard to expected gains. Geography and demography may thus be the ingredients of trapping processes: low taxation levels and low redistribution capacity, low capacity of utilities to collect the service charges, and thus the low performance of utilities and infrastructures, hence impeding the broad performance of the economy and, *in fine*, in vicious circle, low taxation capacities.

From the 1980s onwards - the beginning of the stabilisation and adjustment programmes implemented by the IFIs in SSA -, SSA states and administrations have been viewed in negative terms by mainstream academic studies, as well as by international financial institutions and donors, notably the World Bank (e.g., with the 'Berg report', World Bank, 1981). Theories of public choice in political science and public choice-inspired political economy (e.g., Bates, 1988; 1997) have provided the lenses for the theorisation of SSA utilities: public ownership and public management served vested interests and the persevering of the state in predation and kleptocracy. Economic conceptions of the poor outcomes of utilities have thus relied on concepts such as rent-seeking (Krueger, 1974), collusion, corruption, vested interests, interest groups, institutional weaknesses, state capture, which is to say, negative terms and hence normative ones - with these norms moreover mainly conceived in terms of measurable indicators of effectiveness. Similarly, the ineffectiveness of public policies and regulation provided by the state has been explained by the lack of a meta-institution capable of enforcement, situated above the public institution enacting a given public policy, and which would constrain this institution and the associated policy, and give them credibility (Acemoglu, 2003). Academic studies as well as donors have thus fostered, from the 1990s onwards, the establishment of 'agencies of restraint' in developing countries, particularly in SSA (Collier, 1991). Such agencies have been assumed to be 'autonomous' and to function in parallel with ministries and administrations, with the mission of monitoring and restraining state decisions, policies and administrations' behaviour - for example, having a preeminent competence in the domains of taxation, privatisation or the fight against corruption.

However, the experience of these (often IMF-driven) 'agencies of restraint' has been mixed. In the several SSA countries where such agencies have been implemented from the 1990s onwards, these agencies have not contributed to an enhanced efficiency and credibility of public policies, e.g., in the domains of privatisation, anti-corruption policies or tax collection (e.g., under the form of autonomous 'revenue authorities', Kloeden, 2011; Ebeke et al., 2016). Though not originating from the theory of 'agencies of restraint', the regulation agencies that have been associated with the movement towards PPPs or PPIs from the 1990s onwards have been affected in SSA by comparable issues. Indeed, in poor economies that are characterised by weak democracies or by authoritarian regimes, these types of agencies are confronted with problems of accountability, which in fact reflect the difficulty for them to be genuinely 'autonomous' vis-à-vis political rulers. Public institutions in post-colonial states have difficulties in being autonomous in political regimes that have been historically built on personal and authoritarian rule, weak rule of law, constitutions that do not generate an

'impersonal' enforcement that is independent from rulers – though the latter is a condition for such an 'autonomy' (Persson and Tabellini, 2000; Przeworski, 2003) – and consequently affected by political instability (Posner and Young, 2007). This very political instability creates a short time frame and an environment of permanent risk for economic agents, which reduce incentives for 'autonomous' decisions. The individuals who work in these agencies remain dependent on decisions of the executive and hence do not have the capacity to 'restrain' its policies, e.g. the predation of a profitable utility. In developing countries regulators have indeed seldom been 'independent', and the impact of regulation agencies has been particularly limited in regard to the regulation of state-owned enterprises (Rodriguez Pardina and Shiro, 2018).

These normative analyses regarding the optimal ownership and management of utilities, which usually contrast the categories of 'public' vs. 'private', have limited the understanding of the historical constraints weighing on the phenomena defined as 'public' or 'private' in SSA (Frankema and Waijenburg, 2014 on taxation in SSA). In SSA, and even more so in its poorer countries, states coexist with other membership institutions, e.g., generated by territories, occupations, lineages, and language, among others, and the latter' respective hierarchies (and loyalties) cross those generated by the state (Mahieu, 1990). Due to the limited state capacity that characterises poor countries, these 'low-level' memberships and loyalties may be more relevant for individuals than 'higher-level' affiliations, e.g., with an abstract entity such as 'the state' and its property rights. When lower-level affiliations are more relevant than those to the state, groups embodying these lower-level affiliations may have greater rights on various types of property, e.g. land, resources, individuals, among others, even if the state (or a private firm) de jure have the sole rights on them, including the use of a service (e.g. water or electricity). The identification of the 'residual claimant' in the operation of a utility may therefore be difficult, though, as emphasised by textbook economics, this identification of final responsibility is crucial for the efficiency of the utility. Equally, these normative analyses have overlooked the importance of the historical building by citizens over time of representations of the state and the private sector and notably their legitimacy, in particular the legitimacy of the state's property rights, its legitimacy to levy taxes or fees for a given good or service (e.g. electricity, water, etc), and the legitimacy for citizens of not paying this fee if they consider that the state is illegitimate or 'privatised' by private individuals or groups, or if they consider that the (public or private) utility does not provide the expected service. Normative analyses have also prevented the apprehending of non-measurable mechanisms and concepts, e.g. the representations underlying the formation and the persistence of given institutions, their combination with others and their existence within contexts (Sindzingre, 2017b). Trapping mechanisms may underlie these apparent 'dysfunctions' (Bowles, 2006).

