AC-UPSE Economic Forum 2008-2011

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2008-2011

Contents

Message	vii
Preface	ix
Acknowledgments	xi
About Ayala Corporation	xiii
About UPSE	xv
About UPecon Foundation	xvi
List of Contributors	xvii
CHAPTER 1	
The peso appreciation and the sustainability of Philippine growth: need we worry? Raul V. Fabella	01
CHAPTER 2	
The Philippines: Fiscal Behavior in Recent History Benjamin E. Diokno	11
CHAPTER 3	
Is labor export a good development policy? Ernesto M. Pernia	59

CHAPTER 4

CHAPTER 8

CHAPTER 9

Learning from the global economic crisis Cayetano W. Paderanga Jr.	77
CHAPTER 5	
Institutional constraints on Philippine growth Emmanuel S. de Dios	107
CHAPTER 6	
Is government really solving the housing problem? Toby C. Monsod	153
CHAPTER 7	

What's wrong with the Philippine higher education Edita A. Tan 171

Unemployment, Work Security, and Labor Market Policies

Emmanuel F. Esguerra

207

Securing Food, Reducing Poverty: Opportunities,
Constraints, and Policy Actions

Arsenio M. Balisacan

229

Message

As Dean of the UP School of Economics (UPSE), I am pleased to present this compilation of papers from the AC-UPSE Economic Forum. This partnership between the UPSE and the Ayala Corporation has provided a venue for articulating evidence-based policy options on key issues confronting the Philippine economy.

From 2008 to 2011, twelve public lectures were conducted by UPSE professors on a variety of topics including, among others, poverty, growth and development, food security, labor, education, international monetary system, housing, politics and institutions. Through these lectures and panel discussions, the AC-UPSE Economic Forum disseminated to a broader public the results of recent studies done at the UPSE, and fostered discussions among policy makers, the private business sector, and the academe.

In this book, we compile the majority of the papers presented in the series of fora to ensure greater accessibility of the public to the results of these studies. The authors had revised their respective papers to address the questions and suggestions of the forum participants.

In behalf of the UPSE, I extend our heartfelt appreciation of the financial support provided by the Ayala Corporation in conducting the series of public lectures. I sincerely hope that the excellent reforms advocated by the various UPSE Professors and forum participants will bear good fruit for the Philippine economy in the years to come.

RAMON L. CLARETE

Preface

This volume is the fruit of an arm's-length introduction. In 2005 Mr. Jaime Augusto Zobel de Ayala (JAZA), chair of the Ayala Corporation, was handed a paper to read by Mr. Romeo Bernardo, a School alumnus and long-time adviser to the Ayala Group. Jointly authored by some faculty members of the U.P. School of Economics, the paper¹ outlined the dire consequences of inaction over the country's deepening fiscal crisis and proposed measures—many of which were painful and impolitic—to overcome it. In the event, the paper's wide coverage in media was key to a public debate that finally moved the government to action. Crisis averted.

JAZA would later remark that such a paper coming from U.P. was a pleasant surprise that helped dispelled some misconceptions of the University, especially among business people. Based on this favorable appreciation of kindred spirits from afar, JAZA made a decision to "support the School in what it does best". After that, and following a period of congenial face-to-face visits and brainstorming meetings, the Ayala Corporation-U.P. School of Economics collaboration was born.

"What the School does best" is to ask questions that stimulate debate and ultimately shape policy. This is not far off from Edward Leamer's recent blunt formulation: "The primary goal [of economics] should be to design policy interventions—policies that are intended to help achieve social objectives, notably the highest level of well-being for the largest number of people." Along this line, therefore, Ayala's support took the form of sponsoring research that would advance public understanding of important aspects of public policy.

Three features of the AC-UPSE cooperation are worth pointing out: first, fully respecting academic freedom, Ayala gave the academics a free hand in determining what issues were to be tackled; second, with an eye to the future, Ayala's support went

¹ This was UPSE Discussion Paper 2004-09 (August 2004) "The deepening crisis: the real score on deficits and the public debt".

not only to established scholars but also to graduate students who formed a second-line of future researchers; and third, Ayala set the wise condition that the public lectures be held alternately at Makati and Diliman—a conscious effort to bring about a dialogue, if not a meeting of minds, between academe and the business community.

Since then, over a three-year period from 2008 to 2011, twelve forums have featured lectures from some of the country's most noted economists speaking on a range of vital topics affecting the Philippines and the world economy. These have included exchangerate policy; fiscal behavior; labor exports and remittances; taxation and spending; the global financial crisis; agrarian reform; international monetary system; institutions and growth; key issues confronting the next president; labor and employment; housing policy; and public support to tertiary education.

This volume gathers together the papers that formed the basis of the lecture series. Both individually and taken together, the AC-UPSE lectures are a major contribution to policy-debate and -formulation in the country. Each of them illustrates the use of economic analysis and evidence as a guide to redirecting public policy to its original purposes of efficiency, growth, and equity.

On the other hand, their being gathered into a single volume—and the fact that almost all are still current and relevant—gives the reader an insight into the details and the magnitude of a reform agenda required for the Philippines to achieve inclusive prosperity and social cohesion.

It is in this spirit that this collection is offered to the Filipino people and their leaders.

NOEL S. DE DIOS Oscar M. Lopez Sterling Professor of Law and Economics Former Dean, University of the Philippines School of Economics

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This book is a compendium of the lectures presented in the AC-UPSE Economic forum. We thank the contributors for allowing us to reproduce their manuscripts in this book: Raul V. Fabella, Benjamin E. Diokno, Ernesto M. Pernia, Cayetano W. Paderanga, Jr., Emmanuel S. de Dios, Toby Melissa C. Monsod, Editha A. Tan, Emmanuel F. Esguerra, and Arsenio M. Balisacan. We also thank Maria Socorro Gochoco-Bautista and Felipe M. Medalla for presenting their lectures in the forums.

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About Ayala Corporation

FOUNDED IN 1834, Ayala Corporation is one of the oldest and most respected business groups in the Philippines with a diversified business portfolio that includes real estate development, banking and financial services, telecommunications, water distribution infrastructure, electronics manufacturing services, automotive dealership, overseas real estate investments, business process outsourcing (BPO), infrastructure, renewable energy, and power.

AYALA is led by Jaime Augusto Zobel de Ayala as chairman and CEO and Fernando Zobel de Ayala as president and COO. A public company listed in the Philippine Stock Exchange (PSE:AC), Ayala ended the first half of 2013 with a market capitalization of approximately US\$8 billion, making it the second largest among listed Philippine conglomerates.

Ayala has leveraged its portfolio of assets, brand equity, and competitive advantages to enhance its position of leadership in key lines of business:

AYALA LAND is the Philippines' largest fully integrated property developer and one of the most successful developers of prime commercial spaces in the country.

Bank of the Philippine Islands is one of the largest Philippine banks and has a lead position in intermediation capacity, corporate and consumer lending, remittances, and electronic banking.

GLOBE TELECOM is a major provider of telecommunications services in the Philippines formed out of a partnership between Ayala and Singapore Telecom.

MANILA WATER is the sole provider of water and wastewater services in the East Zone of Metro Manila and now has existing operations in other parts of the Philippines and the region.

INTEGRATED MICRO-ELECTRONICS is a leading electronics manufacturing services provider in the region.

AYALA AUTOMOTIVE HOLDINGS CORPORATION is a leading vehicle dealership network of both Honda and Isuzu brands in the Philippines. It now also distributes Volkswagen passenger vehicles.

LIVEIT INVESTMENTS is the holding company for Ayala's investments in the BPO sector.

AG HOLDINGS is the holding company for the Ayala group's international property investments in the United States and Asia.

AC Energy Holdings, Inc. and AC Infrastructure Holdings Corporation are, respectively, Ayala's holding companies for investments in the power and renewable energy sector and in infrastructure projects.

Ayala's commitment to corporate social responsibility is largely expressed through Ayala Foundation's programs that cover education, art and culture, entrepreneurship, the environment, and sustainable development.

About UPSE

THE UNIVERSITY OF THE PHILIPPINES SCHOOL OF ECONOMICS (UPSE) provides instruction leading to undergraduate and graduate degrees in economics.

UPSE was established in 1965. The Department of Economics is responsible for the academic degree programs, while the Economics Research Center oversees the School's research projects. A third functional department, the Public Affairs Office, coordinates the School's various extension, training and public service activities. These are the three pillars the UPSE is known for. Now nearing its 50th year of existence, UPSE adheres to international standards of excellence and constantly introduces innovations in teaching, research and public service. The School is dedicated to making its teaching of economics compare with the best globally.

UPSE is the only institution in the country today with an internationally recognized Ph.D. program in economics. It has maintained a high ratio of full-time faculty with Ph.Ds and a distinguished record of international publications in the discipline. Awarded as the Center of Excellence in Economics in 1999 by the Commission on Higher Education, the School is known for graduates who have been rigorously trained and prepared to become leaders in the field. Many of the prime movers in government, business, civil society and academia obtained their formal training in economics from UPSE.

About the UPecon Foundation

THE UPECON FOUNDATION, INC., established in 1981, is a private, non-stock, non-profit organization whose mission is to support the research, teaching, training and community services of the University of the Philippines School of Economics. The members and officers of UPecon are all School faculty members in good standing. This relationship guarantees UPecon complete access to the technical resources of the School in order to achieve its mandate.

Being university-based, the UPecon has a constant access to other expertise, and has in the past engaged the services of professionals in public administration, law, political science, engineering, sociology, business administration, demography, mass communication, medicine and statistics. It has also teamed up with other local research institutions. Further, it has ready access to a pool of junior researchers and support staff trained in the School of Economics and other units of the University of the Philippines.

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CHAPTER

1

Raul V. Fabella

The peso appreciation and the sustainability of Philippine growth: need we worry?

ABSTRACT

The rapid appreciation of the Philippine peso and the resulting loss of competitiveness militate against long-term "balanced and sustainable growth". A review of history shows that fighting inflation with appreciation of currency "seeds" a financial storm. In contrast, the undervaluation of the domestic currency has been shown to robustly improve economic growth in less developed countries like the Philippines. The government, however, need not embark on an aggressive depreciation of the peso but rather on keeping the exchange rate between Php 42 and Php 43 to a dollar for the next five years. This will likely raise further the foreign exchange reserves now at record levels. In order to achieve sustainable growth, the government has to craft an "exit strategy" from the remittance-driven economy by deploying the remitted OFW money to build first-class infrastructure. This can be done by selling infrastructure bonds to the Bangko Sentral ng Pilipinas, which create further demand for dollars and ease the pressure for appreciation coming from the continuing forex inflows.

INTRODUCTION

As a lifelong observer of the Philippine development story, I have noted one lesson that stands out among all others: underdevelopment is not a story about the dearth of resources but about blown opportunities. William Shakespeare, in *Julius Caesar*, gave perhaps the most eloquent rendition of the genesis of underdevelopment:

There is a tide in the affairs of men that taken at a flood leads on to fortune: omitted, all the voyages of their life are mired in the shallows and in miseries.

The Philippines missed the tsunami of Japanese direct foreign investment in the second half of the 1980s because we could not get our political act together. The monumental collapse of the Marcos project in the early '80s was preceded by a flood of borrowed petrodollars for which we inherited nary but a slew of white elephants and bankrupt state banks. The ready availability of forest and extractive resources allowed the perpetuation of the increasingly unviable beauty parlor industries in the '50s and '60s. We have not yet stopped counting the cost to the nation of the Ninoy Aquino International Airport (NAIA) Terminal 3 fiasco! It is scary how, as a nation, we have managed to transform the opportunities embedded in available resources into a litany of "miseries". This, it seems, is bigger than Dutch Disease.

There is, as we speak, a spectacle rising up along Commonwealth Avenue in Quezon City that will buoy you up as it does me every morning I pass by. The Ayala Land–University of the Philippines Science and Technology Park stands as a cornerstone of the future we all wish for this country—global in outlook, high technology at its core, unfazed by competition. It will be a dollar earner for the country—a rare example of seizing the day. But alas, even before the first locator has moved in, its potential revenue in peso terms has already been slashed by 19 percent in 2007 alone! This, in my humble opinion, is unconscionable, even given the general weakness of the dollar.

Are we on the verge of blowing yet another great opportunity?

A question naturally suggests itself to dismal scientists: is current growth sustainable? The devil, they say, is in the details, and there are others; the detail that bugs us most is the rapid appreciation of the Philippine peso. What, if any, is this bug's message?

Allow a bit of history to deconstruct the message.

A BIT OF HISTORY

"Roaring" was also how the Philippine economy was described in 1996. Boosters were then claiming "tiger cub" status for the country. Malacañang and the Bangko Sentral ng Pilipinas (BSP) were singing paeans to peso appreciation (from Php 27 to Php 24 to a US dollar), the resulting retreat of inflation, and fiscal savings from reduced debt

service. The devastating "power crisis" was all but a memory, thanks to the aggressive independent power producer build-operate-transfer (IPP-BOT) approach. Portfolio investment brokers were then applauding and deviously talking the peso even higher. "We are awash with dollars" was the BSP spokesperson's repeated refrain. Exporters who groaned under the burden were dismissed as perennial whiners. Punters in the stock market were making money hand over fist! Real estate was white-hot, and early birds were catching beakfuls of worms.

Talk of a possible "economic bubble" was dismissed as myopic and backward-looking prattle. It's different this time, we were assured: We have entered a "new economy". Is not the private sector bringing in the dollars? Is not the private sector incurring foreign borrowing? Indeed, it was different from the recent past when dollar inflows had to be greased with sovereign guarantees. "Prophets of boom" abounded and could be counted upon to salve lingering doubts.

In the annual economic summit of the first quarter of 1994, a small group of doubting Thomases largely identified with the University of the Philippines School of Economics, proposed an aggressive exchange rate adjustment to Php 35 from Php 25 to a dollar. Then Senate president Angara bannered it in the morning plenary session. Thunderbolts of scorn greeted the proposal. Malacañang and the BSP hissed at the thought. "Over my dead body", the BSP governor then was overheard to have boasted. It was a resounding victory for the strong-peso worldview.

Two more years of irrational exuberance, fueled additionally by a frenzy of foreign borrowing by local banks (and no doubt comforted by the BSP's overt embrace of the appreciating peso), appeared to confirm the yea-sayers. Then, the bottom fell out of the economy! The BSP had won the battle of the exchange rate—but only over the carcass of the Philippine economy. Pyrrhus would have loved the company.

The Asian crisis that followed was brutal but eminently avoidable. History had not been stingy with red flags. For one, there was the *Mexican tequila hangover*. The Mexican crisis that reared its head in late 1993 and exploded in 1994 should have been viewed as a shot across the bow by Philippine policymakers in the first quarter of 1994. Recall: the spike in the world oil prices at the end of the '80s had given the Mexican economy its first shot of adrenalin. When this was followed by the good news of the North American Free Trade Agreement (NAFTA), the stampede to get a piece of the Mexican action ensued. The Mexican authorities, tipsy with *maquiladora* success, rapidly laid open the capital account and, in their desire to stem inflation and encourage further foreign investment inflows, allowed the Mexican peso to appreciate rapidly (they had a floating-band exchange rate system). The implied Mexican peso overvaluation jumped from 15 percent to 30 percent between 1992 and 1994. But inflation fell from 18 percent to 7 percent in those years. Mexico experienced the highest GDP growth in 1994, accompanied by a rare fiscal surplus and record-level forex reserves. *Perfumados* (the derogatory hindsight-enabled moniker for the upper-class Ivy League-educated

architects of the post debt-crisis *resorgimiento* founded on capital account liberalization and a floating exchange rate) were wined and dined on Wall Street by the leading investment houses. One of them was accorded the "Alumnus of the Year" award by Yale University.

In 1994, it all came crashing down. It did not matter that oil revenues—unlike portfolio flows—were not about to cease (although oil prices did soften toward the mid-'90s). The initial appreciation seeded an appreciation expectation that triggered a tsunami of fly-by-night carpetbaggers, further fueling appreciation. The Mexican tequila hangover thus entered the lexicon of development studies in 1994. The earliermentioned Yale awardee was placed under house arrest!

The Mexican tequila hangover was a lesson that was hotly debated, duly noted, and like the doubting Thomases, ultimately ignored by the powers in the mid-'90s. Why? Monetary and fiscal authorities were too captivated by the new and pleasantly unfamiliar "darling status" of the country, thanks to the aggressive capital-account liberalization. The magazine *Money* gave the finance secretary the "Man of the Year Award". In the contest for portfolio investment, we had turned eyes in the eyes of the judges, as one observer noted, by "raising our hemline".

Not long after the Asian crisis, the global economy was rocked by another crisis: the collapse of the Argentine economy in 2002. A spell before that, Argentina, in an attempt to exorcise its inflationary demons, drastically revalued the Argentine peso to a one-to-one exchange with the dollar. The result was one massive overvaluation of the Argentine peso, delivering a crushing blow to Argentine manufacturing. Jobs in the Argentine traded-goods sector quickly relocated to friendlier climes. But economic growth seemed to be on the march and inflation was tamed—so who cared?

To finance this exuberant fiesta, Argentina resorted to massive foreign borrowing. The strategy of fighting inflation by currency appreciation was celebrated for a while as the new wave of the future. As they did in Mexico, foreign banks would come knocking. Banco Santander of Spain led the charge, and others followed. In time, however, the binge stopped and the economy hit the wall of the Argentine crisis.

The painful but oft-ignored lessons of catch-up in economic history are the following: (1) fighting inflation by currency appreciation does not by itself bring about a financial storm; rather, it "seeds" that storm and whether the storm materializes or not depends on other ingredients; (2) raising red flags after the storm has gathered steam is too late; (3) sentiments change very quickly and, in a culture of very short time horizons and quick profit, the other ingredients—for example, cheap credit—can easily be rationalized. Even the dour and understated Ben Bernanke claimed in 2005 that the housing frenzy was just a reflection not of a bubble but of "the depth and sophistication of the country's financial markets". A few catchy phrases ("reverse redlining" or "structured investment vehicle") clinched the day for complacency and what we now know as the "subprime lending crisis".

A DIFFERENT READING OF THE HISTORY

That the Philippines and a few Asian neighbors failed to heed the writing on the Mexican wall in 1994 may just reflect the (Will and Ariel) *Durant rule*: "History teaches, but man never learns!" The exception to that rule has been China. China devalued the yuan by 40 percent in January 1994 and stayed with the old-fangled regime of fixed exchange rates and capital controls to maintain an undervalued yuan. That effectively burned portfolio investors and cooled off the then-simmering asset-price bubble. That set of policies, known otherwise as the "East Asian model" and declared dead and buried by the brain trusts of Western banks, effectively kept the Mundell-Fleming "Unholy Trinity" from making a beachhead and saved China from the Asian crisis contagion.

But does one swallow make a summer?

China is hardly a lone swallow in Capistrano. It had not been breaking new ground; it was and is still today following closely in the footsteps of Japan before the Plaza-Louvre accords and of the East Asian miracle economies before they fell under the spell of mobile capital in the 1990s. It was by then also lost on no one that the Plaza-Louvre accords-initiated rapid appreciation of the Japanese yen in concert with "easy money policy", triggered the Japanese bubble economy of the late '80s and the decade-long Japanese recession in its wake. This was a powerful object lesson that China learned but we still have to learn.

A weak yen remains, to this day, the anchor of China's monetary posture and the most contentious issue in the world financial architecture before the subprime crisis. Despite immense pressure from the West and other trading partners (with Japan being the latest to register its discomfiture), a 7 percent appreciation was all China would grudgingly allow in 2007. China is doing everything *except* comply with the West's demand for rapid appreciation: voluntary export restraints, well-timed shopping sprees for Boeing Jumbos, financing the trade deficits of partners, etc. True to its East Asian roots, China refuses to sacrifice the future for present gratification. That is standing the Durant Rule on its head. The contrast with the Philippines cannot be starker.

THE PHILIPPINES IN 2008

"We are awash with dollars," says the BSP yet again, as it did in 1995. And again we are reassured, it will be different this time around. To be sure, there *are* obvious differences. The fiscal picture is better. The inflation picture is better. The balance of payments picture is encouraging. The BSP, since 2002, has embarked on a new monetary policy modality called "inflation targeting" (IT). Dollar inflows today consist much less of foreign borrowing and portfolio flow than in Argentina and the Philippines in the '90s. Rather, they consist predominantly of overseas Filipino workers' (OFW)

remittances, which won't hotfoot on you even if you treat it shabbily. But in one fundamental aspect, nothing has changed.

The community of dollar earners is once again getting a "scourging at the pillar". Millions of OFWs and their families, whose sweat and tears form the very wellspring of current prosperity, are being treated as doormats. The tradeable sector is experiencing an output shock. Seventy-five small and medium firms have folded up in 2007. Toshiba's laptop unit has seen the light and has wisely migrated to friendlier climes. Jobs are being lost. Intel's well-reported agony over whether or not to ramp down its local chip production in favor of China is publicly charged to very high power cost but no one would be surprised if the 19 percent appreciation was the backbreaker. The brightest star in our economic horizon and a possible cornerstone of an *exit strategy* from the dependence on OFW remittance, the business process outsourcing (BPO) industry, is being blindsided. Tourism, another promising cog in this exit project, is being pounded.

The Filipino nation benefits mightily from the OFW remittance and export earnings *even* without appreciation. Having the wherewithal to import allows the nation to benefit from the dis-inflationary *China effect* and *Silicon Valley effect* on prices. This is how we share in productivity gains elsewhere in the world. Likewise, it allows the public and private sectors to borrow dollars at a lower interest premium than otherwise. OFW dollars have a "public good" dimension. That is why we sometimes refer to OFWs as "heroes". For that reason alone, dollar earners deserve a subsidy, not a penalty. That is why the doubt lingers. But the economy, as the government claims, is hurtling along (7.2 percent GNP growth in 2007)—so who cares?

We have obviously seen this all before. The arguments for appreciation coming from the BSP and Malacañang echo those of 1996 (more on this below). Is this a case of: *Plus c'est la meme chose?* Again the BSP argues: "Exporters and families of overseas Filipinos have suffered but everyone else benefited" [*Business World*, 5 February 2007]. Sounds too much like the high priest Caiaphas declaring the "expediency" of *one man* dying for the rest of the nation!

THE LATIN AMERICAN SYNDROME

The peso appreciation would be less of a threat if it were just an isolated happenstance rather than the tip of an iceberg: a worldview that we refer to as the "Latin American syndrome" (LAS). LAS is rooted in the idea that a strong currency is the proper gauge of a strong economy. That it was conveniently congruent with extended vacations in Rome and Paris favored by the *latifunderos* of Latin America, was, one suspects, not just a pleasant afterthought. A strong currency results in cheap imports, cheap foreign travel, and unprofitable exports. Why produce when you can consume on the cheap today? LAS is a "celebration of today". It is more than the prosaic "Dutch disease" because it involves a romance with strong currency. The peso appreciation must be viewed with apprehension as a possible manifestation of LAS.

The East Asian way, by contrast, is "a celebration of the future"; it is about postponed gratification and capability building to empower the morrow. It is less about us as it is about our children. It is about giving a man a hook and a line so he will eat the rest of his life. That is mainland China today.

IN LIEU OF FRITTERING AWAY OUR ARSENAL

If we have any East Asian wits about us at all, we should be using the OFW bonanza to craft and finance an "exit strategy" from the "remittance-driven economy" (see de Dios, Fabella and Medalla [2007]). The remittance-dependent economy is largely still based on the low cost of labor. In other words, it is partly a "poverty-driven" phenomenon. An exit program should involve deploying the OFW remittance bonanza to close the gaping 20-year infrastructure hole (witness the shame of our international gateway, NAIA, being downgraded by the US Federal Aviation Administration [FAA] for substandard facilities). That is this generation's overarching responsibility. This will then progressively reduce, via investment and employment creation, the economy's dependence on exports of low-skilled workers. South Korea progressively reduced its dependence on foreign aid and workers' remittances by building first-class infrastructure. Closing the infrastructure gap is the true measure of long-term sustainable growth, and by this metric the Philippines has failed and continues to fail. Giving away our meager advantages is a prescription for "sustainable poverty", not for sustainable growth.

WHERE DO WE GO FROM HERE?: A MODEST PROPOSAL

Reckless though the appreciation of the past three years has been, it would be equally reckless to try to recover lost ground in the next three. A more realistic goal is the following: Aim for at most a 6 percent per year average appreciation for the period 2007-2010 by allowing at most 2 percent appreciation per year for the next three years. This would allow us to recover ground lost to our competitors by 2010 (granting that they continue their usual 10 percent appreciation trajectory).

Since the recession in the USA and a slowdown in the European Union are now near-certainties, the demand-pull pressure on oil prices will surely ease. The upward pressure on the price of staples, however, will linger for a while longer, perhaps peaking in 2008. But on the whole, the inflation outlook for the next three years appears promising in that it should allow more attention to be paid to output growth and the exchange rate. The credit squeeze will also result in less inward traffic of portfolio flows. Bearish prospects in the Organisation for Economic Co-operation and Development (OECD) and in the Organization of the Petroleum Exporting Countries (OPEC) countries will combine to slow down hiring and remittances. The goal of at most 2 percent appreciation per year till 2010 appears doable. Indeed, the peso has in the last few weeks begun to reverse

course to reflect global turmoil and uncertainty. However, it is not wise to leave our fate to the vagaries of the global market. We must do much better in the following areas:

Customization and flexibility

The enabling law (RA 7653) of the BSP enjoins it "to promote price stability conducive to balanced and sustainable growth". Price stability for its own sake is not the sense of RA 7653. Our contention is that rapid appreciation and the resulting loss of competitiveness militate against long-term "balanced and sustainable growth". Its negative impact on tradeables, employment, and output; its stoking of appreciation expectations; and its seeding of potential asset-price bubbles are like plaque building up in the economy's arteries. Warning signals tend to be ignored until it's too late. The inflation-targeting policy posture adopted by the BSP since 2002 has enough flexibility to accommodate other-if soft-goals or what Bernanke and Mishkin [1997] called "constrained discretion". In the more volatile environment of catch-up economies, one cannot afford to indulge in what Bank of England (BOE) Governor Mervyn King calls "inflation nutting" (i.e., the catatonic subservience of central banks to consumer price index [CPI] numbers). In their authoritative study of inflation-targeting experience in the last decade and a half, Roger and Stone [2005] batted forcefully for "customization": the choice of inflation targeting must be informed by local circumstances, especially vulnerability to exchange rate shocks. Such vulnerability is precisely the fate of a remittance-driven economy.

Rhetoric of endearment

It is generally accepted that the portfolio flows in first semester of 2007 boosted the pressure for appreciation. Portfolio flows are driven by arbitrage expectations, which in turn hang partly on the rhetoric of the monetary authority. And peso appreciation is, more often than not, accorded a "rhetoric of endearment" by the BSP: it typically defends the peso appreciation as benefiting the nation, even as it insists that it is doing everything to stem the appreciation. The impression it gives is that its heart is really for appreciation. The signal to portfolio managers is "The downside risk to arbitrage-seeking placements is zero". No purpose is served by this apparent inconsistency between rhetoric and action. Credibility would be better served by the "rhetoric of discomfort": by recognizing that appreciation is *not* conducive to sustainable growth.

Rereading the evidence

(a) When BSP spokespersons defend the appreciation by claiming that it is governance that matters for competitiveness and not the exchange rate, they misread the "institutions-matter" orthodoxy and buy into a very limited if spicy *Easterly mantra* that "policies do not matter". Indeed, governance does matter most, but if you do not have

it, you can still use changes in policy to reduce the ravages of the lack of governance. This is the interpretation Rodrik [2007] prefers for the increasing raft of evidence that "undervaluation of the currency" robustly improves economic growth of least developed countries (LDCs) (Bhalla [2007]; Easterly [2005]; Johnson, Ostry, and Subramanian [2007]; Rodrik and Rigodon [2005]). Weak governance is the fate of most LDCs and its downsides are most felt in the more competitive traded goods sector, which is why undervaluation is what he calls a "second best" solution. In this view, the country with the highest cost of power (e.g., the Philippines) should have the weakest currency. We did the very opposite in 2007.

(b) When the BSP spokespersons defend the appreciation for its disinflationary and therefore poverty-reducing effects, they need to specify exactly what inflation level is poverty reducing. Some inflation may actually be beneficial for development and growth [Barro [1995]; Judson and Orphanides [1998]; Khan and Senhadji [2000]). Our own research shows the poverty-reducing inflationary level to be anywhere between 5 percent and 10 percent [Fabella and Fabella 2007].

Demand and supply of dollars

- (a) *Borrowing mix*. Consistent with the rhetoric of discomfort is a more aggressive borrowing mix in favor of pesos. The government can and should announce a borrowing mix of 95-5: only 5 percent borrowing is to be sourced from abroad and only to provide the benchmark for *private* foreign borrowing. The decision of the Department of Finance to lower its first dollar bond issuance of the year by half is a good start for reducing the supply of dollars. But a consistent follow-through is called for.
- (b) *Foreign debt pre-payment*. While this is already being done, it should be pursued with greater urgency and purpose. Government should buy dollars locally to finance the retirement of its dollar debt.

SUMMARY

While the prospect of another drastic stumble remains remote for now, its seeds may already have been sown by the rapid peso appreciation. Although more distant than in 1996, we do not know when and how the enemy will strike. In the near-term it may manifest itself simply as foregone growth in output and employment. As it is, the turmoil in the world economy is creating a minefield of dangerous possibilities. Prudence dictates that we resupply rather than fritter away our meager arsenal. Andy Grove's well-known advice to firms in the market ("Only the paranoid survive") also applies to economies afloat in the high seas of globalization.

If we must summarize the message from the appreciation bug, it is this: Cuidao!

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CHAPTER

2

The Philippines: Fiscal Behavior in Recent History

Benjamin E. Diokno¹

ABSTRACT

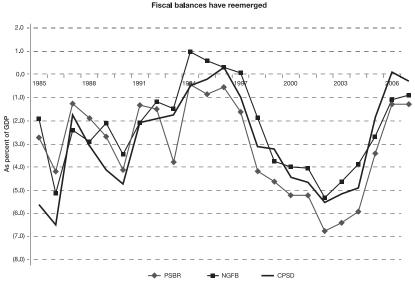
The Philippine national government had large and unsustainable budget deficits in the 1980s. But after a brief period of near-balanced budget in the mid-1990s, large deficits have reemerged in recent years. What explains the poor fiscal performance of the Philippines in recent years? Was it the result of unfortunate events, macroeconomic shocks, or misdirected fiscal policy?

The large public-sector deficits in the early 1980s and those in recent years have similarities and differences. Both episodes of deficits occurred during periods of soaring oil prices, high interest rates, and volatile foreign exchange rates. Both episodes were also associated with low tax effort. The gains from the 1986 tax reform program during the middle years were lost in recent years because of discretionary changes. Over time, spending priorities changed. Marcos focused on infrastructure spending, while Aquino and Estrada focused on social services. Investment in physical infrastructure has a positive effect on fiscal balance. It makes private investment more productive, reduces transactions costs, increases the profitability of private-sector businesses, and thus expands economic output.

INTRODUCTION

THE PHILIPPINE NATIONAL government experienced large and unsustainable budget deficits in the 1980s. After a brief period of near balanced budget in the mid-1990s, large budget deficits have reemerged in recent years. But unlike the heavy fiscal imbalances in the early 1980s which were caused by large investment in public infrastructure and low tax effort, the return of large fiscal deficits in recent years was accompanied by falling tax effort and underspending for education, health and public infrastructure. With deficits rising and investment in human capital and public infrastructure deteriorating, an appropriate question is: what has caused the poor fiscal performance of the Philippines in recent years? Is it the result of unfortunate events, macroeconomic shocks or misdirected fiscal policy?

FIGURE 1. Various measures of fiscal deficits: NGFB, CPSD, PSBR



There are at least three possible ways of measuring the fiscal health of the Philippines: the national government fiscal balance (NGFB or NGAB for national government account balance), the consolidated public sector financial position (CPSFP or CPSD for consolidated public sector deficit), or the public sector borrowing requirement (PSBR). The NGFB or NGAB which measures the fiscal performance of the national government alone is the one generally understood by policymakers, the media practitioners and the general public. Among the three measures, NGAB is no doubt the narrowest and the least accurate in describing the 'true' fiscal position of the government. The CPSD, on the other hand, is the combined deficits of the national government, the monitored government-owned and controlled corporations,

government financial institutions, local governments, and other public sector entities. CPSD is a better measure of the public sector's true state of finances than NGFB. From the economic standpoint, PSBR is perhaps the most relevant measure of fiscal imbalance. It is the deficit of the national government and the 14 monitored corporations less the budgetary assistance to the monitored corporations in the form of equity contributions and net lending. It measures the amount the government has to borrow domestically or externally to finance the combined deficits of the national government and the monitored state corporations.

This paper will present the historical fiscal data by administration during the last 27 years. The administrative periods are as follows: Marcos, 1981 to 1985; Aquino, 1986 to 1992; Ramos, 1993 to 1998; Estrada, 1999 to 2000 and, Arroyo, 2001 to 2007. For the Ramos and Estrada administrations, the attributed periods do not correspond to their exact term of office, 1992 to 1998 and 1999 to 2000, respectively. The fiscal policy of the President is defined by the years the executive drafted and passed the general appropriations act (GAA).

The focus of this study will be on the tax system and spending policy of the government and the way the deficit is financed.

The paper is organized as follows. Section II discusses the revenue performance of five administrations during the past quarter of a century; the performance of the Arroyo administration is ongoing and should be seen as work in progress. Section III discusses the pattern of government expenditures during the last 27 years and the budgetary priorities under different administrations. Section IV discusses the three different measures of fiscal imbalance under four different administrations. The mode of financing the deficit and the levels of public debt during the period under review is discussed in Section V. In Section VI, we summarize the results of a previous study on the economic and fiscal policy determinants of public deficits in the Philippines.² The final section discusses some conclusions and implications for policy.

REVENUE PERFORMANCE

The government should be able to raise enough resources to finance the needed public goods, social programs for the poor, and priority infrastructure for growth and development. The general policy of the Philippine government regarding tax collection is that "the rule of taxation shall be uniform and equitable. The Congress shall evolve a progressive system of taxation."³

In practice, taxation has multiple objectives. First, raise revenues equitably. If this were the sole objective of government, a progressive tax system is the best option. In principle, progressive taxes are equitable in that those who earn more are taxed more. In addition, the deadweight loss associated with progressive taxes is the least. Furthermore, Brennan and Buchanan (1980) have suggested that a progressive income

tax system can control the size of government because it difficult to collect, hence, there is less to spend. In practice, however, incomplete information and difficulty to administer progressive taxes encourages tax evasion and other distortions.

Still with the objective of raising revenues, higher tax rates should be imposed on goods with relatively low price elasticity. Goods for which demand is relatively price inelastic would provide a stable tax base. This form of tax is called a Ramsey tax. The downside is that many goods with relatively inelastic demand are basic necessities (e.g., rice which is staple food in the Philippines) and constitute a large part of a poor man's budget. This inverse elasticity rule is not the best option if equity is the government's highest priority.

Another objective of tax policy is efficiency, that is, to ensure the proper allocation of resources, with or without externalities. Externalities which could be negative or positive occur when the behavior of one economic agent affects the behavior another economic agent, without such behavior being appropriately priced. Pigouvian taxes try to correct such externalities. Sin tax is an example of taxes used to correct a negative externality. The aim is to alter consumption of certain *bads* (e.g. cigarettes and alcoholic beverages) by penalizing smokers and drinkers. For a negative externality like carbon monoxide emissions, government requires emissions testing for vehicles before allowing them to be registered. For a positive externality like a largely inoculated population, government provides immunizations as part of their basic health care package; government intervention is in the form of a Pigouvian subsidy (or negative tax).

In designing the appropriate tax system, policymakers should consider some normative aspects such as (a) vertical and horizontal equity and (b) administrative simplicity.

One of the most important practical aspects of tax design, especially in developing countries, is the administrative capacity of government to collect taxes properly. If the government is able and information is complete, then a progressive form of direct tax would be the best taxing scheme. On the other hand, if the revenue collection institution is weak it may be better to depend more on indirect levies like value-added tax (VAT) and excise tax.

There is growing consensus that a tax system should be relatively flat and broad. Broadening the tax base by reducing exemptions permits marginal tax rates to be lower, and flatter, compared to a tax system with a narrow tax base. The trade-off between the tax base and the tax rate arises because the government has a revenue target that it must meet, if not surpass. As will be shown later, during the period under review, measures undertaken to simplify the Philippine tax system in the mid-1980's led to increased tax effort in succeeding periods. However, in late 1990's, the tinkering of the tax system resulted to a decline in tax effort.⁴

In practice, the reduction of tax dispersion and the introduction of VAT may not necessarily lead to the desired increase in tax revenues. In the case of Latin America,

the short run revenue goal was not attained with the abovementioned tax reforms. Tax revenues will only grow to the extent that tax administration and compliance improve. A final consideration in the design of a tax system is tax elasticity. A tax system should be responsive to changes in the economy. In times of economic growth, tax revenues should increase without having to enact new tax laws or raising existing tax rates. Paderanga (2004) observed that tax buoyancy in the Philippines had stagnated in 1999 and 2000 and attributed it to tax evasion. Diokno (2005) argued, however, that the observed stagnation of tax buoyancy could have been due to other factors, such as: first, the 1996 amendment to the Expanded Value Added Tax (EVAT) law which had the effect of narrowing the VAT base; second, the restructuring of the tax on oil products as part of the oil industry deregulation; and finally, the change in the system of taxation of 'sin' products – cigarettes and liquor—from ad valorem to specific."

Tax revenue is a crucial factor in reducing the probability of persistent budget deficits. In the case of the Philippines, there were two major tax reforms during the period under study. The first was the 1986 Tax Reform Program (TRP) and the second was the 1997 Comprehensive Tax Reform Program (CTRP). Diokno (2005) argues that while the 1986 tax reform program contributed significantly to fiscal improvements in the late 1980s and early 1990s, the 1997 CTRP was a major contributor for the progressive decline in tax effort.

During the period under review, the tax effort, defined as taxes as percent of GDP, was at its lowest in 1982(9.9 percent), peaked in 1997 (17.0) and decelerated to a new low of 12.3 percent in 2004. Direct taxes had the largest contribution to total taxes during the last three administrations (Ramos, Estrada and Arroyo). International trade taxes, in percent of GDP, progressively declined largely because of the government's commitment to lower tariffs under various trade liberalization agreements.

During the final years of the Marcos administration, 1981 to 1985, overall revenue effort averaged 11.7 percent while tax effort averaged 10.3 percent.⁸ The tax system can be characterized as one that is heavily dependent on indirect taxes and therefore regressive. Indirect taxes and international trade taxes, separately, accounted for about 35 percent of total taxes. A plausible explanation is the nature of the Philippine economy during the period: most import- substituting industries goods were heavily dependent on imported intermediate goods which were the tax bases for import duties and excises. The contribution of direct taxes to total taxes averaged only 25 percent (Table 1).

Recognizing the inherent weaknesses of the tax system, Corazon Aquino, a few months after she took power in 1986, reformed the tax system. Operating under a revolutionary government, Aquino exercised both executive and legislative powers, and consequently succeeded in overhauling the weak tax system with virtually no resistance.

TABLE 1. National Government Account and Primary Balance, 1981-2007

In percent of GDP

Particulars	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-07 Arroyo
A. REVENUES	11.7	15.9	18.7	15.7	15.3
1. Tax	10.3	13.1	16.2	14.1	13.2
Direct	2.6	4.1	6.0	6.1	5.9 *
Indirect	3.6	4.8	5.6	4.8	4.0 *
Taxes on International Trade	3.6	4.1	4.5	2.9	2.8
Other Offices	0.5	0.2	0.1	0.3	0.3
2. Nontax	1.4	2.7	2.4	1.6	2.2
B. EXPENDITURES	14.5	18.6	18.9	19.6	18.4
1. Current Operating Expenditures	9.0	14.8	15.3	15.9	15.6
Personal Services	3.5	5.2	6.2	6.8	6.0
Maintenance and Other Operating Expenditures	3.1	2.7	2.3	2.4	1.9
Interest Payments	1.5	5.6	4.0	3.9	5.0
Domestic	1.0	4.1	3.0	2.7	3.2
Foreign	0.6	1.5	1.0	1.2	1.8
Allotment to Local Government Units	0.6	0.6	2.2	2.5	2.4
Petroleum Price Stabilization Fund	0.0	0.1	0.1	0.0	0.0
Subsidies	0.3	0.4	0.3	0.2	0.2
Tax Expenditures	0.0	0.2	0.2	0.1	0.1
2. Capital Outlay	4.9	3.1	3.5	3.6	2.7
Infrastructure and Other Capital Outlays	2.6	2.4	2.7	2.9	1.9
Others	2.2	0.6	0.8	0.7	0.8
3. Net Lending	0.6	0.8	0.1	0.1	0.1
C. NATIONAL GOVERNMENT ACCOUNT BALANCE	(2.8)	(2.8)	(0.2)	(3.9)	(3.1)
D. EXPENDITURES (excluding interest payments)	12.9	13.1	14.9	15.7	13.4
E. PRIMARY SURPLUS/DEFICIT (A-D)	(1.3)	2.8	3.8	0.0	1.9

Source: Department of Budget and Management

The aim of the 1986 tax reform program (TRP) was to simplify the tax system, make revenues more responsive to economic activity, promote horizontal equity, and promote growth by correcting existing taxes that impaired business incentives.

On the personal income tax system, the dual tax schedules were unified with the lower 0-35 percent schedule adopted for both compensation and professional incomes. To minimize revenue loss and preserve the relative burden of individuals, ceilings on allowable business deductions were proposed and adopted. Unfortunately, due to strong lobby by various professional groups, this complementary measure was not fully implemented. Passive incomes were taxed at uniform rate of 20%, which rendered passive income taxation neutral with respect to investment decisions involving bank deposits and royalty generating ventures. Personal exemptions were increased to adjust for inflation and to eliminate the taxation of those earning below the poverty threshold income.

^{*} Average for this administration only includes FY 2001-2006 since FY2007 breakdown for direct and indirect taxes is still unavailable.

Married taxpayers were given the option to file separate returns which lowered tax burden on married couples by removing the effects of the progressive rates on their combined incomes.

The tax on corporations was simplified. A uniform rate of 35 percent on corporate income replaced the two-tiered corporate tax structure. Tax on inter-corporate dividends was eliminated and the tax on dividends was phased out gradually over a period of three years. The exemptions from income taxes of franchise grantees were withdrawn. The imposition of an income tax on franchise grantees put this previously favored group on an equal footing with similarly situated individuals or firms. Uniform franchise taxes were imposed on similar types of utilities.

One of the major reforms designed to simplify the tax structure and its administration was the introduction of the value-added tax (VAT). The new system has the following features: (a) uniform rate of 10% on sale of domestic and imported goods and services and 0% on exports and foreign currency denominated sales; (b) 10% in lieu of varied rates applicable to fixed taxes (60 nominal rates), advance sales tax, tax on original sale, subsequent sales tax, compensating tax, miller's tax, contractor's tax, broker's tax, film lessors and distributor's tax, excise tax on solvents and matches, and excise tax on processed videotapes; (c) 2% tax on entities with annual sales or receipts of less than P200,000; (d) adoption of tax credit method of calculating tax by subtracting tax on inputs from tax on gross sales; (e) exemption of the sale of basic commodities such as agriculture and marine food products in their original state, price regulated petroleum products and fertilizers; (f) additional 20% tax on non-essential articles such jewelry, perfumes, toilet waters, yacht and other vessels for pleasure and sports.

TABLE 2. Government Revenues, 1981-2007

As percent of total revenues

Particulars	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-07 Arroyo
1. Tax	88.0	82.7	87.0	89.8	86.0
Direct	25.4	30.8	37.2	43.5	45.5 *
Indirect	35.0	36.9	34.2	33.7	31.0 *
Taxes on International Trade	34.9	30.9	27.8	20.4	21.0
Other Offices	4.7	1.4	0.8	2.4	2.5
2. Nontax	12.0	17.3	13.0	10.2	14.0

Source: Department of Budget and Management

MEMO ITEM

- 1. The share of tax and nontax revenue are as a percent of total revenues.
- 2. Items inder tax revenue are computed as the share of total tax revenue.

^{*} Does not include FY 2006-07 since BIR revenue collection breakdown between direct and indirect taxes are unavailable.

As a result of the 1986 tax reform program, average tax effort rose to 13.1 percent during the Aquino administration (1986-1992) and to 16.2 percent during the Ramos administration (1993-1998). Revenue effort rose steadily until the next round of tax reforms. Tax effort increased from 10.7% in 1985 to 15.4% in 1992, then peaked at 17.0% in 1997. The share of direct taxes to total taxes increased while that of trade taxes decreased. Income taxes could have performed better, and the tax system's fairness enhanced, had BIR implemented fully the approved reform imposing ceilings on allowable deductions. Overall responsiveness of the tax system to changes in economic activity improved from an average of 0.9% from 1980-1985 to an average of 1.5% from 1986 to 1991. The buoyancy coefficient for import duties rose from an average of 0.5% before the reform to an average of 1.89% from 1986 to 1991. The share of nontax revenues soared to 17.3 percent of total revenues during the Aquino years owing to the sale of sequestered assets of former President Marcos and his cronies.9 With government's thrust toward privatization, 30 percent of outstanding stocks of the Philippine National Bank were offered to the public and listed in the stock exchange in 1989.10 In addition, as an initial effort to deregulate the oil industry, the Philippine National Oil Company was partially privatized in 1994. A minority but significant share of ownership was sold to the Saudi Arabian Oil Company.¹¹

The 1986 tax reform program resulted in higher tax effort that peaked in 1997. Attempts were made to improve upon this tax performance by reforming the tax system in 1997. The objectives of the 1997 Comprehensive Tax Reform Program (CTRP) are the following: (a) make the tax system broad-based, simple and with reasonable tax rates; (b) minimize tax avoidance allowed by existing flaws and loopholes in the system; (c) encourage payment by increasing the exemption levels, lowering the highest tax rate, and simplifying procedures; and (d) rationalize the grant of tax incentives which equaled P31.7 billion in 1994.

The main features of the 1997 CTRP are as follows. First, after a brief experiment with the Simplified Net Income Taxation or SNITS that was legislated in 1992, the income tax system reverted to a uniform rate schedule for both compensation and professional income of individuals. The rate structure was reduced to 7 brackets. Personal and additional exemptions were increased even as it allowed the deduction of premium payments for health and/or hospitalization insurance from gross income. Second, the corporate income tax (CIT) rate was reduced to 34%, but effective 1 January 1999, the rate was reduced to 33% and on 1 January 2000 and onwards was decreased to 32%. Third, minimum corporate income tax (MCIT) will be imposed beginning on the fourth year from the time a corporation commences the business operations. Fourth, fringe benefits granted to supervisory and managerial employees shall be subject to a tax equivalent to the applicable CIT rate of the grossed-up monetary value of the fringe benefit.

Fifth, Republic Act 8241 (Improved VAT Law) amended the coverage of RA 7716 (Expanded VAT Law). The major changes as a result of the amendment are the following: (i) restore the VAT exemptions for cooperatives (agricultural, electric, credit or multi-purpose, and others provided that the share capital of each member does not exceed P15,000); (ii)expanded the coverage of the term "simple processes" by including broiling and roasting; (iii) expanding the coverage of the term "original state" by including molasses; (iv) exempting from the VAT the following: importation of meat; sale or importation of coal and natural gas in whatever form or state; educational services rendered by private educational institutions duly accredited by CHED; house and lot and other residential dwellings valued at P1 million and below, subject to adjustment using CPI; lease of residential units with monthly rental per unit of not more than P8,000, subject to adjustment using CPI; and sale, importation, printing or publication of books and any newspaper. In effect, the VAT tax base was narrowed rather than broadened.

Sixth, as part of the legislation deregulating the downstream oil industry, taxes on oil products were restructured from ad valorem to specific taxation. The overall effect of the reform was to lower taxes on oil products, including zero tax on liquefied petroleum gas (LPG).

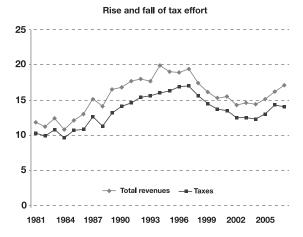
Finally, the tax on 'sin' products – cigarettes and liquor – was restructured from ad valorem to specific. The advantage of an ad valorem tax is that it factors in price changes, thus revenues adjust with price changes (usually increases) without need for new tax legislation. As a compromise, and to minimize the potential revenue loss, some form of indexation was introduced. However, the process of implementation is unrealistic and impractical since the adjustment process would still require congressional imprimatur.

In sum, what came out of Congress was a water-down version of the original 1997 CTRP program. Congress failed to pass the crucial rationalization of fiscal incentives and the broadening of the value-added tax base. Worse, the Tenth Congress passed 9 tax laws granting incentives and raising exemptions. The reason for this unwanted outcome was the delay in the approval of the 1997 CTRP tax proposals and the subsequent posturing of politicians who were then aspiring to run in the 1998 national and local elections. Some measures which were legislated were not even implemented, such as, the VAT on banks and financial intermediaries, the tax on fringe benefits, and the minimum corporate income tax.

The most serious negative consequence of the 1997 CTRP program was the progressive deterioration of the tax effort—from a peak of 17 percent before the reform to its level of 12.3 percent in 2004. The peaks and troughs of tax and revenue efforts in the Philippines are shown in Figure 2 below.

FIGURE 2. Tax and Revenue Effort, 1981-2007

As percent of GDP



Direct tax revenue became the primary contributor of tax effort with a share of 37 percent. Indirect tax revenue, with a 34 percent share, was a close second. While privatization efforts continued, including the sale of Petron¹² in 1994, the share of nontax revenues dropped to 13 percent for this period. The Manila Waterworks and Sewerage System (MWSS) was also privatized in 1997 to 1998 giving two private companies twenty-five year concessionaires for managing their respective areas, a downsized MWSS maintaining its regulatory function.¹³

During the Ramos administration, after a series of tax legislation, the tax base became narrower. Congress passed, and the President approved, 10 new tax measures that raised revenues and 28 tax measures that decreased revenues through the grant of incentives and higher exemptions. Among these measures is the Expanded Value-Added Tax Law (E-VAT) that was subsequently amended by Republic Act 8241. The E-VAT sought to widen the VAT tax base. However, various law suits challenging its constitutionality led to its amended version that reversed E-VAT's original intention, leading to increased exemptions from VAT.

During the truncated Estrada administration, overall revenue effort and tax effort decreased to 15.7 percent and 14.1 percent, respectively. The share of direct taxes to total taxes rose to 43.5 percent while the share of indirect taxes was practically unchanged. The share of trade taxes dropped sharply, however. (Table 2) Tax buoyancy, which measures the point elasticity of taxes with respect to changes in GDP, stagnated in 1999 and 2000. The decrease in overall tax effort and tax buoyancy can be partly attributed to the new and revised tax laws enacted during the Ramos administration.

The decrease in international trade taxes as percent of GDP, from an average of 4.5 to 2.9 percent, was not surprising. It was a consequence of the trade liberalization

and globalization efforts in the 1990s. This began with the growth of trade cooperation in the Association of Southeast Asian Nations (ASEAN) with the ASEAN Free Trade Agreement (AFTA) in 1992. Furthermore, the Philippines joined the World Trade Organization (WTO) in 1994 and the Asia Pacific Economic Cooperation (APEC).

During the Estrada administration, Congress passed Republic Act No. 8761 that imposed value- added tax on certain services that were previously exempt from VAT. This was passed in February 2000, prior to the impeachment proceedings of President Estrada. In February 2001, a month after Arroyo replaced Estrada, the same Congress, pursuant to Republic Act No, subsequently deferred this expansion of the VAT tax base. 9010, exactly one year after the enactment of Republic Act No. 8761. This policy reversal has contributed to the decrease in tax effort in succeeding years.

During the Arroyo administration, direct, indirect and international tax effort decreased with overall tax effort dropping to an average of 13.2 percent for the period 2001-07. Only nontax effort defied the fall, inching up by an average of 0.6 percent. This, however, is not a reason to cheer since nontax revenues are largely proceeds from privatization which are not a sustainable source of income.

In 2004, one of the services, bank and non-bank financial intermediaries not performing quasi- banking functions, which was included in the deferred imposition of VAT in RA 8761, was subject instead to gross receipts tax. In 2005, two new tax laws were enacted. First, Republic Act 9334 imposed biennial increases of the excise taxes on liquor and tobacco until 2011. Taxes on distilled spirits, wines and fermented liquor are in specific amounts upon effectivity of the law in 1 January 2005. Taxes are to be automatically adjusted every two years beginning 1 January 2007 until 1 January 2011. Taxes on tobacco products are a combination of ad valorem and specific taxes. Ad valorem taxes are imposed only on cigars with rates ranging from 10 percent to PhP 50 plus 15 percent if the net (excluding VAT and excise tax) retail price per cigar is greater than PhP 500. Tobacco products are subject to a specific tax of PhP 1 per kilogram of tobacco product subject to a 6 percent increases every two years. Cigarettes packed by hand or machine have specific taxes that are subject to specific increases biennially.

Second, Republic Act 9337 amended several provisions in the 1997 National Internal Revenue Code (NIRC). The most significant amendment was the increase in the VAT rate from 10 percent to 12 percent. The corporate income tax rate was raised to 35% until 2008 and then will decrease to 30% starting 2009. Another important provision is the earmarking of incremental revenues from RA 7660 (Documentary Stamps Tax); RA 8240 (Excise Tax on Tobacco Products) and the newly increased VAT. The VAT increase may partly explain the increase in indirect taxes as a percent of GDP from 3.6 percent in 2004 to 4.7 percent in 2006 (Appendix A).

What lessons have been learned from the two major tax reforms during the last quarter century? First, tax reforms should be done at the start, not towards the end,

of any administration. The implication is that the incoming administration should be ready with a core of tax proposals within months of its assumption to office. Second, the probability of success of a tax reform program is enhanced if it is presented as a critical component of a comprehensive public sector reform program. Third, future tax reform programs should aim to recover what was lost in the area of corrective taxation. Taxes from goods with negative externalities – that is, cigarettes, liquor and petroleum products – used to account for a large part of total taxes. In recent years, the share of these taxes has been eroded. Fourth, ad valorem system of taxation is superior to specific taxation in an environment where getting new taxes and upward adjustment of existing taxes are difficult to legislate. A consistent policy is to broaden the base of the value added tax which, by definition, is ad valorem in character to include practically all commodities, including cigarettes, liquor and oil products.

Fifth, tax reforms require broad political support: from the Executive Department, legislature, business community and the citizenry. A joint legislative-executive tax commission¹⁵ should be reconstituted by law in order to develop broad multi-party support for tax legislation, and in order to minimize the delay in developing a tax reform package at the start of every administration.

Sixth, presidential leadership is crucial in the design and legislative authorization of a tax system. The president should be willing to exercise his broad powers in order to develop an appropriate tax system. He should not allow his own men and members of Congress to unnecessarily tinker with the tax structure if it is not defective. At the same time, when presented with flawed tax legislation, the President should be willing to use his veto power, including line-item veto.

GOVERNMENT EXPENDITURE: PATTERN AND PRIORITIES

Government expenditure is the primary policy instrument used by government to direct the economy to a path of growth and development. Government spending, as authorized in the national budgets, is expected to reflect national priorities. There is no universal prescription as to the appropriate size and distribution of the national budget. But the level of spending on government programs and activities depends on the priorities and preferences of policymakers (the legislature and the President). However, there are several core functions which any government is expected to provide: public goods, such as national defense, conduct of foreign policy, administration of justice, and the maintenance of peace and order.

Economic growth theory emphasizes the importance of capital accumulation in the attainment of economic growth—the higher the stock of capital, the higher the level of economic output in the long-run. Governments invest in physical infrastructure in order to increase the productive capacity of an economy. Government spending on public infrastructure reduces transaction costs for businesses and signals the commitment of

government to ensure profitability for prospective investors. In a study by the World Bank, Philippine investment in physical infrastructure for the year 2005 was less than 2 percent of GDP – a level that is considerably lower than the World Bank prescribed 5 percent of GDP to lead to a sustainable economic growth.¹⁶

In practice, government also provides goods and services that are private in nature, the so-called publicly provided private goods. Examples of these are education, basic health care and housing. This spending behavior could be justified on several grounds. First, as part of the redistributive role of government, providing education for all enhances the changes of the poor to get better employment and consequently higher income. Second, there are positive externalities associated with a well-educated and healthy population. Finally, these education and basic health care are considered as investment in human capital that is crucial for economic growth and development.¹⁷

Another policy direction that is believed to have an effect on national government financial health is fiscal decentralization. In theory, it is argued that compared to national officials, local authorities are more attuned to the preferences of their constituents and that they make decisions based on the preferences of their local constituencies. Moreover, increased spending and revenue-raising responsibilities for local governments enhances accountability. Fiscal decentralization allows the national government to focus on broader issues such as interjurisdictional externalities and income redistribution.

Serious decentralization efforts took place in the Philippines after 1992. The 1991 Local Government Code of the Philippines was enacted with the aim of creating self-reliant local governments. In general, there is a mismatch between revenue raising and spending responsibilities, owing to variations in the tax base and the unequal distribution of income across local governments; this provides the rationale for intergovernmental fiscal transfers (IGFTs). In the Philippines, the IGFTs—called internal revenue allotment (IRA)—is largely an unconditional block grant, except for 20% which is required to be allocated to development purposes. The total IRA is 40% of all internal revenue, based on actual collections in the third preceding fiscal year.

What has been the level of public expenditures and its distribution during the last quarter century? The following observations appear warranted.

First, government expenditures as percent of GDP has declined in recent years. From an average percentage share of 14.5 percent during the final years of Marcos, spending peaked at 19.6 percent during the Estrada administration, and then dropped to 18.4 percent in recent years (Table 1).

Second, investment in public infrastructure has been less than optimal, and has declined in recent years. Ideally, an increasing share of the budget should be allocated for public infrastructure that is needed to increase the economic capacity for growth of a country. During the final years of the Marcos regime, one-third of the budget was spent on capital outlays. ¹⁹ The share of capital expenditure dropped sharply to an average of 3.1 percent of GDP during the Aquino administration, as the government allocated a big

part of its budget for the servicing of public debt incurred during the Marcos years. Infrastructure and other capital outlays in percent of GDP declined slightly from 2.6 percent during Marcos' final years to 2.4 percent during the Aquino years. It rose to 2.7 percent during the Ramos years and 2.9 percent during and Estrada years, before hitting a historic low of 1.9 percent during the Arroyo administration. According to a World Bank report, Philippines: Meeting Infrastructure Challenges (2005), "middle income countries in East Asia will, on average, need to spend over 5 percent of GDP on infrastructure to meet their needs over the next 10 years." The figures show that the Philippines are far from this target.

Government Spending by Object of Expenditures

Third, current operating expenditures as share of total budget has progressively increased. It rose sharply from 62.7 percent during Marcos' final years to 84.9 percent during the Arroyo years. It averaged around 80 percent during the terms of Aquino, Ramos and Estrada (Table 3). Personal services consistently received the largest share with an average of 39.3 percent for the entire period under study. Spending on personal services consist mainly salaries and wages of government employees and other benefits. As percent of the budget, personal peaked during the Estrada years (an average of 42.5 percent). Maintenance and other operating expenditures, as percent of total expenditures, progressively declined from 34.3 percent during the Marcos years to 12.1 percent during the Arroyo years. This is alarming because funds for maintaining existing infrastructure fall under this budgetary item. The financial grant to local governments has increased significantly with the approval of the 1991 Local Government Code. The decentralization law of 1991 devolved some functions to local governments and increased the local governments taxing powers.

Fourth, debt servicing has been an increasing drag on the productive part of the budget. Interest payment as percent of the budget was highest during the Aquino years (an average of 37.6 percent). However, there has been a steady improvement during the Ramos and Estrada years, as the share of interest rates to total budget declined to 26.4 percent and 24.4 percent, respectively. Unfortunately, the decline has been reversed—the budget share of interest payment has risen to 32 percent during the Arroyo years.

Sectoral Priorities

Fifth, government expenditure for economic services peaked during the final years of Marcos, declined during the Aquino years, and after a slight recovery during the Ramos and Estrada years, it hit rock bottom during the Arroyo administration. Economic Services include: (a) agriculture, agrarian reform and natural resources; (b) trade and industry; (c) tourism; (d) power and energy; (e) water resource development and flood control; (f) communications, roads and other transportation; (g) other

TABLE 3. National Government Spending, by Object, 1981-2007

As percent of total expenditures

Particulars	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-07 Arroyo
1. Current Operating Expenditures	62.7	79.2	80.7	81.3	84.8
Personal Services	39.0	35.5	40.7	42.5	38.1
Maintenance and Other Operating Expenditures	34.3	18.6	14.9	15.0	12.1
Interest Payments	17.1	37.6	26.4	24.4	32.0
Domestic	60.5	72.8	74.1	68.5	63.6
Foreign	39.5	27.2	25.9	31.5	36.4
Allotment to Local Government Units	6.7	4.1	14.1	15.8	15.7
Petroleum Price Stabilization Fund	0.0	0.4	0.5	0.1	0.0
Subsidies	2.8	2.7	2.1	1.3	1.3
Tax Expenditures	0.0	1.2	1.4	0.9	0.8
2. Capital Outlay	33.2	16.5	18.6	18.3	14.7
Infrastructure and Other Capital Outlays	52.9	82.1	77.4	81.4	71.8
Others	47.1	17.9	22.6	18.6	28.2
3. Net Lending	4.1	4.4	0.7	0.5	0.5

Source: Departement of Budget and Management

Notes:

1. For the major categories, the computed share is in percentage of total national government expenditures.

economic services; and, (h) Subsidy to Local Government Units. The largest part of this sector's spending went to infrastructure with an average of 41 percent going to communications, roads and other transportation (CRT). Agriculture, agrarian reform and natural resources and other economic services tie as the second top priority for this economic sector. In recent years, CRT continued to have the largest share of economic sector spending with subsidy to local government units coming in second. The subsidy to local government units, as percent of GDP, increased from 0 to 1.1 percent as a result of the 1991 Local Government Code which devolved basic services to local governments, such as: agricultural extension and on-site research; community based forestry projects; tourism facilities, promotion and development; and, telecommunication services.

Sixth, in general, the share of social services to total government spending has been increasing; but during the Arroyo administration, spending for social services as percent of GDP, dropped to 5.3 percent of GDP from an all-time high of 6.4 percent during the preceding regime. Social services sector consists of: (a) education, culture and manpower development; (b) health; (c) social security and labor welfare; (d) land distribution (CARP); (e) housing and community development; (f) other social services; and, (g) subsidy to local government units. During the period under review, education, culture and manpower development had consistently received the lion's share of government spending for this sector. Education spending spiked at 65 percent of social services

^{2.} For the sub-categories – current operating expenditures (COE) and capital outlays (CO)—the share is as a percentage of total COE and CO, respectively. Furthermore, for the item Interest Payments, the share of domestic and foreign is as a percentage of total interest payments.

spending during the Aquino administration, but has been decreasing ever since; under Arroyo's watch (2001-2007) it fell to a historic low of 53 percent. On the other hand, expenditures for social security and labor welfare and subsidy to local government units (SLGUs) increased significantly. Social security and labor welfare increased in recent years because of the Personnel Benefits Fund established for the retirement fund of uniformed personnel. For SLGUs, the initial share of 0 has increased to 21 percent because of social expenditure responsibilities devolved to local governments (primarily, basic health care and social welfare services) and intergovernmental transfers.

Seventh, there was no clear pattern for the expenditures for General Public Services. Spending for this sector peaked during the Ramos administration with an 18.3 share of total government spending.

