Profile Series: Jagdish Bhagwati

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The first two individuals chosen for this profile series of leading international economists were Paul Samuelson and James Meade. It is eminently fitting that Jagdish Bhagwati appears next in line. Like Samuelson, who was first his teacher and then his colleague, Bhagwati has made fundamental and extensive contributions to the theory of international trade; like Meade, he has shown a deep and abiding interest in developing and using theory as a handmaiden to the formulation of public policy and the advancement of economic welfare. Samuelson and Meade received Nobel Prizes for their contributions to economics, and Bhagwati's fundamental contributions to the theory of commercial policy put him next in line in that category as well.

Bhagwati's contributions to international economics, however, are so numerous and wide ranging that no short profile such as this one can do them full justice. Rather, this profile will discuss some of the highlights of his career and contributions. Along the way, I also hope to convey a sense that Bhagwati's unique position among economists has been achieved not simply by virtue of his research, but also comes from the leadership he has provided in supporting students and the research efforts of others, in founding journals that have shaped the field, and in showing through his popular writings how theory is applicable to current policy debates.

Jagdish Bhagwati was born on July 26, 1934, in Bombay, India, to a family with abundant intellectual achievement.² Bhagwati attended St. John's College, Cambridge University as an undergraduate where he studied for the Economics Tripos in 1954-56. He proved to be a gifted and precocious student, and it was there that his talents came to the

attention of Harry Johnson.³ During his second year at Cambridge, in reaction to Johnson's work on international trade and economic expansion presented in his Cambridge lectures, Bhagwati wrote a paper on what he called "immiserizing" growth, economic growth that so worsens the terms of trade that it actually reduces economic welfare. This paper, the first of many brilliant ones to come, eventually turned into his first academic publication, "Immiserizing Growth: A Geometrical Note," published in June 1958 in the Review of Economic Studies. A recurring theme in Bhagwati's career is that he arrives at a creative and thought provoking insight that proves to be a fertile area of research. In this case, as in others to follow, the concept of "immiserising growth" immediately gained a niche in economic theory and spawned numerous extensions and developments. Noteworthy among these are the Johnson (1967) and Brecher and Diaz-Alejandro (1977) papers pointing out that technological progress or capital-inflows in a tariff-distorted economy may prove welfare-worsening.

On Harry Johnson's advice, Bhagwati spent the 1956-57 academic year studying in the Economics Department at the Massachusetts Institute of Technology. There Bhagwati attended courses offered by his future colleagues (Charles Kindleberger, Paul Samuelson, and Robert Solow), while also becoming acquainted with a wide array of young talent in international economics (including Ronald Findlay, Carlos Diaz-Alejandro, Egon Sohmen, and Jaroslav Vanek). He then returned to Britain to continue postgraduate studies at Nuffield College, Oxford University, from 1957-59. There his supervisors were John Hicks and Donald MacDougall, and he attended Roy Harrod and MacDougall's famous seminar on international economics.

As he had done with Johnson at Cambridge, Bhagwati quickly impressed Harrod at

Oxford. The impression must have been great because when, due to a family illness, Paul Samuelson was unable to prepare a paper on recent developments in trade theory for a major conference of the International Economic Association, Harrod tapped the young Bhagwati to fill Samuelson's shoes. At the conference in Brissago, Switzerland, in 1961, Bhagwati met such luminaries as Bertil Ohlin and Gottfried Haberler. In his introduction to the volume, Harrod (1963, p. xii) praised Bhagwati for stepping in with a paper -- "executed with fine proficiency," "a very remarkable achievement in a short space of time" -- that was "much appreciated by the Conference." Yet, Harrod noted, the paper was "subjected to a barrage of criticism." (The detailed report of the ensuing discussion, which is included in the conference volume, however, does not seem all that tumultuous or critical -- though one does read of Harry Johnson leaping to Bhagwati's defense on several matters.) Ohlin himself, for example, strongly objected to Bhagwati's description of the "Heckscher-Ohlin" model as his because his book dealt with much more than just factor endowments and trade. Thus we observe the origin of the Heckscher-Ohlin-Samuelson model: this criticism from the master himself came as a surprise to young Bhagwati and led him eventually into adding Samuelson to Heckscher and Ohlin, indicating that it is Samuelson's precisely formulated version, focused strictly on endowment differences, that the theory now addresses.

