

# Why am I here?

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A not-so-famous vice presidential candidate once asked plaintively on a nationally televised debate, “who am I, and why am I here?”<sup>2</sup> A not-so-famous economist might ask the same question. You have heard from Neva a bit of the answer to both questions, but let me elaborate. I think I am here for three basic reasons.

First, I may be one of the last Leontief Prize winners who knew Professor Leontief when he was active as a professor at Harvard. As an undergraduate and graduate student at Harvard in the early 1960s, I hung out at 1737 Cambridge Street, a recently converted hotel that housed, among other things, the Development Advisory Service.<sup>3</sup> Leontief had his office at 1737 Cambridge Street, not because he was interested in economic development (although he was), but because it was directly across the street from the new Harvard Computer Center, where the IBM 360 mainframe computer operated.

In those days, geographic proximity to the computer center was essential for fast turn-around of “jobs,” as they were known. A box of computer cards, each with one line of code in Fortran, had to be submitted to the “jobs desk,” which placed the box in a queue for the operator to run. When it was finished, usually overnight for those of us with low priority or budgets, the box was returned and a wide sheet of computer printout would eventually appear in an alphabetical cubby with the results. Nine times out of ten the results said “did not run.” That meant it was time to debug the program, re-punch the cards, and re-submit. Proximity was golden, and Leontief had it.

He was often seen waiting on the ground floor of 1737 Cambridge Street for the elevator to his office on the 4<sup>th</sup> floor. It was a slow and aggravating elevator, left over from hotel days, and Leontief’s comment was well known. “This elevator is like a graduate student; it neither thinks nor works.”

I just missed being one of Leontief’s graduate students. He did not teach his usual course, graduate macro economics, the year I took it. Perhaps I was not as lucky as I thought at the time. Leontief was a renowned mentor but not a very effective lecturer. I had Robert Dorfman instead, which perhaps explains my shaky grasp of macro economics, but my facility with operations analysis, which Leontief pioneered, and which Dorfman, Samuelson and Solow made into an influential textbook.

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<sup>1</sup> Address prepared for the ceremony awarding the Leontief Prize for Advancing the Frontiers of Economic Thought, April 3, 2011. The prize is awarded by the Center for Global Development and Environment (GDAE), Tufts University, Medford, MA.

<sup>2</sup> James Stockdale, the vice presidential candidate running with Ross Perot in 1992.

<sup>3</sup> The Development Advisory Service was later to become the Harvard Institute for International Development (HIID). I worked as a research assistant for Wally Falcon, then the Director of Research for the DAS, and Wally had worked one summer for Leontief, building the latest version of his input-output table for the US economy. I heard a lot of stories about Leontief from Wally, none of which should be repeated.

The Prize this year is honoring research and policy analysis in agricultural and food economics, my second reason for being here. I am extremely pleased to represent this field, with Michael Lipton, for the award. The field nearly disappeared from academia after the mid-1980s, when commodity prices collapsed and no one thought increasing agricultural output was a good idea. Most departments of agricultural economics now devote themselves primarily to natural resource and environmental economics. Agriculture is just one of several sub-fields in these departments.

Such a trend might be understandable in the United States, where we now have more lawyers than farmers. But this change in focus, and capacity, severely hampers the ability of US-trained academics—foreign and domestic—to understand the role of agriculture in the development process. Consequently, in academia and in the donor community, we forgot about agriculture and stopped funding it. Jobs disappeared. Despite running a food policy program at Harvard for over two decades, I sent more students to Goldman Sachs than to careers in agricultural development or food and nutrition policy (they were smart students—they went where the jobs were...).

That neglect has now come back to haunt us, because the jobs are back, but the students are not. As I reflect on this, I realize that I am here because I am an economic historian, not an agricultural economist. Economic historians cannot forget about agriculture—it was usually three-quarters of the economy that we studied, and I never stopped arguing for its key role in the development process.

That stubbornness is the third reason I am here. Out of a deep conviction that raising agricultural productivity was the essential first step in propelling a society out of its traditional agrarian structure into a dynamic process of modern economic growth, a body of work was generated that often seems disconnected to outside observers (and largely irrelevant to mainstream economists), but which has a common intellectual strand, at least to me.

