I. Introduction: From hubris to humility

George Bernard Shaw once famously said: “If all economists were laid end to end, they would not reach a conclusion.”

Considering the causes and course of the worst global economic crisis since the Great Depression, it is fair to ask: Were too few conclusions at fault? Or too much certainty?

Today, I will attempt to persuade you that economics, and in particular development economics, must broaden the scope of the questions it asks – thereby also becoming more relevant to today’s challenges. It must help policymakers facing complex, multi-faceted problems.

It must build on its recent focus on empirical evidence, which is welcome, but not allow itself simply to chase data down narrow alleyways.

It must reach out to better encompass the experiences of successful emerging economies not with ordered templates or with blueprints, not with prescriptions for prescriptees, but inquiringly, cooperatively, openly.

II. Are we equipped to tackle the pressing issues of the day?

Economics has contributed significantly to how we understand our world. But economics doesn’t always get it right. Indeed, it can get things spectacularly wrong, as we saw in the recent crisis when bad ideas led to bad results that we are all still paying for.

The Nobel Prize for Economic Sciences has been bestowed on many worthy honorees. But it has also been given to those whose love of mathematical models was based on heroic and unrealistic assumptions about humankind. An excellent physicist once observed that in physics, Nobel Prizes are awarded for being correct while in economics they are often awarded for being brilliant.

Modern portfolio theories, based on these models, claimed to master the uncertainty of our world. This hubris turned to humility in the 2007 sub-prime crisis that led to the global economic crisis. According to its risk model, one investment bank suffered a loss on several consecutive days that should only have occurred once in 14 life-spans of our universe.

Famous, like empires, for the rise and fall of theories, economics as a discipline has often revealed in the assertive confidence of a social science, while burnishing its scientific aspirations. Recently, though, there has been a notable increase in interaction with psychology and history -- a welcome development.

Development economics, the specialized field that studies how development can be fostered, has added to economics a heady dose of its own fad and fashion. Like every good couturier, the World Bank has played a role in designing those styles.
In the 1950s, during the World Bank’s early years of reconstruction work and engineering projects, our Economics Department had the relatively narrow remit of conducting financial feasibility studies of proposed projects. Yet its assistant director, Paul Rosenstei n-Rodan, sought to conceptualize the development challenge with the “Big Push” theory. Development, his theory argued, depended on a simultaneous expansion of domestic sectors that generated demand for each other’s output. Not long thereafter, some East Asian economies began to zoom ahead based on “narrower” export-led growth.

This was also the age when development economists hypothesized that developing countries would “take off” once they received capital to combine with underemployed labor. The Soviet Union, it appeared, had solved this problem through “forced saving”; the Third World, some argued, could fill the “saving gap” with foreign aid.

In the 1960s, the World Bank expanded its numbers and areas of research, and by the 1970s was seeking to improve the understanding of the causes of poverty and searching for policy options for overcoming poverty, focusing especially on rural areas. As one historian wrote, it was becoming more like an agency for development than a bank.

In 1972, Hollis Chenery became the Bank’s first Chief Economist, and partly influenced by Simon Kuznets -- who had won the Nobel Prize in 1971 for his empirically founded interpretation of growth and development ---- organized the first data-heavy quantitative research program for the Bank.

In the 1980s, the research focus shifted toward market incentives, getting prices right, energy, and macroeconomic adjustment.

Gender and the environment appeared on the Bank’s research agenda in the late 1980s. The reform of socialist economies and the emergence of AIDS became special areas of emphasis after 1989, as well as first efforts to understand the “East Asian Miracle.” Poverty, inequality, and corruption reemerged as research topics during the 1990s.

In the 2000s, emerging economies, in particular China and India and their impact on the world economy, as well as the role played by infrastructure and agriculture ---- after years of neglect in lending -- have been high on the agenda. So too have the problems of fragile states, whose weak institutions make them prone to conflict and pose special development challenges.

