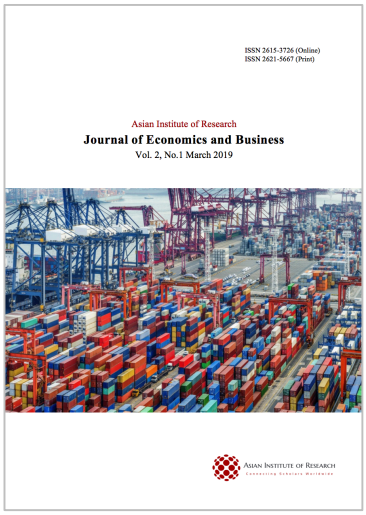

Journal of Economics and Business

Omoregie, Uyiosa. (2019), Value Creation in a 'Non-Producing' Enterprise. In: *Journal of Economics and Business*, Vol.2, No.1, 182-189.

ISSN 2615-3726

DOI: 10.31014/aior.1992.02.01.78

The online version of this article can be found at:
https://www.asianinstituteofresearch.org/

Published by:
The Asian Institute of Research

The Asian Institute of Research *Journal of Economics and Business* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Economics and Business, which includes, but not limited to, Business Economics (Micro and Macro), Finance, Management, Marketing, Business Law, Entrepreneurship, Behavioral and Health Economics, Government Taxation and Regulations, Financial Markets, International Economics, Investment, and Economic Development. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Economics and Business* aims to facilitate scholarly work on recent theoretical and practical aspects of Economics and Business.

ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide

The Asian Institute of Research
Journal of Economics and Business
Vol.2, No.1, 2019: 182-189
ISSN 2615-3726

DOI: 10.31014/aior.1992.02.01.78

Value Creation in a 'Non-Producing' Enterprise

Uyiosa Omoregie[1]

[1] Corporate Planning Department, Brass LNG, Lagos, Nigeria

Correspondence: Corporate Planning Department, Brass LNG, 2 Kingsway Close, Off Alfred Rewane Road, Ikoyi, Lagos, Nigeria. E-mail: uyiosa.omoregie@brasslng.com

Abstract
A widely-held proposition is that an enterprise does not create value until it commences production of goods or services for external customers for monetary profit. Another related proposition is that employees in a 'non-producing' enterprise if remunerated, are paid 100 percent above the value of their labour – because the enterprise is not creating value. Counter-arguments to these two propositions are presented. To provide justification and support for the counter-arguments, the purpose of a firm or business enterprise is discussed and the nature of 'value' is elaborated with a critique of the dominant marginal productivity theory of value. An example of a non-producing enterprise: A liquefied natural gas (LNG) company at 'pre-operation' stage is presented. LNG companies often lock-in customers with 20-year contracts before commencing production – this is value creation. Value, it seems, is not in the eyes of every beholder but found in the eyes of the shareholders of an enterprise who can use key performance indicators (KPIs) and enterprise risk management (ERM) to track employees' value creation throughout the life cycle of the enterprise.

Keywords: Value, Enterprise, Productivity, Projects, Profit, Ideas, Workers

1. Introduction

This paper attempts to refute two widely-held propositions regarding the nature of value creation in an enterprise – more specifically a business enterprise. Counter-arguments to the two propositions are presented in the introduction. Further sections of the paper try to provide justification and support for the refutation of the propositions stated in the introduction. The purpose of a firm or business enterprise is discussed, the nature of 'value' is elaborated showing that today's dominant theory of value (marginal productivity) has serious shortcomings. The enterprise is shown to exist in different stages of its life cycle with a particular purpose at each stage. This paper concludes with an example of a 'non-producing' enterprise: The pre-operation stage liquefied natural gas company.

1.1 Proposition 1

An enterprise not producing goods or services for external customers in exchange for monetary again is not creating value.

1.1.1 Counter *Argument to Proposition 1*

Value creation in an enterprise is defined by the stated goals of the enterprise, usually articulated by the business owner(s) and or management or stated by legislation (in the case of some public/government-owned enterprises). A non-profit enterprise (e.g., a non-governmental organization) creates value without exchanging goods or services for monetary gain. Therefore, the monetary gain cannot be pre-requisite to value creation in every enterprise.

There are various stages in the life cycle of an enterprise. This is most obvious in the case of a 'startup,' a special type of enterprise (or stage in the lifecycle of an enterprise?). Startups face high risk and uncertainty, notable startup success stories of this generation: Facebook, Google, Amazon, and many similar enterprises did not become 'profitable' until after many years, in some cases remained unprofitable for up to 10 years or more after the commencement of operations.

