

# ALBERT FISHLOW AND BRAZILIAN ECONOMICS: AN OVERVIEW<sup>1</sup>

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## SINOPSE

Este artigo contém uma visão geral das contribuições de Albert Fishlow para a economia do desenvolvimento, com foco em suas contribuições para o estudo da economia brasileira. Os tópicos abordados incluem ferrovias americanas no século XIX; a fundação do Instituto de Pesquisa Econômica Aplicada (Ipea); o debate sobre distribuição de renda na década de 1970; a industrialização brasileira no século XX; a política econômica durante a ditadura militar; as crises da dívida externa latino-americana dos anos 1980; e o papel do Estado no desenvolvimento econômico.

**Palavras-chave:** América Latina; economia brasileira; desenvolvimento econômico; Albert Fishlow; Ipea.

## ABSTRACT

This paper provides an overview of the contributions of Albert Fishlow to development economics, with focus on his studies of the Brazilian economy. Topics covered include American railroads in the 19th century; the founding of the Institute for Applied Economic Research (Ipea); the income distribution debate of the 1970s; Brazil's industrialization in the 20<sup>th</sup> century; Brazil's economic policymaking during the military dictatorship; the 1980s debt crises in Latin America; and the role of the State in economic development.

**Keywords:** Brazilian economics; economic development; Albert Fishlow; Ipea; Latin America.

JEL: N11; O11; O54.

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## 1 INTRODUCTION

On 27 May 2020, Harvard University's Graduate School of Arts and Sciences awarded Albert Fishlow with the highest honor it bestows, the Centennial Medal. The citation in Hahn (2020) reads:

to Albert Fishlow, for [his] intellectual leadership in the field of Brazilian economics, for [his] commendable success in strengthening Latin American institutions and international partnerships, and for the great magnitude of [his] influence as a mentor to generations of scholars and world leaders.

Two decades earlier, in 1999, the Republic of Brazil awarded Albert Fishlow the National Order of the Southern Cross, the highest honor bestowed by the country on foreign citizens.

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1. This article is based on a speech in honor of Albert Fishlow given at the Brazilian-American Chamber of Commerce in New York on 16 February 2023. With the usual caveats, I am indebted for comments to Paulo Vieira da Cunha, Daniel Gleizer, Abraham Lowenthal, Pedro Malan, William Summerhill, and Thomas Trebat. Azevedo's (2015) account of Albert Fishlow's intellectual trajectory was an important source of information. Thanks also to Lyle Prescott for editing this article.

2. Founder and member of the board of directors of the Casa das Garças Institute of Economic Policy Studies (Instituto de Estudos de Política Econômica/Casa das Garças – Iepe/CdG); and member of the Brazilian Academy of Sciences (Academia Brasileira de Ciências – ABC) and the Brazilian Academy of Letters (Academia Brasileira de Letras – ABL).

In his letter of support recommending Fishlow for Harvard's Centennial Medal, Fernando Henrique Cardoso, Brazil's President in 1999, shared his view of Fishlow's influence and service to Brazil (as quoted in Hahn, 2020).

Professor Fishlow has been for many years the informal 'dean' of international Brazilianists. His many important books and articles are one important aspect of his contribution and have been major reference points for all of us. Of equal importance has been Professor Fishlow's role as teacher and mentor to a generation of Brazilian economists and advisor to several of us who have exercised national policy-making responsibility.

These are magnificent tributes, and the purpose of this article is to explore Albert Fishlow's academic and policy-making contributions that substantiate such accolades.

## 2 AMERICAN RAILROADS

Albert Fishlow began his studies in economics at the University of Pennsylvania in the 1950s. After completing his undergraduate and master's degrees, he went on to Harvard University, where he earned his PhD in 1963.

When he entered Harvard, Fishlow had no intention of turning to economic history. Contact with Alexander Gerschenkron, however, aroused his interest in the area, which was going through a fruitful moment due to the incorporation of statistical tools. Fishlow became part of a select group of economists who engineered a shift in the study of economic history that came to be known as the cliometrics revolution.