These contributions have been impressive -- and I admire the endeavors to develop overarching development insights -- even though the temples of thought have often tumbled under the assault of the realities of life.

But it is appropriate to ask: Where has development economics brought us? Is it serving us well?

Even before the crisis there was a questioning of prevailing paradigms and a sense that development economics needed rethinking. The crisis has only made that more compelling.

A great deal of progress has been made over the last several decades: in health, education, and poverty. The share of people living in extreme poverty in developing countries has more than halved in the quarter century since 1980; global child mortality rates have almost halved.

But success has been uneven; countries are frustrated by the lack of progress on overcoming poverty and achieving the Millennium Development Goals, a useful yardstick to measure progress.

Most of the fall in poverty has occurred in East and South Asia and Latin America. While the world will meet the MDG target of halving the number of people living in extreme poverty by 2015, progress in Sub-Saharan Africa, despite some notable recent gains, still lags. Progress at the country level is even more uneven: Only 45 of 87 countries with data have already achieved or are on track to achieve the poverty target.
And the crisis has highlighted other changes with broader implications.

Even as countries are moving towards recovery, many are asking about what they see as “the middle-income trap” -- the fear that initial boosts of growth will slow and that it will take them many years, with painful setbacks, before they join the ranks of high-income countries.

The success of China and others has raised questions on the role of the state. What are the effective and proper roles of government ---- Enabler? Referee of fair and clear rules? Empowerer? Investor? Owner? Or anointer of winners?

The benefits of globalization and reform have yet to reach many of the poor. Many see the economic policy prescriptions of the Washington Consensus as incomplete -- lacking attention to institutional, environmental or social issues, or simply lacking as a guiding philosophy.

Others herald “orthodox” policies as helping developing countries navigate the crisis, pointing out that some developed countries strayed from orthodox lessons of finance and budgeting to their peril.

III. A new multi-polar world requires multi-polar knowledge.

Beyond these challenges to old assumptions, a more complex set of changes is taking place.

As economic tectonic plates have shifted, paradigms must shift too.

Emerging economies are now key variables in the global growth equation. The developing world is becoming a driver of the global economy. Much of the recovery in world trade has been due to strong demand for imports among developing countries. Led by the emerging markets, developing countries now account for half of global growth and are leading the recovery in world trade.

We see a similar trend in the global development landscape, with developing countries assuming important roles alongside traditional development partners. These new partners are contributing not only aid, but more importantly are becoming major trading partners and sources of investment and knowledge. Their experiences matter.

Yet for too long prescriptions have flowed one way. A new multi-polar economy requires multi-polar knowledge.

With the end of the outdated concept of a Third World, the First World must open itself to competition in ideas and experience.

The flow of knowledge is no longer North to South, West to East, rich to poor.

Rising economies bring new approaches and solutions. We see that as India advises Africa on dairy farming; as China learns from Africa about effective community-driven development approaches in Ghana and Nigeria; as the United States learns from China about high-speed railways; and the Chief Economist of the World Bank, for the first time in our 66 year history, comes from a developing country: Justin Yifu Lin -- a student of the University of Beijing and the University of Chicago.

Justin's thoughtful Marshall Lectures at Cambridge University in 2007, exploring the question of why many countries were not developing, exemplify this new influence of thinking based on more diverse experiences.

This is no longer about the Washington Consensus. One cannot have a consensus about political economy from one city applying to all. This is about experience regarding what is working ---- in New Delhi, in Sao Paolo, in Beijing, in Cairo, and Accra. Out of experience may come consensus. But only if it is firmly grounded -- and broadly owned.
IV. Has development economics lost its way?

Is development economics today addressing the most important problems facing developing countries or has it lost its way?

Let me put my cards on the table. I am not an economist. Enough said, you may argue. Why meddle? Why open such a Pandora’s Box?

For the simple reason that policymakers look to economics, and policymakers in developing countries look to development economics even more. It matters.