Eighth, real per pupil spending on basic education has been on the rise since Aquino took power in 1986, peaked during the Estrada administration, but has been falling at an average rate of 2.4 percent per year from 2001 to 2007. In nominal terms, total education expenditure and per pupil spending has increased. But correcting for inflation, real per pupil government spending on basic education has been on the decline under the Arroyo administration (Figure 4). Growth in total nominal spending for basic education spending has slowed down during the past two administrations from a high of 15.6 percent, in the early 1980s, to a current low of 3 percent.²⁰

TABLE 4. Sectoral Shares of National Government Expenditure, 1981-2006

Particulars	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-06 Arroyo
I. As share of national government spending					
A. Economic services	36.2	23.2	25.5	24.2	20.3
Agriculture, Agrarian Reform & Natural Resources	19.3	26.6	25.7	22.3	23.4
Trade & Industry	7.6	5.1	4.2	2.5	2.0
Tourism	0.8	0.6	0.7	0.8	0.7
Power and Energy	8.1	4.8	3.2	1.7	1.0
Water Resource Development & Flood Control	3.6	5.5	4.0	3.5	4.4
Communications, Roads & Other Transportation	41.0	39.8	39.9	42.2	38.3
Other Economic Service	19.5	14.9	3.1	3.0	1.6
Subsidy to Local Government Units	0.0	2.6	19.3	23.9	28.7
B. Social Services	21.9	22.2	28.0	32.2	28.8
Education, Culture					
Manpower Development	60.8	65.1	60.3	56.1	52.9
Health	20.2	16.4	9.2	7-3	5.7
Social Security & Labor Welfare	4.2	4.2	8.7	12.6	17.1
Land Distribution (CARP)	0.0	1.4	0.0	1.4	1.7
Housing & Community Development	11.0	2.2	2.5	3.0	0.9
Other Social Services	3.8	8.4	0.5	0.4	0.4
Subsidy to Local Government Units	0.0	2.2	18.7	19.1	21.4
C. Defense	9.9	7.1	6.8	5.5	5.1
D. General Public Services	16.1	13.7	18.3	18.1	17.2
E. Net Lending	4.3	4.4	0.7	0.5	0.4
F. Debt Service (Interest Payments)	11.6	29.5	20.7	19.5	28.1

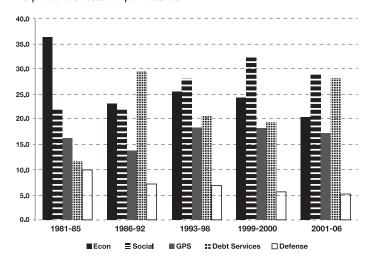
D	0 . 0	06			
Particulars	1981-85 Marcos	1986-92 Aguino	1993-98 Ramos	1999-2000 Estrada	2001-06 Arroyo
II. In percent of GDP					,
A. Economic services	5.1	4.4	5.0	4.8	3.7
Agriculture, Agrarian Reform & Natural Resources	1.0	1.2	1.3	1.1	0.9
Trade & Industry	0.4	0.2	0.2	0.1	0.1
Tourism	0.0	0.0	0.0	0.0	0.0
Power and Energy	0.5	0.2	0.2	0.1	0.0
Water Resource Development & Flood Control	0.2	0.2	0.2	0.2	0.2
Communications, Roads & Other Transportation	2.1	1.7	2.0	2.0	1.4
Other Economic Service	0.9	0.7	0.2	0.1	0.1
Subsidy to Local Government Units	0.0	0.1	1.0	1.2	1.1
B. Social Services	3.0	4.2	5.5	6.4	5.3
Education, Culture					
Manpower Development	1.8	2.7	3.3	3.6	2.8
Health	0.6	0.7	0.5	0.5	0.3
Social Security & Labor Welfare	0.1	0.2	0.5	0.8	0.9
Land Distribution (CARP)	0.0	0.1	0.0	0.1	0.1
Housing & Community Development	0.3	0.1	0.1	0.2	0.0
Other Social Services	0.1	0.3	0.0	0.0	0.0
Subsidy to Local Government Units	0.0	0.1	1.0	1.2	1.1
C. Defense	1.4	1.3	1.3	1.1	0.9
D. General Public Services	2.2	2.6	3.6	3.6	3.1
E. Net Lending	0.6	0.8	0.1	0.1	0.1
F. Debt Service (Interest Payments)	1.5	5.6	4.0	3.9	5.1

Source: Government Authorities

MEMO ITEMS: FY

FIGURE 3. Budget Priorities: Debt Service Rising, Social and Economic Services Falling

As percent of total expenditures



^{1.} In Section I: (a) subtotals for sectors (italicized) are as a share of total NG expenditures.

⁽b) sub-sector shares are a percent of respective total sector spending

FIGURE 4. Waning Support for Basic Education

Real per pupil spending in 2000 prices

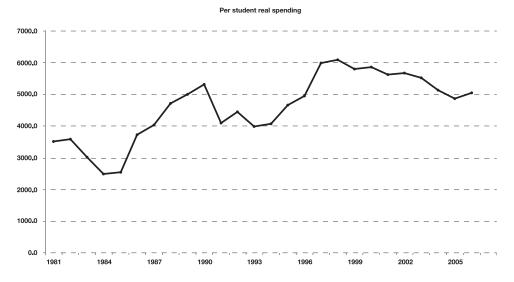


TABLE 5. Average National Government Basic Education Spending, By Administration, 1981-2006

Particulars	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-06 Arroyo
I. Basic Education Spend		Aquillo	Kamos	Littaua	Alloyo
A. Total spending	g				
1. In current prices	5,653	21,873	54,651	89,773	106,760
2. In 2000 prices	30,042	52,626	69,969	91,484	89,419
B. Per Pupil spending					
1. In current prices	565	1,836	3,847	5,720	6,324
2. In 2000 prices	3,027	4,478	4,959	5,830	5,304
II. Growth rates					
A. Total spending					
1. In current prices	15.6	23.2	17.9	5.4	4.2
2. In 2000 prices	(5.7)	13.4	9.0	0.5	(1.2)
B. Per Pupil spending					
1. In current prices	13.7	19.5	14.5	3.0	3.0
2. In 2000 prices	(7.3)	10.0	5.8	(1.9)	(2.4)

SOURCE: DBM, NSCB

MEMO ITEM: Enrolment figures were computed as an average of two succeeding school years.

Sources: Department of Budget and Management, National Statistical Coordination Board

Ninth, real consolidated (national plus local governments) health spending, decreased during the period 2001 to 2005 – both in total and per capita terms. Real consolidated health spending contracted at an average of 4.6 percent while real consolidated

Average by administration

per capita health spending has contracted at an average of 5 percent. Real national government health spending, both in total and in per capita terms, which had peaked during the Aquino administration had hit its lowest level during the Arroyo administration. It may be argued that the recent decline is to be expected because of the devolution of basic health services to local governments. But real local government health spending has decreased in recent years—by 4 percent per year since Arroyo took office.

Table 6 shows the pattern of consolidated health spending – that is, for both national and local governments. In current prices, total consolidated health spending has been consistently increasing along with the share local governments. This change in the mix of consolidated health spending, with local government spending overtaking that of the national government, can partly be attributed to the 1991 Local Government Code that devolved the responsibility of Field Health and Hospital and other Tertiary Health Services.²¹

The current trend of health spending has been unsatisfactory. The average growth rates for all of the categories of health spending have been decreasing in recent years. The negative growth in real health spending by local governments combined with the sharp decline in real national health spending show the government's lack of commitment to better health care (Table 6).

TABLE 6. Consolidated (National and Local) Government Health Expenditure, 1981-2005

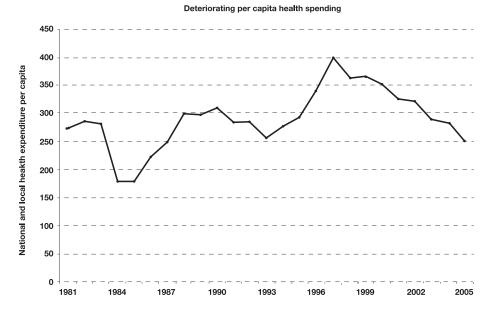
Particulars	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-05 Arroyo
I. Total expenditures					-
A. Consolidated Health Spending					
1. In current prices (in Million pesos)	2,293	6,945	17,382	26,791	27,699
a. National government	1,931	6,187	8,586	11,835	10,734
b. Local government	362	757	8,797	14,956	16,965
2. In 2000 prices (in Million pesos)	12,416	16,637	22,359	27,315	23,945
a. National government	10,480	14,803	11,096	12,081	9,295
b. Local government	1,936	1,834	11,263	15,234	14,650
B. Consolidated Per Capita Health Spending					
1. In current prices	44	115	249	354	340
a. National government	37	102	123	156	132
b. Local government	7	13	126	197	208
2. In 2000 prices	240	278	321	360	294
a. National government	203	247	160	159	114
b. Local government	37	31	161	201	180
II. Growth rates					
A. Consolidated Health Spending					
1. In current prices	12.9	20.1	15.8	5.9	0.5
a. National government	13.3	21.1	6.4	0.6	(1.0)
b. Local government	12.3	14.5	68.8	10.6	1.8

1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-05 Arroyo
(6.4)	10.0	7.0	0.9	(4.6)
(5.8)	11.0	(1.5)	(4.2)	(6.0)
(8.0)	4.6	54.8	5.5	(3.4)
10.4	17.4	13.2	3.5	(0.6)
10.8	18.3	4.0	(1.6)	(1.8)
9.8	11.8	65.0	8.1	0.5
(8.5)	7.5	4.6	(1.4)	(5.2)
(8.0)	8.4	(3.7)	(6.4)	(6.3)
(10.1)	2.2	51.3	3.0	(4.1)
	(6.4) (5.8) (8.0) 10.4 10.8 9.8 (8.5) (8.0)	Marcos Áquino (6.4) 10.0 (5.8) 11.0 (8.0) 4.6 10.4 17.4 10.8 18.3 9.8 11.8 (8.5) 7.5 (8.0) 8.4	Marcos Aquino Ramos (6.4) 10.0 7.0 (5.8) 11.0 (1.5) (8.0) 4.6 54.8 10.4 17.4 13.2 10.8 18.3 4.0 9.8 11.8 65.0 (8.5) 7.5 4.6 (8.0) 8.4 (3.7)	Marcos Áquino Ramos Estrada (6.4) 10.0 7.0 0.9 (5.8) 11.0 (1.5) (4.2) (8.0) 4.6 54.8 5.5 10.4 17.4 13.2 3.5 10.8 18.3 4.0 (1.6) 9.8 11.8 65.0 8.1 (8.5) 7.5 4.6 (1.4) (8.0) 8.4 (3.7) (6.4)

Source: Government authorities

FIGURE 5. Failing Support for Basic Health Care, 1981-2005

Real per capita basic health expenditures, in 2000 prices



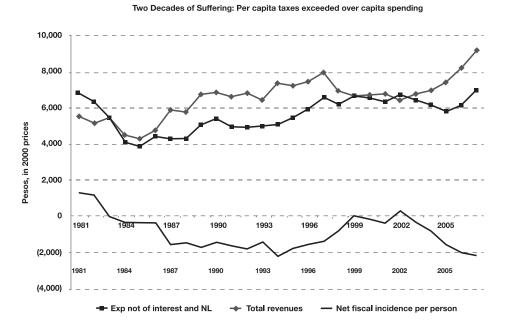
Net Fiscal Impact

What is the net impact of government spending and taxing policies on a representative citizen? A rough approximation of the net effect of government fiscal action on a representative citizen can be derived by deducting from the average 'productive' part of the government spending (that is, total disbursement less debt service and net lending²²) average revenue. If positive, the representative has received more benefits from government expenditure than what he has paid in taxes or user charges; if negative, he has paid more in taxes and user charges than what he has received in terms of benefits

from government programs and projects. Figure 6 indicates that during the past quarter of a century, the representative Filipino had been a net contributor to rather than a net recipient of government services, except for two years, 1999 and 2002. This negative experience for a representative Filipino has deteriorated in recent years.

FIGURE 6. Net Fiscal Incidence, 1981-2007

Per capita expenditure less per capita revenues in real prices, 2000=100



VARIOUS MEASURES OF DEFICITS

This section presents the trends of three different indicators of fiscal health namely: the national government account balance (NGAB), the consolidated public sector financial position (CPSFP) and the public sector borrowing requirement (PSBR).

National Government Account Balance

The national government account balance compares national government revenues to national government cash disbursements. Balanced budget is achieved when revenues equal cash disbursement (excluding debt repayments and payments on non-budgetary accounts²³) of the national government during a given year. Budget deficit (surplus) is incurred when revenues are less (more) than cash disbursements excluding debt repayments and payments on non-budgetary accounts.

National government budget fiscal balance averaged 2.8 percent of GDP during the final years under Marcos (1981-85). Corazon C. Aquino took office in February 1986 after Marcos left the Philippines for exile in Hawaii. This promise of a new democracy brought hope to the Filipino people. However, it too brought a huge foreign debt overhang, several coup attempts with the most serious one in 1989 and two major catastrophes: the 1990 earthquake and the 1991 explosion of Mt. Pinatubo.

From a fiscally weak position, where the national government-to-GDP ratio was around 5.1 percent, Aquino was successful in reducing the fiscal imbalance through improved tax effort – largely as a result of the 1986 tax reform program. The servicing of public debt was extremely burdensome, with interest payments averaging about 6 percent of GDP during her entire term. The fiscal imbalance that progressively improved from its initial point of 5.1 percent of GDP reemerged in 1990 because of high interest rates, accelerated payment of the foreign debt and the implementation of the Salary Standardization Law (SSL).²⁴

Another benchmark law drafted, passed and enacted during the Aquino administration was the 1991 Local Government Code that increased the revenue and spending revenue responsibilities to local governments. The law increased the national government grants to local governments and also improved the grant system by making its release automatic, formula-based and predictable.

The Ramos administration had budget surpluses for four of its six years in power. During the first two years of this regime, the country was beset by power outages. Mr. Ramos asked, and Congress agreed, for emergency powers for fast-tracking the construction of power projects. The contract for these independent power plants (IPPs) provided for government guarantee to purchase the built capacity whether used or not the power generated is actually utilized. The additional cost associated with this guarantee is incorporated in power rates to date.²⁵

In the last couple of years of the Ramos regime, there was a real estate boom and huge foreign direct investment inflow to the Philippines. During this period, the peso was overvalued. With the sharp devaluation of the Thai baht in 1997, at the onset of the Asian financial crisis, the peso depreciated by almost forty percent.

In July 1998, at the height of the Asian financial crisis, Joseph E. Estrada took office. The national government budget deficit rose from 1.9 percent of GDP in 1998 to 3.8 percent in 1999 and 4.0 percent in 2000. This result could be attributed largely to the sharp deterioration in the tax effort and higher interest payments owing to the sharp depreciation of the peso. Tax effort plummeted from 17.0 percent in 1997 to 13.7 percent in 2000 owing to the continuing and expanded tax incentives, the narrowing of the VAT base, and the lowering of tariff walls. Expenditures rose slightly largely because of higher foreign interest payments, owing to the large peso depreciation, and the payment of accounts payables to contractors and suppliers (estimated at around P60 billion), which Estrada inherited from the Ramos administration. In response to

the Asian financial crisis, and in an apparent attempt to window-dress the national government fiscal picture, the Ramos administration deferred the payment of valid claims of contractors and suppliers.²⁷

In the period 2001 to 2007, the average national government budget deficit was 3.1 percent of GDP. It peaked at 5.3 percent of GDP in 2002 and tapered off to 0.1 percent in 2007. The poor tax effort and high interest payments were the main reasons for the Arroyo administration's poor fiscal position. Taxes as percent of GDP averaged 13.2 percent during the seven-year period – a major departure from the 17.0 percent in 1997. During the same period, interest payments as percent of GDP averaged 5 percent. With weakening tax effort and rising debt servicing costs, the Arroyo government responded by underspending in public infrastructure and social overhead capital (education and health care). This pattern of expenditures is myopic. By not investing in physical infrastructure and human capital, the Arroyo administration has sacrificed the economy's long-term growth.

Consolidated Public Sector Financial Position

The consolidated public sector financial position is an indicator of the overall fiscal performance of the public sector of the Philippines. It is the combined surplus (deficit) of the national government (NG), the Central Bank (CB) restructuring accounts, the major non-financial government corporations (MNFGC), the government financial institutions (GFI), the local government units (LGU), the social security institutions, the Oil Price Stabilization Fund and the Bangko Sentral ng Pilipinas (BSP). CPSFP is a better indicator of the public sector's true state of finances than the NGAB.

The CPSF measure was first reported in 1985in order to correct the erroneous reporting of accounts during the Marcos regime. It has been in deficit during the past two decades, except for the fiscal year 1996, averaging 3.2 percent of GDP. The increase in the consolidated public sector deficit (CPSD) in recent years was largely due to the ballooning national government fiscal deficits and the large losses of some of the monitored nonfinancial government corporations (MNFGCs). Among the major state-owned corporations, the National Power Corporation was the biggest deficit spender in recent years. The National Food Authority has now emerged as the top deficit spender with the recent surge in food prices, especially rice.

During the Aquino years, the CPSD averaged 3.5 percent of GDP. The main contributor to the deficit was the national government, with an average deficit-to-GDP ratio of 2.8 percent, followed by the financially distressed Central Bank of the Philippines (CB),²⁸ with an average deficit-to-GDP ratio of 2.0 percent. In addition, the government assumed the servicing and liabilities of the Philippine National Bank (PNB) and the Development Bank of the Philippines (DBP) that were at an all-time high of 47.2 billion pesos.²⁹

TABLE 7. Consolidated Public Sector Financial Position, 1986-2007

Average for each administration

Particular	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-07 Arroyo
I. In Billion pesos, 2000 prices				
A. Public Sector Borrowing Requirement	(56.4)	(51.6)	(159.0)	(165.4)
1. National Government	(63.1)	(6.9)	(125.1)	(123.5)
2. CB Restructuring	0.0	(27.4)	(20.2)	(13.5)
 Monitored Nonfinancial Government Corporations (MNFGCs) 	(14.0)	(22.3)	(12.0)	(32.2)
4. Oil Price Stabilization Fund	0.4	(2.6)	1.1	0.1
5. Adjustments of Net Lending and Equity to GOCCs	0.0	0.2	3.7	3.7
6. Other adjustments	20.4	7.5	(6.5)	0.0
B. Other Public Sector	(23.2)	23.1	34.5	47.2
1. Government Financial Institutions (GFIs)	(1.0)	7.2	3.1	4.8
2. Bangko Sentral ng Pilipinas (BSP)	(47.2)	2.4	(2.0)	2.0
3. SSS/GSIS	13.8	6.1	26.6	26.9
4. Local Government Units (LGUs)	3.0	5.4	7.2	13.4
5. Timing Adjustments of Interest Payments to BSP	8.3	2.1	(0.9)	0.5
6. Other Adjustments	0.0	0.0	0.5	(0.4)
C. Consolidated public sector surplus (deficit) (CPSD)	(79.6)	(28.5)	(124.5)	(118.2)
II. In percent of GDP	,		,	
A. Public Sector Borrowing Requirement	(2.4)	(1.9)	(4.9)	(4.3
1. National Government	(2.8)	(0.2)	(3.9)	(3.2
2. CB Restructuring	0.0	(1.0)	(0.6)	(0.3
3. Monitored Nonfinancial Government Corporations (MNFGCs)	(0.6)	(0.8)	(0.4)	(0.8
4. Oil Price Stabilization Fund	0.0	(0.1)	0.0	0.0
5. Adjustments of Net Lending and Equity to GOCCs	0.0	0.0	0.1	0.:
6. Other adjustments	0.9	0.3	(0.2)	0.0
B. Other Public Sector	(1.0)	0.9	1.1	1.1
1. Government Financial Institutions (GFIs)	(0.1)	0.3	0.1	0.3
2. Bangko Sentral ng Pilipinas (BSP)	(2.0)	0.1	(0.1)	0.0
3. SSS/GSIS	0.6	0.2	0.8	0.7
4. Local Government Units (LGUs)	0.1	0.2	0.2	0.3
5. Timing Adjustments of Interest Payments to BSP	0.4	0.1	(0.0)	0.0
6. Other Adjustments	0.0	0.0	0.0	(0.0)
C. Consolidated public sector surplus (deficit) (CPSD)	(3.5)	(1.0)	(3.8)	(3.2

Sources: Department of Budget and Management, Bureau of Treasury

Memo item: FY 2006 figures are preliminary, FY 2007 figures are revised.

During the Ramos administration, the CPSD decreased to an average 1 percent of GDP. The improvement was attributable to two factors: healthier national government account (average deficit-to-GDP ratio of 0.2 percent) and financial turnaround of the restructured Central Bank. The national government financial position was aided immensely by higher tax effort and sizable proceeds from sale of state assets (for example, the Bonifacio property) and privatization of state- operated

enterprises. With the restructuring of the Central Bank in 1992-93, much of its debts were transferred to the national government. From the total public sector viewpoint, there is no difference. But it has the effect of showing a smaller deficit (larger surplus) for the BSP, and a bigger deficit (smaller surplus) for the national government. However, with cleaner financial books, and an independent Monetary Board, the BSP is now able to pursue monetary policy more effectively.

Public Sector Borrowing Requirement

From an economic standpoint, the public sector borrowing requirement is perhaps the most relevant measure of fiscal imbalance. It measures the amount the government has to borrow domestically or externally to finance the combined deficits of the national government and the major monitored corporations. PSBR, as percent of GDP, averaged 2.4 percent during the Aquino years (1986-92) and 1.9 percent during the Ramos years (1993-1998). It rose during the two-year stint of Estrada – 4.6 percent in 1999 and 5.2 percent in 2000. The dramatic rise in PSBR was attributable to the huge jump in the national government budget deficit owing to the increase in VAT exemptions, inelasticity of tax revenues from petroleum, cigarettes and liquor, and on the expenditure side payment of inherited government accounts payable.

During the Arroyo administration, the PSBR averaged 4.3 percent of GDP. There are two factors: large national government deficits and heavy losses for the monitored government corporations. The average national government deficit, as percent of GDP, reached 3.2 percent. In addition, the losses of the major monitored corporations (MNFGCs) increased by more than 200 percent owing largely to the poor performance of the Napocor and the National Electrification Authority (NEA). The losses of the MNFGCs averaged 0.8 percent of GDP during this period.

FINANCING OF THE DEFICIT AND PUBLIC DEBT

Financing of the Deficit

If revenues are inadequate to finance planned expenditures, the government has three options to close the budget gap: borrow, print money, or increase taxes. In the past, the Philippine government has resorted to external and domestic borrowing to finance its deficits. It has amassed huge public debt not only to finance previous years' budget deficits but also to pay for losses incurred by other public sector institutions such as poorly performing government owned or controlled corporations, public financial institutions and the Central Bank (CB) but which were later assumed by the national government.

Government borrowing can crowd out investments in two ways. First, if borrowing is largely domestic, this may lead to lower investment because of less loanable funds available for private investors, and thus, to lower output and

consumption in the long-run.³⁰ Second, if debt was incurred to settle other debt rather than to finance government projects in human and physical infrastructure, then crucial public spending is being forgone. The financing of debt negatively affects important public investment spending.³¹ A study by the Asian Development Bank [2005] looked at the implications of the current Philippine fiscal policy on government debt. It concluded that the government debt situation is not sustainable given the current policy regime. Furthermore, it found evidence of a weak debt Ponzi game.³² This implies that the Philippine government is simply borrowing to pay off its current debts. Current government debt is vulnerable to adverse shocks and simple budgetary deficit control policy is inadequate.

During the final years of Marcos, 1981-2005, the government relied more on domestic financing to finance the deficit – on average, 65.6 domestic financing and 34.4 percent external financing.

This pattern of financing was uneven. The share of domestic financing started at about half (50.4 percent) in 1981, dipped to a low of 27.0 percent in 1983 before it soared to as high as 102.5 percent in 1985. Effectively, Marcos borrowed from abroad in 1985 to retire some local debts. The deeper reliance on domestic financing was in response to the higher world interest rates and the weakening of the peso.

TABLE 8. Budget Deficit Financing, 1981-2007

In billion pesos, unless otherwise specified

Particulars	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-07 Arroyo
Financing	12.9	50.6	13.1	192.8	202.0
Net foreign	3.5	6.9	(2.1)	83.6	89.5
Net domestic	9.4	43.7	15.2	109.2	112.5
Percent share					
Net foreign	32.6	16.4	(20.8)	43.5	49.1
Net domestic	67.4	83.6	120.8	56.5	50.9

Source: Government authorities. See Appendix C.

The Aquino administration relied heavily on domestic sources to finance its budget deficits from 1986 until 1991. In 1992, the financing mix was reversed, with heavier reliance now on foreign financing at 90 percent.

The Ramos administration relied heavily on external financing of the budget deficit. This financing mix that peaked in 1995 (119.8 percent foreign, -19.8 percent domestic) was revised in response to the Asian financial crisis. Recognizing the serious risk of relying heavily on foreign financing, the Ramos administration reduced the share of external financing to 25.1 percent in 1997 and 13.8 percent in 1998.

Estrada pursued a more balanced financing mix – 56.5 percent foreign, 43.5 percent domestic – during his short stint in office.

Arroyo relied heavily on domestic financing (average of 64.5 percent) from 2001 to 2005. But the numbers for net external financing --that is, gross foreign borrowing less amortization – understate the extent of heavy external borrowings that took place in recent years. From 2002 to 2005, the Arroyo administration borrowed over P858 billion, of which global bonds floated was about 619 billion.³³ In 2006, there was a sharp increase in the share of net foreign borrowing to almost 110% (Appendix C).

National Government Debt

From a low of 16 percent in 1981, the national government debt as percent of GDP, peaked at 76.4 percent in 1993, averaged at about 61 percent thereafter before it rose to an all-time high of 78.5 percent in 2004.

TABLE 9. Public Debt Statistics, 1981-2007

Particular	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-07 Arroyo
A. National Government Outstanding Deb	t				
1. Total Debt (in Billion PhP)	86.5	554-9	972.6	1,678.9	3,402.8
a. Domestic Debt	50.3	303.2	509.1	798.9	1,849.1
b. Foreign Debt	36.2	251.7	463.5	880.0	1,553.7
In Percent of GDP					
2. Total Debt	19.5	58.2	48.2	52.9	69.2
a. Domestic Debt	11.5	31.9	25.2	25.2	37-3
b. Foreign Debt	8.0	26.4	22.9	27.6	31.9
As A Percent of Total Outstanding Debt					
3. Domestic Debt	60.0	54.7	52.5	47.9	54.1
4. Foreign Debt	40.0	45.3	47.5	52.1	45.9
B. Debt Service Expenditures					
1. Interest Payment (in Billion PhP)	7.2	55.0	80.4	123.6	246.5
a. Domestic	4.5	40.7	59.6	84.3	156.4
b. Foreign	2.7	14.2	20.8	39.3	90.1
2. Amorization (in Billion PhP)	3.5	30.2	49.0	93.0	303.7
a. Domestic	1.4	16.5	20.1	53.5	203.3
b. Foreign	2.2	13.7	28.8	39.5	100.4
3. Total (in Billion PhP)	10.7	85.2	129.4	216.6	550.2
a. Domestic	5.8	57-3	79.7	137.8	359.7
b. Foreign	4.9	27.9	49.7	78.9	190.5
In Percent of GDP					
4. Total	2.3	8.8	6.4	6.8	10.8
a. Domestic	1.3	5.9	4.0	4.4	7.0
b. Foreign	1.1	2.9	2.5	2.5	3.8

Particular	1981-85 Marcos	1986-92 Aquino	1993-98 Ramos	1999-2000 Estrada	2001-07 Arroyo
As A Percent of Total Debt Service Expenditur	res				
5. Domestic	53.8	66.7	61.6	63.7	64.2
6. Foreign	46.2	33.3	38.4	36.3	33.0
As A Recent of Total National Government Exp	penditures		'		
7. Total Debt Servicing Expenditures	16.5	47.2	34.0	35.0	59.5
a. Domestic	8.9	31.6	21.0	22.3	38.6
b. Foreign	7.6	15.6	13.1	12.7	20.9
As A Percent of Taxes					
8. Interest Payments	15.1	42.5	24.9	27.6	38.0
a. Domestic	9.3	30.9	18.4	18.9	24.3
b. Foreign	5.8	11.6	6.5	8.8	13.8
9. Total Debt Servicing	22.6	67.2	39.8	48.6	82.5
a. Domestic	12.2	44.9	24.5	30.9	53.2
b. Foreign	10.4	22.3	15.3	17.6	29.3

SOURCE: Department of Budget and Management, National Statistics Coordination Board, Bureau of Treasury MEMO ITEMS:

- 1. Interest payments as % of tax revenues shows how much the burden is on recurring resources of government.
- 2. Total debt service exp as % of total spending displays how much of the budget is actually allocated to non-productive purposes.
- 3. Total debt servicing includes both interest payment and amortization.

The surge in the debt-to-GDP ratio during Aquino's term can be attributed largely to the decision of the government to assume the losses of major financial institutions like the Development Bank of the Philippines, the Philippine National Bank, and the Land Bank of the Philippines as well as other monitored corporations such as the National Power Corporation. The debt to GDP ratio averaged 58.2 percent for this period from a previous 19.5 percent. Total debt service expenditures as percent of total government spending, on average, soared 47.2 percent from a previous 16.5 percent. Worse and perhaps a more accurate measure of the debt burden, total debt service expenditures as percent of total taxes zoomed from 22.6 to 76.2 percent.

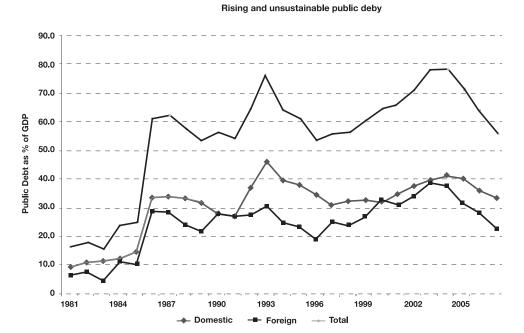
Total interest payments averaged 42.5 percent of tax revenues from 1986 to 1992. This indicator shows how much government resources are left, after deducting interest payments, for the provision of public goods, publicly provided private goods, and investment in public infrastructure. The ratio of interest payment to taxes went down sharply during the Ramos and Estrada years before it reemerged in recent years (average of 40.3 percent in 2001-2007). Effectively, interest payments had 'crowded out' the more important expenditure responsibilities of the government, such as, education, health, and public infrastructure.

During the Estrada administration, there was a slight shift in the nature of the public debt, with the share of domestic debt decreasing and the share of foreign

debt increasing. There are two reasons for the shift: first, there was a preference for foreign financing and second, the revaluation of the dollar debt because of the sharp depreciation of the peso after the Asian financial crisis. The total debt-to-GDP ratio declined, however, to 52.9 percent from 48.2 percent under Ramos. Debt was managed well since debt servicing as a share of total spending increased by only 1 percent and interest payments as a percent of tax revenues increased by only 3 percent.

FIGURE 7. Total Public Debt, 1981-2007

In percent of GDP



The national government debt-to-GDP ratio averaged 69.2 percent during Arroyo's watch, the highest among all administrations. Debt servicing – interest plus principal amortization – as percent of total taxes was at its highest under the Arroyo administration. From 2001 to 2007, it averaged 82.5 percent. But the mean statistic hides the sharp rise in the debt burden in recent years – debt servicing-to-tax ratio was 100.6, 96.2, and 99.4 in 2004, 2005 and 2006, respectively (Appendix D). This means that in 2004, for example, payments for interest and principal amortization exceeded taxes collected.

Is the current debt situation sustainable? A study by the ADB [2005] looked at the implications of the current Philippine fiscal policy on government debt. It concluded

that the government debt situation is not sustainable given the current policy regime. Furthermore, it found evidence of a weak debt Ponzi game.³⁴ This implies that the Philippine government is simply borrowing to pay off its current debts. The implication is that currently, the Philippine government is simply borrowing to pay off its current debts. Current government debt is vulnerable to adverse shocks³⁵ and simple budgetary deficit control policy is inadequate. The government's responses to the rising debt and stagnating tax effort are: first, constraining expenditures by underspending in public infrastructure and social overhead (education, health and nutrition) and second, selling state assets. The first response is short-sighted and could adversely affect long-term growth and development. The second response may have merits if the sale of assets is consistent with the desire to narrow the scope of government intervention and the proceeds of asset sales are used to retire more expensive public debt or to invest in productivity-enhancing public infrastructure.

ECONOMIC AND FISCAL DETERMINANTS OF PUBLIC DEFICITS

In recent years, budget deficits have reemerged. With deficits rising and investment in human capital and public infrastructure deteriorating, an appropriate question is: what has caused the poor performance of the Philippines in recent years? Is it the result of unfortunate events, macroeconomic shocks or misdirected fiscal policy?

The results of my previous study are as follows. First, using NGAB, the narrowest measure of fiscal balance, the statistically significant determinants are the following: inflation, domestic liquidity, capital outlays, and tax effort. On the other hand the following variables were found to be statistically insignificant: economic growth, real effective exchange rate (REER), interest payment as percent of GDP, and intergovernmental grant (IRA) as percent of total government expenditures.

Second, using consolidated public sector fiscal position (CPSFP), the broader measure of fiscal balance, the statistically significant determinants of fiscal balance are the following: economic growth, inflation, domestic liquidity, capital outlays, intergovernmental fiscal transfers (IRA) and tax effort. Two variables – economic growth and intergovernmental fiscal transfer – which were not statistically significant using the national government fiscal balance as the explanatory variable for budget deficit turned out to be significant using the consolidated public sector deficit concept.

Third, the negative association of domestic liquidity with fiscal balances implies that in financing the deficit, the government may opt to resort to debt financing first, rather than printing money or increasing taxes. In the Philippine context, monetizing the deficit is not a preferred option because of legal restrictions and financial limitations on the monetary authorities (BSP). On the other hand, passing new tax laws to raise revenues has always been a difficult option politically.

Fourth, tax effort has been the most robust determinant of national government fiscal balance or the broader measure of fiscal balance (CPSFP). What is more interesting though is the exploratory regression of tax effort and the tax reform dummy variables. It is found that tax effort is positively related to the 1986 tax reform at a 1% level of significance while it is negatively associated with 1997 CTRP at the 15% level of significance.³⁶ A plausible explanation why the coefficient of the 1997 CTRP is less significant is that while major reforms initiated in 1986 such as value-added (VAT) are still in place, the VAT's effect was not as potent as before because the tax base was narrowed as a result of the 1997 CTRP.³⁷

Fifth, real GDP growth rate (ECONGR) is found to be positively associated with fiscal balance using CPSFP as the explanatory variable, but insignificant if the more limited deficit concept (NGAB) is used. The results suggest that strong economic growth may lead to a better fiscal position. While the effect of economic growth on the national government deficit is unclear, its effect on other public sector entities is unequivocally positive. The monitored corporations, the government financial institutions, and social security institutions including Philhealth³⁸, local governments perform better financially when the economy is growing and poorly when the economy is slowing down.

Finally, intergovernmental fiscal transfer (IRA) is found to be positively associated with the consolidated public sector fiscal balance, though its association with the national government deficit is found to be statistically insignificant. The empirical result suggests that the higher the IRA, the higher the consolidated fiscal balance. The explanation is that under existing budget rules, local governments are mandated by law to generate a surplus of at least 5 percent to cover future contingencies; the higher the grant, the higher the mandated overall mandated surplus for local governments, and consequently the higher the consolidated fiscal surplus.

CONCLUSIONS, OBSERVATIONS AND IMPLICATIONS FOR POLICY

There are similarities and differences between public sector deficits in the early 1980s and those in recent years. Looking at macroeconomic factors, the deficits of the early 1980s and recent years occurred during periods of high oil prices. The two periods differ in that the early 1980's had higher prevailing interest and inflation rates compared to recent years. Interest rates averaged 20.2 percent during the period 1981-1985, whereas interest rates averaged of 7.0 percent in 2001-04. Inflation rates in the early 1980's were almost 300 percent higher than in recent years. In addition, the foreign exchange rate (Peso to U.S. Dollar) was more volatile during the early 1980's.

In order to arrive at more meaningful decisions, policymakers should use the broader measure of consolidated public sector fiscal position (CPSFP) rather than the narrower concept of national government account balance (NGAB) in evaluating the

fiscal health of the government. The empirical results for the regression using NGAB as the dependent variable suggest that economic growth rate and intergovernmental fiscal transfers do not affect fiscal balance. But using the broader concept of CPSFP, the results suggest that economic growth rate and intergovernmental fiscal transfers are both associated with fiscal stance positively.

Tax effort has been the strongest positive determinant of the Philippines' fiscal health. During the last quarter century, tax effort was lowest in the two periods when public deficits were large. In the early 1980's, the low tax effort was due largely to a complicated tax system, narrow tax base and an unresponsive tax system; in recent years, it was mainly because of a narrower tax base and an increasingly unresponsive tax system. Public policy must be directed to improving tax effort, not only by correcting existing weaknesses in the tax system (such, as for example, narrow tax base because of the proliferation of fiscal incentives laws), but also by improving tax administration.

Spending priorities have changed overtime. Infrastructure was the focus of public spending during the Marcos years, while spending for social services were the focus during the Aquino and Estrada years. In recent years, both infrastructure and social services received less attention because of the heavy debt burden and low tax effort. From 2001to 2005, both real per pupil spending on education and real per capita health spending plummeted. Unless reversed, the falling investment in human capital and physical infrastructure would propel the Philippine economy on a lower long-run growth path.

There should be increased spending on both human and physical infrastructure to increase domestic productivity, attract investments and to promote economic growth and development. The results of our econometric work suggest that the effect of investment in physical infrastructure on fiscal balance is positive. Investment in productivity-enhancing capital projects makes private investment more productive, reduces transactions costs, and increases the profitability of private sector businesses.

Public policy, including fiscal and monetary policy, works with a lag. Consider the following examples. First, the decrease in overall tax effort after its peak in 1997 can be partly blamed to the changes in the tax laws that were introduced during Ramos' final years. Second, the surge in public debt as a result of the sharp depreciation of the peso as an aftermath of a misplaced foreign exchange policy and the Asian financial crisis has contributed to the sharp increase in public debt after Ramos. As a result, subsequent administrations – and future generations of Filipinos – have to bear the brunt of adjustment in terms of higher taxes or constrained public services in the future. Third, the decision of the Aquino government to transfer to the national government the losses incurred during the time of Marcos by some government financial institutions and major non-financial corporations helped improved the fiscal picture of the distressed government corporations. But as a result, it magnified the fiscal deficit of the national

government and constrained its ability to deliver the appropriate level of public services. Put differently, Marcos' fiscal policy of taxing less, spending more, and using state enterprises to engage in the provision of private goods, made him look good then at the expense of the administrations that followed him. A review of the fiscal behavior of any administration should therefore consider the lag in public policy.

Appendix A. National Government Account Balance, 1981-2007

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	1981	1982	1983	1984	1985	1980	1987	1988	1989	1990	1991	1992	1993	1994
A. REVENUES	11.8	11.2	12.4	10.8	12.1	13.0	15.1	14.1	16.5	16.8	17.7	18.0	17.7	19.9
1. Tax	10.3	6.6	10.8	9.6	10.7	10.8	12.6	11.3	13.2	14.1	14.6	15.4	15.6	16.0
Direct	2.5	2.5	2.5	2.3	3.3	3.1	3.2	3.4	4.1	4.6	4.9	5.2	5.0	5.4
Indirect	3.5	3.4	3.3	3.6	4.2	4.5	5.4	4.5	4.8	5.1	4.4	4.7	4.8	9.6
Taxes on International Trade	3.6	3.6	4.5	3.3	3.0	2.9	3.8	3.1	4.1	4.3	5.2	5.4	5.6	4.8
Other Offices	9.0	0.5	9.0	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1
2. Nontax	1.5	1.3	1.6	1.3	1.4	2.3	2.5	2.8	3.2	2.7	3.1	2.5	2.1	3.8
B. EXPENDITURES	15.8	15.4	14.4	12.8	14.0	18.1	17.6	17.0	18.6	20.2	19.8	19.1	19.1	18.9
1. Current Operating Expenditures	8.6	9.3	9.4	8.2	9.7	11.0	14.1	14.2	15.4	16.9	15.9	15.9	15.5	15.2
Personal Services	3.5	3.1	3.8	3.2	4.0	4.1	4.8	5.1	5.6	5.8	5.8	5.5	5.3	5.5
Maintenance and Other Operating Expenditures	3.7	3.9	3.2	2.4	2.3	2.5	2.9	2.4	2.9	2.8	2.9	2.5	2.3	2.2
Interest Payments	0.8	1.0	1.4	2.0	2.6	3.5	5.4	5.7	5.9	9.9	0.9	5.9	5.2	4.7
Domestic	0.5	0.7	0.7	1.1	1.8	2.5	3.5	4.0	4.4	4.9	4.5	4.7	3.8	3.5
Foreign	0.3	0.4	9.0	0.9	8.0	1.1	1.9	1.7	1.5	1.7	1.5	1.2	1.4	1.1
Allotment to Local Government Units	0.5	0.7	0.7	0.5	9.0	9.0	9.0	0.5	0.4	0.4	0.5	1.2	2.0	2.2
Petroleum Price Stabilization Fund	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Subsidies	0.2	9.0	0.3	0.1	0.2	0.3	0.3	0.3	9.0	0.7	0.5	0.3	0.3	0.4
Tax Expenditures	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.2	0.2	9.0	0.3	0.3
2. Capital Outlay	8.9	5.5	4.4	3.7	3.9	4.7	2.4	2.1	2.8	3.0	3.4	3.1	3.5	3.3
Infrastructure and Other Capital Outlays	4.2	2.7	2.8	1.9	1.5	1.9	1.8	1.9	2.3	2.7	3.0	3.4	2.4	2.5
Others	5.6	2.8	1.6	1.9	2.4	2.8	9.0	0.2	0.5	0.3	0.4	(0.3)	1.1	0.8
3. Net Lending	0.3	0.7	9.0	0.8	0.4	2.5	1.0	0.7	0.4	0.4	0.5	0.2	0.2	0.3
C. NATIONAL GOVERNMENT ACCOUNT BALANCE	(4.0)	(4.2)	(2.0)	(1.9)	(1.9)	(5.1)	(2.4)	(2.9)	(2.1)	(3.5)	(2.1)	(1.2)	(1.5)	1.0
D. EXPENDITURES (excluding interest payments)	15.0	14.4	13.0	10.8	11.4	14.6	12.2	11.3	12.7	13.6	13.8	13.3	14.0	14.2
E. PRIMARY SURPLUS/DEFICIT (A-D)	(3.2)	(3.2)	(0.7)	0.1	9.0	(1.6)	3.0	2.8	3.8	3.1	3.9	4.7	3.7	9.6

Appendix A. National Government Account Balance, 1981-2007 (continued)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2002	2003	2004	2005	2006	2007
A. REVENUES	19.0	18.9	19.4	17.4	16.1	15.3	15.5	14.3	14.6	14.3	14.6	14.4	15.1	16.2	17.1
1. Tax	16.3	16.9	17.0	15.6	14.5	13.7	13.5	12.5	12.5	12.5	12.5	12.3	13.0	14.3	14.0
Direct	5.8	6.3	8.9	6.9	6.2	6.1	6.2	5.7	5.7	5.7	5.7	5.7	6.0	6.2	10.7
Indirect	5.2	5.7	6.2	5.8	5.3	4.2	4.1	3.8	3.8	3.8	3.8	3.6	4.2	4.7	0.0
Taxes on International Trade	5.1	4.8	3.9	2.9	2.9	2.8	2.7	2.4	2.5	2.4	2.5	2.5	2.9	3.3	3.1
Other Offices	0.1	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.1
2. Nontax	2.7	2.0	2.5	1.7	1.6	1.6	2.0	1.8	2.1	1.8	2.1	2.1	2.0	2.0	3.1
B. EXPENDITURES	18.4	18.6	19.4	19.2	19.8	19.3	19.6	19.6	19.3	19.6	19.3	18.3	17.4	17.3	17.2
 Current Operating Expenditures 	14.4	15.2	15.4	15.9	15.8	16.0	16.6	16.4	16.5	16.4	16.5	15.4	15.0	15.0	14.2
Personal Services	5.7	6.2	7.1	7.4	6.8	6.7	9.9	6.7	6.4	6.7	6.4	5.8	5.5	5.4	5.3
Maintenance and Other Operating Expenditures	2.3	2.2	2.1	2.4	2.4	2.4	2.4	2.1	1.8	2.1	1.8	1.7	1.6	1.7	1.9
Interest Payments	3.8	3.5	3.2	3.7	3.6	4.2	4.8	4.7	5.3	4.7	5.3	5.4	5.5	5.1	4.0
Domestic	2.7	2.7	2.4	2.8	2.5	2.8	3.1	3.0	3.4	3.0	3.4	3.5	3.5	3.3	2.4
Foreign	1.1	0.8	0.8	1.0	1.1	1.4	1.7	1.7	1.8	1.7	1.8	1.9	2.0	1.9	1.7
Allotment to Local Government Units	2.2	2.1	2.3	2.1	2.6	2.4	2.5	2.8	2.7	2.8	2.7	2.3	2.3	2.3	2.3
Petroleum Price Stabilization Fund	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subsidies	0.2	0.4	0.4	0.2	0.2	0.2	0.2	0.1	0.3	0.1	0.3	0.1	0.2	0.2	0.3
Tax Expenditures	0.2	0.3	0.3	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5
2. Capital Outlay	3.7	3.3	3.9	3.3	3.9	3.3	2.9	3.1	2.6	3.1	5.6	2.7	2.4	2.3	2.9
Infrastructure and Other Capital Outlays	2.8	2.6	3.3	2.7	3.2	2.6	2.1	2.4	1.8	2.4	1.8	1.9	1.7	1.6	2.1
Others	1.0	0.7	0.7	9.0	9.0	0.7	9.0	8.0	8.0	0.8	0.8	0.8	0.7	0.7	0.7
3. Net Lending	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1
C. NATIONAL GOVERNMENT ACCOUNT BALANCE	9.0	0.3	0.1	(1.9)	(3.8)	(4.0)	(4.0)	(5.3)	(4.7)	(5.3)	(4.7)	(3.8)	(2.3)	(1.1)	(0.1)
D. EXPENDITURES (excluding interest payments)	14.6	15.1	16.2	15.5	16.3	15.1	14.8	15.0	14.0	15.0	14.0	12.9	11.9	12.2	13.2
E. PRIMARY SURPLUS/DEFICIT (A-D)	4.4	3.8	3.3	1.9	(0.2)	0.2	0.8	(0.0)	9.0	(9.0)	9.0	1.5	3.2	4.1	3.9

SOURCE: Department of Budget and Management

Appendix B. NGAB, PSBR, CPSD, 1985-2007

In percent of GDP

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
A. Public Sector Borrowing Requirement	(2.7)	(4.2)	(1.3)	(1.9)	(2.7)	(4.1)	(1.3)	(1.5)	(3.8)	(0.4)	(6.0)	(9.0)
1. National Government	(1.9)	(5.1)	(2.4)	(2.9)	(2.1)	(3.5)	(2.1)	(1.2)	(1.5)	1.0	9.0	0.3
2. CB Restructuring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(1.0)	(1.4)	(1.0)	(9.0)
3. Monitored Nonfinancial Government Corporations (MNFGCs)	(1.4)	(1.1)	0.0	0.4	(0.3)	(1.8)	(9.0)	(0.8)	(1.7)	(9.0)	(0.1)	(0.5)
4. Oil Price Stabilization Fund	0.0	0.0	0.0	0.0	(6.0)	(0.1)	8.0	0.4	(0.5)	0.2	(0.5)	0.2
5. Adjustments of Net Lending and Equity to GOCCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6. Other adjustments	9.0	2.1	1.1	9.0	0.7	1.2	9.0	0.1	1.0	0.4	0.1	0.1
B. Other Public Sector	(2.9)	(2.3)	(0.5)	(1.2)	(1.4)	(9.0)	(0.7)	(0.4)	2.0	(0.0)	0.7	6.0
1. Government Financial Institutions (GFIs)	(3.2)	(2.0)	0.1	0.2	0.3	0.3	0.2	0.3	0.4	0.2	0.3	0.4
2. Bangko Sentral ng Pilipinas (BSP)	(2.7)	(3.0)	(1.6)	(2.1)	(2.3)	(2.0)	(1.7)	(1.6)	(0.1)	0.3	0.2	(0.1)
3. SSS/GSIS	1.0	0.1	0.7	9.0	0.4	1.0	9.0	9.0	8.0	(0.7)	0.0	0.4
4. Local Government Units (LGUs)	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.4	6.0	0.1	0.3
5. Timing Adjustments of Interest Payments to BSP	1.9	2.5	0.1	0.0	(0.1)	0.0	0.0	0.2	0.5	(0.1)	0.1	(0.0)
6. Other Adjustments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consolidated public sector surplus/deficit	(2.6)	(6.5)	(1.8)	(3.1)	(4.1)	(4.7)	(2.1)	(1.9)	(1.8)	(0.5)	(0.2)	0.3

Source: Department of Budget and Management, Fiscal Statistics Handbook 1983-2004, Bureau of Treasury

Memo item:

GDP (in Billion pesos: at current prices)

571.9 608.9 682.8 799.2 925.4 1077.2 1248.0 1351.6 1474.5 1692.9 1906.0 2171.9

6651.3

5418.8 6032.6

Appendix B. NGAB, PSBR, CPSD, 1985-2007 (continued)

In percent of GDP

A. Public Sector Borrowing Requirement (2.7) (4.2) (1.3) (1.3) (1.4) (1.5) (1.7) (1.2)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006 prelim	2007 revised
(1.9) (5.1) (2.4) (2.9) (2.1) (3.5) (2.1) (3.5) (2.1) (1000 ment Corporations (MNFGCs) (1.4) (1.1) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	A. Public Sector Borrowing Requirement	(2.7)	(4.2)	(1.3)	(1.9)	(2.7)	(4.1)	(1.3)	(1.5)	(3.8)	(0.4)	(6.0)
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1. National Government	(1.9)	(5.1)	(2.4)	(5.9)	(2.1)	(3.5)	(2.1)	(1.2)	(1.5)	1.0	9.0
nment Corporations (MNFGCs) (1.4) (1.1) 0.0 0.4 (0.3) (1.8) (0.6) (0.6) (0.7) (0.8) (0.8) (0.9) (0.1) 0.8 nd Equity to GOCCs 0.0	2. CB Restructuring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(1.0)	(1.4)	(1.0)
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	3. Monitored Nonfinancial Government Corporations (MNFGCs)	(1.4)	(1.1)	0.0	0.4	(6.3)	(1.8)	(9.0)	(0.8)	(1.7)	(9.0)	(0.1)
10 Equity to GOCCS 0.0	4. Oil Price Stabilization Fund	0.0	0.0	0.0	0.0	(6.0)	(0.1)	0.8	0.4	(0.5)	0.2	(0.5)
0.6 2.1 1.1 0.6 0.7 1.2 0.6 o.7 o.6 o.7 o.6 o.7 o.6 o.7 o.6 o.8 o.7 o.6 o.8 o.7 o.6 o.8	5. Adjustments of Net Lending and Equity to GOCCs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2.9) (2.3) (0.5) (1.2) (1.4) (0.6) (0.7) (6) (1.2) (1.4) (0.6) (0.7) (6) (1.2	6. Other adjustments	9.0	2.1	1.1	9.0	0.7	1.2	9.0	0.1	1.0	0.4	0.1
ons (GFIs) (3.2) (2.0) 0.1 0.2 0.3 0.3 0.2 (5.8) (5.9) (5.9) (5.9) (5.1) (5.1) (5.3) (5.0) (1.7) (6.8) (5.1) (5.1) (5.3) (5.0) (1.7) (6.8) (5.1) (5.1) (5.1) (5.1) (5.1) (5.1) (5.1) (6.8) (5.1) (6.1)	B. Other Public Sector	(2.9)	(2.3)	(0.5)	(1.2)	(1.4)	(9.0)	(0.7)	(0.4)	2.0	(0.0)	0.7
(2.7) (3.0) (1.6) (2.1) (2.3) (2.0) (1.7) (3.0) 1.0 0.1 0.7 0.6 0.4 1.0 0.6 1.0 0.1 0.1 0.1 0.2 0.2 0.2 1.9 2.5 0.1 0.0 (0.1) 0.0 0.0 1.9 2.5 0.1 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0	1. Government Financial Institutions (GFIs)	(3.2)	(2.0)	0.1	0.2	0.3	0.3	0.2	0.3	0.4	0.2	0.3
1.0 0.1 0.7 0.6 0.4 1.0 0.6 1.0 0.1 0.1 0.7 0.6 0.4 1.0 0.6 1.0 0.1 0.1 0.1 0.1 0.2 0.2 1.9 2.5 0.1 0.0 (0.1) 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		(2.7)	(3.0)	(1.6)	(2.1)	(2.3)	(2.0)	(1.7)	(1.6)	(0.1)	0.3	0.2
) 0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	3. SSS/GSIS	1.0	0.1	0.7	9.0	0.4	1.0	9.0	9.0	9.0	(0.7)	0.0
t Payments to BSP 1.9 2.5 0.1 0.0 (0.1) 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	4. Local Government Units (LGUs)	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.4	0.3	0.1
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	5. Timing Adjustments of Interest Payments to BSP	1.9	2.5	0.1	0.0	(0.1)	0.0	0.0	0.2	0.5	(0.1)	0.1
/deficit (5.6) (6.5) (1.8) (3.1) (4.1) (4.7) (2.1)	6. Other Adjustments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		(2.6)	(6.5)	(1.8)	(3.1)	(4.1)	(4.7)	(2.1)	(1.9)	(1.8)	(0.5)	(0.2)

Source: Department of Budget and Management, Fiscal Statistics Handbook 1983-2004, Bureau of Treasury

Memo item:

GDP (in Billion pesos: at current prices)

2426.7 2665.1 2976.9 3354.7 3631.5 3959.6 4293.0 4858.8

Appendix C. Budget Deficit Financing, 1981-2007

In Billion Pesos, unless otherwise specified

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Financing	12.1	14.4	7.4	18.0	12.6	32.0	41.1	39.3	28.7	19.2	41.3	152.6	152.6 (15.7)	(22.0)
Net foreign	0.9	4.6	5.4	2.0	(0.3)	3.6		6.8 4.2	8.2	4.1	6.9	14.4	12.9 (11.6)	(11.6)
Net domestic	6.1	8.6	2.0	16.0	12.9	28.4	34.3	35.1	20.5	15.1	34.4	138.2 ((28.6)	(10.4)
Percent share														
Net foreign	49.6	31.9	73.0		11.1 (2.4)	11.2	16.5	10.7	28.6	21.3	16.7	9.4	9.4 (82.3)	52.8
Net domestic	50.4	68.1	27.0	88.9	102.4	88.8	83.5	89.3	71.4	78.7	83.3	9.06	182.3	

Source: Government authorities

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Financing	11.0	43.4	(27.1)	88.9	181.7	203.8	203.8 175.2	264.2	286.8	242.5	236.0	110.1	99.1
Net foreign	(13.3)	(6.9)	(6.8)	12.3	82.8	84.4	22.9	109.1	143.9	81.2	92.7	120.8	56.2
Net domestic	24.3	49.3	(20.3)	9.92	98.9		152.3	119.5 152.3 155.0	143.0	161.4	143.3	(10.6)	42.9
Percent share													
Net foreign	(120.7)	13.6)	25.1	13.8	45.6	41.4	13.1	41.3	50.2	33.5	39.3	109.7	56.7
Net domestic	220.7	113.6	74.9	86.2	54.4	58.6	86.9	58.7	49.8	66.5	2.09	(6.7)	43.3

Source: Government authorities

Appendix D. Philippines: Public Debt Statistics, 1981-2007

In Million pesos, unless otherwise specified

	1981	1982	1983	1984	1985	1986	1987
A. National Government Outstand	ing Debt						
1. Domestic Debt	28,925	35,619	41,685	62,639	82,533	201,270	229,687
2. Foreign Debt	20,015	25,112	14,820	61,110	59,818	174,175	195,082
3. Total Debt	48,940	60,731	56,505	123,749	142,351	375,445	424,769
As A Percentage of GDP							
4. Domestic Debt	9.5	10.5	11.3	11.9	14.4	33.1	33.6
5. Foreign Debt	6.6	7.4	4.0	11.7	10.5	28.6	28.6
6. Total Debt	16.0	17.8	15.3	23.6	24.9	61.7	62.2
As A Percentage of Total Outstandi	ng Debt						
7. Domestic Debt	59.1	58.7	73.8	50.6	58.0	53.6	54.1
8. Foreign Debt	40.9	41.3	26.2	49.4	42.0	46.4	45.9
B. Debt Service Expenditures							
1. Interest Payment	2,429	3,560	4,997	10,409	14,652	21,612	36,905
a. Domestic	1,445	2,312	2,615	5,785	10,261	15,022	24,224
b. Foreign	984	1,248	2,382	4,624	4,391	6,590	12,681
2. Amorization	1,468	1,332	3,451	4,473	6,951	13,201	32,920
a. Domestic	736	541	1,203	1,408	2,907	7,012	24,281
b. Foreign	732	791	2,248	3,065	4,044	6,189	8,639
3. Total	3,897	4,892	8,448	14,882	21,603	34,813	69,825
a. Domestic	2,181	2,853	3,818	7,193	13,168	22,034	48,505
b. Foreign	1,716	2,039	4,630	7,689	8,435	12,779	21,320
As a Percentage of GDP							
4. Total	1.3	1.4	2.3	2.8	3.8	5.7	10.2
a. Domestic	0.7	0.8	1.0	1.4	2.3	3.6	7.1
b. Foreign	0.6	0.6	1.3	1.5	1.5	2.1	3.1
As A Percent of Total Debt Service I	Expenditures						
5. Total							
a. Domestic	56.0	58.3	45.2	48.3	61.0	63.3	69.5
b. Foreign	44.0	41.7	54.8	51.7	39.0	36.7	30.5
C. Total Debt Service Expenditures	as Share of to	otal spendin	g				
1. Total Debt Servicing	8.1	9.3	15.9	22.2	27.0	31.5	58.2
a. Domestic	4.5	5.4	7.2	10.7	16.4	19.9	40.5
b. Foreign	3.6	3.9	8.7	11.5	10.5	11.6	17.8
D. Debt servicing as percent of tax	revenues						
1. Interest payments	7.7	10.5	12.5	20.8	23.9	33.0	43.0
a. Domestic	4.6	6.8	6.6	11.5	16.8	22.9	28.2
b. Foreign	3.1	3.7	6.0	9.2	7.2	10.1	14.8
2. Total debt servicing	12.4	14.5	21.2	29.7	35.3	53.2	81.3
a. Domestic	6.9	8.4	9.6	14.4	21.5	33.6	56.5
b. Foreign	5.5	6.0	11.6	15.3	13.8	19.5	24.8
ource: National Statistical Coordin		n Philippine	Statistical Y	earbook			
1. GDP (in Million pesos: at current prices)	305260	340599	369077	524481	571883	608887	68276
2. Tax revenues (in current prices, Million pesos)	31423	33800	39848	50118	61190	65491	85923
3. Total expenditures	48079	52610	53064	66926	80102	110497	119907

Appendix D. Philippines: Public Debt Statistics, 1981-2007

In Million pesos, unless otherwise specified

<u> </u>	1988	1989	1990	1991	1992	1993	1994
A. National Government Outstan	<u> </u>						
1. Domestic Debt	265,447	289,330	300,441	337,890	497,917	676,867	664,978
2. Foreign Debt	192,888	198,496	299,764	334,898	372,897	449,025	416,177
3. Total Debt	458,335	487,826	600,205	672,788	870,814	1,125,892	1,081,155
As A Percentage of GDP							
4. Domestic Debt	33.2	31.3	27.9	27.1	36.8	45.9	39.3
5. Foreign Debt	24.1	21.4	27.8	26.8	27.6	30.5	24.6
6. Total Debt	57.4	52.7	55.7	53.9	64.4	76.4	63.9
As A Percentage of Total Outstand	ling Debt						
7. Domestic Debt	57.9	59.3	50.1	50.2	57.2	60.1	61.5
8. Foreign Debt	42.1	40.7	49.9	49.8	42.8	39.9	38.5
B. Debt Service Expenditures							
1. Interest Payment	45,865	54,714	71,114	74,922	79,571	76,491	79,123
a. Domestic	32,183	41,032	53,323	56,347	63,113	56,183	59,806
b. Foreign	13,682	13,682	17,791	18,575	16,458	20,308	19,317
2. Amorization	25,299	28,503	35,232	46,560	29,651	36,887	38,844
a. Domestic	12,251	16,760	14,952	30,354	9,898	11,574	14,981
b. Foreign	13,048	11,743	20,280	16,206	19,753	25,313	23,863
3. Total	71,164	83,217	106,346	121,482	109,222	113,378	117,967
a. Domestic	44,434	57,792	68,275	86,701	73,011	67,757	74,787
b. Foreign	26,730	25,425	38,071	34,781	36,211	45,621	43,180
As a Percentage of GDP							
4. Total	8.9	9.0	9.9	9.7	8.1	7.7	7.0
a. Domestic	5.6	6.2	6.3	6.9	5.4	4.6	4.4
b. Foreign	3.3	2.7	3.5	2.8	2.7	3.1	2.6
As A Percent of Total Debt Service	Expenditures						
5. Total							
a. Domestic	62.4	69.4	64.2	71.4	66.8	59.8	63.4
b. Foreign	37.6	30.6	35.8	28.6	33.2	40.2	36.6
C. Total Debt Service Expenditure	s as Share of t	otal spendi	ng				
1. Total Debt Servicing	52.3	48.4	48.8	49.2	42.2	40.2	36.9
a. Domestic	32.7	33.6	31.3	35.1	28.2	24.0	23.4
b. Foreign	19.6	14.8	17.5	14.1	14.0	16.2	13.5
D. Debt servicing as percent of ta	x revenues						
1. Interest payments	50.8	44.7	46.9	41.1	38.1	33.2	29.2
a. Domestic	35.6	33.5	35.2	30.9	30.2	24.4	22.0
b. Foreign	15.1	11.2	11.7	10.2	7.9	8.8	7.1
2. Total debt servicing	78.8	68.0	70.1	66.6	52.3	49.3	43.5
a. Domestic	49.2	47.2	45.0	47.6	35.0	29.4	27.6
b. Foreign	29.6	20.8	25.1	19.1	17.4	19.8	15.9
Source: National Statistical Coordi MEMO ITEMS:	nation Board i	n Philippine	Statistical \	/earbook			
1. GDP (in Million pesos: at current prices)	799182	925444	1077237	1248011	1351559	1474457	1692932
2. Tax revenues (in current prices, Million pesos)	90352	151700	151700	182275	208706	230170	271305
3. Total expenditures	136067	171978	218096	247136	258680	282296	319874

Appendix D. Philippines: Public Debt Statistics, 1981-2007 (continued)

	1995	1996	1997	1998	1999	2000	2001
A. National Government Outst	anding Debt						
1. Domestic Debt	718,395	742,057	749,608	850,931	978,404	1,068,200	1,247,683
2. Foreign Debt	440,227	413,180	600,966	645,290	796,952	1,098,510	1,137,234
3. Total Debt	1,158,622	1,155,237	1,350,574	1,496,221	1,775,356	2,166,710	2,384,917
As A Percentage of GDP							
4. Domestic Debt	37.7	34.2	30.9	31.9	32.9	31.8	34.4
5. Foreign Debt	23.1	19.0	24.8	24.2	26.8	32.7	31.3
6. Total Debt	60.8	53.2	55.7	56.1	59.6	64.6	65.7
As A Percentage of Total Outst	anding Debt						
7. Domestic Debt	62.0	64.2	55-5	56.9	55.1	49.3	52.6
8. Foreign Debt	38.0	35.8	44.5	43.1	44.9	50.7	47.7
B. Debt Service Expenditures							
1. Interest Payment	72,658	76,522	77,971	99,792	106,290	140,894	174,834
a. Domestic	50,805	59,002	58,350	73,525	74,980	93,575	112,592
b. Foreign	21,853	17,520	19,621	26,267	31,310	47,319	62,242
2. Amorization	64,517	41,220	47,678	64,717	99,106	86,949	99,605
a. Domestic	34,338	13,260	17,865	28,761	61,552	45,429	54,038
b. Foreign	30,179	27,960	29,813	35,956	37,554	41,520	45,567
3. Total	137,175	117,742	125,649	164,509	205,396	227,843	274,439
a. Domestic	85,143	72,262	76,215	102,286	136,532	139,004	166,630
b. Foreign	52,032	45,480	49,434	62,223	68,864	88,839	107,809
As a Percentage of GDP							
4. Total	7.2	5.4	5.2	6.2	6.9	6.8	7.6
a. Domestic	4.5	3.3	3.1	3.8	4.6	4.1	4.6
b. Foreign	2.7	2.1	2.0	2.3	2.3	2.6	3.0
As A Percent of Total Debt Serv	ice Expenditures	5					
5. Total							
a. Domestic	62.1	61.4	60.7	62.2	66.5	61.0	60.7
b. Foreign	37.9	38.6	39.3	37.8	33.5	39.0	39.3
C. Total Debt Service Expenditu	res as Share of	total spendi	ng				
1. Total Debt Servicing	39.2	29.1	26.7	32.1	34.8	35.1	38.6
a. Domestic	24.3	17.9	16.2	20.0	23.1	21.4	23.4
b. Foreign	14.9	11.3	10.5	12.1	11.7	13.7	15.2
D. Debt servicing as percent o	f tax revenues						
1. Interest payments	23.4	20.8	18.9	24.0	24.6	30.6	35.7
a. Domestic	16.4	16.0	14.2	17.6	17.4	20.3	23.0
b. Foreign	7.0	4.8	4.8	6.3	7.3	10.3	12.7
2. Total debt servicing	44.2	32.0	30.5	39.5	47.6	49.5	56.0
a. Domestic	27.4	19.6	18.5	24.6	31.6	30.2	34.0
b. Foreign	16.8	12.4	12.0	14.9	16.0	19.3	22.0

Source: National Statistical Coordination Board in Philippine Statistical Yearbook MEMO ITEMS:

 GDP (in Million pesos: at current prices) 	1905951	2171922	2426743	2665060	2976905	3354727	3631474
Tax revenues (in current prices, Million pesos)	310517	367895	412165	416585	431687	460034	489860
3. Total expenditures	350146	404195	470279	512497	590161	648974	710756

Appendix D. Philippines: Public Debt Statistics, 1981-2007 (continued)

