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MARCH
2019

ECONOMIC PERSPECTIVES ON RECOMMUNALIZATION IN THE ENERGY SECTOR

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The consequences and legacy of the Washington Consensus

When privatization and deregulation of public infrastructure services became the dominant paradigm of public policy in the 1980s and 1990s, it was considered an adequate measure to increase efficiency, enable consumer choice, and foster a cultural change towards more competitive practices among the management of utilities. In industrialized countries, governments influenced by the Chicago school of economics questioned public ownership and monopolies. In the developing world, institutions such as the International Monetary Fund (IMF) and the World Bank often linked the approval of new credit lines for countries to austerity measures, privatization of public enterprises, and financial liberalization – a practice often labelled as conditionality.

Following **John Williamson** (1990), these policy prescriptions are often called the “Washington Consensus”,

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In retrospect, the move towards market principles and privatization in infrastructure policies has not yielded regulatory convergence towards a liberalized system architecture. On the contrary, different models persist.

First, discrepancies between the privatizations of assets in key infrastructure can be observed. In some sectors, liberalization has succeeded as the dominant design, whereas other infrastructure services have remained in public ownership and under strict government control.

Second, an analysis of the electricity sector shows that a broad spectrum of diverse regulatory models co-exists – across world regions, countries, and even individual states.

Third, there is a recent wave of recommunalizations that may be interpreted as a backlash to free-market principles in infrastructure services. In these bottom-up initiatives, citizens intend to reclaim (at least partial) control of public infrastructure services.

After privatization and liberalization, governments and regulatory agencies face the challenge of setting appropriate incentive structures to motivate private enterprises to not only focus on shareholder value, but to take social objectives into account.

Recommunalization may accelerate the transformation of the energy sector towards decentralized generation and have positive macroeconomic effects on local value creation.

With the energy transformation, multi-level stakeholders – from individuals, neighborhoods, urban quarters to civil society organizations, associations and NGOs – have become vocal advocates of a new decentralized and renewable energy system.

because IMF, World Bank, the US government and think tanks such as the Peterson Institute for International Economics are located in the US American capital. This consensus includes two elements relevant to this analysis. First, privatizations are the transfer of ownership from the state (or any type of public entity, such as a municipality, regional government, etc.) to a private enterprise or a consortium of private individuals or companies: “The main rationale for privatization is the belief that private industry is managed more efficiently than state enterprises, because of the more direct incentives faced by a manager who either has a direct personal stake in the profits of an enterprise or else is accountable to those who do”, according to Williamson (ibid.). By contrast, liberalization – or “deregulation” – means the introduction of competitive elements in the design of a formerly state-controlled, often vertically integrated industry sector. The terminology of “deregulation” may be misleading, because

liberalized markets are most often also subject to regulatory interventions by a state authority.

In practice, privatizations can occur without liberalization, for example when state-owned enterprises are sold to foreign investors that continue to benefit from a (regulated) monopoly. Similarly, a liberalized market can be established among publicly owned enterprises, for example in the electricity wholesale market in India, to introduce incentives for efficiency and cost-cutting among utilities. However, in most cases privatization and liberalization coincide.

Neo-liberal macroeconomic policy seemed to become the global status quo in the 1990s, with regions such as the European Union adopting it as the basis for a single market across national boundaries and national legislations, establishing regulatory agencies in control of market design and competition policy.

In retrospect, the move towards market principles and privatization in infrastructure policies has not yielded regulatory convergence towards a liberalized system architecture. On the contrary, different models can be observed. First, in some infrastructure sectors liberalization has succeeded as the dominant design, whereas other infrastructure services have by and large remained in public ownership and under strict government control. Second, an analysis of the electricity sector shows that a broad spectrum of diverse regulatory models co-exists – across world regions, countries, and even individual states, such as in the USA. And, finally, there is

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a recent wave of recomunalizations that may be interpreted as a backlash to free-market principles in infrastructure services. In these bottom-up initiatives, citizens intend to reclaim (at least partial) control of public infrastructure services. These initiatives operate in a larger context of private individuals and associations entering the electricity sector in a new form of dispersed private ownership.

