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Patron:

Journal Title: International journal of social economics.

Volume: 41 **Issue:** 9

Month/Year: 2014**Pages:**

Article Author: Dirk Loehr

Article Title: The Hidden Rent-Seeking Capacity of Corporations

ILL Number: 150979802



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The hidden rent-seeking capacity of corporations

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820

Received 17 March 2013
 Revised 11 September 2013
 Accepted 2 December 2013

Abstract

Purpose – The purpose of this paper is to develop the hypothesis that corporations are a particularly suitable instrument for rent seeking. Benefits are reaped by powerful companies, whereas a great deal of the costs is passed on to weakly organized groups.

Design/methodology/approach – The paper develops and substantiates the hypothesis theoretically and gives some indications. Moreover, a case study is added which refers to the German electricity market.

Findings – Equity seems to be indispensable to get access to land and other assets with similar characteristics as land. At the same time, profits appear to reflect the rent-earning capacity of the company's assets. High land rents stimulate investment intensity, and corporations can collect the necessary funds. The flip-side of rents is often the externalization of costs. Also, due to their limited liability, corporations externalize risks.

Originality/value – The paper provides a rationale for the common criticism of corporations, which is based on the reflection of equity as the key to land (in a broad sense) and (land) rents as the core of profits. If the findings hold true, corporations should be subject to particular regulatory observation. In particular, the corporate constitution of corporations and the taxation framework should try to get a better coupling of benefits and costs.

Keywords Neoliberalism, Property rights, Legal institutions

Paper type Research paper

1. Introduction

Criticism of corporations is anything but new. It was, for example, popularized in the film "The Corporation" from Mark Achbar and Bart Simpson in 2003. From a scientific viewpoint, this criticism has been substantiated by supporters of regulatory policy approaches. In particular the German Ordoliberal School has to be mentioned here, which criticized the limited liability as an externalization of risk costs (Eucken, 1990). Moreover, Georgists also recognized corporations as an instrument for land rent seeking (Gaffney, 1994).

In this paper, these approaches are developed into a hypothesis which is subsequently substantiated. The starting point is the approach of Henry George (1912), which might also be productively applied to the theory of the firm. George had a broad understanding of "land". Besides those economic goods which have not been created by men (such as water, natural resources, etc.), he also added the infrastructural base (permission for the operation of essential facilities such as railway and telecommunication networks; Sprickmann Kerkerinck, 2002) to the category of "land". The title of this paper purposely links to the title of a former article which has also been published in this journal: "The hidden taxable capacity of land: enough and to spare" from Mason Gaffney (2009). Some basic ideas of that article are explored and developed here. In order to do this, we refer to Keynes (1936/2008). According to his theory, land in this broad sense has some common features with other assets, such as a low elasticity of substitution and production and low carrying costs. Due to these attributes, a contemporary understanding requires that some enclosures of former



commons should also be added to land, such as intellectual property rights or pollution permits.

Moreover, Keynes also added cash and cash equivalents to this group of what we will call “key assets”. “Key assets” is indeed a suitable term, because these assets are a bottleneck for current market entry and the contestability of markets. However, they are not “absolute monopolies” in the common sense, because even key assets are exposed to competition to a certain degree (Gaffney, 1994; Foldvary, 2008).

2. Hypothesis: corporations are institutions which are designed for rent seeking

The central hypothesis, which is developed in this paper, is as follows: corporations are designed for rent seeking (Tullock, 2005). Subsequently we want to sketch out the argument and substantiate the above hypothesis. The argument first connects with Gaffney (1994), who interprets corporations as large collections of land in the broad understanding of Henry George. We want to extend this perspective to other key assets beyond land. We put forward arguments as to why the access to such key assets is best provided by equity. We will also show that equity apparently reflects the value of such key assets, at least in an average observation. Moreover, key assets are the gateway to exclusive economic rents. We put forward arguments as to why these rents are the core of the profits of the big corporations. In order to exhaust high land rents (in a broad sense), high investment volumes are necessary. Particularly corporations are able to collect the huge amount of private capital necessary and thus clear the way to taking the economic rents. Economic rents are the excess of the yields over the (opportunity) costs. We will discuss why exclusive economic rents are connected with the externalization of costs if privatized by corporations (Harrison, 2012). However, the rent-seeking capacity of corporations extends beyond the rent-seeking capacity of the key assets themselves. Also due to the limited liability of corporations, many risks are socialized. And due to the power of corporations, rent seeking is often connected with state capture in order to pass even more costs onto the public. The developed hypothesis is substantiated by a case study and several examples, primarily from Germany.