	2002	2003	2004	2005	2006	2007
A. National Government Outs	standing Debt					
1. Domestic Debt	1,471,202	1,703,781	2,001,220	2,164,293	2,154,078	2,201,167
2. Foreign Debt	1,344,266	1,651,327	1,810,734	1,723,938	1,697,428	1,511,320
3. Total Debt	2,815,468	3,355,108	3,811,954	3,888,231	3,851,506	3,712,487
As A Percentage of GDP						
4. Domestic Debt	39.2	39.6	41.2	39.9	35.7	33.1
5. Foreign Debt	33.9	38.4	37-3	31.8	28.1	22.7
6. Total Debt	71.1	78.0	78.5	71.8	63.8	55.8
As A Percentage of Total Outs	tanding Debt					
7. Domestic Debt	52.3	50.8	52.5	55.7	55.9	59.3
8. Foreign Debt	47.7	49.2	47-5	44.3	44.1	40.7
B. Debt Service Expenditures						
1. Interest Payment	185,861	226,408	260,901	299,807	310,108	267,800
a. Domestic	119,985	147,565	169,997	190,352	197,263	157,220
b. Foreign	65,876	78,843	90,904	109,455	112,845	110,580
2. Amorization	172,098	243,582	340,771	379,144	544,266	346,269
a. Domestic	80,944	147,322	222,405	253,492	380,939	284,017
b. Foreign	91,154	96,260	118,366	125,652	163,327	62,252
3. Total	357,959	469,990	601,672	678,951	854,374	2,014,069
a. Domestic	200,929	294,887	392,402	443,844	578,202	1,841,237
b. Foreign	157,030	175,103	209,270	235,107	276,172	172,832
As a Percentage of GDP						
4. Total	9.0	10.9	12.4	12.5	14.2	9.2
a. Domestic	5.1	6.9	8.1	8.2	9.6	6.6
b. Foreign	4.0	4.1	4.3	4.3	4.6	2.6
As A Percent of Total Debt Ser	vice Expenditur	es				
5. Total						
a. Domestic	56.1	62.7	65.2	65.4	67.7	71.9
b. Foreign	43.9	37-3	34.8	34.6	32.3	28.1
C. Total Debt Service Expendi	tures as Share o	f total spendir	ıg			
1. Total Debt Servicing	46.0	56.9	67.8	72.0	81.8	53.6
a. Domestic	25.8	35.7	44.2	47.1	55.4	38.5
b. Foreign	20.2	21.2	23.6	24.9	26.4	15.1
D. Debt servicing as percent	of tax revenues					
1. Interest payments	37.4	42.1	43.6	42.5	36.1	28.7
a. Domestic	24.2	27.4	28.4	27.0	22.9	16.9
b. Foreign	13.3	14.7	15.2	15.5	13.1	11.9
2. Total debt servicing	72.1	87.4	100.6	96.2	99.4	65.8
a. Domestic	40.5	54.8	65.6	62.9	67.2	47.3
b. Foreign	31.6	32.6	35.0	33.3	32.1	18.5

Source: National Statistical Coordination Board in Philippine Statistical Yearbook MEMO ITEMS:

 GDP (in Million pesos: at current prices) 	3959648	4299932	4858835	5418839	6032624	6651320
2. Tax revenues (in current prices, Million pesos)	496372	537684	598014	705615	859857	932937
3. Total expenditures	777881	826497	886826	942487	1044430	1145100

Appendix E. Fiscal Performance: An Overview

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A. Nominal terms (in Million PhP)	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1. Total disbursement	48,079	52,610	53,064	66,926	80,102	110,497	119,907	136,067	171,978	218,096	247,136	258,680	282,296
2. Interest payments	2,429	3,560	4,997	10,409	14,652	21,612	36,905	45,865	54,714	71,114	74,922	79,571	76,491
3. Net lending	929	2,218	2,393	4,423	2,555	15,148	7,077	5,415	3,666	3,787	5,725	2,258	2,649
4. Total disbursement net of IP and NL	44,721	46,832	42,674	52,094	62,895	73,737	75,925	84,787	113,598	143,195	166,489	176,851	203,156
5. Total revenues	35,933	38,206	45,632	56,861	68,961	79,245	103,214	112,861	152,410	180,902	220,787	242,714	260,405
B. In real terms (2000=100, in Million PhP)													
1. Total disbursement	363,159	360,444	330,539	277,293	269,574	369,039	385,912	402,648	453,579	503,815	461,075	461,105	454,583
2. Interest payments	18,347	24,390	31,127	43,127	49,310	72,180	118,776	135,723	144,304	164,278	139,780	141,838	123,174
3. Net lending	7,017	15,196	14,906	18,326	8,599	50,591	22,777	16,024	699,6	8,748	10,681	4,025	4,266
4. Total disbursement net of IP and NL	337,794	320,857	284,506	215,840	211,666	246,268	244,359	250,901	299,606	330,789	310,614	315,242	327,143
5. Total revenues	271,415	261,758	284,244	235,591	232,080	264,663	332,187	333,977	401,970	417,895	411,916	432,645	419,332
C. Per capita, real terms													
1. Total disbursement	7,331	7,098	6,349	5,232	4,970	6,647	6,791	6,922	7,618	8,267	7,394	7,225	6,959
2. Interest payments	370	480	598	814	606	1,300	2,090	2,333	2,424	2,696	2,241	2,222	1,886
3. Net lending	142	299	286	346	159	911	401	275	162	144	171	63	65
4. Total disbursement net of IP and NL	6,819	6,319	5,465	4,072	3,902	4,436	4,300	4,313	5,032	5,428	4,981	4,940	5,008
5. Total revenues	5,479	5,155	5,460	4,445	4,279	4,767	5,845	5,741	6,751	6,857	6,605	6,779	6,420
6. Net fiscal benefit per capita (C.4-C.5)	1,340	1,164	5	(373)	(376)	(331)	(1,545)	(1,428)	(1,719)	(1,429)	(1,624)	(1,840)	(1,411)
Source: Government Authorities													
Memo items:													
Deflator (2000=100), NSCB	0.13	0.15	0.16	0.24	0.30	0.30	0.31	0.34	0.38	0.43	0.54	0.56	0.62
Population, DBM and NSO	49.54	50.78	52.06	53	54.24	55.52	56.83	58.17	59.54	60.94	62.36	63.82	65.32

Appendix E. Fiscal Performance: An Overview (continued)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
A. Nominal terms (in Million PhP)														
1. Total disbursement	319,874	350,146	404,195	470,279	512,497	590,161	648,974	710,756	777,881	826,497	886,826	942,487	1,044,430	1,145,100
2. Interest payments	79,123	72,658	76,522	77,971	99,792	106,290	140,894	174,834	185,861	226,408	260,901	299,807	310,108	267,800
3. Net lending	5,893	3,696	1,161	1,381	329	3,193	2,634	3,944	2,626	5,620	5,676	1,707	131	9,800
4. Total disbursement net of IP and NL	234,858	273,792	326,512	390,927	412,376	480,678	505,446	531,978	589,394	594,469	620,249	640,973	734,191	867,500
5. Total revenues	336,160	361,220	410,450	471,843	462,516	478,503	514,762	563,733	567,141	626,630	699,768	816,159	979,637	1,136,560
B. In real terms (2000=100, in Million PhP)														
1. Total disbursement	466,289	478,342	513,590	565,919	564,424	613,473	613,473	665,502	707,165	726,272	735,345	726,107	757,382	807,546
2. Interest payments	115,340	99,260	97,233	93,828	109,903	110,489	140,894	163,702	168,965	198,953	216,336	230,976	224,879	188,858
3. Net lending	8,590	5,049	1,475	1,662	362	3,319	2,634	3,693	2,387	4,938	4,706	1,315	95	6,911
4. Total disbursement net of IP and NL	342,359	374,033	414,882	470,430	454,159	499,665	505,446	498,107	535,813	522,380	514,303	493,816	532,408	611,777
5. Total revenues	490,029	493,470	521,537	567,801	509,379	497,404	514,762	527,840	515,583	550,641	580,239	628,782	710,397	801,523
C. Per capita, real terms														
 Total disbursement 	9/6,9	6,992	7,336	7,898	2,698	8,175	8,451	8,493	8,845	8,902	8,833	8,548	8,738	9,221
2. Interest payments	1,726	1,451	1,389	1,310	1,499	1,472	1,835	2,089	2,113	2,439	2,599	2,719	2,594	2,157
3. Net lending	129	74	21	23	5	44	34	47	30	61	57	15	1	79
4. Total disbursement net of IP and NL	5,122	5,468	5,926	6,566	6,194	6,659	6,582	6,357	6,701	6,403	6,178	5,813	6,142	986'9
5. Total revenues	7,331	7,213	7,449	7,925	6,947	6,629	6,704	6,736	6,448	6,749	6,970	7,402	8,195	9,152
6. Net fiscal benefit per capita (C.4-C.5)	(2,209)	(1,746)	(1,523)	(1,359)	(753)	30	(121)	(379)	253	(346)	(792)	(1,589)	(2,053)	(2,167)
Source: Government Authorities Memo items:	0.69	0.73	0.79	0.83	0.91	96.0	1.00	1.07	1.10	1.14	1.21	1.30	1.38	1.42
Deflator (2000=100), NSCB														
Population, DBM and NSO	66.84	68.41	70.01	71.65	73.32	75.04	76.79	78.36	79.95	81.59	83.25	84.95	89.98	87.57

ENDNOTES

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 The views expressed here are those of the author and are not necessarily those of the PCED
 and the School of Economics of the University of the Philippines.
- 2. Benjamin E.Diokno, "Economic and Fiscal Policy Determinants of Public Deficits: The Philippine Case," *Discussion Paper No. 0702*, School of Economics, University of the Philippines, February 2007.
- 3. Article VI, Sec. 28, Par. 1, The 1987 Constitution of the Republic of the Philippines.
- 4. Diokno (2005).
- Edwards (1996).
- 6. Tax buoyancy measures the point elasticity of taxes with respect to changes in GDP.
- 7. Diokno (2005)
- 8. Revenue effort is defined as total revenues as a percent of Gross Domestic Product (GDP) while tax effort is defined as total tax revenues as percent of GDP.
- 9. Diokno (1995).
- 10. http://www.pnb.com.ph/history.asp.
- 11. Sicat (2003).
- 12. Petron is the oil refinery and marketing subsidiary firm of the state-owned Philippine National Oil Company (PNOC).
- 13. The 1997 Asian financial crisis affected the success of this privatization effort since the contracts did not include a mechanism for foreign exchange adjustments. This resulted in a sharp increase in water rates, and finally, one of the two concessionaires was turned over to the MWSS regulatory office.
- 14. Paderanga (2004).
- 15. Before martial law was declared in 1992, there used to be such a joint legislative-executive tax commission (JLETC). During the martial law years, with the closure of Congress, a purely executive tax body, the National Tax Research Center, replaced it which is under the Department (Ministry) of Finance.
- 16. World Bank [2005].
- 17. Most governments may not have enough resources to provide such goods. In order to enhance efficiency, government must resort to handles, other than taxes, such as user fees.
- 18. The theory of local public good argues that efficiency is enhanced through a process by which constituents reveal their true preferences for local public goods by 'voting-with-their-feet,' i.e. citizens move to the locality that offers their most preferred taxing-expenditure mix.
- 19. The term capital outlay is not exactly equal to infrastructure spending. It is a broader term that includes: (a) infrastructure and other capital outlays; (b) corporate equity; (c) capital transfers to local government units; (d) capital transfers to the Philippine National Bank and Development Bank of the Philippines; and, (e) comprehensive agrarian reform program land acquisition and credit.
- 20. Basic education spending refers only to the actual expenditures of the Department of Education, Culture and Sports. Source of basic data: the Department of Budget and Management (DBM), Fiscal Statistics Handbook, 2005.

- 21. Nolledo, Jose N., ed., The 1991 Local Government Code with Basic Features, Metro Manila, Philippines: National Book Store, Inc. 1995.
- 22. Net lending is net advances by the National Government for the servicing of government guaranteed corporate debt. It covers the National Government loans outlays to government corporations.
- 23. Non-budgetary accounts are trust liabilities, securities unloaded or purchased, sinking fund, and other accounts not included in the national government budget.
- 24. Diokno (1995).
- 25. Sicat (2003)
- 26. Accounts payable are obligations or commitments of national government agencies, whether current year and prior years, for which services have been rendered, or goods have been delivered, or projects have been completed and accepted.
- 27. This was done through Administrative Order (AO) 372 issued in December 1997 instituting economy measures. For figures see Diokno (1999).
- 28. The Central Bank is labeled as Bangko Sentral ng Pilipinas (BSP) in Table 7.
- 29. Diokno (1995).
- 30. Stiglitz [2000].
- 31. Diokno [1995].
- 32. A government is playing a Ponzi game when it keeps on paying old debts with new ones; see Duo Qin, et. al. [2005].
- 33. In 2006 and 2007, the Arroyo administration borrowed from external sources P284.1 billion and P118.4 billion, respectively. Some P209.9 billion global bonds were floated in 2006.
- 34. A government is playing a Ponzi game when it keeps on paying old debts with new ones. [Duo Qin, et.al. 2005]
- 35. For example, the recent surge in oil and food prices and the slowdown of the U.S. and world economy could raise inflation and slow the growth of the domestic economy.
- 36. See Appendix B.
- 37. Diokno [2005]. The most important are R.A. 8184 An Act Restructuring the Excise Tax on Petroleum Products; R.A. 8241 Additional exemptions to value-added tax, VAT and more recently R.A. 9010 An Act Deferring the Imposition of VAT on Certain Services Imposed in R.A. 8761.
- 38. Philippine Health Insurance Corporation.

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CHAPTER

3

Ernesto M. Pernia

Is labor export a good development policy?

"On the highways the people moved like ants and searched for work, for food. And the anger began to ferment."

- John Steinbeck, The Grapes of Wrath, 1939

ABSTRACT

Labor migration began to be promoted in the late '60s or early '70s by a number of Asian countries plagued by problems of unemployment, poverty, and scant foreign exchange. However, labor export was generally intended to be a stopgap measure while governments were trying to implement policy reforms to whip their economies into shape. Indeed, labor migration as policy has largely faded in many of our Asian neighbors but remains a major development policy plank in our country. What has made the Philippines specially cut out to be a labor exporter? What are the benefits and costs of migration? Is the export of labor sustainable? Are we content being a labor exporter? Is there a need to rethink the country's labor export policy?

INTRODUCTION

My AIM Is pretty modest. It is to provoke a debate on the pros and cons of our country's labor export policy. I thought it's time to initiate or ratchet up the debate because we seem to have acquiesced in being a labor exporter. As you would know, the views on the issue range from hype—"rapid population growth is a good thing because we can export more labor"—to cynicism—"labor export is just some form of legalized human trafficking"!

We first ask the question: what has made the Philippines especially cut out to be a labor exporter? Then, we discuss the benefits and costs of international migration and remittances based on the international and local literature, as well as our own analysis of the data. In the concluding part, we'll raise a few questions to mull over.

Migration—internal or international—is an age-old human behavior. That it has accelerated in recent years attests to persisting socioeconomic inequalities across nations, globalization, and demographic structural shifts. Temporary labor migration, with active government promotion, gained traction in many Asian countries in the 1970s. However, labor export was generally intended to be a stopgap measure while governments were trying to implement policy reform to whip their economies into shape. Indeed, labor export as policy has largely faded in many of our Asian neighbors but remains a major development policy plank in our country.

We argue that the Philippines appears to have been especially suited as a labor exporter owing mainly to twin policy failures that are by now stylized facts. On the one hand, unlike the other East and Southeast Asian economies, the Philippines failed to graduate in a timely manner from its postwar import-substitution industrialization policy toward export promotion and economic liberalization. On the other hand, while it was among the first in Asia to adopt a population policy in 1969, it failed to sustain the policy that is practically nil today and continues to hang in the balance in Congress. On the former policy mistake, it's probably reasonable to add that protectionism—which had among its policy instruments exchange and import controls, tax incentives, tariff structure, and selective credit to preferred industries—helped nurture the culture of corruption that appears to be going berserk today.

The consequences of the policy mistakes are well-known—namely, weak long-term economic performance in the face of robust growth of population and labor force. (I hastened to add the corruption angle here because of the remark from some quarters that our backwardness is due to corruption, which I completely agree with, and that rapid population growth is a non-issue, which I strongly dispute.) Figure 1 shows the country's (a) real gross domestic product (GDP) growth rate year-to-year that appears in a roller-coaster pattern; (b) long-run ("natural") GDP growth rate over the period 1970-2006, which looks virtually flat at about 4.0 percent throughout; and (c) population growth rate over the same period that diminishes slowly from 3.0 percent to 2.1 percent. The difference between the upper and the lower broken lines is of course the long-run

average ("natural") GDP per capita growth rate of 1.45 percent over the three-and-a-half decades. Unimpressive! Muddling through seems to be what we've been used to, like the wanton debauchery of our institutions that we seem to be getting accustomed to.

10 8 6 2 0 1980 1990 1995 1970 1975 198 2000 2005 -2 -6 -8 GDP growth rate - -- Population growth rate -10

Figure 1. GDP and population growth rates, 1970-2006 (in percent)

Source: United Nations Statistics Division.

If we take a longer-term view, 1951-2006 (Figure 2), the picture is even more disconcerting as average GDP per capita growth had been on the downtrend, as economic performance was better in the '50s through the '60s.

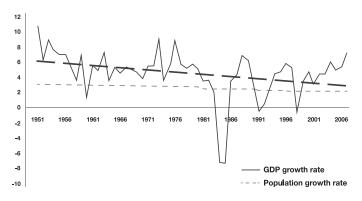


Figure 2. GDP and population growth rates, 1951-2006 (in percent)

Source: United Nations Statistics Division.

The next four graphs (Figures 3-6) compare the Philippines' real GDP per capita long- term trend with some of its Asian neighbors from 1950 to 2003. Figure 3 shows Malaysia parting ways with the Philippines as early as the early '70s. Figure 4 shows that Thailand caught up with the Philippines in the early '80s and said bye-bye thereafter. Figure 5 shows Indonesia and the Philippines intersecting in the early '90s, and finally Figure 6 presents China zooming past the Philippines in the latter part of the '90s.

Figure 3. Malaysia and Philippines, 1950-2003, real per capita GDP relative to US

Real per capita GDP relative to US (US=100)

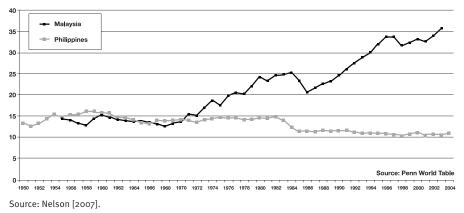
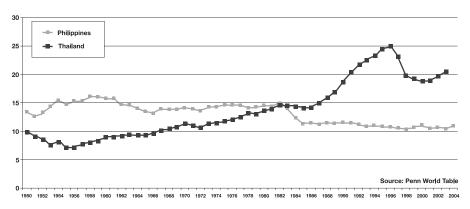
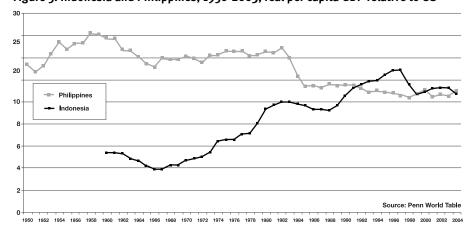


Figure 4. Thailand and Philippines, 1950-2003, real per capita GDP relative to US



Source: Nelson [2007].

Figure 5. Indonesia and Philippines, 1950-2003, real per capita GDP relative to US



Source: Nelson [2007].

Figure 6. China and Philippines, 1950-2003, real per capita GDP relative to US

Source: Nelson [2007].

EXPORT OF LABOR AS POLICY

The Philippine government's policy to promote overseas employment began with President Marcos's Presidential Decree (PD) 442, known as the Labor Code of 1974. This aimed to ensure "the careful selection of Filipino workers for the overseas labor market to protect the good name of the Philippines abroad". Labor export was given further impetus in June 1978 with PD 1412, in which Article 12 says: "It is state policy to strengthen the network of public employment offices and rationalize the participation of the private sector in the recruitment and placement of workers, locally and overseas, to serve national development objectives." Thus were created the Overseas Employment Development Board (OEDB) and the Office of Emigrant Affairs (later the Commission on Filipinos Overseas), which were charged with the promotion, development, and regulation of Filipino overseas employment. In March 1982, the President issued Executive Order (EO) 797 that reorganized the Ministry of Labor and Employment and created the Philippine Overseas Employment Administration (POEA), which assumed the functions of the OEDB and the National Seamen Board.

In March 1991, President Corazon C. Aquino issued EO 450 lifting the ban on new applications for recruitment agencies (earlier suspended by President Marcos's Letter of Instruction [LOI] 1190) to take advantage of new markets for Filipino labor, opening the recruitment market to new players and competition, and potentially increasing the inflows of "much needed" foreign exchange.

In recent years, there has been much hype about the surge in remittances. It has boosted the peso, eased the debt burden, tamed inflation, and contributed in general to a rosy picture of the economy. These positive outcomes have encouraged the government to push further the policy of labor export, highlighted by President Gloria Macapagal-

Arroyo's creative idea that the country should develop "super-maids" for employment in the advanced countries. She promoted OFWs to the status of Filipino "expats"!

MIGRATION

Because international migrants typically are among the better-educated and experienced workers in the home country, their departure often results in a disruption of economic activity. And even when the vacancies are filled, the situation may not be the same as before, as reflected in the quality of goods and services. A deterioration in quality would not be unusual, as is apparent in the quality of education and health services in the Philippines owing to the departure of highly trained teachers and health workers. For instance, health indicators are now lagging behind the Southeast Asian average despite the fact that the Philippines leads in the training of health professionals.¹ However, the deterioration could also be partly due to diminished real budgets for social services [Manasan 2004] owing to the country's less than impressive economic growth and fiscal deficits.

Concerning the brain drain issue, some studies (e.g., Adams [2003]) find that international legal migration is largely the movement of educated persons, with the large majority of those moving to the United States and other Organisation for Economic Cooperation and Development (OECD) countries having secondary schooling or higher. However, they claim that although migrants are well educated, international migration does not take away a very large share of a country's best educated (in general, less than 10 percent of the college-educated or higher). Nonetheless, these studies admit that for a few labor-sending countries, international migration does result in brain drain.

Indeed, other authors argue that international migration leads to a significant loss of highly educated persons for a wide range of countries (Lowell [2002]; Lucas [2005]). Tan [2007] notes that, in the case of the Philippines, there is a creaming off of highly skilled nurses and blue-collar workers; to the extent that the education-training system is unable to produce comparable replacements, at least in the short to medium term, brain drain ensues.

In general, however, the losses to labor-exporting developing countries are not exactly easy to quantify. One aspect is the loss of public funds invested in the education and training of those who migrate, particularly permanent emigrants, which is a good argument for the need to reform the financing of tertiary education. Still and all, it can be argued that the brain drain is probably not an unmitigated bane as there are compensating benefits, such as remittances, other beneficial links that the emigrants maintain with the home country, as well as return migration.²

A World Bank study analysing cross-country data [Adams and Page 2005] shows that international migration exerts a strong negative effect on poverty. For example, a 10 percent rise in the share of international migrants in a country's population is associated

with a 1.9 percent decline in the proportion of the population living below a US dollar-a-day poverty line.

PSYCHOSOCIAL COSTS OF MIGRATION

While the economic costs and benefits of labor migration are relatively well known, this does not seem to be true of the psychosocial costs to migrants and their families. One early study [Fasick 1967] finds that the children of migratory agricultural workers in the United States suffer from severe educational retardation as they have to substitute for the work of their absent parents. Similarly, a Mexican study [McKenzie 2006] points out some unfavorable effects of migration, such as on child care (less breast-feeding and uncompleted schedule of vaccines). Another Mexican study [Aguilera-Guzman et al. 2004] notes that the children of migrants are more susceptible to such problems as drug abuse and absenteeism or dropping out of school. A Caribbean study [Crawford-Brown and Rattray 2002] finds that children left behind are likely to suffer from such emotional and psychological problems as depression, withdrawal, and running-away behavior due to the lack of parental contact and supervision.

A Philippine study [Scalabrini Migration Center 2005] notes that the separation of parents due to migration often results in family breakdown. Apart from the psychosocial disadvantages that befall the children, OFWs themselves have to bear various psychosocial costs in their workplaces. Other studies report that with the feminization of migration, female OFWs, in particular, are subjected to violence and abuses in various parts of the world [Estopace 2002]. Women hired as domestic helpers and entertainers are especially exposed to serious hazards to health and life, including sexual harassment and exploitation, rape, and sexually transmitted diseases and HIV/AIDS [Asis, Huang, and Yeoh 2005].

REMITTANCES

Remittances to developing countries are reported to have risen more than fivefold from US\$ 30 billion in 1990 to US\$ 170 billion in 2005 [World Bank 2006]. The Philippines is reputed to be the world's fourth highest remittance-recipient country after India, China, and Mexico. In 2006, remittances were officially recorded at US\$ 12.8 billion—up 20 percent from the preceding year—and totaled US\$ 14.4 billion by the end of 2007. By end 2008, the figure could hit roughly US\$ 16 billion, representing more than 10 percent of GDP—the highest among the four countries.

The same World Bank cross-country analysis [Adams and Page 2005] cited above finds that the level of international remittances is significantly associated with poverty reduction. On average, a 10 percent increase in the share of remittances in a country's GDP is associated with a 1.6 percent drop in poverty incidence.

In general, however, since labor migrants tend to come from the not-so-poor households, it is the lower-middle to middle-income families who directly gain from remittances. Indeed, a fairly large Latin American study [Acosta, Fajnzylber, and Lopez 2007] covering 11 countries finds that the proportion of remittance-recipient households who are poor varies considerably across countries. Only in some countries are remittance recipients predominantly poor, as in Mexico and Paraguay where 61 percent and 42 percent of recipient households, respectively, belong to the poorest-income quintile. The poorer households could benefit from remittances mainly in subsequent rounds via multiplier effects from increased consumption and investment spending. The size of the multiplier effect may hinge on whether remittances are received by rural or urban households, with the former typically consuming more local products, thereby creating a larger multiplier effect [Adelman and Taylor 1990].

The same Latin American study finds that remittances appear to lower poverty levels although the impact varies across countries and, on balance, tends to be modest.³ study on Guatemala [Adams 2006] shows that internal or domestic remittances tend to reduce poverty somewhat more than do international remittances. Another study on Lesotho [Gustafsson and Makkonnen 1993] finds that if not for remittances, 11-14 percent more households would fall below the poverty line.

A Philippine study [Sawada and Estudillo 2006] reports a similar outcome for the Philippines as remittances represent an income transfer to poor households and an increase in gifts to other households. However, other Philippine authors (Rodriguez [1998]; Tullao, Cortes, and See [2007]) observe that remittances result in higher income inequality, as they tend to benefit more the higher-income deciles.

Researchers on other countries argue that the inequality effect is not straightforward. Some [Chimhowu, Piesse, and Pinder 2003] observe that remittances increase inequality and social differentiation between recipient and nonrecipient households. Others [Carling 2005], on the other hand, claim that migration and remittances would initially worsen inequality when migration costs are high but would eventually improve it as lower-income households are able to afford the lower migration costs. The consensus seems to be that the effect of remittances on inequality depends on the opportunities for migration.

One curious issue is the extent to which family members in remittance-recipient households reduce their work effort—a moral hazard effect on labor supply. There is evidence of a decline in labor force participation among remittance recipients—more among females than males—in El Salvador [Acosta 2007] and in the Philippines (Rodriguez and Tiongson [2001]; Tullao, Cortes, and See [2007]), with the gender effect depending on whether the wife or the husband is the recipient [Cabigen 2006]. But this appears to be matched by an increase in entrepreneurial activities, such as microenterprises for women and self-employment for men (Acosta [2007]; Yang [2004]).

The extent to which remittances are spent on consumption or on investment continues to be a debated issue. But remittances are a fungible resource to the recipient household. Hence, the issue is not whether the money received is actually invested but whether households whose incomes are increased by remittances save more and such savings become available for investment in the local or macro economy. One author [Adams 2006] finds that households receiving internal and international remittances in Guatemala spend less of their incremental income on consumption than do households without remittances. Another author [Mansuri 2007] finds that in Pakistan households with return migrants invest significantly more compared to nonmigrant households and those whose migrant members are still working abroad.

Expenditures on education, housing, and land are, of course, also important forms of investment.⁴ A Pakistani study [Mansuri 2007] observes that remittances have a positive and significant effect on child education and health, with a gender-equalizing effect as the gains for girls are appreciably greater than those for boys. Moreover, with better access to schooling, children in remittance-recipient households tend to work substantially fewer hours.

In Latin America overall, the effect of remittances on the educational attainment of children is generally restricted to children with low levels of parental schooling. In El Salvador, remittances prolong a child's education [Edward and Ureta 2001]. As to health outcomes, in Guatemala and Nicaragua remittances positively affect children's health, especially in poor households.

A study on the Philippines [Yang 2004] finds that households whose overseas workers experienced favorable exchange-rate shocks (during the Asian financial crisis) were able to reduce child labor, increase educational spending, improve child schooling, and afford higher ownership of durable goods. Another Philippine study [Tullao, Cortes, and See 2007] notes that remittances lead to higher human capital investment (education and health).

At the regional level in the Philippines, the more developed regions send more OFWs than the less developed ones, resulting in appreciably greater shares of total remittances going to the former [Pernia 2006]. However, OFWs from the poorer regions tend to remit home bigger average amounts than those from the richer regions. Thus, while remittances may contribute to a widening of the economic disparities across regions, they appear to lift the well-being of poor households even in the lagging regions.

At the macroeconomic level, remittances have greatly helped alleviate fiscal deficits, external debts, trade imbalances, and scant FDIs in developing countries. Foreign exchange inflows, however, often exert upward pressure on prices, requiring skillful monetary management although in the Philippines with its dependence on imports, the effect on prices appears to have been the opposite. Moreover, these inflows may spur a real appreciation of the exchange rate, thereby constraining the development of export-oriented and import- competing industries.

This phenomenon has been likened to the "Dutch disease" problem of Indonesia brought about by the boom in oil exports income, as observed in a number of Asian countries [Quibria 1986], El Salvador [Acosta, Lartey, and Mandelman 2009], Jamaica [Bussolo and Medvedev 2007], and Latin America in general [Lopez, Molina, and Bussolo 2007]. Further, the remittance windfall may have a moral hazard effect as the government softens in pursuing policy reform or improved governance while people are lulled into complacency, as appears to be happening in the Philippines.

ANALYSIS OF PHILIPPINE DATA (2000, 2003, AND 2006)

International remittances and domestic incomes

The mean remittance amount received by households increases monotonically with income quintile and consistently over time (2000, 2003, and 2006). Thus, the positive effect of remittances on household incomes also rises monotonically from about 1.4 percent for the lowest quintile to 5 percent for the middle quintile and about 15 percent for the top quintile, as shown graphically in Figure 7.

18 16 % change in income 14 12 10 8 6 4 2 O Q1 Q2 Q3 Q4 Q5 Q1 Q2 Q3 Q4 Q5 Q1 Q2 Q3 Q4 Q5 2000 2003 2006

Figure 7. Percentage change in household income due to remittance by quintile (all households), 2000-2006

Source: FIES, LFS, and SOF merged data.

If we consider remittance-receiving households only, the poorest quintile has the lowest share (4-7 percent) of households receiving remittances, and this goes up consistently to 36-45 percent for the richest quintile. The impact of remittances on household incomes is indeed larger for all income groups but still greater for the upper quintiles than for the lower ones, rising from 35 percent for the first quintile to 49 percent for the fifth in 2000. In 2003 and 2006, the effect of remittances appears more muted for all quintiles but still rising steadily from about 20 percent for the poorest to 35-45

Q1 Q2 Q3 Q4 Q5

2006

percent for the richest, as shown in Figure 8. (Note that the numbers on the vertical axis are much bigger in Figure 8 than in Figure 7.)

60 eu poor i poo

Q1 Q2 Q3 Q4 Q5

2003

Figure 8. Percentage change in household income due to remittance by quintile (households with remittance), 2000-2006

Source: FIES, LFS, and SOF merged data.

Q1 Q2 Q3 Q4 Q5

2000

A Mexican study [Latapi and Janssen 2006] finds that while the mean remittance amount also increases with income quintile for remittance-receiving households, as in the Philippines, remittances raise by 426 percent the household incomes of the poorest quintile, dropping monotonically to 30 percent for the richest quintile. The substantial positive impact of remittances on the poorest in Mexico can be explained by the fact that as much as 61 percent of all households receiving remittances fall in the bottom quintile, the highest in Latin America, followed by Paraguay at 42 percent. This is not the case in the Philippines where larger proportions of remittance-recipient households belong to the upper-income groups and only about 5 percent are in the bottom quintile.

REMITTANCES ADJUSTED FOR FOREGONE DOMESTIC EARNINGS

The welfare-enhancing effect of remittances shown above may be overstated as it does not consider the counterfactual—namely, what if the migrant, who was earning prior to leaving, had stayed home? This means that household total income sans remittance would be reduced by the departure of the migrant.⁵ The adjustment reveals that the effect of remittances on household incomes is much more modest. Worse, the adjusted with-remittance incomes for the first and the second quintiles in 2006 are reduced by 12 percent and 4 percent, respectively, although less so in 2003, as Figure 9 shows.⁶ Still, the welfare-enhancing effect of remittances rises consistently with income quintile.

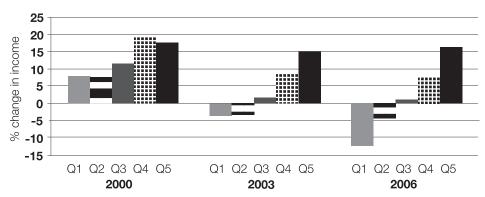


Figure 9. Percentage change in household income adjusted for domestic earnings foregone due to migration (households with remittance), 2000-2006

Source: FIES, LFS, and SOF merged data.

Remittances and poverty reduction

The analysis can also be done in terms of how remittances matter in poverty reduction. In the absence of remittances, there would have been more than 26 million persons (or 33.3 percent of the total population) considered poor in 2003 (according to the official definition of poverty) belonging predominantly to the first two quintiles. In 2006, the corresponding numbers were more than 30 million persons (or 36 percent of the total population). But with remittances, poverty headcount was lower at 24 million and poverty incidence at 30 percent in 2003, and 27 million and 32 percent, respectively, in 2006. In other words, remittances helped reduce poverty by 2-3 million persons. Still, poverty incidence was only slightly reduced for the first two quintiles but practically wiped out for the upper quintiles.

On the whole, the poor households appear to benefit from remittances but only modestly compared to the richer households. Given that bigger proportions of the upper-income groups receive remittances and, indeed, greater average amounts, the beneficial effect of remittances is skewed in their favor. A similar modest effect is reported in Latin America, except in Mexico and Paraguay where large proportions of remittance-receiving households belong to the bottom quintile.

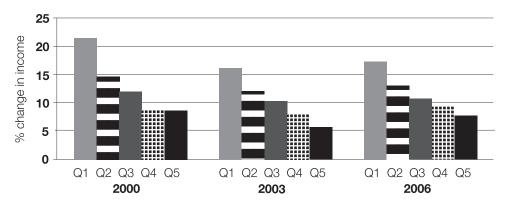
Internal remittances

Apart from international remittances, households do benefit from internal (or domestic) remittances as well. The data show that the proportion of households receiving internal remittances is highest for the bottom quintile at 43-56 percent for 2000 and 2006, respectively, and declines consistently to 20-31 percent for the top income group. And while the average remittance amount still increases monotonically with income quintile, the effect on household incomes is the reverse of that of the

international remittances: it is strongest for the poorest at 17-22 percent, dropping also consistently to about 8 percent for the richest, as portrayed in Figure 10.

It thus appears that internal remittances are, at the margin, both more welfare-enhancing for the lower quintiles and inequality-improving than are international remittances, which is consistent with the finding for Guatemala [Adams 2006]. This is attributable to the fact that a good deal of internal migration is made up of rural-urban migrants who may work in lowly occupations (e.g., domestic help) but are nonetheless the principal sources of support to poor households in rural areas.

Figure 10. Percentage change in household income due to domestic remittance (households with domestic remittance), 2000-2006



Source: FIES, LFS, and SOF merged data.

ECONOMETRIC ANALYSIS

Remittances, household incomes, and poverty

To enhance the descriptive analysis, we carried out econometric analysis to address the question: to what extent can remittances raise household incomes and alleviate poverty, and influence investment in human capital, labor force participation, and household saving, controlling for the confounding influence of other variables?⁷ Here, we present the main results.

The effect of remittances on household incomes is positive and highly significant, controlling for the education of household head, dependency ratio, and the income class of the province of residence. Further, our analysis shows that the share of remittances in household income raises the likelihood of a household getting out of poverty, other things being equal.

Remittances also strongly influence education spending per school-age child, controlling for nonremittance income besides the other variables. Similar results are revealed in the case of health care expenditure per household member. To illustrate,

remittance-receiving households are able to spend Php 1,788 more for education per child compared to households that do not get remittances; the corresponding incremental amount for health care is Php 668 per household member.

Other things being equal, remittances appear to exert a negative effect on the share of employed persons in the household. This negative effect on total household work effort may be interpreted as a complacency effect, as also reported by earlier studies on El Salvador [Acosta 2007] and on the Philippines by other authors (Rodriguez and Tiongson [2001]; Tullao, Cortes, and See [2007]). Alternatively, it may be that children, who used to work, stop working as remittances enable them to go to school.

Further, remittances, ceteris paribus, appear to have a positive and significant effect on household saving behavior.

Remittances and regional development

The question of whether remittances contribute to development at the local or community level can be examined through analysis of regional data. Based on the literature review, the hypothesis is that remittances benefit not only the recipient households directly but also the nonrecipient households in the local economy via the multiplier effects of increased spending by remittance-recipient households.

Our analysis shows that remittances have a positive and significant effect on the well- being of poor households, as reflected in higher family spending per capita of the poorest 40 percent of households, controlling for the effects of other variables. To illustrate, an increase of Php 1,000 in remittance per capita results in Php 1,789 additional annual family spending per person among the poorest quintile. Roads, education, and health also appear to be particularly important factors that improve the poor's welfare; by contrast, overall increases in gross regional domestic product (GRDP) per capita (or regional development per se) do not seem to matter to the poor's well-being.

Remittances appear to contribute significantly to regional development through increased spending for consumption, human capital and housing investments, and consequent multiplier effects. However, because the more advanced regions tend to get bigger shares of the total, remittances may contribute to regional divergence rather than convergence (Go [2002]; Pernia [2006]). As expected, roads, water, education, and health infrastructures are critical to regional development.

Does the positive impact of remittances on expenditures or incomes of the poor in the regions mean poor people getting out of poverty? Consistent with the results discussed above, the answer is yes. To illustrate, a 10 percent increase in the share of remittances in household income is associated with a 2.6 percent rise in the proportion lifted out of poverty, controlling for other variables (such as education and health).

CONCLUSION AND POLICY IMPLICATIONS

We took off from the premise that the Philippines appears to be stuck as a labor exporter owing mainly to twin policy mistakes: (a) a long-lived import-substitution industrialization policy, whose protectionist policy instruments probably helped nurture the culture of corruption that has permeated the social fabric, and (b) a short-lived population policy. The consequence, of course, has essentially been and continues to be too many Filipino workers chasing too few jobs in the domestic economy.

On the whole, international remittances appear to have greatly helped Philippine households and communities muddle through over the past three decades or so. However, it seems that labor export cannot be relied upon as a policy for reducing poverty, redressing income inequality and, for that matter, fostering the country's long-run development. If it could, why has the country just been muddling through for the past three decades or so? In the coming years, as the global labor market demands higher-level professional and technical workers, and to the extent that—rather, if—labor supply can respond, remittances could result in persisting social inequality. We should realize, though, that our human capital industry has its limits.

Likewise, although remittances seem to have greatly benefited the macro-economy in terms of its external current account, debt service, and some unemployment relief, the remittance bonanza appears to have made it convenient for the government to shirk difficult policy reforms. Other Asian countries, such as South Korea, Taiwan, and Thailand, which adopted labor export as a temporary measure, pursued policy reforms directed at both the labor demand and supply sides, enabling their economies to move up to rapid and sustained growth paths.

Migration is arguably causing brain drain, not to mention the psychosocial costs borne by the migrants themselves and their families left behind. It seems obvious that continued reliance on labor export is bound to further compromise the country's human capital requirements for long-term development.

Is the export of labor sustainable? Are we content with the "blue-collar" business of exporting labor? If we are, what needs to be done to stretch the limits of our human capital industry? If we are not, what's the alternative? In general, is there a need to rethink our country's labor export policy?

We should perhaps demand that those aspiring to be the next president be made to convincingly respond to these and related questions.

ENDNOTES

- 1. For example, while infant mortality rate had dropped to 29 per thousand in 2001, it is higher than those in Malaysia and Thailand; moreover, as much as 40 percent of women deliver babies without an attending physician, nurse, or midwife.
- 2. Good examples are the Chinese and Indian diasporas that are playing an important role in the continuing rise of foreign direct investments (FDIs) into China and India. Likewise, both countries are experiencing return migration, either permanent or circular.
- 3. The Latin American countries include Bolivia, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Paraguay, Peru, and the Dominican Republic.
- 4. These investments reflect a rational behavior on the part of the family particularly when the investment climate is unfavorable or other investment vehicles are not readily available.
- 5. Mean nonremittance income per capita seems like a reasonable proxy for migrants' average foregone domestic earnings as, in all likelihood, not all migrants were employed prior to departure for such reasons as overqualification for available jobs, discouraged worker phenomenon, preoccupation with departure plans, etc.
- 6. Perhaps due to the assumption that at least one household member was earning average income prior to departure, which may not be true of the first and second quintiles.
- 7. The procedure is discussed at length in the main paper.
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CHAPTER

4

Learning from the global economic crisis

Cayetano W. Paderanga, Jr. 1

ABSTRACT

The world needs an international monetary system that promotes global price stability, facilitates world economic growth, and ensures global financial stability. Global crises provide rare opportunities in reforming the international monetary system. The ability to provide adequate liquidity, timely and adequate adjustment of imbalances, and reduced risk has proven to be elusive under the current system centered on the US dollar. The stability of the global economic system, in effect, hinges on the United States being the deficit country of last resort. There is a need for fundamental reforms in the current dollar-centric system. This paper presents proposals for reformation of the international monetary system.

INTRODUCTION

By Almost all accounts this is the worst financial crisis since the Great Depression. As of February 2009, the United Kingdom, Japan, and the United States had suffered absolute declines of -0.50 percent, -11 percent, and -1.5 percent, respectively, in their gross domestic product. And China's rapid growth rate decelerated to 6.5 percent from a high of 11 percent at one time. Other countries have suffered similar if not worse fortunes. There are indications that things will get worse before they get better. For a crisis of such depth, length, and breadth we may have to go back to the 1930s to look for close parallels.

HOW IT STARTED

How did it all start? Armed with almost perfect hindsight we attempt to understand the origins of the crisis, fully aware that very few people, including most of us in my profession, foresaw the consequences of the developments we described at the time these were happening. However, if we examine the causes, we may understand the steps to be taken to get out of it. Further, we may also learn how to avoid the major aspects of the crisis in the future. Perhaps, there will be another crisis as deep as this one, but at least not from the same causes. Better still, of course, if we learn how to avoid it altogether.

Roots of the crisis: overconsumption in developed countries

The roots run deeper than may seem apparent at first. One of the sources may have been the overconsumption of developed economies, especially the United States, confronted with the cost competitiveness of newly emerging economies like China and India. This combination of mature economies and efficient production by new producers became apparent about a quarter of a century ago. As a result there was tremendous growth in trade volumes in the last two decades or so of the 20th century. It was a product of the increasing integration of global product markets. As emerging economies took advantage of the opening of world markets, their low-cost production (based on low wages and other cost advantages) confronted mature economies, with their inflexible production structures, giving these older economies access to cheaper goods. As the flow of goods from these newly industrializing economies accelerated, it caused a continuing flow of funds from countries suffering balance-of-trade deficits to those with surpluses.

The other major cause of the crisis, rather easy monetary policy, may be described as the other side of the overconsumption coin. However, I discuss overconsumption separately because it implies a structural imbalance that will need to be addressed above and beyond the tightening of monetary policies. It implies, among other things, a radical rearrangement of world trade flows if rapid global growth is to continue in an orderly manner in the future. While we notice a generally one-way flow of goods during the

rapid growth of global trade and production of the last 25 years, we will have to see a more multidirectional pattern of trade and a more varied distribution of specialization among producers going forward. Besides, when one examines the timeline of the trade imbalance, the large deficits of key countries persisted even during periods when their monetary policies can be described as less easy—although the two broad threads clearly coincided in the most rapid buildup of the last decade. That is also why I would like to emphasize that this global crisis goes beyond the subprime credit crisis.

Balance on services

Balance on services

Unilateral current transfers, net

Current account balance

-800

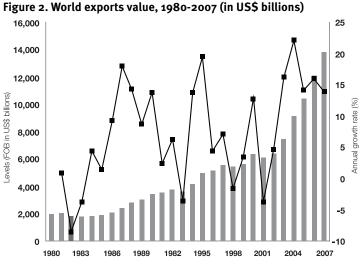
Balance on services

Balance on services

Balance on services

Figure 1. US BOP by components (in US\$ billions)

Source: US Federal Reserve Board (US Fed).



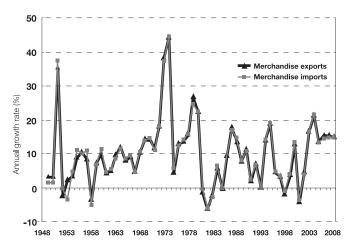
Source: International Monetary Fund (IMF).

25 16,000 14,000 20 12,000 15 Levels (FOB in US\$ billions) Annual growth rate (%) 10,000 8,000 5 6,000 4,000 2,000 n 1983 1989 1995 1998 2001 2004 2007 1980 1986 1982

Figure 3. World imports value, 1980-2007 (in US\$ billions)

Source: IMF.





Source: World Trade Organization.

The production and trade imbalance created a recycling problem for the main exporters that could be cured by either a depreciation of the currencies of deficit economies or a remedial capital flow from the surplus countries. To maintain their cost competitiveness, surplus economies chose the latter (i.e., chose to maintain their existing exchange rates), shipping what later accumulated to several trillion dollars of funds to purchase earning assets from deficit countries. While we use China to illustrate how the process took hold, we need to be conscious that this phenomenon came out of a strategy

rooted in development lessons of the last half-century and was part of a major push for economic growth by many countries generally described as emerging economies.

Figure 5. BOP deficit/surplus as % of GDP for selected economies

Source: IMF.

For the United States, the supplier of the de facto global currency, this was masked by the need to produce a moderate balance-of-payments (BOP) deficit in order to provide the money supply needed by the rapidly expanding volume of world trade. This veil was extended when the collapse of the socialist economies created almost two dozen new capitalist economies with central banks that loaded up in the global currency as foreign exchange reserves to support their entry into the world trading system.

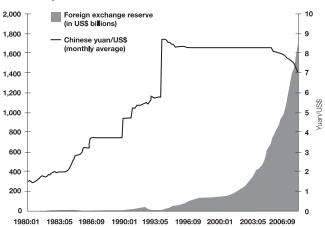


Figure 6. China's foreign exchange reserves (in US\$ billions) and exchange rate (Chinese yuan/US\$)

Source: IMF.

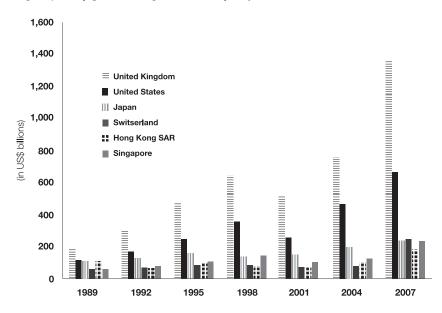


Figure 7. Daily global foreign turnover, by major markets (in US\$ billions)

Source: Bank for International Settlements.

These flows of both cheap goods and funds had two salient results in the recipient countries: the inflow of cheap goods reduced their inflations rates, strengthening their currencies and thereby harming their manufacturing sectors; and the flow of funds inflated asset prices and reduced the return on investments. And in the year 2000, when the dot-com bubble burst, the low-inflation environment allowed the central banks, led by the US Federal Reserve, to combat the incipient recession by continually reducing the interest rates. This further enhanced the budding asset-price bubble and aggravated the already low returns on investments, inciting a frantic search for higher-yielding alternative investments. They found the solution in subprime credits and inflation hedges like minerals and agricultural commodities.

Subprime credits became the centerpiece of a (financial) marketwide effort to stem the decline in investment returns and to extend the reach of the financial markets to the rest of the world. This brought into play a huge reservoir of capital that swirled into a crescendo of financial activity. This was facilitated by financial innovations related to the securitization of subprime mortgage loans into collateralized debt obligations (CDOs) and the "originate and distribute" business model of selling these assets. In the meantime, the United States repealed the insulating restrictions between banking and other financial services like insurance. This increased the size of the financial market and the market players at the same time that it allowed the increased exposure of banks to the volatility of the financial markets.

Business rationality and market myopia

Where did it all go wrong? How do we prevent its recurrence? These questions go through the minds of the policy makers and the public who have been the main victims of the global financial crisis. Among the main questions asked these days is how regulators could have missed the signals and how they could have allowed the problem to get out of hand. Among the salient features of this crisis is how it started in the financial markets rather than among banks. Thus what froze was "market liquidity" when the rapidly dropping asset prices cause funds to flee financial markets, rather than "funding liquidity" with banks running out of funds as depositors withdraw their funds. Among the main factors identified in the market freeze are new financial structures called structured investment vehicles (SIVs) that made substantial use of innovative financial instruments, including CDOs.

Structured investment vehicles were financial structures set up to exploit the availability of funds provided by the recycling of funds from surplus economies and to avoid the low investment returns (and parallel asset bubbles) in the face of growing liquidity. These were set up to issue short-term instruments and turn around to buy higher-yielding longer-term notes, a practice known as the carry trade. This type of operation carried the inherent danger posed by "a term mismatch" where short-term borrowings finance long-term assets. If short-term rates were to suddenly rise, these activities could result in substantial losses. Further, using short-term fund sources created uncertainty about the stability of the financing used.

The activities of SIVs were facilitated by the increasing availability of securitized subprime credit instruments essentially based on homebuilding loans that were supported by the Federal National Mortgage Association (FNMA, hence Fannie Mae) and the Federal Home Loan Mortgage Corporation (FHLMC, hence Freddie Mac). These asset-based securities became known as collateralized debt obligations. The presence of a vigorous secondary market made possible the tranching of these securities, producing highly rated instruments that allowed the market to attain much higher volumes of financing.

Unfortunately, the temptation of increasing profits through these instruments was too strong and the market expanded, among others, by resecuritizing these securities up to a few levels. As the original loans were packaged and repackaged into increasing levels of securitization, their underlying credit weakness became submerged and the market forgot how low the basic credit foundation was.

This phenomenon was facilitated by a financial institution meant to strengthen the credit process: credit rating. Credit rating is one of the main pillars of modern financial markets, acting as an instrument for controlling risk. To rein in overly risky behavior by investment managers and credit managers, provide more information for investment and credit decisions, and protect the public, the Securities and Exchange Commission (SEC) requires that public issues of bonds and other credit instruments be

rated by accredited credit rating agencies (CRAs). To encourage prudent lending and portfolio decisions, central banks have increasingly implemented the Basel accords that require risk weighting for banks' risk (earning) assets. Under the standardized approach, credit ratings are used to minimize the chances of bank failure due to unexpected losses (i.e., over and above the allowance for bad debt losses) by providing for adequate capital to cover risk-weighted assets.

2,000

1,500

1,000

1,995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

Residential mortgages Sub-prime mortgages Commercial mortgages

Other asset-backed securities (includes car, credit card, and student loans

Figure 8. Global issuance of mortgage-backed bonds (in US\$ billions)

Source: Fitzgerald [2008].

The SEC requirement ensures that investors unable to afford their own individual credit investigation efforts have enough information to guide their investment and lending decisions. Since the issuance of debt to the general public has tremendously raised the amount at risk, credit rating has become an armor against wholesale losses by investors in the financial markets. The central bank rule is meant to ensure that banks are insulated against failure and, therefore, safe counterparties in the credit business. If individual banks cannot survive loan defaults, then they also create trouble for the next bank in the chain of lenders and that bank to the next bank and so on. This kind of systemic failure is minimized as risk weighting and capital cover allow the banks and other lending entities to successfully absorb unexpected losses at their turn, thereby stopping the contagion chain mentioned above. These examples show the key role of credit rating in modern financial systems.

Still, credit rating (and other risk-mitigating methods) failed to prevent the financial meltdown. In fact, some features of the credit rating system—coupled with other innovations like the securitization of subprime mortgages and deregulation (e.g., repeal of Glass-Steagall) that allowed the fusion of the banking and financial services industries—may have tolerated the underestimation of risk and even amplified the overall danger, individually for lenders and collectively for the market as a whole. The rating process typically involves assessing the issuer of the instrument. In the case of the collateralized debt obligations where debt servicing ultimately rests with the original borrowers (i.e., the mortgagors of the properties) of the underlying contracts, the rating would focus on the issuers of the bonds (perhaps real estate investment trusts or REITs) or the guarantor. By slicing CDOs into varying tranches of seniority, REITs and similar funds are able to issue instruments rated AAA even though based on underlying subprime instruments. When the issuers are highly rated or the issue is guaranteed by highly rated entities (like Lehman Brothers), then the assets are carried at higher value (risk weights are low). Given the high interest rates that subprime credits carried, these instruments were very attractive to investors.

Somehow lost in the shuffle was the fact that the ability of the mortgagors (with low ability to pay) to service the underlying debt was very sensitive to market shifts such as changes in interest rates. When interest rates rose, the original mortgagors started defaulting and even AAA-rated papers were not protected by the tranche feature. Something similar had happened about a decade earlier when a market shift blindsided the Long-Term Capital Management Fund (LTCM).

The credit rating process became an unwitting partner of the magnification of the risk because it lent a (falsely) reassuring tone to the acceptance of what were essentially risky instruments. A frequent rule in guidelines for pension funds, investment, and similar committees include rules that investments "must be AAA-rated" or "must be investment grade," etc. Disciplined boards and committees could rest assured that they had done their fiduciary responsibilities by adhering to the rules of prudent investing. After all, they had followed all the rules of financial prudence. This phenomenon is a variant of the market failure traceable to "moral hazard" similar to the loss of market discipline if deposit insurance (especially if subsidized) is too high. Just because the instruments are credit rated, decision makers become careless in ensuring that default risks are minimized.

While individual responsibility may have been practiced, unknown to most participants in the financial markets, a dangerous mixture of highly combustible risk was building up. Paradoxically, the comfort provided by high credit ratings may have abetted this hazard. Reassured by the use of credit ratings, risk managers, credit committees and similar bodies contentedly allowed their investment managers to continue investing in this type of instruments. Business rationality and market myopia were combining into a highly dangerous recipe for disaster.

The beginning of the end came when the extraordinary demand for dollars finally came to an end. The large balance-of-payments deficit finally translated into a weakening US dollar. Around this time, increased militancy by the *Organization of the Petroleum Exporting Countries* (OPEC) also led to rising oil prices and, connected to this, increasing prices of minerals and other commodities. This led to accelerating inflation that induced central banks to raise interest rates. Higher interest rates resulted in rapidly declining asset values, especially the value of houses. Declining house prices exposed the inherent inconsistency in subprime credits—the borrowers could not afford to service their debts especially with higher interest rates—and the defaults started. The resulting decline in asset values led to losses that squeezed the credit markets in a crisis of market liquidity. When the credit markets froze, the absence of operating capital and short-term funds led to higher interest costs and shutdowns in the real economy, leading to losses, layoffs, and the general economic malaise.

HOW THE CRISIS HAS EVOLVED SO FAR

A few months after large US banks had uncovered their exposures to subprime mortgages and collateralized debt obligations, the important question is: where are we in this downturn? In early 2008, Paul Krugman of Princeton University said in an interview with Yang [2008] that "\$1 trillion of losses on mortgage-backed securities [will be] showing up somewhere". (That now looks like a gross underestimate with recent numbers in the 3-4 trillion dollar range.) He also said that the financial impact "looks like a combination of 1990 and 2001, and probably bigger than both combined". He continues that "if the recession started in January 2008, then that would mean that July 2010 is the first month we have anything that feels like a recovery" and he "wouldn't be surprised if it goes longer than that". In mid-2008, Professor Nouriel Roubini of the New York University wrote in his EconoMonitor blog (www.economonitor.com): "The worst is ahead of us rather than behind us in terms of the housing recession and its economic and financial implications." The numbers have since gone in the general direction they had pointed out. The US economy has since declined by 0.9 percent in 2008, the United Kingdom has grown minimally by 1.1 percent, and Japan has contracted by 0.6 percent.

About 20 million people, accounting for about a fourth of US homes, were saddled with paying for more than their houses are worth. In April 2008, the stock of houses was at its 26-year high, while house prices continue to decline. Prices in January 2009 fell at an annual rate of 11.4 percent, the highest in 21 years. With more foreclosures going daily, expectations of declining house prices through the rest of the year fed the pessimism. The US housing sector and its impact on consumer spending weighed heavily on the economy.

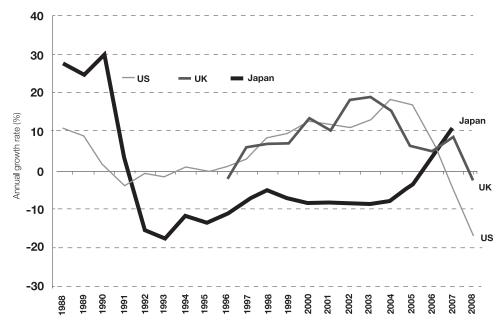


Figure 9. Housing price trends for selected countries

Sources: Standard and Poor's Ratings Services (S&P), Japan Real Estate Institute, and UK Land Registry.

Adding to these woes are tighter credit conditions. Lenders undertook a mass freezing of home-equity credit lines. Rising delinquency rates in auto loans and credit card payments heightened continued risk aversion by lenders. The delinquency rate on indirect auto loans—which buyers get from dealers themselves—and credit card delinquencies rose to their highest levels in several decades. Various business and consumer confidence indices kept on declining.

These dire numbers have been repeated in various ways in other developed countries that served as major export markets for the Philippines.

HOW IT REACHED THE PHILIPPINES AND OTHER EMERGING ECONOMIES

Impact on the Philippines

Many people wonder what and how much the impact of the US recession on us has been. Most developing nations rely on America as their largest export market, not only for goods but also for services. US companies have investments and subsidiaries in Asian countries, which provide employment and spur growth in investments. US investors have also included emerging market stocks in their portfolios to diversify; some invest in riskier assets in Asia for higher potential returns. Volumes of domestic assets are

held by US investors, and the reverse is also true. These interrelationships make a lot of countries vulnerable to the US economic situation.

A lot of discussion has been on the degree of "decoupling", or whether other economies have reduced their dependence on the US economy to such an extent that the adverse impacts of downturns in the latter are diminished. This concept is not new. When the United States went through a recession in 2001, China's growth only fell by less than a percentage point to grow at 7.3 percent, as strong domestic demand helped cushion the huge decline in exports. In 2007, Asian countries enjoyed healthy growth while the US housing sector slumped and the subprime mortgage crisis exploded. Local currencies strengthened against a weakening US dollar, while stock markets rallied.

There are two views. One says that we are still much affected by the US recession, and developing nations have not decoupled from the United States. As the recent declines in the stock indices of Asian countries show, the subprime mortgage crisis has had spillover effects on markets outside the United States. US investors fled from risky assets to safer ones, and the sell-off led to declines in Asian stock markets. The drastic reductions in exports of export-oriented Asian countries also confirm this. And financial markets all over the world, including Asian institutions that do not have substantial exposures to soured CDOs and mortgage-backed assets, have been strongly affected by movements in developed economies.

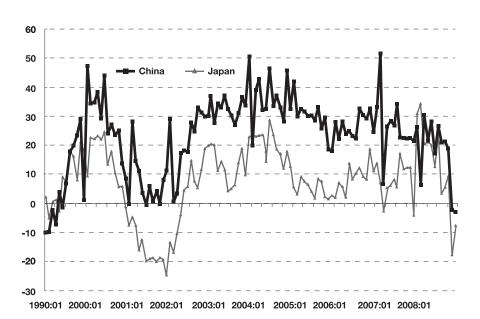


Figure 10. Monthly export growth rate for China and Japan, 1999:01-2009:01

Source: IMF.

The other view says that we are somehow insulated from the impact of the US recession. Some private forecasters share this view. According to some quarters, forecasted growth of emerging markets in Asia, although slower than their previous year's, are more than twice that of developed countries. This conjectured insulation is puzzling in an era of globalization. Economies of developed and developing nations would have more interrelationships with each other. Then again, globalization and decoupling may not be totally opposite each other. The two forces can coexist. In the past, emerging economies were more coupled with developed countries, especially the United States, and less with the rest of the world. Now emerging countries have become more globalized—that is, they have expanded their relationships to other economies, especially with neighboring countries.

This is certainly true of Asia. Globalization has played a hand in allowing economies to decouple from the United States in at least two ways:

First, globalization has resulted in stronger trade relationships among Asian countries. In the Philippines, the current share of exports to the US has declined from 30 percent to less than 20 percent since 2000. Demand from other neighboring countries helped offset the decline in exports resulting from sluggish US consumer demand. Also, China has become a rising force in the region's trading activities. BCA Research reports that emerging markets, as a group, now export more to China than to the United States. At the same time, the internal growth of China is now hoped to minimize its dependence on exports to the United States. This partly explains the expectation of Chinese growth of about 6 percent despite a deep slide in exports.

Row 24.2% 17.0% 17.0% 17.0% 17.0% 17.0% 17.0% 17.0% 14.5%

Figure 11. Major export partner, 2007

Source: BSP.

Second, globalization has helped support the growth of the middle class. With the growth of industries, higher production and income generation have led to strong consumer spending. This supports the growth of interregional trade. More important, it also illustrates that growth in Asian countries are slowly becoming internally driven by domestic consumers In turn, increased purchasing power helps spur investments and capital growth, as businesses rise to meet domestic demand.

For the Philippines, although the United States remains our biggest trading partner, the decline in our export dependence suggests that we are, to a small extent, decoupled from the United States. The same may be said for other emerging markets. Although we are unable to fully quantify its effects, we can expect it to continue, especially with the growth of large countries such as China and India. The future degree of this decoupling may ultimately determine how we and other emerging markets will respond to future shocks coming from other parts of the world.

The impact on the Philippines has gone through five channels. First, through the impact on confidence and purchasing power because of the asset losses of higher-spending levels of the population, magnified by the losses suffered by banks. Second, through the added losses to the investing public as portfolio investments flowed out leading to lower asset values in the country, and in turn leading to much more difficult mobilization of investment resources in the equity and credit markets. Third, through the difficulty of raising direct investment capital (FDI) in the developed markets (to persist over the next few years). Fourth, through the impact on exports as our overseas markets contract (by October as large as negative 37 percent). Fifth and last, through the feared impact on overseas Filipino worker (OFW) deployment with the resulting adverse effect on the main engine of Philippine economic growth, OFW remittances. This last impact is still developing and will have to be monitored.

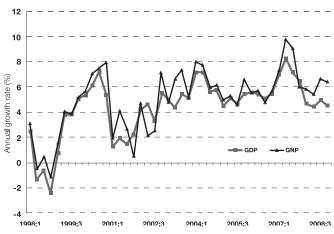


Figure 12. Philippine economic growth, 1998:Q1-2008:Q4

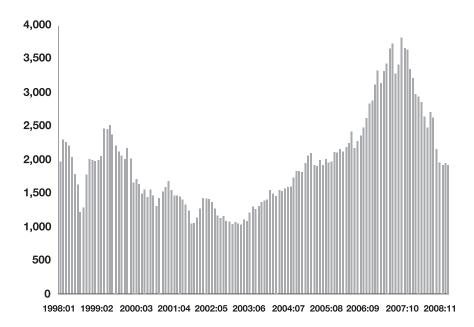
Source: NSCB.

60
40
20
-40
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1998:01 1999:02 2000:03 2001:04 2002:05 2003:06 2004:07 2001:04 2006:09 2007:10 2008:11

Figure 13. Monthy merchandise trade growth, 1998-2009

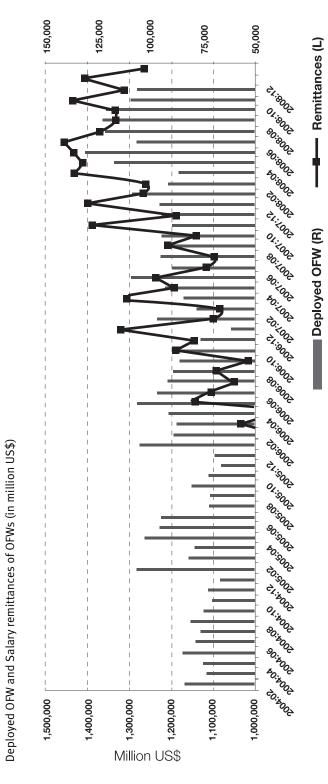
Source: NSCB.

Figure 14. Philippine composite index, 1998-2009



Source: BSP.

Figure 15. OFW remittances and deployed OFWs, 2004:01–2008:12



Source: BSP.