A high-risk startup usually seeks financing, such as venture capital. The venture capitalist will seek a good return for the investment made, taking into consideration the risky nature of the venture. The financier of a start-up will need to be patient and not expect a financial return on investment immediately. At the earliest stage in the lifecycle of a startup, the 'value' that is created is simply the 'idea' or 'purpose' that the startup has brought to the financier. This idea or purpose can actually be given a monetary value, an estimate of the future stream of income (valuation) that the startup could bring during the life of the enterprise. However, at this stage in the life of the enterprise, almost everything is abstract.

Many enterprises are formed in order to execute a large project. At each phase of a project-based enterprise, there are specific goals. The overarching mission of the enterprise may be connected to monetary gain but have most phases in the life cycle not directly yield a monetary profit. Success for such enterprise (or any enterprise for that matter) can only be fairly judged by the progress it makes towards accomplishing set goals at each phase of its life cycle.

Even in the 'operation' or 'producing' or 'transactional' phase of an enterprise (or project), when there is a direct monetary gain or 'profit,' an enterprise could change strategy to sacrifice short-term monetary profit for longer-term profit and viability. This is frequently the case when an enterprise cuts the price of its goods or services in order to gain more customers – greater market share. The stream of new loyal customers is indeed 'value:' new customers can be charged a higher price in future resulting in more money profit for the enterprise later. This type of strategy could be life-saving for the enterprise, as failure to do this could leave the enterprise irrelevant in the market.

In summary, an enterprise can create value without producing monetary gain. Value is determined by what the owners of the enterprise desire to be accomplished not only when the enterprise is in 'operational' or 'producing' or 'transactional' phase. In addition to the overarching goal of the enterprise (its 'mission'), at every phase in the life cycle of an enterprise, the accomplishment of the goals of a specific phase results in value creation for the owners of the enterprise.

In opposition to Proposition 1: The producing of goods or services for external customers in exchange for money from the customer is not the only value-creating task in the life cycle of an enterprise.

1.2 Proposition 2:

Employees supplying their own labour to a 'non-producing' enterprise, if remunerated, are paid 100 percent above the value of their labour – because the enterprise is not creating value.

1.2.1 Counter Argument to Proposition 2

"People make it happen" is a popular refrain stressing the importance of human resources if the goals of an enterprise will be achieved. Some enterprises have tried to tie employees' remuneration directly to the impact the employees make to the bottom line (profit). This is possible only when the nature of the employee's job description allows for his or her daily or monthly or annual work results to be measured accurately. A salesperson can be remunerated based on a percentage of the sales of goods achieved. However, not all job tasks can be so easily

analyzed to give such a direct quantitative value. Most job tasks are carried out within a team and separating the specific quantitative value created by each team member would be almost impossible. This would imply that the value created by an employee in such a team could be mostly abstract. A particular employee could simply be an 'ideas' woman, known for creative and strategic thinking. Another employee could be known more for being an 'implementer' with valuable project management skills, taking an abstract idea and bringing it to reality.
In opposition to Proposition 2: The remuneration of employee labour in many enterprises is not necessarily tied directly to 'production' by the enterprise for monetary profit. Value creation by employees in many enterprises takes place during interdependent activity with other employees, and it may be impossible to attribute a specific monetary value to a specific employee's work. 'Production' by the enterprise for monetary profit cannot be the only justification for employee remuneration.

2. Why are Business Enterprises Created?

Enterprises exist everywhere. Sometimes the observation of a phenomenon that occurs everywhere can pose the most difficult questions to answer. Why do business enterprises exist? The knee-jerk answer would follow Friedman's declaration that the social responsibility of a business enterprise is the creation of 'profit' (Friedman, 2007). But 'profit' is only one form of 'value.' As argued earlier, it is safer to generally state that the purpose of an enterprise is to create 'value' for its owners (shareholders) and other stakeholders. Different organizations have different value creation processes and those who would benefit from value created differ too:

The value creation process and the beneficiaries of value are different for different organization types. In business and industry, the owners of the business expect to benefit financially from value creation and customer satisfaction with produced products and services. In government, citizens, program recipients and other stakeholders and elements of society benefit from value creation. And in nonprofit organizations, the members and other stakeholders of the association, charity, or foundation benefit (Association for Strategic Planning, 2015, p.41).