I first took a course in development economics in 1973, a year of economic turmoil with the Arab oil embargo and shortly after the downfall of the Bretton Woods exchange rate system. Perhaps, like some of you, I was drawn to development economics because it seemed important for anyone interested in international relations, in how economies grow, and in public policy. After all, as others have observed, the classical economists from the 17th to early 19th centuries also wrote about development, even though scholars formalized the discipline much later.

Since that beginning, my principal interest has been policy. For me, this has evolved as a mixture of history, economics, economic history, finance, law, politics and government, and psychology. The experience has underscored the complexity of our world. Practice has given me a certain skepticism of grand designs and a wariness of social engineering. I observed with concern when economics shifted away from political economy to “pure” theory.

I respect scholarship, enjoy learning about research, and have benefited from stimulating interaction with academicians over the years.

Economics has made me hungry for the practical results of research and learning. No doubt many of you at this great university share that hunger.

So perhaps even someone who is not a scholar can be allowed to pose some research questions on behalf of fellow policy-makers.

And where better than here, at Georgetown University, to seek to blend the scholarly with policy?

So let me ask you: Have we gone from one false certitude to another?

Has the disappointment with grand theories of development led to an overreaction, a retreat into laboratories and tiny development hamlets?

Over the last 10 years, as the belief has grown that there is no simple recipe for development, there has been a shift towards more empirically-based development research. This is welcome -- and very positive. Thirty years ago, Deng Xiaoping, another practitioner of development economics, recommended "emancipating the mind so as to seek truth from facts." Two hundred years earlier, British philosopher David Hume wrote, “A wise man proportions his belief to the evidence.”

But is the impressive set of data and analytic tools now available sufficiently anchored to the most pressing questions facing developing country leaders, advisors, and investors?

Or is it more like a map of the world being filled in by careful study of non-randomly chosen villages, one at a time?

Too often the positive outcomes of research for policymakers seem to be occasional by-products of research rather than its objective from the outset.
Too often research economists seem not to start with the key knowledge gaps facing development practitioners, but rather search for questions they can answer with the industry’s currently favorite tools.

The big questions facing policymakers are extremely complex. But is our present day research too narrowly focused -- and too weak on external validity or scalability -- to provide the kinds of insights policymakers need? I believe we need a more practical approach ---- one that is firmly grounded in the key knowledge gaps for development policy.

One that is geared to the needs of policymakers and practitioners -- as a primary focus, not as an academic afterthought.

One that throws open the doors to all those with hands-on experience.

V. Re-examining the old truisms

And we must ask ourselves: Have we become trapped by our received wisdoms? Has certainty blinded us to opportunity?

The record of development has shown that one size won’t fit all. We have come a long way from the hubris of the 1960s in economics, with its faith in Keynesian-style fine-tuning and capital allocation, or its belief that poverty could be overcome with model cities and social engineering, neatly encapsulated in a plan drafted by economists in the developed world.

The fact that such ideas today have lost credibility is progress. Yet we can’t stop there. We need to take the thought that one size does not fit all one step further.

Yes, there are some basic principles we can follow: a belief in property rights; contract rights; the use of markets; getting incentives right; the benefits of competition within and across economies; the importance of education; macro-economic stability -- but we might learn these more from economic history than from economic models.

As the World Bank’s “Doing Business” reports have highlighted, small and medium-sized enterprises can flourish given an enabling environment that encourages – rather than blocks or constrains – the entrepreneurial spirit.

Beyond the basic principles, experience would suggest that we may need to consider differentiated policy approaches.

The right policies may differ across phases of development -- for example reliance on export-led growth versus domestic demand, or on different types of innovation, depending on the closeness of companies to technology frontiers.

The right policies may differ now from the 1970s given the changes brought about by the internet and the growing importance of supply chains in international transactions.

The right policies on financial regulation may differ across phases of development -- what may safeguard in one context may strangle in another.

Above all we must be honest about what we do not know. The Knowledge gaps that hold us back.