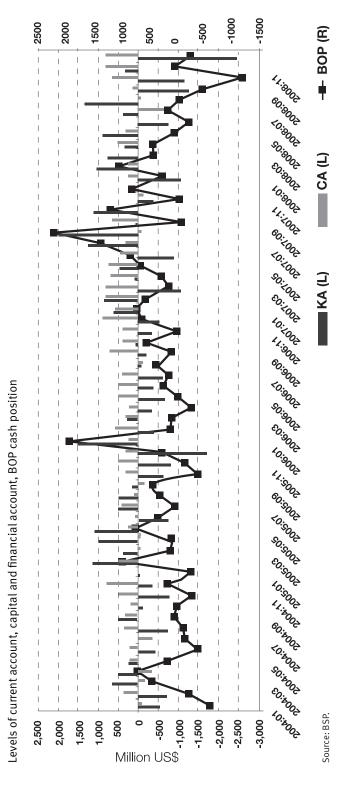
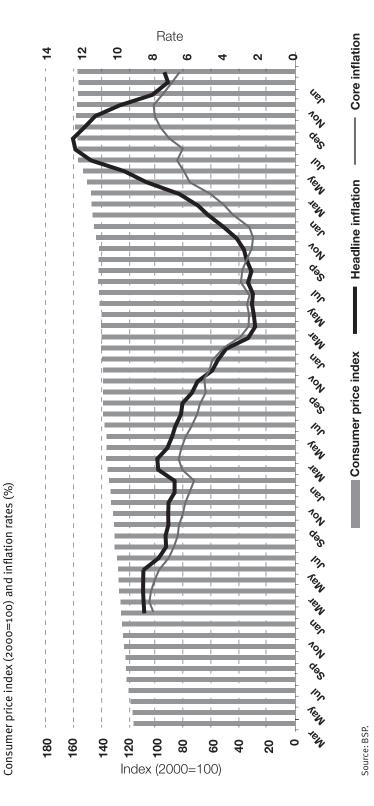
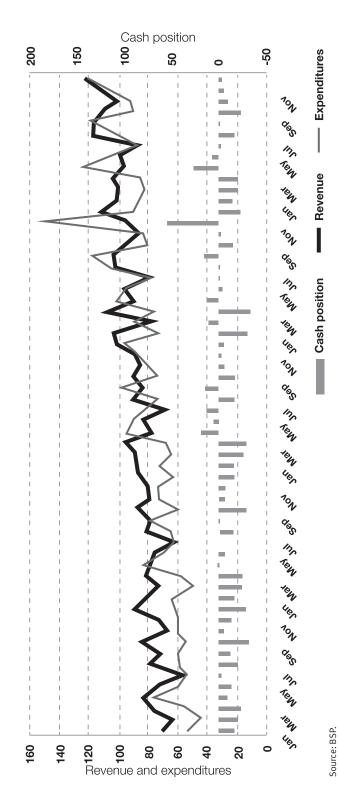


Figure 17. Consumer price index, 2004-2008



Levels of national government revenue, expenditures and overall cash position (in million pesos) Figure 18. NG cash operations, 2004-2008



How long it will take

So where are we in the global recession? Here I use the US financial markets as the entry point of analysis because they serve as main hub of global finance. And I use the stock market as a bellwether, arguing that with the fungibility of funds we would expect a similar level of activity in the other markets. Anecdotal hypotheses among market players indicate that when the market crisis is domestic to the United States, the period from the downward slide in the stock index to the end of the long tail of relative inactivity lasts about eight months. If the crisis is global, the period stretches to 16 months. If one dates the slide from July to September of 2007, this global meltdown may see some return to significant trading activity around this time. Given the depth of this crisis, one may add a few more months to the long tail. In that vein, the recent jumpiness of the New York stock indices probably points toward some revival. It signals a possible stop to the continued slide in stock prices. As prices gyrate, the one-way bet downward is eliminated, and some money can actually be made on correct guesses of prices. Funds may start flowing back into the financial markets and the reawakening of credit can start.

However, the rehabilitation of financial markets will take time. There will be a lag. After a period of financial revival, the real economy can also recover but that will also take time. As these happen, the beneficial effects on emerging markets will then follow. (And a structural adjustment to correct the large balance-of-payments imbalance of developed economies, especially the United States, will mean an additional step before the recovery of our own exports). In sum, while there are hopeful signs, the period of recovery will still take time.

HOW WE COULD GET OUT OF THE CRISIS

How will we get out of it? This question has been intensively discussed in several venues around the world, among country leaders and in multilateral meetings. A major issue has been the differing attitudes of policy makers toward the propriety, manner, and size of bailout or stimulus programs.

There seem to be two main positions on the bailout and stimulus programs. One, mainly advocated by the United States, encourages the expansion of government expenditures in order to shore up aggregate demand, rescue pivotal financial institutions to revitalize credit, and participate in asset markets to hasten the discovery of property valuation and thereby shorten the period of inactivity. The other is wary of these actions. First, some policy makers are concerned that these packages would lead to large budget deficits that would burden present and future generations. Further, there would be attendant side effects such as lowered credit ratings and higher interest costs as leverage rations rise above some threshold levels. The second worry is the moral hazard that the stimulus programs and rescue packages may introduce into the behavior of major

private players. Key corporations and institutions, having experienced being saved by governments at this time, may come to expect that they would be too important to fail under other circumstances. As a result, they would become less careful in their activities and less vigilant in their dealings with others. This resulting lax behavior may actually increase the chances that crises like the present one will happen in the future.

There could be two reasons for this difference in attitude between the United States and some of its group partners. One is practical and the other is ideological. The first reason is that their positions may not be symmetric. Most of the international assets that reside in various countries and being traded across borders are denominated in US dollars. As leverage ratios deteriorate, lowered confidence may amplify risks associated with operating and owning assets in specific countries, concerns that occupy foreign policy makers. The United States is largely exempted from the uncertainty coming from currency mismatches (which happens when the cash receipts and disbursements are denominated in different currencies) because most of these cross-border assets and liabilities are denominated in dollars. Having one less risk to worry about—currency risk—may allow the United States more flexibility than otherwise. Besides, as the supplier of the de facto global currency, it in a way owns the money printing press and this allows it much more leeway in expanding the money supply. Thus, there is a fundamental difference in situation between the United States and other countries.

The other difference could be ideological in the sense that the two concerns mentioned above and other reasons are inherently ingrained in the psyche of some people, leaving them with a basic distrust of government initiative as a matter of balance in policy making. For some people, it would be best if markets were free to choose winners and losers and free to reward and punish. While others are more preoccupied with the inability of the market to make allowances and control how private actions affect other market players, some are more worried about using policies to mitigate these side effects. In fact, this attitudinal difference may explain a large part of the difference in approach between the Obama and Bush administrations (aside, of course, from the difference in the degree of the crisis during their terms).

The four-pronged approach

The center of the battle for recovery is the United States. What has emerged is a four-legged approach: bank rescues, purchase of toxic assets to unfreeze credit, increased fiscal expenditure to temporarily replace lost consumer demand due to unemployment and the loss of consumer confidence (the classic Keynesian liquidity trap), and a direct approach to cure consumer insecurity by workouts of the housing mortgages. Only time will tell how long it will take for the recovery to finally take root. But it might be useful to explore the conditions required for this to happen.

The strategy approaches the problem from the two ends of the low-spending freeze. The first looks at the start of the credit-expenditure sequence and breaks into the first two components of the program: (a) purchase of "toxic" assets to revitalize the financial markets by facilitating the price setting ("price-discovery") for rapidly deteriorating asset values and (b) the rescue of key banks and other financial institutions at the core of the financial system. The aim here is to unfreeze credits. Price setting the financial assets halts the continuing slide in market values and deterioration of balance sheets that produces the uncertainty as to whether the counterparties to transactions can ultimately pay for obligations they incur. When asset prices stabilize, then firms can book their losses, restate their capital values, streamline and restructure their liabilities, and base their plans on firm balances sheets that are also more transparent to their creditors, suppliers, and even customers. As a result, credit can restart and loans to both financial and operating firms can be extended in the normal course of business. The economy can then start its path to recovery.

The rescue of banks reinforces this effort by putting a stop to the chain of uncertainties that bedevil a collapsing market. A market freezes because participants cannot be sure if their counterparties can fulfill their obligations. Even if a party looks healthy, it can deteriorate rapidly in the face of defaults by its own debtors and customers. This condition leads to a chain of uncertainties that eventually dries up credit, leading to suspension/delay of operations leading in turn to losses and, eventually, insolvency by firms. A government rescue of key financial institutions keeps the credit flowing by enlarging (even unlimited if the government provides full standby credit or outright ownership) the budget for absorbing by these banks until the economy can grow out of its predicament.

The other end of the recovery program works on the eventual object of credit granting: actual spending by businesses and consumers. The third component involves the actual expenditure by the government in projects that would have otherwise waited for their place in the budget queue during ordinary times. In the face of collapsing demand, producers uncertain about their ability to sell their products stop operations and lay off employees. The resulting losses of their suppliers and the income loss of their ex-employees further reduce aggregate demand that then leads to another round of operational suspensions and employee layoffs, adding another cycle to a vicious spiral downward of economic activity. Government expenditures try to halt this spiral by giving employment to government workers and provide demand for suppliers as it spends on projects, often infrastructure programs. Milton Friedman, probably the best-known modern monetarist, once suggested that a solution to the sagging demand is to drop money from helicopters so that people would get the money and spend it, ending the economic meltdown. Government projects are the frugal and pragmatic man's version of the helicopter money drop. The advantage of the approach is that you can expect some tangible output for the money. You can also be sure that the money will

be spent (as against the danger that people who get it from the helicopter drop may just hoard their findings). The disadvantage is that there is an expenditure lag as projects need time for preparation and implementation. One's final take on this could depend on gut feel that may then be attributed to "ideological differences".

The final component also works through increasing aggregate demand. This time, the basis is the belief that private consumption has been severely diminished by asset losses experienced by consumers, the biggest loss being on the house values caused by defaults. To reverse this condition, the government can provide the financing for restructuring and refinancing homeowner loans. This reduces homeowners' fear over their ability to pay and revives consumer spending. The resulting reduction in defaults also helps to lower interest rates on homebuilding loans, further increasing consumer confidence.

LESSONS LEARNED: SOME INITIAL ISSUES

Preamble

As we discuss proposed changes to the existing framework, we must bear in mind an underlying dilemma: the good side of the market is also its dark side. The beneficial effects of the market system come from its system of rewards and penalties. It breeds innovation, product variety, and good quality products at low prices because it promotes those that provide these and downgrades those who fail. This is how the market advances economic growth and material welfare. The market system's success derives from its economical need for information in directing the economy's activities in a decentralized manner that avoids a central planner. Market participants only need to know the prices of outputs and inputs and incentives flow from the profits and losses these firms experience. Market Darwinism then just winnows out those who are found wanting.

The decentralized system is subject to overshooting in a phenomenon that is now known as the business cycle. The easy times of boom periods introduce laxity and excess into firms and it takes the trials of the bust periods to squeeze these weaknesses out. Unfortunately, this painful process is an essential component of the informational and operational efficiency of the market system. This means that to completely avoid the ups and downs of market life would also lose the basic strength of the system. We need to find the (un)happy medium between Schumpeter's "creative destruction" and the externality effects¹ on good companies of deep systemic shocks.

As we seek to prevent these systemic shocks that bring unwanted externalities, key features of the current global crisis are evident. I start here along four initial areas; some have already been under serious discussion. Among these are the global

¹ This is the damage done to otherwise good companies by systemic events such as a credit freeze that leads to insolvencies of good companies just because they cannot obtain working capital at crucial periods.

character of the crisis that spread with almost instantaneous contagion, the innovative financial vehicles that enlarged the volumes of business but may have served to split capability and responsibility, financial institutions created as safeguards that may have lulled participants into complacency, and new market areas that may have developed without requisite monitoring and supervision. Finally, for emerging economies like the Philippines, the correction of some global structural imbalances may have unintended effects. We review these issues, not because we are major players in the international markets but because their resolution will have profound impact on how we do things and may entail major adjustments on our part. Besides, we may need to institute components if not all of these changes inside our own jurisdiction.

Financial innovation: Credit instruments

Among the proposed culprits in this crisis are the recent financial innovations. Structured credit, including SIVs and CDOs, has come under increased scrutiny. Securitization had proceeded some time before. These new instruments stretched the boundaries even further.

SIVs, incorporated investment funds set up to issue financial instruments to fund special pools of debt obligations like housing mortgages, have been very useful in mobilizing funds that facilitate certain activities like home building. However, they also serve to separate the organizer of the fund (often an investment bank or fund) from the residual obligation of the pool, thus insulating it from heavy losses of the ultimate borrower. This may have introduced adverse moral hazard by divorcing the authority and the final accountability of credit granting. CDOs, while originally just a method of expanding the sources of funding for housing and other activities, through the techniques of subordination ("tranches") and guarantees, became a channel for expanding credit to otherwise low-rated and high-cost borrowers. And additional impetus was given by credit default swaps (CDSs), which provided guarantees for buyers of the CDOs. Cohen and Remolona [2008] point to "third-party repos" where another party—often the clearing bank—that knows both original parties guarantees the transaction and holds the collateral. This further facilitated the transactions.

It would seem that any modification of state-of-the-art supervision and regulation would attempt to address these observations. Among the issues that need to be addressed is the separation of origination and residual accountability that is present in recent financial innovations, the moral hazard aspects these represent, and the safeguard mechanisms and transparency rules needed to address these issues.

CREDIT RATING

One of the frequently asked questions these days is how subprime credits managed to ensnare so many and at such large volumes as to embroil many countries in the crisis. As we previously mentioned, there was a need for such large volumes of financial instruments because of the tremendous recycling problem. We have also described how market myopia flowed out of financial institutions that had been designed to strengthen the process. Chief among these was the credit rating process. One of the questions raised in this crisis has to do with why the credit rating system gave high ratings for mortgage-backed securities, only to be proven wrong (again) when the subprime crisis finally erupted in the United States. Ironically, regulators and investors have asked themselves the same questions after Enron collapsed in 2001. At that time, credit rating agencies also granted high ratings to Enron-issued corporate bonds, only to find itself largely on the defensive and subjected to lawsuits when the company collapsed. Yet, these CRAs would later win over these cases on the grounds that their ratings are no different from an opinion, thus protected by the US Constitution's First Amendment. While the legal reasoning that credit ratings are not an excuse for investors to avoid conducting their own due diligence, the question remains as to what use we can really get from them.

Presently, there is general concern among US and EU regulators that the CRAs' business model breeds its own conflict-of-interest problems, therefore needing changes to the current mold. This occurs because credit ratings are paid for by the bond issuers and not by the investors who ultimately use the ratings. The underlying claim is that CRAs may be tempted to give higher ratings to clients to attract more clients. This is worsened by their advisory arm, which assists bond issuers in packaging and restructuring their financial products in order to achieve a higher rating. This combination could increase the pressure to give rosy ratings. Even a belief that CRAs have a long-term stake in their reputation (and business sustainability) does not fully dispel at the moment.

The CRAs' faulty credit ratings could have resulted from several factors. First, the CRAs' rating process may still be overly geared toward single-firm procedures, neglecting the contagion caused by defaulting debtors of counterparties, and may not fully reflect the impact of marketwide shocks on pools of securities. The former deficiency appears in the stress factor used; the second surfaces in the default probabilities of difference tranches of a pool of securities. Second, CRAs became overly dependent on complex computer models in measuring risk. Aside from its heavy reliance on mathematics, which gives it further credibility, it was widely expected to help solve the shortage of skilled workers in the industry. The huge growth of complex debt products overwhelmed the credit rating industry. The complexity made it increasingly difficult to assess each debt product and the seeming precision-induced laxity. But the demand for their services remained high. Sound risk management practices suffered in order to meet market demand—not to mention credibly evaluating whatever result is generated by their computer models. One of the CRAs, for example, admitted to incorrectly rating US\$ 1 billion worth of complex debt securities due to a computer error. Even if this were an isolated case, it is indicative of the pressure under which the CRAs operated.

Current proposals can be divided into two approaches. The first one proposes to remove the important role played by the CRAs as financial gatekeepers of the system. This means the removal of anything CRA-related from the regulatory requirements. At present, corporate charters of fund institutions often require that they park their funds in assets rated safe by these CRAs. The aim is to wean off the fund managers and bankers from using the ratings as a crutch and force them to conduct their own due diligence of any investment decision. Unlike CRAs, fund managers can be held accountable for their investment decisions, whether good or bad to the depositors. This is apart from increasing the transparency of the credit rating methods, addressing the conflict-of-interest issues, and adjusting the rating models and processes to recent financial innovations.

The second approach involves the introduction of government oversight for the industry, effectively introducing a cop guarding their every move. No matter how popular this seems, however, it also raises serious questions since governments are bond issuers themselves.

Financial architecture, supervision, and regulation

That the international financial architecture has to be revamped has been a popular proposal, even during the Asian financial crisis in 1997-1998. Several proposals were, in fact, put forward at that time such as imposition of very small taxes on cross-border flows ("putting sand on the wheels of global financial flows") and margin requirements for short-term flows, etc. However, the belief in unimpeded flow of funds and the free market as stimuli for economic activity and conveyor of innovation was so strong that the game-changing proposals were largely forgotten as soon as the immediate crisis passed. That the crisis was largely confined to Asia with a bit of contagion for a few Latin American economies also contributed to the issue's lack of urgency. Now that the pain is much more widespread and deeper, these questions will certainly be revisited.

In light of these developments, the repeal of the depression-era Glass-Steagall Act in 1999 has been blamed for enlarging the fire. The change effectively allowed nonbanking institutions to perform banking services. The claim is that it allowed volatility in financial markets to invade the highly leveraged banking industry. It may also have given investment banks free rein in the creation of new financial products with both investors and regulators failing to adapt quickly. While our earlier comments about the benefits of the market and its attendant volatility are relevant here, the issue of what can be done to prevent or minimize excesses still arises. Among the issues that would have to be addressed are the market myopia and overconfidence induced by some institutions like credit rating, cross-border supervision and monitoring as against harmonization and surveillance, and the scope of financial operations across industries.

Since it is almost impossible to rein in the operations of financial institutions within national boundaries, there is general agreement that cross-border monitoring scheme should be agreed upon by major economies. How best to implement this is already an issue in itself. The current standards under the Basel 2 accord may have generated pro-cyclical forces and may actually have worsened the downturn. I tend to agree with Dani Rodrik of Harvard University that a single global super-regulator is not warranted at this point. There is too much variation in the legal and business institutions, the socioeconomic infrastructure, and complementary framework that a one-size-fits-all model would probably be more counterproductive than helpful. What we need are enough transparency, standards (including accounting procedures), as well as dispute and settlement resolution mechanisms to warrant trust and confidence all over. The ability to gauge the risk of instruments across borders will facilitate financial flows, and the transparency and comparability of standards will allow participants to correctly assess the impact of events in other jurisdictions, thus mitigating the panic induced by market uncertainty.

To understand the current turmoil along the lines of regulation vis-à-vis deregulation would be too simplistic and faulty at the least. This becomes more problematic considering that the root of the credit crunch is the housing market, which is characterized by government regulation, coupled with pseudo-government entities—namely, Freddie Mac and Fannie Mae—characterized the industry. The banking industry or, for that matter, the entire financial industry essentially depends on confidence for it to operate effectively. Thus, the bankruptcy of one banking institution also weakens other banks and financial institutions with which it has serious connection. Given the importance of the financial system in the broader economy, the health of the banking system is of critical importance and justifies government intervention if warranted.

A final consideration relates to the possibility of a lender of last resort that would serve to support financial institutions and countries during periods of acute market stress. The argument against having one right now is that it would not have an unlimited supply of funds the way a domestic central bank has (because of the fiat power of the government). However, Mishkin [2006], quoting Stanley Fischer, formerly of the International Monetary Fund (IMF), has said that you don't need unlimited liquidity, only enough liquidity. The current global crisis indicates that "enough" can be quite large indeed.

This question is related to the discussion of a global currency. As we discussed earlier, the taste of policy makers over the prudence and size of stimulus and bailout packages may have flowed out of their varying positions in the world financial order. The United States as the supplier of the de facto global currency enjoys freedom of action than others. This power will reside with the supplier of that currency. If the sometimes-discussed synthetic global currency is based with the IMF, then it would have this power. However, the conditions for setting up such a currency are best discussed

in another venue. Suffice it to say that the lender of last resort must have some version of this spending power. And at the moment, the United States seems to be a somewhat imperfect approximation of that.

Structural imbalance between consumption and saving in developed economies

One of the manifestations for the Philippines of the current global economic crisis is the sudden and drastic drop in exports. As our main export markets—the United States, Europe, and Japan—have tanked, so have their purchases of imported products. Unfortunately, those included the semiconductors, wire harnesses, and other products that we have been selling to the outside world. The impact of the crisis on Philippine exports has been devastating. In October 2008, merchandise exports contracted by 14.8 percent compared to the same month in 2007, in November by 11.4 percent, and in December by a staggering 40.3 percent compared to the same month in 2007. And so, as the crisis winds its long way to recovery, the question of when exports recover and how to bring it about comes up.

As it turns out, what happened to our exports to the developed economies is fundamentally intertwined with the origins of the global crisis. In the last few decades, a growing volume of trade has manifested the increasing specialization and economies of scale and scope of production. These have brought down costs of production as markets expanded beyond the domestic economy and have led to an increasing variety of goods at lower prices. Reflecting this, global finance has also grown tremendously.

This picture is the result of the increasing integration of global markets. Countries gravitate toward those industries where they enjoyed comparative advantage, leaving the rest to others. Once transition costs have been absorbed, countries would have access to good-quality products at lower prices. Unfortunately, the imbalance was confined not only to specific industries (brought about by specialization) but also to the macroeconomy (i.e., a gross imbalance between countries' exports and imports). This increasing macroeconomic imbalance created a recycling problem: how revenues of surplus countries could be returned to the financial markets (and thereby avoid the exchange rate corrections that exporting countries were desperately trying to avoid). The resulting large flow of recycled funds, coupled with lower policy interest rates in developed economies, triggered the asset price bubble that became the incendiary material of the financial crisis.

Now, as the world recovers from the crisis, policy makers need to ponder the future shape of the trading system. A recovery by the developed economies from a deep recession will not be the end of the story. Drastic restructuring is required for them to bring their trade and balance of payments to long-run equilibrium. In the future, the developed markets will have to cut down on their imports, implying that exports to them will not grow fast, if not decline absolutely.

The restructuring by the developed economies has serious implications for the exporting countries. The one-way surge of goods from emerging economies like China and India and other exporting countries to the deficit countries, especially the United States, will have to be moderated. That is the background message behind this global crisis: the long-term fix requires a restructuring that essentially implies that traditional export markets will no longer be able to import at such a volume and growth rate as they have been doing in the last few decades.

For countries like the Philippines (no matter how modest), this means that we will no longer be able to depend on our traditional markets. If we are to reduce our dependence on remittances as an engine of growth, we will have to develop our exports in order to obtain economies of scale and scope. But the future prospects dictate that we look for other markets and other export products. This diversification of our export markets and products requires complementary policies and programs. Externally, we need to look for new geographic markets and check which products marketable abroad we can produce here. An intensive international marketing program needs to be formulated and implemented. From the private sector, this requires marketing programs by the industry associations, trading companies that we somehow have been unable to develop on a large scale, individual businessmen attending trade fairs, and other related activities.

The public sector will need to be very intimately involved. It was very instructive, while I was in government, to witness how other countries used both their political and commercial agencies to advance their export drives. While the commercial attachés were mainly involved, the labor and even political cadre would not miss opportunities to advance their products. This requires a comprehensive and intensive review and revamp of the foreign offices and how they see their job. An integrated concept that puts together security, political, and commercial objectives of the country will need to be articulated. A well-designed and executed program will then have to be carried out immediately. Craft a recovery program now and implement as soon as the indicators say "Go!"

What needs to be noted is that this restructuring of our export markets and products implies industrial internal restructuring. This doesn't have to be forced by the government. The market will indicate the areas where we have an advantage and, we hope, entrepreneurs and other businessmen will take the cue. What will need to be resisted will be the cries for protection just because some firms and areas are losing. Over the long run, these protective mechanisms and subsidies will just be a drain on other sectors and the economy as a whole. Beyond some moderate transition assistance (mainly to ease the movement of resources to other sectors), the government should stand aside and let the market take its course. Attempts to go against the inherent attraction of cheaper and better alternatives will be unsuccessful and just be costly in the end. Closing the borders will not do either. Communication, transportation, and other modern innovations will deny that path.

A way to facilitate the transition and strengthen our products for domestic and export markets is shown by the experience of Japan. A close examination shows that beyond basic infrastructure (the Japanese themselves emphasize education and a very strong bureaucracy) the provision of basic support intended for specific industries actually had broad externalities that benefited all industries. Thus, infrastructure systems—land, air and sea transport, for example—could be used by other industries and the strong export marketing push was eventually of great use to all products that were being exported. We sometimes term this "policy externalities". It also helped that their exchange rate regime was clearly predatory (one of their economic architects of that time wrote that when they were computing what the exchange rate to use in the early '50s, they came up with the rate of \(\frac{1}{2}20:\frac{1}{2}1\) but they decided to use \(\frac{1}{2}360:\frac{1}{2}1\) in order to sell more abroad and because it graphically embodied their new flag with the red circle/sun).

In sum, recovering from the crisis also provides an opportunity to leap forward. It just needs marshaling our resources at key points for maximum support to, ultimately, our productive capacity and industrial strength. With broadly supportive and integrated infrastructure system coupled with a strong bureaucracy, good governance, and intense effort we may regain some of the ground we have lost over the years. But we do have to start working it out now.

ENDNOTE

1. The author would like to thank the panel reactors and the audience during the Ayala Fund Lecture on April 15, 2009.

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CHAPTER

5

Institutional constraints on Philippine growth

Emmanuel S. de Dios¹

ABSTRACT

After a review of the institutional economics literature, time-series evidence is presented to show that recent Philippine economic growth has been hindered by institutional weaknesses. In particular, variables representing political instability and corruption are seen to have significantly affected the investment ratio. A historical analysis traces the origins and persistence of these problems to deeper questions of constitutional legitimacy, unstructured rivalry among elites, and weak support for formal institutions owing to preexisting economic inequality.

INTRODUCTION

IT IS DIFFICULT, in principle, to controvert the simple statement that institutions play a role in explaining growth. An "institution", after all, is "a system of rules, beliefs, norms, and organizations that together generate a regularity of (social) behavior"2 [Greif 2006:30]. Viewed at this fundamental level, institutions are pervasive and therefore affect all behavior manifesting any semblance of regularity, including behavior by politicians, bureaucrats, and of the citizenry itself. In particular, to the extent that formal rules, informal norms, beliefs and convergent expectations, and organizations are implicated in the acquisition and exercise of political authority, then "governance" itself—understood as "the manner in which public officials and institutions acquire and exercise the authority to shape public policy and provide public goods and services" [World Bank [2007:i]—must be understood as being an institutional outcome. This is straightforward, since the institutional elements just mentioned directly affect political behavior. At the most formal and superficial level, constitutions and statutes place obvious limits to the mode of acquiring and exercising authority (e.g., elections, executive-legislative relations, etc.). In many instances, of course, behavior will appear to deviate from or spill over the limits imposed by formal laws—a problem endemic to many developing countries—such as when clientist or patriarchal relations swamp outwardly democratic processes. Closer analysis will typically reveal, however, that such behavior³ actually accords with some other (perhaps competing) set of de facto institutions that operate alongside or in lieu of de jure institutions. In the event, institutions of one form or another are implicated.

"Political economy" is taken here to mean the analysis of the effects of political constraints on economic policies and economic outcomes [Drazen 2000:7]: "Political constraints" itself is shorthand for conflicting or heterogeneous interests, since upon closer consideration complete homogeneity of interests would imply an almost axiomatic absence of conflict. Viewed from this aspect, the content of policies themselves assumes second-order importance, since whether or not policies are taken and the degree to which they are implemented become matters that are endogenous to prevailing institutions and political economy. But although definitions of institutions and their pervasiveness appear unexceptionable, it is less clear exactly what kinds of institutions *do* matter for economic performance, how their effects are transmitted, and how they may be changed.

The next section briefly recapitulates what is known both conceptually and empirically regarding the role institutions play in development. Section 3 sifts through evidence to suggest that economic growth in the Philippines has indeed been hobbled by issues relating to institutional outcomes or the performance of institutions. Section 4 applies a framework based on new institutional economics for understanding the historical roots of the problem. Section 5 concludes with some implications for policy.

INSTITUTIONS AND DEVELOPMENT—THE ARGUMENT

The crucial importance to economic development of the rule of law, the enforcement of contracts, and the protection of property rights stems from Douglass North's earliest observations [1990, 1981, and 1973 (with Thomas)] of how such institutional outcomes appear to have been historical preconditions for the support of anonymous exchange and long-term contracting, especially for credit, venture capital, and technological innovation. Absent these preconditions, the risks and costs associated with consummating market transactions beyond spot-exchange and local markets would have been prohibitively high, and technological innovation likely stifled. North distinguishes between contracts that are self-enforcing between parties-e.g., those based on credible commitments (hostage exchange, collateral, and repeat transactions)—and, on the other hand, those that rely on third-party enforcement. Contracts of the former type are frequently supported by customs and norms in the context of a "dense social network where people have an intimate understanding of each other" [North 1990:39], such as those prevailing in small and closely knit communities. But for transactions that are more complex, entail larger amounts, are spread out over time and space, and involve larger jurisdictions, selfenforcing contracts become increasingly difficult to write and to enforce. Instead there is increasing resort to sanctions by third parties, which point to the rise of impersonal legal systems and specialized institutions to enforce them. These outcomes were historically achieved in the now-developed economies in conjunction with the rise of a legal and penal system and a bureaucratic state in the sense of Weber.⁴ Even Adam Smith's vision of laissez-faire was underpinned by a state that performed a night-watchman's role of enforcing the law, providing defense, and providing a number of public goods.

Coercive force and revenues must be conceded to the state for it to fulfil its functions of property-rights protection, contract-enforcement, and defense. The problem has perennially arisen, however, of constraining state power. Rules and organizations have had to evolve to exact accountability from rulers, who could otherwise use their powers for expropriation and abuse. In one sense, therefore, the institutional design required for growth entails a careful balance between vesting the state with sufficient power to enforce, yet not so far as to make it oblivious to its citizens' interests and allow it to act with impunity. In much of the history of Western Europe and North America, these constraints on the powers of the state were imposed by the emergence of electoral democracy, checks and balances between branches of government, a professional bureaucracy, and the guarantee of civil rights and liberties [North and Thomas 1973; North 1981]. On the other hand, it remains a festering question in development whether and how the transplantation or emulation of such institutions will also work for developing countries.

Econometric tests of the above hypotheses from Barro [1991] onward have for the most part been founded on cross-country data⁵ that repeatedly display significant influences on the long-run growth (or investment) record of different variables representing institutions or their outcomes. But attempts to measure variations in economic performance across explicit types of institutions (e.g., forms of constitution and types of electoral rules, as found in the important work of Persson and Tabellini [2003]) are impaired in principle and in fact by divergences between the formal specification of institutions and actual conditions on the ground. For instance, while presidential systems of government on paper impose relatively more constraints on the executive compared to parliamentary systems, they can (and do) mask a great deal of unilateral executive power in some real instances—for example, *caudillismo* in Latin America and the strong presidency (as will be discussed below) in the Philippines.

Such difficulties have led alternatively to attempts at measuring the impact of institutions, rather than specifying them directly. Barro's original work, for example, found a significant influence of variables that measure the "rule of law" and political stability. Since then, the list of institutional variables that plausibly appear to affect growth positively has come to include the degree of protection of property rights; civil liberties; political rights and democracy; measures of social cooperation, such as trust, religion, and clubs and associations (see, for example, the survey by Aron [2000]).

One difficulty with the interpretation of such results, however, is that they represent at best only an indirect test of the hypothesis, since the variables included are not institutions per se but rather outcomes of institutions or their performance [Shirley 2005]. Such reservations apply even to the most comprehensive collection of such variables currently available for a large number of countries [Kaufmann, Kraay, and Mastruzzi (KKM) 2007]. KKM assemble data representing institutional quality or institutional performance from a wide array of sources and define indices delineating five aspects of institutional quality for various years (since 1998 and annually beginning 2002): namely, voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. Here, it will be noted that indices of "political instability", for example, measure not institutions per se but rather the results of the weakness or lack of legitimacy of institutions. Likewise, the scope of corruption (typically measured through subjective-expert or public opinion) is not by itself an institution but rather the signal of institutional weakness, in the sense that widespread corruption reflects the extent to which rules either do not exist, are badly designed, go unheeded, or are vendible. As a result, even as the econometric evidence suggesting the importance of institutions continues to mount, it is quite another thing to determine exactly which institutions matter, why, and how.

An early attempt to address such questions was the significant work of La Porta et al. [1998], which used cross-section data to explain how a series of institutional outcomes or indicators of institutional performance—such as respect for property, corruption, bureaucratic efficiency, political rights, among others—could be related to prevailing legal systems, geography, social or ethnic heterogeneity, and belief systems. Their findings suggest that even controlling for per-capita incomes, countries with (a)

legal systems derived from civil-code traditions (ultimately of French or Spanish origins) rather than common-law, (b) which have predominantly Muslim or Catholic religious backgrounds, (c) which are ethnically fragmented, and (d) which are geographically close to the equator, generally perform poorly on most indices of governance outcomes.

Important exceptions and qualifications can, of course, be made with respect to any of these conjectures. Notable counterexamples are some of the major Western industrialized countries themselves: France, Spain, Belgium, Portugal, and Italy, after all, maintained their unhelpful civil-code and predominantly Catholic traditions yet managed to join the ranks of the wealthiest nations, even if this is nuanced by the fact that within Europe itself, civil-code, Catholic countries were often relative laggards or latecomers (e.g., relative to England and the Netherlands) [North and Thomas 1973]. Be that as it may, the historical experience of these countries shows that the mechanisms of causation can be further modified by such factors as the external pressures of intra-European rivalries and competition among fragmented states [Diamond 1997], the remarkable cross-fertilization of ideas among the European intellectual (particularly its scientific) elite [Mokyr 2004], and the peculiar history of violent religious wars those countries underwent. The rise of a secular state in France and Germany, for example, cannot be understood separately from the struggle against temporal claims of the papacy and the need to preserve national unity amid violent internal strife between Catholics and Protestants. Ultimately, even institutional economists concede that they "know very little about the mechanisms through which the rules implemented by these institutions diffuse to governance structures and contribute to the shaping of how transactions are organized. Therefore, we know very little about comparative costs of different institutional schemes (e.g., the cost of running different kinds of judiciary systems for implementing contractual laws)" [Ménard 2001:86-87].

The problem is rendered more complex when one recognizes the significant differences in the development of institutions in the present developed western countries, on the one hand, and the postcolonial developing countries, on the other. It is scarcely possible to appreciate the costs of operating institutions in today's developing countries without understanding the historical processes that moulded them. North himself [North, Wallis, and Weingast 2009] has made the important but somewhat heretical point that institutions proven to work in the current industrialized countries—such as democratic rules for selection of leaders, non-kin-based organizations, impersonal third-party enforcement, and prices as the primary means of resource allocation—will not necessarily represent an improvement when simply imported (and imposed from without) in today's poorer countries, one of the most important reason being that this may simply disrupt a preexisting social order without installing a feasible replacement. The difficulties encountered by the United States in introducing the formal institutions of western democracy in its recent forays into Afghanistan and Iraq should serve as sufficient food for thought. Indeed, the cross-section evidence on the relevance of

democracy and civil rights variables—and, to a lesser extent, also corruption-control variables—has been notoriously mixed, especially in relation to the high-growth economies of Asia. (On this issue, see Quibria [2006]; Zhuang, de Dios, and Lagman-Martin [2010]; and de Dios and Ducanes [forthcoming].)

Two historical factors complicate the understanding of institutions in developing countries—namely, a country's colonial heritage and the preexisting degree of social or national cohesion [Shirley 2005], or its opposite, the degree of social heterogeneity. The effect of the former is partly reflected in the differences between various legal traditions and religious beliefs, which, as already noted, created a measurable impact on the relative growth trajectories of the Western industrial countries. The hierarchical and authoritarian structures of traditional Catholicism render its less accessible to the masses and more the preserve of initiates and trained specialists. Such a "scholastic" or prescriptive tradition contrasts with the "pietism" of many Protestant sects, many of whose observances emanated from the communities of the faithful themselves.⁶ A similar contrast presents itself in a comparison of the common-law and civil-code traditions. The common-law tradition presumes a greater openness to the community's evolving customs rather than (as in the civil code) the delineation of right by an interpretation and application of a fixed code by learned individuals. This is partly evident, for instance, in the practice of judgement by jury in most common-law systems, rather than by specialist judges and magistrates as under the civil-code tradition. It is reasonable to conclude, therefore, that common-law traditions are, all else being equal, more accessible to communities than the civil code.

More important, however, is the fact that such institutions (whether common law or civil code) have been transplanted and imposed (largely through conquest and coercion) by colonizers. This raises the real cost to the indigenous peoples of utilizing or accessing any of them, which is an alternative way to view the findings (notably by Acemoglu, Robinson, and Johnson [2001]) that persuasively relate subsequent growth to the density of the external settlers relative to the native population. Where the areas colonized by outsiders were densely populated to begin with (e.g., South and Central America, sub-Saharan Africa, and parts of Asia), a greater cost was obviously involved before borrowed or imposed institutions could gain legitimacy or be internalized among the majority of the inhabitants. By contrast, where new settlers themselves constituted the larger proportion or a majority of the population, such as in Australia or North America, the cost of establishing functioning institutions was lower, since this largely entailed the transplantation of rules and traditions that were in many respects already familiar to and accepted by the colonists.

The degree of social or national cohesion is another factor potentially affecting the subsequent hold of formal institutions in developing countries. Greater ethnic, cultural, or economic homogeneity—itself an outcome of common history or experience—is more likely to facilitate convergent beliefs and an appreciation for a common set of

rules. Today's developing countries, on the other hand, are handicapped in this respect by their more recent national experience and by the almost capricious partitioning and assignment of territory among the new nation-states by the quondam colonial powers. Applied to the Philippines, for example, it cannot be denied that Mindanao and its Muslim populations were decisively incorporated into the republic only after the sultanates were subdued by superior US military power. But this problem is even more pronounced in other parts of the world—that is, most of Africa, the Middle East, Central Europe, and the Indian subcontinent—where multiethnic states have been the remnants from the postcolonial experience.

The observation regarding the cost of using institutions may also explain the earliermentioned findings of La Porta et al. [1998] that associate ethnic fragmentation with poor governance outcomes. From the viewpoint of access and the cost of internalizing and trusting institutions, there is a greater likelihood that a heterogeneous population is more likely to encounter difficulties in reconciling their preexisting traditions, beliefs, and aspirations with rules that have been crafted and imposed from outside. More recently, Easterly, Ritzen, and Woolcock [2006] have also pointed to the significance of social equality and the size of the middle class as determinants of subsequent growth. Interestingly enough, colonial heritage and economic geography may again be partly implicated, since certain economic formations in colonial times were more conducive to the persistence of highly unequal distributions of political power and economic wealth. In an attempt to elaborate earlier work by Sokoloff and Engerman [2000], Easterly et al. [2006] hypothesize that geography and factor endowments encouraged certain types of settlement and colonial economic exploitation that strongly influenced subsequent social structures. In particular, factors conducive to wheat farming encouraged small farms and a more equitable asset distribution in North America; by contrast, the massive labor requirements and large scale of operations entailed by sugar plantations produced slavery and social inequity in the Caribbean, Central and South America, and the southern United States.

From the viewpoint represented here, therefore, such factors as have been alluded to in the literature (e.g., colonial heritage, social cohesion, and even geography) matter primarily because they affect the *ease of access* by the majority of the population to those formal or codified institutions that were ultimately able to support anonymous exchange, long-term investment, and technological innovation in the manner described by North. The analytical upshot of this, however, is that an assessment of institutional performance cannot simply consist of an a priori specification of what are "good" and "bad" institutions, per se: rather, one must additionally consider the degree to which the greater population grant credibility and are able to gain access to existing institutions to guide their behavior, given their current beliefs, historical experience, proximate expectations, and interests. It then follows that a mismatch or conflict between prevailing institutions—particularly of the formal kind—and the society's beliefs, history,

expectations, can be expected to result in cognitive dissonance at the societal level, at the very least, and social strife and collapse, at the worst. The succeeding sections proceed to document how such a framework may provide part of the explanation for the long-run record of Philippine economic performance.

CURRENT EVIDENCE

In applying such a framework to the Philippines, we initially seek to establish whether and to what extent institutions—as expressed through governance-outcomes—currently represent first-order causes hindering investment and economic growth. A further pursuit of the argument becomes important, after all, only if institutional factors or outcomes can be shown to express themselves as significant hindrances to current performance.

Toward this end, various indicators for governance outcomes for recent various years constructed by Kaufmann, Kraay, and Mastruzzi [2007] are assembled to determine whether the Philippines fares significantly better or worse than other countries. As already described, these indicators pertain to five dimensions: namely, voice and accountability, political stability, government effectiveness, regulatory quality, the rule of law, and control of corruption. As a further control, however, Philippine scores on each dimension are compared to those of other countries based on a regression controlling for levels of per-capita income. The details of this comparison are summarized in Table 1. Negative (respectively, positive) entries indicate that in that particular year, the Philippine score is comparatively worse (respectively, better) on that particular governance-outcome indicator than countries with a similar level of income per capita.

Table 1. Governance indicators for the Philippines (relative to a cross section of countries for selected years)

Governance indicator	1996	1998	2002	2003	2004	2005	2006
Voice and accountability	+	+	+	+	+	+	
Political stability	_	+	-	_	_	_	-
Government effectiveness	+					+	+
Regulatory quality	+	+	+	+		+	+
Rule of law	+	+	-	_	-	-	-
Control of corruption	-	-	-	_	_	_	-

Legend: (+), [respectively, (-)], denotes a governance score for the Philippines that is significantly better [respectively, worse] at the 5 percent level or less, when compared to countries with similar GDP per capita for the period. Empty cells indicate scores that are within the predicted range.

Source: Author's computations using data from Kaufmann, Kraay, and Mastruzzi [2007].

For all years reported except the last, the Philippines rated above the norm in "voice and accountability". This largely reflects the country's long-established democratic traditions and the formal guarantees of civil liberties, a free media, regular elections, and checks and balances as prescribed in the country's current constitution (in force since 1987). The deterioration in the most recent period coincides with government restrictions of civil liberties and extraordinary assertions of executive power in response to corruption scandals and threats to stability. It also corresponds to a marked rise in extrajudicial killings and disappearances suspected to have been carried out by the military—directed mostly against Left activists—that has been significant enough to attract international concern and comment.⁷

The other dimension in which the Philippines appears to rate fairly well has been "regulatory quality", referring to the ability to formulate and implement policy that encourages private enterprise. Political vagaries notwithstanding, all administrations since 1986 have invariably committed to a formal policy of promoting private enterprise and reducing government involvement in business. The more substantive aspects have included the sustained efforts at privatization, deregulation, and trade liberalization in various industries. The quality and qualifications of the bureaucracy are also vindicated by ratings of "government effectiveness" that are broadly in line with what is typical for the Philippines' level of income.

By contrast, the country falls consistently below the norm in political stability and the absence of violence, the control of corruption, and the rule of law. Unlike other aspects previously mentioned, it is significant that the latter pertain less to formal policies and declarations of principle and relate more to de facto performance. While regulatory policy may be liberal with respect to the private sector, for example, the actual assignment of economic rights and concessions may be biased and subject to elite capture. As a result, above-average ratings in the quality of regulatory policy may be diluted—as in this case—by below-average scores in the control of corruption. Likewise, although civil liberties and a resort to the courts and administrative or legal channels may be constitutionally guaranteed, real access may be limited or the application of the law itself may be biased, which could cause resentment and possibly violence. The result—as in this case—would be a poor showing in the rule of law, despite the de jure affirmation of "voice and accountability".

Ultimately the most acute manifestation of these disjunctions is political instability itself, which would otherwise be difficult to explain, given the existence of what one might think are democratic avenues for voice and accountability. The low ratings for political stability coincide with a recent history marked by consummated or attempted popular risings, disputed electoral results, attempted coups d'état and military mutinies, cabinet resignations, and impeachment threats.

A sharper contrast is gained by comparing the Philippines to a smaller set of neighboring countries. Using the same data from KKM, Figures 1 and 2 show the

ranking of the Philippines on two crucial governance aspects where it has performed consistently below average—control of corruption and political stability—and map these against indicators for comparable countries in the region. The shifting pattern across countries becomes apparent particularly in the last few years. In the control of corruption, Thailand has always remained several notches above the Philippines, while the country has typically been rated better than Indonesia in the recent past. The loss of momentum for the Philippines is apparent, however, which has allowed China and Vietnam (and soon enough Indonesia) to catch up with it in this governance aspect. In terms of stability and absence of violence, Vietnam rates best among the countries included, doing consistently better than the 50th percentile. Again, the Philippines' loss of ground in this aspect is apparent, particularly relative to 1998. (Political stability in Thailand deteriorated in the years immediately preceding the successful generals' coup of 2006 that deposed the civilian government.)

Compared to countries in other regions and subregions, the Philippines' corruption indicators are better than those of Pakistan, Afghanistan, and Bangladesh, but worse than India's and Sri Lanka's. It performs worse than major Latin American countries such as Argentina, Brazil, Mexico, Peru, Chile, and Colombia, better than Venezuela, and similarly to Bolivia and some smaller Central American states.

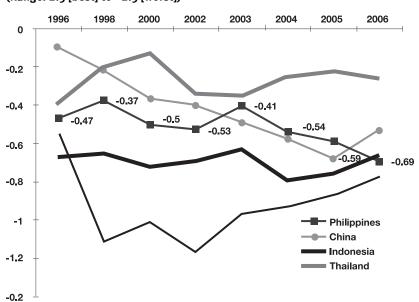


Figure 1. Indicator for control of corruption for selected countries (Range: 2.5 [best] to -2.5 [worst])

Source: Kaufmann, Kraay, and Mastruzzi [2007], generated from http://info.worldbank.org/governance/wgi2007.

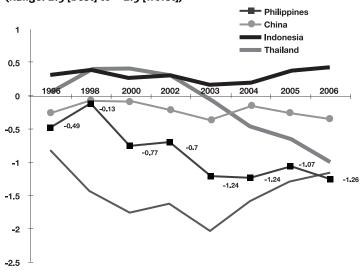


Figure 2. Indicator for political stability for selected countries (Range: 2.5 [best] to -2.5 [worst])

Source: Kaufmann, Kraay, and Mastruzzi [2007], generated from http://info.worldbank.org/governance/wgi2007.

Broadly similar patterns can be found in other data sets. Transparency International's "corruption perception index", for example—which, like the KKM data, is a composite indicator based on several sources—shows the Philippines being rated somewhat similarly to Vietnam and Indonesia, but significantly worse than Thailand and China, not to mention Malaysia and Singapore (Table 2). Overall, the Philippines can be found in the lowest 20th to 30th percentile of all countries included in the Transparency International sample.

Table 2. Corruption perception index* and ranking for selected Asian countries and years (Figures in parentheses represent ranking among countries in the sample)

	2007	2005	2003	2001
Philippines	2.5 (131)	2.5 (125)	2.5 (92)	2.9 (65)
Singapore	9.3 (4)	9.4 (5)	9.4 (5)	9.2 (4)
Malaysia	5.1 (43)	5.1 (39)	5.2 (37)	5.0 (36)
China	3.5 (72)	3.2 (79)	3.4 (56)	3.5 (57)
Thailand	3.3 (84)	3.8 (59)	3.3 (70)	3.2 (61)
Vietnam	2.6 (123)	2.8 (116)	2.4 (100)	2.6 (75)
Indonesia	2.3 (143)	2.2 (137)	1.9 (122)	1.9 (88)
No. of countries	180	158	133	91
Percentile rank of the Phils.	27%	21%	31%	28%

^{*}Index runs from 10 (least corrupt) to 1 (most corrupt).

Source: Transparrency International, http://www.transparency.org/policy_research/surveys_indices.

Finally, a longer historical perspective is obtained from a series of indicators generated by the International country risk guide (ICRG, gathered and maintained by the private risk-rating firm, PRS Group), which is the same set of indicators used in the well-known work by Keefer and Knack [1995]. The total "political-risk" score in this case consists of 12 subindices including political stability, corruption, internal conflict, external threat, law and order, and bureaucratic quality,8 the sum of which is constructed to range from 0 to 100. Figure 3 plots this overall index for the years 1984-2006. The Philippines was in the "very high risk" category for the years 1984-1994, attaining its worst standing in 1991. The index improved gradually thereafter—coinciding with the holding of successful elections in 1992—and the country reached "moderate-risk" levels by 1997 and even "low risk" for the three years 1998-2000. This significantly coincides with the holding of credible elections in 1998. There was a noticeable turn for the worse in 2001, however, following the EDSA 2 events that led to the removal of President Estrada. By contrast, notwithstanding a minor improvement, perceived overall political risk in the country deteriorated after the election year 2004, running contrary to the typical expectation that a successful holding of elections would improve legitimacy and hence stability.

Legend: [0, 50] = Very high risk; [50-60] = High risk; [60-70] = Moderate risk; [70-80] = Low risk; [80,100] = Very low risk [80,100] = Very low r

Figure 3. Overall "political risk": Philippines (1984-2006)

Source: Political Risk Services, International Country Risk Guides.

The most evident and dramatic manifestation of the effect of institutions on Philippine economic performance has been the impact of political instability on growth, particularly as it affects investment. Episodes of overt political instability over the past 50 years have involved attempted or consummated changes in political regime through the declaration of martial law and emergency rule, civilian-military uprisings, coups d'état, cabinet crises, and impeachment. Apart from this, the country is host to Muslim-secessionist and communist-led agrarian insurgencies that are among the longest running in the world.

As the preceding section has suggested, large-scale political-regime changes can unsettle distribution and property rights and in this manner affect investment. A major hypothesis, therefore, is that investment decisions should generally be sensitive to the actual or threatened political regime-changes that have characterized recent Philippine history.

The decline and then virtual stagnation in per capita income in the 1980s must be regarded as the single most significant episode that caused the Philippines to fall behind its neighbors in economic performance. This is immediately evident to anyone viewing the comparative record of long-term growth, such as those provided by Angus Maddison or by Summers and Heston and their associates. The 1980s and 1990s can justifiably be regarded as the Philippines' "lost decades", when it became the exception in a region in which rapid economic growth was the rule (Figure 4). As a result the country lost economic ground in both relative and absolute terms. Thailand and Indonesia overtook the country in per capita income terms in 1985; China did likewise by 1998.

200

Taiwan

Thailand

China

Phillippines

60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 00 02

Figure 4. Relative per-capita income levels in East and Southeast Asia (1960-2000; measured as a percentage of 1960 US income per capita)

Source: Penn World Tables, http://pwt.econ.upenn.edu.

It was no accident that this very period was also marked by episodes of severe political instability. The most notable and extended period of political turbulence was associated with the events culminating in the popular uprising known as the "1986 EDSA People Power Revolution", which led to the toppling of the Marcos regime. The record shows this period leading to the worst postwar decline in Philippine output and investment, as the policy of crony capitalism and excessive foreign borrowing pursued by the Marcos dictatorship collapsed under a wave of popular protest.

The installation of a new government headed by President Corazón Aquino, however, failed to produce immediate political stability owing to the fragile and tentative nature of the coalition that stood behind it. In particular, military elements that had originally broken with the Marcos regime and initiated the uprising sought to assert what they perceived as their prior claims to govern and sought continually to swamp and ultimately depose the civilian politicians behind Mrs. Aquino. Such claims were behind numerous assassinations of political personalities and attempted putsches, the major ones occurring in August 1987 and December 1989.

The putsch attempts of 1987 and 1989 could not have come at a worse time, since they coincided with a period of huge increases in Japanese outsourcing investments throughout the region that resulted from the yen appreciation following the Louvre Accord of 1985 and the Plaza Accord of 1989. Events in the Philippines effectively demonstrated that the newly installed Aquino government was not yet fully in control. The impact of the attempted coup of November 1989 was particularly devastating, since it occurred in the country's financial district.¹⁰

Figure 5 shows the behavior of the government-stability index taken from the ICRG data set for comparable countries covering the years after the Louvre and Plaza accords until the eve of the Asian financial crisis. It makes clear that the country's perceived level of stability had already been badly affected by the political crisis in 1984 and was well below those for others in the region. An incipient improvement until 1987 (Panel 1) was interrupted by a sharp decline after 1987 and 1989, lasting until 1991 (Panel 2) and coinciding with the period of violent coup attempts against the Aquino administration.

The Philippines failed to benefit from a unique exogenous event—namely, substantial flows of foreign direct investments (FDIs), primarily Japanese, following upon the Louvre and Plaza accords that lifted other economies of the region, particularly Thailand, Malaysia, and Indonesia, and provided these countries with a valuable stimulus for growth during the period leading up to the Asian financial crisis. Over the period 1984-1997, FDIs in Malaysia, Indonesia, and Thailand averaged US\$ 3.31 billion, US\$ 1.86 billion, and US\$ 1.6 billion annually, respectively, with an accelerating trend. In contrast, the Philippines averaged only US\$ 808 million in annual foreign direct investment (Figure 6) in the same period.

hillippines

hindonesia

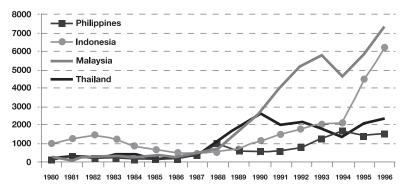
Malaysia

Thailand

Figure 5. Government stability index for selected countries (1 = least stable to 12 = most stable; 1984-2006)

Source: Political Risk Services, International Country Risk Guide.

Figure 6. Foreign direct investment flows Philippines, Malaysia, Indonesia, Thailand (in millions of current dollars; 1980-1996)



Source: UNCTAD (www.unctad.org).

This hypothesis can be tested in a straightforward manner, the results of which are reported in Table 3. Per capita FDI flowing into comparable countries of the region (Indonesia, Malaysia, and Thailand) relative to that of the Philippines is regressed against the political stability scores of those countries relative to the Philippines, with a one-period lag. For the years 1985-2006, the index of relative political stability is positively and significantly related to the relative amounts of per capita FDI entering the country, this single factor alone explaining as much as 20 percent of the variation in relative shares of foreign direct investment. If the sample is restricted to the critical period following the Plaza and Louvre accords, the size of the coefficient of relative political stability is larger and the explanatory power of the equation far greater (up to 50 percent). This suggests the critical nature of the post-Louvre-Plaza period, owing to the one-time

investment surge that occurred. It was a tide which the Philippines unfortunately failed to "take at the flood".

Table 3. Foreign direct investment and political stability (OLS regression; 1985-2006)

Dependent variable	Relative per capita FD) ¹
	1985-1992	1985-2006
Constant	1.84103 (1.01)	4.07829*** (4.45)
Lagged relative political stability ²	1.59409** (2.50)	1.01625** (2.16)
Sigma	2.51775	2.40543
R^2	0.509704	0.1976747
Log-likelihood	- 17.5877	- 47.1784
F-test (d.f.)	6.237; (1,6)	5.447; (1,19)
D.W.	1.32	1.28
AR 1-1 test: F (d.f.)	0.010330; (1,5)	0.11841 (2,17)
ARCH 1-1 test:	0.49315; (1,4)	0.83755; (1,17)
Normality test : c²(2)	2.0642	0.30705
Hetero test: F(d.f.)	n.a.	0.647660; (2,16)
Hetero-X test:: F(d.f.)	n.a.	0.64760; (2,16)
Reset test: F(d.f.)	3.6307; (1,5)	0.0017584; (1,18)

^{**} Significant at the 5 percent level; ***significant at the 1 percent level.

Nor has the impact of political instability been limited to direct foreign investment. Table 4 shows estimates of the effects of various sets of governance variables on lending interest rates, which, of course, affect investment more generally. The signs of the coefficients of variables associated with governance outcomes are consistently negative, implying that better governance outcomes are associated ceteris paribus with declining lending rates. It also becomes evident that a combination of variables relating particularly to government stability, corruption, and internal conflict (Model 5) performs best in explaining the penalty to investment, as measured by changes in the lending rate. Indeed other aspects of governance outcomes, such as democratic accountability, bureaucratic efficiency, etc., do not appear to contribute to the explanation, as might be seen from the fact that their inclusion actually reduces the explanatory power of governance indicators (Models 1-3). On the other hand, as previously suggested, special attention must be paid to the government-stability variable (Model 4): changes in this variable alone account for the bulk of the impact of governance indicators on changes in the interest rate, and therefore investment and growth more generally.

^{&#}x27;Relative per-capita FDI: mean of annual per capita of FDI into Malaysia, Indonesia, and Thailand as a proportion annual per capita FDI of the Philippines.

²Relative political stability: mean ICRG Government Stability scores of Malaysia, Indonesia, and Thailand as proportion of the ICRG Government Stability score of the Philippines.

Table 4. Dependent variable: first-difference in lending interest rates (OLS estimation; annual data: 1986-2006)

	Model 1:	Model 2	Model 3	Model 4	Model 5
Constant	-0.412692 (-0.707)	-0.28575 (-0.512)	-0.273362 (-0.513)	-0.415578 (-0.776)	-0.231485 (-0.474)
Difference in inflation	0.417040*** (4.03)	0.409148*** (4.22)	0.371635*** (3.82)	0.402492*** (4.17)	0.344901*** (3.89)
Lagged difference in logs of Governance 1	-7.89052 (-1.15)				
Lagged difference in logs of Governance 2		-7.76819* (-1.88)			
Lagged difference in logs of Governance 3			-8.54232** (-2.28)		
Lagged difference in logs of Governance 4				-8.55233** (-2.00)	
Lagged difference in logs of Governance 5					-8.15274** (-3.05)
Sigma	2.57284	2.43709	2.34798	2.41008	2.16209
\mathbb{R}^2	0.54002	0.587371	0.616992	0.596466	0.675237
Log-likelihood	-48.0244	-46.886	-46.1038	-46.652	-44.3717
F(2,18)	10.57	12.81	14.5	13.3	18.71
D.W.	1.89	1.89	2.0	1.95	2.04
AR 1-2 test:: F(2,16)	0.57281	0.13118	0.028501	0.027160	0.029781
ARCH 1-1 test: F(1,16)	1.7259	0.74194	1.2782	0.038058	0.27683
Normality test: $c^2(2)$	0.75732	0.17726	0.25946	0.13009	0.67898
Hetero test: F(4,13)	0.13223	0.11274	0.11970	0.091947	0.31736
Hetero-X test:: F(5,12)	0.10554	0.084617	0.098547	0.080944	0.24171
Reset test: F(1,17)	2.6225	2.1435	1.9030	1.5202	1.1075

^{*} Significant at the 10 percent level; ** significant at the 5 percent level; *** significant at the 1 percent level.

Governance 1: Total score on 12 governance components (PRS)

Governance 2: Governance 1 less scores on socioeconomic conditions, external conflict, religion in politics, and democratic accountability (PRS)

Governance 3: Sum of scores on government stability, corruption, internal conflict, and investment profile (PRS)

Governance 4: Score on government stability

Governance 5: Score on government stability, corruption, and internal conflict (PRS)

Even as the problem of political stability subsided significantly in the period 1992-2000, spanning the Ramos presidency and the aborted Estrada administration (Figure 5, Panel 3), it reappeared with the deposing of President Estrada (Figure 5, Panel 4). The situation soon deteriorated further owing to the scandals that hounded the successor Arroyo administration, particularly with respect to serious doubts regarding the legitimacy and integrity of the results of 2004 elections. Serious accusations and evidence¹¹ that suggested the president had intervened to manipulate the results of the 2004 elections led to mass protests calling for her resignation, a failed cabinet coup (2005), several attempts at impeachment (2006, 2007), as well as various attempted military mutinies or revolts (2006, 2007, 2008). This broke the hitherto established pattern in the post-Marcos era where periods immediately following regular elections were associated with enhanced political stability.

CORRUPTION

Corruption is the second institutionally rooted governance outcome that has most palpably influenced Philippine economic performance. But while examples of corruption and their impact on investment are numerous, they are inherently difficult to document and systematize, much less quantify—owing in no small measure to the inherently illegal and clandestine nature of such transactions. An important distinction to be made in this respect is that between "petty" and "grand" corruption. Petty corruption, as practiced among the lower- to middle-echelons of the bureaucracy, partakes of the nature of a regular activity. It is typically implemented through the implicit collusion among agency insiders who exercise discretion through the selective implementation of otherwise well-known rules. Better-understood examples of these occur in the revenue-collecting agencies (internal revenue and customs) and some large line departments (e.g., education, public works, the police and the military) that routinely engage in large-scale purchasing, recruitment, or frontline dealings with the transacting public (see, e.g., the reportage by the Philippine Center for Investigative Journalism's Chua [1999] on education; for a survey, see de Dios and Ferrer [2001]). Such phenomena are largely predictable and can be comprehended as a "going concern", the channels of which are well known albeit difficult to close off, since they are integral to the regular mandated functions of these agencies themselves. Left to fester at that level, however, such activities are unlikely to cause large enough shifts in investment behavior that would change the trajectory of a country's growth. This is because the scope of the functions of low- to mid-level bureaucrats is well defined, transactions are limited in scale, and large deviations would in principle be relatively straightforward for higher-ups to monitor. For such activities to be ratcheted up substantially and the off-take enlarged, the initiative and protection of highly placed "backers" will be typically required. Smuggling, for example, or even the protection racket for the widespread illegal numbers game (popularly known as *jueteng*),

can assume an unusually large scale only when the customary operators obtain implicit support and protection from the highest places in the political establishment and are thus able to expand the scope of operations well beyond what is customary. At the point where routine corruption of this sort becomes elevated to a national scale, it graduates into "grand corruption".¹²

More typically, however, the conduits of *grand corruption*—defined as "a substantial expenditure of funds with a major impact on a government budget and growth prospects" [Rose-Ackerman 1998]—are projects and deals of a one-off nature involving the disbursement of huge sums (typically running into the billions of pesos). Again these can occur only through the witting or unwitting complicity of centrally placed politicians, in the Philippines, notably the office of the president itself. It is noteworthy in this respect that virtually the only channels for big-ticket national infrastructure in the Philippines are currently (a) official foreign-loan financing or (b) various forms of build-operate-transfer (BOT) schemes involving the private sector. The budgetary process within Congress itself has in the meantime degenerated into a ritual for legislators to lobby for their own local projects. Both foreign-assisted projects and BOTs, on the other hand, are largely the prerogative of the executive branch and not subject to congressional scrutiny. Most major corruption controversies that have hounded successive post-Marcos administrations were notably all under the purview of executive discretion: these include the PEA-Amari deal and purchase-power agreements in the electricity sector under Ramos; the IMPSA power project under Ramos and Estrada; the NAIA Terminal 3 project that spanned the Ramos, Estrada, and Arroyo administrations; and finally the NBN-ZTE broadband network and Northrail projects under Arroyo. The explicitly political (rather than routine-bureaucratic) nature of decisions taken at higher levels of government also means that the bases for objective evaluation of such decisions become more elusive for the public at large, and the distinction between well-meant executive discretion and corruption becomes blurred.

Corruption discourages investment in that it effectively functions like a tax on the proponent, with the rent being transferred to politicians, bureaucrats, or deal makers rather than the treasury. The rent itself adds to the cost of any project and therefore reduces the incentive to invest. A corruption rent is inferior to a tax, however, to the extent it can be unpredictable in the magnitude of payoffs asked and unreliable in the (illegal) delivery of the contract to the briber. Cross-country evidence [Campos, Lien, and Pradhan 2001] exists to suggest that the "predictability" of corruption matters. The much-cited paper of Shleifer and Vishny [1993] explicitly suggests, among other things, that the creation of overlapping jurisdictions and multiple centers of veto in post-Marcos Philippines—to the extent that rules enforcement per se remained weak—may have increased the scope for uncertainty and extent of corruption.

Beyond such effects, however, corruption can also preempt competition and new investment by causing the award of vital projects and economic sectors to interests with credentials and talents other than entrepreneurship and productivity, but rather, say, rent-seeking and political extortion. This can result in a bias or distortion in the choice of investments and resource misallocation. Decisions are more likely to correspond to the priorities and conveniences of corruption insiders rather than those of the public at large: the over-specifications in recent proposals for information technology for a government broadband and for "cyber-education" are the most glaring examples in the recent period [Fabella and de Dios 2007].

Another aspect of corruption with an investment impact, but which is similarly difficult to specify or quantify, is the effect of "regulatory capture". Unlike overpriced equipment purchases, for example, there is no natural benchmark (e.g., a competitive price) that can serve as a point of comparison to detect the occurrence of an illicit sale of rights and rules for political or financial considerations. Regulations typically affect specific sectors, and a proper specification needs to posit pre- and post- or counterfactual situations that are quite idiosyncratic. As a result, the evaluation of the consequences of decisions by regulatory bodies—which are frequently empowered to make such decisions—will inevitably be a conditional matter, so that instead it may be the integrity of process itself that must be ensured.

The reasonable values the Philippines obtains—close to or better than the income-adjusted norm—for regulatory quality and government effectiveness in the KKM data would suggest that little if any institutional problems exist from this aspect. A shortcoming of such data, however, is that they are based on assessments of a general situation, without allowing for a more nuanced appreciation of actual practice in strategic or critical sectors. As already noted, the worsening assessment of corruption tends to dilute the favorable assessment of regulation in principle with the reality of regulation as practiced.

It is true enough that after the Marcos period, successive Philippine administrations (especially under Ramos) embarked on a spate of liberalization and deregulation reforms in many sectors. Notable successes have been registered in telecommunications, for example, where the dismantling of a monopoly, notwithstanding an imperfect reform, has resulted in increased investment and customer access. Llanto and Gonzales [2007] and Patalinghug and Llanto [2005] have documented, however, how this initial pace of reforms has subsequently decelerated and even faltered in such sectors as shipping, power generation, and telecommunications, with the respective regulatory agencies hesitating to take what are thought to be essential next steps to complete the reform process and create more competition in their respective industries. At least some part of this must be traced to the intrusion of political agenda in what ought to be independent regulatory agencies.