2.1 The enterprise as a transaction-cost reducing invention

Business enterprises exit for its owners as an alternative to making transactions directly with the market (Coase, 1937). The creation of an enterprise helps to reduce the transaction costs that result from dealing with the market directly. Without an enterprise, there would be daily or even hourly transactions involving the negotiation of prices, contracts, and hiring of workers. Conducting business would result in the creation of endless short-term contracts. The creation of an enterprise ensures that long-term contracts can be created and administered with the enterprise. This transaction-cost-reducing purpose of a business enterprise reveals that a primary value an employee creates for an enterprise is the reduction of transaction costs. The employee has saved the employer the extra transaction costs of hiring a new worker every time the enterprise has a business activity to carry out. This original value created by the employee is largely unseen, existing mostly in the abstract.

3. The Nature of 'Value'

3.1 Disappearance of Debates about 'Value'

The debate about the nature of 'value' was central to the economic thinking of the founders of economics as a discipline. Since the beginning of the 20th century, the debate about the origin, nature, and theory of value has largely disappeared from economics classrooms and academic journals. This has far-reaching consequences because current economic thinking equates value creation with activities that fetch a price in the market. Mazzucato (2018, p. xviii) wants to "change the state of things and to do so by reinvigorating the debate about the value that used to be – and I argue, should still be – at the core of economic thinking."

If the value is defined by price, – set by the supposed forces of supply and demand – then as long as an activity fetches a price (legally), it is seen as creating value. So, if you earn a lot, you must be a value creator. I will argue that the way that the word 'value' is used in modern economics has made it easier to value-extracting activities to masquerade as value-creating activities. And in the process rents (unearned income) get confused with [genuine] profits (earned income); inequality rises, and investment in the real economy falls (Mazzucato, 2018, pp.xviii-xix)

In her analysis, Mazzucato defines ‘value' as a flow: the process by which wealth is created. This flow could result in the creation of tangible things (e.g., a loaf of bread) or something intangible like an idea or knowledge. Mazzucato then defines ‘wealth’ as a stock: “a cumulative stock of value already created.”

3.2 Marginal Productivity Theory of Value

The theory of value that is dominant in modern economics is the marginal productivity theory of value. This theory links value to prices. The earliest advocate of this theory may have been von Thunen in the early nineteenth century (Leigh, 1946). This theory was made popular by Clark (1901) who initially called the theory "the law of final productivity." Clark describes the theory:

A unit of labor added to a working force adds a certain amount to the product that is created, and under perfect competition, and in the absence of all the changes and disturbances which characterize a dynamic state, it would get, as its pay, the amount of this addition. Every other unit of labor would receive a like amount. In a corresponding way a unit of capital added to a productive fund would add a certain amount to the product, and under the same conditions of perfect competition and the absence of disturbing elements, would get this amount as its share of interest. Every other unit of capital would get a similar amount (Clark, 1901).

Marginal productivity theory states that a factor of production receives a price for its services that is equal to the value it created, under perfect competition. Today's economics textbooks generally teach that an enterprise will hire workers until an additional (marginal) worker no longer increases the profit of the enterprise. The value of the marginal product of labor determines if another worker is hired: This value must be equal or greater than the cost of hiring the extra worker (at the market wage rate) (Acemoglu et *al*., 2019)

Marginal productivity theory has contributed much to factor pricing. But, the theory stands on critical assumptions that are seldom met in a dynamic real-world economy. In the real world, perfect mobility of factors of production is not common, competition is rarely perfect, and factors of production are rarely homogeneous. To measure the marginal productivity of a particular factor of production (e.g., a particular employee), all other factors would have to be kept constant. This would create problems for measurement. This difficulty when trying to segment each person's ‘personal-production' within interdependent production was articulated by Sen (1982):

The personal production view is difficult to sustain in cases of interdependent production, i.e., in almost all the usual cases of production. Production is based on the joint use of different resources, possibly provided by different people, and it is not in general possible to separate out who—or even which resource—produced how much of the total output. There is no obvious way of deciding that "this much" of the output is owing to labor, "that much" to raw materials, "that much" to machinery, and so on. In economic theory, a common method of attribution is according to "marginal product," i.e., the extra output that one incremental unit of one resource will produce given the amounts of other resources. This method of accounting is internally consistent only under some special assumptions, and the actual earning rates of resource owners will equal the corresponding marginal products only under some further special assumptions. But even when all these assumptions have been made—quite a tall order—it is still arbitrary to assert that each resource's earnings reflect the overall contribution made by that resource to the total output.