Of great interest, however, is Harrod's observation that Bhagwati's policy conclusions were "chillingly agnostic." Following the earlier work of Gottfried Haberler (1950), Bhagwati had noted that the ranking of free trade and autarky becomes problematic in the presence of market failures, a proposition that many in the audience found unsettling. Bhagwati's major breakthrough, which was soon to come and which radically reoriented our thinking on

commercial policy, came from wrestling with precisely this difficulty and trying to say something more definitive on the merits of free trade.⁴

Having returned to India in late 1961 to work at the Indian Statistical Institute in Delhi, Bhagwati and his friend V. K. Ramaswami (then a civil servant) broke through to the insight that, in the presence of domestic distortions, free trade would once again be restored to its dominance over protection if the domestic distortion were fixed through appropriate domestic policy intervention. Thus, in what would prove to be one of the most influential papers ever written in trade theory ("Domestic Distortions, Tariffs, and the Theory of the Optimum Subsidy," published in the Journal of Political Economy in 1963), Bhagwati and Ramaswami showed that the traditional reaction that the case for free trade was necessarily compromised in the presence of distortions was incorrect. In its place they provided the compelling insight that, in the case of market failures arising in domestic markets, the appropriate intervention was a domestic policy targeted at the source of the distortion, and that this would restore free trade as the optimal policy for a small country. A later exchange (with Murray Kemp and T. Negishi) led Bhagwati (with Ramaswami and T. N. Srinivasan) to the added insight that, in the absence of such a first-best domestic policy intervention, suitable trade tariffs or subsidies could improve welfare. But the ranking of a whole set of alternative policies (and not just free trade and protection) in the presence of different distortions was set in motion by the Bhagwati-Ramaswami article.

As a result, Bhagwati and Ramaswami had effectively reduced the scope of protection as a first-best policy to a narrow class of cases: where the distortion was not domestic, as in the case when the country has monopoly power in trade. Thus, Krugman (1996, p. 33) has

aptly noted the "paradoxical history" of the Bhagwati-Ramaswami findings. By putting the manifold market failures that had been earlier held to justify protectionism within the unifying framework of second-best theory, their "analysis actually ended up serving primarily as an argument against protection."

The Bhagwati-Ramaswami analysis also proved capable of illuminating and clarifying a variety of previously isolated and disparate arguments for the use of trade policy to correct any one of innumerable proposed market failures. In an influential review and extension of their analysis, Harry Johnson (1965, p. 3n) explained that "[t]o these two authors belongs the credit for reducing a mass of <u>ad hoc</u> arguments concerning tariffs to a simple application of secondbest welfare theory." Their landmark 1963 paper, along with Bhagwati's equally influential article "The Generalized Theory of Distortions and Welfare" in 1971 (another of his most frequently cited papers), has changed the way we think about commercial policy so deeply and pervasively that it has become an intimate part of our knowledge. Indeed, a recitation of the optimal policy rankings in the presence of any distortion at hand has become a reflex response of trade economists in dealing with any proposed trade interventions. The power of the paper's analysis is also evident from the way T. N. Srinivasan (1996) has described how it has relates to and illuminates a whole new range of results in international economics (and elsewhere) over the last three decades.

In 1963, Bhagwati joined the faculty of the Delhi School of Economics where he continued his string of notable publications. These successes gained for him a vast international reputation, and he soon returned to the United States. He visited Columbia University in 1966-67 and joined the faculty of MIT in 1968, where he eventually became the

Ford International Professor of Economics. During this period Bhagwati continued his remarkably productive publishing record, in academic journals and elsewhere, including dozens of important articles on various aspects of commercial policy that he produced in the late 1960s and through the 1970s, which included many fruitful collaborations with T. N. Srinivasan. These wide-ranging contributions covered distortions and welfare, the non-equivalence of tariffs and quotas, illegal trade and smuggling, shadow prices for project evaluation, effective protection in general equilibrium, cost-benefit analysis in an open economy, international migration and transfers, to name but a few. In 1968 he delivered the Frank Graham Memorial Lecture on "The Theory and Practice of Commercial Policy" at Princeton University. In 1971 he founded the Journal of International Economics, which remains the premier scientific journal devoted exclusively to international economic research. Bhagwati also edited or co-edited several other volumes on such topics as international migration and taxation, illegal trade (smuggling and under-invoicing), North-South interactions, and other international economic issues.

