



## Tony Thirlwall (21 April 1941 – 8 November 2023)

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### Abstract:

*The departure of Tony Thirlwall, a pioneer, renowned scholar, and a generous mentor, is a major loss to economics. This article reviews his main contributions to economics. The article focuses on his approach and method to economics and on his research output in the theory and empirics of growth and development.*

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The departure of Tony Thirlwall – Tony for those who had the privilege of having had close contact with him – a pioneer, renowned scholar, and a generous mentor, is a major loss to economics. He was most famous for his contributions to the theory and empirics of growth and development. During many years, Tony was a colleague at the University of Kent and a long-time member of the editorial board of this *Review*. For an autobiographical account of his life and work, we refer to Thirlwall (2018). In this in memoriam we focus on his approach and contributions to economics.

His approach to economics and the methodology of analysis reflects the strong influence of John Maynard Keynes, Roy Harrod, and Nicholas Kaldor, whom he considered the most original economists of the 20th century. A key common denominator found in their work, and a mark of their genius for the subject, was that their intuition about the nature and workings of market economies preceded their explicit analyses and terminology (Keynes, 1924).

Tony Thirlwall obtained his PhD in economics from the University of Leeds (1968) and spent his professional life at Kent University where he became Professor of Applied Economics in 1976. His PhD dissertation focused in part on explaining persistent differences in

\* The opinions expressed here are those of the authors and may not coincide with those of UNAM and/or ECLAC.



unemployment rates between regions in the UK. His early research also centered on labor economics. Early on in his career, development economics became one of his main areas of teaching and research (Thirlwall, 2018). He is most famous for the analysis of the impact of the balance of payments on countries' economic performance.

Thirlwall shared with Keynes the belief that economics “does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps the possessor to draw correct conclusions” (Keynes, 1922, p. v).

In line with Kaldor and Keynes, Thirlwall thought that the identification of stylized facts, which are, *per force*, historically, geographically, and politically conditioned, is central to economic analysis due to the sheer difficulty of modeling ‘absolutely precisely’ the real world. As in the case of Harrod, Thirlwall considered the inductivist approach – proceeding from the observation of trends to hypothesis testing to model building – the basis of applied studies and the only way for economics to be useful to improving the welfare of mankind. He criticized the alternative deductive method for “constructing abstract models based on unreal assumptions and pretending that the conclusions have any practical or policy relevance” (Thirlwall, 2018, p. 34).

Thirlwall's combination of intuition, logic, a deep knowledge of the facts and a gift for simplicity, led him to formulate his analysis of the economic growth of nations – and of the different rates of expansion between countries – over the long run, in terms of demand constraints; constraints that “operate long before supply constraints bite” (Thirlwall, 2013, p. 75). This view was reinforced by his early conviction that supply is endogenous to demand. In this regard, Thirlwall stressed that treating endogenous variables, for example aggregate supply or the so-called natural rate of growth, as if these belonged to the category of exogenous variables is “the source of most fallacies in economics” (Thirlwall, 2018, p. 34).

These key principles guided his theoretical and applied research and are at the basis of his key contributions to the discipline: in the fields of international economics, growth theory, and development. The policy recommendations derived from his contributions have withstood the test of time. They are considered highly relevant to developing countries by numerous official entities and international organizations such as the Economic Commission for Latin America and the Caribbean (ECLAC) and the United Nations Conference on Trade and Development (UNCTAD).

Without doubt, Thirlwall will be recognized and remembered for the inclusion of open economy considerations in the analysis of growth and, more precisely, for his balance-of-payments constrained approach to economic growth (McCombie and Thirlwall, 1999). Its most famous and simplest formulation came to be known as Thirlwall's Law (TL). It is the dynamic analogue of the static Harrod trade multiplier; although Thirlwall did not realize it when he first formulated it (Harrod, 1933; Thirlwall, 1987, p. xvi).