3. Theory and indications

3.1 Access to critical assets is provided by equity

Key assets might be classified as exclusive real options (Myers, 1977). To be more accurate, they are exchange options (see the collection of articles in www.realloptions.org). A (real) option gives the right, but not the obligation, to carry out a follow-up investment. The follow-up investment might be postponed until current insecurity disappears or good business opportunities appear. Hence such an investment strategy has some flexibility, which has an intrinsic value. All key assets may serve as an initial investment within such a sequential investment strategy. Due to the low elasticity of production and substitution, the chance given by the real option is exclusive. Some examples are provided in Table I.

Key assets are thus the entry ticket into the market. Without access to key assets, founding or expanding a company is hardly feasible. The access to key assets is in turn provided by equity. Nowadays the importance of equity endowment for growth is common economic knowledge. In particular, initial public offerings (IPOs) open up new possibilities for business extensions. On the asset side of financial statements, key assets leave traces particularly in the following positions (Loehr, 2013):

- Intangible assets: patent rights, for instance, are a real option (see Table I) and are necessary for the expansion of business activities. However, considering

intellectual property rights, the outcome of research activities is uncertain (Kaserer and Lenz, 2009). In the event of the merger of a research-intensive company, parts of the patent portfolio might not be used for commercial exploitation but for the blockade of competitors. In such and other cases, financing of these intangible assets by means of equity is a more solid way than by loans.

- Land: land may also be considered as a real option. An expansion of business activities needs suitable new locations. However, if land is not used and the real option land is not exercised (no building is constructed), no current cash flows can be generated. Hence no interest and no amortization can be paid. Regarding the latter aspect, land has infinite termination; there is no regular depreciation on land. Hence a loan cannot be amortized. Because the value of land may change, the amortization may also not be guaranteed out of possible sale proceeds. However, interpreting balance sheets is problematic, because land is not shown separately from buildings. This means that its share has to be estimated.
- Interests in companies: according to Kaserer and Lenz (2009), acquisition activities rise significantly within a period of two years after an IPO. Takeovers are a means to get access to other companies' key assets. However, interests in other companies should not be financed by loans either. This is for similar reasons as for land: There is no depreciation out of which the amortization of loans could be paid. Moreover, the returns are insecure and thus there is no sound base for a guaranteed interest payment.
- Liquidity is a universal exchange option. However, cash or cash equivalents do not earn a high yield, and neither is there any amortization. Hence liquidity also should not be covered by loans.

Thus it is not loans but equity that seems to be a sound financial base to get access to the key assets which are needed for growth. For this reason, equity is expected to reflect the value of key assets (reflection hypothesis; Loehr, 2013) if the financial base of a company is sound. The link between equity and key assets is not enforced by any regulation; it is not even taught as a management rule. No wonder that individual companies deviate significantly in this respect. However, like in the "law of large numbers", for the economy as a whole a gearing to the "reflection hypothesis" has to be expected. The argument that compliance to an unknown economic law is not possible does not hold true. Sotelo (1995) argues that economic laws may work even if nobody knows about them.

Indeed, in an average consideration, equity seems to reflect the value of the key assets. Deutsche Bundesbank makes an extrapolation for the whole economy out of a data pool of 66,000 sets of financial statements for 2010 (Deutsche Bundesbank, 2013)

Initial investment	Follow up-investment
(Reserve) land, location	Setting up a building/business on a unique location
Patent right	Exclusive commercial exploitation (knowledge as source)
Oil concession, water rights	Exclusive commercial exploitation of the source
Liquidity	Universal possibilities, provided by cash
Network industry permission	Commercial exploitation of a network (grid) as natural monopoly
etc.	etc.

Table I.
Examples of key assets

Source: Loehr (2013), Table I

which are based on the German Commercial Code (Handelsgesetzbuch, HGB). The share of land in the real property was estimated "freehand" with a usual rate of 25 per cent of the book value of the property. Equity and interests on the one hand and receivables and liabilities on the other hand were not consolidated. Subject to that reservation, the sum of the shares of intangible assets (2.2 per cent), land (2.0 per cent), (unconsolidated) interests in companies (19.2 per cent) and cash (6.3 per cent) equals approximately (sum: 29.7 per cent) the unconsolidated share of equity (30.2 per cent) in the total assets.

In order to test this finding also for consolidated financial statements and different accounting standards, a first assessment on a random basis of the financial statements (2011) of 70 German companies and 30 British companies reporting according to International Financial Reporting Standards (IFRS) has been made (Loehr, 2013). The share of land in property is estimated again at 25 per cent of the historical cost of property for German companies and 35 per cent for British companies, due to the higher average land value. (Table II)

The ratio of the value of equity between German and British companies is almost the same as the ratio of the unweighted key assets (75 and 79 per cent, respectively). This corresponds roughly to the German and the British price-income ratio for real estate (Loehr, 2013). Using data for unweighted key assets is preferable in this consideration, because the dominating effects of large companies are eliminated. Although more research is necessary, the data support the assumption that equity is a necessary condition for access to key assets. Without equity, access to key assets is difficult, and without key assets, there is no access to economic rents. Corporations are the most effective legal form for gaining access to large amounts of equity, and thus open the way for access to a large amount of economic rents.