VI. What we now need to know

So in the spirit of inquiry, and building on an internal review of our own development programs, let me posit four sets of problems that merit future research. This is not an exhaustive list -- others will add to the debate -- but let me start here.
Securing Transformation

First, we need to better understand how economic transformation happens. Why have some countries been able to achieve sustained growth while others appear to remain trapped in dire poverty?

The Growth Commission, led by scholar and practitioner Michael Spence, identified 13 economies that were able to maintain high sustained growth over 25 years. Why so few?

How do countries transform their economies to slash poverty, create jobs, foster both domestic and foreign investment -- and then, over time, raise wages and living standards, increase opportunities, foster innovation, protect the vulnerable, and adjust to shocks from natural and economic events?

Countries operate in a global economy, so development patterns might differ as conditions change globally.

We need a deeper understanding of the process of how an economy's structure evolves. This is not just about the shift from agriculture to industry and services over time.

Within agriculture, services, or industry, we need to know much more about the process of moving into higher quality goods and services, about what determines a country's economic dynamism, and what contributes to the flexible adjustments in the structure of an economy.

Paul Collier's innovative research has looked at how countries' governance policies help to avoid the "natural resource curse," or better yet, employ a competitive position in primary resources or products as a foundation for inclusive and sustainable growth.

These are not only questions about government policy; they involve business policy, and the behavior of firms.

We must avoid intellectual strait-jackets that stymie a spirit of inquiry. Almost all economies combine markets, the private sector, and the state. The key questions are how they should interact; for what purposes; and what the costs and the benefits are not only economically but for society.

I would maintain that a competitive market should be the economy's fundamental mechanism for allocating resources. But there are market failures. There are also government failures -- including an inability to correct market failures. There is an important role for good governance, anti-corruption, and the rule of law, and governance will go beyond considerations of simple economic efficiency.

These are political economy questions.

Most governments attempt to promote industry in some fashion ---- directly or through tax policy, subsidies, incentives, protections, contests, or myriad other tools -- whether they acknowledge it or not. These efforts stimulate highly contentious debates. Serious evaluations, however, have been few and rarely rigorous. There is a pressing need for new research efforts to evaluate these policies, whether broad-based, focused on sectors, or specific to firms.

Broadening Opportunities

Second, we need to better understand how access to economic opportunities can be broadened to ensure inclusive and sustainable development so that societies tap and foster the creativities and energy of everyone. We need to understand more about the constraints to better service delivery and better access to finance for the poor.

How can we help young people to learn -- and older people to keep learning? How best can we connect education to jobs, and jobs to expanding know-how?
I have seen development lag because the poor do not have access to markets and finance. Many small businesses cannot get credit, people cannot use their property as collateral, competitors are not available to lower prices. In these poor communities, we need more markets, not less, to bring more opportunity. But how do we manage the risks that markets inevitably bring with them? How do we help people to manage change?

These questions require us to drill down to understand what interventions can have most impact; why similar programs work better in some countries than others; what roles good governance, transparency, private sector competition, and citizen participation play.

Broadening opportunities also has important regional and global dimensions. How can we ensure a more inclusive process of regional and global integration?

The economic crisis led to the biggest annual decline in world trade in the last sixty years. Many developing countries -- in part due to World Bank advice -- have made global integration a key component of their growth strategy. Will the export-led growth model of transformation -- famously adopted by a number of East Asian countries -- continue to succeed, especially in light of changes in developed countries’ debt and demographic positions and China’s exceptional capabilities in manufacturing?

Will the current reality point more to growth paths through domestic demand or regional integration -- with a different set of obstacles such as the need to improve agricultural productivity, boost local demand, and build regional infrastructure?

We need to pay closer attention to the role of the private sector in ensuring global gains from international integration.

In the 2000s, Foreign Direct Investment (FDI) inflows were the single biggest source of capital for developing countries and a critical input for technology transfer in developing country firms.