Observation 1: Infrastructure services across the pendulum of public/ private ownership and liberalization/ regulation

In 1992, Mary M. Shirley, the chief of the public sector management and private sector development division at the World Bank, stated in the *Fordham Law Review*: “There are virtually no limits on what can be privatized. This is evidenced by the number of enterprises recently privatized.”

Despite that optimistic view, discrepancies between the privatizations of assets in key infrastructure sectors can be observed. On the one side of the spectrum, privatization and the subsequent introduction of free-market principles in

sectors such as telecommunications and aviation, ending national telephony monopolies and exposing flagship airlines to domestic and international competition, led to positive effects regarding consumer choice and prices. Low-cost carriers, private mobile phone operators and new entrants in the segment of Voice-over-Internet-Protocol (VoIP) communications have fundamentally disrupted these two sectors and have encouraged incumbents such as Deutsche Telekom, Telefónica or British Telecom to become **more innovative, customer-oriented and lean**.

On the other side of the spectrum, the provision of water still remains in public ownership in most markets and jurisdictions, or has yielded negative results in the wake of privatizations, so that many municipalities return to full control. “The jury is out on whether privatization is a worldwide failure, with academics citing cities like Guayaquil in Ecuador, Bucharest in Romania and some in Colombia, Morocco and Senegal as successes. Opponents say privatization in Bolivia, Tanzania, Indonesia and in parts of Europe has failed”, states **John Vidal** in the *Guardian* (2015).

Other types of infrastructure services, such as postal services, rail transportation, waste management or municipal public transport, exhibit a great diversity of regulatory designs with respect to ownership structure and policy framework. In many jurisdictions, certain parts of these infrastructure services have been liberalized and privatized, such as parcel delivery and express mail in postal services. In this case, they co-exist with the provision of conventional letters by local or national incumbents operating under a universal service obligation. In many sectors, the value chain is split into competitive and regulated segments, especially if a natural monopoly is involved. For example, the UK’s rail network was sold off to private investors as “Railtrack” in 1996, was renationalized in 2001 under the name “Network Rail”, and may head towards a mixed system, consisting of “formal joint ventures between private franchises and Network Rail on some routes, so that eventually operators can take more responsibility for the tracks”, according to **Gill Plimmer and Jonathan Ford** in the *Financial Times* (2018).

A similar variety of ownership models and regulatory systems can be observed in the electricity supply industry. Compared to, say, telecommunications or aviation, where sector regulation converges in most countries, no standard electricity market design has emerged yet on a global scale, which leads to Observation 2.

Observation 2: The continuing diversity of regulatory models in the electricity sector

Electricity sector regulation hovers between the three dimensions of the Energy Policy Triangle: sustainability, efficiency/affordability, and security of supply.

Privatization and liberalization may increase affordability and efficiency, but in a competitive environment more expen-

sive, carbon-neutral generation technologies may not evolve as quickly as needed for ambitious emission targets. Climate change and the consequences of global warming induce a strong regulatory push towards carbon-neutral generation technologies in a system that globally still relies on fossil fuels by 67 percent, according to the [International Energy Agency](#) (data for 2016). If the system moves rapidly to decentralized supply with intermittent renewable energy intake from sources like wind and solar, grid stability may be jeopardized. For example, German transmission system operator TenneT [reports](#) an increase of actions to stabilize the grid from two interventions on two days in 2003 to 1,046 interventions on 340 days in 2016. As a critical infrastructure service, an uninterrupted provision of electricity is a fundamental prerequisite of industrialized economies and overall society.

In addition, the Federal Government of Germany [estimates](#) that the costs for the energy transition will amount to EUR 550 billion until mid-21st century, approximately half a percent of the annual gross domestic product, all of which has to be paid by German citizens and electricity consumers.

Electricity sector regulation has to navigate in this complex set of requirements and find trade-offs between the three dimensions of the Energy Policy Triangle.