It was at the Harvard Economic History workshop, organized by Gerschenkron, that cliometrics took off. Peter Temin, Deirdre McCloskey, Paul David and Albert Fishlow attended the meetings. According to Hecksher and Oliveira (2014), Fishlow was Gerschenkron's favorite student; they report that, in his office, the famous professor occasionally offered shots of brandy, but the best bottle was opened only for the most distinguished visitors, and among the students it was only Fishlow who received such a distinction.

Fishlow gained fame in U.S. academia with his doctoral thesis *American railroads and the transformation of the ante bellum economy* (Fishlow, 1965). It won the David Wells Prize for the best economics thesis at Harvard and was published as a book in 1965. It uses innovative methodology to investigate railroads' contribution to the United States economy in the pre-Civil War period.

In 1971, Fishlow shared with Robert Fogel the Schumpeter Prize, awarded by Harvard for their pioneering work on the "new economic history." The recognition underscored Fishlow and Fogel's role in the development of a new approach to economic history, extending its scope to apply econometric analyses to problems of long-term growth, which led to a rigorous reinterpretation of the American past.

But not only of the American past. Fishlow's innovative approach to the "social savings" generated by U.S. railroads was later emulated by other historians, including: Hawke (1970) for England and Wales, McGreevey (1971) for Colombia, Coatsworth (1981) for Mexico, Gómez-Mendoza (1982) for Spain, and Caron (1983) for France.

Summerhill's book (2003), *Order against progress: government, foreign investment, and railroads in Brazil (1854-1913)*, deserves special mention, as it uses Fishlow's methodology to highlight the fundamental role that railroads played in the Brazilian economy in the second half of the 19<sup>th</sup> century.

The wide repercussion of this first work set the tone for Fishlow's career as an academic economist. The choice of extremely relevant topics as the focus of analysis, the intention to make innovative contributions combining quantitative rigor and great analytical capacity, and the steady encouragement of discussions on fundamental issues for economic development were constants from then on in Fishlow's professional life. I am borrowing Azevedo's (2015) words here, but Fishlow himself listed four vectors for his approach to economic analysis (Fishlow, 2004, p. 11), as follows.

- 1) Try to understand the past as a prologue to the present. Historical roots matter and function both as a base of strength as a country develops and as a source of weakness and return to a variety of inefficiencies.
- 2) Emphasize empirical tests. A theoretical structure is necessary but not sufficient. Use of statistical methods is needed not only for illustration but to analyze conflicting and sometimes implicit hypotheses.
- 3) Employ comparisons that make it possible to differentiate country experiences that clarify causal mechanisms.
- 4) Pay detailed attention to policies and their intended and frequently unintended consequences.

### 3 FOUNDING IPEA

In the mid-1960s, as a professor at the University of California, Berkeley, and head of its Center for Latin American Studies, Fishlow was invited to Brazil to coordinate a group of foreign economists who would work as researchers in the Office of Applied Economic Research (Escritório de Pesquisa Econômica Aplicada – Epea). This office was created in 1964 as an independent body of Brazil's Planning Ministry and transformed into the Institute for Applied Economic Research (Instituto de Pesquisa Econômica Aplicada – Ipea) in 1967.

The foreign group was sponsored by the United States Agency for International Development (Usaid) and was the result of an agreement signed between the University of California and Epea under the Alliance for Progress. Fishlow first visited Brazil in June 1965 to arrange for the team he would bring. Initially the group included Howard Ellis, professor of economics at Berkeley, who led the foreign group in Brazil for the first two years.

In 1966, Fishlow returned to Brazil for a few months to work on the Ten-Year Economic Development Plan 1967-1976. This work is a reference in long-term planning in Brazil. The preparation required a comprehensive and unprecedented diagnosis of the Brazilian economy that served as a basis for the formulation of public policies and was the main input of the government's short-term plan, the Strategic Development Plan (Plano Estratégico de Desenvolvimento – PED) for the 1968-1970 period.