The externalisation of domestic policies to entities such as the IFIs via conditional lending has inherently weakened SSA states: the key point is that these policies were inspired by external entities, which are out of the control of SSA governments, and similarly their conceptual framework has been difficult to internalise by these governments. This policy externalisation, whatever the content and the relevance of the policy, may be viewed as an important cause of the ineffectiveness of these policies in SSA from the 1980s onwards. The normative analyses of mainstream economics regarding rent-seeking, state capture, or collusion have thus overlooked the inherently difficult position of SSA states, between a domestic history of weakly consolidated

states capacity and legitimacy on the one hand, and the financial constraint stemming from dependence on volatile commodity prices and policies externalised to the IFIs on the other.

4.3. Other constraints on the concept of 'public': characterising the 'private'?

As argued by Evans (1992) in line with the classical literature on the complementarities between institutions and development (e.g., Weber, Polanyi, Hirschman), efficient private markets are supported by capable and efficient states, and weak states weaken private sectors. Mechanisms of such reciprocal relationships have varied across history and countries. Historically, it is the policies and contract enforcement by public authorities and institutions that have supported the emergence of efficient commercial institutions in Europe such as fairs and markets (Edwards and Ogilvie, 2012 on the Champagne fairs of the 12th-13th centuries) and the successful industries and technologies of advanced economies have 'debunked the myth of the public vs. private sector' and relied on state support (Mazzuccato, 2013). For partnerships of the 'private' with the 'public' to be welfare-enhancing, state capacity is thus crucial. For example, PPPs are complex arrangements and require governments to plan contingencies and enforce contracts that are of a long-term nature (Trebilcock and Rosenstock, 2015).

Regarding the concept of 'private', the ownership or rehabilitation of utilities inherently imply large financial flows, and therefore in SSA low-income countries the number of investors originating from inside the country of the utility or from other SSA countries is limited – though it is not negligible, as shown by the significant size of FDI in SSA economies that comes from within SSA (UNCTAD, 2019) and the publicised success stories of some SSA investors having built their fortune from construction, telecommunications or industry. The high inequality, with few rich individuals and a large mass of poor ones at the subsistence level, which characterises SSA economies, confirms this limited number of potential local investors. Middle-income economies may be richer but are characterised by higher inequality⁵. In addition to the arguments of natural monopoly, in the cases these are relevant, this creates incentives for either keeping an utility within state ownership or privatisation under a regulating agency to international investors, mainly from the US, European countries and China, with smaller flows from other countries (India, Russia, Turkey, etc.) (UNCTAD, 2019). When utilities are kept within public ownership, their profitability faces the many abovementioned constraints (e.g., the financing may be achieved by foreign aid, multilateral or regional development banks, bilateral aid agencies, etc). Equally, the complex nature of the 'private' in private involvement in utilities is compounded by the fact that since the 2010s, many PPPs have been driven by an increased availability of global financial capital, with infrastructure projects being viewed as a financial asset class, among others types of assets, by international investors, development finance institutions and commercial banks (Bayliss and Waeyenberge, 2018).

Still at the empirical level, the modalities of financing SSA utilities practiced by Chinese firms have ambiguous effects. On the positive side, they are beneficial to SSA economies because the existence of well-functioning utilities is crucial for the process

⁵E.g., Ginis of 69.5 for South Africa, 59;8 for Namibia, 55 for Angola, 54.9 for Zambia, 49.5 for Botswana, 45.9 for Kenya, 45.8 for Nigeria. Source: World Income Inequality Database: <u>https://www.wider.unu.edu/project/wiid-world-income-inequality-database</u>, WIID4, December 2018.

of industrialisation and structural transformation, and hence a key determinant of development – and the performance of Chinese-financed utilities is comparable to those financed by other foreign investors or contractors (Brautigam, 2019). Yet on a more negative side, they may lock these SSA economies into the production and export of primary commodities, which, in the long term, is not beneficial to SSA growth (Sindzingre, 2016). In addition, the utilities financed by China may generate levels of indebtedness for SSA states, which may appear unsustainable when repayments will be due (Foster et al., 2009).

Similarly, the borrowing on international capital markets by SSA governments via bonds is associated with risks, and the financing of infrastructure via bonds may have ambiguous impacts: in particular the amounts of the repayment of the debt they represent is shaped by the fluctuations of exchange rates between SSA currencies and those in which the bonds have been issued (US dollars, euros) – hence on the fluctuations of 'market sentiments' and international forces on which SSA governments have a limited control (IMF, 2019).