Llanto and Gonzales [2007:10] call regulatory agencies "a point of political access for purchasing major influence over government policy" on the part of affected firms or special interests, with entrée being provided by the fact that in almost all cases, such regulatory and quasi-judicial bodies are made up of presidential appointees with no fixed tenure. In the power industry, for example, new private investment has been held up owing to a badly designed law that allowed cross-ownership between distributors

and generators. This has created uncertainty among potential investors who are at a disadvantage with respect to parties with secure contracts with their affiliate distributors. Similarly, telecommunications rules have allowed incumbent telecommunication companies to offer value-added services to their own subsidiaries on terms not made available to third parties. The popular suspicion cannot then be avoided that regulatory agencies tend to treat dominant firms in their industry depending on the political accommodation these have reached with the appointing powers. Ultimately, the question raised is to what extent an independent and professional bureaucracy continues to exist in the Philippines given the extraordinary power of the president and the nature of political institutions and transactions.

A worsening of corruption differs in its effect from deteriorating political stability in that the latter can develop quite rapidly and is therefore more prone to affect volatile price variables, such as interest rates and exchange rates, as well as *potential* new investment, particularly direct foreign investment. A rise in corruption, on the other hand, is apt to be more gradual and to be felt and recognized by investors who are *already* present in the domestic economy. It is therefore more likely to affect the overall investment or accumulation rate—for example, investment as a proportion of gross domestic product (GDP), rather than potential investment. (Separate tests—not reported here—show the corollary: that political instability variables are not a strong influence on the investment rate.)

Empirically, therefore, it is possible to test whether corruption, as measured, contributes significantly to explaining the rate of accumulation or of investment. Table 5 contains various specifications using either current or lagged measures of the corruption index, together with the typically included variables such as real interest rates, lagged investment, or some measure of predicted or past levels of output. In the majority of these specifications, what is notable is that the corruption index, whether current or lagged, emerges as an important variable to explain the investment rate, sometimes overshadowing more traditional explanatory variables such as real interest rates or predicted or lagged GDP. Perceived corruption ratings explain easily from a quarter to a half of the variation in the investment ratio.

To sum up the foregoing, political instability and corruption have been demonstrated to have had measurable effects on Philippine economic performance in the recent past, affecting investment directly, as well as indirectly through interest rates. New foreign direct investment has historically been deterred by the country's history of political instability, particularly causing it to miss the flood tide of relocating Japanese investments in the wake of the Plaza and Louvre accords. In a gross sense, it has also been documented that the country's rate of accumulation is influenced negatively and significantly by the extent of perceived corruption.

The institutional and historical bases of the recurring problems of instability and corruption are examined in the next section.

LEGITIMACY AND POLITICAL ECONOMY

Political instability in the Philippines is rooted in a recurring problem of regime legitimacy. The country's recent history is replete with threatened or actual political transitions that spilled beyond prevailing formal constitutional rules or severely tested their limits. As a result, the legitimacy of such changes has been laid open to doubt and rendered vulnerable to credible challenges by at least some sections of the population, resulting in political instability.

A historical backdrop for the weak support for formal institutions is the social inequality that already existed in the colonial period but which was reinforced with the formation of modern political institutions. Originally rooted in unequal ownership of agricultural land, these inequalities have been preserved, even as the asset base of elites has gradually shifted away from agriculture to extractive industries, finance and trade, manufacturing, real estate, and other services. Privileged access to the legal system historically allowed members of the social elite to establish de jure rights over property that was de facto owned by the indigenous poor population. Such privileged access has only been moderated but not offset by subsequent economic growth and the spread of literacy and education. Examples range from the *pacto de retroventa* during the Spanish occupation, to the introduction of the Torrens land-titling system under the Americans, to yesterday's headlines on an agrarian dispute between indigenous farmers, on the one hand, and a landowning family and a diversified conglomerate, on the other.

The dissonance between the application of the formal law (based on the less accessible civil-code tradition), on the one hand, and common usage and the sense of traditional moral entitlement, on the other, has been a major obstacle to the widespread acceptance of formal institutions in the Philippines. Persistent inequality and mass poverty have, as a result, formed the basis for a perennial demand for social redress (and the expectation of state intervention in many economic sectors) that places severe constraints on social decision making, as well as poses constant challenges to regime legitimacy. The intensity and pervasiveness of this social demand are still evident in the various incarnations of reformist and revolutionary movements for agrarian reform and Islamic secession.

From a new-institutional viewpoint, the exogenous introduction via colonial experience of political and economic institutions amid great and persistent social inequities and a parallel network of informal, personal, and kin-based institutions, clearly placed such institutions beyond the reach of the larger part of the population, for whom these forms can be little more than abstractions beyond the periodic exercise of voting rights [de Dios and Hutchcroft 2003]. Largely absent are the effective and regular means of social control over members and factions of the political elite, which in mature democracies are provided by functioning mass political parties.

Table 5. Dependent variable: investment ratio (OLS estimation: annual data)

	Model 1 1984-2006	Model 2 1984-2006	Model 3 1985-2006	Model 4 1985-2006	Model 5 1985-2006
Constant	19.7433 (0.688)	18.24999 (0.647)	10.6855** (3.26)	8.90129** (2.74)	7.93916* (2.45)
Lagged investment ratio	0.438040** (2.90)	0.454500** (3.32)	0.276124 (1.60)	0.354844* (2.05)	0.355959** (2.22)
Lagged GDP	- 0.891797 (- 0.420)	- 0.814160 (- 0.387)			
Real interest rate	- 0.107748 (- 0.312)				0.326867 (1.17)
Lagged real interest rate		- 0.0560761 (- 0.181)	- 0.107073 (- 0.2678)		
Lagged nominal interest rate				0.0511975 (0.628)	
Inflation rate				-0.0852405 (-0.896)	
Corruption score	1.88295*** (3.88)	1.87210*** (3.86)			
Lagged corruption score			2.12317*** (4.05)	2.00497** (3.46)	2.17246*** (4.39)
Sigma	2.02621	2.02984	1.70948	1.7207	1.65483
\mathbb{R}^2	0.629827	0.6285	0.734012	0.745481	0.750745
Log-likelihood	- 46.0585	- 46.0997	- 40.8054	- 40.3206	- 40.0907
F-test; (d.f)	7.656; (4,18)	7.613; (4,18)	16.56; (3,18)	12.45; (4,17)	18.07; (3,18)
D.W.	1.94	1.91	1.61	1.52	1.52
AR 1-2 test: F(d.f.)	1.4294 (2,16)	1.4280; (2,16)	1.6663 (2,16)	1.3081; (2,15)	1.2204 (2,16)
ARCH 1-1 test: F(d.f.)	6.6314; (1,16)	6.5662; (1,16)	0.3333 (1,16)	0.7562 (1,15)	1.0709 (1,16)
Normality test : c²(2)	0.35398	0.25006	0.16153	0.90195	0.61942
Hetero test: F(d.f.)	0.47680; (8,9)	0.50364; (8,9)	0.31008 (6,11)	0.38193 (8,8)	0.15077; (6,11)
Reset test: F (d.f.)	11.656; (1,17)	10.013; (1,17)	0.12708 (1,17)	1,4525 (1,16)	2.2161 (1,17)

It is unsurprising, therefore, that these would command weak allegiance, at most. Moreover, where the foundations of secular and impersonal state institutions are historically weak, primordial parallel institutions, such as the clan or family, or religious and ethnic affiliations become dominant by default, with their workings being superimposed upon the formal political processes. All this paves the way for the violation of what is probably the most significant "doorstep conditions" for transition to a progressive society laid down by North, Wallis, and Weingasts [2009]—namely, the elite's willingness to submit to its own rule of law.

Against this broader historical backdrop, we discuss factors that have exacerbated legitimacy problems in the more recent period—namely, contested constitutional foundations, unstructured rivalry among elite factions, continuing inequality and weak social cohesion, and the inherited tradition of strong executive power.

Constitutional issues

In the postwar period,¹³ legal adventurism began with the declaration of martial law by President Marcos in 1972 as a means of evading the term limits set down under the 1935 constitution. Marcos's term was extended thereafter under the ruse of a "transition" government beginning in 1981 that was putatively allowed by the succeeding 1973 constitution. The travesty of two constitutions committed during the Marcos era ultimately provoked a backlash that was equally audacious, the EDSA People Power Revolution in 1986, which began as an abortive coup d'état and ended as a popular urban uprising.

Although the legitimacy of the Aquino administration ostensibly derived from a victory in the 1987 snap elections—and there need be no doubt about Mrs. Aquino's popularity at the time—it was ultimately enforced in practice by a people's uprising and the defection of a large section of the armed forces. The fact that Mrs. Aquino's mandate could be thus disputed opened her to challenges from military forces that attempted several coups d'état—the most violent being in 1987 and 1989—which in turn wreaked havoc on stability and investment. Gradual improvements in stability came only when Mrs. Aquino made a credible commitment to abide by a new constitution (ratified in 1987) and credible local and national elections were held thereafter.

The country's next experiment in extra-constitutionalism was the overthrow of President Estrada in 2000 through an abortive impeachment followed by a second people's uprising backed by a withdrawal of Cabinet, then crucial military support. The constitutionality of Mr. Estrada's removal through what is known as "EDSA 2" has always remained in doubt, since it failed to fulfil the conditions as set forth in the existing constitution. As a result, the Supreme Court needed to dig deep for a legal construction that would legitimize Mrs. Arroyo's assumption of power. That the legal basis for Mrs. Arroyo's takeover of the presidency was less than clear-cut in turn provided a

plausible legitimacy to parties that wanted to weaken or topple the government. What finally determined the ensuing legitimacy crisis, however, was the disputed victory of Mrs. Arroyo in the 2004 elections. Ordinarily, the successful holding of elections under constitutional rules should have enhanced regime stability. The emergence of the electoral scandal involving Mrs. Arroyo, however, further diminished her claim to legitimacy, which led to pressure from the political opposition and various civil society groups for the president to resign, be impeached, or for snap elections to be held, and more seriously opened the administration to several coup attempts (notably in 2003, 2006, and 2007).

At a more fundamental level, however, as Hutchcroft and Rocamora [2003] point out, the tenuous support for existing formal political institutions cannot be divorced from a historical failure to justify their existence to broader sections of the population, which have at certain critical points become alienated from a system that has failed to respond to their interests and imperatives. The potency and appeal of competing elite projects for change often draw upon the larger sea of discontent and cynicism among the poor and marginalized. In particular, existing institutions have been continually tested by how they have accommodated two types of conflict, which are treated in the next two subsections—namely, (a) contests for political power and rent redistribution between opposing factions of the elite, and (b) demands for redistribution and economic redress originating from the masses and their political representatives. The failure of formal institutions to accommodate these conflicts gives rise to political instability.

Intra-elite rivalry

The country's unique historical experience may have contributed to the inchoateness of common goals among the country's elite leaders. In many postcolonial countries, protracted struggles for independence (e.g., India or Vietnam) or the need to respond to perceived threats to national existence (e.g., invasion for South Korea and ethnic animosities for Malaysia) have often served as a crucible to form a broad common vision and to extract a coordinated effort among political leaderships that ultimately prove durable and dominant. Both were absent in the Philippines, as independence had already been promised by the United States ab initio, with the arenas for political competition expanding almost as a matter of course. As a result, intra-elite rivalry tended to focus not on cooperation for a common purpose against adverse odds, but upon gaining differentially favorable political treatment from the foreign occupier at the expense of other factions. Indeed, competition among provincial elites for national political power was virtually encouraged by the occupying regime. Hutchcroft and Rocamora [2003:265] regard this circumstance as unique and significant, since it allowed the operation of patronage-based politics and intra-elite competition before an effective and autonomous bureaucracy was in place that could "resist the depredations

of patronage-seeking politicians".¹⁵ This reverses the pattern seen in other instances of colonial rule (India being a good example), in which colonizers first perfected the bureaucratic machinery before introducing political representation.

Since the political elite themselves lacked a clear articulation of common goals and convergence of ideas regarding the state [de Dios 2007], no clear limits were placed on the pursuit of clan or even narrow personal agendas, which could and frequently did spring the bounds of what was permissible under formal political rules. Political processes can be utilized to expand the interests of informal institutions, while the state's deployable resources are a substantial addition to any elite faction or clan's means in pursuit of its goals. Through elite capture, state institutions can, in short, become major instruments of wealth accumulation (i.e., the "booty capitalism" described by Hutchcroft [1992]). The well-known Philippine phenomena of clan politics, cronies, corruption, and instrumentalization of the bureaucracy are then a comprehensible consequence rather than an aberration.

Intense rivalry among factions of the elite for a larger share of political power at various levels results from the unrestrained and unstructured pursuit of clan and individual interests and the treatment of state power and state resources as a common pool and as a means of wealth accumulation. While intra-elite rivalry may be contained in constitutionally ordained processes, such as regular elections in "normal" periods, this competition has also burst normal bounds and threatened political stability, at times resulting in sudden upheavals. The latter frequently occurs when the state's legitimacy crisis worsens. Historically, periods of visible and vocal mass discontent, disillusionment, or political paralysis have triggered attempts on the part of opposing elite factions to seize power extra-constitutionally, with weaker or stronger appeals to popular support. A clear example was Marcos's declaration of martial law, of which a major part of the agenda entailed suppressing and dispossessing rival elite factions. Such measures, however, were founded on the specious argument that these were meant to head off a Left rebellion that threatened to co-opt the demands of the poor and undermine government. Similarly, the mass or middle-class disillusionments regarding the personal conduct of sitting presidents and the misconduct of elections were, respectively, the motive forces behind EDSA 2 and the most recent attempts at extra-constitutional takeover.

The intensity of intra-elite political rivalry is influenced by the scale and ambition of an incumbent faction's project to redistribute corruption and other rents. In a "normal mode", only regular flows and incremental rents are up for redistribution, with an implicit commitment to a terminus, as evidenced, say, in the observance of presidential term limits to turn over power to other elite factions. This was the "revolving-door" regime that originally characterized the two-party system under the 1935 constitution, with "ins" and "outs" alternating in power in a more or less regular manner. The authoritarian project of Marcos, however, broke this pattern in two ways: first, it sought

not only to redistribute incremental rents but to reassign even existing property rights (i.e., dispossessing "oligarch" families such as the Cojuangcos, the Lopezes, the Jacintos, and the Elizaldes); second, it sought to extend the term of the incumbent indefinitely through a de facto dictatorship, introducing the military for the first time as an intervenor in deciding political outcomes. Apart from the other abuses committed by that regime, this historical break was a principal reason that the resistance and backlash against the Marcos dictatorship needed to be as massive and thoroughgoing. This same *modus vivendi* was what the 1987 constitution implicitly sought to restore and strengthen, with its specific insistence on a single-term presidency.

Similarly, the intensity of opposition to the Arroyo administration is largely traceable to Mrs. Arroyo's privileged (and constitutionally aberrant) position of having been able to stay in power beyond the prescribed six-year presidential term limit.¹⁷ Further controversy was stoked by serious allegations that Mrs. Arroyo had stolen the 2004 elections (with the alleged complicity of the military leadership, as well as members of the electoral commission) as well as her endorsement of constitutional change toward a parliamentary system, which it was feared could be used to abolish presidential term limits altogether. Finally—and as a partial consequence of the first two—there has been a succession of grand-corruption scandals that have dogged the Arroyo presidency in its extended tenure, the major ones involving irregular disbursements for fertilizer; campaign contributions from gambling lords; major railway and highway projects; and culminating in the 2008 "national broadband" bribery scandal that involved official Chinese investment financing, the chair of the electoral commission, and a favored Chinese telecommunications firm.

The threat of an opposing section of the ruling elite acquiring unlimited power—with the unprecedented access to corruption rents that it implies—has been a fundamental reason that elite political conflict intensifies to the point where it threatens stability. A willingness to consider extra-constitutional courses of action is especially provoked by the perception that normal rules and processes have been co-opted, and legitimate state agencies have been captured by the incumbent, so that the path to a normal turnover has been blocked off. Particularly important in this respect has been the perceived independence of the military and police, the electoral commission, and the judiciary (particularly the Supreme Court). The unprecedented politicization of such agencies beginning with martial rule under Marcos—and more lately the perception of the same under Mrs. Arroyo—has been the defining event that led even the formal political opposition to mistrust and consider abandoning constitutional change processes. From a general business-interest viewpoint, moreover, prolonged political chaos is anathema, so that as long as the threat of expropriation is minimized, the rest of business can find a pragmatic modus vivendi with any political project that reestablishes order, regardless of its features or the means by which it assumes power.

Inequality, poverty, and the middle strata

De facto legitimacy has been measured historically and in popular cultural beliefs by the government's ability (or credible promise) to provide decent material standards of living among the population. Such beliefs and traditions are long-standing and continuously reinforced in literature, religion, and the press. The ideology of the Philippine revolution, for example, was founded partly on religious and semi-millenarian hopes of earthly salvation among its mass followers [Ileto 1979]. Moreover, reflecting various ideological streams flowing through it, the predominant Catholic Church has reinforced the ideal of a government with a social-activist role performing a patrimonial role on behalf of the poor.¹⁸

Owing to erratic economic growth and a long-delayed demographic transition, the actual reduction of mass poverty in the Philippines has been far slower than the East Asian norm, while the historical legacy of inequality has persisted. Indeed in the most recent period, the incidence of poverty increased, as moderate growth tended to benefit the already-affluent.¹⁹ Given the high ideal expectations of government among the masses and the failure of its most recent strategies, it is unsurprising, therefore, to find ready political fodder for instability in the large numbers of poor people, particularly in urban centers like Metro Manila, where inequality of incomes is most evident. Festering mass disaffection can be and has been utilized to tilt the balance against incumbent administrations at critical junctures. In the aftermath of President Estrada's ouster from office, for example, the urban poor in Metro Manila—many of whom regard Estrada as an icon of pro-poor populism—formed the main force in the massive demonstrations seeking to topple Mrs. Arroyo and reinstate the arrested Mr. Estrada, culminating in the violent siege of the presidential palace on 1 May 2001 known as "EDSA 3" or "Poor People Power". 20 What was ultimately involved was a rare confluence of factors: (a) a radical split among the political elite provoked by (b) a serious constitutional issue namely, the constitutionality of Mrs. Arroyo's assumption of the presidency; and (c) an appeal to long-festering disillusionment among the masses regarding their unchanging condition. The potency of this constituency was again demonstrated after the 2004 elections when the issue of formal legitimacy again came to the fore with the "Hello Garci" wiretapping scandal and the suspicion that the president may have directly intervened if not cheated to ensure electoral victory.

Recent experience has made clear, however, that poverty and inequality are not sufficient conditions for political instability since, one can argue, while mass poverty has always been historically present, political instability has not been equally acute in all periods. This suggests that what is more decisive is the perceived failure of *formal* institutions and the willingness of the elite and the middle classes to undertake extra-parliamentary or even extra-constitutional courses of action. From a political viewpoint, the existence—and indeed even worsening—of mass poverty and disaffection

assumes the character of a pervasive background—a "red-shift" that is ubiquitous and conditioning but perhaps not decisive in importance.

Factions of the political elite at various times have not shrunk from supporting or even initiating extra-constitutional experiments: these have ranged from proposals for snap elections, to forced executive resignations through people's power, all the way to various forms of military-initiated actions and proposed juntas. As discussed, the impetus invariably appears to be the disruption of the regular routine of elite changeovers and a perceived threat that an incumbent faction's ambitious plans to take on unlimited power. On the other hand, owing to what is often perceived as their unvarying destinies under any of the previous regimes hitherto, poorer sections of the populace are in principle susceptible to new projects promising radical reform, whether or not these are accomplished through constitutional means and whether these assume an authoritarian or democratic form.

In these circumstances, it is the middle classes and the intelligentsia (which should be understood to include some elements of the political elite) that have often displayed a moral and ideological stake in constitutional and democratic processes. This is aligned with the regularity, observed by Easterly et al. [2006] in cross-country data, that a broad middle class is an important factor for the stability of formal governance, a fact that owes largely to the implied consensus that stratum maintains regarding the efficacy of impersonal institutions. Unlike the masses, whose quotidian existence is rarely affected by the results of intra-elite contests, the middle classes have a material stake in outcomes of policy, on which their future progress may depend; unlike the elite, on the other hand, who can actively intervene and lobby in their own behalf, the middle classes must seek refuge in the uniform application of rules. Thanks to the historical legacy of great inequality, however, the numerically small middle class in the Philippines²¹ has often been squeezed in an electoral environment between the numerous poor for whom the prescriptive rules of a formal democracy tend to be reduced to mere forms and abstractions, and an elite that is not beneath distorting such rules to preserve economic and political privileges in intra-elite competition. The two major popular uprisings experienced in the country, for instance, had very distinct middle-class characteristics and agendas²² and were directed particularly against authoritarianism (EDSA 1) and grand corruption (EDSA 2). In both cases, middle-class rage, culminating in direct action, was provoked by evident attempts to frustrate otherwise legitimate processes: by a manipulation of the results of a snap election in EDSA 1; and the obstruction of evidence in an impeachment trial in EDSA 2. From the viewpoint of the middle classes, therefore, the provocation to extraordinary action was the blockade or frustration of legitimate means of redress—hence the paradoxical point that an extra-constitutional action is needed to reaffirm the constitution itself.

Disenchantment with subsequent governance results of past people-power uprisings and formal electoral contests, however, has gradually eroded the political idealism that

previously existed among the middle class, which has given way instead to a growing apathy and reticence regarding political action. It is significant, for example, that the huge controversy over the "NBN-ZTE scandal"—during which the administration prevent the appearance of witnesses in Senate hearings—failed to call forth the level of sustained and massive middle-class protest seen in the EDSA 1 and 2 episodes. Opinion surveys (in Metro Manila) taken during this period record that while more than 70 percent of the upper and middle strata in principle shared the sentiment of protest against this scandal, only 16 percent were personally willing to join protest actions [Pulse Asia 2008]. The reasons given by the middle and upper strata²³ for nonparticipation were also revealing: "there are more important things to do" (30 percent); the fact that no change can be expected whoever comes to lead government (30 percent); and the greater urgency of earning a living (10 percent).

Weakening political engagement and growing cynicism regarding the integrity and efficacy of existing institutions among the middle classes must be counted among the important reasons for heightened political instability. On the one hand, the trend of growing middle-class apathy may mean less volatility, to the extent that a constituency for extraordinary and direct action is no longer available. On the other hand, without positive developments—and taken together with intra-elite rivalry and even a political agnosticism and pragmatism of the broad masses—middle-class passivity also renders the country's institutions vulnerable to extra-constitutional political projects, particularly power grabs by elite leaders (whether incumbent or out of power) or autonomous actions on the part of the military.

Concentration of power

If political economy influences the degree of receptiveness by various groups to formal institutions, the distribution of power implied by those institutions also affects the behavior and motivation of the political actors themselves. A central inducement to corruption and political instability in the Philippines stems from the centralization of power in the executive branch [de Dios and Esfahani 2001]. More powerful than his US counterpart, a Philippine president exercises unprecedented fiscal discretion and powers of appointment. The Philippine president's fiscal powers are particularly crucial. Besides a line-item veto, the president exercises the unusual power to withhold or impound the actual release of already-appropriated funds, allowing him effectively to pursue or realign priorities quite independently of Congress.²⁴ Indeed, in recent years, the executive has succeeded in pushing discretion to the point of selectively withholding pork-barrel funds (hitherto deemed an entitlement of legislators regardless of party affiliation) as a form of retaliation against opposition lawmakers. Apart from this, the president directly disposes over large lump-sum funds (e.g., intelligence funds, social funds, calamity funds) with minimal congressional oversight, as well as the earnings

of government-owned and -controlled corporations. Other features enhancing the president's fiscal discretion include the automatic appropriation of a previous year's budget should Congress fail to pass a new one; automatic appropriation of debt service; and the power unilaterally to select suppliers and negotiate financing for projects involving foreign official loan finance or BOT schemes involving the private sector. The wide discretion implied by the latter lay at the root of a major bribery scandal in a proposed government broadband backbone (known popularly as the "NBN-ZTE" controversy), as well as a corruption controversy involving the rehabilitation of the railway running north of the capital (the "Northrail" project). Both were subjects of extended public hearings at the Senate that dragged in key members of the Arroyo administration and threatened to implicate the president herself or her immediate family.

The president's appointing power is staggering as well. A former chair of the Civil Service Commission has estimated [David 2007] that presidential appointments may number as many as 10,000, ranging from Supreme Court justices, to members of the military and police hierarchy, members of the Commission on Elections, board members in government corporations and regulatory agencies, down to minor officials in far-flung cities and municipalities. The depth of the president's political appointments—to as far down as the level of assistant director in a government bureau—is unprecedented. In comparison, most systems in the British mould (e.g., India) allow political appointments only up to the level of secretary or minister. Discretion in presidential appointments is virtually absolute, with only feeble checks from Congress: cabinet members passed over by Congress, for instance, may continue in office indefinitely through the simple expedient of being reappointed by the president in an acting capacity.

The president's wide appointing power obviously opens up the system to manipulation and corruption. Career civil servants who fail to toe an administration's line or do the bidding of powerful politicians can be placed in the "freezer"—that is, assigned to nonstrategic or insignificant positions—and replaced with more pliant political appointees. The expected result is a weakening of the independence and integrity of decision making among the bureaucracy, whose members gradually realize that retaining their position and seniority depends less on inherent merit and more on being in the good graces of the appointing power. Such a phenomenon is most developed and regularly observed in the revenue-collection agencies (internal revenue and customs), where the quest for political patronage and protection originates from the bureaucracy itself, and corruption is part of a going concern. The larger upshot of such micro behavior, of course, is that the government's perennial problem with revenue efficiency is never permanently addressed. Doing so, after all, would require a dismantling of the carefully built web of clientelism and corruption that have become the raison d'être of the bureaucrats who populate those agencies.

More than a vehicle for corruption, the inferior quality of executive appointments contributes to destabilization when it relates to (particularly constitutional) bodies that guarantee and moderate the political process itself.²⁵ In particular, the poor and biased quality of presidential appointments to the Commission on Elections under the Arroyo administration was responsible for the long chain of events and scandals that pushed the administration to the brink of overthrow. The "Hello Garci" wiretapping scandal—strongly indicating that election officials had conspired to manipulate the outcome of the 2004 elections—centered on a personality whose appointment to the elections body was vehemently opposed by civil society groups and election watchdogs to begin with. Similarly the recent uproar in 2007-2008 over large-scale bribery in the national broadband (NBN-ZTE) project involved the very chair of the elections body (though since resigned), who allegedly sought to broker a multimillion overpriced deal with foreign equipment suppliers, using his leverage with the presidency that owed allegedly to favors done in elections past.

Where there is a need to manage the spread of political scandal and controversy, moreover, it becomes almost inevitable to involve more agencies in a widening web of cover-up and complicity. As an administration becomes more beleaguered, therefore, the pressure increases to use executive discretion in making appointments to strategically placed agencies (e.g., to the military, the police, government prosecutors, the courts, and so on) based on proven political loyalties rather than on inherent merit. The danger in this trend lies in the further erosion of legitimacy of such agencies, with ultimate consequences on people's beliefs in the efficacy of governance in general. In the extreme, as already mentioned and as history shows, the pervasive politicization of appointments could lead to the assessment that all legal recourse has been blocked, and that, therefore, only extra-constitutional remedies and direct action will suffice.

One of the major challenges for the country in the coming decades is changing the balance of power in government, away from the executive and mainly toward Congress and the local governments. The present administration in particular has illustrated and tested the limits of presidential powers (e.g., declaring a state of emergency, invoking executive privilege, concluding executive agreements without congressional approval, persistently reappointing persons passed over by the Congress, and so on). The Congress's subordinate and financially supine position has meant it has failed to assert its prerogatives [de Dios 1999], with only the Supreme Court in recent times interposing objections to the further expansion of presidential powers. The result has been a growing culture of impunity within the executive branch, with the negative consequences already mentioned regarding opportunities for corruption and regulatory capture, and the open invitation from opposing elite factions for a more radical response.

To summarize: political instability and corruption have clearly affected long-term Philippine growth and investment. These, however, merely point to deeper roots of

institutional dysfunction. Factions of the elite have exploited the fact of glaring social inequalities, on the one hand, and the concentration of political power at the center, on the other, to engage in struggles for political power that test and occasionally spill beyond constitutional bounds. The substantial prize in these contests consists of the corruption rents and the reassignment of rights made possible by the capture of political power, particularly of the executive branch. Extra-constitutional elite projects are possible—and indeed could occasionally succeed—because the hold of formal political institutions (superimposed owing to colonization) on the greater mass of the population is weak, abstract, and has been historically dominated by elites. More accessible to the majority are informal relationships based on personal ties and kinship, but these correspond poorly with the prescribed impersonal and meritocratic values of the formal political and economic institutions. In the meantime, the middle classes, a natural constituency for the spread of impersonal rules and public accountability, are numerically weak and increasingly disillusioned with the historical experience of governance and with political life more generally. Absent intervening factors, such circumstances render current political institutions vulnerable to capture by narrow elite interests or to prolonged social conflict that paralyzes social decision making.

Taking a longer and larger view, the difficulty for Philippine society becomes evident: its historically inherited formal institutions are far from optimal in that they do not correspond to people's beliefs, customs, and expectations. For this reason, such institutions fail to command people's allegiance or fully regulate their behavior. The result is institutional instability with its concomitant consequences: social fractiousness and corruption.

RECOMMENDATIONS AND CONCLUSIONS

From some perspective, the foregoing may simply be seen as a vindication of a point made by North, Wallis, and Weingast [2009], who argue that economic and political institutions are mutually reinforcing, so that "limited-access order" or "natural-state" societies like the Philippines may find it difficult to move forward by means of social and political institutions that seek to enforce impersonal rules, meritocracy, and democratic processes—that is, institutions that presuppose societies with highly developed economies, contestable markets, and pervasive social organizations based on objective secular interests beyond kinship. The country's failure to bring the actions of its elites to heel under the rule of law; its difficulties in forming enduring social organizations that go beyond personal ties and kinship; and its erratic record in controlling violence, particularly from the military, all point to the distance Philippine society needs to traverse before it can create the conditions to escape underdevelopment.²⁶

The deeper question is whether attaining those threshold conditions is more likely if the country pursued a *different* institutional path. To be sure, the "Asian values" debate of some decades past suggested that greater social order and congruence with grassroots beliefs and expectations—hence more rapid growth—might be better achieved under authoritarian and paternalistic institutions that regularly create and dispense rents in order to buy social peace.²⁷ Nor has there been a shortage in the Philippines of harbingers of retro-authoritarianism (as well as a few thoughtful individuals²⁸) who point to the all-too-obvious inadequacies of formal democratic institutions to advertise the potential benefits of more authoritarian political institutions.

This paper, on the other hand, contends it would be foolhardy and costly to radically change the country's direction of institutional development. Such an argument is based on the simple assessment that the traverse is itself likely to be costly, chaotic, and fraught with social risks. The difficulty presented by the Philippines to social scientists lies in its ambivalence: on the one hand, there is the observable disconnect between the real behavior of the majority of the populace and that prescribed by formal institutions; on the other hand, there is an almost hegemonic clamor for and acceptance for "open-access order" political institutions in public discourse and rhetoric. This is strongest among the middle classes and the intelligentsia (including the Catholic Church), who have been educated and socialized into democratic values; but it also finds support among the more conservative sections of the elite who fear the challenge that radical changes pose on existing property rights. It may be more prudent, given this, to inquire instead into the possibilities for incremental change under the present institutional setup that could bring the country closer to threshold conditions. The three broad directions in which this might occur are as follows: (a) greater adherence to constitutional processes, (b) a reduction of presidential prerogatives within the present constitution, and (c) a rebuilding of civil society and the spread of political education and organization.

Elections and adherence to constitutional processes

First, there is an obvious need to promote the greater adherence to constitutional processes and limits. This is required if society is to escape the downward spiral of diminishing legitimacy, where both incumbent elite factions and those who oppose them constantly threaten to infringe normal constitutional limits in order to retain power or seize it. Moving forward, people and government both need to make a common investment in the infrastructure of secular constitutional processes that should be allowed to operate normally and regularly, regardless that the results fail to conform immediately to immediate elite interests, or to middle-class or religious ideals.

The crucial condition is the restoration of the credibility of the electoral process, which has been severely tarnished by recent electoral controversies and other scandals involving electoral officials. Reforms in this area are particularly urgent in light of approaching presidential elections in 2010.

Toward this end, there is a need for a thoroughgoing revamp of the Commission on Elections through the appointment of competent and professional members that command the acceptance and assent from all parties and civil society. It is worth seriously considering the possibility of removing the appointing power from the president and vesting it instead in a special body for the purpose involving both the legislature and the Supreme Court, in the spirit of electoral tribunals.²⁹ Short of a constitutional change and as an interim measure, the president might make a public commitment to henceforth appoint members of the commission from a small set of nominees openly submitted and scrutinized by an impartial public body.

Operationally, the completion of the long-delayed modernization and computerization of the voting and canvassing is indispensable.³⁰ The currently tortuous process of manually tallying and canvassing votes (with a tedious stepwise aggregation of election returns at municipal or city, provincial, and national levels) is the single most important circumstance that renders the present system highly vulnerable to the manipulation and misrepresentation of election results. That it is still possible to delineate spheres of public life and place them beyond the operation of narrowly partisan interests is demonstrated by the transformation of the central bank into an independent agency and the abiding public trust vested in the Supreme Court. The electoral commission itself is also probably in need of a radical reform that will professionalize its lower echelon personnel and expand its coverage and organizational capacities.

Beyond the conduct of elections themselves, reforms pertaining to campaigns and election finance should also be placed on the agenda of a national debate. Particularly important are effective disclosure requirements (enforced by a more professional Commission on Elections) for large campaign contributions imposed on both candidates and donors. Extraordinarily large campaign contributions may possibly be monitored administratively as part of the country's money-laundering laws.

Serious questions regarding the integrity of elections have repeatedly been the trigger for prolonged political instability in the past. The recent series of controversies over election irregularities and the involvement of high electoral officials, particularly the large public outcry it provoked, aside from the instability it has caused, on the other hand also provides a unique opportunity for action—namely, a political crisis that is the impetus that galvanizes multisectoral action on an issue.

Limiting executive power

Limiting the scale of intra-elite competition implies not only keeping conflict within the bounds of existing rules but also reducing the size of the prize itself. The magnitude of resources, ambition, and effort allocated toward political competition more generally is directly related to the huge resources and wide discretion associated with the presidency. It therefore stands to reason that the scale and violence of intra-elite contests can be reduced if the presidential power is credibly reduced.

Key steps must include an effort to reduce by statute the president's powers of appointment in favor of ensuring the integrity and security of tenure of the career civil service and enlarging the role of the other branches of government and civil society organizations in the selection of members of constitutional bodies. The civil-service law may be sharpened to limit direct presidential appointments only to the level of assistant secretary or its equivalent. Members of regulatory bodies should generally be appointed to fixed terms (the monetary board being an exemplary success in this respect). Strengthening the independence and professionalism of the sub-cabinet bureaucracy should permit them to resist political behests to justify grand corruption. This weakness on the bureaucracy's part and the lack of clarity and integrity in internal processes was, after all, what allowed the intervention of hangers-on and high-level fixers to intercede and pervert policy and project decisions, such as what occurred in the NBN-ZTE broadband deal.

In the same spirit, and as part of an effort to extricate the revenue agencies from the milieu of political patronage, earlier proposals to corporatize them (while binding agency heads to a system of performance contracts) should be seriously revived in the legislature. The point is to improve incentives as well as to strengthen those agencies' hiring and firing powers as part of the plan for massive recruitment of new personnel for these agencies.

Appointments to offices dealing with the investigation and prosecution of corruption cases within government are particularly crucial and should be treated with same circumspection as those for constitutional bodies. The independence of the department of justice, the solicitor-general, the ombudsman's office, the police, and the higher courts are particularly sensitive and would benefit from a transparent selection process that involved civil society and other branches of government. The point is to reverse the current situation, in which the independence and integrity of agencies with a role in anti-corruption efforts are highly suspect, owing to the perception that these offices have been thoroughly politicized and co-opted to favor the incumbent administration.

The vast fiscal powers of the president need to be curtailed and instead the role of Congress in the budget process should be strengthened. This means systematically involving Congress in a year-round review of national expenditures (i.e., engaging legislators beyond the budget period), reducing lump-sum allocations over which the president has discretion, and instituting congressional oversight to review prospective foreign borrowing for various projects.

A major step to increase congressional responsibility for the government's spending program would involve passing legislation removing presidential discretion in the release of funds appropriated by Congress: this essentially implies the administration is constrained to fully spend for each fiscal year whatever amounts Congress has passed and according to the priorities outlined by the latter.³¹ This simple measure obviates the need for individual legislators to become subservient to the executive branch simply to have the funds released for their constituencies.

A further reduction of presidential power would be helpful if applied to devolving more power to local governments; in particular, the formula for internal revenue allotments to local governments should be redesigned to at least partly reward local governments that effectively exert their own revenue efforts.

In principle, many of these changes could be addressed in one fell swoop through constitutional amendments or perhaps a shift from a presidential to a parliamentary system. In practical terms and given the low level of trust for government, however, *any* proposal to change the constitution at this time will—for good or ill—be suspected as self-serving. The more prudent course, therefore, is to seek smaller changes within the ambit of the current constitution; this will be less destabilizing than open-ended charter reforms that have historically been an opportunity for the realization of ulterior motives and extra-constitutional projects.

On a more general note, the reduction in the powers of the executive is compatible with and reinforces a smaller role for government in the economy. Fewer government corporations and the sale of government shares in companies not inherently imbued with a public-goods character would be a step toward curtailing the patronage that comes with the appointment of government representatives to these entities, as well as reducing economic inefficiency and promoting competition. It may well be true—as North and his coworkers have suggested—that such rents are essential in sustaining a limited-access order, so that the demand for smaller government disturbs that correspondence between economic and political spheres. On the other hand, real progress will require one to upset that equilibrium in any event; and in this instance, the almost universal political outcry against corruption at this time—an outcome of a history of scandals and anomalies—may motivate a real economic change, reconstituting the political-economic equilibrium on a slightly higher plane.

Rebuilding the constituency for reform and political education

It is ultimately convergent expectations that the rules governing public life do work—and the fact that these are normally serviceable—that yields political stability, stabilizes investor expectations, and gives a fair chance for superior economic growth to occur. The historical heterogeneity of Philippine society, however, currently militates against this occurring; instead it causes a dangerous feedback from inequality to

divergent beliefs, to political instability and corruption, to low growth and high poverty, and thence again to further differentiation.³²

The crucial question then is as follows: where will the constituency for future changes and reforms come from, and what will induce elite factions to so moderate their conflict so as not to become destabilizing?

A source of anxiety in the present situation lies in the growing despair among many of the intellectuals and middle classes and their waning interest in further participation in the political system itself—i.e., the decimation of civil society. This is particularly true for those with the option of "voting with one's feet" to seek institutions more in accord with one's beliefs.³³ Left unchecked, such a trend would mean an even smaller and weaker constituency in support of formal political institutions that were accountable to the public interest, which would normally mean an invitation to greater impunity and intense rivalry among the political elite, hence a deeper legitimacy crisis.

But the present stability in economic circumstances (and caused partly by that very trend—that is, the migration overseas with the resulting return flow of remittances) may itself afford a small opening, to the extent that it affords upward social mobility and higher education among a larger number in society. In a sense, therefore, even the middle-class diaspora may be helping to recreate the future middle classes. If the example of successful middle class civic organizations (e.g., Gawad Kalinga) is any guide, then the process of repoliticization may be sought not necessarily from explicitly political organizations themselves but from common professional, civic, or local interests that build up a sufficient solidarity to hold political institutions to account. It should also be noted that economic differentiation over the past decades due to goodsand capital-flow liberalization has created a section of big business with a greater stake than before in long-term political stability. Typically larger, more established, and diversified (e.g., conglomerates like the Ayalas and the taipans), such interests are less bound up with lobbying for advantage in narrow economic sectors. Like the middle classes, these, too, are a possible part of a reform constituency insisting on adherence to constitutional rules regarding transition and turnover (since political unrest could endanger the value of their holdings) and an even-handed policy (since their size and ubiquity implies they need not cater for any sector in particular).

The Philippines will have made significant political progress when powerful elite interests come to realize that the common cost to them of seeking large changes in rules may be far greater than simply operating under existing ones. But such a point cannot be reached without a renewed involvement of other social sectors that are willing to stake a claim on the existing order. The remaining question then becomes whether and how to speed up the re-engagement of such new emerging elements in the rebuilding of the country's ravaged institutions.

ENDNOTES

- I thank Geoffrey Ducanes for excellent research assistance and M.E. Khan, J. Zhuang, and D. Canlas for helpful comments. I am grateful to the Asian Development Bank (ADB) for permission to publish this article, an abridged version of which appeared earlier in a volume edited by Canlas, Khan, and Zhuang [2009]. Some references have also been updated. The views expressed in this paper are those of the author and do not necessarily reflect the views and policies of the ADB, or its Board of Governors, or the governments they represent.
- 2. This definition by Greif amplifies the more cursive one provided originally by Douglass North [1990] of institutions as constraints on behavior, or as "rules of the game", and of organizations as players in the game. Greif's definition highlights the point that for people to be guided by rules, they must be motivated by beliefs, while rules must often be sanctioned or implemented by organizations, notably those involved in the political and legal system. In more recent work, North [2005:48ff] has himself acknowledged the crucial importance of beliefs.
- 3. That is, to the extent it is *regularly observed* behavior. In another paper [de Dios 2007], I apply this observation to local political relationships in the Philippines.
- 4. This historical account is not entirely unchallenged, of course. Greif [2006], for one, contends that the impersonal state did not per se guarantee long-distance trade, credit, and impersonal exchange and instead cites the role of corporate bodies or associations, such as merchant groups (e.g., those of the Maghribi traders, or the German Hansa), town-communes bound by community-responsibility systems, and finally joint-stock corporations. These same observations tie in with similar work on *guanxi* networks in Chinese society that also originally facilitated trade. On the latter, see a recent paper by Fabella [2007].
- Subsequent work includes Barro and Sala-I-Martin [1995]; Mauro [1995]; Keefer and Knack [1995]; La Porta et al. [1998]; Kaufmann, Kraay, and Zoido-Lobatón [1999]; Rodrik, Subramanian, and Trebbi [2002]; and Easterly, Ritzen and Woolcock [2006].
- 6. I owe these terms to Nelson [2004:474], who uses *scholastic* to describe the situation where "a church hierarchy interprets the ways of God to the faithful", as exemplified by the Roman Catholic Church, and *pietistic* to describe "a more direct relationship between the individual and God", a notion more closely associated with the tendencies of early Protestantism. Nelson cites the theologian Paul Tillich for these assessments.
- These killings were the subject of at least one special government commission (the Melo Commission) and a mission by the special rapporteur appointed by the United Nations, J. Alston.
- 8. The other six components are socioeconomic conditions, investment profile, the military in politics, the role of religion in politics, ethnic tensions, and democratic accountability.
- 9. This is available from various versions of the Penn World Tables at http://pwt.econ.upenn.edu.
- Contemporary anecdotal accounts recount that the putsch attempt caught a large delegation
 of prospective Japanese investors at the very Makati hotel that the rebellious soldiers had
 taken over.
- 11. The so-called Hello Garci controversy in 2005 was provoked by the emergence of wiretapped recordings of conversations at the height of the 2004 elections between an election commissioner (V. Garcillano), on the one hand, and various candidates, including the president, on the other.

- 12. The plunder case filed against former president J. Estrada serves as an illustration: Estrada was convicted in 2008 of being at the top of the pyramid of bribes involving the running of the illegal *jueteng* numbers game in different parts of the country. While the running of jueteng racket and its protection by local politicians has existed for decades and is common knowledge, the attempted national organization of its protection and its implicit sanction by the president was an unprecedented leap in scale.
- 13. It is worth noting, however, that even in the prewar period, the president of the Commonwealth, M. Quezon, also succeeded in maneuvering a constituent assembly to change the original stipulation of the 1935 constitution and allow a reelection of the president.
- 14. After losing military and cabinet support, Estrada physically left the premises of the presidential palace in the face of an approaching massive crowd, but he never formally signed a document indicating his formal resignation. The Supreme Court was left to justify Arroyo's takeover as being due to a "constructive resignation". For an account of these events, see Doronila [2001].
- 15. The phrase is Martin Shefter's, quoted by Hutchcroft and Rocamora [2003:63].
- Between 1949 and 1965, the Liberal and Nacionalista parties more or less alternated in being the party in power, with no incumbent president ever winning reelection, until Marcos in 1969.
- 17. Mrs. Arroyo served out the three years (2001-2003) of the unexpired term of Mr. Estrada after he was deposed, and then managed to win a closely contested election in 2004, making for nine years in office until her term ended in 2010.
- 18. Most notably, the "liberation theology" current from Latin America, which sympathized with socialism and national-liberation movements, was influential in the Philippine church in the 1960s and 1970s, a period during which many members in the present Catholic hierarchy were educated.
- 19. The Philippines' Gini coefficient was a relatively high 44.5 in 2003. Official (headcount) poverty incidence actually rose from 24.4 percent to 26.9 percent of all families between 2003 and 2006.
- 20. After Estrada's arrest on 25 April 2001, a growing crowd, consisting largely of the urban poor, massed on the main thoroughfare EDSA from 25 to 30 April, then marched to the presidential palace on 1 May. The violent dispersal and street battles that ensued resulted in four deaths and hundreds injured. On this, see Bautista [2001:26 ff.].
- 21. Virola [2007] reckons that the "middle class", defined based on a fixed living standard or expenditure pattern in 1997, actually shrank as a share of the population, from some 23 percent in 1997, to 20 percent by 2003.
- 22. Bautista [2001] estimates that as many as 56 percent of those who participated in the EDSA 2 rallies in Metro Manila in 2001 could be classified as middle class if non-income characteristics such as level of education and type of occupation are taken into account.
- 23. The base is the 84 percent who were not willing to take active part in protests.
- 24. Many of these powers were established by authoritarian decrees under the Marcos regime, particularly Presidential Decree 1177, which was largely retained by the Aquino administration particularly during the period of its "revolutionary government" (1986-1989) prior to the election of the first legislature under the 1987 constitution.

- 25. Apart from the major branches of government, independent offices specified under the constitution include the Commission on Elections, the Commission on Audit, the Civil Service Commission, the public prosecutor (Ombudsman), and the anti-graft court (Sandiganbayan).
- 26. This enumeration closely corresponds to what North, Wallis, and Weingast [2009] have termed "doorstep conditions" for the transition from "limited-access orders" to "open-access orders".
- 27. North, Wallis, and Weingast [2009:17] argue that rents are an indispensable feature of limited-access orders as "the essential means of controlling violence", since these are necessary to secure the elite's political ends, such as, for example, buying political support from the masses, or from allies. As a corollary, the proscription of rents in such a context would undermine social order. Some writers (e.g., Jomo and Gomez [2000]) have sought to explain Malaysia's discriminatory *bumiputra* policy under Mahathir Mohammed in this fashion.
- 28. The most consistent has been the prominent business leader Mr. Washington Sycip. On this, see Fabella [2007].
- 29. Article VI, Sec. 17, of the constitution specifies the composition of electoral tribunals.
- 30. As of this writing, there has only been agreement to implement a computer-aided system during the special elections in the autonomous Muslim region. The computerization of the 2010 elections hangs in the balance.
- 31. This necessitates a review and revision of Sections 43, 44, and 38f, among other provisions of Presidential Decree 1177.
- 32. The gulf in political values becomes evident, for example, as between the middle classes and the masses (*masa*) in their differing appreciations of the judicial fate of former president Estrada, both before and after conviction—what was perceived by some as the operation of the rule of law is regarded by others as unusual punishment for a popular leader [Bautista 2001].
- 33. In some public-opinion surveys, as many as a fourth of adults from the rich to upper-middle classes and from the educated express a preference for living and working abroad permanently.

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Annex Table 1. Deviation of Philippine governance scores from mean controlling for per capita $\mbox{GDP}^{\mbox{\tiny 1}}$

Governance indicator	N	Deviation ²	P-value ³	Significance ⁴
Voice and accountabilit	y			
2006	180	0.04	0.50	
2005	180	0.26	0.00	***
2004	180	0.18	0.00	***
2003	183	0.27	0.00	***
2002	179	0.34	0.00	***
1998	179	0.62	0.00	***
1996	176	0.42	0.00	***
Political stability				
2006	180	-1.03	0.00	***
2005	180	-0.83	0.00	***
2004	180	-1.01	0.00	***
2003	179	-1.00	0.00	***
2002	175	-0.45	0.00	***
1998	175	0.12	0.08	*
1996	171	-0.27	0.00	***
Govt effectiveness				
2006	180	0.22	0.00	***
2005	180	0.16	0.00	***
2004	180	0.03	0.49	
2003	179	0.05	0.27	
2002	179	0.04	0.33	
1998	179	0.02	0.65	
1996	173	0.17	0.00	***
Regulatory quality				
2006	180	0.16	0.00	***
2005	180	0.19	0.00	***
2004	180	-0.06	0.20	
2003	179	0.17	0.00	***
2002	179	0.16	0.00	***
1998	179	0.69	0.00	***
1996	174	0.80	0.00	***
	_			

Governance indicator	N	Deviation ²	P-value ³	Significance ⁴
Rule of law				
2006	180	-0.22	0.00	***
2005	180	-0.17	0.00	***
2004	180	-0.39	0.00	***
2003	179	-0.35	0.00	***
2002	179	-0.32	0.00	***
1998	179	0.13	0.01	***
1996	162	0.23	0.00	***
Control of corruption				
2006	180	-0.47	0.00	***
2005	180	-0.35	0.00	***
2004	180	-0.31	0.00	***
2003	179	-0.20	0.00	***
2002	179	-0.32	0.00	***
1998	179	-0.15	0.00	***
1996	146	-0.22	0.00	***

Source: Own computations based on Kaufmann, Kraay, and Mastruzzi [2007].

CHAPTER

6

Is government really solving the housing problem?

Toby C. Monsod

ABSTRACT

Informal housing arrangements, substandard structures, congestion, and land-use conflicts characterize the urban housing problem in the Philippines. The record suggests that the response of the state, especially its reliance on below-market-priced mortgage loans, has aggravated the situation. If the housing problem is to be solved, government needs to rethink its role in housing finance, delink housing social assistance from finance markets, and turn its attention to fundamental supply side and urban governance issues.

INTRODUCTION

THE NUMBER OF housing units grew by 30 percent in the 1980s and 35 percent in the 1990s. Despite the rapid growth, there continues to be a significant unmet need for improved and additional housing. Thirty-one percent of the 14.9 million occupied units in 2000 were dilapidated, 35 percent did not have durable roofs or external walls, and 40 percent had a floor area of less than 20 square meters. For the period 2005-2010, official estimates pegged this unmet need at about 2.2 million units. The need to house another 1.5 million new households over the same period was also anticipated.

Is the government really solving the housing problem? The short answer is no, not quite. While rapid urbanization and population growth have intensified supply shortfalls in affordable and quality housing, so have well-intentioned but inappropriate state policies. In order to begin to solve the housing problem, there needs to be a fundamental shift in the state's approach.

This paper proceeds as follows. Sections 2 and 3 discuss why and how governments typically intervene in housing markets and the achievements and costs of our national housing policies to date. Strategic issues that need to be confronted are discussed in section 4 and ways forward in section 5.

HOUSING AND THE STATE

A functioning housing market is one where households can translate their notional demand for quality housing into effective demand at market prices, and where the supply of housing is responsive to that demand.² Housing, unfortunately, is prone to significant market failures, especially noticeable at the bottom end of the housing market. On the supply side, investments are relatively risky due to the "irreversible" nature of housing, inherent uncertainties, and the long gestation periods involved in its production. Without a complete set of insurance markets mediating these risks, private markets tend to underinvest in new construction, maintenance, or upgrading, giving rise to neighborhood decline, slums, or segregation. There is also the problem of slow adjustment in the housing system, manifested by market prices adjusting much more rapidly than quantities, among others. Housing markets are, in a sense, "suppliers" markets characterized by either excess demand or excessively high market prices.

On the demand side, investment expenditures on housing are "lumpy" relative to the budget of an average household and typically require financing. Without proper credit information and property market information, however, suppliers of credit are not typically able to serve all segments of the housing market profitably, particularly at the lower end. Failures in the housing finance market are often at the heart of the problem of delivering standard quality housing to moderate- and low-income households.

Market failures provide an economic rationale for both state intervention and social provision. But redistribution goals may also motivate state action such as when worker's housing is promoted to compensate for low wages. There is also a "merit good" argument, which is based on a political value judgment about what minimum standards of housing the population should have. This is reflected in the concept of 'housing need' as distinguished from 'housing supply' and 'housing demand'. The strongest political case for intervention and social provision in housing has been in terms of a direct and effective means of ensuring minimum housing standards and redistribution rather than efficiency [Whitehead 2003].

Finally, the strategic role of housing in the economy may also drive policy. Linkages to the larger economy include those associated with investments, output, employment—the so-called multiplier effects—as well as those that have to do with housing finance and its contribution to growth.³

While the existence of market failures and inequities provide a priori economic reasons for government intervention, they do not by themselves justify it. The practical case for intervention should depend on whether the market failures are large enough to matter and on the chances of government action actually overcoming those failures—otherwise the cost of government failure can easily outweigh the cost of the original market failures themselves. Once the practical case is made, however, interventions consist of regulations, taxes and subsidies, or the direct provision of goods and services. Of all the types of housing subsidies, housing finance subsidies, or subsidies that relate to the way in which housing assets are paid, are among the most prevalent.⁴

HOUSING POLICY TO DATE: ACHIEVEMENTS, AND COSTS

National housing policy has, at least in rhetoric, been driven by a concern for the welfare of low-income urban households. During the first quarter of the 1900s, housing policy was embodied in an effort to "clean up" Manila, which was beset by sanitation problems and overcrowding. Interventions at the time included slum clearing programs, the enforcement of new sanitation and building codes, and the establishment of experimental health-social centers called "sanitary barrios". In the 1930s to the 1950s, the prewar Filipino legislature supported the acquisition, development, and resale of landed estates (e.g., Diliman) and housing (e.g., Vitas tenement housing) on behalf of labor, which expanded in the 1960s and 1970s when a programmatic distinction was made between (a) *social* housing (e.g., slum clearance, rental tenement construction, and resettlement projects) built by government and funded by appropriations; (b) *economic* housing, financed and built by government; and (c) government financing of privately owned housing. Housing was recognized as a strategic economic activity, and a number of public housing corporations were established to catalyze housing development and financing markets.

However, reports indicate that waste and inefficiency characterized these early public programs. Social housing initiatives, such as tenement projects, were not successful due

to poor design and construction, poor collections, and poor sanitation. Resettlement, the cheaper alternative, was likewise problematic. The lack of urban jobs, the costly commutes, and the lack of basic services led to high attrition rates in major resettlement sites—for example, more than 50 percent in five years in Sapang Palay and Carmona. Economic housing had similar location and cost problems so that, despite discounted housing loan rates, it was primarily middle-income and not lower-income households who qualified for housing.

Today, the housing policy is embodied in a national shelter program (NSP) that features a "total systems approach to housing finance, production and regulation" and an interacting network of housing agencies led by the Housing and Urban Development Coordinating Council (HUDCC)—namely, the National Housing Authority (NHA)—to produce shelter for the bottom 30 percent; the National Home Mortgage Finance Corporation (NHMFC), envisioned as a US-style secondary mortgage-market institution; the Home Guaranty Corporation (HGC), to provide guaranties and other incentives; the Housing and Land Use Regulatory Board (HLURB), to regulate land-use planning and housing development; and the Social Housing Finance Corporation (SHFC), a subsidiary of the NHMFC, to undertake social housing programs for low-income households, formal or informal, including the Community Mortgage Program (CMP) and the Abot-Kaya Pabahay Fund (AKPF); and three contractual savings institutions—the Home Development Mutual Fund, also known as the Pag-IBIG Fund, the Social Security System (SSS), and the Government Service Insurance System (GSIS)—"to ensure that the funds required for long-term housing loans are available on a continuous and selfsustaining basis" (Executive Order 90). Its overall goal through the years has been to increase the access of target households to decent, affordable, and secure shelter, where target households have been defined as those in the first three ("bottom 30 percent"), first four ("bottom 40 percent"), or first five (bottom 50 percent) income deciles living in urban or both urban and rural areas, and "secure shelter" has been defined as a house, a lot, or both. Apart from its role in the poverty alleviation program of government, a "multiplier" effect of 16.6 has also been cited to justify increasing budgetary allocations for housing or lowering interest rates on government housing loans.

Accomplishments of the NSP as of October 2010 are presented in Tables 1 and 2. From 1987 to 2010, about 2.25 million households received housing units that were built, financed, or insured with public support, representing about 49 percent of the official target and 30 percent of the estimated backlog for the period. Of the 2.25 million households, about 21 percent were assisted through direct production; 13 percent through land proclamations; 10 percent through community-based mortgage finance; and the remaining 56 percent through individual mortgage finance and retail guaranties.

However, evidence again suggests that these numbers have been accompanied by high fiscal and quasi-fiscal costs and distributional inefficiencies, especially from the housing finance side.

Table 1. Estimated backlog, targets, and households served, 1987-2010 (in 000s)

	1987-92	1993-98	1999-00	2001-04	2005-10	Total
Estimated need ^b	3,376	3,724	3,362	3,600	3,756	
Backlog (in year o) ^c	1,182	2,225	1,139	2,069	1,171	
Target	627	1,200	478	1,200	1,146	4,651
Households assisted	278	653	146	495	682	2,254
% Target	44.4	54.4	30.6	41.3	59.5	48.5
% Backlog per year	23.5	29.3	12.8	23.9	58.2	29.6

Source: Author's computations.

Base data:

1987-1992: Medium-Term Philippine Development Plan (MTPDP) 1987-1992. Backlog is as of 1988 and is computed at 35 percent of estimated need based on share of backlog to total need for urban areas. Households assisted based on HUDCC accomplishment matrices for 1987-1992.

1993-2010: HUDCC matrices for 1993-1998, July 1998-December 1999, July 1998-2000, and Accomplishment Report 2001-2010 as of October 2010. Notes:

Table 2. Number of households (HH) assisted and cost (in millions) by key program, 1987-2010

Key program	1	987-2000		2	001-2010			1987-201	10
	нн	Cost (M)	Ave cost /HH	нн	Cost (M)	Ave cost /HH	нн	Ave cost /HH	Change in ave cost /HH (1985=100)
Production									
Resettlement	146,422	8,089	55,245	154,800	18,981	122,616	301,222	89,868	24.1
Core housing	0			6,971	115	16,497	6,971	16,497	
Slum upgrading*	52,809	1,566	29,653	32,271	58	1,797	85,080	19,087	-74-5
Sites and services*	30,598	2,358	77,058	15,733	441	28,030	46,331	60,409	-85.2
Special projects	26,550	2,235	84,171		0		26,550	84,171	
Land proclamation	0			302,031	nd		302,031		
finance									
Community mort	105,692	2,867	27,130	113,780	5,574	48,990	219,472	38,463	-7.3
Primary mort	544,197	104,624	192,254	401,242	195,619	487,534	945,439	317,570	17.4
Retail guaranty	170,585	80,113	469,637	150,430	129,058	857,927	321,015	651,593	-3
Total Source: Author's co	1,076,853			1,177,258			2,254,111	0	

Base data:

1987-1992: MTPDP 1987-1992. Backlog is as of 1988 and is computed at 35 percent of estimated need based on share of backlog to total need for urban areas. HH assisted based on HUDCC accomplishment matrices for 1987-1992.

1993-2010: HUDCC matrices for 1993-1998, July 1998–December 1999, July 1998–2000, and Accomplishment Report 2001-2010 as of October 2010.

^a "Households" is an attempt to correct for any double counting.

^b Backlog + new households.

^c Defined by HUDCC to include units with double occupancy (urban and rural); units for tenure, infra or structural upgrading; units for replacement due to danger area/infra area/for eviction or demolition; homeless

Housing finance

Government housing finance interventions have typically featured underpriced housing loans and guaranty products and the absence of market disciplined policies for funding and underwriting.⁷ Such a regime has led to at least three crises for NHMFC—in 1985, 1992, and 1996, the last one involving about Php 42 billion in funds borrowed from the Pag-IBIG, SSS, and GSIS⁸—and at least one liquidity squeeze for HGC in 1998 from which HGC has yet to recover.⁹ Subsidies have also been highly regressive: NHMFC and HGC portfolios during the time of their crises indicated that higher-income borrowers captured nearly 75 percent of interest subsidy flows, almost 90 percent of subsidies associated with arrears under the major lending programs, and 80 percent of cash and bond guaranties.

The Pag-IBIG Fund bailed out NHMFC in 1988 and again in 1997 and now anchors government's housing finance program. A mandatory housing provident fund with some 7.5 million members,10 it has grown to be the biggest single source of home financing in the country, accounting for 45 percent of the aggregate portfolio for residential real estate loans as of the end of 2009.11 While the quality of the NSP mortgage portfolio is far superior under Pag-IBIG than it was under NHMFC, subsidies continue to be implicit and regressive, as indicated in Tables 3 and 4 and Figures 1 and 2 below. Table 3 and Figure 1 show the present value of subsidies embedded in Pag-IBIG below-market rate mortgages and how they increase in absolute value terms and as a percentage of the principal the larger the size of the housing loan and the deeper the interest rate discount; Table 4 and Figure 2 compare the average returns on Pag-IBIG's investment portfolio and on government bonds over the period from 2003 to 2008, illustrating possible foregone earnings on member contributions. Subsidies are ultimately borne by Pag-IBIG's own lower-income, self-employed member-savers, who do not qualify for housing loans but who receive lower returns on their mandatory contributions due to interest subsidies and default leakages.12

Further, the last decade has seen private mortgage lending move steadily down market, driven in large part by favorable macroeconomic conditions. Yet Pag-IBIG continues to seek an *expansion* of its own lending operations. This raises the question of whether end-user financing represents the optimal way for Pag-IBIG to comply with its mandate and, more critically, whether Pag-IBIG has crowded out rather than crowded in private lenders, and to what extent. Pag-IBIG enjoys significant legal and regulatory privileges, including mandatory contributions, ..., and a general government guarantee - preferential conditions which private lenders can hardly compete with.

Table 3. Subsidy implicit in below-market-priced housing loans of the Pag-IBIG Fund

	Loan		Subsidy	
	Amount	Interest rate %)	PV ^a	As a % of principal
Pag-IBIG ^b	300,000.00	6	120,596.80	43.84
		4	177,067.40	59.02
		4	187,645.30	62.55
	750,000.00	7	267,536	35.67
		5	387,295	51.64

Source: Author's computations.

Notes:

The table shows how the present value of implicit subsidies increases in absolute value terms the larger the size of the housing loan. Also, the deeper the interest rate discount, the larger the implicit subsidy as a percentage of principal.

Table 4. Estimated return on Pag-IBIG's investment portfolio and T-bill/bond rates, 2003-2008

	2003	2004	2005	2006	2007	2008	Ave
Return on investment portfolio	6.1	6.5	6.9	7.1	6.1	5.8	6.4
T-bills, all maturities	6.7	8.1	7.5	6.2	4.2	6.4	6.5
T-bonds, 3-year	9.7	12.38	10.13	9.21	7.6	5.38	9.1
5-year	10.58	11.55	10.99	8.72	6.67	7.88	9.4
7-year	11.88	11.75	11.29	8.67	7.63	8.36	9.9
10-year	11.81	12.38	11.69	8.06	8.58	7.72	10
20-year	12.23	13	12.13	9.69	8.63	9.5	10.9
Note: % members availing of hous	ing loans.		10	9	10	10	

Source: Author's computation based on 2003-2008 Audited Financial Statements. Investment portfolio includes loans and receivables, fixed income securities, equities, cash and cash equivalents. Foreclosed assets and items under litigation are not included under investments.

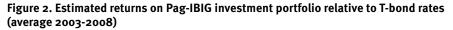
^a Assumptions: market rate fixed at 11 percent; discount rate 10 percent.

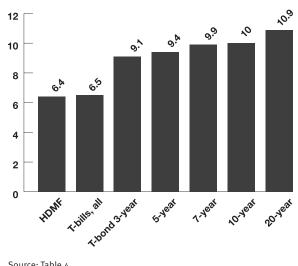
^b Pag-IBIG 30-year mortgage loans are at 6 percent, 7 percent, and 10.5 percent for amounts Php 300,000 and below, Phh 300,000 to Php 750,000, and Php 750,000 to Php 2 million, respectively. An additional 2 percent discount on the applicable interest rate is given to housing loan borrowers who pay on time.

381,295 800000 700000 600000 500000 77,067 181 6AS 400000 300000 200000 100000 150,70/0

Figure 1. Pag-IBIG as subsidy donor: the present value (PV) of implicit subsidies in Pag-IBIG mortgage loans

Source: Table 3.





Source: Table 4.

Housing production

The net impact of government on the housing production side is not well understood. While NHA claims a production output of more than 450,000 social housing units between 1975 and 1998, output numbers hide a cycle of poor pricing, weak sales, and even weaker collections, mirroring the experience of NHA's predecessors in the 1950s and 1960s.¹³ Production inefficiency is also an issue. In 1994, NHA completed about 12 units per employee, about one-third the rate typical to the private sector [World Bank 1997].¹⁴

Also, while there has been increased capacity and interest in low-cost housing among housing developers, it is not clear whether or how the NHA has contributed to this. Just like Pag-IBIG, NHA enjoys preferential treatment—i.e., preferential tax treatment for mass housing developments as well as privileged access to land under the Urban Development and Housing Act of 1992, which automatically assigns all suitable, unused public lands to it for use in socialized housing projects at no cost—suggesting a crowding out of private sector participation.¹⁵ Table 5 and Figure 3 below show that between 2001 and 2010, three out of ten social housing units were produced or contracted by NHA.