Many countries and regions have chosen to follow the path of liberalization, including competition in generation and in retail, a wholesale market that provides a platform for trading, and complemented by regulatory instruments that promote renewable energies and enhance security of supply. The European Union's internal energy market has half a billion customers that benefit from retail choice. The United States provide a more diverse regulatory landscape, with some states and regions, especially in the North East and in Texas, following free-market principles, whereas other states still pursue a more traditional form of regulation with vertically integrated utilities and no retail choice. According to a [report](#) by the National Renewable Energy Laboratory (2016, p. 9), between 1998 and 2001 around a fifth of the country's generation capacity was sold or transferred ownership.

Liberalized electricity markets have also been established in countries like Australia and New Zealand, in some Latin American countries and, most recently, in Singapore and Japan. Other countries have introduced wholesale power markets, such as in South Africa in 1995, India in 2003, the Russian Federation in 2011 or Turkey in 2013, according to a [survey](#) by the World Bank. However, a large part of the world's population is still unaffected by free-market policies, including China and large parts of South Asia, South-East Asia and Africa.

After privatization and liberalization, governments and regulatory agencies face the challenge of setting appropriate incentive structures to motivate private enterprises to not only focus on shareholder value, but to take social objectives into account. In some countries and regions that followed the path of liberalization, a backlash against free-market pol-

icies can be observed, similar to the renationalizations that occurred in water supply and, for instance, in the UK's rail transport network, as described in Observation 1. One of the first countries to reverse the World Bank's privatization doctrine in Latin America was the Dominican Republic. In 2003, the country's government renationalized two distribution utilities previously acquired by Spanish utility Union Fenosa (see also the comments on the process on page 10 of a related [World Bank report](#)).

[David Hall, Emanuele Lobina and Robin de la Motte](#) (2005) state that in developing countries "the process of privatization in water and energy has proved widely unpopular and encountered strong political opposition. [...] Local civil society has successfully mobilized highly effective political activity, its opposition being based on the perceived conflicts between privatizations and equity, and over the role of the state and the community in these sectors."

In many industrialized countries, the backlash against privatizations has led to recommunalizations of power distribution networks. Between 2005 and 2016, 139 new municipal energy utilities were founded, according to a [study by the Wuppertal Institute](#), with a peak of 28 new municipal energy utilities in 2012. Many recommunalizations in Germany could be initiated because of the expiry of grid concession contracts with private operators. The newspaper [Frankfurter Allgemeine Zeitung](#) [reports](#) that from 2010 to 2015 around half of all local grid concessions expired. Between 2007 and

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2015, 234 municipalities withdrew concessions of electricity and gas networks from their previously private operators, according to a study by VKU, the German association of municipal enterprises (*ibid.*).

Returning infrastructure assets into public ownership is part of a larger movement of consumer empowerment that can be observed across all parts of the energy value chain.

Observation 3: Recommunalization as part of the wider movement of consumer empowerment

The two most prominent cases of recommunalization in Germany have taken place in Hamburg and Berlin, where Swedish energy utility Vattenfall lost its contracts.

In total, 600,000 Berliners, or 83 percent of the electorate, [voted in favor of recommunalization](#) in a referendum that was held in 2013. After lengthy legal disputes with the owner of the Berlin power distribution grid, the [Berlin Senate announced](#) in early March 2019 that the state-owned company Berlin Energie will be awarded the contract for the power grid license and will therefore be responsible for the grid operation of the Berlin power grid for the next twenty years. The grid is to be taken over from Swedish energy company Vattenfall, which operated the distribution network with its subsidiary Stromnetz Ber-

lin for the past twenty years. According to an [article in local newspaper Berliner Zeitung](#), the purchase price may amount to EUR 1.5 billion. A similar recomunalization [took place in Hamburg in 2014](#), when the city purchased the local electricity grid from Vattenfall for EUR 610 million.