Piketty (2014) calls marginal productivity theory "limited and naïve," "an illusion" and "not very convincing." He further elaborates:

In practice, a worker's productivity is not an immutable, objective quantity inscribed on his forehead, and the relative power of different social groups often plays a central role in determining what each worker is paid…the vast majority of top earners are senior managers of large firms. It is rather naïve to seek an objective basis for their high salaries in individual "productivity." When a job is replicable, as, in the case of an assembly-line worker or fast-food server, we can give an approximate estimate of "marginal product" that would be realized by adding one additional worker or waiter (albeit with a considerable margin of error in our estimate). But when an individual's job functions are unique or nearly so, then the marginal of error is much greater. Indeed, once we introduce the hypothesis of imperfect information into standard economic models (eminently justifiable in this context), the very

notion of "individual marginal productivity" becomes hard to define. In fact, it becomes something close to a purely ideological construct on the basis of which justification for higher status can be elaborated.

In summary, employees are hardly ever remunerated based on the value of their enterprise's production or the individual productivity of each employee within overall enterprise production. This only ever happens under special circumstances. The supply and demand for labor is a more accurate determinant of remuneration in general cases than marginal productivity. For Keynes, the employment level is determined by aggregate demand and wages are then determined the employment level (Wells, 1987).

The most important asset that employees bring to an enterprise is their ‘time.' Labour is universally measured in time, and employees are remunerated in relation to the amount of time they give to an enterprise – it is just that the quality of time (value) differs from worker to worker. Generally, a worker is paid according to how valuable the worker’s time is to the enterprise. A worker’s time makes available her human capital – her skills, experience and knowledge to be put use by the enterprise.

Another difficulty with relying on the marginal productivity theory of value is that it has nothing much to say about the production of ideas. Romer (1992) laments that the economics of ideas has historically been treated "as a footnote to the rest of economic analysis." A business enterprise basically transforms inputs into outputs, and ideas (knowledge) constitute the technological relationship between inputs and outputs (Arrow, 2000). In the 21st century, commerce is increasingly data-driven requiring information technology and new knowledge: Ideas take center stage. Arguably, the greatest value a worker can bring to an enterprise is an idea that transforms the enterprise and ultimately results in profit. Initially, it would be almost impossible to ascribe a monetary (employee's compensation value) to an idea originating from a particular employee. Workers can create value even when the enterprise cannot immediately turn the worker's abstract contribution into profit. Ideas creation could be one of the key reasons why human capital is considered the only factor of production that appreciates with time – depending on how well the employee is treated (Balogun, 2019).

4. Value Creation in Different Business Life Cycle Stages

The International Council on Systems Engineering (2015) defines the life cycle of any man-made system as “the series of stages through which something (a system or manufactured product) passes.” The life cycle of a system must be properly defined if the stakeholders’ needs will be met, as shown in figure 1 below.

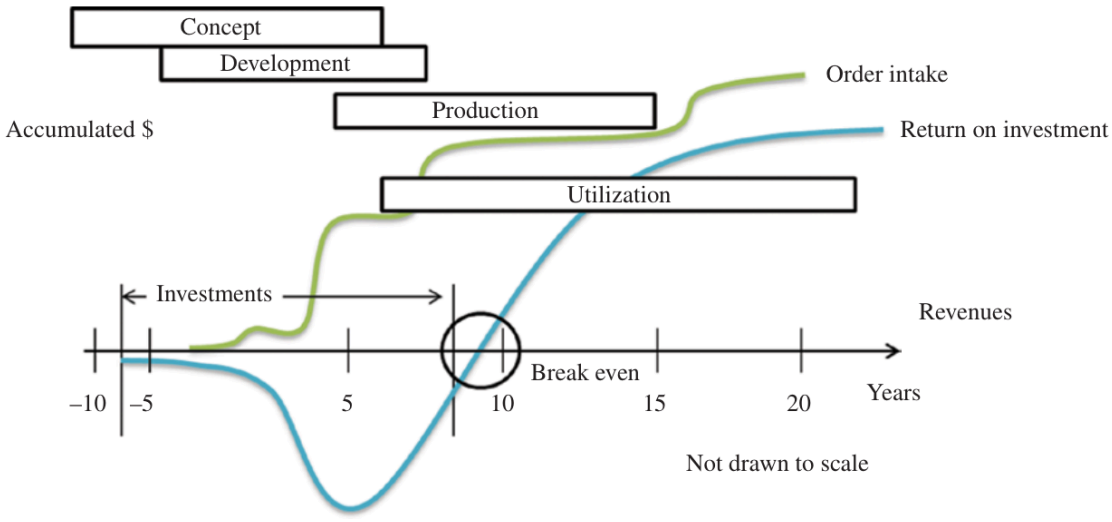

Figure 1: Generic business life cycle (International Council on Systems Engineering, 2015)