The Law states, in its essential and most parsimonious version, that there is an upper limit to the long-term growth rate of an economy; a limit that is determined by the country's long-run sustainable position of its balance of payments. This *binding constraint* is determined by a very simple expression given by the product of: (i) the growth rate of the world economy, and (ii) the ratio of the income elasticity of export demand to the income elasticity of import demand of the national economy in question. In an even more essential expression, the long-run growth rate of an economy compatible with a sustainable balance-of-payments position is given by the ratio of the export growth rate of that economy to the income elasticity of the

economy's import demand. From his work along these lines, Thirlwall concluded that in most cases maintaining the balance of payments equilibrium is the main constraint to the long-term rate of expansion of productive activity and, therefore, of the level of employment of an economy.

According to Thirlwall, in most countries, with the notable exception of the United States, the balance-of-payments equilibrium growth rate binds the actual growth rate, and the natural rate becomes endogenous to this less than full employment equilibrium growth rate. This has major implications for growth dynamics along Harrodian lines. Following Harrod's taxonomy (Harrod, 1973, chapters 7 and 9), the balance-of-payments equilibrium growth rate, rather than the actual growth rate, is compared to the warranted and natural growth rates to produce different constellations and policy scenarios. This modified Harrodian framework provides a pedagogical device for distinguishing and comparing the choices faced by developing and developed economies in their quests to promote the growth of productive activity and of employment (Thirlwall, 1987b).

Thirlwall recognized that Raúl Prebisch was "the true forerunner of the balance of payments constrained growth model" (Thirlwall, 2013, p. 85; Prebisch, 1949, 1959, 1963). During his ECLAC years and later at UNCTAD, Prebisch argued that the external constraint was a consequence of the way in which technical progress was transmitted from the center to the periphery. Thirlwall's Law finds, in fact, its first antecedent in a mathematical formulation of Prebisch's views developed by the structuralist economist Octavio Rodríguez (Rodríguez, 1977).

Thirlwall underscored the relevance and greater analytical power of Harrod's foreign trade multiplier over the Keynesian investment multiplier (and certainly over neoclassical growth theory, see Nell and Thirlwall, 2018) making it a key element to explain differences in the growth performance of countries. The foreign trade multiplier is also the main mechanism – that working through income rather than substitution effects equilibrates countries trade balances and maintains the consistency with Keynes's principle of effective demand.

He also extended the use of the foreign trade multiplier to explain interregional growth rate differences and to address the problems of regional economic convergence/divergence. His analysis of the open economy within the framework of effective demand solved one of the main limitations of *The General Theory* (GT: Keynes, [1936] 1964) pointed out by Kaldor, that is, its omission of problems related to international and intra-regional trade, which led Keynes to ignore exports as a central component of autonomous demand in the GT (Kaldor, 1989, p. 83). Writing impersonating Keynes, Thirlwall explained:

I am very conscious that I said very little in my GT about the open economy. In fact, Harry Johnson once said rather unkindly (I forget where now) that the greater disservice I did to economics was to cast my model in a closed economy context; but I could not do everything at once (Thirlwall and Keynes, 1999, p. 384).

Thirlwall's contributions to balance-of-payments constrained growth has given rise to a vast generation of models of increasing sophistication and complexity that include, *inter alia*, the effects of the real exchange rate, the terms of trade, trade in services, interest payments, remittances, capital flows (Blecker, 2021; Pérez Caldentey and Moreno-Brid, 2021). Also, the research has expanded to incorporate multisectoral or multi-national perspectives as well as the consideration of the impacts of fixed capital investment on import/export elasticities through the transformation of the productive structure. Thirlwall's Law – in different versions – has taken center stage in a broad range of empirical studies and has been corroborated in its

different versions for several developed and, above all, developing economies, in different contexts and historical circumstances.

Thirlwall's main policy conclusion, that progressive structural transformation is the only feasible way for countries to increase the long-term growth rate of their economic activity and employment, is as relevant today as ever.

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