3.2 Economic rents are at the core of corporation profits

If the real option is exercised, the owner may earn an economic rent (e.g. the land rent, the rents on a patent, etc.). Company profits also include economic rents – they do not only comprise employer's salary (in partnerships and single enterprises) and risk premiums. The rent on land and other key assets is at the same time (exclusive) residual income: The owner of an improved site or an agricultural site only receives the income which is left after paying the other production factors. The equity capital provider receives a residual income as well: the profit. Although it sounds strange, it seems to be the rents which are the very "core" of the company profit (Loehr, 2013). Indeed, economists also concur with the interpretation of profits as an economic rent

	Equity ratio (%)	Ratio of key assets (%)	Difference (%)
<i>a. Unweighted</i>			
German companies	38	37	1
British companies	51	47	4
Ratio	75	79	-4
<i>b. Weighted (with equity)</i>			
German companies	30	31	-1
British companies	34	34	0
Ratio	88	91	-3

Source: Loehr (2013), Table IV; the detailed data can be provided by the author on request

Table II.
Reflection hypothesis in
IFRS – preliminary result

(Daepf and Schaltegger, 2004). Thus the company profit reflects not only the risk of a company, but also the rent-earning capacity of its assets.

This statement is sketched out in Table III. In order to substantiate it, let's look at the famous microeconomic dichotomy of supply and demand. The sticking point is not the downward-sloping demand curve (due to decreasing marginal utilities; Morgenstern, 1931), but the upward-sloping supply curve. The standard theory derives this curve by aggregating the rising marginal cost curves of the individual firms. Sraffa (1926) was one of the first economists who argued against this concept. His criticism was picked up by Keen (2004). Prior to this, Gutenberg (1983) also argued with considerable theoretical arguments against the generalization of rising marginal costs. Indeed, there is no empirical evidence for the dominance of rising marginal costs considered at the level of individual firms (Gutenberg, 1983; Monopolkommission, 1986). Empirically, a linear course of the total costs curve seems to prevail, and the marginal cost curve seems to run parallel to the X-axis in most cases (Gutenberg, 1983). As a consequence, the assumption of a rising supply curve would have to be rejected – no matter if we regard the short or the long run.

If, however, the supply curve is generally “flat”, no producer rent would be in existence. Since the producer rent measures the sum of contribution margins of the companies in the market, the sum of contribution margins (as the difference between market prices and marginal costs) would tend towards zero. This conclusion is obviously completely absurd.

However, we then run into a dilemma (Loehr, 2013):

- on the one hand, from an individual company's view, the arguments against a rising marginal cost curve are of convincing theoretical coherence and overwhelming empirical evidence; and
- on the other hand, from the viewpoint of the economy as a whole, there must obviously be something such as a producer rent.

The dilemma might be solved by remembering elementary findings of the classical theory. The classical economists already knew that the best locations are occupied first. With rising production, more and more producers have to choose second and third-best locations. At each of these locations, production is carried out with more or less constant marginal costs. However, the production costs of the second-best location are higher than at the best location, and the production costs of the third-best location will exceed those of the second-best location.

Similar patterns can also be observed for other key assets. If, for example, licenses for process patents are no longer available, there is no access to best technology. Hence second- or third-best technology has to be used. As a consequence, the production costs will be higher compared with using the best technology.

Assets	Liabilities	Economic base
Exclusive initial investments/ key assets (e.g. land): rent as residual income	Equity: profit as residual income (includes: rent, employer's wage and risk premium)	Factor land in a broad sense
Follow-up investments (e.g. improvements of sites)	Loans: interest as contract income	Factor capital

Table III.
Key assets, rents and
profits

Source: Modification of Loehr (2013), Table II

Thus the producer rent is basically nothing other than the rent which is connected with the key assets[1] – in particular land (Loehr, 2013). Alfred Marshall (1893):

Producer's surplus is a convenient name for the genus of which the rent of land is the leading species.

Rent-seeking
capacity of
corporations

825

However, because land and other key assets are exclusive, so also are the (land) rents – the rents can hardly be tackled by competition. In contrast, according to the neoclassical theory, profits can basically be contested in a competitive economy, at least in the long run. If this were true, the correlation between the value of land and the value of company shares should not be too high – at least in the long run. However, if the core of the profits is an economic rent, the power of competition would be limited and a high correlation is to be expected. Indications might be taken from the studies of Stone and Ziemba (1993), who assessed the relationship between land prices and stock prices in Japan. Particularly commercial land had a very close connection to stock prices. Ziemba (1991) calculated a correlation of about 0.99 from 1955 until 1988. It should be added that between 1955 and 1988, land was the most important key asset. Especially patents became important in a later period, after the Trade Related Aspects of Intellectual Property Rights (TRIPS) agreement was put into place (1995). From this time on, a “diffusion” of the land rent to other key assets might be assumed, with the consequence of a lower correlation of land and company values.