I will present briefly six examples of this work. All end up with results that are contrary to those produced by the standard neoclassical model used by economists to analyze policy issues. Keeping with my focus on the importance of agriculture in the development process, the examples revolve around food and agriculture. Although standard neoclassical models provide a starting point, the approaches are eclectic and stress empirically-based analysis. Leontief would have liked the empirical focus and the factual data behind it. He knew that in policy debates, “three facts trump a theory.” Analysis based on facts is accessible to policy makers.

First, economic history matters. Path dependency, beachhead effects, and hysteresis in economic activity are common features of innovation, trade and investment decisions. Neoclassical models can capture these effects, but they must be empirically based and are often unique to specific case studies. The fact that these cases are usually not generalizable makes them of little interest to mainstream economics. My economic history professor, Alexander Gerschenkron, used to say in his research seminar that “for example is not proof ...but it does show that something is possible.” Economics is not nearly as interested in the merely possible, when proving a theorem is a general result.

History is full of specific examples from which insights can be gained, but general theorems not proven. I co-taught—with Dwight Perkins and Jeff Williamson—the introductory Ph.D. class in economic history at Harvard (Gerschenkron’s old class), which also served as the introductory course in development economics.<sup>4</sup> My lectures examined the process of industrialization through the lens of the agricultural sector—what was the role of agriculture in stimulating broad-based economic growth, and how was it transformed in turn during this process? I was able to use computable general equilibrium models constructed by the economic history (and development) profession for an historically and geographically important set of countries—across two continents and three centuries.

--England, during the era of the Corn Laws from the late 17<sup>th</sup> century to the early 19<sup>th</sup> century. The Corn Laws protected English grain farmers and also stabilized domestic wheat prices. The result was arguably to stimulate the first agricultural revolution and provide the food, labor and market for the first industrial revolution;

--France, as it fell behind a rapidly developing England in both rural and urban productivity. France only began to catch up in the latter half of the 19<sup>th</sup> century when it abandoned its long-time strategy of “provisioning Paris” as cheaply as possible, and began to provide policy and investment support to the small holder farmer who dominated French agriculture;

--Germany, with rapid industrialization as a “conscious act of national policy,” where Bismarck forged his “pact of steel and rye” to stimulate productivity growth in German factories and on German farms;

--Russia, with its “forced pace industrialization” directed by rigid, centralized plans, which would not have been possible without systematic and harsh extractions of agricultural surpluses from the peasantry. The failure to develop a modern agricultural economy was one major factor in the ultimate collapse of the Soviet Union;

--Japan, where very early investments in raising productivity on small farms paid high dividends in feeding a growing non-farm labor force, and providing the workers for it;

--Thailand, where a land frontier made growth of extensive agriculture possible, in contrast to Japan, but also made universal education much more difficult to achieve for both supply reasons (a widely scattered rural population is hard to school efficiently) and demand reasons (farm labor was not surplus and children were needed to work the land). Thailand fell systematically behind Japan in per capita incomes after 1880 as this education gap widened; and finally

--Indonesia, the country where I learned about modern development issues (from the point of view of an economic historian as well as a commodity specialist). A more-than-century-long struggle to achieve food security at the national (macro) level was finally capped by an extraordinary spurt of rural-oriented, pro-poor growth that pulled more people out of poverty in a

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<sup>4</sup> This macro, historical approach to economic development, which was unusual even at the time, although not totally unique to Harvard, has now disappeared entirely from the curriculum of leading universities teaching development economics. Although much is to be learned from randomized controlled trials (RCTs) as an approach to understanding what works and what does not, RCTs cannot answer the big questions in economic development.

three-decade period than ever before. China ultimately topped that record, but Indonesia showed the way.<sup>5</sup>

2. Food price stability is a good thing, not a bad thing. The standard model of international trade can show “gains to trade” from highly unstable food prices, *but these gains are illusory*.

Do not mistake my point. I believe deeply in the role of markets in exchange and price discovery and as the foundation for economic specialization.<sup>6</sup> Markets usually get these right, and governments usually get them wrong. But not always. And the exceptions are important, especially in matters of health, education and food security.