Recommunalization is part of a larger movement of consumer empowerment. In Germany, around 1.6 million households participate actively in micro-generation via photovoltaic panels, according to a [study by the Öko-Institut](#). They are equipped with 61,000 battery units and around 400 MWh storage capacity (ibid.).

Germany's 850 energy associations have around 180,000 members, according to the [Bundesgeschäftsstelle Energiegenossenschaften](#). In the [last survey](#) of the Bundesgeschäftsstelle in 2015, the average financial participation of each member amounted to around EUR 3,650. While the creation of energy associations reached its peak in 2011 with 167 new associations and has since then been declining (ibid.), the urban movement of MieterStrom ("tenants' energy") is still on the rise. In Germany, 54 percent of all residents [live in rented apartments](#). Even if inhabitants have no access to private rooftops to install their own solar panels, they can participate in MieterStrom, often in co-operation with the municipal utility. In 2018, almost 17 MWpeak of solar tenant electricity of about 530 realized projects and around 400 planned projects [were recorded](#). The existing installations supplied around 10,000 residential units with solar tenant electricity (ibid.).

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In rural areas, bioenergy villages strive for energy autonomy, often with combined heat and power (CHP) plants fueled by local biomass, and sometimes complemented by PV and solar thermal panels. As of March 2019, [147 communities](#) are registered as bioenergy villages in Germany. Villagers define their local energy transformation trajectory, for example by [integrating public charging stations](#) for electric vehicles, or – like the award-winning bioenergy community [Willebadessen in Northrhine-Westfalia](#) – converting street lamps to LEDs.

Empowerment in the energy sector hence ranges from home-owners with PV panels on their rooftops, private individuals financially participating in energy associations, tenants of urban multi-family dwellings engaging in MieterStrom, rural residents establishing bioenergy villages, to communal authorities reclaiming their distribution grid.

Recommunalization may accelerate the transformation of the energy sector towards decentralized generation and have positive macroeconomic effects on local value creation, as [Martin T. W. Rosenfeld comments](#) (authors' translation): "With the support of municipal utilities, the transition to decentralized energy production would be easier to achieve, which would also increase local employment opportunities. As far as energy generation has been done outside of a mu-

nicipality, of course, more local jobs are associated with decentralized energy production."

The academic literature on privatizations and recomunalizations provides a differentiated perspective and links the advantages of private versus public ownership to individual incentives of stakeholders and incomplete contracts.

Economic perspectives on recommunalization in the energy sector

Recommunalization involves multiple stakeholders with diverging goals and motivations, in particular the general public and political decision-makers in the municipalities.

Researchers of the Department of Energy Systems of the Technical University Berlin [interviewed more than 2,000 voters](#) participating in the referendum on 3 November 2013 on their decision to vote and their expectations of a Berlin municipal utility. The aim of the survey was to gain a better understanding of the voters' attitude towards the goals of the Berlin energy roundtable ("Berliner Energietisch"), an independent organization of NGOs and local initiatives, and the Berlin Senate.

The proponents of the bill mention as the most important goals the reduction of electricity prices (71.4 percent average approval), the introduction of social tariffs for low-income households (71.9 percent) and a more direct participation in the form of a customer advisory board (72.9 percent). Offers for energetic refurbishment of buildings (69.9 percent) and for energy saving (66.8 percent) are also mentioned. The goal to sell exclusively regionally produced green electricity finds less approval with 43.0 percent. Only 10.8 percent of the voters see the revival of the old municipal utility's Bewag brand as a reason in the referendum (ibid.). With regard to the electoral structure, the lower the personal income, the higher the agreement to the suggestion of the Berliner Energietisch: 93.0 percent of recipients of a net monthly income below EUR 1,000 approve the recommunalization, compared to 70.7 percent for the income group over EUR 5,000 (ibid.).

The poll suggests that Berlin's voters focus on tariffs and influence in the decision process, with less emphasis on environmental objectives.