Regarding the UK and the USA, we assume that general inflation has similar effects on the prices of land and stocks anyway. The same holds true for the influence of interest rates as driving forces of the asset value. Moreover, considering land rents as residual income, changes of real estate values are due less to changes of the price of bricks, mortar, steel and the labour force and more to changes of the discounted land rent. Hence any significant deviation between the development of land and stock prices must be caused by differences in the development of land rents and profits – at least in the long run. However, for 1966 until 2011, the correlation between the FTSE 100 Index and the House Price Index is about 0.83 on a significance level of 0.01 (London Stock Exchange, 2012; Office for National Statistics, UK, 2012; own calculations). For the USA, own calculations (based on Standard & Poors, 2013; Yahoo-Finanzas, 2013) for 1987-2012 result in a correlation between the real estate prices of the most important cities economically (ten City Composite-Index) and the NYSE-index of 0.86, on a significance level of 0.01. Due to a poor data base concerning a general real estate index, reliable long-range statistics cannot be set up for Germany yet.

Moreover, a look in the Forbes (2012) list of global high performers also substantiates the thesis that the companies' success is based to a high degree on the rents of key assets. Considering oil, gas, patents (software), etc., the dependency on the key assets is obvious (Exxon Mobile, Royal Dutch Shell, Chevron, BHP Hilton, Apple, Microsoft). J.P. Morgan as an investment bank also deals with company interests and derivatives on other key assets. Telecom services (Vodafone) are based to a high degree on telephone networks, locations and intellectual property rights. Choosing the right location was of crucial importance for the recent success of Volkswagen (penetration of the Chinese market; Marschner, 2004).

Hence, in an average consideration, equity seems to reflect the accessibility to and the value of the key assets. These key assets are able to earn (land) rents, which are an essential part of the company profits. Since corporations have particularly good access to equity, their chance of getting a big piece of the “cake” of economic rents is correspondingly high.

3.3 High economic rents push capital agglomeration

The volume of capital investments per area unit of land (referred to hereinafter as “land intensity”) grows with the land rents. Gaffney (1994) called this “land-saving capital”. Land rents and buildings are highest close to the central business districts, whereas in the suburbs both get lower. Historically, the heavy industry complexes were connected with intensive capital investments per area unit of land and high resource rents, which are a specific form of land rents. In Germany, for example, the coal and steel industry developed close to the coal-mining areas in the Ruhr region, Saarland, Central Germany and in the Lausitz area, whereas consumer goods production as “footloose industries” also developed in other locations. Also, exhausting infrastructural rents affords high investments (e.g. airports). The chemical industry depends on location factors such as infrastructure (streets, railway network, pipelines, universities), but in the recent past it grew mainly on the foot of patent privileges, which are connected with economic rents.

A high land intensity causes a high share of fixed costs and a low share of variable costs or marginal costs (in the case of a linear cost function, variable unit costs and marginal unit costs are the same). In contrast, any low land intensity means a lower share of fixed costs and a higher share of marginal costs. The price in each market is determined by the marginal supplier – this means the supplier with the highest marginal costs. As a consequence, the contribution margin – as the difference between the market price and the marginal costs – is the highest for the most land-intensive industries. To the extent that the contribution margin exceeds the fixed costs, it is nothing other than an economic rent.

If the investments per unit area of land are high, the output quantity has to be maximized in order to minimize the average costs and to maximize the profits. This is why high land intensity also causes centralistic technology applications as opposed to decentralized technologies. Simply the earmarking of a technology as “centralized” or “decentralized” indicates the spatial dimension of capital formation.

The realization of economic rents with land-intensive, centralistic applications affords a high amount of private capital, no matter if skyscrapers, steel production or nuclear power plants are considered. Corporations are designed to collect this capital. That is why they have been of high historical significance for economic and social development. Without corporations, railway companies, heavy industry agglomeration or the chemical industry are hardly conceivable. The land rent potential – as the social surplus – could not have been realized without corporations.

In contrast, less land-intensive, decentralized technological applications do not need such a concentration of capital. Although they are also capital intensive[2], e.g. onshore windmills are a less land-intensive and thus more decentralized technology. Such technologies can also be managed and owned by other legal forms – such as an energy cooperative for instance.