In August 1967, Fishlow moved to Brazil and established the research nucleus at Ipea, composed of Berkeley economists and members of the institute's staff, including Regis Bonelli and Pedro Malan.

Fishlow's team at Ipea prepared the macroeconomic portion of the PED. The studies that supported it highlighted the country's growth potential. In his testimony for the book "Ipea 40 years", published in 2004, Regis Bonelli recalled Fishlow's view that policies should be designed to encourage the country's

economic growth spurt, as observed in the following years, contrary to the International Monetary Fund's thesis that it was first necessary to focus on the fight against inflation. In the words of Bonelli (D'Araujo, Farias e Hippólito, 2004, p. 73, our translation):

amid an environment of certain perplexity, the studies for the preparation of the PED had the great advantage – largely due to the merit of Fishlow, who had the full support of minister Velloso – of foreseeing the possibility of accelerated growth in the following years, which later came to be known as the economic miracle period. If we make an impartial evaluation of the documents of that time, we will see that no one, official or academic, was as close to what would happen as the PED. Fishlow realized that factors existed that could help trigger an economic recovery, as was the case in 1968 and in the following years.

Due to his important role during the early days of Ipea, Fishlow is considered to be one of the founders of the institution, having helped to consolidate the incipient culture of research and economic planning in Brazil. The time that he spent in Rio was sufficient to implant a tradition of applied economic research that transformed Ipea into one of the most important research centers on the Brazilian economy.

#### 4 INCOME DISTRIBUTION DEBATE

The hardening of the military regime with the enactment of Institutional Act nº 5 (December 1968) made Fishlow choose to end University of California's agreement with the Brazilian government and return to the United States in 1969.

His ties with Brazil, however, did not break. In a seminar at Casa das Garças in 2015 commemorating Fishlow's 80<sup>th</sup> birthday, João Paulo dos Reis Velloso (Ipea's President 1964-1968 and Brazil's Planning Minister 1969-1979) quipped that by then Fishlow had already married Brazil.<sup>3</sup> Fishlow became director of Brazil's development program at Berkeley and continued to conduct fundamental analyses of the Brazilian economy.

The 1960 and 1970 population censuses served as inputs for his famous article "Brazilian Size Distribution of Income", published in the *American Economic Review* (Fishlow, 1972a). The relevance of this work is due to its pioneering spirit: it is the first study on income distribution in Brazil. Although the historically high concentration of income in Brazil had been noted previously, no quantitative measures were available to inform the discussion.

Fishlow noted not only the extreme inequality characterizing Brazilian society at that time but also the growing disparity from 1960 to 1970. There is an important political dimension in his article. Its results gave rise to one of the main criticisms levelled at the economic policy of the military regime.

The reason is that Fishlow attributed part of the income concentration he found in the data to the military regime's wage compression policies. His critics at the time suggested that these policies would be irrelevant in a world in which real wages are determined by marginal products of labor and these marginal products are functions of skill levels. Langoni (1973) argued that changes in the supply and demand of skill levels would be the main determinant of changes in wage dispersion in the 1960s.

3. Available at: <<https://iepecdg.com.br/wp-content/uploads/2016/03/Jo%C3%A3o-Paulo-Velloso.pptx>>.

Labor policies are irrelevant for real wage determination only under the assumption of fully competitive markets. With imperfectly competitive markets and heterogenous firms, government policies such as the minimum wage may significantly impact income distribution. In the 1970s, neither analytical nor empirical tools were available to deal with these more complex market structures, hence the dispute between Fishlow and Langoni (on the relative merits of wage policies and labor skills to explain the worsening of income distribution in the 1960s) could not be properly resolved.