To my consternation (and secret delight), food price volatility is finally back on the intellectual and policy agenda. My 1989 article that laid out the analytical case for stabilizing food prices is being cited again. It is not easy to stabilize food prices, but it is not impossible either. We just need to stop arguing that stable food prices are a bad thing and get on with the tough analytical and empirical work to learn how to do it effectively, efficiently, and honestly.<sup>7</sup>

3. Day-to-day prices in world commodity markets are a bad guide to long-run decisions on funding agricultural research and investments in rural infrastructure. “Do markets provide the right signals” to getting agriculture moving? Often not.

Private decision makers in market economies have little choice but to follow market prices closely as a guide to investment decisions, crop choices and food consumption patterns. But governments, universities, public research institutions, donors and foundations are not bound by the same short-run dictates of profit maximization. Longer-run decisions about investments in agricultural research and technology, rural infrastructure and supportive public policies should be

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<sup>5</sup> Key references would include:

"The Turnip, the New Husbandry, and the English Agricultural Revolution," *Quarterly Journal of Economics*, vol. 83, no. 3 (August 1969), pp. 375-395;

"The Agricultural Transformation" in Hollis Chenery and T. N. Srinivasan, eds., *Handbook of Development Economics*, vol. 1. (Amsterdam: North-Holland, 1988), pp. 275-331;

"Agriculture and Economic Development." In Bruce Gardner and Gordon Rausser, eds., *The Handbook of Agricultural Economics*, Vol. 2A. (Amsterdam: North-Holland, 2002). pp. 1487-1546; and *A World without Agriculture: The Structural Transformation in Historical Perspective*, Henry Wendt Lecture, American Enterprise Institute, 2009.

<sup>6</sup> Indeed, I have often been accused of being too market oriented, including by our co-awardee. My book on *Getting Prices Right: The Scope and Limits to Agricultural Price Policy* (Cornell, 1986) was often interpreted as a manifesto for free trade in food and agricultural commodities. But that was only for people who had not read it. Still, I am perhaps the only Leontief Prize winner who also received an award from the American Enterprise Institute (I served as their Wendt Lecturer in 2007). Markets really are important—too important to let them fail.

<sup>7</sup> Key references are:

"Food Price Policy: The Rationale for Government Intervention." *Food Policy*, vol. 14, no. 1 (February 1989), pp. 17-27;

"Does BULOG Stabilize Rice Prices in Indonesia? Should It Try?" *Bulletin of Indonesian Economic Studies* (Canberra), vol. 32, no. 2 (August 1996), pp. 45-74;

"The Macro Dimensions of Food Security: Economic Growth, Equitable Distribution, and Food Price Stability." *Food Policy*, vol. 25, no. 4 (August 2000), pp. 283-295; and

"Reflections on Food Crises Past." *Food Policy*. Vol. 35, no. 1, (Jan, 2010), pp. 1-11.

based on longer-run opportunity costs. Only when they are, can we break the recurrent cycle of world food crises that seem to strike every three decades or so.<sup>8</sup>

4. Economic structure matters to the rate and distribution of economic growth. “The structural transformation in historical perspective,” the introductory Ph.D. course at Harvard for both economic history and development that I mentioned earlier, offered many relevant lessons for modern development strategies. With half of its population still working in an agricultural sector with low productivity, a country faces opportunities and constraints that are vastly different from those facing a country that has already modernized its agriculture and is mostly through the structural transformation. A country undergoing rapid economic growth will also be undergoing a rapid structural transformation, and the changed structure of the economy 2-3 decades into the future needs to inform current investment strategies for such long-lived assets as education, health care and infrastructure.

Structure also matters in the short-run, despite assertions by macro economists that it does not. Justin Lin, vice president and chief economist at the World Bank, is trying to revive the role of economic structure in development models, but that is a difficult task if factor markets are *assumed* to be working pretty well. The whole reason that sectoral structure is important in economic development is precisely because these markets, even many commodity markets, are not working well in the conditions of poor countries.<sup>9</sup>

5. Pro-poor growth is feasible and comes with low opportunity costs in the long run. Markets do not usually get this right, and active government intervention is needed to ensure that the poor participate in, and contribute to, the growth process. One of the main entry points for government intervention is through investments to raise agricultural productivity and to stabilize the prices of key outputs.