At a more theoretical level, whatever the origins of the investors, the dimension of risk that is inherent in poor economies has been under-conceptualised by mainstream economic analyses of utilities. For utilities in the water sector, for example, private investors have been hesitant, in view of the risks involved in SSA poor economies where end-users cannot afford to pay prices that would allow a commercial rate of return, and governments and donors have often shaped contracts in order to reduce the risk for the private sector, as they wished to encourage investment (Bayliss, 2009). Likewise, the commercialisation of water services in Zambia has been confronted with investment cuts and price increases (Dagdeviren, 2008). Over the 1990-2018 period, electricity has indeed represented the greatest share of PPI projects, with projects in the water sector representing the lowest share (figure 7). The example of the short-lived privatisation of water in Mali in the 2000s highlights that while its benefits have been unevenly distributed among stakeholders (foreign investors and workers benefited but not local poor rural users), the owners of the utility captured a large share of the rent, as they controlled the information on costs for intermediate inputs (Estache and Grifell-Tatje, 2013).

The mainstream theory of contract incompleteness and the implicit underlying assumption of methodological individualism may be inaccurate for public services in poor countries where the state keeps its political and distributional role (Dagdeviren and Robertson, 2013 on water services in Ghana). In addition, in a principal-agent perspective, particularly in poor countries with limited state consolidation and democracy, the state may pursue certain public policy objectives while individual agents within the state may pursue different, private ones, which may negatively affect the accountability dimension in PPPs contracts (Poulton and Macartney, 2012).

Equally, the private involvement regulated by a credible agency must be backed by a strong political commitment, because the regulation of utilities aims not only at managing risks but also at achieving social objectives (e.g., services in remote areas, public health and safety) (Aryeetey and Asantewah Ahene, 2005 on Ghana), which underscores that this private involvement, be it local or foreign, is always shaped by domestic politics.

A more positive note may be the 'revolution' of telecommunications that characterises the 21^{st} century: it may modify these processes and be the vector of efficiency in the financing, operation and setting of tariffs of utilities, and it may also modify the nature of and relationships between the 'public' and the 'private' in SSA economies. Changing technologies in telecommunications may improve transparency and reduction in information and transaction costs regarding payments for a service, as is shown by successful mobile banking and payment experiences (e.g., in Kenya and Tanzania) – and possibly by the development of blockchains, which are said to secure the transparency of payments and property rights.

In fine, policy reforms that have impinged on the respective domains of the 'public' and the 'private' may have relied on inappropriate assumptions in the case of SSA low-income countries. In poor SSA economies, policies may be more relevant when they focus on the analysis of what can and should be public goods when economies are poor (Ramazzotti, 2018). Likewise, policies may be more relevant when they focus on the reinforcing of state capacity regarding the provision of these public goods.

5. Conclusion

This article has examined utilities in Sub-Saharan Africa and their evolution under the paradigm of privatisation, which has dominated economic theories and policies from the 1980s onwards. It has underscored the uneven outcomes of private involvement in utilities in SSA, with, apart from significant successes, utilities in many SSA economies often remaining dysfunctional.

Many factors have been put forward in the economic literature in order to explain the situation of SSA utilities, notably – and in addition to the technical imperfections of contracts – the inherent inefficiencies of public utilities: the 'public' sector remains opposed to the 'private' one, with negative connotations for the former, and positive ones for the latter. The contribution of this article has been to choose a different angle, i.e. the analysis of the concept of 'public' – and subsequently that of 'private'. With low-income SSA economies as a background, it has shown that the mixed successes of utilities stem less from the abovementioned simplistic oppositions than from inaccurate theoretical analyses of the concept of 'public' itself, and of the constraints that weigh on its nature: in particular, the very fact that these economies are poor, their geography, and the historical specificities of the processes of state formation in post-independence SSA economies.

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Annexes

Figure 1: Differences between private and public sector firms



Source: Rodriguez Pardina and Schiro (2018).



Source: World Bank, PPP legal resource center: <u>https://ppp.worldbank.org/public-private-partnership/agreements</u>



Figure 3: Selected quantitative indicators of infrastructure, 2015

Source: Barhoumi et al. (2018).



Figure 4: Share of Population with Access to Electricity in 2017

Source: World Bank (2019).





Source: NASA Earth Observatory. https://earthobservatory.nasa.gov/images/90008/night-light-maps-open-up-new-applications



Figure 6: The 'true' size of Africa

Source: Kai Krause: http://kai.sub.blue/en/africa.html

Subsector	Project Count	Total Investment (USD million)
Airports	16	1,919
Electricity	263	43,355
ІСТ	89	8,984
Natural Gas	7	2,249
Ports	58	12,825
Railways	22	5,590
Roads	17	3,368
Water and sewerage	32	779

Figure 7: Private participation in infrastructure, Sub-Saharan Africa, 1990-2018

Source: World Bank, PPI database: <u>http://ppi.worldbank.org/snapshots/region/sub-</u>saharan-africa