However, these conceptual and empirical limitations no longer exist to analyze the reduction in earnings inequality in Brazil between 1996 and 2018; analysis can now be done using modern analytical tools and recently available microdata. Thus, Engbom and Moser (2022) – in the lead article in the December 2022 issue of the *American Economic Review* – attribute this reduction in earnings inequality in part to the substantial increase in the real minimum wage. In their words (Engbom and Moser, 2022, p. 3803):

increases in the minimum wage can substantially reduce earnings inequality. To demonstrate this, we combine administrative and survey data with an equilibrium model of the Brazilian labor market. We find that a 128 percent increase in the real minimum wage in Brazil between 1996 and 2018 had far-reaching spillover effects on wages higher up in the distribution. The increased minimum wage accounts for 45% of a large fall in earnings inequality over this period. At the same time, the effects of the minimum wage on employment and output are muted by reallocation of workers toward more productive firms.

This finding does not solve the earlier controversy but gives credence to Fishlow's hypothesis that the wage compression policies of the 1960s indeed might have contributed to the worsening of Brazil's income distribution in that decade.

On a personal note, in addition to its fundamental policy-related consequences, Fishlow's paper inspired the writing of a fable (by me) on the interactions of a visiting foreign economist with the King of Belindia (Bacha, 1974). Belindia, a conjunction of Belgium and India, has since become a label for Brazil's extreme income inequality.

## 5 BRAZIL AND LATIN AMERICA

Fishlow's 1972 income distribution paper was the first in a series of classic works on the Brazilian economy, which can be split into two groups. The first are his very original historical analyses of Brazil's economic growth and industrialization policies since the late 19<sup>th</sup> century. Particularly notable are the *Origins and consequences of import substitution in Brazil* (Fishlow, 1972b) and the December 1979 American Economic Association Meeting's paper on *Brazilian development in long-term perspective* (Fishlow, 1980). Also in this group is Fishlow's monograph on Brazil's trade regime (1975), which is one of the best analyses of the country's foreign trade policies in the post-World-War-II period. Unfortunately, it was never published.

The second group of writings consists of Fishlow's analyses of economic policymaking under the military dictatorship. These include *Some reflections on post – 1964 Brazilian economic policy* (Fishlow, 1973); *Indexing Brazilian style: inflation without tears?* (Fishlow, 1974) (in which he criticizes Milton Friedman's evaluation that with indexation Brazil had found a way to overcome the negative aspects of inflation); and his definitive account of Brazil's economic policies under Figueiredo and Geisel, *A tale of two presidents: the political economy of crisis management* (Fishlow, 1989b).

From the mid-1970s on, Fishlow became increasingly concerned with Latin America as a whole, both as an academic and as a policymaker. His contributions to U.S.-Latin American relations include his important roles in the 1974-1976 Commission on United States-Latin American Relations (the Linowitz Commission) and later in the Inter-American Dialogue; his article on U.S.-Brazil relations for Foreign Affairs (Fishlow, 1982); as well as his contribution as Deputy Assistant Secretary of State for Interamerican Affairs during the Ford Administration (1975-1976), working closely with William D. Rogers.

In this government post, Fishlow demonstrated his talents for diplomacy, especially in resolving seemingly intractable disputes between the U.S. and the then military government of Peru. Acting in the case of the expropriation of the mining company Marcona, Fishlow introduced the practice of hiring independent appraisers to solve impasses in the nationalization of American companies, a recurring issue in that period. In 1976, Fishlow was recognized for outstanding services by the U.S. Department of State.

Albert Fishlow was the first economist to draw attention to the dangers of accumulation of foreign debt in the 1970s. In a prescient text written in 1978, Fishlow spoke of the need for debt consolidation and restructuring to forestall an economic crisis in Latin America. As a member of the Council on Foreign Relations, he was part of a team of experts called to analyze economic and political issues that could become international concerns in ten to twenty years. In his article *The new international economic order: what kind?*, Fishlow (1978, p. 67) suggests that “an exchange of part of present commercial bank portfolio of developing-country loans for World Bank bonds could be quite constructive”. His advice was ignored. The difficulties faced by Latin American countries intensified in subsequent years, culminating in the defaults and debt crises of the 1980s.