We have lived for long enough with the assertion that initial income distribution does not matter to the rate or distribution of economic growth. Clearly it does, even in rich countries. The key question is whether the existing political economy can frame a set of public policies and

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<sup>8</sup> Key references include:

*Getting Prices Right: The Scope and Limits of Agricultural Price Policy*. Ithaca: Cornell University Press, 1986;  
"Getting Agriculture Moving: Do Markets Provide the Right Signals?" *Food Policy*, vol. 20, no. 5 (October 1995), pp. 455-72;

"Reflections on Food Crises Past." *Food Policy*. Vol. 35, no. 1, (Jan, 2010), pp. 1-11;

"Agricultural Trade Policy during Structural Transformation," in Alexander Sarris and Jamie Morrison, eds., *The Evolving Structure of World Agricultural Trade: Implications for Trade Policy and Trade Agreements* (2009), Trade and Markets Division, Food and Agriculture Organization of the United Nations, Rome, pp. 39-77.

<sup>9</sup> Key references include:

"The Agricultural Transformation" in Hollis Chenery and T. N. Srinivasan, eds., *Handbook of Development Economics*, vol. 1. (Amsterdam: North-Holland, 1988), pp. 275-331;

"Agriculture and Economic Development Revisited," in Paul Teng and Frits Penning de Vries, eds., special issue of *Agricultural Systems*. (England: Elsevier Science Publishers) vol. 40 (1992), pp. 21-58;

"Agriculture and Economic Development." In Bruce Gardner and Gordon Raussler, eds., *The Handbook of Agricultural Economics*, Vol. 2A. (Amsterdam: North-Holland, 2002). pp. 1487-1546; and

*A World without Agriculture: The Structural Transformation in Historical Perspective*, Henry Wendt Lecture, American Enterprise Institute, 2009.

investments that consciously seek to include the poor in a process of economic growth. The Asian experience, where investments to enhance macro food security had a high political imperative whatever the form of government, suggests that investments in raising productivity on small farms, while building human capital within those farm households, was the surest pathway out of rural poverty.

A way must be found to make markets work to deliver long-run growth, but political survival requires that this growth be stable and equitably distributed.<sup>10</sup> No alternative exists to organizing economies around market-based transactions if societies are to reach their goals of greater material welfare and broad political freedom. *Markets produce both*. But markets also fail in important social tasks, at least during turbulent times when short-run price signals are hard to interpret. Responsible governments must find a way to prevent those failures through careful regulation and to alleviate them when innocent workers and consumers cannot participate in the promises of market outcomes.<sup>11</sup>

6. “Political economy” is a behavioral field, not a field of positive economics. The foundation for understanding modern political systems and policy options lies in understanding how citizens regard their relative economic status, the impact of changing economic prospects on their behavior, and their sense of security and control, all within the framework of government policies and services.

Economists are often upset when politicians reject their optimal policy designs to enhance social welfare. Traditionally, these designs have been based on the Pareto criterion that at least one individual is better off and no one is worse off. But if most individuals care more about their relative status than absolute levels of income or consumption, the Pareto criterion spells political trouble. Only a new behavioral focus on the design of policy interventions can help real policy makers bring about real improvements in welfare.

The neo-classical solution to food price instability, for example, has been to allow full expression of price volatility in markets because of the information content of prices. Any problems for firms in the supply chain can be managed with financial instruments to hedge price risks.

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<sup>10</sup> The source of the measurable “unhappiness” of many citizens in the transition economies of the former Soviet Union can be traced primarily to unprecedented instability in incomes, growing income inequality, and the loss of public goods. Most Asian governments consciously tried to balance “equity, growth and stability” during their early periods of rapid industrialization.

<sup>11</sup> Key references include:

“Agricultural Employment and Poverty Alleviation in Asia,” in C. P. Timmer, ed., *Agriculture and the State: Growth, Employment, and Poverty in Developing Countries*. (Ithaca: Cornell University Press, 1991), pp. 123-55.

“The Road to Pro-Poor Growth: The Indonesian Experience in Regional Perspective.” *Bulletin of Indonesian Economic Studies*. vol. 40, no. 2, (August, 2004), pp. 177-207.