A survey carried out by Thomas Lenk, Oliver Rottmann and Romy Albrecht among municipal decision-makers suggests that the motivation of municipalities tends towards similar objectives (as quoted in an [overview of recommunalization studies](#) by Christina Schäfer and Ulf Papenfuß): When exploring reasons for recommunalization of energy supply, 80.6 percent of the respondents stated that their goal is more control and preserving municipal influence, whereas 73.4 percent of the respondents associate the goal of revenue generation with recommunalization. In a longer-term perspective, 53.8 percent of municipalities intend to increase their revenue via recommunalization over time and want to sup-

port deficient sectors with the revenues of the energy sector. Lower energy prices for citizens and ecological targets were less important, with 37.9 and 33.9 percent, respectively.

In an **interview with German newspaper Frankfurter Allgemeine Zeitung**, Hans-Joachim Reck, the head of the German association of municipal enterprises VKU, is quoted (authors' translation): "It has become clear that privatizations have not always produced better results. Some municipalities want to undo them therefore again to get more influence on the decisions on the spot. [...] The re-municipalized companies can also be a source of income. It can be considered positive if municipalities generate revenue in this way, which then, for example, also benefits public transport."

Bearing these insights in mind, could re-communalization lead to the same inefficiencies that motivated scholars and politicians to promote privatizations under the doctrine of the Washington Consensus?

The major criticism of privatizations focuses on a misalignment between public and private preferences, in particular the "private provider's preference for profit versus the public interest in access and service quality", according to **Mildred E. Warner** (2017). Taking the above-stated preferences of municipal decision-makers into account, this argument also may hold true for public ownership, though.

Warner's argument is reinforced by the theory of incomplete contracts. Oliver Hart, Andrei Shleifer and Robert W. Vishny state in their **reflections on the privatization of prisons**: "The assumption of contractual incompleteness is not hard to motivate once it is recognized that the quality of service the government wants often cannot be fully specified. Indeed, critics of privatization often argue that private contractors would cut quality in the process of cutting costs because contracts do not adequately guard against this possibility." **Felix Höffler** argues that "if the subject of regulation is well contractible and judicially verifiable, then the benefits of more efficient incentives within a private organization will materialize. But if additional items that are more difficult to contractually regulate (such as quality, or responsibility for quality reductions) are important, this no longer necessarily applies. After all, private companies will then tend to reduce costs at the expense of quality, whereas public companies do not have this disincentive." (Authors' translation)

Public ownership may, to some extent, solve some of these agency problems and prevent **moral hazard** (the agent's action or effort is unobservable by the principal) or **adverse selection** (the agent's type is unobserved by the principal). However, as John Vickers and George Yarrow state in their **seminal paper "Economic Perspectives on Privatization"**: "Any form of ownership is inevitably imperfect. Market failures can lead to divergence between profit and welfare objectives in private firms. Government failure leads to divergence between political/bureaucratic and welfare objectives in state-owned enterprises. Monitoring failure leads to divergence between the objectives of enterprise managers

and their principals, whether the principals are private owners or political superiors." The authors conclude: "The effects of ownership changes on welfare will depend upon the relative magnitudes of these imperfections. As a first approximation, privatization can be viewed as a means of reducing the impact of government failure, albeit at the risk of increasing market failures, and of changing monitoring arrangements."

Recommunalization may reduce market failures, but may also increase "government failures" in the terminology of Vickers and Yarrow. **Mildred E. Warner** (2017) comments, though, that "this reverse privatization process is not a return to the direct public monopoly delivery model of old. Instead it heralds the emergence of a new balanced position which combines use of markets, democracy and planning to reach decisions which may be both efficient and more socially optimal."

The emergence of e-government on the municipal level may enhance greater accountability of political decision-makers and more transparency of administrative processes. With the energy transformation, multi-level stakeholders – from individuals, neighborhoods, urban quarters to civil society organizations, associations and NGOs – have become vocal advocates of a new decentralized and renewable energy system. In the future, they are likely to exert tighter control over politicians and managers of municipal energy utilities than in previous decades.

The two most prominent cases of re-communalization in Germany have taken place in Hamburg and Berlin.