The 1980s were indeed a difficult time for Latin America. When analyzing this period, Fishlow adopted illuminating historical perspectives, in both his *Lessons from the past: capital markets during the 19th century and the interwar period* (Fishlow, 1985a), and “*Difficult times: Latin America in the 1930 and 1980 decades*” (Fishlow, 1991a).

## 6 DEVELOPMENT ECONOMICS

Another of Fishlow’s concerns was setting the record straight about what lay behind the success of export orientation strategies among the so-called Southeast Asian “tigers” and why this experience could not be applied universally as a road to fast growth. A crucial precondition, notably missing in Latin America, is the existence of strong national savings. This was a salient concern in his text *Some reflections on comparative Latin American economic performance and policy* (Fishlow, 1991b), in which he analyzed and compared economic policies in Southeast Asia and Latin America.

At a time when state intervention policies in Latin American economies were under attack, he published two texts on the subject: *The State of the Latin American economy: economic and social progress in Latin America* (Fishlow, 1985b) and *The Latin American State* (Fishlow, 1990). In these works, he discusses the evolution of economic policy strategies in the region and makes a balanced analysis of the benefits and costs of state intervention in the post-World War II period.

Reviewing his analyses of the role of the State in Latin America, in the introduction to his book *Desenvolvimento no Brasil e na América Latina: uma perspectiva histórica*, Fishlow (2004, p. 12) is more specific.

- 1) The State was and continues to be a vital element in the development process of Latin America. Policies, however, have often been wrong. At this time, the fight against inflation had largely been won. Nevertheless, evolution from import substitution to a more adequate emphasis on external markets and the opening of the economy was not accomplished in several key countries of the region. Likewise, the move toward privatization, practically inevitable to protect public resources and avoid large fiscal deficits, was hesitant and incomplete, hampering gains in productivity.
- 2) The State maintains its importance not only in provision of public goods and as a source of subsidies, but also as an active force in the elimination of poverty, expansion of education, improvement in housing, guarantee of medical assistance etc.
- 3) The State is fundamental to ensure the steady increase in domestic savings through production of budget surpluses, with such savings financing increases in public investment necessary to achieve higher growth rates.

In this broader context, Fishlow's book review (1991c) of the *Review of handbook of development economics* deserves attention. He draws a broad panorama of the field that he helped to build. It starts with the pioneers of economic development, which emphasized market failures and the role of the State, a view supported by the robust performance of the world economy in the early post-war period. The adversities experienced by the developing countries in the 1970s and 1980s, however, changed the course of development thinking. The belief in continuous and irreversible material progress was strongly shaken and, along with it, the economic policy prescriptions defended until then. Transformations in the world economy made existing diagnoses obsolete and a pro-market view adverse to government intervention gained ground.

Fishlow's comments reveal that his thinking had also changed over time, alongside the transformations that the study of economic development had undergone: "We conclude from these chapters that some highly optimistic beliefs about reconciling equity and growth do not hold. (...) Size distributions remain stubbornly unsusceptible to much improvement despite significant increases in human capital," and he added: "Latin America has become a testing ground and the verdict has been harsh. Heterodox adjustments have fared very badly in Argentina, Brazil, and Peru in their diverse guises. More orthodox successes in Chile, Bolivia, and Mexico stand out by contrast" (Fishlow, 1991c, p. 1732).

## 7 BACK TO BRAZIL

In *Origens e consequências da substituição de importações: 40 anos depois* (Fishlow, 2013), Fishlow shows that his views on the Brazilian development process had also changed. The article begins with a summary of the evolution of the country's industrial sector and then addresses three historical characteristics: participation of the State, and the sequential and cyclical patterns of import substitution. Fishlow (2013, p. 34) notes:

perhaps the Brazilian decision to commit to this consumption-led process went a bit too far. Domestic savings did not continue to advance, and indebtedness, domestic and foreign, substituted. Too little attention was directed to industrial products' exports and too much to providing the considerable subsidies required by private investors.