“How Indonesia Connected the Poor to Rapid Economic Growth,” in Tim Besley and Louise Cord, eds., *Operationalizing Pro-Poor Growth: Synthesis and Country Experiences*. London: Palgrave MacMillan (2006), pp 29-58; and

“A Historical Perspective on Pro-Poor Growth in Indonesia,” in Michael Grimm, Stephan Klasen and Andy McKay, eds., *Determinants of Pro Poor Growth: Analytical Issues and Findings from Case Studies*. London: Palgrave MacMillan (2007), pp 164-190.

Problems for poor consumers can be managed by implementing safety nets that kick in when food prices spike.

*This approach fails at both ends.* The financial instruments are themselves very volatile and subject to outside speculative pressures, are not widely accessible to most market participants, and fail to exist at all in many developing countries.

Safety nets face their own problems of transactions costs and behavioral responses that make effective implementation very difficult. Using community-based information and organizations to target resources to the poorest of the poor often runs afoul of the widespread sense of fairness in these communities that requires external resources to be shared equally. Targeting is thwarted and fiscal costs rise, or the poor do not get the resources they need to cope with shocks to their welfare. Either way, safety nets have a poor record of coping with sudden price shocks.

The empirical regularities of behavioral economics, especially *loss aversion, time inconsistency, other-regarding preferences, herd behavior, and framing of decisions*, present significant challenges to traditional approaches to food security. The formation of price expectations, hoarding behavior, and the welfare losses from highly unstable food prices all depend on these behavioral regularities. At least when they are driven by speculative bubbles, market prices for food staples (and especially for rice, the staple food of over 2 billion people), often lose their efficiency properties and the normative implications assigned by trade theory. Theoretical objections to government efforts to stabilize food prices thus have reduced saliency, although operational, financing, and implementation problems remain important, even critical.

Beyond reducing food price instability, building the institutions and human capital to sustain inclusive economic growth will be essential. It may be that finding a way to allow governments to deliver effective and efficient safety nets will be the key to allowing markets to deliver their long-run promise. If so, designing and implementing them becomes the essence of effective policymaking. But governments, like the poor, live in the short run. Their vision and strategic design for inclusive, stable, long-run growth must survive the day-to-day challenges of managing power. Only input from “behavioral political economy,” broadly for development policy and more narrowly for food policy, can help governments to meet these challenges. A new theoretical underpinning to political economy analysis is needed that incorporates this behavioral perspective, with psychology, sociology and anthropology all likely to make significant contributions.<sup>12</sup>

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<sup>12</sup> Key references include:

"The Political Economy of Rice in Asia: A Methodological Introduction," *Food Research Institute Studies*, vol. 14, no. 3 (1975), pp. 191-196;

"The Political Economy of Rice in Asia: Indonesia," *Food Research Institute Studies*, vol. 14, no. 3 (1975), pp. 197-231;

"The Political Economy of Rice in Asia: Lessons and Implications," *Food Research Institute Studies*, vol. 14, no. 4 (1975), pp. 419-432;

"Agriculture: The Political Economy of Structural Change" (with M. R. Reich and Y. Endo), in Thomas K. McCraw, ed., *America versus Japan* (Boston, MA: Harvard Business School Press, 1986), pp. 151-92;

"Price Policy and the Political Economy of Markets," in J. Price Gittinger, Joanne Leslie, and Caroline Hoisington, eds., *Food Policy: Integrating Supply, Distribution, and Consumption*. (Baltimore: Johns Hopkins University Press for the Economic Development Institute of the World Bank, 1987), pp. 264-276;

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- "Rural Bias in the East and Southeast Asian Rice Economy: Indonesia in Comparative Perspective," *Journal of Development Studies*, vol. 29, no. 4 (July) 1993, pp. 149-76;
- "The Political Economy of Rapid Growth: Indonesia's New Development Model," in Ray A. Goldberg, ed., *Research in Domestic and International Agribusiness Management*, vol. 11 (Greenwich, CT: JAI Press, 1995), pp. 117-34;
- "Farmers and Markets: The Political Economy of New Paradigms." *American Journal of Agricultural Economics*, vol. 79, no. 2 (May 1997), pp. 621-27; and
- "Behavioral Dimensions of Food Security," *Proceedings of the National Academy of Sciences (PNAS)*, Agricultural Development and Nutrition Security Special Feature, ready for publication 27 August, 2010; on line September 20 at doi:10.1073/pnas.0913213107.