

Assessing the true value of construction and the built environment to the economy

This Special Issue has been produced in conjunction with CIB Working Commission 55 Construction Industry Economics, with its aim of supporting and developing the perception of the role of the industry in the economy, and Task Group 81 Global Construction Data which aim to model national construction data, improve the effectiveness of national processes for the gathering of construction data and facilitate the international availability of such data.

There has been a long-standing view that the construction industry as a whole is under-achieving and the industry, in many other countries, is seen as one of the least productive sectors in the economy. A prerequisite for discussion and analysis of the sector's value has to be the production of appropriate information to enable the development of models for the sector. The traditional perception of the contribution of the construction industry to the economy is based on the methodologies employed for the definition and measurement of construction activity according to international standards. However, perception of the sector's performance is often quite negative and there has been a long-standing view that the construction industry as a whole is under-achieving with one of the lowest rates of productivity in the economy.

National statistics organisations tasked with the publication of official statistics on the construction sector constantly reassess their methodology and the limitations of their data collection. Nevertheless, researchers and other users of such data must consider such questions as:

- How valid and useful are the current definitions and measures?
- What are the alternative approaches to the measurement of construction activity?
- Are current measures fit for purpose for assessing the industry's efficiency and productivity?
- How comparable are construction statistics internationally?

Such issues are reflected in the focus of the papers in this Special Issue. While each of the papers is obviously free-standing, there are obvious linkages between the papers.

In the first paper, De Valence deals with the issue of the scope of the construction industry and promotes the view that a framework for analysis of the construction industry should incorporate the totality of activities involved in the production of the wider built environment. He argues for the need to undertake research based on the boundaries of the built environment system which incorporates greater social and environmental challenges.

Ilhan and Yobas concentrate on the social and environmental value of construction activity and not just the economic value. They discuss the shortcomings of GDP measures and promote the development and use of National Wealth accounts to provide a better way of assessing the value of the built environment. They emphasise the importance of developing a system for measuring natural, man-made and human and social capital. In the context of a strategy for evaluating the construction industry and sustainable development, they discuss measurement problems and suggest indicators.

Ruddock and Ruddock assess the performance of an economy based on capital wealth measures rather than national income and, in their empirical study they evaluate the role of



investment in built assets in the achievement of economic growth as part of a wealth measurement approach. Using this method, they consider the role of investment in the achievement of economic growth. In the research, they identify evidence of changing capital investment patterns in countries' economies and undertake an analysis of the relative importance of built asset investment as part of a country's overall capital asset portfolio.

Fulford expounds the view that it is the use of the assets produced by the construction industry that determines its contribution to economic wealth creation and not the cost or value of the assets *per se*. He suggests that it is the nature of the assets and how they are utilised to improve productivity that actually indicates the value of these assets to a nation. The implications are that investment in built assets requires improved construction productivity whereas an ageing infrastructure restricts a nation's economic development.

Haugbølle, Larsen and Nielsen are concerned with issues found in the assessment of productivity being based on statistical data that do not represent construction output adequately. With a focus on changes in the quantity of the product, product characteristics and the compilation of the aggregate product rather than changes in price, they demonstrate a novel performance-based methodology for addressing changes in the characteristics of the industry's output to provide a better understanding of changes in productivity.

In an empirical study, Lopes, Oliveira and Abreu, address the issues of measuring the value of built assets. They consider the measurement of capital in terms of its function as a provider of services in the production process or capital's role as a stock of wealth and they propose a measurement method for estimating the built environment stock. Investment in infrastructure is a prerequisite for economic growth in developing countries and they highlight the fact that exhaustive analysis requires available data on construction investment in order to obtain a comprehensive picture of the drivers of economic change.

Haji Karimian, Mbacha, Egbelakin and Shahzad focus on one type of built asset. The importance of a well-constituted, efficiently operated and maintained road network is a critical enabler of economic growth. In their study, they investigate key productivity constraints. Looking specifically at the critical factors leading to economic improvement, their findings produce applications that could lead to raising productivity in the road building sector.

In the final paper, Gonzalez-Ruiz, Arboleda, Botero and Rojo introduce an investment valuation model based on a novel methodology, for decision making related to the financing of, and investment in, sustainable infrastructure systems.

Les Ruddock

School of the Built Environment, University of Salford, Salford, UK

Stephen Gruneberg

University of Westminster, London, UK, and

Steven Ruddock

School of the Built Environment, University of Salford, Salford, UK