Despite these criticisms, Fishlow ends the paper on a positive note, confirming that he remained married to Brazil (Fishlow, 2013, p. 42):

Brazil's future development depends on integration of the agricultural, mineral and petroleum, manufacturing, and service sectors. Present commodity exports are not like the historical dependence on coffee. Their origin is improved efficiency. Few countries benefit from such a diversified base. Perhaps God is truly Brazilian.

The list of Fishlow's papers is long and there are many more I could add, but here I'll refer only to his last two books on Brazil. *Starting over: Brazil since 1985*, published in 2011, was a broad and integrated analysis of redemocratized Brazil (Fishlow, 2011). I wrote the preface for the Portuguese version, in which I said that under the new democratic regime Brazil had experienced fundamental changes in politics, economics, social policies, and international presence. And that now – thanks to Fishlow's solid formation, deep knowledge, critical distance, and confessed love of the country – we had a definitive interpretation of how this transformation took place.

Fishlow's most recent book is *Agriculture and industry in Brazil: competitiveness and innovation*, which he co-authored with José Eustáquio Vieira-Filho, a senior economist at Ipea (Fishlow and Vieira-Filho, 2020). It is a study of the economics of Brazilian agriculture and two industrial sectors, with a focus on the role of innovation for productivity growth. In his testimonial about the book, Rodrigo Soares points out that it sheds new light on the historical role of agriculture in Brazil's development and, most importantly, on agriculture's recent resurgence as one of the most dynamic sectors in the country.

The book argues convincingly that the recent agricultural expansion was technologically intensive and therefore significantly different from commodity booms of the past. It reveals how technological evolution could drive expansion of the whole Brazilian economy.

## 8 INSTITUTION BUILDING AND STUDENTS

Real scholars produce not only influential books and articles but also good university institutions and promising students. In these two areas, too, Albert Fishlow's contributions were outstanding.

In his two terms in the 1980s as director of Berkeley's economics department, through an aggressive hiring policy he managed to place the department back at the top of the list of economics departments in the U.S.

From 1990 to 1993, Fishlow was Dean of International and Area Studies at Berkeley, becoming Professor Emeritus in 1994. For the rest of that decade, he served as the first President of the Latin American and Caribbean Economic Association (Lacea) (1993-1997) and Paul A. Volcker Senior Fellow at the Council of Foreign Relations (1997-1999). He was a professor of economics and director of the Center for International and Area Studies at Yale University from 1998 to 2000.



Fishlow entered Columbia University as professor of international affairs in 2000. There, he directed the Center for Brazilian Studies (2000-2007) and the Institute for Latin American Studies (Ilas), during 2003-2007, retiring in 2007 as Professor Emeritus. In a statement prepared for a luncheon honoring Albert Fishlow at the Brazilian-American Chamber of Commerce in New York on 16 March, 2023, Thomas Trebat spoke about Fishlow's activities at Columbia University:

by the time Al had come to Columbia, he had already made academic and institutional contributions to higher education that would have been career-defining accomplishments for any academic. His accomplishments over decades at Berkeley, for example, were legendary and Yale University also benefited from his research and teaching gifts.

Al could have rested on his laurels, so to speak, when he came at a retirement age to Columbia and been content merely to oversee the activities there. But that sort of inaction is not in his character. Instead, he took steps to rebuild the Institute of Latin American Studies, literally rescuing it after a period of neglect and declining funding. Working with his friend and colleague, Professor Alfred Stepan, Al also obtained seed funding from a variety of Brazilian sources to create what is now known as the Lemann Center for Brazilian Studies at Columbia. The Lemann Center has sunk deep roots at Columbia and has even given rise to a sort of subsidiary – the Columbia Global Center in Rio de Janeiro – which it is now my privilege to direct.