What are the right policies to attract and retain FDI, while increasing the opportunity for domestic investment as well, so that local people benefit and have a stake in the economy? Our private sector work at IFC has helped inform our economic research on these topics, suggesting opportunities for deeper private-public sector cooperation.

The issue is critical for Africa, which needs to encourage foreign investment inflows and build domestic savings, local financial markets, and local investment.

**Dealing with risk and vulnerability**

Third, we need to be able to meet new global challenges of dealing with risks facing economies and people. Our world is riskier than many supposed.

A large segment of the developing world’s population remains especially vulnerable to shocks.

These can range from natural disasters to health pandemics, wars and civil strife, oil and food price shocks, regional and global economic crises. Climate change adds to the risks.

Our clients need efficient and effective social protection policies at affordable costs, to counter new environmental risks, address financial sector vulnerabilities, and manage macro-economic risks posed by globalization.

To date more attention has focused on financial risk than human risk. We need to redress that imbalance.
We need more research on how to reduce conflict and stabilize fragile states through an integrated combination of security, governance, and development policies -- the topic of the World Bank's next World Development Report. We need more research on gender, the topic of the report that follows.

Even “good performers” can be blown far off course by natural events that are individually unforeseen but collectively predictable. We need more climatic and hydrologic data and analysis to calibrate drought and flood warning systems; more financial “insurance” tools to assist with specific recoveries while avoiding dangerous macro-setbacks.

We need more analysis of food security, agricultural productivity growth, improved seed-varieties, and climate-resilient agriculture as we prepare to feed the additional 3 billion people expected by 2050.

**Knowing what works: the Results Agenda**

And fourth, we need to know what works: we need a research agenda that focuses on results. To do so, we will need to gather more evidence and data to assess the effectiveness of development efforts, including aid.

How can development loans and aid build local ownership and participation; draw in local insights; involve wider swathes of society; move development beyond elites; create broader opportunity for competition; and expand property ownership? How can we combine public services with private financing and provision?

Aid and loans, whether stemming from public or private sources, are not the main drivers of development success. The dominant role has to be played by the populations and governments in the countries concerned. The assessment of results in development economics needs much greater attention.

World Bank clients need it, our shareholders demand it, and practical development economics will wither on the vine without it.

**VII. Beyond the Ivory Tower to a New Research Model: Open Data, Open Knowledge, Open Solutions**

What does this mean for the World Bank?

Nothing short of an entirely new approach: *Open Data, Open Knowledge, Open Solutions*.

This initiative will open the treasure chest of the World Bank’s data and knowledge to every village health care worker, every researcher, everyone.

The World Bank’s research economists have led the world in the measurement of poverty and inequality, and have done pioneering research on the delivery of educational and health services that have changed the way we think about these issues.

Bank research has made a significant contribution to understanding globalization and its impacts; understanding the relationship between growth and poverty; evaluating policies and programs; and analyzing aid effectiveness.

Yet we have also been criticized for the way research has sometimes been used to proselytize on behalf of Bank policy, without always taking a balanced view of the evidence or without expressing appropriate skepticism. And in keeping with much academic research, the Bank’s analytic work has often lacked broad-based transparency - - not least amongst those who would be affected most by the policies derived from those analyses.