Decision gates help to partition one stage of the life cycle from another, ensuring that the enterprise is ready to advance to the next stage of the life cycle. Decision gates also help to manage enterprise risk, as can be seen in table 1 below.

Table 1: Generic life cycle stages, their purpose, and decision gate options (International Council on Systems Engineering, 2015)

Life cycle stages	Purpose	Decision gates
Concept	Define problem space 1. Exploratory research 2. Concept selection Characterize solution space Identify stakeholders' needs Explore ideas and technologies Refine stakeholders' needs Explore feasible concepts Propose viable solutions	Decision options • Proceed with next stage • Proceed and respond to action items • Continue this stage • Return to preceding stage • Put a hold on project activity • Terminate project
Development	Define/refine system requirements Create solution description—architecture and design Implement initial system Integrate, verify, and validate system	
Production	Produce systems Inspect and verify	
Utilization	Operate system to satisfy users' needs	
Support	Provide sustained system capability	
Retirement	Store, archive, or dispose of the system	

4.1 Liquefied Natural Gas Company as Example of 'Non-Producing' Enterprise

A megaproject is a complex industrial undertaking, large and expensive (usually greater than $ 1 billion in capital costs) executed by an enterprise (Omoregie, 2016). A liquefied natural gas (LNG) company is an enterprise created to design, construct and operate an LNG plant. The LNG project stages: Basic/conceptual phase; engineering phase; construction phase; operational phase and decommissioning phase. Each phase has distinct expectations from the business owners. Value creation in such an enterprise is simply the fulfilling of shareholders (and stakeholders) expectations during each phase. A distinguishing feature of an LNG project is long term contracts between the enterprise and its customers (Hartley, 2015). The average length of supply contracts between the LNG company and its customers is between 16-20 years (Ruester, 2009). For the LNG project to obtain external third-party financing, cash flow volatility must be reduced to a minimum through such long-term sales and purchase agreements. For some LNG projects, a commitment for the purchase of 80 percent of the plant's lifetime production must be in place prior to a final investment decision to begin plant construction.

Before the LNG plant is built, customers are already locked in by the LNG company. This is value creation without immediate monetary profit. Employees in the company at this 'non-producing stage' of the enterprise life cycle are already creating value and satisfying the shareholders. This strategy of customer lock-in is in line with Hax's 'Delta Model' for business strategy (Hax and Wilde, 2003). Hax and Wilde believe that customer bonding is at the heart of successful business strategy: "the fundamental strategic objective is to obtain customer bonding – that is to attract, satisfy and retain the customer." Too many enterprises put competitors at the heart of business strategy (to 'outsmart' the enemy): Strategy as continuous war. A "more constructive mindset" is to see business strategy as love: caring for the customers' explicit and implicit needs (see Figure 2 below).

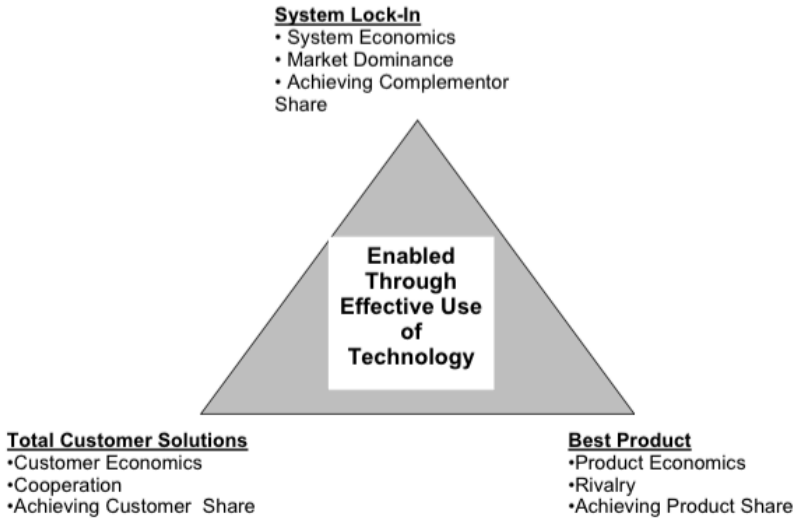

Figure 2: The Delta Model: Three distinct strategic business positions (Hax and Wilde, 2003)