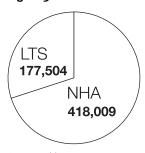
Table 5. NHA share in social housing production

	NHAª	LTS ^b	Total	% Share NHA
1993-1998	92,471	413,891	506,362	18.3
1999-2000	55,320	55,511	110,831	49.9
2001-2010	177,504	418,009	595,513	29.8

Source: Author's computation.

Notes:

Figure 3. Share of NHA to total production of housing units from 2001-2010



Source: Table 5.

While NHA continues to claim a significant portion of social housing production, there has been a welcome movement toward alternative resettlement modalities, as demonstrated by the Railway Relocation and Resettlement Projects, which represents an opportunity for the agency to transition out of its role as direct producer and into a role of technical support to LGUs. A Land Proclamation program, also known as Urban Asset Reform, also looks promising. Inspired by the de Soto thesis of unlocking

^a NHA: resettlement, core housing, sites and services, special projects.

b LTS: License to sell issued by HLURB for social housing, including 20 percent balanced housing compliance.

"dead capital" [de Soto 2000], the program regularizes the tenure of informal settler families through the issuance of Presidential Proclamations that declare the occupied parcels of public lands open for disposition to qualified beneficiaries. Under this program, about 223,000 squatter households in the National Capital Region (NCR) were allocated an average of 100 square meters each between 2001 and 2010 (Table 6). While the overall impact of the program has yet to be evaluated, suffice to say that when poor households squat on unused government land, they contribute to land-use efficiency by developing that land. What settler communities build might not always be the best and higher use for that land, but at least it is always a better and higher use than its previous state.

Table 6. Land proclamations as of October 6, 2010

Region	Hectares	Beneficiaries	Hectares/beneficiary
NCR	828.4	80,799	0.01
CAR	88.1	3,278	0.03
II	59.6	5,562	0.01
III	2,237.2	12,850	0.17
IV	1,977	23,513	0.08
V	90.2	6,002	0.02
VI	81.6	9,152	0.01
VII	88.6	5,081	0.02
VIII	7.4	770	0.01
IX	21.4	5,157	0
X	3.1	98	0.03
XI	31.9	998	0.03
XII	22	1,700	0.01
CARAGA	96.1	2,371	0.04
SPECIAL	1,232	66,200	0.02
Total	6,864.7	223,531	0.03

Source: HUDCC.

Excludes 28,500 hectares under Mt. Pinatubo resettlement and 20,312 hectares (corresponding to 50,000 households) in Lungsod Silangan, Antipolo Rizal.

Another bright spot is, and has always been, the Community Mortgage Program. Launched in 1988 to assist informal settlers and slum dwellers acquire occupied property through nonmarket community loans, collection efficiency rates under the CMP have been relatively higher (77 percent versus 62 percent in pre-1997, although this has dropped to 69 percent since 2001¹⁶); outlay per household relatively lower (at 10 percent of outlays under regular mortgage programs; refer again to Table 2); and

down-market penetration deeper (reaching the bottom 30 percent) compared to other housing programs of government (Tables 7a and 7b).¹⁷

Table 7a. Reach of CMP and Pag-IBIG: based on employment

	Philippine	es			NCR			
Decile	Annual income	Loan amo monthly i	rtization as ncome	a % of	Annual income	Loan amo	ortization as ncome	a % of
		CMP **	CMP	Pag-IBIG		CMP **	CMP	Pag-IBIG
		39,000	80,000	300,000		39,000	80,000	300,000
1st (poorest)	28,175	10.7	21.9	76.6	47,302	6.4	13.1	45.6
2nd	43,473	6.94	14.2	49.6	69,592	4.3	8.9	31
3rd	54,560	5.53	11.3	39.5	83,435	3.6	7.4	25.9
4th	66,109	4.56	9.3	32.6	99,601	3	6.2	21.7
5th	79,433	3.8	7.8	27.2	118,303	2.5	5.2	18.2
6th	94,673	3.19	6.5	22.8	142,184	2.1	4.3	15.2
7th	116,495	2.59	5.3	18.5	172,793	1.7	3.6	12.5
8th	150,094	2.01	4.1	14.4	215,028	1.4	2.9	10
9th	210,620	1.43	2.9	10.2	293,546	1	2.1	7.4
10th (richest)	435,092	0.69	1.4	5	583,178	0.5	1.1	3.7

Source: Author's computations.

Base data: FIES 2006.

Table 7a shows that based on household income criteria alone, and assuming poor households can allocate 15-20 percent of their monthly income to loan amortizations, average CMP loans are likely to reach the bottom 30 percent. Pag-IBIG loans, however, are not likely to.

Table 7b. Reach of CMP and Pag-IBIG: based on employment

	Philippines		NCR	
Income decile (per capita)	CMP (% Employed)	Pag-IBIG (% Wage & salaried)	CMP (% Employed)	Pag-IBIG (% Wage & salaried)
1 (Poorest)	65.3	22.4	39.5	32.5
2	63.4	24.7	44.2	32.8
3	61.3	27.6	40.6	26.6
4	59.6	27.2	41.8	30.8
_5	57-9	28.9	45.1	30
6	57-3	31.8	51.3	37
7	55.7	32.1	49.5	37.4
8	55.1	33.4	51.4	36.6
9	58.1	37.8	56	40.9
10 (Richest)	61.5	44.7	62.1	49.4
Total	59.5	30.9	53.6	39.9

Source: Author's computations.

Base data: FIES 2006; July 2006 LFS.

Pag-IBIG requires that borrowers are wage and salary earners while CMP requires that a borrower is employed. Given this, Table 7b shows that based on an employment criteria alone, the reach of Pag-IBIG is at best one-third of households in middle- and lower-income deciles.

^{*} Loan terms: 6 percent for 25 (CMP) and 30 (Pag-IBIG) years.

^{**} Average size of CMP loan: 39,000.

All three programs—Railway resettlement, CMP, and Land Proclamation—face challenges of course. NHA is battling the issue of how relocation and post-relocation costs can be shared by the national government and affected local government units, including how to incorporate these costs in the evaluation of big-ticket infrastructure projects (such as....) and in the budgets of key agencies. CMP is dependent on budgetary appropriations and cannot keep up with demand. As of the end of 2008, CMP had 544 projects in the pipeline for enrollment, approval and examination, amounting to about Php 3.6 billion in loans for 60,826 households. Land Proclamation remains somewhat peripheral to the national housing strategy and is struggling with the typical titling processes as well as with how to mainstream. Households who are covered by land proclamations are also subject to income qualification standards and, if qualified, would then have to join the CMP queue in order to pay for their parcels. 19

STRATEGIC ISSUES

If the goal of the state is to ensure that markets produce adequate and affordable housing for all, two issues arise from the preceding discussion. The first is the manner by which the state has so far chosen to address the "affordability" issue—which has been to maximize the output of new housing for sale at below-market prices—and, consequently, its intentions for and level of involvement in housing finance markets. As has been repeatedly demonstrated by the succession of crises involving housing finance agencies, the state's approach, its approach has been costly and ineffective, with costs borne heavily by lower-income members of contractual savings institutions on behalf of government. Nonmarket pricing and subsidized lending in the primary mortgage market has likely generated other perverse results, such as the crowding-out rather than the crowding-in of private finance and other services.

Among the strategic questions which need to be answered are: Where will normal market forces likely expand housing finance systems and improve access and where can well-targeted government interventions help rather than replace this process [Hoek-Smit 2009]? How can a provident fund like Pag-IBIG best contribute to this process: as a pension fund and institutional investor, a mortgage lender, or a subsidy distributor?²⁰ What should be done about HGC and NHMFC, and do market conditions warrant their continued existence?

The second has to do with the level of social assistance the state wishes to allocate to housing and to delink this from market-based transactions. There will always be households that cannot be reached by market forces even if government incentives are applied. There is also broad consensus that housing subsidies, if warranted, should be on-budget and transparent rather than off-budget and implicit in below-market prices. However, how housing social assistance is ranked against other social priorities of the state (such as basic education or the Conditional Cash Transfer program) has not yet

been confronted, in large part because its mode of delivery—subsidized lending--does not compel it to be. This is not to say that increased public spending in housing is a necessary condition for better housing outcomes or lower human poverty incidence as some claim. Nor is it to say that there is a multiplier-effect argument. Dumaua [2010] computes the final demand multiplier of Construction to be 1.93 at most, a far second to Manufacturing and alongside Transportation and Private Services. Its employment multiplier is .000003, ranked 5th to 7th among 11 major industries.

That said, extracting the full benefits from potential reforms in housing finance markets and subsidy systems will not be possible if the state continues to deal with symptoms rather than causes of the housing problem—specifically, the fundamental causes of unaffordability on the supply side, such as urban land dysfunctions, incoherent connective infrastructure, and outdated planning and building standards. Unaffordability of housing is, of course, not just a function of relatively high supply prices but also of relatively low permanent incomes. If the state continues to deal with symptoms rather than causes of the housing problem to improve living standards through robust and inclusive economic growth.

As has long been observed, "The housing dilemma is primarily a land problem" [Roxas 1969]. The land problem is one of unclear and inconsistent land-use policy and poor land administration and management.²² The absence of complete and updated cadastral information, the plethora of agencies involved in land administration, and the hodgepodge of laws for the classification and reclassification of land, raise transaction costs in securing, registering, and transferring property rights. Land values are further driven up by "land hoarding" caused by the absence of a national standard and method for real property valuation and the poor enforcement of real property taxes at local levels. The high cost of servicing land for urban development in turn encourages informal land markets to develop. Strassman and Blunt [1993] observed: "If [land] prices were as low in comparable developing countries ... as much as 50% more shelter could have been built and fewer than 28% of households would probably live under irregular tenure arrangements."

The role of efficient connective infrastructure in making housing supply more responsive has also been overlooked. Public transportation infrastructure connects a city's different parts, guides land use and urban expansion, and allows lagging regions to participate in the growth process of leading urban centers [World Bank 2009]. In this way, efficient transport systems widen residential location options and, thus, the housing choices for the urban poor. Yet there has been an acute underinvestment in such infrastructure as well as a lack of coherence in the building of existing networks, manifested in the absence of an efficient and integrated road and maritime transport system and a "missing middle" (i.e., secondary roads) in the country's road network—resulting in, among others, pockets of internationally oriented economic activity weakly integrated to the rest of the country [Llanto 2007].

Regulations such as zoning, construction codes, and subdivision restrictions also greatly influence supply.²³ By controlling floor-to-area ratios, for instance, the state controls the consumption of land, the only factor in which poor residents can outbid nonpoor residents. Subdivision restrictions and construction codes, which are motivated to ensure public health, safety, and basic infrastructure services in new developments, can also jack up capital costs (in exchange for less maintenance costs) to levels beyond affordable thresholds.²⁴ In short, regulations designed to ensure minimum standards may in fact have adverse effects on market access to real estate assets by the urban poor. This is not to say that planning tools are not useful. Rather, they should be thoughtfully applied. To date, there has been no audit of existing regulations and their impact on housing cost and supply.

That supply-side bottlenecks have been a blind spot in housing policy speaks to the failure to understand and embed the housing debate within an explicit and coherent urbanization framework. This is also evident in the overall treatment of informal settlements where providing regularized property rights and affordable infrastructure where land is suitable for residential development seems to be viewed as a mere relief or redistributive intervention, rather than as an efficient way of developing urban land rapidly and on a large scale with maximum distributive effect [Bertaud, n.d.].²⁵

WHERE TO BEGIN TO REALLY SOLVE THE HOUSING PROBLEM

This paper has argued that the government's usual approach to the urban housing problem—in particular, its reliance on below-market-priced housing loans and, more generally, on housing finance subsidies—does not and will not really solve the housing problem. Such an approach deals with symptoms rather than underlying causes of housing market failures. What is needed instead is a reframing of the housing discussion away from simple output targets to one that focuses on how best to remove impediments and manage the housing sector so that markets are able to produce adequate and affordable housing for all. In short, a fundamental shift in the state's approach.

Implementing a shift in approach would require three initiatives: first, a reassessment of public involvement in housing finance markets, including the role of Pag-IBIG and other government-sponsored housing finance corporations; second, a delinking of housing social assistance from market-based transactions, making such assistance explicit and on-budget, and integrating the same with overall welfare policy; and third, a redirection of government action for housing toward fundamental supply-side issues in tandem with improved urban governance. This third component involves going beyond what has traditionally been understood as the "housing sector" toward involvement in the strengthening of land and property market institutions as well as the planning of domestic connective infrastructure. Indeed, targeted efforts at integrating

informal settlements and improving the housing of the urban poor are unlikely to work without these two prerequisites [World Bank 2009].

Anchoring housing to an explicit urbanization framework will have implications on the design of institutional arrangements. For instance, the locus of urban planning may have to move downstream to regional and subregional levels so that rural-urban transformations can be properly observed and efficiently supported. Also, a rearticulation of "housing" functions and responsibilities between central and local governments may be required. Central government agencies would likely be better suited to legal and regulatory reform such as the articulation of land-use policy, the inventory of public land, and the resolution of other bottlenecks in land markets; designing administrative incentives so that effective urban planning can be realized at subregional levels; and ensuring the predictability and tenure neutrality of policies. LGUs would in turn be responsible for local land-use management, including the implementation of real property taxes, the servicing of land for settlements, and the delivery of targeted housing social assistance.

ENDNOTES

- By definition, these include units to replace housing located in danger zones and other reserved areas (based on an April 2000 survey of squatters per region by the National Housing Authority), new housing to decongest doubled-up households, units for structural or tenurial upgrading, and housing for the homeless.
- 2. This section synthesizes insights from World Bank [1997], Hoek-Smit [2004], Stahl [1985], Arnott [1987], Whitehead [2003], Hoek-Smit and Diamond [2003], and Todt [1985].
- 3. World Bank [1993]. There are also fiscal effects, which are associated with the taxation and subsidization of housing, and the impact of housing markets on the labor market.
- 4. Hoek-Smit [2009]. Housing finance subsidies include subsidies to research, information, and collection; below-market-rate housing loans and insurance products; and direct government provision in financial intermediation, among others.
- This review of policies up to the 1970s relies heavily on works by Ocampo [1976, 1978] and NEDA documents.
- 6. Executive Order (EO) 90, series of 1986. EO 90 reiterated the National Shelter Program first formulated in 1978.
- 7. World Bank [1997]. See also Llanto and Orbeta [2001].
- 8. Llanto and Orbeta [2001] estimate that subsidies amounted to about Php 25.4 billion over the period from 1993 to 1995 alone, of which 90 percent were off-budget implicit subsidies related to the mortgage lending programs. In another estimate by the World Bank [1997], tax revenues foregone on HGC cash and bond guaranties were six and eight centavos for every peso covered, respectively, and total fiscal and quasi-fiscal costs inclusive of recapitalization of NHMFC and provisioning requirements for the pension funds amounted to P55.4 billion.

- 9. In its 2008 Annual Audit Report on the HGC, the Commission on Audit observed that "HGC's growing losses and deficits had continuously impaired the Corporation's financial capability, casting doubt on its financial capability to carry out its mandate ..." (Part II, A. Observations and Recommendations, p. 28).
- 10. Housing provident funds are essentially long-term saving schemes that operate through mandatory contributions [Chiquier 2009]. What a Pag-IBIG member finally receives after 20 years depends on both his/her total contribution and the investment performance of the Fund.
- 11. Testimony of OIC Emma Faria to the Committee on Banks, Financial Institutions and Currencies, October 7, 2010.
- 12. Nonperforming mortgage loans reached 24 percent of mortgage loans outstanding, and nonperforming sales contracts receivables amounted to 13 percent of sales contracts outstanding in 2008, according to the annual audit report of COA. In 2005 these figures were at 30 percent and 18 percent respectively.
- 13. NHA 1998 Transition Report. In 2000, NHA disposition rates (at resettlement sites) were at 14 percent and collection efficiency at below 40 percent.
- 14. Annex A, paragraph 27.
- 15. Murray [1983] shows, for instance, that for every additional 100 publicly constructed units, as many as 85 private units have been crowded out in the United States. No similar study has been done on the Philippines.
- 16. Data do not include foreclosed units or units under litigation. Refer to Tables 12-14 of UN Habitat [2009].
- 17. An attempt is also being made to encourage housing microfinance, although this is a tool for financing home improvement rather than for constructing housing or securing tenure [Daphnis et al. 2009].
- 18. For instance, receiving local government units (LGUs) typically do not have funds for the education of relocatee children; however no funds are automatically provided by the Department of Education either. Other post-relocation requirements include project maintenance and administration, comprehensive development planning, and basic community capability building and stabilization.
- 19. After proclamation, households pay for their parcels through CMP or directly to the Department of Environment and Natural Resources (DENR). Some proclaimed sites are turned over to NHA for development.
- 20. International experience has shown that trying to juggle multiple mandates will likely entail significant trade-offs. See Chiquier [2009].
- 21. See, for instance, Ballesteros [2009] who advocates for increased public expenditures on housing by citing regression results from Habito [2009] that for every 1 percent of GDP spent on housing the responsiveness of poverty reduction to GDP growth improves by 0.473 percent. However, these results only arose after excluding Thailand and Malaysia from the simple cross-country regression on the basis that they were outliers—that is, strong responsiveness of poverty reduction to GDP growth despite relatively small shares of public expenditures on housing. The outliers may in fact demonstrate the point that regulatory reform may matter more for housing markets than increased public spending.
- 22. See Ballesteros [2000] for a detailed discussion.

- 23. This section draws heavily from Ortiz [1999].
- 24. Particularly for privately supplied housing. NHA is exempted from these standards.
- 25. Bertraud [n.d.] The creation of a market for small parcels of land, at standards and location that are entirely demand driven, represents a large economic benefit for a city.

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CHAPTER

7

What's wrong with the Philippine higher education

Edita A. Tan

ABSTRACT

Philippine higher education (HE) plays an important role in the country's economy and is vital in achieving global competitiveness. Poor quality, undeveloped innovation system, and inequality of access caused the current dismal state of the HE system. This could be traceable to the populist education policy all past governments have adopted. Poor quality HE led to poor quality graduates, which lowered the productivity of the country's labor force and inhibited technological progress. The Philippines then fell behind its East Asian neighbors in economic growth and social development. The paper recommends drastic reforms of the HE subsidy system from the ad hoc and politically based allocation toward a well-planned HE development program that addresses the above problems: quality improvement, development of an innovation system and an effective scholarship system.

INTRODUCTION

WHAT IS WRONG with Philippine higher education (HE) are poor quality, undeveloped innovation system, and inequality of access. Innovation system is defined as the institutes and higher educational institutions (HEIs) that undertake research and provide advanced instruction in the sciences, mathematics, and engineering (S&T). The HE system is very large but of generally poor quality. There are now 1,741 universities/ colleges that enroll about 25 percent of college-age youth. They include 1,538 private and 187 public institutions. Only a handful of these institutions are of acceptable quality. The large majority do not warrant to be called universities—that is, institutions of higher learning and knowledge centers that host a community of scholars and scientists. Few of the so-called higher education institutions or universities/colleges do research and provide advanced instruction, especially in S&T. Only three universities—the University of the Philippines (UP), Ateneo de Manila University (Ateneo), and De La Salle University (La Salle)—are on the 2010 list of the world's top-500 universities. And yet these bests have very low ranking: Ateneo, 307; UP, 314; and La Salle, 45l-500. In the 2000 Asiaweek rating of the best Asia Pacific universities, only the three and the University of Santo Tomas (UST) were included but with ranking of 48, 71, 72, and 74, respectively, out of 77 institutions. There was no Philippine institute or university in the region's best S&T institutions because the country has not developed an innovation system. The country's comparative university rating even deteriorated between 1997 and 2000. A recent study for the World Bank [Tan 2009] found the innovation system to be underdeveloped as the country has a small number of scientists with doctoral degrees who produce relatively small research output and a small number of graduates with advanced degrees. There is no critical mass of scientists and other highly skilled S&T workers. On the other hand, access to higher education has remained unequal despite the presence of state universities and colleges (SUCs) that were established ostensibly to cater to the poor. The dismal state of HE and innovation systems has been a critical constraint on the country's national development.

Higher education plays a central role in national life and in all sectors of the economy. It produces the teachers at all education levels, the bureaucrats of all positions, the professionals in various services, and the executives and technical workers in industries. The poor quality of the country's governance may be largely explained by the poor quality of education of government officials for it is not just integrity but also competence that determines effective governance. Definitely, the quality of teachers, teaching materials, and education planning and administration depends on the quality of education the teachers and education administrators have attained. The effects of producing poor-quality HE graduates and the underdevelopment of an innovation system have lowered the productivity of the country's labor force and inhibited technological progress.

The dismal state of education, especially higher education, is traceable to the populist education policy that all the past governments have adopted, from the American colonial regime to the whole post-independence period. Policy has always aimed at meeting popular demand for education, be it primary or college. It is noted that while basic education is regarded as a human right guaranteed by the Constitution for all, HE is not. Not all are qualified to pursue higher education, and the labor market does not demand all workers to be college educated. Professional and scientific workers have comprised a small proportion of total employment in most economies, usually less than 10 percent of the employed. The Philippine government's populist policy has led to the uncontrolled growth of universities and colleges and their enrollment. One result is excess supply of HE graduates as reflected in their high unemployment rate—double digit in the last 25 years. The education authority has not imposed or implemented minimal standards and strictures on program offerings and enrollment. This has allowed and encouraged private individuals and corporations to establish universities/colleges as a business. Affordability has been the driving force for what programs to supply. Considering the low and unequal distribution of national income, most students could afford only cheap and low-quality higher education.

The government contributed to the proliferation of higher educational institutions. Congressmen could see the popularity of college education so they enacted laws for the establishment of SUCs for their respective constituency. In later years, local governments instituted their own HEIs. SUCs now number 110, and local universities and colleges (LUCs), 77. The fairly unfettered growth of universities/colleges could only be achieved at the cost of quality since resources for education, whether private or public, were limited. Both private schools and SUCs opened mainly low-cost programs. A few private HEIs catered to the more affluent students and offered high-cost higher-quality programs. Palpable examples of high-cost HEIs are Ateneo and La Salle. In the SUC system, UP has been granted more generous financial support to be the country's lead university. Majority of SUCs are of low quality. Even fewer HEIs opened S&T programs for they are more costly to operate and have faced poor market demand. The government's neglect to develop an innovation system through support for S&T research and advanced instruction resulted in poor demand for advanced S&T graduates. At this time, only the University of the Philippines is a truly comprehensive university with a wide array of program offerings. It stands out for having a large roster of S&T faculty with doctor's degree. The three other respected universities provide graduate instruction in selected S&T fields. The three leading HEIs form a very small segment of the HE system and produce too small output of research and advanced instruction.

The above problems have definitely pulled down the rate of national development and reduced both the social and private rates of return to education. The economic cost of poor quality and lack of innovation system is reflected in the country's lack of global competitiveness (see Table 1). It is noted that despite the relatively high average years

of school attainment and high college enrollment rate, the Global Economic Forum has found the country's labor quality and technological preparedness very poor as compared to its East Asian neighbors, including Indonesia and Vietnam. In 2010, the country ranks 85 out of 139 countries for overall global competitiveness. In the rating of efficiency enhancement factors, the rank for higher education and training was 73 and for innovation capacity, 111.

Poor-quality education and training have barred many in the labor force from finding employment in high value-added processes in both business process outsourcing (BPO) and semiconductor and electronics industries. Those employed in the semiconductor and electronics industry are assigned in low-skill assembly processes while those employed in the BPO sector largely provide customer or call center services, the lowest-skilled jobs in BPO. A larger supply of highly skilled labor—those with high competences in information technology (IT), engineering, accountancy, and English—would have increased the country's value added from the sectors and would have also attracted more foreign companies to locate here. Additionally, poor-quality education has lowered returns to migration. More of the migrant blue-collar workers in construction, petroleum industry, and machinery and automotive maintenance could have earned higher wages if they had been given high-tech skill training. Only a handful of technical-vocational schools offer high-tech skills. A higher-quality nursing education/training system would have prepared the nursing graduates for better foreign job opportunities. Many other cases may be cited to show the benefits the country could have gained if the quality of higher education were world class and if the innovation system had developed.

Table 1. Trend in Philippine rankings in global competitiveness factors, 2003-2010

Factor	2003	2004	2005	2006	2007	2010
Global competitiveness index rank	66	74	73	71	71	85
1. Basic requirements		82	81	84	93	99
(a) Institutions	85	75	89	88	95	125
(b) Infrastructure		87	90	88	94	104
(c) Macro-economy	60	61	58	62	77	68
(d) Health and Primary Education			77	82	86	90
2. Efficiency enhancement		64	63	63	60	78
(a) Higher education and training			61	63	62	73
(b) Market efficiency			64	57		
(b.1) Goods markat efficiency					64	97
(b.2) Labor market efficiency					100	111
(c) Technological readiness	56	63	67	61	69	95
3. Innovation factors		67	56	66	65	75
(a) Business sophistication		66	43	59	55	60
(b) Innovation		76	86	79	79	111

Source: Global Competitiveness Report, World Economic Forum.

The system of subsidizing SUC is a focal point of the paper since HE reforms would depend on the resources that have to be freed from the SUC budget to finance quality improvements, scholarship for the bright poor, and development of the innovation system. Virtually all subsidies to higher education have been allocated to the operational support for SUCs. The Commission on Higher Education (CHED) obtains minimal budget for its development program. No clear budgetary criteria have been followed in the distribution of HE budget to the 110 SUCs. The allocation to individual SUCs is not based on quality, equity, or programs. On the other hand, all SUC students are subsidized irrespective of ability, academic performance, and degree program. The paper recommends drastic reforms of the HE subsidy system from the ad hoc and politically based allocation toward a well-planned HE development program that addresses the above problems: quality improvement; development of an innovation system; and effective scholarship system, especially for the bright poor.

We take strong note of the fact that there are 1,741 HEIs, and it will not be feasible to support them all for quality and other improvements. Careful planning of improving quality and developing the innovation system in selected institutions will be needed. Initially, support for quality improvement and developing an innovation system will have to be directed at the centers of excellence and the best of the centers of development that CHED has identified. It is suggested that CHED, the Department of Science and Technology (DOST), and the Department of Education (DepEd), together with academic leaders from the leading HEIs, be organized to develop an operational plan for achieving definite HE objectives. A critical element of the proposed reform is reallocation of resources from the SUCs as a group toward a program of quality improvement and S&T capacity development in selected HEIs, public and private. The SUCs will be required to charge full cost and let the bright poor be provided adequate financial support for studies in priority programs. This strategy would rationalize the HE subsidy system.

The following sections provide empirical details on the statements and recommendations made above. Section 2 describes the HE system. Some quality indicators are presented. It also presents major findings from studies on the innovation system. Section 3 discusses SUC program profile, quality, and financing. Section 4 concludes with policy recommendations for achieving efficiency and equity in the subsidy system.

THE HE SYSTEM

There are now 1,741 HEIs consisting of 110 SUCs, 77 LUCs, 1,538 private institutions, and 16 others (see Table 2). The nonsectarian HEIs have comprised the largest and fastest-growing group of HEIs numbering 412 in 1980 and 1,236 in 2009. The sectarian group increased much more slowly compared to the latter from 225 to 301, while

Table 2. Number of HEI by sector,1990-1991 to 2008-2009

Academic year	SUC	P3	SUC satellite campus	Others	Total public	Sectarian	Non- sectarian	Total private	Total (including SUC satellite campuses)	Iotal (excluding SUC satellite campuses)
1990/91	81	34	57	59	231	225	412	637	898	811
1991/92	81	34	57	58	230	224	412	989	998	809
1992/93	81	33	55	57	226	224	412	989	862	807
1993/94	85	29	55	92	261	245	522	767	1,028	973
1994/95	26	27	100	113	337	249	701	950	1,287	1,187
1995/96	26	33	66	149	378	281	738	1,019	1,397	1,298
1996/97	98	34	98	150	380	281	764	1,045	1,425	1,327
1997/98	107	38	112	115	372	286	828	1,114	1,486	1,374
1998/99	106	39	119	113	377	300	818	1,118	1,495	1,376
1999/00	107	37	159	88	391	306	998	1,172	1,563	1,404
2000/01	107	40	223	19	389	312	902	1,214	1,603	1,380
2001/02	111	42	237	17	407	320	938	1,258	1,665	1,428
2002/03	111	44	246	18	419	325	991	1,316	1,735	1,489
2003/04	111	46	249	18	454	331	1,034	1,365	1,789	1,540
2004/05	111	50	271	15	447	340	1,103	1,443	1,890	1,619
2005/06	111	65	260	15	451	358	1,134	1,492	1,943	1,683
2006/07	110	70	326	16	522	299	1,215	1,514	2,036	1,710
2007/08	110	75	333	16	534	300	1,200	1,500	2,034	1,701
2008/09	110	77	333	16	536	302	1.236	1.538	2.074	1,7/1

Source: Commission on Higher Education.

SUCs increased from 48 to 110. Until 1960, UP was the only state university. President Ferdinand Marcos initiated the proliferation of SUCs. He converted into an SUC the now Don Mariano Marcos Memorial University in his province, as well as the Mindanao State University. There were 46 new SUCs in the 1960-1980 period. Another 40 were added in the next two decades.

By the mid-1990s the rationality of expanding the SUCs began to be questioned because of the observed high unemployment rate among college educated. Only four SUCs were established in 2000-2009. In fact, there was a moratorium on establishing SUCs during President Estrada's administration. Enrollment in private HEIs increased from 0.177 million in 1949-1950 to 2.651 million in 2007-2008. From the early years onward, teacher training, commerce (business management and accounting), and liberal arts have drawn the bulk of students at the undergraduate level. Engineering has also been a popular field, drawing the third-largest number of students.

But there were changes in their relative importance as the mix of job opportunities changed. When demand for teachers was growing fastest while the public school system was expanding rapidly in the immediate post-World War II period, teacher training absorbed the bulk of HE students: 47.3 percent. Commerce and liberal arts then drew 14.8 percent and 16.0 percent, respectively. Engineering enrolled 8.9 percent and the medical fields 6.6 percent. As the growth in demand for teachers declined, enrollment in teacher training dropped, falling to 15.1 percent in 1960. Commerce became the more attractive field, with its share rising rapidly to 30.6 percent. Engineering's share rose to 14.5 percent. The table shows that students did shift fields depending on perceived changes in demand. In this century, nursing became a very popular field because of high expectation of foreign employment. The number of nursing licensure examinees rose from an average of about 6,000 in the 1990s to over 9,000 in 2005 to more than 50,000 in 2009. Until about 2005, the number of nurses leaving exceeded the number passing the licensure examination. This created concern about domestic shortage of nurses. Then new nursing schools opened and drew large numbers of students. The supply of licensed nurses has overshot demand.

Table 3 gives the number of graduates by field and degree level in 2003-2004. Some 316,000 graduated with the bachelor's degree, 13,843 the master's degree, and 1,522 the doctor's degree. The large majority of graduates with master's degree were in teacher training and commerce, 38.4 percent and 38.5 percent, respectively. The medical field produced 5.1 percent. The sciences had only 153 MS graduates or 0.1 percent, and mathematics and computer science 203 or 0.14 percent. A very small number completed the doctor's degree, with the great majority also in teacher training and commerce, together 79.4 percent. Very few graduated with the doctor's degree in the sciences, only 13, and in mathematics and computer science, 6. The UP College of Science, which has 144 faculty with PhD produced only eight doctor's degree holders in 2008-2009; only 150 graduated with PhD in 12 years from 1996 to 2008. The UP College of Engineering

Table 3. Higher education graduates by discipline group, program and degree, 2003/04

Discipline group	Pre-baccalaureate	Baccalaureate	Post-baccalaureate	Master's	Doctor's	Grand total
Agricultural, forestry, fishiries, vet med.	2,390	10,269	174	258	63	13,154
Architectural and town planning	279	3,091	62	30		3,462
Business admin. and related	9,050	86,094	340	5,315	320	101,119
Education and teacher training	830	64,415	382	5,335	889	71,851
Engineering and technology	10,633	39,632	103	305	9	50,679
Fine and applied arts	268	1,076		18		1,662
General	672	2,884		51		3,607
Home economics	52	066	2	9†	10	1,100
Humanities	13	4,458		119	77	4,667
Law and jurisprudence		2,670		2		2,672
Mass communication and documentation	9	4,541	41	119	5	4,712
Mathematics and computer science	9,933	25,172	53	203	9	35,367
Medical and allied	14,562	26,403	7	712	4	41,688
Natural science		4,042	1	153	13	4,209
Religion and theology	115	790		504	18	1,427
Service trades	226	2,187				2,413
Social and behavioral science	172	12,792	24	269	27	13,284
Trade, craft and industrial	2,282	1,296		1		3,579
Other disciplines	2,646	23,126	6	403	84	26,268
	54,429	315,928	1,198	13,843	1,522	386,920

Source: Commission on Higher Education.

has only 49 faculty with PhD, and 68 with master's degree. Only 15 graduated with PhD in 2005-2006 to 2008-2009 [Tan 2009]. The HE system supplies itself with very small numbers of qualified S&T faculty. The scarcity of graduates in the sciences has resulted in the employment of teachers in primary and secondary schools without science credential. And there were too few experts to help write science and mathematics textbooks and other learning materials.

Three sets of data are presented to indicate the quality of the country's higher education. The most commonly used gauge is performance in licensure examination. The Professional Regulation Commission (PRC) administers written licensure examinations in 42 fields. Performance is measured by passing rate or the ratio of the number of passers to the number of takers. It is generally low but varies widely across the professions and across HEIs. In several professional fields, the passing rate ranged from 100 percent for the top university to zero for some schools. To be noted is the low passing rate in popular fields such as accounting and teacher training, 18 percent and 38 percent, respectively (Table 4). Another indicator of quality is school fees, assumed to closely approximate the cost of instruction. Like the PRC passing rate, it is generally low and varies widely across the HEIs. Few private HEIs receive donations so that student fees pay for the bulk of instructional cost. In the private sector, fees could range from Php 10,000 to more than Php 100,000 per year.¹

Possibly daunted by the challenge of raising the quality of all 1,741 HEIS, CHED decided to identify degree programs of high quality and award them the status of center of excellence (COE). The COEs are to be seen as models for the other institutions and expected to motivate them to attain the status. Few programs have achieved the COE status. The award is given to specific programs in specific HEI, say, Physics in UP. An HEI may be given one or more COE awards for different disciplines; for example, UP has several while San Carlos University has one. A team of leading faculty and professionals in a program is organized to assess the quality of faculty and facilities as well as research output and performance in the licensure examination.

A common criterion is for a program to have at least seven regular faculty with PhD. In 2000, 101 COEs were awarded. Apparently, the award has had modest success in inspiring schools to qualify for the award. Only nine were added to the list between 2000 and 2004 and another eight from 2004 to 2009 (Table 5). There are now 117 COEs. The S&T fields got 47 COE awards; teacher training had the single largest number, 18. CHED grants the status of center of development (COD) to a program that shows promise or potential of becoming COE. CHED does not report on the criteria used for judging potential for achieving COE status. Possibly those awarded COD status have met

¹ However, Tan [2000] found very weak or no correlation between PRC passing rate and fees across HEIs. Within a range of fees, some schools performed better than others in the PRC examination. For instance, Mapua Institute of Technology, a leading engineering school, charges much higher fees than UST but had lower passing rate in the licensure examination.

Table 4. Passing percentage in the examination by discipline, CY 1997-2001

	Discipline	CY 2001 (%)	CY 2000 (%)	CY 1999 (%)	CY 1998 (%)	CY 1997 (%)	Average (%)
1	Accountancy	18	19	19	18	18	18.40
2	Aeronautical engineering	33	28	20	25	18	24.80
3	Agricultural engineering	52	52	57	50	53	52.80
4	Architecture	36	31	39	35	35	35.20
5	Chemical engineering	41	44	43	33	36	39.40
6	Chemistry	47	44	35	39	45	42.00
7	Civil engineering	36	30	32	25	27	30.00
8	Criminology	50	45	51	41	51	47.60
9	Customs administration	9	9	9	9	11	9.40
10	Dental medicine	36	38	25	23	33	31.00
11	Electrical engineering	44	40	40	32	38	38.80
12	Electronics & communications eng'n	49	44	48	50	50	48.20
13	Environmental planning	76	67	63	68	53	65.40
14	Forestry	53	29	44	49	32	41.40
15	Geodetical engineering	41	44	41	36	33	39.00
16	Geology	91	70	75	55	69	72.00
17	Interior design	48	65	43	47	32	47.00
18	Mechanical engineering	43	47	46	38	31	41.00
19	Medicine	62	65	69	65	71	66.40
20	Metallurgical engineering	70	65	52	57	56	60.00
21	Midwifery	48	52	51	48	52	50.20
22	Mining engineering	87	77	75	67	34	68.00
23	Naval architecture	58	64	43	41	39	49.00
24	Nursing	54	50	50	56	50	52.00
25	Nutrition and dietetics	58	55	54	46	46	51.80
26	Occupational therapy	37	35	44	37	50	40.60
27	Optometry	37	15	19	27	57	31.00
28	Pharmacy	62	63	67	72	68	66.40
29	Physical therapy	24	25	24	24	30	25.40
30	Radiologic technology	42	37	31	40	37	37.40
31	Sanitary engineering	46	50	54	53	41	48.80
32	Social work	47	58	52	48	50	51.00
33	Veterinary medicine	48	47	50	51	45	48.20
	Average	47.97	45.58	44.39	42.58	42.15	44.53

Source: Commission on Higher Education.

Table 5. Number of Centers of Excellence and Centers of Development

	20	000	20	004	20	109
	COE	COD	COE	COD	COE	COD
SCIENCE AND MATHEMATICS						
Biology	5	10	5	9	4	9
Chemistry	6	5	6	5	6	5
Physics	4	4	4	4	4	4
Mathematics	5	4	5	4	5	4
Marine science	1	5	1	6	1	6
Agriculture, fisheries & forestry	4	0	6	4	17	3
Geology	1	2	1	2	1	2
Information technology	0	21	0	23	9	24
TOTAL	26	51	28	57	47	57
ENGINEERING						
Chemical					1	9
Industrial/mechanical	1	13	1	12	1	18
Electrical	1	15	1	14	1	15
Civil	0	19	0	18	0	19
Geodetic	1	3	1	3	1	3
Electronics and communication	2	<u>7</u>	2		1	<u></u>
Metallurgical	1	2	1	2	1	
Ceramics	0	4	0	2	0	2
Mining	0	2	0	2	0	2
Sanitary	0	2	0	2	0	
Agriculture	0	0	3	1	3	1
Computer	0	1	0	5	2	5
TOTAL	6	68	9	68	11	85
A						
Architecture	2	3	2	3	2	2
Social sciences	9	0	9	21	9	0
Teacher training	18	3	18	3	18	3
HEALTH FIELDS						
Medicine	0	0	3	1	3	1
Nursing	0	0	8	0	8	0
Linguistics and philosophy					13	0
Business					0	14
Communications arts	2	0	2	0	3	0
Distance education	0	0	1	0	1	0
Information technology education	0	21	0	23	0	24
Music	2	0	2	0	2	0

Source: Commission on Higher Education.

minimum standards. Very few CODs graduated to the COE status as seen in the small increments in the COEs. Apparently the COE criteria for IT were relaxed in 2009. There was no COE in IT before 2009 so that the big increase from 110 in 2004 to 117 in 2009 was accounted for by the dubious awards to IT. The requirement of having at least seven regular faculty with doctor's degree appears to have been abandoned.

There is a concentration of the COE award in the top-five most respected universities: UP, Ateneo, La Salle, UST, and Mindanao State University–Iligan Institute of Technology (MSU-IIT) (Table 6). Out of the reported 117 COEs, UP garnered 34, Ateneo 10, La Salle 9, UST 9, and MSU-IIT 4, a total of 61 out of 117. Of the 47 S&T COEs, the five HEIs garnered 28. The remaining COEs are very thinly spread across the remaining 1,736 HEIs. There was no COE in some critical fields such as civil engineering.

The top-five universities produce the bulk of S&T graduates. Yet their faculty and researchers with advanced degree comprise a small group (possibly less than 500), with its output of PhD graduates numbering less than 30. They are not large enough to meet the requirements of business, education, and government. UP, for instance, has only 144 faculty with doctor's degree in the sciences and 49 in engineering. Ateneo and La Salle have fewer. The scarcity of high-level S&T manpower is possibly the most critical constraint on the development of an innovation system and the improvement of the quality of S&T education as a whole. Both Posadas [2009] and Tan [2009] pointed to the dismal state of the country's innovation system: only about 0.12 percent of GDP was spent on research; there were less than 200 scientists/researchers per million; and the number of Institute for Scientific Information (ISI) publications per year was very low compared to that of Thailand, Malaysia, and Indonesia. Over the 1999-2005 period, the Philippines had 3,009 ISI-Web of Science (WoS) publications; Indonesia, 3,456; Malaysia, 8,006; and Thailand, 12,604. Vietnam, a late emerging member of the Association of Southeast Asian Nations (ASEAN), differs only slightly from the Philippines. As mentioned earlier, the best three universities had much lower rating in the top-500 universities compared to the top universities of Thailand and Malaysia. The dismal state of higher education and innovation systems calls for drastic and immediate reforms.

THE STATE UNIVERSITY AND COLLEGE SYSTEM

In the first years of the American occupation of the Philippines, the government created a massive public school system as a means of pacifying the armed resistance to its rule. To train teachers, it established six normal or teacher-training schools. The respected Philippine Normal University was established in 1907. Also established were several trade or craft vocational schools and agricultural schools. In 2008, UP was established as an institution of higher learning mandated to provide advanced instruction and undertake research. At the time, the religious schools that were established during the Spanish regime comprised the bulk of tertiary system. They

Table 6. Centers of Excellence in Top 5 universities

Field	Schools				
rielu	UP Diliman	Ateneo	La Salle	UST	MSU-Iligar
Mathematics	•	•	•	•	•
Physics	•	•	•	•	•
Biology	•	•	•	•	•
Chemistry	•	•	•	•	•
Marine science	•	•			
Geology	•				
Marine sciences	•	•			
Engineering	•				
Industrial/mechanical	•				
Electrical	•				
Geodetic	•				
Chemical	•		•	-	
Electronic & communication			•		
Metallurgical engineering	•			•	
Architecture	•				
Political science	•				
Economics	•				
Psychology	•	•			
Sociology	•	•			
Anthropology	•				
Philosphy		•		•	
English	•	•	•		
Literature	•	•	•	•	
Journalism	•				
Filipino	•		•		
Music	•				
TOTAL	24	11	9	7	4

Universtity of the Philippines - Los Baños

Biology Veterinary medicine Chemistry Education
Mathematics Communication arts Agriculture, forestry

University of the Philippines - Manila Medicine Nursing

Source: Commission on Higher Education Statistical Bulletin, 2003.

were allowed to continue operating. There were no strict rules for opening private high schools and colleges. There was no government authority governing HEIs as they fell under corporate law. The demand for primary school teachers and office staff grew rapidly following the rapid expansion of the public school system and government offices. Teaching and office work became leading professions. New private universities and colleges opened to meet the growing demand for training in these professions.

Subsequent to obtaining independence from the United States, the new government and all succeeding administrations continued with the American populist policy on education. They allowed the opening of new schools with minimal control on standards, program offerings, and enrollment. Until the 1980s, there was no control on tuition levels. Schools were relatively free to provide any quality of higher education that students could afford. Currently, there are caps on tuition rate increases, although the reputedly good HEIs are given more freedom to set fee levels. CHED Chairman Emmanuel Angeles said in a forum on granting research awards in 2010 that these HEIs number only 45.

SUCs are created by law largely to enhance the political power of incumbent congressmen. President Marcos assumed legislative power during his authoritarian rule (1972-1985) and so could create SUCs at will. As chartered HEIs, SUCs possess some autonomy from CHED. They obtain their budget directly from Congress, thus their respective sponsoring congressmen could protect their parochial interest and sustain their survival. In many cases, the teacher-training and vocational schools that were established by the American government were converted into colleges or universities. These moves were made with little consideration for quality. The schools retained their old faculty and administrative staff. The sponsoring congressmen who expected to obtain relatively small budgetary allocation for their new SUCs knew that they would not be high-quality HEIs. They knew they could not allocate the same budget being granted to UP. There was no consideration for developing S&T capacity and programs that match specific labor market demand.

As early as 1960, there was already a glut of teacher-training programs as seen in the high unemployment of teachers. Yet new SUCs opened teacher-training and commerce programs apparently because they were low cost and could attract enough students to warrant their existence. Table 7 gives a profile of SUCs in terms of program offering, budget, and quality indicators. It shows that like the private HEIs, most SUCs have concentrated their program offerings in teacher training and commerce. More SUCs than private HEIs offer agriculture since many of them originated as agricultural schools. Since they were supposed to serve the poor, they charge minimal tuition.

Currently most SUCs charge tuition of Php 100 per unit, which approximates Php 2,000 for a 20-unit semestral load or Php 4,000 per year. Cost or budget per student varies widely across SUCs so subsidy level also varies. UP has been allocated very much larger budget than all other SUCs. In 2009, its budget per capita was about Php

95,000 net of the budget for the Philippine General Hospital whereas that of Bukidnon State College was only Php 7,200. MSU-IIT, one of the top-five universities, had a per capita budget of Php 28,570. Some lesser-known SUCs had higher per student budget than MSU-IIT. In fact, the main MSU campus had Php 37,260. The table also gives some quality indicators, such as passing rate in the licensure examination, COE award, education of faculty, and budget for research. Very few had been awarded COE status, and the passing rates in licensure examinations are not significantly higher than that of an average private HEI. The table shows wide variation in all the variables, reflecting doubtful rationality in establishing and subsidizing SUCs.

Politicians rationalize the establishment of and support for SUCs as a means of providing higher education to the poor. Data do not support this contention. The inequality of access to education in early childhood inevitably carries through to all succeeding higher education levels. There is significant dropout rate even at the primary level starting at Grade 2, rising to about 30 percent at Grade 6. A child from a very poor family who drops out at any level before completing high school is barred from higher education, whether public or private. And those who complete the secondary level in a poor-quality high school and live in a deprived home/social environment would have little chance of passing the admission tests in high-quality HEIs like UP and Ateneo.

Table 9 shows the schooling status of 16-24 year-old population by family income decile in 2002 and 2007. Of the 7.8 percent who had finished college or postcollege in 2002, only 2.6 percent came from the poorest decile and 4.6 percent from the next decile, monotonically rising up the decile distribution. The top 10 percent of families had 16 percent share in college graduates. A higher percentage of the youth, 21 percent, were still enrolled in college. Among them, 5.2 percent came from the lowest decile, 5.9 percent from the next, but 47.4 percent from the top decile. Among the poorest decile, 52.4 percent had stopped before high school and were not enrolled in any level; only 21.1 percent had finished high school. Contrast the distribution with that of the top decile where only 3.1 percent had not finished high school and were not enrolled. While the poor had the same share in college graduates in 2002 as in 2007, they had a higher share of those enrolled in college, 5.2 percent to 7.24. But for the second decile, the respective figures are 10.43 percent vs. 8.9 percent. The percentage of those who did not finish high school but not enrolled also worsened from 48.81 percent in 2002 to 52.4 percent in 2007.

Table 7. Cost and quality profile of SUCs, 2008

Region SUCHER SALES No. of Mark Mith Pack Pack Pack Pack Pack Pack Pack Pack												
1 DON MARIANO MARCOS MEM ST UNIV 39 50 42 23 7 33.68 100.00 1 ILOCOS SUR POLYS T COLL 38 4 2 11 7 38.56 50.00 1 MARAIANO MARCOS ST UNIV 48 61 42 18 2 2.848 100.00 1 PANIGASINAN ST UNIV 33 3 3 22 1 6.39 100.00 100.00 2 BATANES ST COLL 13 50 27 1 6.39 100.00 100.00 2 GASANAN ST UNIV 2 4 4 7 4 7 1 6.30 1.00.00 2 GASANAN ST UNIV 2 4 7 4 7 4 7 9 1.4.85 75.00 2 GASANA ST UNIV 4 7 4 7 4 7 7 1.4.85 75.00 3 BATANAN ST UNIV 31 4 3 4		Region	SUC	LET pass % 3 years		% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD		Tuition fee per unit (BS/AB)	
1 ILOCOS SUR POLY ST COLL 33 13 30 11 . 38.56 50.00 1 MARIANO MARCOS ST UNIV 48 61 42 18 2 28.48 100.00 1 PANGASINAN ST UNIV 33 35 35 22 1 6.2 28.48 100.00 2 BATANES ST COLL 413 27 1 6 1.00.00 1.90 2 GAGAVAN ST UNIV 27 47 7 7 7 1.630 1.00.00 1.90 2 CAGAVAN ST UNIV 27 47	٦,	1	DON MARIANO MARCOS MEM ST UNIV	39	50	42	23			33.68	100.00	11.30
1 MARIANO MARCOSST UNIV 48 61 42 18 2 2 8.4 9 0.00 1 1 MARGAINAN ST UNIV 413 35 35 35 22 1 5 18.54 100.00 1 UNIV OF NORTHERN PHILL 4138 27 1 1 1.630 1.900 1.90 2 BATAMES ST COLL 13 47 47 47 7 1 1.630 1.90 2 CAGAWAN ST UNIV 18 36 38 16 1 4 1.90 1 4.85 1.90 1.9	7	1	ILOCOS SUR POLY ST COLL	33	13	30	11			38.56	50.00	
1 PANGASINAN STUNIV 33 35 22 1 18.54 100.00 1 UNIV OF MORTHERN PHILL 4138 27 12 7 16.30 100.00 1.90 2 BATAMES ST COLL 13 50 27 7 7 33.43 75.00 2 CAGANAN ST UNIV 18 50 27 7 1 33.43 75.00 2 JABELA ST UNIV 18 36 38 16 1 5 14.85 75.00 2 ONULOS AND ST UNIV 41 37 46 47 <	m	1		48	61	42	18	2	2	28.48	100.00	10.60
1 UNIV OF NORTHERN PHILL 4138 27 12 . 16.30 100.00 1.90 2 GAGAYAN ST COLL 13 50 27 . . 14.85 75.00 2 CAGAYAN ST COLL 18 47 47 47 19 1 5 14.85 75.00 2 ISABELAS ST UNIV 18 36 38 16 1 5 14.85 75.00 2 INUEVA VISCARAS T UNIV 41 37 43 26 7 24.82 100.00 3 QURINO ST COLLOFTECH 50 35 36 14 42 14 10 5.482 100.00 3 AURORA ST COLL OFTECH 50 35 36 10 7 24.82 100.00 3 BULACAN AGRIC ST COLL 26 62 38 17 2 25.68 110.00 3 BULACAN AGRIC ST UNIV 40 47 36 4 7	4	1	PANGASINAN ST UNIV	33	35	35	22	17		18.54	100.00	8.10
2 BATAMES ST COLL 13 50 27 - - 33-43 75-00 2 CAGAYAN ST UNIV 27 47 47 19 1 5 14-85 75-00 2 ISABELA ST UNIV 41 37 43 26 1 1 5 14-85 75-00 2 NUEVA VISCAYA ST UNIV 41 37 43 26 1 1 26 10 1 27-85 100-00 2 QURINO ST COLL OF TECH 20 1 4 2 6 2 5 26 10 2 27-85 65-00 2 20-00 3 6 30 3 4 10 7 27-85 65-00 3 60-00 3 60-00 3 60-00 3 60-00 3 60-00 3 60-00 3 60-00 3 60-00 3 60-00 3 60-00 3 60-00 3 3 <	5	1	UNIV OF NORTHERN PHIL	4138	27	12			16.30	100.00	1.90	
2 CAGAYAN ST UNIV 27 47 47 19 1 5 14.85 75.00 2 ISABELA ST UNIV 18 36 38 16 1 1 13.95 100.00 2 NUEVA VISCARA ST UNIV 41 37 43 26 7 24.82 100.00 2 QURINO ST COLEGE 20 11 42 14 7 4.85 65.00 3 AURORA ST COLL OF TECH 50 35 34 10 7 27.54 65.00 3 AURORA ST COLL OF TECH 50 35 34 10 7 27.54 65.00 3 BUIACAN ST UNIV 26 62 38 17 7 27.54 65.00 3 GENTRAL LUZON ST UNIV 40 47 36 3 2 3 30.11 100.00 3 GENTRAL LUZON ST UNIV 42 5 3 4 3 4 3 4 <td< td=""><td>9</td><td>2</td><td>BATANES ST COLL</td><td>13</td><td>50</td><td>27</td><td></td><td></td><td></td><td>33.43</td><td>75.00</td><td></td></td<>	9	2	BATANES ST COLL	13	50	27				33.43	75.00	
2 ISABELASTUNIV 18 36 36 36 16 13.95 100.00 2 NUEVA VISCAYA STUNIV 41 37 43 26 - 24.82 100.00 2 QURINO ST COLEGE 20 11 42 14 - 24.82 100.00 3 AURORA ST COLL OF TECH 50 35 34 10 - 24.82 60.00 3 AURORA ST COLL OF TECH 50 35 34 10 - 23.25 60.00 3 BATAAN PEN ST UNIV 47 32 6 - 25.68 10.00 3 BULACAN AGRIC ST COLL 47 36 9 - 25.68 10.00 3 BULACAN ST UNIV 57 51 37 28 2 36.10 100.00 3 CENTRAL LUZON ST UNIV 52 52 52 36 10.00 25.68 10.00 3 DON H VENTURA COLL OF ARTS AND TRADEA 42 <td> _</td> <td>2</td> <td>CAGAYAN ST UNIV</td> <td>27</td> <td>47</td> <td>47</td> <td>19</td> <td>1</td> <td>5</td> <td>14.85</td> <td>75.00</td> <td>1.30</td>	_	2	CAGAYAN ST UNIV	27	47	47	19	1	5	14.85	75.00	1.30
2 NUEVAVISCAYASTUNIV 41 37 43 26 - 24.82 100.00 2 QURINO ST COLEGE 20 11 42 14 - 27.54 65.00 3 AURORA ST COLL OF TECH 50 35 34 10 - 23.25 60.00 3 BATAAN PEN ST UNIV 26 62 38 17 - 25.68 100.00 3 BULACAN AGRIC ST COLL 26 62 38 17 - 25.68 100.00 3 BULACAN ST UNIV 40 47 36 9 - 5.68 100.00 3 CENTRAL LUZON ST UNIV 57 51 37 28 2 3 30.11 100.00 3 DON H VENTURA COLL OF ARTS AND TRCH 13 29 9 - 17.84 110.00 2.50 3 DON H VENTURA COLL OF ARTS AND TRCH 40 42 56 16 - 13.25 100.00	∞	2	ISABELA ST UNIV	18	36	38	16	1		13.95	100.00	2.40
2 QURINO ST COLLEGE 20 11 42 14 - - 27:54 65:00 3 AURORAS ST COLL OF TECH 50 35 34 10 - - 23:25 60:00 3 BATAAN PEN ST UNIV 26 62 38 17 - - 11.12 200:00 3 BULACAN AGRIC ST COLL 26 62 38 17 - 25:68 110:00 3 BULACAN ST UNIV 40 47 36 9 - 25:68 110:00 3 CENTRAL LUZON ST UNIV 40 47 36 9 - 25:68 10:00 3 DON H VENTURAS COLL OF ARTS AND TRABES 23 9 - 17:84 10:00 2.50 3 DON H VENTURAS COLL OF ARTS AND TRABES 23 3 2 3 10:00 2 2 10:00 3 PHIL MERCHANT MARINE ACADEMY 4 26 16 - 10:23 10:	6	2		41	37	43	26			24.82	100.00	
3 AURORA ST COLL OF TECH 50 35 34 10 - 23.25 60.00 3 BATAAN PEN ST UNIV 31 47 32 6 - 11.12 200.00 3 BULACAN AGRIC ST COLL 26 38 17 - 25.68 110.00 3 BULACAN ST UNIV 40 47 36 9 - 25.68 110.00 3 GENTRAL LUZON ST UNIV 57 51 37 28 2 3 20.00 3 DON H VENTURA COLL OF ARTS AND TRCH 13 28 7 1 10.00 2.50 3 DON H VENTURA COLL OF ARTS AND TRCH 13 29 9 - 17.84 110.00 2.50 3 DAMPANGA AGRIC COLL 40 42 56 16 - 13.25 120.00 3 PHIL MERCHANT MARINE ACADEMY - 7 7 13.25 100.00 3 TARLAC COLL OF AGRIC 43 36 <td>10</td> <td>2</td> <td>QURINO ST COLEGE</td> <td>20</td> <td>11</td> <td>42</td> <td>14</td> <td></td> <td></td> <td>27.54</td> <td>65.00</td> <td>5.80</td>	10	2	QURINO ST COLEGE	20	11	42	14			27.54	65.00	5.80
3 BATAAN PEN ST UNIV 31 47 32 6 - - 11.12 200.00 3 BULACAN AGRIC ST COLL 26 38 17 - 25.68 110.00 3 BULACAN ST UNIV 40 47 36 9 - 25.68 110.00 3 CENTRAL LUZON ST UNIV 57 51 37 28 2 3 30.11 100.00 3 DON H VENTURA COLL OF ARTS AND TRADES 239 9 - 17.84 100.00 2.50 3 NUEVA ECIJA UNIV OF SCI AND TECH 13 29 9 - 17.84 100.00 2.50 3 PHIL MERCHANT MARINE ACADEMY - 78 6 16 - 13.25 120.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 13.25 100.00 3 TARLAC COLL OF AGRIC 43 - - - 46.80 13.25 12.25 12.20	11	3	AURORA ST COLL OF TECH	50	35	34	10	•	•	23.25	00.09	0.20
3 BULACAN AGRIC ST COLL 26 62 38 17 - 5.68 110.00 3 BULACAN ST UNIV 40 47 36 9 - 2 5.26 10.00 3 CENTRAL LUZON ST UNIV 57 51 37 28 2 3 30.11 100.00 3 DON H VENTURA COLL OF ARTS AND TRADES 2039 33 9 - 17.84 110.00 2.50 3 NUEVA ECIJA UNIV OF SCI AND TECH 13 29 9 - 17.84 110.00 2.50 3 PHIL MERCHANT MARINE ACADEMY - 78 56 16 - 13.25 120.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 11.22 120.00 3 FRAMON MAGSAYSAY TECH UNIV 24 36 - - - - 11.22 11.22 120.00 3 TARLAC COLL OF AGRIC 43 36 - - -	12	3	BATAAN PEN ST UNIV	31	47	32	9	•	•	11.12	200.00	2.30
3 BULACAN ST UNIV 40 47 36 9 - 9 - 9 0-33 00-00 3 CENTRAL LUZON ST UNIV 57 51 37 28 2 3 0.11 100-00 3 DON H VENTURA COLL OF ARTS AND TRADH 13 29 3 - 17.84 110-00 2.50 3 NUEVA ECIJA UNIV OF SCI AND TECH 13 29 39 9 - 13.25 120-00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 13.25 100-00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 81.55 100-00 3 RAMON MAGSAYSAY TECH UNIV 24 36 - - - 81.55 11.22 120.00 3 TARLAC COLL OF AGRIC 43 - - - - 46.80 137.50 3 38 TARRAC ST UNIV 26 38 28 - - - <td>13</td> <td>3</td> <td></td> <td>26</td> <td>62</td> <td>38</td> <td>17</td> <td>•</td> <td></td> <td>25.68</td> <td>110.00</td> <td>5.40</td>	13	3		26	62	38	17	•		25.68	110.00	5.40
3 CENTRAL LUZON ST UNIV 57 51 37 28 2 3 30.11 100.00 3 DON H VENTURA COLL OF ARTS AND TRADES 2039 33 9 - 7 17.84 10.00 2.50 3 NUEVA ECIJA UNIV OF SCI AND TECH 40 42 56 16 - 7 13.25 120.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 81.55 100.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 81.55 100.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 81.55 100.00 3 TARLAC COLL OF AGRIC 43 36 - - - 46.80 137.50 3 TARLAC ST UNIV 26 38 35 13 - - 46.80 137.50 4-A BATANGAS ST UNIV 26 38 28 7 - 1 14.65	14	3	BULACAN ST UNIV	40	47	36	6	•	2	9.23	200.00	1.10
3 DON H VENTURA COLL OF ARTS AND TRADES 2039 33 9 - 17.84 100.00 2.50 3 NUEVA ECIJA UNIV OF SCI AND TECH 13 29 39 9 - 13.25 120.00 3 PAMPANGA AGRIC COLL 40 42 56 16 - 33.50 100.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 81.55 100.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - - 81.55 100.00 3 PHIL MERCHANT MARINE ACADEMY 24 36 - - - 81.55 100.00 3 TARLAC COLL OF AGRIC 43 36 - - - 46.80 137.50 3 TARLAC ST UNIV 36 58 28 7 - 14.63 250.00 4-A AND COLL OF AGRIC 24 44 24 9 - - 11.65 80/120	15	3		22	51	37	28	2	3	30.11	100.00	8.40
3 NUEVA ECIJA UNIV OF SCI AND TECH 13 29 39 9 - 13.25 120.00 3 PAMPANGA AGRIC COLL 40 42 56 16 - 33.50 100.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - 81.55 100.00 3 RAMON MAGSAYSAY TECH UNIV 24 36 - - - 46.80 137.50 3 TARLAC COLL OF AGRIC 43 36 - - - 46.80 137.50 4-A BATANGAS STUNIV 36 58 13 - 1 14.63 250.00 4-A CAVITE ST UNIV 24 44 24 9 - 1 14.63 250.00	16	3	DON H VENTURA COLL OF ARTS AND TRADES	2039	33	6			17.84	110.00	2.50	
3 PAMMPANGA AGRIC COLL 40 42 56 16 - - 33-50 100.00 3 PHIL MERCHANT MARINE ACADEMY - 78 - - - 81-55 - - 3 FAMON MAGSAYSAY TECH UNIV 43 36 - - - - 13.25 120.00 3 TARLAC COLL OF AGRIC 43 36 - - - 46.80 137.50 4-A BATANGAS ST UNIV 36 58 28 7 - 1 14.63 250.00 4-A CAVITE ST UNIV 24 44 24 9 - 2 12.12 225.00	17	3	NUEVA ECIJA UNIV OF SCI AND TECH	13	29	39	6			13.25	120.00	1.40
3 PHIL MERCHANT MARINE ACADEMY - 78 - - 81.55 - 3 RAMON MAGSAYSAY TECH UNIV 24 36 - - - 4.6.80 137.50 3 TARLAC COLL OF AGRIC 43 36 - - - 46.80 137.50 4-A BATANGAS ST UNIV 36 58 28 7 - 1 14.63 250.00 4-A CAVITE ST UNIV 24 44 24 9 - 2 12.12 225.00	18	3		40	42	95	16			33.50	100.00	3.50
3 RAMON MAGSAYSAY TECH UNIV 24 36 - - - - 11.22 120.00 3 TARLAC COLL OF AGRIC 43 36 - - - 46.80 137.50 3 3R TARRLAC ST UNIV 26 38 35 13 - 1 8.55 80/120 4-A BATANGAS ST UNIV 36 58 28 7 - 1 14.63 250.00 4-A CAVITE ST UNIV 24 44 24 9 - 2 12.12 225.00	19	3	PHIL MERCHANT MARINE ACADEMY	•	78				•	81.55	•	1.10
3 TARLAC COLL OF AGRIC 43 36 - - - 46.80 137.50 3 38 TARRLAC ST UNIV 26 38 35 13 - 1 8.55 80/120 4-A BATANGAS ST UNIV 36 58 28 7 - 1 14.63 250.00 4-A CAVITE ST UNIV 24 44 24 9 - 2 12.12 225.00	20		RAMON MAGSAYSAY TECH UNIV	24	36					11.22	120.00	2.70
3 38 TARRLAC ST UNIV 26 38 35 13 - 1 8-55 80/120 4-A BATANGAS ST UNIV 36 58 28 7 - 1 14-63 250.00 4-A CAVITE ST UNIV 24 44 24 9 - 2 12.12 225.00	21	3	TARLAC COLL OF AGRIC	43	36				•	46.80	137.50	3.30
4-A BATANGAS ST UNIV 36 58 28 7 - 1 14.63 250.00 4-A CAVITE ST UNIV 24 44 24 9 - 2 12.12 225.00	22	3	38 TARRLAC ST UNIV	26	38	35	13		1	8.55	80/120	1.20
4-A CAVITE ST UNIV 24 44 24 9 - 2 12.12 225.00	23		BATANGAS ST UNIV	36	58	28	7		1	14.63	250.00	2.00
	24		CAVITE ST UNIV	24	44	24	6		2	12.12	225.00	4.00