Today, the Bank remains the largest single source of development knowledge. But knowledge must be opened to all.
In a world where there is no one, overarching, theoretical framework;
In a world where scholarship must be linked to practice;
In a world where developing economies have as much to share as developed;
We need to democratize and demystify development economics, recognizing that we do not have a monopoly on the answers.
We need to throw open the doors, recognizing that others can find and create their own solutions. And this open research revolution is underway.
We need to recognize that development knowledge is no longer the sole province of the researcher, the scholar, or the ivory tower. It’s about the health-care worker in Chiapas recording her results; it’s about the local official posting the school budget on the classroom door so that parents can complain when their children are shortchanged; it’s about the Minister, the academician, the statistician, and the entrepreneur comparing notes on the impact of incentives.
Development knowledge is about political economy and governance and transparency, and it’s about recognizing that all are pertinent and none are "no go areas" for research.
In this new world of policy research, we need healthy skepticism but also hearty innovation.
We need global reach, with local sensitivity.
We need humility in the face of complex problems that require observation, trials, testing -- and honesty to acknowledge when well-intentioned, deeply-committed efforts still don’t work.
We must work with experts in economic history, government, political economy, anthropology, psychology, and sometimes the physical and biological sciences.
Above all, we must look beyond an "elite retail" model of research. No longer can the model solely be to research a specific issue and write a paper hoping someone will read it. The new model must be "wholesale" and networked. It must increasingly open information and knowledge to others by giving them the tools to do the economic research themselves.
With networked research, all can help collect and share the data that is sorely lacking. We need more core data across countries and time periods on health, education, infrastructure, and gender. We need more and better data on public finance, especially at sub-national levels, which is critical for better governance. We need more hands and minds to confront theory with evidence on major policy issues.
This is the direction that I want the World Bank to take. This is democratizing development economics. This will forever change how we conduct development research.
The Bank is making a start.
Last Spring, we launched an Open Data initiative, making available to the public ---- free of charge -- more than 2,000 financial, business, health, economic, and human development indicators for more than 200 economies, some going back decades. Partnering with Internet search companies such as Google, we are ensuring that data reaches new and diverse audiences, providing more people with more opportunities to share fresh insights.
We are working to make data analysis and modeling tools more user-friendly, so that researchers, civil society, and local communities can come up with their own findings – and double-check ours.
Imagine this: A health care worker or parent in a village, with a laptop or mobile device, can access development knowledge in real time through geo coding and geo mapping. She can see which schools have feeding programs and which go without, and what is happening to local health. She can access 20 years of data on infant mortality for her country and its neighbors. She can dig deeply and compare her village with others. She can upload her own data, throw light on the likely effect of new interventions, and mobilize the community to demand better or more targeted health programs.

We are launching an "Apps for Development Competition" to encourage and identify new, innovative tools and applications using the data that we have made available.

In July, we launched an Access to Information policy, based on the US and Indian Freedom of Information Acts, so policymakers, researchers and civil society can look at our operational work, and draw lessons for the future.

Last year, recognizing that development solutions work best when they are designed with peers who have struggled with similar challenges, our World Bank Institute launched a “Practitioner Exchange” program that connects practitioners from all around the world to share practical experiences on key development challenges.

Our interactive software platform, PovcalNet, now provides free access to World Bank poverty data, allowing users to replicate the Bank’s global poverty counts and make their own estimates under different assumptions.

We have created ADePT, an innovative software program designed to simplify and speed-up the production of standardized tables and graphs in many areas of economic analysis. ADePT is a free, stand-alone program, available for download to anyone in the world.

With Isimulate we have opened up our web-based forecasting model of more than 100 countries to users outside the Bank. Users not only have access to our forecasts, but can design their own forecasts and simulations and share them with others.

At the Annual Meetings next week we will hold an Open Forum, a two-day online live internet discussion on the key development issues of the day. And we will feed those issues into our discussions with ministers from around the world at the Development Committee discussion.

Our aim is for Open Data, Open Knowledge, and Open Solutions.

This needs to be more than just a slogan. This needs to be a fundamentally new way of searching for development solutions, in a networked development architecture, where none dominates and all can play a part.

**VIII. Conclusion**

The global economic crisis has instructed us – through the hardest of lessons ---- to question assumptions. It has emphasized the rising importance of developing countries.

It has underscored the consequences of public policies ---- for developed and developing countries.

There is a new opportunity, and certainly a pressing need, for a dynamism in development economics. Software has brought new tools; the Internet has brought new communications; rising economies have brought new experiences.

We have questions to answer. Questions that come not just from inside academia – but questions from policymakers, from societies, from inventors, from businesses, from aid workers, from N GOs, from the media. Questions that stream across borders, and continents, and generations.
We need to listen and democratize development economics.