Bhagwati's writings on economic development were particularly influential during this period. In 1970 he published India: Planning for Industrialization (OECD Development Centre and Oxford University Press), with his wife, Padma Desai, also a distinguished economist. With Anne Krueger, he directed a National Bureau of Economic Research study on "Foreign Trade Regimes and Economic Development" in the early 1970s, authoring the volume on India (with T. N. Srinivasan) and the summary volume Anatomy and Consequences of Exchange Control Regimes (Cambridge: Ballinger, 1978). This research was quite influential in showing the futility and enormous costs of inward-oriented development policies.

With the additional research and findings of Belassa, Little, Scitovsky, and Scott, and many others, the intellectual foundation for the subsequent abandonment of inward orientation by many in the developing world was laid.⁶

Toward the end of the 1970s, Bhagwati's interest in the political economy of trade policy began to grow, an interest that deepened after his move to Columbia University in 1980. Bhagwati (1982) developed the term "directly unproductive profit seeking activities" (or DUP) to refer to the use of real resources to gain income via rent-seeking, revenueseeking, and policy-evasions, thereby generalizing Anne Krueger's important rent-seeking concept. His theoretical work with T.N. Srinivasan also shows precisely how Krueger's specific rent-seeking analysis can be extended in general equilibrium to revenue-seeking, whereas he has also extended DUP analysis to examining the implications for the measurement of the cost of protection when policy is endogenous. In terms of endogenous tariff theory (an area with many early contributors, including Stephen Magee, Anne Krueger, Robert Baldwin, Ronald Findlay and Stanislaw Wellisz), Robert Feenstra and Bhagwati (1981) took a unique approach by focusing on two branches of government arriving at the "efficient tariff," in which tariff revenue from a legislative-determined (under the influence of special interest lobbying) tariff are used by the national-interest minded executive to bribe the lobby into accepting a less harmful tariff. Bhagwati also played a special role in launching this area of research by encouraging others to get involved. Indeed, as a result of his growing interest in the intersection between economics and political science, he founded in 1989 another successful journal, Economics & Politics, to encourage further research.8

Just a glance at the table of contents of Bhagwati's (1983) collected essays from this

period gives one a sense of the overwhelming breadth and depth of his contributions. In browsing through these articles again, two impressions came to my mind. The first is how many of these contributions have spawned vast amounts of further research and are an integral part of the tool kit of any international trade economist. This is true not just in the case of the theory of distortions, but in many other areas as well. For example, Bhagwati's famous paper "On the Equivalence of Tariffs and Quotas" (first published in 1965) considered the different impact of tariff and quantitative trade restrictions in the context of imperfect competition. His work showed that the "implicit" tariff from an import quota would be greater than that of a comparable tariff because a quota would enhance the market power of domestic firms (as they would no longer would face the price discipline of import competition), inducing them to reduce output (rather than increase output, as under a tariff) and further increase prices. Trade policy and imperfect competition proved to be an area of intensive research in the 1980s and often drew on this key insight. (Though he himself has not worked much in this area, it should be noted that he encouraged and promoted the works of others here as journal editor and advisor.)

The second impression is how often his theoretical papers (which are invariably clean and concise, simply constructed yet powerfully insightful) have extremely relevant and useful policy implications. The findings of many of his papers are now so much a part of our knowledge that one sometimes forgets where our ideas came from or how different the economic literature was before we had certain insights. The policy-targeting implications of his theoretical paper on "Optimal Intervention to Achieve Non-Economic Objectives" (with T. N. Srinivasan) are keenly important in current policy-oriented work on the efficiency of using

trade instruments to achieve environmental goals, better working conditions for labor abroad, or the host of other objectives. Krugman (1996, p. 48) is surely correct in writing of the "enduring usefulness of great ideas in economics" in the context of Bhagwati's theory of distortions and welfare, which, Krugman writes, "have proved to be more relevant now than ever before."