As for the prominence of Fishlow's students, suffice it to say that, in 2002, several of his former Brazilian Ph.D. students at Berkeley were occupying the Ministry of Finance (Pedro Malan) and the presidencies of Banco do Brasil (Paulo Zaghen), Banco Nacional de Desenvolvimento Econômico e Social (BNDES) (Andrea Calabi), and the anti-trust agency Conselho Administrativo de Defesa Econômica (Cade) (Gesner de Oliveira). From 1997 to 2007, no less than five other former students were deputy governors at Brazil's Central Bank: Demosthenes Madureira do Pinho Neto, Daniel Gleizer, Alexandre Schwartzman, Afonso Bevilacqua, and Paulo Vieira da Cunha.

## 9 CHALLENGES FOR LULA'S NEW GOVERNMENT

If God is indeed Brazilian, he must have been busy looking elsewhere over the last ten years. For it was only recently that Brazil's per capita income surpassed its 2013 level. But Fishlow is cautiously optimistic about the country under the new Lula government. In a recent op-ed for the *Estado de São Paulo* newspaper (Fishlow, 2022), he made the following points.

- 1) The tight margin of Lula's victory limits the freedom to simply move forward. A better future requires an ongoing ability to try to be friendly and compromise rather than impose.
- 2) Lula has the difficult task of increasing expenses with the poorest, which will raise the fiscal deficit. Projected growth for developed countries will decline in 2023, and is likely to follow the same downward trend in developing countries. While it is nice to be considered a global leader from the South, projected growth in Brazil is likely to decline from 2.7% in 2022 to around 1% in 2023.
- 3) With the new government's early decision to carry out a large redistribution of resources to the poorest, little will be left to finance the public investment needed to stimulate real growth of social capital.
- 4) Brazil needs a regular investment rate along the order of 25% of its gross domestic product (GDP). Part of it may come from increased foreign investment, but domestic savings must also increase to finance growth.

- 5) In short, even as the country's revenues have grown, Brazil has not moved toward a regular and greater commitment to capital formation. There has not been a large increase in the share of international trade, as has happened in other countries. Always, somehow, attention turns to the positive role of industry and not to the advances that have occurred in agriculture, mining and oil extraction, in addition to some improvements in services.
- 6) Education is an area that still needs careful and ongoing reform. The country spends much more per student at the university level than at the early-school level. Income distribution studies in Brazil consistently show that education is a more prominent factor than in other countries.
- 7) Brazil has reached a point where productive decisions are crucial. Dilma Rousseff promised that per capita income would double from 2010 to 2022. A more modest but notable goal would be to achieve a continuous growth rate of 3% through 2026.

## 10 CONCLUSIONS

Albert Fishlow made a name for himself in American academia with a groundbreaking 1963 doctoral thesis at Harvard University on the impact of railroads on U.S. development in the 19<sup>th</sup> century.

In 1965, already as a professor at the University of California at Berkeley, Fishlow accepted the challenge of leading the Brazil Project, advising the Brazilian government at the then newly created Epea (renamed Ipea in 1967). Fishlow, along with João Paulo dos Reis Velloso, organized Ipea's research activities.

At Ipea, Fishlow placed himself at the center of debates on the country's historical evolution and economic policies, producing in the years that followed texts as original as they were impactful on Brazil's economy. Subsequently, Fishlow expanded the scope of his analyzes to all Latin America. His body of work is as important for understanding Latin American economies as the classic texts by Raul Prebisch, Celso Furtado, Albert Hirshmann and Carlos Díaz-Alejandro.

The breadth and depth of Fishlow's oeuvre is remarkable, and he remains productive to this day. He encouraged generations of American (and other foreigners) to direct their scholarly attention to the development problems of Brazil. He thus raised the profile of Brazil and the Brazilians in academic and policy circles around the world.

This paper has focused on Fishlow's scholarship, but it would not be complete without mentioning his personal qualities, for which I quote the words from his close friend, Abraham Lowenthal, in a letter to me: "[Fishlow's] warm and caring personality; his devotion to students, colleagues and family; his vocation for teaching so deep in his personality that a conversation over coffee or a meal often turns into a full, stimulating lecture to an audience of one or two; and the breadth and depth of his liberal education."

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