3.4 Economic rents and externalities: there is no such thing as a free lunch

So far, we showed that corporations are primarily designed to pocket exclusive rents with centralized technologies. We also stressed the importance of key assets as a basis for these rents. Although such economic rents are taken privately, a significant share of the costs is externalized (Harrison, 2012). In contrast to the opinion of the Property Rights theorists (Demsetz, 1967), this refers mainly to private property on land (in a broad sense). The starting point of the argument is the interpretation of (land) rent as social surplus that remains after deducting the costs for labour and capital from the

aggregate income (Harrison, 2006). According to the Henry George theorem, under certain ideal conditions[3] the whole public good could be financed out of the (land) rents (Arnott and Stiglitz, 1979; Atkinson and Stiglitz, 1987)[4]. However, the Henry George theorem can be interpreted the other way around: (Land) rents are created by public goods and services. A. Marshall already recognized the connection between land rent and public goods and featured land rents as “the annual public value of the land” (Marshall, 1920). Thus, the state can be considered as a “rent creating institution” (Harrison, 2006). The state valorizes the rent-bearing key assets (Table IV).

If the costs for the financing of the public good were covered out of the (land) rents, there would be a coupling between benefits and costs. If, instead, the land rent is privatized (by private land owners and corporations), it cannot be used for the financing of the public good. As a consequence, the costs of the production of the public good have to be shifted onto the payers of income tax and value added tax. Thus, benefits and costs of the public good are decoupled. The alternative would be a reduction of the public good. However, no matter whether higher costs for labour and capital (which causes an excess burden) or a lower endowment with infrastructure: Sooner or later rents, profits and the social surplus will be squeezed downward (Gaffney, 2009). Hence the valorization of the key assets by income tax and value added tax disconnects benefits and costs. Such taxes are unconditional payments to the state. There is no claim to any individual counter-performance and no equivalence between performance and consideration.

Hence the lack of equivalence in taxation is an important precondition for the privatization of economic rents. The current transformation of tax systems in many countries to a dual income tax includes the lower taxation of the profits and dividends of corporations at the expense of a higher tax burden on salaries. This trend increases the bias described above. Corporations in particular, as large collectors of land (Gaffney 1994), get benefits from the decoupling of benefits and costs, which is connected with the privatization of (land) rent.

Decoupling of benefits and costs causes market failure, and decoupling of state revenues and state expenditures causes state failure. Market failure means that too many goods with external costs and not enough goods with external benefits are produced. State failure includes careless politicians who spend too much (it is not their money) and taxpayers who try to hide their real performance. These phenomena are closely connected with rent seeking (Tullock, 2005): Economic rents are reaped by powerful corporations which are in close collusion with authorities (state capture). The costs of valorization of exclusive key assets are shifted onto weakly organized groups. The group with the most heterogeneous interests and the weakest degree of organization is society itself. Corporations are able to collect huge amounts of capital. However, the economic power also sprawls into other subsystems of society (Eucken, 1990). Corporations also capture authorities in order to shift further costs onto the public. This refers in particular to various costs of risks. For instance, the taxpayer

<i>National income</i>	
Composition	
Private goods and services	⇔
Public goods and services	⇔
	Distribution
	Wages (labour)
	Interests (capital)
	Rents (land in a broad sense)

Note: Simplified version, own presentation

Table IV.
Henry George theorem

took on an additional burden as a consequence of the financial crises in 2008 (which was also caused by a real estate bubble). Or, to mention another field, the risks connected with running nuclear power plants are also borne by the public, since no private insurance company is willing to underwrite such risks (Schultz, 2011). Moreover, big companies limit their liability by means of instruments such as general terms and conditions, which the consumer in fact has to accept.

As mentioned above, key assets might be interpreted as a real option. The other way around, equity also might be interpreted as a real option (Loehr and Rams, 2000) – if the liability is limited. If the present value of the expected free cash flows (underlying) exceeds the value of the necessary liabilities, the real option gets an intrinsic value (Bucher *et al.*, 2002). If the real option is exercised, the flexibility is gone and the investor is committed. The investor cannot react any more if the investment turns out to be a flop. However, in corporations, the shareholder's risk is limited. But the risks do not simply disappear. Somebody has to bear them. The writer of the real option “equity” of companies with limited liability is the public again (taxpayers and other stakeholders), which has no choice in the matter of taking on the risks and which gets hardly any compensation for doing so. This is why, e.g. the German Ordoliberal School was strictly against company ownership with limited liability (Eucken, 1990). In the aftermath of the recent financial crises, the liability of the persons responsible has been tightened in some regards, but not nearly enough.

Considering all these points, corporations are obviously externalization machines par excellence.