As Bhagwati has turned his own efforts more steadily toward policy writing, he has remained tremendously influential in theoretical work — not only because he is one of the keenest analysts of commercial policy, but because his writings have set the agenda for research in a variety of areas. He was one of the first to voice concerns about what he termed "aggressive unilateralism" in U.S. trade policy due to the use of Section 301 retaliatory threats. In a 1987 paper, he created the term "voluntary import expansions," or VIEs, to describe cases in which a country agrees to adopt policies to expand imports. While VIEs can seemingly be a move toward free trade, they often degenerate to simply managed trade and thereby become the import-counterpart to voluntary export restraints (VERs). This particular "market-opening" approach has been a prominent feature of recent U.S. trade policy, and Bhagwati deserves credit for having identified VIEs as a deserving subject of theoretical and applied research. He also developed the term "quid pro quo DFI" to refer to the relationship between trade policy and direct investment, and here again spawned a substantial literature.

More recently, he organized a major research project on the demands for fair trade and harmonization that brought together a team of economists and lawyers to identify the main problems and set out the terms of rigorous analysis that would replace the rhetoric which dominated the scene. (This resulted in a successful two volume work, co-edited with Robert

Hudec and published by MIT Press in 1996.) He was an early skeptic of preferential trade agreements at a time in the 1980s when they were increasingly popular, and Bhagwati and Panagariya (1996) took the lead among economists in pointing out the pitfalls of these discriminatory arrangements. The impact of Bhagwati's strong views on regional trade arrangements serve to illustrate his unique position among international economists: the increasingly critical view taken by trade economists of PTAs can be largely traced to his early criticisms and leadership in the field. His persistence has been rewarded not only with a general shift in attitudes about PTAs, but an outpouring of theoretical work that owes much to his writings.

Bhagwati also has proven to be a skilled communicator of economics to a broader audience. His book Protectionism (1988) proved to be a tremendous success in both the academic and non-academic markets: it was translated into several languages, has been used in many courses, and a decade later is still in print and selling copies. Based on his Ohlin Lectures at the Stockholm School of Economics, Protectionism considered a wide variety of themes on the political economy of post-war trade policy. I was fortunate enough to be his research assistant during this period. What is memorable to me is how genuinely appreciated the suggestions and comments of others, including a mere graduate student, and indeed how willing he was to involve a student in the project. What is even more memorable is how much fun he had in putting together the book (and I as well, by osmosis and extension), particularly when it came time to use a clever turn of phrase, anecdote or story to make his keen insight shine through. These are characteristics of Bhagwati: a willingness to listen and take students' ideas seriously, and to make research an enjoyable learning experience.

On top of these attributes comes enormous energy, bordering at times on the frenetic. While also teaching and supervising students, traveling extensively, and writing dozens of articles a year, Bhagwati also authored and edited a steady stream of books -- in 1983 Lectures on International Trade (with T.N. Srinivasan), which has been the leading graduate text in the field, and a companion collection of article readings; in 1988 Protectionism; in 1989, Income Taxation and International Mobility, edited with John D. Wilson on taxation issues and migration; in 1990, Aggressive Unilateralism, edited with Hugh Patrick on the role of Section 301 in U.S. trade policy; in 1991, The World Trading System at Risk, which forcefully presents his views on regional trade arrangements and global trade negotiations; in 1993, India in Transition, reflecting his ongoing interest in Indian economic affairs. In addition, he also served as Economic Policy Advisor to the Director-General of the General Agreement on Tariffs and Trade from 1991 to 1993.