Table 7. (Continued) Cost and quality profile of SUCs, 2008

			LET	Other	%	%	No. of	No. of	Budget per	Tuition fee	Research/
	Region	SUC	pass % 3 years		Faculty with MS		programs as COE	programs as COD		per unit (BS/AB)	
25	4-A	LAGUNA ST POLY COLL	23	21	29	8			10.94	100.00	06.0
56	4-A	SOUTHERN LUZON POLY COLL	41	09	31	7			10.82	175.00	3.00
27	4-A	UNIV OF RIZAL SYSTEM	21	36	26	10		11	11.91	50/100	
28	4-B	MARINDUQUE ST COLL	24	39	36	4			20.67	116.50	0.70
29	4-B	MINDORO ST COLL OF AGRIC AND TECH	25	49	17	7			20.88	100.00	1.30
30	4-B	OCC MINDORO NATL COLL	19	31	38	5			12.72	100.00	1.00
31	4-B	PALAWAN ST UNIV	34	99	34	9	1		8.97	200.00	0.40
32	4-B	ROMBLON ST COLL	20	18	•		•	•	16.64	100.00	ı
33	4-B	WESTERN PHILIPPINES UNIV (Formerly SPCP)	94	38	•		1	•	14.03	150.00	4.50
34	5	BICOLUNIV	44	50	26	18	2	•	31.38	175.00	1.00
35	5	CAMARINES NORTE ST COLL	25	46	47	12		•	20.73	125.00	1.40
36	5	CAMARINES SUR POLY COLL	38	53	46	10			15.47	150.00	1.10
37	5	CAMARINES SUR ST AGRIC COLL	33	32	39	13			31.81	100.00	1.60
38	5	CATANDUANES ST COLL	24	44	41	13	•	•	24.96	100.00	1.30
39	2	DR. EMILIO B. ESPINOSA, SR. MEM ST COLL OF AGRIC AND TECH	13	8	31	11			27.03	100.00	1.20
40	5	PARTIDO ST UNIV	17	24	42	14			26.97	175.00	1.00
41	5	SORSOGON ST COLL	36	36	33	13			13.36	150.00	1.40
45	9	AKLAN ST UNIV	25	26	40	7			19.49	120.00	5.40
43	9	CARLOS HILADO MEM ST COLL	41	23	32	7			12.75	150.00	6.80
44	9	CAPIZ ST UNIV (Formerly PSPC)	18	30	38	15		1	21.05	140.00	1.10
45	9	GUIMARAS ST COLL	32	0	52	11			18.20	pu	
94	9	ILOILO ST COLL OF FISHERIES	21	43	45	4			29.33	spu	1.00

Table 7. (Continued) Cost and quality profile of SUCs, 2008

			!		2	6		:			
	Region	SUC	LET pass % 3 years	Other fields pass rate(%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	Budget per enrollment	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
47	9	NEGROS ST COLL OF AGRIC	25	21	20	5			11.04	120.00	1.70
48	9	NORTHERN ILOILO POLY ST COLL	20	52	28	7			22.35	100.00	1.20
49	9	NORTHERN NEGROS ST COLL OF SCI AND TECH	10	21					14.00	110.00	
20	9	POLY ST COLL OF ANTIQUE	46	38	13	9			13.08	spu	1.10
51	9	W VIS COLL OF SCI AND TECH	38	44	35	7			15.90	150.00	09.0
52	9	WEST VIS ST UNIV	49	72	30	6	1		22.73	150.00	06.0
53	7	CEBU NORMAL UNIV	65	93	45	34			11.75	75.00	2.00
54	7	CEBU ST COLL OF SCI AND TECH	26	48	48	13			20.99	150.00	2.20
55	7	CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH	43	59	27	12			12.37	140.00	
26	7	NEGROS ORIENTAL ST UNIV (Formerly CVPC)	21	44					6.20	spu	1.60
27	7	SIQUIJOR ST COLL	31	31					21.15	spu	6.30
28	8	EASTERN SAMAR ST UNIV	23	25	27	15			23.63	spu	09.0
59	8	EASTERN VISAYAS ST UNIV	16	33	36	15		1	12.78	•	1.70
9	8	LEYTE NORMAL UNIV	36	9†	65	16	1		12.48	150.00	2.30
61	8	VISAYAS STATE UNIV. (LEYTE ST UNIV)	39	9†	36	11	3		43.76	120.00	12.80
62	8	NAVAL INST OF TECH	15	41	25	15	•		11.91	spu	1.60
63	8	PALOMPON INST OF TECH	20	58	33	11			23.92	150.00	1.40
9	8	SAMAR ST COLL OF AGRIC AND FOR	6	19	35	11			37.49	spu	•
65	8	SAMAR ST UNIV	18	51	8	3		1	24.21	spu	1.40
99	8	SOUTHERN LEYTE ST UNIV	26	52	31	9	•		17.04	150.00	0.40
29	8	T TANCINCO MEM INST OF SCI AND TECH	22	34	26	16			10.59	120.00	1.90
89	8	UNIV OF EASTERN PHIL	17	37	26	16			19.84	spu	3.90
69	6	BASILAN ST COLL	7	13			•		11.30	200.00	0.10

Table 7. (Continued) Cost and quality profile of SUCs, 2008

	Region	SUC	LET pass % 3 years	Other fields pass rate(%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	No. of Budget per programs enrollment as COD	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
2	6	J. H. CERILLES ST COLL	13	9					18.85	60.00	
71	6	JOSE RIZAL MEM ST COLL	19	41	39	6			16.12	173.00	2.90
72	6	MINDANAO ST UNIV - TCTO	8	0	55	7			93.38	spu	2.00
73	6	SULU ST COLL	1	0						spu	0.10
74	6	TAWI-TAWI REGIONAL AGRIC COLL	1	0						spu	
75	6	W MINDANAO ST UNIV	33	49	29	7	1	1	19.39	30.00	1.70
9/	6	ZAMBO CITY ST POLY COLL	7	34	12	2	•	•			4.20
77	6	ZAMBO ST COLL OF MARINE SCIS AND TECH	12	40	51	7	1	1	30.33	50.00	1.30
78	10	BUKIDNON ST COLL	26	31	27	2			7.20	225.00	08.0
79	10	CAMIGUIN POLY ST COLL	19	27	33	9				550/sem	
80	10	CENTRAL MINDANAO UNIV	54	52	48	17	2	1	34.79	90.00	4.20
81	10	MINDANAO POLY ST COLL	31	67	32	11	•	1		325.00	2.10
82	10	MSU - IIT	61	64	50	19	4	7	28.57		4.90
83	10	MISAMIS OR ST COLL OF AGRIC AND TECH	22	29	52	9	•	•	27.75	150.00	0.70
84	10	NW MINDANAO ST COLL OF SCI AND TECH	52	0	24	5	•	•	19.64	112.00	0.30
85	11	DAVAO DEL NORTE ST COLL	38	0	46	12	•			40.00	0.20
86	11	DAVAO OR ST COLL OF SCI AND TECH	54	38			•		19.89	74.00	2.00
87	11	SOUTHERN PHIL AGRI-BUSINESS, MARINE AND AQUATIC SCHOOL OF TECH	16	20	43	12				90.00	09.0
88	11	UNIV OF SOUTHEASTERN PHIL	46	22	55	19	•	2	13.84	spu	06.0
89	12	ADIONG MEM POLY ST COLL	5	0	10				spu		
90	12	COTABATO CITY ST POLY COLL	5	21	42	•	•		20.73	spu	08.0
91	12	COTABATO FOUNDN COLL OF SCI AND TECH	16	8	32	17	•		100		

Table 7. (Continued) Cost and quality profile of SUCs, 2008

92 12 MINDANAO ST UNIV - MAIN 22 59 49 11 93 12 SULTAN KUDARAT POLY ST COLL 26 33 41 10 94 12 UNIV OF SOUTHERN MINDANAO 25 38 31 18 95 CAR ABRA ST INST OF SCI AND TECH 14 20 29 8 96 CAR APAYAO ST COLL 12 35 9 - 97 CAR BENGUET ST UNIV 49 43 45 27 99 CAR HEUGAO ST COLL OF AGRIC AND FOR 27 30 43 17 99 CAR MIT PROVINCE ST POLY COLL 29 36 44 16 100 CAR MIT PROVINCE ST POLY ST COLL 20 22 - - 101 CARAGA SURGAO DEL SUR POLY ST COLL 17 25- - - 102 CARAGA SURGAO DEL SUR POLY ST COLL 17 26- 29 43 15		Region	SUC	LET pass % 3 years	Other fields pass rate(%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	Budget per enrollment	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
12 SULTAN KUDARAT POLY ST COLL 26 33 41 12 UNIV OF SOUTHERN MINDANAO 25 38 31 CAR ABRA ST INST OF SCI AND TECH 14 20 29 CAR APAYAO ST COLL 12 35 9 CAR BENGUET ST UNIV 49 43 45 CAR IFUGAO ST COLL OF AGRIC AND FOR 27 30 43 CAR IFUGAO ST COLL OF AGRIC AND TECH 24 39 36 CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA NORTHERN MINDANAO ST INST OF SCI AND 25 41 40 CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 12 20- - CARAGA SURIGAO DEL SUR POLY ST COLL 14 0 65 NCR FULLOGIO "AMANG"ROBRIGUEZ INST OF SCI 21 16 47 57 NCR PHIL NORMAL UNIV AGUSAN DEL SUR POLY ST COLL	92	12	MINDANAO ST UNIV - MAIN	22	59	49	11	2	2	37.26	3.00	
12 UNIV OF SOUTHERN MINDANAO 25 38 31 CAR ABRA ST INST OF SCI AND TECH 14 20 29 CAR APAYAO ST COLL 12 35 9 CAR BENGUET ST UNIV 49 43 45 CAR IFUGAO ST COLL OF AGRIC AND FOR 27 30 43 CAR KALINGA APAYAO ST COLL 24 39 36 CAR MT PROVINCE ST POLY COLL 24 39 36 CAR AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 14 0 65 NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR </td <td>93</td> <td>12</td> <td></td> <td>26</td> <td>33</td> <td>41</td> <td>10</td> <td></td> <td></td> <td>31.30</td> <td>150.00</td> <td>2.80</td>	93	12		26	33	41	10			31.30	150.00	2.80
CAR ABRA ST INST OF SCI AND TECH 14 20 29 CAR APAVAO ST COLL 12 35 9 CAR BENGUET ST UNIV 49 43 45 CAR IFUGAO ST COLL OF AGRIC AND FOR 27 30 43 CAR IFUGAO ST COLL OF AGRIC AND FOR 24 39 36 CAR MT PROVINCE ST POLY COLL 24 39 36 CAR AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND 25 41 40 CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 12 20- - NCR SURIGAO ST COLL OF TECH 12 26- 47 57 NCR PHIL ST COLL OF AGRONAUTICS 16 47 57 NCR PHIL ST COLL OF AGRONAUTICS 16 44 36 39 NCR PHIL ST COLL OF AGRONAUTICS 34 56 </td <td>94</td> <td>12</td> <td>UNIV OF SOUTHERN MINDANAO</td> <td>25</td> <td>38</td> <td>31</td> <td>18</td> <td>1</td> <td></td> <td>20.46</td> <td>125.00</td> <td>5.20</td>	94	12	UNIV OF SOUTHERN MINDANAO	25	38	31	18	1		20.46	125.00	5.20
CAR APAYAO ST COLL 12 35 9 CAR BENGUET ST UNIV 49 43 45 CAR IFUGAO ST COLL OF AGRIC AND FOR 27 30 43 CAR KALINGA APAYAO ST COLL 24 39 36 CAR MT PROVINCE ST POLY COLL 24 39 36 CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA AGUSAN DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 14 0 65 NCR BULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 47 57 NCR PHIL NORMAL UNIV 44 36 39 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR PHIL ST COLL OF AERONAUTICS 26 30 - <	95	CAR		14	20	29	8			26.97	spu	6.20
CAR BENGUET ST UNIV 49 43 45 CAR IFUGAO ST COLL OF AGRIC AND FOR 27 30 43 CAR KALINGA APAYAO ST COLL 18 16 41 CAR KALINGA APAYAO ST COLL 24 39 36 CAR MT PROVINCE ST POLY COLL 20 22 - CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA NORTHERN MINDANAO ST INST OF SCI AND 25 41 40 CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 14 0 65 NCR EULOGIO "AMANG" RODRIGUEZ INST OF SCI 14 0 65 NCR PHIL NORMAL UNIV 44 36 39 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR PHIL ST COLL OF AERONAUTICS 26 30 - NCR RIZAL TECH UNIV 26 30 - <	96	CAR	APAYAO ST COLL	12	35	6			13.90	spu	09.0	
CAR IFUGAO ST COLL OF AGRIC AND FOR 27 30 43 CAR KALINGA APAYAO ST COLL 18 16 41 CAR MT PROVINCE ST POLY COLL 24 39 36 CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA NORTHERN MINDANAO ST INST OF SCI AND 25 41 40 TECH TECH 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO ST COLL OF TECH 12 20- - NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 16 34 NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 47 57 NCR PHIL NORMAL UNIV 44 36 39 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR PHIL ST COLL OF AERONAUTICS 26 30 - NCR RIZAL TECH UNIV 24 56 28	26	CAR	BENGUET ST UNIV	49	43	45	27	1		28.76	100.00	11.90
CAR KALINGA APAYAO ST COLL 18 16 41 CAR AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 24 39 36 CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA NORTHERN MINDANAO ST INST OF SCI AND 25 41 40 CARAGA SURIGAO DEL SUR POLY ST COLL 12 20- - CARAGA SURIGAO ST COLL OF TECH 12 20- - NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 16 34 NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR PHIL ST COLL OF AERONAUTICS 26 30 - NCR POLY UNIV OF THE PHILL 36 30 - NCR TECH UNIV OF THE PHILL SYSTEM 97 88 - NCR UNIV OF THE PHILL SYSTEM 97 88 <	98	CAR		27	30	43	17			29.16	60.00	2.80
CARAGA MT PROVINCE ST POLY COLL 24 39 36 CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA NORTHERN MINDANAO ST INST OF SCI AND 25 41 40 CARAGA SURIGAO DEL SUR POLY ST COLL 12 20- - CARAGA SURIGAO ST COLL OF TECH 12 20- - NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 16 34 NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 16 34 NCR HIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR PHIL ST COLL OF AERONAUTICS 26 30 - NCR POLY UNIV OF THE PHIL 44 36 39 NCR TECH UNIV OF THE PHILL SYSTEM 97 88 - NCR UNIV OF THE PHILL SYSTEM 97 88 -	66	CAR		18	16	41	16			17.78	spu	3.10
CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH 20 22 - CARAGA NORTHERN MINDANAO ST INST OF SCI AND TECH 25 41 40 CARAGA SURIGAO DEL SUR POLY ST COLL 12 20- - CARAGA SURIGAO DEL SUR POLY ST COLL 21 16 34 CARAGA SURIGAO ST COLL OF TECH 12 20- - NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 16 34 NCR AND TECH 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR PHIL ST COLL OF AERONAUTICS 26 30 - NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHIL SYSTEM 97 88 - NCR UNIV OF THE PHIL SYSTEM 32 - -	100	CAR		24	39	36	14			10.57	60.00	4.50
CARAGA NORTHERN MINDANAO ST INST OF SCI AND TECH 25 41 40 CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO DEL SUR POLY ST COLL 12 20- - NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 16 34 NCR AND TECH 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR PHIL ST COLL OF AERONAUTICS 26 30 - NCR POLY UNIV OF THE PHIL 44 36 39 NCR TECH UNIV OF THE PHILL SYSTEM 97 88 - NCR UNIV OF THE PHILL SYSTEM 97 88 - TOTAL TOTAL 32 - -	101	CARAGA	AGUSAN DEL SUR	20	22					21.86	100.00	
CARAGA SURIGAO DEL SUR POLY ST COLL 17 25- - CARAGA SURIGAO ST COLL OF TECH 12 20- - NCR EULOGIO "AMANG" RODRIGUEZ INST OF SCI 21 16 34 NCR AND TECH 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR POLY UNIV OF THE PHIL 44 36 39 NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHILL SYSTEM 37 58 - NCR UNIV OF THE PHILL SYSTEM 97 88 - NCR UNIV OF THE PHILL SYSTEM 32 -	102		NORTHERN MIND, TECH	25	41	40	14			14.71	150.00	2.00
CARAGA SURIGAO ST COLL OF TECH 12 20- - NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI 21 16 34 NCR AND TECH 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR POLY UNIV OF THE PHIL 44 36 39 NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHILL 34 56 28 NCR UNIV OF THE PHILL SYSTEM 97 88 - TOTAL TOTAL 32 - -	103			17	25-				14.64	130.00	00.00	
NCR EULOGIO "AMANG"RODRIGUEZ INST OF SCI AND TECH 16 34 NCR MARIKINA POLY COLL 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR POLY UNIV OF THE PHIL 44 36 39 NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHIL 34 56 28 NCR UNIV OF THE PHIL SYSTEM 97 88 - TOTAL TOTAL 32 - -	104	CARAGA	SURIGAO ST COLL	12	20-				15.17	100.00		
NCR MARIKINA POLY COLL 14 0 65 NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR POLY UNIV OF THE PHIL 44 36 39 NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHIL 34 56 28 NCR UNIV OF THE PHIL SYSTEM 97 88 - TOTAL TOTAL 32 -	105	NCR	EULOGIO "AMANG"RODRIGUEZ INST OF SCI AND TECH	21	16	34	15	•		9.90	100.00	1.70
NCR PHIL NORMAL UNIV 69 49 56 NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR POLY UNIV OF THE PHIL 44 36 39 NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHIL SYSTEM 34 56 28 NCR UNIV OF THE PHIL SYSTEM 97 88 - TOTAL TOTAL 32 -	106	NCR	MARIKINA POLY COLL	14	0	65	9	•		50.21	100.00	2.00
NCR PHIL ST COLL OF AERONAUTICS 16 47 57 NCR POLY UNIV OF THE PHIL 44 36 39 NCR RIZAL TECH UNIV OF THE PHIL 36 30 - NCR TECH UNIV OF THE PHIL SYSTEM 97 88 - NCR TOTAL 32 - -	107	NCR	PHIL NORMAL UNIV	69	64	99	34	2		22.88	35.00	2.60
NCR POLY UNIV OF THE PHIL 44 36 39 NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHIL SYSTEM 34 56 28 NCR UNIV OF THE PHIL SYSTEM 97 88 - TOTAL TOTAL 32 -	108			16	47	22	13			12.15	200.00	09.0
NCR RIZAL TECH UNIV 26 30 - NCR TECH UNIV OF THE PHIL SYSTEM 34 56 28 10 NCR UNIV OF THE PHIL SYSTEM 97 88 - TOTAL 32 - -	109	NCR		44	36	39	11		1	10.86	12.00	1.80
NCR TECH UNIV OF THE PHIL 34 56 28 16 NCR UNIV OF THE PHIL SYSTEM 97 88 - TOTAL 32 - -	110	NCR	RIZAL TECH UNIV	26	30		•	•		9:26	200.00	3.00
NCR UNIV OF THE PHIL SYSTEM 97 88 - TOTAL 32	111	NCR		34	99	28	10		Ж	17.66	50.00	8.80
	112	NCR		26	88					113.06	1,000.00	43.00
			TOTAL	32								

Table 8. SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

Ocino	SI S	MS	PhD	Senior	Faculty BS	Faculty	Faculty	National		CHED CHED
אפאוס		2008-09		staff	b3 holders	holders	holders	centers		devt
1 1	DON MARIANO MARCOS MEM STUNIV	197	44	48	199	246	135	2		
2 1	ILOCOS SUR POLY ST COLL	85			111	22	20			
3 1	MARIANO MARCOS ST UNIV	393	26	16	177	181	9/		2	2
4 1	PANGASINAN ST UNIV	2,587	215	29	187	150	95		1	
5 1	UNIV OF NORTHERN PHIL	202	95	7	343	153	29			
6 2	BATANES ST COLL				33	12	0			
7 2	CAGAYAN ST UNIV	285	101	3	237	321	129		1	5
8 2	ISABELA ST UNIV	209	26	27	361	298	121		4	
9 2	NUEVA VISCAYA ST UNIV	248	41	15	109	148	96			
10 2	QURINO ST COLEGE	53		4	35	33	11			
11 3	AURORA ST COLL OF TECH	118			38	23	7			
12 3	BATAAN PEN ST UNIV	348	18	3	308	157	33			
13 3	BULACAN AGRIC ST COLL	36	4		46	40	18			
14 3	BULACAN ST UNIV	655	52	5	419	282	72			2
15 3	CENTRAL LUZON ST UNIV	199	67	25	128	132	100		2	3
16 3	DON H VENTURA COLL OF ARTS AND TRADES	09	2	2	114	65	18			
17 3	NUEVA ECIJA UNIV OF SCI AND TECH	174	55	6	211	161	38			
18 3	PAMPANGA AGRIC COLL	89	22	8	46	92	26			
19 3	PHIL MERCHANT MARINE ACADEMY			3	0	0	0			
20 3	RAMON MAGSAYSAY TECH UNIV			6	0	0	0			
21 3	TARLAC COLL OF AGRIC	121	30	6	0	0	0			
22 3	TARLAC ST UNIV	410	73	7	180	122	44			1
23 4-A	BATANGAS ST UNIV	185	24	6	604	178	44			1
24 4-A	CAVITE ST UNIV	157	30	1	423	151	55			2
25 4-A	LAGUNA ST POLY COLL	403	41	5	274	127	37			•
26 4-A	SOUTHERN LUZON POLY COLL	232	22	11	282	143	32			1

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

Region SUC enroll monthment enroll monthment resolute resoluted products Assoluted products					4		1	1	1		2	
4-A UNIV OF RIZAL SYSTEM 489 33 3 420 173 63 4-B MARINDUQUE ST COLL 92 - - 98 59 6 4-B MINDORO ST COLL OF AGRIC AND TECH 175 - - 127 29 11 4-B MINDORO ST COLL OF AGRIC AND TECH 115 - - 128 85 11 4-B PARAWAN ST UNIV 169 12 6 289 160 27 4-B PARAMAN ST COLL 144 9 8 160 27 4-B WESTERN PHILIPPINES UNIV (Formerly SPCP) 144 9 8 107 28 5 CAMARINES SUR POLIV COLL 89 - 91 107 28 5 CAMARINES SUR POLIV COLL 140 29 15 145 12 41 5 CAMARINES SUR ST GOLL 143 24 6 110 37 5 CAMARINES SUR ST COLL 188 - </th <th></th> <th>Region</th> <th>SUC</th> <th>MS enrollment 2008-09</th> <th></th> <th>senior research staff</th> <th></th> <th>racuity MS holders</th> <th>racuity PhD holders</th> <th>National research centers</th> <th></th> <th>CHED CHED centers ofcenters of excell devt</th>		Region	SUC	MS enrollment 2008-09		senior research staff		racuity MS holders	racuity PhD holders	National research centers		CHED CHED centers ofcenters of excell devt
4-B MARINDUQUE ST COLL 92 - - 98 59 4-B MINDORO ST COLL OF AGRIC AND TECH 175 - - 127 29 4-B OCC MINDORO NATL COLL 115 - - 128 85 4-B PALAWAN ST UNIV 169 12 6 289 160 4-B ROMBLON ST COLL 74 - - 0 0 4-B ROMBLON ST COLL 74 - - 0 0 5 BICOL UNIV 841 160 12 355 165 1 5 CAMARINES SUR POLY COLL 187 - - 91 107 5 CAMARINES SUR ST AGRIC COLL 143 24 6 121 107 5 CAMARINES SUR ST AGRIC COLL 50 11 - 14 23 5 CAMARINES SUR ST COLL 50 1 - 11 107 5 CARANDUARES ST COLL <td< td=""><td>27</td><td>4-A</td><td></td><td>489</td><td>33</td><td>8</td><td>420</td><td>173</td><td>63</td><td></td><td></td><td>1</td></td<>	27	4-A		489	33	8	420	173	63			1
4-B MINDORO ST COLL OF AGRIC AND TECH 175 - 127 29 4-B OCC MINDORO NATL COLL 115 - - 128 85 4-B PALAWAN ST UNIV 169 12 6 289 160 4-B ROMBLON ST COLL 74 - - 0 0 4-B ROMBLON ST COLL 74 - - 0 0 4-B WESTERN PHILIPPINES UNIV (Formerly SPCP) 144 9 8 0 0 5 BICOL UNIV 841 160 12 355 165 13 5 CAMARINES SUR POLY COLL 89 - - 91 107 5 CAMARINES SUR ST AGRIC COLL 149 29 15 145 122 5 CAMARINES SUR ST AGRIC COLL 149 29 15 149 23 5 CAMARINES SUR ST COLL 188 - 117 110 5 SORSOGON ST COLL 188	28	4-B	MARINDUQUE ST COLL	92			96	59	9			
4-B OCC MINDORO NATL COLL 115 - 128 85 4-B PALAWAN ST UNIV 169 12 6 289 160 4-B ROMBLON ST COLL 74 - - 0 0 4-B WESTERN PHILIPPINES UNIV (Formerly SPCP) 144 9 8 0 0 5 BICOL UNIV 841 160 12 355 165 16 5 CAMARINES NORTE ST COLL 89 - - 91 107 122 5 CAMARINES SUR POLY COLL 187 - - 91 107 122 5 CAMARINES SUR POLY COLL 149 29 15 145 121 107 122 5 CAMARINES SUR ST GOLL 143 24 6 121 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110 110	29	4-B		175			127	29	11	,		
4-B PALAWAN ST UNIV 169 12 6 289 160 4-B ROMBLON ST COLL 74 - - 0 0 4-B WESTERN PHILIPPINES UNIV (Formerly SPCP) 144 9 8 - 0 0 5- BICOL UNIV 841 160 12 355 165 17 5- CAMARINES SUR POLY COLL 89 - - 91 107 122 5- CAMARINES SUR POLY COLL 187 - - 117 122 121 100 12 121 107 122 121 100 12 122 121 122 121 122 121 122 121 122 121 122 121 122 121 122 121 122 121 122 122 122 121 122 122 122 122 122 122 122 122 122 122 122 122 122	30			115			128	85	11			
4-B ROMBLON ST COLL 74 . . 0 0 4-B WESTERN PHILIPPINES UNIV (Formerly SPCP) 144 9 8 . . 0 0 5 BICOL UNIV 84.1 160 12 355 165 1 5 CAMARINES NORTE ST COLL 187 . . 9 1 177 122 5 CAMARINES SUR ST AGRIC COLL 140 29 15 145 121 10 12 <td>31</td> <td>l .</td> <td>PALAWAN ST UNIV</td> <td>169</td> <td>12</td> <td>9</td> <td>289</td> <td>160</td> <td>27</td> <td></td> <td>4</td> <td></td>	31	l .	PALAWAN ST UNIV	169	12	9	289	160	27		4	
4-B WESTERN PHILIPPINES UNIV (Formerly SPCP) 144 9 8 5 BICOL UNIV 841 160 12 355 165 15 5 CAMARINES NORTE STCOLL 187 - 91 107 122 5 CAMARINES SUR ST GRIC COLL 140 29 15 145 121 5 CAMARINES SUR ST GRIC COLL 143 24 6 121 110 5 CAMARINES SUR ST GRIC COLL 143 24 6 121 110 5 CATANDUANES ST COLL 50 11 - 44 23 5 DR. EMILIO S. ESPINOSA, SR. MEM ST COLL GRAND TECH 50 11 - 44 23 6 ARCHAN ST UNIV 119 9 11 195 148 6 CARLOS HILADO MEM ST COLL 74 9 - 24 33 6 CAPIZ ST UNIV (Formerly PSPC) 26 52 1 72 64 6 ILOILO ST	32	4-B	ROMBLON ST COLL	74			0	0	0			
5 BICOL UNIV 841 160 12 355 165 17 5 CAMARINES NORTE STCOLL 89 - 91 107 5 CAMARINES SUR POLY COLL 187 - 117 122 5 CAMARINES SUR STAGRIC COLL 140 29 15 145 121 5 CAMARINES SUR STAGRIC COLL 143 24 6 121 110 5 CARANDUANES ST COLL 50 11 - 44 23 5 DR. EMILLO B TECH 50 11 - 44 23 5 DR. EMILLO ST UNIV 65 7 - 11 110 6 AKLAN ST UNIV 119 9 11 195 148 6 CARLOS HILADO MEM ST COLL 299 47 3 128 96 6 CARLOS HILADO MEM ST COLL 74 9 - 24 33 6 LIOILO ST COLL OF FISHERIES 56 52	33	4-B	WESTERN PHILIPPINES UNIV (Formerly SPCP)	144	6	8				,	4	
5 CAMARINES NORTE ST COLL 89 - 91 107 5 CAMARINES SUR POLY COLL 187 - 117 122 5 CAMARINES SUR ST AGRIC COLL 143 24 6 121 110 5 CATANDUANES SUR ST AGRIC COLL 143 24 6 121 110 5 DR. EMILIO B. ESPINOSA, SR. MEM ST COLL 50 11 - 44 23 121 5 DR. EMILIO B. ESPINOSA, SR. MEM ST COLL 188 - 117 110 100 148 23 148 23 148 23 148 23 148 24 23 148 26 26 148 26 22 24	34	5	BICOL UNIV	841	160	12	355	165	117		2	
5 CAMARINES SUR POLY COLL 187 . 17 122 5 CAMARINES SUR STAGRIC COLL 140 29 15 145 121 5 CATANDUANES ST COLL 143 24 6 121 110 5 CATANDUANES ST COLL 50 11 - 44 23 5 AGRIC AND TECH 65 7 - 117 110 5 PARTIDO ST UNIV 65 7 - 117 110 6 AKLAN ST UNIV 119 9 11 195 148 6 ARLOS HILADO MEM ST COLL 299 47 3 185 96 6 CARLOS HILADO MEM ST COLL 74 9 - 148 128 6 GUIMARAS ST COLL 74 9 - 148 128 6 HIGHIC ST COLL OF FISHERIES 56 52 1 7 64 6 NORTHERN I LOILO POLY ST COLL OF SCI AND TECH - <td< td=""><td>35</td><td>5</td><td>CAMARINES NORTE ST COLL</td><td>89</td><td></td><td></td><td>91</td><td>107</td><td>28</td><td>,</td><td></td><td></td></td<>	35	5	CAMARINES NORTE ST COLL	89			91	107	28	,		
5 CAMARINES SUR ST AGRIC COLL 140 29 15 145 121 5 CATANDUANES ST COLL 143 24 6 121 110 5 DR. EMILIO B. ESPINOSA, SR. MEM ST COLL OF 50 11 - 44 23 5 AGRIC AND TECH 65 7 - 117 110 5 SORSOGON ST COLL 118 - 5 126 76 6 AKLAN ST UNIV 119 9 11 195 148 6 CARLOS HILADO MEM ST COLL 299 47 3 185 96 6 CARLOS HILADO MEM ST COLL 74 9 - 148 128 6 GUIMARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF AGRIC 263 38 - 98 26 6 NORTHERN I LOILO POLY ST COLL OF SCI AND TECH - - - 238 103 6 NORTHERN N GEROS ST	36	5	CAMARINES SUR POLY COLL	187			117	122	27			
5 CATANDUANES ST COLL 143 24 6 121 110 5 DR. EMILIO B. ESPINOSA, SR. MEM ST COLL OF 50 11 - 44 23 5 AGRIC AND TECH 50 11 - 147 110 5 PARTIDO ST UNIV 6 7 - 117 110 6 AKLAN ST UNIV 119 9 11 195 148 6 CARLOS HILADO MEM ST COLL 299 47 3 185 96 6 CAPIZ ST UNIV (Formerly PSPC) 300 234 5 158 128 6 GUIMARRAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NEGROS ST COLL OF AGRIC - - 98 26 6 NORTHERN I LOILO POLY ST COLL OF SCI AND TECH - - - 98 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH	37	5		140	29	15	145	121	41			
5 DR. EMILLIO B. ESPINOSA, SR. MEM ST COLL OF 50 11 4 23 5 AGRIC AND TECH 65 7 - 117 110 5 PARTIDO ST UNIV 188 - 5 126 76 6 AKLAN ST UNIV 119 9 11 195 148 6 CAPLOS HILADO MEM ST COLL 299 47 3 185 96 6 CAPLOS HILADO MEM ST COLL 74 9 - 24 33 6 GUIMARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NEGROS ST COLL OF AGRIC - - - 98 26 6 NORTHERN ILOILO POLY ST COLL - - - - - 98 26 6 NORTHERN NEGROS ST COLL OF SI AND TECH - - - - - 98 26	38	5	CATANDUANES ST COLL	143	24	9	121	110	35			
5 PARTIDO ST UNIV 65 7 - 117 110 5 SORSOGON ST COLL 188 - 5 126 76 6 AKLAN ST UNIV 119 9 11 195 148 6 CAPIZ ST UNIV (Formerly PSPC) 300 234 5 158 96 6 GUIMARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NGGROS ST COLL OF AGRIC 263 38 - 98 26 6 NORTHERN ILOILO POLY ST COLL - - 238 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 - 0 0	39	5		90	11	ı	44	23	8		ı	
5 SORSOGON ST COLL 188 - 5 126 76 6 AKLAN ST UNIV 119 9 11 195 148 6 CARLOS HILADO MEM ST COLL 299 47 3 185 96 6 CAPIZ ST UNIV (Formerly PSPC) 300 234 5 158 128 6 GUIMARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NGGROS ST COLL OF AGRIC 263 38 - 98 26 6 NORTHERN ILOILO POLY ST COLL - - - 238 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 - 0 0	40	5	PARTIDO ST UNIV	65	7		117	110	37			
6 AKLAN ST UNIV 119 9 11 195 148 6 CARLOS HILADO MEM ST COLL 299 47 3 185 96 6 CAPIZ ST UNIV (Formerly PSPC) 300 234 5 158 128 6 GUIMARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NEGROS ST COLL OF AGRIC - - 98 26 6 NORTHERN ILOILO POLY ST COLL - - - 98 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 - 0 0	41	5	SORSOGON ST COLL	188		5	126	9/	31			
6 CARLOS HILADO MEM ST COLL 299 47 3 185 96 6 CAPIZ ST UNIV (Formerly PSPC) 300 234 5 158 128 6 GUIMARARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NEGROS ST COLL OF AGRIC 263 38 - 98 26 6 NORTHERN ILOILO POLY ST COLL - - 238 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 - 0 0	42	9	AKLAN ST UNIV	119	6	11	195	148	25			
6 CAPIZ ST UNIV (Formerly PSPC) 300 234 5 158 128 6 GUIMARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NEGROS ST COLL OF AGRIC 263 38 - 98 26 6 NORTHERN ILOILO POLY ST COLL - - 238 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 - 0 0	43	9	CARLOS HILADO MEM ST COLL	299	47	6	185	96	22			
6 GUIMARAS ST COLL 74 9 - 24 33 6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NORTHERN ILOILO POLY ST COLL - - 98 26 6 NORTHERN NEGROS ST COLL OF SCI AND TECH - - - 0 0	44	9	CAPIZ ST UNIV (Formerly PSPC)	300	234	5	158	128	49			1
6 ILOILO ST COLL OF FISHERIES 56 52 1 72 64 6 NEGROS ST COLL OF AGRIC 263 38 . 98 26 6 NORTHERN ILOILO POLY ST COLL 238 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 . 0 0	45	9	GUIMARAS ST COLL	74	6		24	33	7			
6 NEGROS ST COLL OF AGRIC 263 38 · 98 26 6 NORTHERN ILOILO POLY ST COLL · · · 238 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 · 0 0	46	9	ILOILO ST COLL OF FISHERIES	99	52	1	72	64	9			1
6 NORTHERN ILOILO POLY ST COLL - - 238 103 6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 - 0 0	47	9	NEGROS ST COLL OF AGRIC	263	38		98	26	9			1
6 NORTHERN NEGROS ST COLL OF SCI AND TECH 214 30 - 0 0	48	9		-			238	103	27			1
	49	9	NORTHERN NEGROS ST COLL OF SCI AND TECH	214	30		0	0	0			

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

								,			
	Region	SUC	MS enrollment 2008-09	PhD enrollment 2008-09	Senior research staff	Faculty BS holders	Faculty MS holders	Faculty PhD holders	National research centers		CHED CHED centers of excell devt
50	9	POLY ST COLL OF ANTIQUE	74	32	7	217	35	17			
51	9	W VIS COLL OF SCI AND TECH	123	43	19	244	146	29			
52	9	WEST VIS ST UNIV	927	191	11	437	216	63		1	
53	7	CEBU NORMAL UNIV	1,713	123		50	102	77			
54	7	CEBU ST COLL OF SCI AND TECH	29	6	4	94	57	16			
55	7	CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH	122	12		187	82	38			
56	7	NEGROS ORIENTAL ST UNIV (Formerly CVPC)	308	32	2	0	0	0			
57	7	SIQUIJOR ST COLL	36		П	0	0	0			
58	8	EASTERN SAMAR ST UNIV	40			222	103	56			
59	8	EASTERN VISAYAS ST UNIV	337	82	8	192	139	57			1
9	8	LEYTE NORMAL UNIV	317	69	4	38	129	32		1	
61	∞	VISAYAS STATE UNIV. (LEYTE ST UNIV)	125	19	39	89	09	18	m	m	
62	8	NAVAL INST OF TECH	209	25		139	58	35			
63	∞	PALOMPON INST OF TECH	224	40	2	85	51	17			
64	∞	SAMAR ST COLL OF AGRIC AND FOR				20	13	4			
65	8	SAMAR ST UNIV	220	28		180	17	7			1
99	8	SOUTHERN LEYTE ST UNIV				61	30	9			
29	8	T TANCINCO MEM INST OF SCI AND TECH	109	31	2	91	40	25			
89	8	UNIV OF EASTERN PHIL	315	23	8	212	93	57			
69	6	BASILAN ST COLL	84	9		0	0	0			•
20	6	J. H. CERILLES ST COLL	•	•		0	0	0			•
71	6	JOSE RIZAL MEM ST COLL	1			92	67	15		•	•
72	6	MINDANAO ST UNIV - TCTO	158		2	99	82	10			·
73	6	SULU ST COLL	111	45		0	0	0			ı

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

			MS	PhD	Senior	Faculty	Faculty	Faculty	National	CHED	CHED
	Region	SUC	enrollment 2008-09			BS holders	MS holders	PhD holders	research centers		centers of centers of excell devt
74	6	TAWI-TAWI REGIONAL AGRIC COLL	32	12		0	0	0			
75	6	W MINDANAO ST UNIV	609	40	7	622	279	29		1	1
9/	6	ZAMBO CITY ST POLY COLL				103	14	2			
77	6	ZAMBO ST COLL OF MARINE SCIS AND TECH	99			41	20	7		1	1
78	10	BUKIDNON ST COLL	238	4	4	146	99	29			
79	10	CAMIGUIN POLY ST COLL	34			29	36	7			
80	10	CENTRAL MINDANAO UNIV	169	78	7	106	146	51		2	1
81	10	MINDANAO POLY ST COLL	423	65	1	217	122	42			1
82	10	MSU - IIT	419	104	23	150	249	95		4	7
83	10	MISAMIS OR ST COLL OF AGRIC AND TECH	7		1	32	40	5			
84	10	NW MINDANAO ST COLL OF SCI AND TECH				27	6	2			
85	11	DAVAO DEL NORTE ST COLL	59	28		34	38	10			
98	11	DAVAO OR ST COLL OF SCI AND TECH	45			0	0	0			
87	11	SOUTHERN PHIL AGRI-BUSINESS, MARINE AND AQUATIC SCHOOL OF TECH	108	,	5	39	39	11			
88	11	UNIV OF SOUTHEASTERN PHIL	1,237	166	11	107	230	79			2
89	12	ADIONG MEM POLY ST COLL	28			18	2	0			
90	12	COTABATO CITY ST POLY COLL				115	84	0			
91	12	COTABATO FOUNDN COLL OF SCI AND TECH	22			34	21	11			
92	12	MINDANAO ST UNIV - MAIN	248	11	58	115	141	32		2	2
93	12	SULTAN KUDARAT POLY ST COLL	•	•	•	72	61	15		•	•
94	12	UNIV OF SOUTHERN MINDANAO	181	57	20	292	181	103	2	1	
95	95 CAR	ABRA ST INST OF SCI AND TECH	52	•	6	108	49	13		•	•
96	CAR	APAYAO ST COLL				44	27	7			

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

Region	SUC	MS enrollment 2008-00	PhD Senior Faceurollment research BS 2008-00 staff hold	Senior research staff	Faculty BS holders	Faculty MS holders	Faculty PhD holders	National research centers	CHED centers excell	National CHED CHED research centers of centers of
97 CAR	BENGUET ST UNIV	454	29	25	107	173	101	2	1	
98 CAR	IFUGAO ST COLL OF AGRIC AND FOR	754	101		89	26	39			
99 CAR	KALINGA APAYAO ST COLL	170	24		70	99	25			
100 CAR	MT PROVINCE ST POLY COLL	128	11	1	26	69	26			
o1 CARAGA	101 CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH				0	0	0			
32 CARAGA	102 CARAGA NORTHERN MINDANAO STINST OF SCIAND TECH	44	1	72	66	84	29			
3 CARAGA	103 CARAGA SURIGAO DEL SUR POLY ST COLL	91			0	0	0			
o4 CARAGA	104 CARAGA SURIGAO ST COLL OF TECH				0	0	0			
105 NCR	EULOGIO "AMANG" RODRIGUEZ INST OF SCI AND TECH	588	121	5	141	94	40			ı
106 NCR	MARIKINA POLY COLL	148		7	30	89	9			
107 NCR	PHIL NORMAL UNIV	2,567	239	51	34	191	116		2	
108 NCR	PHIL ST COLL OF AERONAUTICS	62	22		84	90	20			
109 NCR	POLY UNIV OF THE PHIL	2,210	179	12	798	609	168			1
110 NCR	RIZAL TECH UNIV	370	38	12	0	0	0			
111 NCR	TECH UNIV OF THE PHIL	652	168	28	362	165	59			3
112 NCR	UNIV OF THE PHIL SYSTEM			•	0	0	0			
	TOTAL	29,871	4,038	792	14,840	0,320	3,648	6	30	39
		29,871	4.038	792	14.840	10,320	3.648			

Table 8. SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

1 1 DON MARIANO MARCOS MEM ST UNIV 40 9 1,222 2 1 ILOCOS SUR POLY ST COLL 7 - 175 3 1 MARIANO MARCOS ST UNIV 41 6 962 4 1 PANGASINAN ST UNIV 41 6 962 5 1 UNIV OF NORTHERN PHIL - - - 18 6 2 BATANES ST COLL - - - - - 18 7 2 CAGAYAN ST UNIV 42 5 1,247 - <th></th> <th>Region</th> <th>SUC</th> <th>MS theses completed 2002-03</th> <th>PhD disserations completed 2002-03</th> <th>Kesearch total points</th> <th>% Share of Share of research research points MOOE for 2005</th> <th>r Share or research MOOE for 2005</th> <th>% Share of 2004 MOOE without FAPS/HOSPS</th>		Region	SUC	MS theses completed 2002-03	PhD disserations completed 2002-03	Kesearch total points	% Share of Share of research research points MOOE for 2005	r Share or research MOOE for 2005	% Share of 2004 MOOE without FAPS/HOSPS
1 ILOCOS SUR POLY ST COLL 7 - 1 MARIANO MARCOS ST UNIV 31 4 1, 1 PANGASINAN ST UNIV 41 6 9 2 BATANES ST COLL - - - - 2 BATANES ST COLL - - - - - 2 CAGAYAN ST UNIV 42 5 1,3 2 CAGAYAN ST UNIV 42 5 1,3 2 CAGAYAN ST UNIV 42 5 1,3 3 AURORA ST COLL OF TECH 5 - 9 7 9 3 AURORA ST COLL OF TECH 3 1 7 - - 3 BULACAN ST UNIV 38 7 - - - - 3 BULACAN ST UNIV 38 1,5 1,1 - - - 3 DON H VENTURA COLL OF ARTS AND TRADES 3 1,2 - - - 3	4	1	DON MARIANO MARCOS MEM ST UNIV	40	6	1,222	2.61%	8,597	1.86%
1 MARIANO MARCOS ST UNIV 31 4 1,2 1 PANGASINAN ST UNIV 41 6 9 1 UNIV OF NORTHERN PHIL - - - 2 BATANES ST COLL - - - - 2 CAGAVAN ST UNIV 42 5 1,3 2 CAGAVAN ST UNIV 42 5 1,3 2 CAGAVAN ST UNIV 42 5 1,3 2 QURINO ST COLL GE 5 - 1 3 AURORA ST COLL OF TECH 17 - 1 3 BULACAN ST UNIV 33 1 - 3 BULACAN ST UNIV 38 - - 3 BULACAN ST UNIV 38 - - 3 BULACAN ST UNIV 38 - - 3 PHIL MERCHANT MARINE ACOLL OF ACID MARINE ACADEMY - - - 3 PHIL MERCHANT MARINE ACADEMY - - -	2	1	ILOCOS SUR POLY ST COLL	7		175	0.37%	1,228	0.37%
1 PANGASINAN ST UNIV 41 6 9 1 UNIV OF NORTHERN PHIL 63 46 6 2 BATANES ST COLL - - - 2 CAGAYAN ST UNIV 98 29 1,8 2 CAGAYAN ST UNIV 42 5 1,3 2 ISABELAST UNIV 27 9 6 3 NUEVA VISCAYA ST UNIV 27 9 6 3 AURORA ST COLL OF TECH 33 1 7 9 3 BULACAN AGRIC ST COLL 8 - 1 1 3 BULACAN AGRIC ST COLL 8 - 1 1 3 BULACAN AGRIC ST UNIV 38 7 9 3 DON H VENTURA COLL OF ARTS AND TECH 9 27 4 3 PHIL MERCHANT MARINE ACADEMY - - - 3 PAMPANGA AGRIC COLL 3 2 - 3 TARLAC COLL OF AGRIC 10 2	3	1	MARIANO MARCOS ST UNIV	31	4	1,242	2.65%	8,734	2.17%
1 UNIV OF NORTHERN PHIL -	4	1		41	9	962	2.05%	6,770	1.56%
2 BATANES ST COLL .	5	1	UNIV OF NORTHERN PHIL	63	46	677	1.44%	4,762	1.21%
2 CAGAVAN ST UNIV 98 29 1,8 2 ISABELAST UNIV 42 5 1,7 2 NUEVA VISCAYA ST UNIV 27 9 6 2 QURINO ST COLEGE 5 - 1 3 AURORA ST COLL OF TECH 17 - 1 3 BATAAN PEN ST UNIV 8 - 1 3 BULACAN AGRIC ST COLL 8 - 1 3 BULACAN AGRIC ST COLL 8 - 1 3 BULACAN ST UNIV 38 7 9 3 DON H VENTURA COLL OF ARTS AND TRADES 12 1 1 3 DON H VENTURA COLL OF ARTS AND TECH 9 27 4 3 PHIL MERCHANT MARINE ACADEMY - - - 3 PAMPANGA AGRIC COLL - - - 3 PAMON MAGSAYSAY TECH UNIV 23 2 - 3 TARLAC COLL OF AGRIC 10 2 -	9	2	BATANES ST COLL			18	0.04%	127	0.09%
2 ISABELA STUNIV 42 5 1,3 2 NUEVA VISCAYA ST UNIV 27 9 6 2 QURINO ST COLEGE 5 - 1 3 AURORA ST COLL OF TECH 17 - 1 3 AURORA ST COLL OF TECH 33 1 2 3 BULACAN AGRIC ST COLL 8 - 1 1 3 BULACAN AGRIC ST COLL 8 - 1 1 1 3 1 1 1 1 1 3 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 5 5 5 5 5 5 5 5 5 5 6		2	CAGAYAN ST UNIV	98	29	1,869	3.99%	13,145	2.23%
2 NUEVA VISCAYA ST UNIV 27 9 6 2 QURINO ST COLEGE 5 - 1 3 AURORA ST COLL OF TECH 17 - 1 3 AURORA ST COLL OF TECH 33 1 - 1 3 BATAAN PEN ST UNIV 38 - - 1 1 3 BULACAN ST UNIV 38 7 9 - 1 1 3 CENTRAL LUZON ST UNIV 33 15 1,3 1 3 1 4 4 4 4 4 4 4 4 4 4 4 4 4 5 6 6 6 6 6 6 6 <td>∞</td> <td>2</td> <td>ISABELA ST UNIV</td> <td>42</td> <td>5</td> <td>1,217</td> <td>2.60%</td> <td>8,557</td> <td>2.21%</td>	∞	2	ISABELA ST UNIV	42	5	1,217	2.60%	8,557	2.21%
2 QURINO ST COLEGE 3 AURORA ST COLL OF TECH 17 - 3 AURORA ST COLL OF TECH 33 1 6 3 BATAAN PEN ST UNIV 8 - 1 3 BULACAN AGRIC ST COLL 8 - 1 3 BULACAN ST UNIV 38 7 9 3 CENTRAL LUZON ST UNIV 33 15 1,3 3 CENTRAL LUZON ST UNIV 9 27 4 3 DON H VENTURA COLL OF ARTS AND TRABES 12 1 1 3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - 3 PHIL MERCHANT MAGSAYSAY TECH UNIV 23 2 5 3 TARLAC COLL OF AGRIC 10 2 5 4-A BATANGAS ST UNIV 3 4 5 4-A CAVITE ST UNIV 6 6	٥	2	NUEVA VISCAYA ST UNIV	27	6	650	1.39%	4,574	%26.0
3 AURORA ST COLL OF TECH 17 - 3 BATAAN PEN ST UNIV 33 1 6 3 BULACAN AGRIC ST COLL 8 - 1 3 BULACAN ST UNIV 38 7 9 3 CENTRAL LUZON ST UNIV 33 15 1,3 3 CENTRAL LUZON ST UNIV 9 27 4 3 DON H VENTURA COLL OF ARTS AND TRABES 12 1 1 3 NUEVA ECIJA UNIV OF SCI AND TECH 9 27 4 3 PHIL MERCHANT MARINE ACADEMY - - - 3 PAMPANGA AGRIC COLL 3 2 - 3 TARLAC COLL OF AGRIC 10 2 - 3 TARLAC ST UNIV 35 2 5 4-A CAVITE ST UNIV 6 6 6	01	2		5		104	0.22%	730	0.24%
3 BATAAN PEN ST UNIV 33 1 6 3 BULACAN AGRIC ST COLL 8 - 1 3 BULACAN ST UNIV 38 7 9 3 CENTRAL LUZON ST UNIV 33 15 1,3 3 CENTRAL LUZON ST UNIV 9 27 4 3 DON H VENTURA COLL OF ARTS AND TRCH 9 27 4 3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - 3 FAMON MAGSAYSAY TECH UNIV 23 2 3 TARLAC COLL OF AGRIC 10 2 3 TARLAC ST UNIV 35 2 5 4-A BATANGAS ST UNIV 6 6 6	11	3	AURORA ST COLL OF TECH	17	-	82	0.18%	580	0.25%
3 BULACAN AGRIC ST COLL 8 - 1 3 BULACAN ST UNIV 38 7 9 3 CENTRAL LUZON ST UNIV 33 15 1,3 3 DON H VENTURA COLL OF ARTS AND TRADES 12 1 1 3 DON H VENTURA COLL 9 27 4 3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - 3 FAMON MAGSAYSAY TECH UNIV 23 2 2 3 TARLAC COLL OF AGRIC 10 2 5 3 TARLAC ST UNIV 35 2 5 4-A CAVITE ST UNIV 6 6 6	12	3		33	1	415	0.89%	2,920	0.91%
3 BULACAN ST UNIV 38 7 9 3 CENTRAL LUZON ST UNIV 33 15 1,3 3 DON H VENTURA COLL OF ARTS AND TRADES 12 1 1 3 NUEVA ECIJA UNIV OF SCI AND TECH 9 27 4 3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - 3 RAMON MAGSAYSAY TECH UNIV 23 2 2 3 TARLAC COLL OF AGRIC 10 2 5 3 TARLAC ST UNIV 35 2 5 4-A CAVITE ST UNIV 6 6 6	13	3	BULACAN AGRIC ST COLL	8		141	%06.0	993	0.18%
3 CENTRAL LUZON ST UNIV 33 15 1,3 3 DON H VENTURA COLL OF ARTS AND TRADES 12 1 1 3 DON H VENTURA COLL OF ARTOR 9 27 4 3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - 3 RAMON MAGSAYSAY TECH UNIV 23 2 3 TARLAC COLL OF AGRIC 10 2 3 TARLAC ST UNIV 35 2 5 4-A CAVITE ST UNIV 3 4 5 6	14	3	BULACAN ST UNIV	38	7	987	2.11%	6,943	1.65%
3 DON H VENTURA COLL OF ARTS AND TRADES 12 1 1 3 NUEVA ECIJA UNIV OF SCI AND TECH 9 27 4 3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - 3 PHIL MERCHANT MAGSAYSAY TECH UNIV 23 2 3 TARLAC COLL OF AGRIC 10 2 3 TARLAC ST UNIV 35 2 5 4-A CAVITE ST UNIV 6 6 6	15	3	CENTRAL LUZON ST UNIV	33	15	1,394	2.98%	9,808	1.52%
3 NUEVA ECIJA UNIV OF SCI AND TECH 9 27 4 3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - 3 PARIL MERCHANT MARINE ACADEMY - - - 3 TARLAC COLL OF AGRIC 10 2 3 TARLAC ST UNIV 35 2 5 4-A CAVITE ST UNIV 6 6 6	91	3	DON H VENTURA COLL OF ARTS AND TRADES	12	1	187	0.40%	1,316	0.43%
3 PAMPANGA AGRIC COLL 31 6 2 3 PHIL MERCHANT MARINE ACADEMY - - - - 3 RAMON MAGSAYSAY TECH UNIV 23 2 2 3 TARLAC COLL OF AGRIC 10 2 5 3 TARLAC ST UNIV 35 2 5 4-A CAVITE ST UNIV 6 6 6	17	3	NUEVA ECIJA UNIV OF SCI AND TECH	6	27	473	1.01%	3,324	1.11%
3 PHIL MERCHANT MARINE ACADEMY -	18	3	PAMPANGA AGRIC COLL	31	9	296	0.63%	2,084	0.43%
3 RAMON MAGSAYSAY TECH UNIV 23 2 3 TARLAC COLL OF AGRIC 10 2 3 TARLAC ST UNIV 35 2 5 4-A BATANGAS ST UNIV 3 4 5 4-A CAVITE ST UNIV 6 6 6	19	3	PHIL MERCHANT MARINE ACADEMY				%00.0		%00.0
3 TARLAC COLL OF AGRIC 10 2 3 TARLAC ST UNIV 35 2 5 4-A BATANGAS ST UNIV 3 4 5 4-A CAVITE ST UNIV 6 6 6	20	3		23	2	36	0.08%	253	0.74%
3 TARLAC ST UNIV 35 2 4-A BATANGAS ST UNIV 3 4 4-A CAVITE ST UNIV 6 6	21	3		10	2	28	%90.0	194	0.43%
4-A BATANGAS ST UNIV 3 4 4-A CAVITE ST UNIV 6 6	22	3	TARLAC ST UNIV	35	2	519	1.11%	3,650	0.92%
4-A CAVITE STUNIV 6 6	23	4-A	BATANGAS ST UNIV	3	4	569	1.21%	4,001	2.65%
	24	4-A	CAVITE ST UNIV	9	9	671	1.43%	4,719	1.38%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

	Region SUC	completed 2002-03	disserations total completed poin	total points	total research points points	research MOOE	MOOE without FAPS/HOSPS
25 4-A	LAGUNA ST POLY COLL	42		398	0.85%	2,797	1.23%
	SOUTHERN LUZON POLY COLL	65	-	427	0.91%	3,006	1.60%
27 4-A	UNIV OF RIZAL SYSTEM	45	11	695	1.48%	4,891	1.75%
28 4-B	MARINDUQUE ST COLL	6		124	0.26%	871	0.41%
29 4-B	MINDORO ST COLL OF AGRIC AND TECH	8		100	0.21%	703	0.30%
30 4-B	OCC MINDORO NATL COLL	5		179	0.38%	1,262	0.51%
31 4-B	PALAWAN ST UNIV	20		579	1.24%	4,072	1.26%
32 4-B	ROMBLON ST COLL	17		19	0.04%	133	0.45%
33 4-B	WESTERN PHILIPPINES UNIV (Formerly SPCP)	6		221	0.47%	1,555	0.52%
34 5	BICOL UNIV	54	16	1,243	2.65%	8,740	2.98%
35 5	CAMARINES NORTE ST COLL	6		284	0.61%	1,996	0.48%
36 5	CAMARINES SUR POLY COLL	38	-	334	0.71%	2,347	1.15%
37 5	CAMARINES SUR STAGRIC COLL	27	2	396	0.85%	2,789	0.85%
38 5	CATANDUANES ST COLL	17	1	335	0.71%	2,355	%68.0
39 5	DR. EMILIO B. ESPINOSA, SR. MEM ST COLL OF AGRIC AND TECH	10		78	0.17%	551	0.28%
40 5	PARTIDO ST UNIV	12		327	%02.0	2,300	0.47%
41 5	SORSOGON ST COLL	33	-	281	%09.0	1,975	0.71%
42 6	AKLAN ST UNIV	18	3	360	0.77%	2,535	0.81%
43 6	CARLOS HILADO MEM ST COLL	2	•	247	0.53%	1,736	0.52%
9 44	CAPIZ ST UNIV (Formerly PSPC)	65	18	613	1.31%	4,313	1.24%
45 6	GUIMARAS ST COLL	11	7	105	0.22%	737	0.10%
9 94	ILOILO ST COLL OF FISHERIES	5		130	0.28%	914	0.46%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

2002-03 for 2005 - 79 0.17% 559 - 314 0.67% 2,205 - 314 0.67% 2,205 3 147 0.31% 1,034 6 394 0.84% 2,773 9 933 1.99% 6,561 0 678 1.45% 4,769 1 1 28 0.60% 1,988 1 1 283 0.60% 1,988 1 1 283 0.60% 1,988 1 1 1 42 42 2 394 0.84% 2,768 8 604 1.29% 4,249 6 609 1.30% 4,249 8 604 1.29% 2,100 3 180 0.64% 2,100 3 180 0.38% 1,267 - 6 0.08% 2,975 -		Region	SUC	MS theses completed	PhD disserations completed	Research total points	% Share of research points	Share of research MOOE	% Share of 2004 MOOE without FAPS/HOSPS
6 NEGROS ST COLL OF AGRIC 8 - 79 0.17% 559 6 NORTHERN ILOILO POLY ST COLL 31 - 79 0.17% 2.205 6 NORTHERN ILOILO POLY ST COLL 2 3 15 0.05% 2.205 6 NORTHERN INGEROS ST COLL OF SCI AND TECH 2 3 147 0.03% 1.04 6 WUSC COLL OF SCI AND TECH 23 6 394 0.84% 2.773 7 CEBU NORMALUNIV 3 1 2 3 1.45% 4.769 7 CEBU ST COLL OF AGRIC, FOR AND TECH 3 1 28 0.50% 1.116 7 CEBU ST COLL OF AGRIC, FOR AND TECH 3 1 4 0.3% 4.769 7 CEBU ST COLL OF AGRIC, FOR AND TECH 2 1 28 0.60% 1.116 8 EASTERN VISANAS ST UNIV 4 0 6 6.01% 0.73% 4.249 8 EASTERN VISANAS STATE UNIV, (EYTE ST UNIV) 3 <th< th=""><th></th><th></th><th></th><th>•</th><th>2002-03</th><th>_</th><th><u> </u></th><th>for 2005</th><th></th></th<>				•	2002-03	_	<u> </u>	for 2005	
6 NORTHERN ILOILO POLY ST COLL 51	47	9		8		79	0.17%	559	0.35%
6 NORTHERN NEGROS ST COLL OF SCI AND TECH 2 3 15 0.03% 104 6 POLY ST COLL OF ANTIQUE 10 3 147 0.31% 1,034 6 W VIS COLL OF SCI AND TECH 23 6 394 0.84% 2,773 7 CEBU NORMAL UNIV 95 9 93 1,95% 6,561 7 CEBU ST COLL OF SCI AND TECH 128 20 678 1,45% 4,769 7 CEBU ST COLL OF SCI AND TECH 2 9 933 1,45% 4,769 7 CEBU ST COLL OF SCI AND TECH 2 1 1 1 4 7.66 1,316 7 CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH 4 - 6 0.03% 1,316 8 EASTERN VISAYAS ST UNIV 14 - 6 0.04% 2,758 8 LEYTE NORMAL UNIV 4 - 6 0.04 1,29% 4,224 8 LEYTE NORMAL INST OF TECH 3 1,122 <td>48</td> <td>9</td> <td>NORTHERN ILOILO POLY ST COLL</td> <td>51</td> <td></td> <td>314</td> <td>%29.0</td> <td>2,205</td> <td>0.62%</td>	48	9	NORTHERN ILOILO POLY ST COLL	51		314	%29.0	2,205	0.62%
6 POLY ST COLL OF ANTIQUE 10 3 147 0.31% 1,034 6 WVIS COLL OF SCI AND TECH 23 6 394 0.84% 2,773 6 WEST VIS ST UNIV 95 9 93 1.99% 6,561 7 CEBU NORMAL UNIV 128 20 678 1.45% 4,769 7 CEBU ST COLL OF AGRIC, FOR AND TECH 2 1 28 0.34% 1,116 7 CENTRAL VISS TCOLL OF AGRIC, FOR AND TECH 2 1 28 0.66% 1,168 7 SIQUIJOR ST COLL 4 - 6 0.03% 101 8 CEASTERN VISAWAR ST UNIV 4 - 6 0.01% 4,28 8 LEYTE NORMAL UNIV 13 2 1,122 2,40% 1,267 8 LEYTE NORMAL UNIV 13 2 1,23% 4,28 8 LEYTE NORMAL UNIV 13 2 1,24% 2,40% 8 NAVAL INIX	49	9	NORTHERN NEGROS ST COLL OF SCI AND TECH	2	3	15	0.03%	104	0.18%
6 WVIS COLL OF SCI AND TECH 23 6 394 0.84% 2,773 6 WEST VIS ST UNIV 95 9 93 1.99% 6,561 7 CEBU NORMAL UNIV 128 20 678 1.45% 4,769 7 CEBU ST COLL OF SCI AND TECH 2 1 283 0.60% 1,988 7 CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH 2 1 283 0.60% 1,988 7 CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH 4 - 6 0.03% 1,116 7 SIQUIJOR ST COLL 4 - 6 0.01% 42 8 EASTERN SAMAR ST UNIV 14 - 8 4,249 4,249 8 EASTERN VISANAS ST UNIV 60 6 0.03% 1,267 8 8 LEYTE NORMAL UNIV 13 1 1 1,20% 1,267 8 VISANAS STATE UNIV 13 1 1 1 1,26	50	9	POLY ST COLL OF ANTIQUE	10	ω	147	0.31%	1,034	0.57%
6 WEST VIS ST UNIV 95 9 933 1.99% 6,561 7 CEBU NORMAL UNIV 128 20 678 1.45% 4,769 7 CEBU ST COLL OF SCI AND TECH 3 - 159 0.34% 1,116 7 CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH 2 1 283 0.60% 1,988 7 NEGROS ORIENTAL ST UNIV (Formerly CVPC) 1 1 14 0.03% 1,01 7 SIQUIJOR ST COLL 4 - 6 0.03% 1,01 8 EASTERN SAMAR ST UNIV 14 - 6 0.03% 4,249 8 EASTERN VISAYAS ST UNIV 13 8 6.04 1,29% 4,249 8 LEYTE NORMAL UNIV 60 6 6.09 1,30% 4,283 8 LEYTE NORMAL UNIV 2 1,4 2,40% 2,40% 2,40% 8 VISAYAS STATE UNIV 1 2 1,4 2,40% 2,40%	51	9	W VIS COLL OF SCI AND TECH	23	9	394	0.84%	2,773	1.18%
7 CEBU NORMAL UNIV 128 20 678 1.45% 4,769 7 CEBU ST COLL OF SCI AND TECH 3 - 159 0.34% 1,116 7 CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH 2 1 283 0.60% 1,988 7 NEGROS ORIENTAL ST UNIV (Formerly CVPC) 1 1 1 4 0.03% 101 7 SIQUIJOR ST COLL 4 - 6 0.01% 4,249 8 EASTERN SAMAR ST UNIV 14 - 6 0.04% 2,768 8 EASTERN SAMAR ST UNIV 6 6 6 6 4,249 4,249 8 LEYTE NORMAL UNIV 13 2 1,122 2,40% 7,893 8 LEYTE NORMAL UNIV 13 2 1,122 2,40% 7,893 8 VISAYAS STATE UNIV 3 1 2 1,22 1,24% 8 SAMAR ST UNIV 1 2 1 2 1,24% </td <td>52</td> <td>9</td> <td></td> <td>95</td> <td>6</td> <td>933</td> <td>1.99%</td> <td>6,561</td> <td>2.07%</td>	52	9		95	6	933	1.99%	6,561	2.07%
7 CEBU ST COLL OF SCI AND TECH 3 - 159 0.34% 1,116 7 CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH 2 1 283 0.60% 1,988 7 NEGROS ORIENTAL ST UNIV (Formerly CVPC) 1 1 14 0.03% 101 7 SIQUIJOR ST COLL 4 - 6 0.01% 42 8 EASTERN SAMAR ST UNIV 31 8 6.04 1.29% 4,249 8 EASTERN VISAYAS ST UNIV 60 6 609 1.30% 4,1283 8 LEYTE NORMAL UNIV 13 2 1,122 2,40% 7,893 8 LEYTE NORMAL UNIV 37 14 298 0.64% 2,100 8 VISAYAS STATE UNIV 37 14 298 0.64% 1,267 8 PALOMPON INST OF TECH 2 2 4 2,00 3 1,267 8 SAMAR ST UNIV 2 2 4 4,269 1,267	53	7	CEBU NORMAL UNIV	128	20	8/9	1.45%	4,769	1.68%
7 CENITRAL VIS ST COLL OF AGRIC, FOR AND TECH 2 1 283 0.60% 1,988 7 NEGROS ORIENTAL ST UNIV (Formerly CVPC) 1 1 14 0.03% 101 7 SIQUIJOR ST COLL 4 - 6 0.01% 42 101 8 EASTERN SAMAR ST UNIV 31 8 6.04 1.29% 4,249 8 LEYTE NORMAL UNIV 60 6 609 1.30% 4,249 8 LEYTE NORMAL UNIV 13 2 1,122 2,40% 7,893 8 VISAYAS STATE UNIV 37 14 298 0.64% 2,100 8 NAVAL INST OF TECH 2 1 20 3 0.64% 1,267 8 PALOMPON INST OF TECH 2 2 3 0.64% 1,276 8 SAMAR ST UNIV 19 1 181 0.39% 1,276 8 SAMAR ST UNIV 2 1 0.60 0.39% 1,276 <td>54</td> <td>7</td> <td></td> <td>8</td> <td>1</td> <td>159</td> <td>0.34%</td> <td>1,116</td> <td>1.57%</td>	54	7		8	1	159	0.34%	1,116	1.57%
7 NEGROS ORIENTAL ST UNIV (Formerly CVPC) 1 1 14 0.03% 101 7 SIQUIJOR ST COLL 4 - 6 0.01% 42 8 EASTERN SAMAR ST UNIV 14 - 394 0.84% 2,768 8 EASTERN VISAYAS ST UNIV 6 6 609 1.29% 4,249 8 LEYTE NORMAL UNIV 6 6 609 1.30% 4,249 8 LEYTE NORMAL UNIV 13 2 1,122 2,40% 7,893 8 VISAVAS STATE UNIV. (LEYTE ST UNIV) 37 14 298 0.64% 2,100 8 NAVAL INST OF TECH 20 3 180 0.38% 1,267 8 SAMAR ST COLL OF AGRIC AND FOR - - 36 0.08% 2,50 8 SAMAR ST UNIV - - 69 0.15% 4,85 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 4,85 8	55	7	CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH	2	1	283	%09.0	1,988	1.10%
7 SIQUIJOR ST COLL 4 - 6 0.01% 42 8 EASTERN SAMAR ST UNIV 14 - 394 0.84% 2,768 8 EASTERN VISAYAS ST UNIV 31 8 604 1.29% 4,249 8 LEYTE NORMAL UNIV 60 6 609 1.30% 4,249 8 VISAYAS STATE UNIV 13 2 1,122 2.40% 7,893 8 VISAYAS STATE UNIV 20 3 14 298 0.64% 2,100 8 NAVAL INST OF TECH 20 3 180 0.38% 1,267 8 SAMAR ST COLL OF AGRIC AND FOR - - 36 0.08% 250 8 SAMAR ST UNIV - - - 36 0.15% 485 8 SOUTHERN LEYTE ST UNIV - - - - - - - - - - - - - - - - -	56	7	NEGROS ORIENTAL ST UNIV (Formerly CVPC)	1	1	14	0.03%	101	1.94%
8 EASTERN SAMAR ST UNIV 14 - 394 0.84% 2,768 8 EASTERN VISAVAS ST UNIV 31 8 604 1.29% 4,249 8 LEYTE NORMAL UNIV 60 6 609 1,30% 4,283 8 VISAYAS STATE UNIV, (LEYTE ST UNIV) 37 14 298 0.64% 2,100 8 NAVAL INST OF TECH 20 3 180 0.58% 1,267 8 PALOMPON INST OF TECH - - 36 0.08% 2,100 8 SAMAR ST COLL OF AGRIC AND FOR - - 36 0.08% 1,276 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 1,276 8 TANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972	57	7		4		9	0.01%	42	0.18%
8 EASTERN VISAYAS ST UNIV 31 8 604 1.29% 4,249 8 LEYTE NORMAL UNIV 60 6 609 1.30% 4,283 8 VISAYAS STATE UNIV, (LEYTE ST UNIV) 13 2 1,122 2.40% 7,893 8 NAVAL INST OF TECH 20 3 180 0.54% 2,100 8 SAMAR ST COLL OF AGRIC AND FOR - 3 0.08% 250 8 SAMAR ST UNIV - - 69 0.15% 485 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 TTANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	58	8	EASTERN SAMAR ST UNIV	14	•	394	0.84%	2,768	0.51%
8 LEYTE NORMAL UNIV 60 6 60 1.30% 4,283 8 VISAYAS STATE UNIV. (LEYTE ST UNIV) 13 2 1,122 2.40% 7,893 8 NAVAL INST OF TECH 37 14 298 0.64% 2,100 8 PALOMPON INST OF TECH 20 3 180 0.58% 1,267 8 SAMAR ST COLL OF AGRIC AND FOR - - 6 0.38% 1,276 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 TTANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	59	8	EASTERN VISAYAS ST UNIV	31	8	604	1.29%	4,249	1.06%
8 VISAYAS STATE UNIV. (LEYTE ST UNIV) 13 2 1,122 2.40% 7,893 8 NAVAL INST OF TECH 37 14 298 0.64% 2,100 8 PALOMPON INST OF TECH 20 3 180 0.38% 1,267 8 SAMAR ST COLL OF AGRIC AND FOR - - 6 0.39% 1,276 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 TTANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	9	8		09	9	609	1.30%	4,283	%96.0
8 NAVAL INST OF TECH 37 14 298 0.64% 2,100 8 PALOMPON INST OF TECH 20 3 180 0.38% 1,267 8 SAMAR ST COLL OF AGRIC AND FOR - - 36 0.08% 250 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 TTANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	61	8		13	2	1,122	2.40%	7,893	1.13%
8 PALOMPON INST OF TECH 20 3 180 0.38% 1,267 8 SAMAR ST COLL OF AGRIC AND FOR - - 36 0.08% 250 8 SAMAR ST UNIV - - 69 0.15% 1,276 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 TTANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	62	8	NAVAL INST OF TECH	37	14	298	0.64%	2,100	0.46%
8 SAMAR ST COLL OF AGRIC AND FOR - - 36 0.08% 250 8 SAMAR ST UNIV 19 1 181 0.39% 1,276 8 SOUTHERN LEYTE ST UNIV - 6 4 180 0.15% 485 8 T TANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	63	8	PALOMPON INST OF TECH	20	8	180	0.38%	1,267	0.29%
8 SAMAR STUNIV 19 1 181 0.39% 1,276 8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 T TANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	64	8	SAMAR ST COLL OF AGRIC AND FOR	-		36	0.08%	250	%60.0
8 SOUTHERN LEYTE ST UNIV - - 69 0.15% 485 8 TTANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	65	8	SAMAR ST UNIV	19	1	181	0.39%	1,276	0.56%
8 T TANCINCO MEM INST OF SCI AND TECH 6 4 180 0.38% 1,268 8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	99	8	SOUTHERN LEYTE ST UNIV	•	1	69	0.15%	485	0.62%
8 UNIV OF EASTERN PHIL 38 - 423 0.90% 2,972 9 BASILAN ST COLL 13 2 19 0.04% 136	29	8	T TANCINCO MEM INST OF SCI AND TECH	9	4	180	0.38%	1,268	0.47%
9 BASILAN ST COLL 13 2 19 0.04% 136	89	8	UNIV OF EASTERN PHIL	38	1	423	0.90%	2,972	0.64%
	69	6		13	2	19	0.04%	136	0.24%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