4. Case study: the German turnaround in energy policy

In Germany, the market for electricity is a greenhouse for economic rents. Although their existence is barely disputed, these rents are normally not connected with the land topic. Subsequently, we focus on the example of brown coal fired plants for electricity production. On the supply side of the German electricity market, the “merit order” (employment sequence of the individual power plants) is of crucial importance for electricity pricing. In the subsequent figure, P^* is the equilibrium price for electricity. X^* is the equilibrium output (Figure 1).

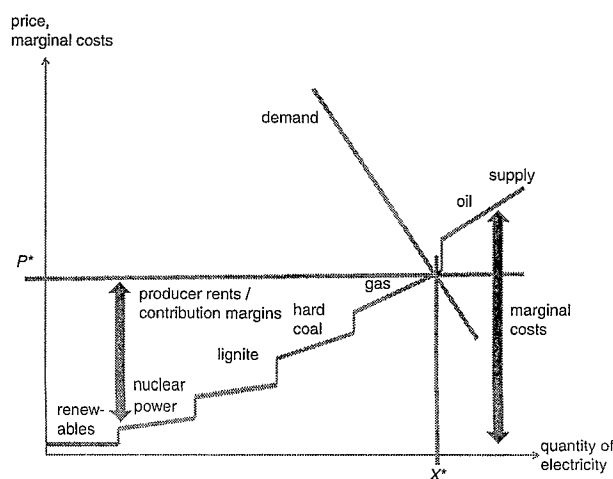


Figure 1.
Merit order and market
clearing price
(schematically, own
illustration)

Starting with the power plants with the lowest marginal costs, additional power plants with higher marginal costs are switched on until the demand is covered. The electricity price is determined by the last offer accepted (market clearing price). Base load plants (nuclear power plants, brown coal fired plants) as centralized technologies are characterized by huge investments per unit area and high fixed costs, while the marginal costs are quite low. This cost situation is reversed for peak load power plants. In the traditional energy mix, base load power plants could earn the highest contribution margin, measured by the difference between the electricity market price and the low marginal costs. The excess of contribution margins over fixed costs is profit. Hence the contribution margins of those base load power plants that are already amortized are almost pure profit and at the same time almost pure economic rents. Nonetheless, due to the high capital investment, the market for base load power plants is hardly contestable. Additional competition barriers include the long time span of planning and approval as well as regulatory uncertainties (e.g. the debate about the phasing out of nuclear power). For instance, after the German government's decision to exit nuclear power, new nuclear power plants are no longer being approved. Moreover, the potential for run-of-river power stations is exhausted in Germany. Since the market for base load power production was basically not contestable before the phasing out of the nuclear energy about 96 per cent of all base load capacities were owned by the big four electricity suppliers (RWE, E.ON, Vattenfall and EnBW; Vorholz, 2006).

However, the economic rents of base load power plants are nothing other than "hidden" land rents. For example, due to the high transportation costs of brown coal, such coal fired plants need an associated brown coal mine (Germany: traditionally in the Rhine-Ruhr area, Central Germany and the Lausitz area) or at least an inland port or a railway line nearby. It is no coincidence that the biggest share of the German brown coal resources was owned by RWE, Vattenfall and E.ON. Furthermore, the distance to the centre of consumption should not be more than about 70 km in order to avoid transmission and distribution losses. Also the connection to the transmission network must be ensured. Tourism and the environment should not be affected too much. Planning and approval decides if and how much rent may be earned. Not every planned power plant passes the planning and approval process. In brief, such a brown coal fired plant can only be set up at very special locations. The availability of such a scarce location is a privilege for the company. However, generally the necessary sites for the plants are provided by the government at favourable conditions. On the other hand a significant share of the costs of brown coal fired plants is externalized: among others, the European Emission Trading scheme is not able to internalize all external costs caused by air pollution. In order to achieve the two-degree objective, a cap of CO₂ allowances would be necessary which would definitively result in a price of more than 30 Euro. However, beyond a price of 15 Euro per metric ton of CO₂ no new brown coal fired plant would be profitable (Gerbaulet *et al.*, 2012). At present, the companies pay less than one third of this price – this is nothing other than an occupation of "land" in the sense of Henry George.

Within the turnaround in German energy policy, more and more base load power plants are threatened with being gradually substituted by renewable energy production. Thus the "Big Four" (RWE, E.ON, Vattenfall, EnBW) in the German electricity market have to fear for their economic rents, which have been strongly defended in the past. Most renewables also have low marginal costs. Moreover, they have been granted priority for the net feed and their yields are also subsidized by the German Renewable Energy Law (EEG). Due to the lower land intensity and the lower

investment volume, providers of renewable energy often have a dispersed owner structure – in contrast to the centralized, land-intensive technologies.