As Bhagwati's recognition in policy circles has caught up to that in academic circles, he has branched out to reach new audiences, contributing frequently to the New York Times, The New Republic, The Wall Street Journal, and other publications. These popular writings are to be collected in Bhagwati's forthcoming MIT Press volume, A Stream of Windows. His serious applied policy interests have also induced him to link up with the American Enterprise Institute in Washington, D.C., where he has helped organize conferences on key issues of the day. These have resulted in volumes on the effects of trade on wages (Bhagwati and Kosters 1994) and the economics of preferential trade arrangements (Bhagwati and Panagariya 1996).

Bhagwati has been not only one of the premier international economists of his generation, but also one of the premier teachers of international economics. He is known for

his rapid, breathless style of lecturing, and his courses are an exhilarating combination of deep economic insights and intuition, fresh ideas and topics for research, punctuated by amusing illustrations and anecdotes. Perhaps most important, he taught his courses in a way that emphasized that there was more to be learned through further research and study by his students, and he is always bubbling over with new ideas for research topics. Starting with Stephen Magee's dissertation on wage distortions at MIT in 1971, Bhagwati has supervised numerous doctoral students at both MIT and Columbia, many of whom have become established as top international or development economists. In this vein Bhagwati has been unique in the time he has devoted to his students, in his willingness to listen to their ideas and give encouragement, and in the support he has given to his students throughout their careers.

Bhagwati continues to be a highly productive and energetic figure in international economics, and his contributions have failed to cease. His pervasive influence is to be found not just in his published work on trade and commercial policy, but through his service to the profession and through his numerous students around the world who are still in his debt.

References

Bhagwati, Jagdish. "The Generalized Theory of Distortions and Welfare." In <u>Trade</u>, <u>Balance of Payments</u>, and <u>Growth</u>: Papers in International Economics in Honor of Charles P. Kindleberger, eds. J. Bhagwati, et al. (Amsterdam: North-Holland, 1971).

Bhagwati, Jagdish. "Harry Johnson, 1923-1977." <u>Journal of International Economics</u> 7 (1977): 221-229. Reprinted in Bhagwati (forthcoming).

Bhagwati, Jagdish. "Directly-unproductive Profit-seeking (DUP) Activities." <u>Journal of</u> Political Economy 90 (1982): 988-1002.

Bhagwati, Jagdish. <u>Essays in International Economic Theory</u>. Vol. 1: The Theory of Commercial Policy; Vol. 2: International Factor Mobility, edited by Robert C. Feenstra. (Cambridge: MIT Press, 1983).

Bhagwati, Jagdish. Essays on Development Economics, edited by Gene M. Grossman. Vol. 1: Wealth and Poverty. Vol. 2: Dependence and Interdependence. (Cambridge: Basil Blackwell, 1985).

Bhagwati, Jagdish. "VERs, Quid Pro Quo DFI, and VIEs: Political-Economy-Theoretic Analyses." International Economic Journal 1 (1987): 1-14. Reprinted in Bhagwati (1991).

Bhagwati, Jagdish. <u>Political Economy and International Economics</u>, edited by Douglas A. Irwin (Cambridge: MIT Press, 1991).

Bhagwati, Jagdish. A Stream of Windows. (Cambridge: MIT Press, forthcoming).

Bhagwati, Jagdish, and Harry Johnson. "Notes on Some Controversies in the Theory of International Trade." <u>Economic Journal</u> 70 (1960): 74-93.

Bhagwati, Jagdish, and Harry Johnson. "A Generalized Theory of the Effects of Tariffs on the Terms of Trade." Oxford Economic Papers 13 (1961): 225-253.

Bhagwati, Jagdish, and Marvin Kosters (eds). <u>Trade and Wages: Leveling Wages Down?</u> Washington, D.C.: The AEI Press, 1994.

Bhagwati, Jagdish, and Arvind Panagariya. "Preferential Trading Areas and Multilateralism-Strangers, Friends, or Foes." In <u>The Economics of Preferential Trade Agreements</u>, edited by Jagdish Bhagwati and Arvind Panagariya. Washington, D.C.: The AEI Press, 1996.

Brecher, Richard, and Carlos Diaz-Alejandro. "Tariffs, Foreign Capital, and Immiserizing Growth." <u>Journal of International Economics</u> 7 (1977): 317-22.