5. Conclusion

Ultimately, the value is not in the eye of every beholder but in the eye of the shareholders: The shareholders state what they want the enterprise to achieve. Value implicitly defined in this paper encompasses more than monetary profit but also encapsulates future potential within an enterprise. Value can be created at every stage in the life cycle of a business enterprise. Work completed at every stage in the life of an enterprise can translate to profit or prevent losses for the enterprise at some time in the future. The two propositions stated at the beginning of this paper are proved to be incorrect or simply not applicable to all enterprises at all stages in their life cycles.

Probably the best and most reliable way to measure employee value creation is through the use of key performance indicators (KPIs). KPIs can be established for each employee during annual business planning sessions. KPIs can also be established for each business unit/department and for the enterprise as a whole. KPIs are developed based on an agreement between management and the entity whose performance will be measured. KPIs established during annual business planning should also be integrated to enterprise risk management (ERM). This integration of KPIs and ERM ensures that during the execution of day-to-day activities, the employee will intentionally manage risks: Minimize threats to accomplishing set targets and maximize every opportunity presented. This will ensure that value is created by the employees at every stage in the life cycle of the enterprise.

References

Acemoglu, D., Liabson, D., List, J. (2019). *Economics* (p. 601). Harlow, England, Pearson.

Arrow, K. (2000). Knowledge as a factor of production. In *Annual World Bank Conference on Development Economics 1999* (pp. 15-25). World Bank Washington, DC.

Association for Strategic Planning (2015). ASPOK 2.0: Guide to the strategic planning and strategic management body of knowledge. Los Angeles, California

Balogun, O. (2019). Human resources: A factor of production. Business Day Available: https://businessday.ng/opinion/article/human-resources-a-factor-of-production/

Clark, J. (1901). Wages and interest as determined by marginal productivity. Journal of Political Economy, 10(1), 105-109. https://doi.org/10.1086/250806

Coase, R. (1937). The nature of the firm. Economica, 4(16), 386-405. https://doi.org/10.2307/2626876

Friedman, M. (2007). The social responsibility of business is to increase its profits. In Corporate ethics and corporate governance (pp. 173-178). Berlin, Heidelberg, Springer.

Hartley, P. (2015). The future of long-term LNG contracts. The Energy Journal, 209-233. https://doi.org/10.5547/01956574.36.3.phar

Hax, A., Wilde, D. (2003). The delta model – a new framework of strategy. Journal of Strategic Management Education, 1(1), 1-21.

International Council on Systems Engineering (2015). Systems engineering handbook: A guide for system life cycle processes and activities (pp. 25-28). Hoboken, New Jersey, John Wiley & Sons.

Leigh, A. (1946). Von Thünen's theory of distribution and the advent of marginal analysis. Journal of Political Economy, 54(6), 481-502. https://doi.org/10.1086/256427

Mazzucato, M. (2018). The value of everything: Making and taking in the global economy (pp. xviii-xix). U.K, Allen Lane.

Omoregie, U. (2016) Megaprojects, complexity, and investment decisions. Open Journal of Business and Management, 4, 219-224. http://dx.doi.org/10.4236/ojbm.2016.42023

Piketty, T (2014). Capital in the twenty-first century (pp. 217,235), Cambridge, Massachusetts. Harvard University Press.

Romer, P. (1992). Two strategies for economic development: Using ideas and producing ideas. The World Bank Economic Review, 6, 63-91. https://doi.org/10.1016/b978-0-7506-9850-4.50015-4

Ruester, S. (2009). Changing contract structures in the international liquefied natural gas market: A first empirical analysis. Revue d'économie industrielle, (127), 89-112.

Sen, A. (1982). Just deserts. The New York Review of Books, 29(3).

Wells, P. (1987). Keynes's employment function and the marginal productivity of labor. Journal of Post Keynesian Economics, *9*(4), 507-515. https://doi.org/10.1080/01603477.1987.11489640