Centralistic, land-intensive and expensive “green” technologies with a high share of fixed costs and a low share of variable costs and marginal costs are a proper means for the “Big Four” to defend their privileged place on the electricity supply curve and to protect the hidden land rents within the turnaround in energy policy. With such technologies they try to safeguard the cost structure of base load technologies into the new era of green technologies. Thus, major efforts are undertaken to promote green technologies such as offshore wind energy. Technology is not “neutral”, as some philosophers state (Kofler, 1983).

In the past, the ownership of the “Big Four” at the transmission and distribution network was a further means to protect and exploit the rents. Gaffney (1994) featured such investments as “land-linking capital”. Within the turnaround in energy policy, the “Big Four” pushed an extension of the energy grid. This extension should enable the connection of additional brown coal fired base load plants parallel to the extension of the renewables (particularly offshore wind energy included). Thus the net extension was the precondition for the defence of the land and rent intensive technologies. At the same time the grid should be able to export huge shares of the surplus production of energy. This was necessary to deal with the consequences of the “merit-order-effect”: Due to the additional electricity provided by renewables in addition to the conserved base load structure, the electricity price threatens to fall. A higher export demand for energy seems to be a proper means to counteract this trend and to stabilize the price at a higher level. Of course the extension of the electricity network is more expensive than a trendsetting transformation into a (smart) grid, which supports decentralized production of renewable energies. However, the “Big Four” did not care about the costs, since the costs are passed on to the consumer with a special apportionment (Jarass and Obermaier, 2012) – together with the subsidies for the renewables (including offshore wind energy).

Although the extension of the electricity grid (which is a bottleneck in the turnaround in German energy policy) saves the energy rents of the “Big Four”, it is not a dominant source of economic rents in itself. Because the grid is an infrastructure monopoly which might be potentially abused, it was regulated more or less effectively by the Federal Network Agency (Bundesnetzagentur). For instance, 2011 RWE achieved a Return on Capital Employed (ROCE) of 20.3 per cent with electricity production and of “only” 9.3 per cent with the distribution.

The German electricity sector is also an excellent example of how rent seeking goes hand in hand with state capture. To give an example: the former Minister for Economics (1998-2002), Werner Müller, personified the close interlocking of interests between industry and politics in the energy sector. Since 1973 and before his political career, he was a manager in companies such as RWE, Veba and Kraftwerke Ruhr AG. During his tenure of office, he refused to accept the decision of the German Federal Cartel Office (Bundeskartellamt) to prohibit the takeover of Ruhrgas AG by E.ON. He gave order to his Secretary of State, Alfred Tacke, to open the way by ministerial approval (an exceptional permission, according to § 42 of the German Act against Restraints of Competition, GWB). After his resignation, the same Secretary of State got a position as CEO of the electricity company STEAG, which belonged to the Ruhrkohle AG group. After his departure as minister, Müller took the position as CEO of Ruhrkohle AG, which was also closely connected with E.ON. This is only one of the many stories of “revolving doors”, which meanwhile are more the rule than the exception.

5. Discussion: value capture by demand power

So far in this paper, corporations have been interpreted as tools to exhaust economic rents by controlling the value chain entry from the supply side – this is land and similar assets. However, the picture is still incomplete. Considering for instance supermarkets, the difference between the market price and the costs is apparently often also taken by the demand side – by the value chain exit. In many industries, the gateway to the market is controlled by powerful dealers with a high market share, and the value chain is structured top down. The basic patterns work completely differently from those markets with supply-driven control, as Table V illustrates.

For instance, the richest Germans are the two Albrecht brothers, who own the Aldi discounter chains. Karl Albrecht has a wealth of about 17 billion Euro, Theo Albrecht of 16 billion Euro (Boldt, 2012). The parent companies of Aldi[5] are not organized as corporations but as limited partnerships. The now insolvent German drugstore chain Schlecker was even organized as a sole trader. On the other hand, global players such as wholesale trader Metro operate as a corporation. However, their business concept comprises the occupation of distribution sites all over the world and the acquisition of subsidiaries in order to extend their business scope (Franz, 2012). Similar patterns as described here can be also observed in other industries (e.g. textiles: Kik, H&M, Mustang, etc.) and in international value chains.

However, even in these concepts land rents may be of some importance, particularly within the distribution sites. Nonetheless they do not play the central role – in contrast to the supply-controlled value chains discussed above. That is the reason why key locations are often not bought but leased. Such retail chains, which are located in the right column of Table V, might be considered as “footloose industries”. In contrast to the supply-controlled schemes, the monopolization of the market entry is a matter of formation of the production factor capital, not a matter of the production factor land. To contain the monopolization of distribution channels and gateway control, the creation of a broader market access and the reduction of imbalances in the value chain is particularly a task for competition policy.