Feenstra, Robert C., and Jagdish Bhagwati. "Tariff Seeking and the Efficient Tariff." In Import Competition and Response, edited by Jagdish Bhagwati. Chicago: University of Chicago Press & NBER, 1981.

Feenstra, Robert C., Gene M. Grossman, and Douglas A. Irwin (eds.). <u>The Political Economy of Trade Policy: Papers in Honor of Jagdish Bhagwati</u> (Cambridge: MIT Press, 1996).

Haberler, Gottfried. "Some Problems in the Pure Theory of International Trade." <u>Economic</u> Journal 60 (1950): 223-240.

Harrod, Roy. "Introduction" to <u>International Trade in a Developing World</u>, edited by Roy Harrod and D. C. Hague. London: Macmillan, 1963.

Johnson, Harry. "Optimal Trade Intervention in the Presence of Domestic Distortions." In Trade, Growth and the Balance of Payments: Essays in Honor of Gottfried Haberler, edited by Robert Baldwin, et al (Chicago: Rand McNally, 1965).

Johnson, Harry. "The Possibility of Income Losses from Increased Efficiency or Factor Accumulation in the Presence of Tariffs." Economic Journal 77 (March 1967): 151-154.

Krugman, Paul. "Domestic Distortions and the Deindustrialization Hypothesis." In Feenstra, Grossman, and Irwin (1996).

Srinivasan, T. N. "The Generalized Theory of Distortions and Welfare Two Decades Later." In Feenstra, Grossman, and Irwin (1996).

- 1. Department of Economics, Dartmouth College, Hanover, NH 03755. I am grateful to Robert Feenstra and Gene Grossman for allowing me to draw upon our introduction to Feenstra, Grossman, and Irwin (1996). I also wish to thank Don Davis, Gene Grossman, and T. N. Srinivasan for their valuable comments on a previous draft.
- 2. His father was a judge on India's Supreme Court and president of two major universities. His eldest brother became the Chief Justice of India, and another brother was recently president of the International Society of Pediatric Neurosurgeons.
- 3. Harry Johnson dominated the field of international economics in the 1950s and 1960s, as much through his personal influence in encouraging younger scholars and in speaking before conferences around the world as through his publications, which numbered over 500 in roughly thirty years. He and Bhagwati coauthored two papers, Bhagwati and Johnson (1960) and (1961). Also see Bhagwati (1977) for a personal tribute to Johnson.
- 4. The Brissago conference led to yet another Bhagwati achievement. Harrod invited him to write another overview of recent trade theory, which became the famous "Survey of the Theory of International Trade" published in the Economic Journal in 1964. Thus, before he reached thirty years of age, Bhagwati was already clearly recognized as a leading, established, and incredibly accomplished trade economist.
- 5. His extensive writings on economic development have been collected in Bhagwati (1985).
- 6. For the role of this work in changing views on economic development policy, see Krueger (1997). Bhagwati also worked with the Indian Planning Commission in the early 1960s, and his experiences there helped shape the view in his book, The Economics of the Underdeveloped Countries, published in 1965. This period made Bhagwati a skeptic of "industrial policy" as a tool in developing countries. A friend was apparently was responsible for allocating licenses relating to imports and investment. When Bhagwati asked him the criteria used to determine the allocation, his friend replied that there was none in practice and the decisions were made more or less arbitrarily.
- 7. Bhagwati's extensive writings during the 1980s, in the political economy area and elsewhere, were collected in another volume, Bhagwati (1991).
- 8. He also received an appointment in Columbia's Department of Political Science.
- 9. This just serves to reinforce Paul Samuelson's judgment that "creative and rigorous analysis applied to vital policy problems" is the hallmark of the Bhagwati approach.
- 10. For example, he came up with the "Dracula Effect" in trade policy -- exposing evil to sunlight helps to destroy it -- on page 85. He also has a marvelously inventive counterexample to the "manufacturing matters" school on page 114. Bhagwati has a knack for coming up with

catching phrases to describe various economic phenomena — from immiserizing growth, quid pro quo DFI, VIEs, preferential trade arrangements as "stumbling blocs not building blocs," and many others.