Taking economic rents from		Supply side	Demand side
Bottleneck Market structure	Production	Entry of the value chain Scarce locations (or resources), limited competition	Exit of the value chain Abundant locations (or resources), high competition
	Processing	Some forward integration	Some backward integration
	Distribution	Many distributors	Control of the market gate by few distributors
Source of profits		Economic rents, exploited by fixed assets	Value capture, exploited by current assets
External costs		Shifted onto the public (opportunity costs, costs of valorization, costs of risks due to limited liability)	Passed onto the producers at the beginning of the value chain
Land intensity (investment volume per unit of land area)		High	Low
Legal forms		Corporations	Diverse

Rent-seeking
capacity of
corporations

831

Table V.
Basic patterns of supply
and demand controlled
value capture

6. Conclusion

The aim of this paper was to shed a different light on corporations and to stimulate further research in this field from an unconventional perspective.

Corporations are Janus-faced: On the one hand they have been a crucial institution in industrial development and industrial revolution, on the other hand they are institutions specialized in exploiting land and rents with huge amounts of private capital while passing important costs onto poorly organized groups in society.

These features were revealed from the very beginning of the corporations. For example, in Germany and Austria in the fourteenth and fifteenth century, early forms of corporations emerged as a union of ore-mining entrepreneurs. The main purpose was the better capture of resource rents. In the fifteenth century in Italy, the Genua Banco di San Giorgio (Bank of Saint George) was founded as a corporation (Kirk, 2005), which was closely connected with the land issue: Some colonies of Genoa, even Corsica, were intermittently ruled by this bank. In the seventeenth century the bank invested in the maritime trade and was temporarily a competitor to the Dutch East India Company as well as to the British East India Company (both started their business at the beginning of the seventeenth century). The success of the last-mentioned companies was predominantly connected on the one hand to the monopolization of trade routes (by governmental privileges), on the other hand to land acquisitions and land grabs in the main destinations in Asia (Dirks, 2006). Although they assumed risks, they also enjoyed governmental privileges (e.g. trade monopolies, sovereign rights). The exploitation of these privileges afforded high amounts of capital which individuals were not able to raise. A similar story is the transcontinental railway line in the USA, which was pushed from 1862 on. The US government granted subsidies, cheap loans and land for free to the Central Pacific and the Union Pacific Companies. A modern version of the same story concerns patents – as “virtual land”. Although the history of patents can be pursued back to the Middle Ages, the most important milestone is the WTO agreement on TRIPS. This agreement was prepared in 1986 by a coalition of 13 important and powerful US corporations with similar interests, and was implemented at the end of the Uruguay Round of the General Agreement on Tariffs and Trade in 1994/1995 (Drahoš and Braithwaite, 2004). The most important protagonists have been the governments of Japan, the European Union and the USA. From the very beginning, the story about corporations is always also about close collusion between powerful corporations and governments as well as about state capture and corruption.

Hence the question is how to contain the negative aspects and at the same time conserve the positive aspects of corporations. The answer may be different regulation and taxation requirements. No matter if electricity, banking or any other sector is considered: Politics should try to get a closer coupling of benefits and costs. Corporations could be redesigned according to the blueprint of a limited partnership, with personal liability at least for the acting members of the executive board. Moreover, (land) rents as the economic base of the corporate profits should be taxed consistently. The public, which bears the externalized costs of rents, should also be the beneficiary. Unlike the current corporate income tax, the risk premium (and employer's wage) in the profit should be spared, and only the economic rent as the core of the profit should be taxed instead. Basically, shifting the tax burden onto rents makes it possible to relieve wages, employer's salaries and risk premiums from the (corporate) income tax burden.

Notes

1. Influenced by Clark (1893) and Knight (1946/1951), many economists think that the production factor land lost importance, and with it also the land rent. In fact, the land rent seems to be “diffusing” to other key assets with similar features as land but beyond physical land in a narrow sense. Moreover, the higher the income tax and value added tax, the lower the observable land rent (Gaffney, 2009). Thus the actual land rent is “concealed” to a high degree; it cannot be observed as easily as the agricultural land rent in former times. Indeed, it is included in the profits which can be earned by other key assets.
2. Land intensity should not be confused with capital intensity, which might be measured as the ratio of capital to labour input. Regarding electricity production (see also the case study below), nuclear power plants and windmills are both capital-intensive technology applications. However, nuclear power plants are much more land intensive than windmills.
3. This is for instance a high elasticity of supply for labour and capital and a low elasticity of supply for land as well as an optimal population size.
4. Although the Henry George theorem has been modeled under certain conditions, it turns out to be quite robust if the assumptions of the basic model are changed (Kirn, 2010).
5. Since 1960, Aldi is divided into Aldi Süd (South; owned by Karl Albrecht) and Aldi Nord (North; owned by Theo Albrecht).

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Further reading

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