	Region	SUC	MS theses completed 2002-03	PhD Rese disserations total completed poin	Research total points	% Share of research points		% Share of 2004 MOOE without FAPS/HOSPS
		=		2002-03		0	for 2005	70
20	6	J. H. CERILLES ST COLL				%00.0		0.23%
71	6	JOSE RIZAL MEM ST COLL	•		161	0.34%	1,129	%99.0
72	6	MINDANAO ST UNIV - TCTO	32		201	0.43%	1,414	0.52%
73	6	SULU ST COLL	1		5	0.01%	35	0.15%
74	6	TAWI-TAWI REGIONAL AGRIC COLL	25	-	26	%90.0	186	0.23%
75	6	W MINDANAO ST UNIV	31	4	1,044	2.23%	7,342	1.41%
9/	6	ZAMBO CITY ST POLY COLL	2	-	31	0.07%	218	0.19%
77	6	ZAMBO ST COLL OF MARINE SCIS AND TECH	24	•	429	0.91%	3,015	0.41%
78	10	BUKIDNON ST COLL	59	1	286	0.61%	2,013	%89.0
79	10	CAMIGUIN POLY ST COLL			83	0.18%	583	0.18%
80	10	CENTRAL MINDANAO UNIV	17	9	296	2.06%	6,803	1.66%
81	10	MINDANAO POLY ST COLL	33	4	207	1.08%	3,565	0.72%
82	10	MSU - IIT	72	8	2,370	2.06%	16,672	2.94%
83	10	MISAMIS OR ST COLL OF AGRIC AND TECH	1	-	81	0.17%	571	0.23%
84	10	NW MINDANAO ST COLL OF SCI AND TECH			22	0.05%	151	0.10%
85	11	DAVAO DEL NORTE ST COLL	2	1	104	0.22%	731	0.21%
98	11	DAVAO OR ST COLL OF SCI AND TECH	6	ı	10	0.02%	71	0.30%
87	11	SOUTHERN PHIL AGRI-BUSINESS, MARINE AND AQUATIC SCHOOL OF TECH	5		115	0.25%	810	0.16%
88	11	UNIV OF SOUTHEASTERN PHIL	231	15	1,172	2.50%	8,246	1.35%
89	12	ADIONG MEM POLY ST COLL		•	4	0.01%	26	0.13%
90	12	COTABATO CITY ST POLY COLL	11	1	139	0.30%	978	0.39%
91	12	COTABATO FOUNDN COLL OF SCI AND TECH	5	•	81	0.17%	570	0.53%
92	12	MINDANAO ST UNIV - MAIN	95	11	1,082	2.31%	7,613	3.66%
93	12	SULTAN KUDARAT POLY ST COLL			152	0.32%	1,066	0.39%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

94	Region	SUC	completed 2002-03	completed 2002-03	total	research points	research MOOE for 2005	MOOE without FAPS/HOSPS
	12	UNIV OF SOUTHERN MINDANAO	38	18	1,185	2.53%	8,335	1.20%
95	CAR	ABRA ST INST OF SCI AND TECH	2		138	0.29%	696	0.44%
96	CAR	APAYAO ST COLL	4		73	0.15%	510	0.21%
97	CAR	BENGUET ST UNIV	56	11	1,181	2.52%	8,309	1.67%
98	CAR	IFUGAO ST COLL OF AGRIC AND FOR	143	6	486	1.04%	3,421	0.44%
66	CAR	KALINGA APAYAO ST COLL	43	2	251	0.54%	1,769	0.40%
100	CAR	MT PROVINCE ST POLY COLL	7		219	0.47%	1,542	0.81%
101	CARAGA	CARAGA AGUSAN DEL SUR ST COLL OF AGRIC AND TECH				%00.0		0.19%
102	CARAGA	CARAGA NORTHERN MINDANAO ST INST OF SCI AND TECH	5	1	322	%69.0	2,266	0.46%
103	CARAGA	CARAGA SURIGAO DEL SUR POLY ST COLL	5		7	0.02%	51	0.42%
104		CARAGA SURIGAO ST COLL OF TECH				%00.0		0.34%
105	NCR	EULOGIO "AMANG"RODRIGUEZ INST OF SCI AND TECH	85	14	440	0.94%	3,093	1.08%
106	NCR	MARIKINA POLY COLL	9		143	0.30%	1,004	0.29%
107	NCR	PHIL NORMAL UNIV	192	15	1,500	3.20%	10,549	2.25%
108	NCR	PHIL ST COLL OF AERONAUTICS	20		238	0.51%	1,672	0.40%
109	NCR	POLY UNIV OF THE PHIL	209	16	2,003	4.27%	14,088	4.52%
110	NCR	RIZAL TECH UNIV	24	•	47	0.10%	332	1.06%
111	NCR	TECH UNIV OF THE PHIL	112	26	1,000	2.14%	7,036	3.45%
112	NCR	UNIV OF THE PHIL SYSTEM	•			%00.0	•	%00.0
		TOTAL	3,276	481	46,848	100.0%	329,540	100.0%

Table 9. Filipinos aged 16-24 by schooling status and per capita income decile, 2002, 2007

1 (Poorest) 48.81 52.40 18.86 21.10 1.45 1.30 20.07 2007 2007 2007 2007 2007 2007 2007 2007 2007 2007 2007 2007 2007 2007 2007 2007 2008 1.74 1.80 21.35 16.70 0.64 0.40 0.40 7.24 2 36.69 37.60 26.80 1.74 1.80 21.35 16.70 0.64 0.40 0.43 10.43 10.43 10.40 0.64 0.40 10.43 10.43 10.40 0.64 0.40 10.43 10.43 10.40 0.64 0.50 14.54 10.43 3.50 14.86 14.00 0.64 0.50 14.54 17.56 14.86 12.70 11.48 10.70 0.80 19.71 19.71 19.72 19.72 19.72 19.72 19.72 19.72 19.72 19.74 19.72 19.72 19.74 19.76 19.72 19.72	Per capita income decile	Not enrol HS grad	lled, not	Not enrolled, finished HS, not college graduate	Not enrolled, finished HS, not college graduate	Not enrolled, finished college	lled, college	Enrolled HS or elem	HS or	Enrolled post secondary	post ry	Enrolled college and post grad	college grad	Total
onest) 48.81 52.40 18.86 21.10 1.45 1.30 23.04 19.70 0.60 0.40 7.24 43.81 45.50 22.02 26.80 1.74 1.80 21.35 16.70 0.64 0.40 10.43 36.69 37.60 25.16 32.80 2.65 2.50 20.08 15.30 0.88 0.50 14.54 31.85 30.70 28.69 3.87 3.50 17.89 14.00 0.64 0.50 14.54 27.30 26.30 32.51 37.70 4.34 5.50 14.86 12.70 1.29 0.50 19.71 27.30 26.30 32.51 37.70 4.34 5.50 14.86 0.80 0.80 0.50 19.71 15.65 14.90 32.30 37.80 8.66 9.10 12.76 1.08 0.80 0.80 29.58 10.58 10.19 31.09 36.00 12.76 12.76 12.40		2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	
43.81 45.50 22.02 26.80 1.74 1.80 21.35 16.70 0.64 0.40 10.43 36.69 37.60 25.16 32.80 2.65 2.50 20.08 15.30 0.88 0.50 14.54 31.85 30.70 28.69 36.80 3.37 3.50 17.89 14.00 0.64 0.50 14.56 27.30 26.30 32.51 37.70 4.34 5.50 14.86 12.70 1.29 0.50 17.56 15.65 14.90 32.51 37.70 4.34 5.50 14.86 12.70 1.29 0.50 19.71 15.65 14.90 32.51 37.80 8.66 9.10 12.76 1.08 0.80 0.90 29.55 10.58 10.19 31.09 36.00 12.72 12.70 11.41 9.30 0.54 0.80 0.80 39.26 10.58 3.20 24.13 29.30 18.25 12.70	1 (Poorest)	48.81	52.40	18.86	21.10	1.45	1.30	23.04	19.70	09.0	0.40	7.24	5.20	100.00
36.69 37.60 25.16 32.80 2.65 2.008 15.30 0.88 0.50 14.54 31.85 30.70 28.69 36.80 3.37 3.50 17.89 14.00 0.64 0.50 17.56 27.30 26.30 32.51 37.70 4.34 5.50 14.86 12.70 1.29 0.50 19.71 15.65 14.90 32.51 37.80 8.66 9.10 12.76 9.70 1.08 0.80 0.90 23.58 10.58 10.10 31.09 36.00 12.72 12.70 11.41 9.30 0.94 0.80 32.65 104est) 6.80 24.13 29.30 18.25 18.10 9.50 7.20 0.53 0.80 44.62 10hest) 3.26 24.03 24.50 24.50 9.50 7.20 0.53 0.80 48.23	2	43.81	45.50	22.02	26.80	1.74	1.80	21.35	16.70	0.64	0.40	10.43	8.90	100.00
31.85 30.70 28.69 3.680 3.37 3.50 17.89 14.00 0.64 0.50 17.56 27.30 26.30 32.51 37.70 4.34 5.50 14.86 12.70 1.29 0.50 19.71 21.31 21.70 34.14 40.10 6.25 6.00 13.91 10.80 0.80 0.90 23.58 15.65 14.90 32.30 37.80 8.66 9.10 12.76 1.08 0.80 0.80 29.55 10.58 10.10 31.09 36.00 12.72 12.70 11.41 9.30 0.94 0.80 33.26 10.58 10.10 31.09 36.00 18.25 18.10 9.50 7.20 0.53 0.80 44.62 10hest) 3.26 3.10 14.78 16.90 23.20 24.50 9.50 7.20 0.85 0.60 24.82	3	36.69	37.60	25.16	32.80	2.65	2.50	20.08	15.30	0.88	0.50	14.54	11.20	100.00
27.30 26.30 32.51 37.70 4.34 5.50 14.86 12.70 1.29 0.50 19.71 21.31 21.70 34.14 40.10 6.25 6.00 13.91 10.80 0.80 0.90 23.58 15.65 14.90 32.30 37.80 8.66 9.10 12.76 9.70 1.08 0.80 29.55 10.58 10.10 31.09 36.00 12.72 12.70 11.41 9.30 0.94 0.80 33.26 10.59 6.80 24.13 29.30 18.25 18.10 9.56 7.20 0.53 0.80 41.62 10hest) 3.26 27.07 23.20 24.50 9.50 7.20 1.03 0.80 48.23 23.83 26.00 27.07 32.00 8.23 7.80 15.20 0.85 0.60 24.82	4	31.85	30.70	28.69	36.80	3.37	3.50	17.89	14.00	0.64	0.50	17.56	14.50	100.00
15.65 14.90 32.30 37.80 8.66 9.10 12.76 9.70 1.08 0.80 0.80 29.58 23.58 15.65 14.90 32.30 37.80 8.66 9.10 12.76 9.70 1.08 0.80 0.90 29.55 10.58 10.10 31.09 36.00 12.72 12.70 11.41 9.30 0.94 0.80 33.26 idhest) 3.26 3.10 14.78 16.90 23.20 24.50 9.50 12.7	5	27.30	26.30	32.51	37.70	4.34	5.50	14.86	12.70	1.29	0.50	19.71	17.20	100.00
15.65 14.90 32.30 37.80 8.66 9.10 12.76 9.70 1.08 0.80 29.55 10.58 10.10 31.09 36.00 12.72 12.70 11.41 9.30 0.94 0.80 33.26 ichest) 5.91 6.80 24.13 29.30 18.25 18.10 9.56 7.20 0.53 0.80 41.62 ichest) 3.26 3.10 14.78 16.90 23.20 24.50 9.50 7.20 1.03 0.80 48.23 23.83 26.00 27.07 32.00 8.23 7.80 15.20 12.50 0.85 0.60 24.82	9	21.31	21.70	34.14	40.10	6.25	00.9	13.91	10.80	0.80	0.90	23.58	20.60	100.00
10.58 10.10 31.09 36.00 12.72 12.70 11.41 9.30 0.94 0.80 33.26 33.26 5.91 6.80 24.13 29.30 18.25 18.10 9.56 7.20 0.53 0.80 41.62 ichest) 3.26 3.10 14.78 16.90 23.20 24.50 9.50 12.50 0.85 0.80 24.82	7	15.65	14.90	32.30	37.80	8.66	9.10	12.76	9.70	1.08	0.80	29.55	27.80	100.00
ichest) 5.91 6.80 24.13 29.30 18.25 18.10 9.56 7.20 0.53 0.80 41.62 lichest) 3.26 3.10 14.78 16.90 8.23 7.80 15.20 12.50 0.85 0.60 24.82	8	10.58	10.10	31.09	36.00	12.72	12.70	11.41	9.30	0.94	0.80	33.26	31.00	100.00
ichest) 3.26 3.10 14.78 16.90 23.20 24.50 9.50 7.20 1.03 0.80	6	5.91	6.80	24.13	29.30	18.25	18.10	9:26	7.20	0.53	0.80	41.62	37.80	100.00
23.83 26.00 27.07 32.00 8.23 7.80 15.20 12.50 0.85 0.60	10 (Richest)	3.26	3.10	14.78	16.90	23.20	24.50	9.50	7.20	1.03	0.80	48.23	42.40	100.00
	Total	23.83	26.00	27.07	32.00	8.23	7.80	15.20	12.50	0.85	09.0	24.82	21.00	100.00

Source: Processed from the Annual Poverty Indicator Survey, 2002, 2007.

Table 10a. GAA budget of education by agency

Agency	2000	2001	2002	2003	2007	2005	2006	2002	2008	2000	2010
621126					1			(222		6001	
DepED	DepED 82,692,502 82,692,502	82,692,502	95,259,442	96,278,545	96,278,545	102,583,978	102,583,978	126,801,722	138,033,428	95,259,442 96,278,545 96,278,545 102,583,978 102,583,978 126,801,722 138,033,428 157,958,997,000 161,190,514,000	161,190,514,000
CHED	1,799,564	1,799,564 1,799,564	595,007		214,930 214,930		206,514 206,514	378,847	378,847 720,064		950,471,000 1,668,767,000
TESDA		2,104,016 2,104,016	2,808,108	2,444,631	2,444,631	2,330,033	2,330,033	2,436,366	3,163,238	2,444,631 2,444,631 2,330,033 2,330,033 2,436,366 3,163,238 3,484,056,000 2,890,916,000	2,890,916,000
SUCs		13,809,927 13,809,927	15,876,702	15,713,736	15,713,736	15,712,283	15,876,702 15,713,736 15,713,736 15,712,283 15,712,283	17,371,355	19,638,337	17,371,355 19,638,337 22,829,078,000 22,402,271,000	22,402,271,000
Total		100,406,009 100,406,009		114,651,842	114,651,842	120,832,808	120,832,808	146,988,290	161,555,067	114,539,259 114,651,842 114,651,842 120,832,808 120,832,808 146,988,290 161,555,067 185,222,602,000 188,152,468,000	188,152,468,000

Note: Number(000)

Table 10b. GAA percentage budget share of education sector by agency

Agency	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
DepEd	82.36	82.36	83.17	83.97	83.97	84.9	84.9	86.27	85.44	85.28	85.67
CHED	1.79	1.79	0.52	0.19	0.19	0.17	0.17	0.26	0.45	0.51	0.89
TESDA	2.1	2.1	2.45	2.13	2.13	1.93	1.93	1.66	1.96	1.88	1.54
SUCs	13.75	13.75	13.86	13.71	13.71	13	13	11.82	12.16	12.33	11.91
Total	100	100	100	100	100	100	100	100	100	100	100

The data show the ad hoc quality of decision making relating to SUCs, from their establishment, budget allocation and program offering, to admission criteria and fees. The first additions to the SUC system were made when higher education was already producing an excess supply of college-educated labor as reflected in its unemployment rate of about 6 percent in the 1960s, rising gradually to more than 10 percent in the mid-1980s and remaining at about this level to the present. Being aware of budgetary constraints, the sponsoring congressmen of new SUCs knew they were creating low-quality HEIs. On the other hand, the SUC heads have made some implicit agreement to charge uniform fees of Php 100 per credit unit. The SUCs have replicated the quality and program offerings of the private HEIs.

As in the private sector, the SUCs included a handful of good-quality institutions, which include the University of the Philippines and MSU-IIT. The SUCs have crowded out the private HEIs, competing for their students and faculty. In some instances, the SUCs have a negative product when they crowd out good-quality private HEIs, substituting inferior-quality programs for the former's higher-quality ones. A CHED commissioner mentioned that the respected Silliman University was being crowded out by a new SUC, which offered practically free tuition. An officer of a respected university in Bacolod City complained to the author about difficulties of retaining their faculty and students who were moving to the city's SUC. It paid higher salaries and charged minimal fees. The SUCs have absorbed virtually all, about 98 percent, of the national government subsidy for higher education (Table 10). Excepting UP, which has adopted a socialized tuition scheme, they charge minimal tuition to all their students who are subsidized regardless of ability, performance, and program of study. The concentration of subsidy to the SUCs has likewise crowded out reforms of the HE system. Financial reforms in higher education are essential for any strategy to improve the efficiency and equity of HE in the country. The paper recommends structural reforms in financing higher education.

URGENCY OF REFORMS

The country has lagged behind most of its East Asian neighbors in economic growth and social development and faces intensifying competition from them and other developing economies in trade, foreign investment, BPO, and world labor market. The supply of highly skilled labor and technological capability are key elements of competitiveness. There has been an utter lack of these elements because the HE system had little capacity to create them. Its quality was so poor that it could produce mainly subprofessional skills. The handful of good universities have produced very small numbers of high-level manpower in S&T, teacher training, management, health, and other key fields.

The lack of highly skilled manpower and innovation system has strongly constrained the country's capacity to accelerate growth and compete globally. Lacking highly skilled labor, it has failed to raise factor productivity, compete for more foreign investments, attract more and higher value-added BPOs, train migrant workers for higher and better-quality foreign jobs, and improve the quality of governance. The poor quality of the HE system has created a vicious cycle within the whole educational system where it produces poor-quality teachers and teaching materials for the primary and secondary students who in turn would not qualify for good-quality higher education.

Note that education has been allocated a declining proportion of government budget from about one-third in the 1950 to mid-1970s to just more than 10 percent in the last few years. This declining share has had to be allocated to an increasing number of students and to an increasing demand for secondary and HE education. CHED and DOST have been allocated less than 3 percent of education budget, too small to allow them to develop their capacity to bring about quality improvement in the HE system and development of the innovation system. Drastic reforms in the allocation of the budget for higher education and research are essential and urgent. A reform package is suggested. The recommendations are as a package for the components are interdependent in effect.

- Disabuse the popular notion, especially among politicians, that higher education is for all. The labor market demand for university/college graduates comprises a small proportion of total demand for labor. Higher education is for those with the highest intellectual ability and positive traits.
- 2. Disabuse the notion that the SUCs provide equitable access to higher education.
- 3. Develop an operational plan for creating a critical mass of science institutions that will produce a target number of BS, MS, and PhD graduates in each specific priority field in five to ten years' time. The UP College of Science and the newly created Commission on Science and Technology Education (COMSTE) by the Congress have drawn priority S&T fields for development. They have yet to draw an operational plan that states targets for faculty, scholarships and research output, and required financial support. Neither CHED, DOST, nor COMSTE has developed operational plans for their respective institutions. The institutions to be supported are to be selected from the COEs and CODs based on their capacity and commitment to develop into world-class HEIs. Massive scholarships for graduate studies here and abroad are to be granted for faculty development for the selected COEs and CODs.
- 4. Have a similar strategy for engineering. Engineering has attracted too few graduate students mainly because of the high opportunity cost of pursuing advanced degree in the field. Special incentives will have to be developed for engineering programs.

- 5. Develop financial support strategy for improving libraries and laboratories in target HEIs in all fields, not just S&T but particularly teacher training, accountancy, health, and aeronautics. Virtually all Philippine HEIs have dismal library and laboratory facilities.
- 6. Develop a massive scholarship system for graduate studies in all fields.
- 7. All SUCs are to be required to charge full-cost tuition to be complemented by a massive scholarship program for the bright and disciplined students and to include special grants for the poor. An effective scholarship program is to replace the current system of subsidizing all SUC students. The full-cost tuition scheme will encourage competition among HEIs, private as well as public, and weed out inefficient SUCs and programs.
- 8. Increase the market demand for S&T graduates by practical incentives such as requiring S&T majors to teach S&T courses in the primary, secondary, and tertiary levels. Teacher training in S&T subjects is to be taken in S&T departments, not education departments. Moreover, the budget for research has to be drastically increased. This would allow the DOST and its affiliate institutions to hire S&T researchers and increase their scholarship outreach. The DOST has reported only about 400 S&T scholars this year.

A critical element of the reform package is the change in the method of subsidizing students and schools. Subsidy is to be directed at selected institutions, selected programs, and selected students, not indiscriminately, not inefficiently, and not in an ad hoc manner. It is clear that not all SUC students deserve to be subsidized, not all programs should be maintained, and not all SUCs deserve support. Scholarship is to be prioritized for the very bright, especially from poor socioeconomic classes; for priority fields and degree level; and in high-quality HEIs, whether public or private. A talent search among poor students from towns and barrios will be needed in order to draw the bright poor into the scholarship pool. Additionally, financial support for improving library and laboratory facilities in both private and public HEIs is essential. Most HEIs have very poor libraries and laboratories.

REFERENCES

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CHAPTER

8

Unemployment, Work Security, and Labor Market Policies*

Emmanuel F. Esguerra**

"Work and Well-Being" of the *Philippine Human Development Report 2002*¹ is an incisive analysis of the employment situation in the country at the start of the 21st century. Proceeding from the notion that work is essential to human development [Sen 1999] and noting the limited success different administrations have had in addressing the unemployment problem, the chapter tackles the complex interactions between growth, employment, and poverty in the Philippine setting.

Seven major sections comprise the chapter, which opens with a discussion of the Philippine record in job creation and the observed weak relation between unemployment and poverty. It then dissects the problems of unemployment and poverty by discussing the episodic nature of Philippine economic growth, the shallowness of industrial transformation, the reasons for low labor productivity, the quality of available human capital, and the role of labor market institutions. Aside from several tables and diagrams to support the discussion of labor market outcomes, the chapter includes special topic boxes that explain important concepts and highlight empirical regularities or focus on a specific case to emphasize a point.

The analysis, supported by five specially commissioned background papers, leads to a set of well-considered policy recommendations to deal with the problem of labor underutilization [PHDR 2002: 40-41]. These include (1) removing critical bottlenecks to achieving sustained economic growth; (2) revitalizing and modernizing agriculture, while supporting the growth of the "new services" and raising the competitiveness of small and medium industries; (3) expanding access to quality basic education and raising standards of training institutes; (4) improving industrial relations; (5) ensuring social protection; (6) facilitating overseas work and providing adequate protection for

overseas Filipino workers (OFWs); and (7) reducing child labor by addressing its root causes.

The concept of income poverty is a convenient starting point for reflecting on the key messages of the *Report*. From this viewpoint, poverty is due to a deficiency in the stock of assets from which an individual derives income, or in the return that his existing stock of assets is able to earn in the relevant market. With complete, competitive, and freely accessible markets, poverty would largely be a consequence of a deficit in initial endowments. Still, individuals need not be hopelessly trapped in poverty if they have access to opportunities for accumulating assets. Indeed, investment in human capital through education, training, proper health and nutrition, or access to land or finance capital through unrestricted rental markets are potential escape routes from poverty.

The reality of limited and imperfect, if not actually non-existent, markets, however, precludes many of the poor from exiting poverty. The absence of loan markets for higher education, alluded to in the *Report*, is a case in point. Markets in developing countries are also characterized by institutional or policy distortions causing inequalities in wealth distributions to easily translate into inequality in income-earning opportunities. For example, restrictions against land sales and share tenancy contracts in rural land markets have led to the emergence of labor contracts that foreclose the possibility for rural laborers to move up the agricultural ladder. To the extent that imperfections in factor markets limit a poor household's access to productive resources, such as land or finance capital, or to opportunities for human capital investment, poverty becomes self-reproducing through dynamic effects.

Moreover, where the economy is unable to grow on a sustained basis, production can proceed only unevenly and in stop-start fashion. Meanwhile, "animal spirits" are dampened, and investment is curtailed. Frequent spells of unemployment occur as a result, causing a disruption in income flows for those who rely mainly on the sale of their labor time as a source of income. In the event, breaking away from poverty is more difficult for those who are left defenseless against unanticipated income shocks by the absence of social insurance or publicly provided safety nets to mitigate the adverse effects of sector- or economy-wide disturbances.

For individuals whose only productive asset is their labor power, the ability to gainfully participate in the labor market is a critical factor that can spell the difference between deprivation and a comfortable measure of material sufficiency. Absent income from other sources, a person's position relative to the poverty threshold is determined by the nature and extent of his labor market participation (e.g., employed, unemployed, or underemployed) and the returns from participation (labor income). On this point the *Report* notes that the low quality of employment—not unemployment—is the primary reason for the high incidence of poverty in the country [PHDR 2002:7]. Thus merely

creating a million jobs a year will not suffice to reduce poverty, let alone allow a person to "unfold his capabilities."

From a labor market perspective the policy recommendations advanced in the *PHDR 2002* can essentially be reduced to just three: (1) those for achieving rapid and sustained growth over a longer period; (2) those for increasing investment in human capital; and (3) those for providing social protection.

The first ensures that there is a continuous demand for labor through investment in expanding productive capacity, thus minimizing interruptions in paid work and raising productivity over time. The second guarantees that the quality of labor supply is able to keep in step with the changing skill requirements of firms as they adjust to competition and the changing technological frontier, thus providing the basis for a sustained increase in labor incomes through time. The third is necessary to mitigate the effects of adverse labor market outcomes on workers or compensate for the lack of bargaining power of the unskilled and unorganized. In practice, type (1) policies tend to produce tension with type (3) policies, and *vice versa*.

The recommendations of the *PHDR 2002* are strategic and far-reaching. They in fact are broadly consistent with the International Labor Organization's (ILO) "Decent Work¹ Agenda" [2006] which addresses the following concerns: (1) competitiveness, productivity, and decent jobs in a globalizing context; (2) decent jobs for young people; (3) managing labor migration; (4) labor market governance; and (5) social protection for the informal economy. The Philippine Government in its Medium-Term Philippine Development Plan (MTPDP) for 2001-2004 and 2004-2010 declared its commitment to this agenda with sustained growth of incomes and full employment as major development goals. So, is the country anywhere closer to achieving its labor market objectives?

RECENT DEVELOPMENTS

After slightly dipping in 1999, open unemployment rose in 2000 and stayed at double-digit rates until 2004. In April 2005 the government adopted a new definition of unemployment [NSCB 2004] resulting in a lower unemployment rate and introducing a break in the data series, so that the unemployment figures pre- and post-2005 are not comparable [Figure 1]. At 7.5 percent, the average unemployment rate in 2009 is lower than in 2006, although it is slightly higher than in the two preceding years. Compared with most other countries in the Southeast Asian region, the Philippines' unemployment rate is still one of the highest even after the definitional change.

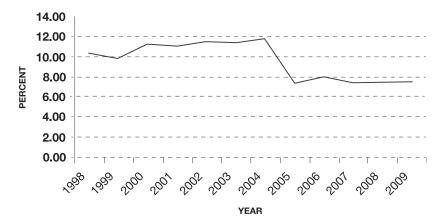


Figure 1. Unemployment rate, 1998-2009

Note: The October survey round figure was used for 2005. All other figures are annual averages. Source: National Statistics Office Labor Force Survey, various years.

Unemployment redefined

The revision in the definition of unemployment deserves a bit of discussion as it renders the portion of the *Report* explaining labor statistics somewhat out of date at the present time. Information on the state of the labor market is always critical in its ramifications on how the government views and decides to deal with the problem of labor underutilization. The change involves the inclusion of the "availability for work" criterion in the definition of the unemployed, whereas the previous definition hinged only on the simultaneous satisfaction of the "without work" and "seeking work" criteria.

As Figure 2 shows, a person of working age who is without work is asked if he looked for a job or tried to establish a business during the reference period (i.e., past week), and further if he was available for work in the past week or would be available in two weeks. Those responding in the affirmative to both questions are considered unemployed. A negative response to the query defines a respondent to be out of the labor force even if he is without a job and is looking for one. On the other hand, those responding in the negative to the first question are asked the reasons they did not look for work before they are asked about availability.

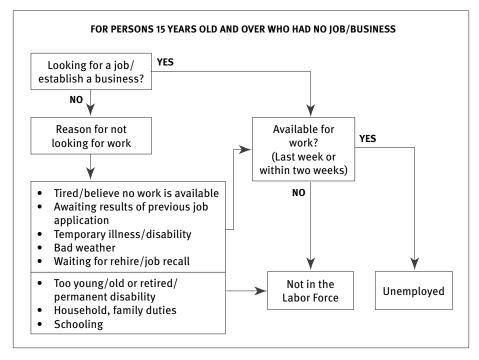


Figure 2. Flowchart for identifying the unemployed

Source: Rivera, E. [2008]. "Redefining the Labor Force Framework: Some Inputs from the Philippine Experience." Paper presented at the seminar on "Employment and Unemployment: Revisiting the Relevance and Conceptual Basis of the Statistics," sponsored by the International Labour Office. 4-5 December. Geneva, Switzerland.

Certain reasons given for not seeking work may still classify a respondent as unemployed⁵ provided he or she responds affirmatively to the availability question. These reasons are: (1) if the respondent either got tired of looking or believes no work is available;⁶ (2) is awaiting results of a previous job application; (3) is temporarily ill or disabled; (4) bad weather; or (5) respondent is waiting for re-hire or job recall. Under the old definition, jobless persons of working age who did not look for work because of the preceding reasons were considered unemployed regardless of availability or length of time since they stopped actively looking for work.

As a result of adopting the availability criterion, unemployment is lower by some 800,000 to 1.5 million jobless persons depending on the quarter under consideration. Following the new definition, the reduction should be equal to the number of those who responded negatively to the availability question in the Philippines' Labor Force Survey (LFS) plus the discouraged workers who had stopped looking for work more than six months before the survey. But published data show that the residual category, "Others," consisting of about 500,000 working-age individuals, has also been excluded from the unemployment count under the new definition [Table 1]. Respondents in this category are not asked the question about availability, however.

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	2,174	2,104	2,380	2,446	2,610	2,711	2,993	1,336	1,450	1,460
Believe no work available	782	766	820	885	875	954	990	497	561	494
Awaiting results of job application	238	235	297	282	339	431	449	325	343	374
Temporary illness/ disability	428	433	475	542	574	553	626	149	158	171
Bad weather	38	26	29	26	53	35	27	20	34	33
Waiting for rehire/job recall	205	213	242	228	269	301	342	345	354	388
Others	483	431	517	483	500	439	559	·		

Table 1. Unemployed not looking for work, 1998-2007 (by reason)

Source: 2008 Yearbook of Labor Statistics

A more fundamental issue, though, is the one of clearly defining current availability for work. In the context of the standard unemployment definition, the availability criterion is supposed to differentiate between those who are ready to take up work or start a small business during the reference week or within the next two weeks and those who can begin only much later or are prevented by personal circumstances from taking a job. The idea is that for a jobless person to be considered unemployed he or she must be able and ready to take on a job *if an opportunity is present*.

The problem is that, as currently formulated, the availability question in the LFS is silent on the nature of the prospective work opportunity. Suppose a person is not looking for work because he is waiting for the result of a job application or is waiting to be recalled to his old job. Surely, this person already has a particular job in mind based on his assessment of his qualifications and skill level. Most likely, too, he has formed some expectations about the terms of his anticipated employment and may not be willing to entertain just any alternative.

By the same reasoning, a person looking toward the overseas market for possible employment or re-employment would likely say he is unavailable for work given how the question is presently framed. Thus, without further inquiring about the terms at which a person without work might consider himself or herself available for a job if the opportunity presented itself,⁹ applying the availability criterion risks excluding more jobless persons from the unemployment count than warranted. To ignore this potential blind spot in the current measurement of unemployment would be a disservice from a public policy viewpoint.

Falling participation rates and OFWs

Statistics show that the labor force participation rate (LFPR) declined for 2005-2008 with more additions to employment than entrants to the labor force, except in 2008 when entrants slightly exceeded available jobs probably on account of the economic slowdown. The decline in labor force participation seems hard to reconcile with previous trends, particularly in light of the reported record economic growth in 2005-2007. Did households suddenly feel prosperous that some members decided to withdraw from the labor force?

A possible explanation is the deployment of workers for overseas employment since OFWs are not counted among the labor force. But OFWs have always been excluded from the labor force, so unless it can be shown that recent net overseas deployment has begun to outstrip net additions to the labor force, the explanation is not persuasive.

However, labor migration can also weaken the work incentives of family members in remittance-receiving households. In fact, several studies on the Philippines cited in Ang, Sugiyarto, and Jha [2009] have found evidence of a decline in labor force participation among remittance recipients. Robustness of the results to variations in methodology could be an issue, however. This is suggested by the mixed results from other country studies (See Airola [2008] and Cox-Edwards and Rodriguez-Oreggia [2009] on Mexico and Mora [2009] on Colombia.) Some more research is needed here.

The adoption of the availability criterion may have also something to do with behavior of the LFPR in the recent past. To be sure, the change in the definition of unemployment is cause for a lower LFPR; however, it should not be a reason for its continued decline unless more people are also giving up much earlier on their job search or are declaring that they are unavailable for work. The prospect of overseas employment has widened the choice of labor market for many Filipinos, however. While the LFS questionnaire does not specifically ask where the jobseeker intends to work, anecdotal evidence abounds that many prospective labor force entrants already have their sights on the overseas labor market in making career decisions. Once they join the labor market, persons such as these will be *looking for work* but may *not be available for work* going by the present LFS questionnaire which provides no context for the availability question.

The point is about the need to attune data collection instruments to the new labor market realities. As jobseekers increasingly look to foreign shores for employment, an ever greater proportion of them could be counted out of the labor force given how the availability criterion is currently applied. This will show up in a declining LFPR even before jobseekers shall have actually become overseas workers. There will then be more persons of working age included among the Philippines' economically inactive population simply because of the preference to work abroad by a growing number of them.

This point may be relevant to recent discussions regarding the inadequacy of the existing framework for measuring the labor force, and the idea of developing a broader concept of a national labor force (as distinct from the current one that embraces only domestic) in recognition of the greater mobility of labor across national boundaries [Rivera 2008], and particularly in the Philippine case, the substantial contribution of the export of labor services to the economy. Novel as the idea might seem, this should not detract from the importance of clarifying the availability criterion and applying it carefully in tracking unemployment and changes in the labor force.

EMPLOYMENT INSECURITY

A crucial aspect of individual well-being is security in one's current status. In the context of employment this means freedom from the threat of job loss or the costs associated with being severed from one's means of livelihood. Although it is not possible to perfectly insure against job loss—even societies that used to practice "jobs-for-life" have moved out of that mold, some more gradually than others—various institutional arrangements exist in different countries to cushion workers against income losses arising from job terminations. The degree to which workers can feel secure in their current employment thus depends on their perception of the likelihood of being terminated, the ease of finding another job that is at least comparable to their present one, and the availability of some form of income support in the event of actual job loss.

From the standpoint of well-being, employment insecurity reduces the quality of employment. To some extent this may be offset by a higher remuneration, although casual observation suggests that in the Philippines low pay and job insecurity often go in tandem. Uncertainty in one's job may lead to low and stagnant incomes via productivity effects through job dissatisfaction, indifference to the work organization, lackadaisical performance, and a resistance to learn new skills. With their future in a work organization highly uncertain, workers have little incentive to perform well or raise their level of competence by investing in their own training. Cross-country data reveal a higher degree of employment insecurity among workers in the Philippines than in other countries. The data are from the work orientations module of the International Social Survey Programme (ISSP)¹² as cited in Green [2009]. Given differences in the level of development and institutional setting among the countries included in the study, how the Philippines compares with them is not as instructive as how the country has fared over time.

Six out of every 10 workers surveyed in the Philippines said they worried "to some extent" or "a great deal" about losing their jobs in 1997, compared with the mean of three out of every 10 in the 32 countries included in the study. In 2005, the average for these countries remained the same, while that for the Philippines had increased to seven out of every 10. Other indicators show a similar pattern. The proportion

disagreeing with the statement, "My job is secure," increased from 15 to 20 percent between 1997 and 2005, while 45 percent said it was "very difficult" or "fairly difficult" to find a comparable job to their current one in 2005. This was during a period when the Philippine economy was growing annually by 4 percent.

But employment growth, while positive, was erratic during this period with the unemployment rate hovering above 11 percent. Thus the high degree of employment insecurity captured in the surveys probably reflects low employment expectations born of the knowledge that finding a job is generally difficult. Citing earlier studies, Green [2009] argues that perceived insecurity generally follows the path of the unemployment rate. If so, a reduction of the unemployment rate should benefit not only those who are eventually absorbed into productive employment but also those already employed who are made better off by having to worry less about losing their jobs.

That perceptions about the risk of job loss have an objective basis is further evidenced by the number of firms reported to have closed down or shed labor during the period 1998-2007. The number of establishments that resorted to permanent closures and retrenchments increased from 2,289 to 3,262 between 1999 and 2003 and from 2,008 to 2,468 between 2004 and 2006 [Table 2]. The most frequently cited reason was firms needing to reorganize and/or downsize their operations consequently had to let go of some of their redundant personnel. The lack of markets came in a far second as a reason.

Table 2. Establishments resorting to permanent closure/retrenchment and reason, 1998-2007

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Reasons	2,525	2,289	2,258	2,859	3,403	3,262	2,008	2,943	2,979	2,468
Lack of market	668	501	484	645	723	720	419	505	498	325
Uncompetitive price of product	13	27	27	53	25	27	25	40	30	10
Competition from imported products	8	14	7	16	18	12	7	10	16	11
High cost of production	183	88	97	108	84	88	75	92	72	75
Lack of capital	190	123	111	125	133	111	70	91	67	44
Peso depreciation	236	63	21	24	9	4	3	4	-	4
Financial losses	253	326	351	435	550	431	339	526	690	443
Economic crisis	95	67	38	43	46	24	18	20	16	5
Reorganization/ downsizing/ redundancy	762	903	972	1,204	1,593	1,566	904	1,343	1,302	1,265
Change in management/merger	21	40	62	55	113	97	43	70	65	49
Lack of raw materials	40	56	30	21	17	28	17	25	20	12
Minimum wage rate increase	11	12	28	37	12	5	3	40	22	15
Others	45	69	30	93	80	149	85	177	181	210

Source: 2008 Yearbook of Labor Statistics.

But what is even more interesting from the data is that the tempo of reorganizations and downsizings seemed to pick up after 1999, continuing well into the next decade and accounting for more than 40 percent of the permanent closures and retrenchments recorded. This supports the view [Lim and Bautista 2001] as cited in the *Report* that many industries took the economic downturn in 1997-1998 as an opportunity to downsize their workforce and employ new technology. In the process, jobs were threatened.

Between 1998 and 2002, a total of 370,000 workers were displaced due to establishment closures and retrenchments [Table 3]. Displacements were much fewer between 2002 and 2004, but picked up again thereafter. In terms of the composition of displaced workers, the National Capital Region (NCR) accounted for at least half of the displacements in any given year. Calabarzon (IV-A), Central Luzon (III), and Central Visayas (VII) are the other substantial contributors to the jobless pool understandably because these regions, together with NCR, host a large share of non-agriculture activities [Esguerra and Manning 2007].

By industry distribution, manufacturing led the way in job shedding, accounting for more than half of worker displacements in any given year [Table 4]. To a large extent, this reflects the highly cyclical demand for exports of semiconductors on which most of the growth of manufacturing has depended for many years now. Between 1998 and 2007, some 312,000 workers were displaced from the sector.

Labor turnover statistics¹³ further tend to corroborate the perception of increasing employment insecurity among workers. The accession rate, which measures the proportion of new hires, whether temporary or permanent, to total employment in an establishment over a period of time,¹⁴ indicates that nearly 70 percent of new hires in 2003-2007 were for replacement and the remaining for expansion. On the other hand, the separation rate, which measures the proportion of terminations to total employment in an establishment over a period of time, indicates that 57 percent of separations during the same period have been employer-initiated (fires) rather than employee-initiated (quits).

The labor turnover rate, or the difference between the accession and separation rates, rose from 0.6 to 2.83 percent between 2003 and 2007 [Table 5]. While this rise may be viewed as a sign of brisk economic activity, it may also be symptomatic of business fluctuations to which firms have been increasingly subjected. This has adverse consequences on labor productivity and wages, and underscores the importance of macroeconomic policy.

Table 3. Permanently displaced workers, 1998-2007 (by region)

Region	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Philippines ¹	79,023	71.723	67,624	71,864	80,091	67,977	36,163	57,594	59,376	51,125
National Capital Region	43,339	43,518	37,109	39,086	44,949	36,302	19,155	31,834	37,789	26,152
Cordillera Administrative Region	483	58	330	554	11		62	774	322	37
Region I - Ilocos Region	517	622	342	463	299	558	257	103	231	283
Region II - Cagayan Valley	356	288	77	23	143	276		12	NR	131
Region III - Central Luzon	8,307	7,812	4,512	2,679	5,284	5,189	4,040	8,497	6,073	2,785
Region IV - Southern Tagalog	7,787	7,521	14,583	11,361	16,584	18,122	7,384	9,497	996'9	12,040
Region V - Bicol Region	843	788	316	430	806	9		NR	575	
Region VI - Western Visayas	3,242	2,177	2,037	1,708	2,144	744	371	303	65	213
RegionVII - Central Visayas	7,094	3,249	2,293	3,471	5,451	622	999	756	4,443	1,408
RegionVIII - Eastern Visayas	273	627	156	116	228	4,231	2,998	4,469	51	4,443
Region IX - Western Mindanao/	277	392	924	577	144	145	39	158	14	126
Zamboanga Penunsula²						136	165	166	511	243
Region X - Northern Mindanao	1,648	879	1,274	703	700					
Region XI - Southern Mindanao/						326	529	493	2,096	430
Davao Region²	3,438	3,223	2,066	2,734	2,517					
Region XII - Central Mindanao/ SOCCSKSARGEN²	400	269	1,373	343	213	1,071	388	253	89	2,832
						204	109	104	162	
Caraga	1,019		232	2,616	618	45		175	7	2

Source: 2008 Yearbook of Labor Statistics

Notes:

1 Excludes ARMM.

2 Figures for 2003-2007 show total for Regions IV-A and IV-B.

3 Starting 2002, the DOLE adopted the regional groupings under E.O. No. 36 issued on September 19, 2001. This E.O. provided for the reorganization of the Administrative Regions in Mindanao, Regions IX (Western Mindanao), XI (Southern Mindanao) and XII (Central Mindanao were renamed Zamboanga Peninsula, Davao Region and SOCCSKARGEN, respectively. Meanwhile, Region X retained its name as Northern Mindanao.

Table 4: Permanently displaced workers, 1998-2007 (by industry group)

7 ure, hunting and forestry	1990	1999	2000	2001	2002	2003	2004	2005	2006	2007
	79,023	71,723	67,624	71,864	80,091	67,977	36,163	57,594	59,376	51,125
	2,105	1,224	757	1,658	1,251	541	432	5,276	1,593	2,332
Fishing	166	563	316	246	433	169	38	159	151	374
Mining and quarrying	1,441	1,575	899	713	289	80	257	133	19	148
Manufacturing 3	38,178	37,385	35,774	37,257	39,075	34,705	17,564	22,792	23,188	26,108
Electricity, gas and water supply	103	499	305	388	641	528	405	889	537	185
Construction	6,062	3,750	1,395	1,708	2,620	1,564	1,125	866	1,468	2,086
Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods	9,416	6,693	6,017	8,545	8,011	7,619	3,673	8,541	8,497	4,785
Hotels and restaurants	2,181	2,224	2,676	2,684	3,656	3,466	1,714	2,332	2,356	1,633
Transport, storage and communications	9,100	6,098	6,626	6,761	7,790	8,032	4,623	6,774	4,383	4,160
Financial Intermediation	4,652	4,616	6,670	4,251	5,132	3,570	1,573	1,883	3,861	2,203
Real estate, renting and business activities	3,963	5,137	3,752	5,328	2,966	4,955	2,610	2,507	10,503	5,468
Public administration and defense, compulsory social security		•	,	•	•	3	•	•	,	•
Private education services	368	300	841	627	842	879	1,261	737	921	346
Health and social work except public medical, dental and other health services	461	411	111	546	523	301	259	437	831	410
Other community, social and personal service activities	827	1,238	1,182	1,152	1,862	1,565	629	1,337	1,068	887

Source: 2008 Yearbook of Labor Statistics.

Year		Accession R	Rate		Separa	ition Rate	
	Total	Due to expansion	Due to replacement	Total	Employee- initiated	Employer- initiated	Turnover rate
2003	6.82	2.24	4.59	6.76	2.96	3.81	0.06
2004	7.12	1.99	5.13	6.09	2.49	3.6	1.04
2005	8.66	1.96	6.7	7.67	3.26	4.41	0.98
2006	9.22	2.94	6.29	7.7	3.2	4.5	1.52
2007	10.47	1.94	8.53	7.64	3.42	4.22	2.83
2008	10.75	3.59	7.16	8.37	4.16	4.22	2.38

Table 5. Labor turnover rate, National Capital Region, 2003-2008

Source: BLES, Current Labor Statistics, various years.

A high turnover rate also means that workers' average job tenures have increasingly shortened. This is not too bad if workers are leaving their jobs for better ones as might be the case in an expanding economy. However, the Philippines' record in capital formation is not exactly an impressive one, and this is supported by the observation above that expansions have played only a minor part as far as the hiring of labor in the last few years is concerned. Unfortunately, it is not possible to tell further from the turnover data what the reasons for the replacements are.

Insecurity in employment is popularly associated with the idea of precarious work and is commonly identified with the use of nonstandard employment contracts. These contracts are short-term, contingent, low-paying, and do not provide the usual non-wage benefits normally found in regular employment agreements. In a highly competitive environment that rewards agility, the objective is for the firm to have greater latitude in its hiring and firing decisions.

In 2000 the Philippine Labor Flexibility Survey (PLFS) noted the use of temporary, casual, contractual, or agency-hired workers in 86 percent of about 1,200 firms surveyed. In 2004, the Bureau of Labor and Employment Statistics (BLES) reported that part-time, casual, contractual, and agency-hired workers accounted for close to 30 percent of the nearly 2.5 million workers employed in establishments with at least 20 workers. The June 2008 figures show that the share of nonregular workers was 24 percent. Given these numbers, it does not appear that employers are substituting nonregular contracts for the standard employment contract in a big way as some observers think. Nonregular contracts have an economic purpose and are not the least cost alternative under all situations [Abraham and Taylor 1996 and Segal and Sullivan 1997].

The use of flexible staffing arrangements in firms can lead to the high turnover rates observed. The ease of dismissing an employee whose services are no longer needed makes hiring also easy. But it does not follow that an employer using a nonstandard contract will be firing and hiring employees more frequently (i.e., have a higher turnover rate) than another employer who uses a standard contract to employ workers performing the same functions.

The point of using the nonstandard contract is to have flexibility when it is needed. In the Philippines, however, the law requires employers to make their workers regular upon reaching their sixth month on the job. This has led to the widespread practice among employers of terminating their nonregular workers on the fifth month of their employment so as not to lose flexibility. In this way, the consequence of a regulation intended to provide job security has been exactly to heighten insecurity. Given the high share of replacements in the accession rate, is it possible that the increase in the labor turnover rate between 2003 and 2007 was caused by early terminations because of the "regularization" law?

Aside from workers' perception of the risk of job separation, insecurity depends upon the ease of finding a job comparable to the present one. A disturbing aspect of the process of labor churning is the low rate of re-absorption of displaced workers observed by Pascual [2009] in case studies. No more than half of the 195 worker-respondents found a wage job since being laid off. The job search period ranged from a low of three months to a high of 14. As of the interview date, less than 30 percent still had a wage job, suggesting that displaced workers' employment options also tend to be limited to jobs of short-term duration. Moreover, the probability of getting another job is inversely related with age, with as much as a 20 to 50 percent cut in wage relative to the former job in case one is found.

Since only a few succeed at self-employment or finding a job overseas, while the others are deterred by the out-of-pocket costs of job search, a high percentage either become unemployed (i.e., jobless, not looking for work) for an extended period or prematurely exit the labor force. This makes re-absorption more difficult and exit from the labor force permanent as a result of the skills deterioration. Other negative welfare effects follow from the income loss, especially in the absence of social safety nets and the concomitant loss of access to credit (e.g., children quitting school, deterioration in health status). Beyond case studies such as this, however, there is very little systematic information about what happens to workers when they are displaced from their jobs as a result of establishment closures or downsizing.

From a policy perspective, addressing insecurity requires knowing which segments of the working population are likely to feel vulnerable to employment shocks and designing the appropriate responses. There is some reason to believe that women bear a disproportionately larger share of employment insecurity than men as a result of socially ascribed roles and the higher probability of career interruptions that tend to limit their access to specific training and, consequently, secure job positions in a work organization. Part-time jobs in services and other less protected sectors also tend to employ mostly women.

Age can have a positive or a negative effect on insecurity, depending on the sector of employment and the associated labor market institutions. Where personnel decisions are mainly governed by internal labor markets, job insecurity and age will tend to be

negatively correlated. On the other hand, in highly dynamic sectors requiring new skills, such as those closely associated with the information communication technologies, age and insecurity will be positively correlated. In industries where manual dexterity, good eyesight, and adaptability to multiple tasks make for good credentials, young workers will tend to feel more secure.

The role of human capital investment looms large on the issue of labor flexibility and employment security. Individuals educated only up to the high school level or less are likely to land routine jobs requiring no more than general, and therefore, easy-to-replace skills. Those with college degrees or higher, on the other hand, are generally presumed able to take on mental labor and work with technologies that require a much higher level of skills. The cost of job loss is more manageable for educated persons who are highly trainable and possess a good amount of skills that can be applied in various work settings.

As age and gender are not alterable attributes, the best insurance against permanent job loss is lifelong education and training. Basic education, if done right, equips the individual with the most fundamental skill—the ability to learn—and prepares him or her for more complex and specialized work. This increases employability and reduces the cost of job loss. Higher education (which need not be formal), including specialized training, allows the individual to keep abreast with new ideas and techniques that accompany technological progress.

That labor market flexibility is equated with job insecurity in the Philippines owes to the type or form of flexibility that has dominated practice. Numerical (or external) flexibility relies on the use of casual and temporary labor, subcontracting, layoffs, and retrenchment of personnel. Functional (or internal) flexibility involves changes in the work organization and work process, investment in training and skills enhancement, performance-based pay, multitasking, and job rotation.

To be sure, one will find evidence of both types in the Philippines. But why has the former dominated as the strategy to adjust to competition? The country's concentration on low labor costs as a source of comparative advantage is one reason. This has undermined the incentive to invest in long-term training and the upgrading of skills. The other reason is the historically protected status of industry, particularly manufacturing, that in effect guaranteed job security. Considering the deficit in human capital investment, the strategy for adjusting to international competition had to take the form of a systematic reduction in the regular workforce. In other words, even if the subjective preference had been functional flexibility, it would not have been possible.

Among Asian countries, "functional flexibility is generally found in states which underwrite a supportive social structure in training, education, and R&D; where labor standards are enforced; and where the state provides incentives to invest in training and organizational development" [Kuruvilla and Erickson 2000:41]. The Philippines has a lot of catching up to do in this area. The *Report* provides very concrete suggestions on

what needs to be done. In this connection, it should be noted that the country will not be able to meet the goal of universal primary education that it has set for itself under the Millennium Development Goals by 2015. This development does not augur well for the future quality of the labor supply, individual employment prospects, job security, and earnings and its implications on poverty and income inequality are disturbing.

Labor policies and labor market outcomes

Philippine labor policies and regulations have been criticized for being either too restrictive as to inhibit employment growth or too lenient as to expose workers to various sources of employment and income risk. The sluggish growth of employment is often cited by employers' groups as an argument for reducing labor regulations which, it is claimed, increase the cost of doing business. On the other hand, with the growing sense of economic insecurity, organized labor and its supporters think that government is not doing enough for workers and want a tightening of some labor regulations (e.g., the laws on security of tenure).

It is noteworthy that the *PHDR 2002* avoided being drawn into the debate. Neither did the *Report* attribute unemployment to existing labor policies and regulations nor did it advocate any direct intervention in the labor market to redress unwanted outcomes. Instead, it placed the problem of employment creation "in the greater framework of growth—or more precisely the lack of it" [PHDR 2002:13]—arguing that stable and productive employment can come about only if the economy can be put on a path of rapid growth over a reasonably long period.

Regarding labor market institutions, the *Report* at most expressed support for developing new and pro-active strategies that unions might pursue, and the expansion of social insurance benefits to include "limited forms of unemployment benefits" as well as other forms of social protection in the context of a sustained effort to distribute the burden of providing worker security across members of society [PHDR 2002:35-36, 38].

Evidently, the *Report's* authors think that in the larger scheme of things labor regulations are not, cannot be, the main barrier to employment creation in the country. First of all, most regulations apply only to a limited sector; nearly half of the country's employed labor force is outside the purview of most labor regulations. Second, even the most controversial regulations, namely, those on worker dismissals and the minimum wage, ¹⁶ can be evaded through a variety of means (e.g., exemptions, defiance, loophole mining).

In the case of dismissals, resorting to flexible contracts has been a way out; with the minimum wage, applying for an exemption or simply defying the law, especially in areas where government's enforcement ability is weak, can do the trick. The *de facto* suspension of laws governing labor and labor relations, including the constitutionally guaranteed rights to organize unions, bargain collectively, and engage in peaceful

assembly, in the export processing zones indicates that there is enough elbow room for employers to maneuver around the regulations in spite of their persistent complaints.

On the other hand, as Freeman [1993] observes, the interventions themselves can be "endogenous" to economic circumstances. That is to say, employers and workers can agree to selectively enforce wage floors and similar regulations depending on their assessment of relative costs and benefits at particular junctures. Recall how several times in the past organized labor had agreed with employers to implement a strike moratorium in exchange for the latter acceding to a freeze on layoffs in order speed up recovery from a crisis and stem further job losses.

Being trained economists, the writers of the *PHDR 2002* know only too well that there is no lack of economic arguments to justify the positions taken by opponents and supporters alike of government interventions in the labor market. The question is which position is more strongly supported by the facts on the ground.

The more the world is filled with prisoner's dilemma games, certain types of moral hazard problems, and the like, the greater is the institutionalist case. The closer the world is to the competitive ideal, the less compelling is that case [Freeman 1993:122].

The fact is, there is not enough basis for making an informed judgment about whether government interventions in the labor market have been unambiguously beneficial. Philippine research has been conspicuously lacking in investigations of the consequences of specific labor market regulations on work and well-being. For example, how has the prohibition on "labor-only contracting" affected firms' hiring decisions and workers' job security? Has the law mandating employers to "regularize" casual employees after six months contributed to raising labor productivity and earnings? Do minimum wages in fact reduce poverty? Does the number of those who can potentially exit poverty after a minimum wage hike justify the potential losses in employment? Has minimum wage fixing on a regional basis improved employment prospects outside Metro Manila? There are no clear answers to these questions to date in spite of the fact that these issues have been intensely debated for too long now.

The problem may be traced to the lack of good and accessible data for doing more systematic analysis. Again, specific examples are useful here. A longer series on wages is not available to study the effects of regional wage fixing on market wages and employment. Breaks in the series often render comparisons through time problematic.¹⁷ Firm level data are also more difficult to access; confidentiality agreements with participating establishments prevent statistics gathering agencies from releasing to researchers more information beyond aggregated summaries.

A fuller examination of wage differentials and their sources is hampered by the absence of employer-employee matched data. One has to content himself or herself with the LFS, or at best a merger of the LFS and the Family Income and Expenditure Survey

(FIES). But both these are household surveys and do not include firm or employer characteristics which are equally important determinants of wage differentials. On the other hand, establishment data pertain only to establishment characteristics and do not include worker information.

The problem of not having good and accessible data is not just a researcher's problem; it also means that an important input to policy formulation may be missing. Good and timely data are critical for informing government whether its policies and programs are making a beneficial impact on society.

Returning to the question of how labor policies affect labor market outcomes, it should be pointed out that insofar as the economics literature on developed economies is concerned, the only unambiguous research result is that they are inequality-reducing relative to a situation where competitive markets are given free rein. Labor policies have no clear relation to other aggregate outcomes such as unemployment [Freeman 2005].

A much different situation would more likely obtain in developing countries where institutions of the labor market are less developed because of structural and other reasons. Nevertheless, the absence of a consensus in the literature on the effect of labor policies and institutions on labor market performance should emphasize the importance of conducting solid empirical work in a specific micro setting. People behave differently under different institutional environments, and the same labor market policy is bound to elicit a different response from one country to another.

At the practical level, labor market institutions and policies may be more important in their role of facilitating public support for other policies outside the labor market which have a greater positive impact on employment creation [Freeman 1993]. The reform program required to put the economy on the path of sustained and rapid growth as proposed in the *Report* will certainly entail adjustment costs. When actions taken to raise productivity and competitiveness put some jobs at risk, opposition is likely to follow and erode confidence in the reform program unless compensatory measures are also put in place. Labor market interventions in the form of active as well as passive labor market programs can help reduce short-run adjustment costs and lengthen workers' time horizons in assessing the effects of longer term policies on their welfare. From a longer term perspective, therefore, labor market policies may have political economy benefits that exceed the usual efficiency costs ascribed to them in standard analysis.

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ENDNOTES

- * This paper appeared in the book *In Search of a Human Face: 15 Years of Knowledge Building for Human Development in the Philippines*, which was launched during the Ayala-UPSE Economic Forum in July 2010. The author's lecture, "Job Creation: What's Labor Policy Got to Do with It?" was based on this paper. The book is a publication of the Human Development Network.
- ** Deputy Director-General, National Economic and Development Authority
- 1. Subsequent use of the *PHDR 2002* or *Report* in the text should be understood as referring to "Work and Well-being," its theme chapter, to which this commentary exlusively applies.
- "Decent work" refers to opportunities for work in conditions of freedom, equity, security, and human dignity.
- 3. Defined as those not in paid employment or self-employment.
- 4. Defined as those who had taken steps during the reference period to seek paid employment or self-employment.
- 5. This is referred to as "relaxing the seeking work criterion" [ICLS 1982].
- 6. Provided the person had not stopped looking for work more than six months prior to the survey [NSCB 2004].
- 7. Since there is no explanation of what this category consists of, the basis for its former inclusion among the unemployed seems unclear to begin with. Could it be that unemployment had been overestimated all along before April 2005 by more than can be accounted for by (1) and (2)? Otherwise, how does one explain now the wholesale exclusion of this category from the unemployed? Has everyone here been determined to be "unavailable for work"?
- 8. In applying the availability criterion, the 13th International Congress of Labor Statisticians [ICLS 1982] had in fact recommended sensitivity to national circumstances. This calls for referencing potential work opportunities in terms of compensation, working hours, occupation, location, and other job characteristics. The LFS questionnaire merely asks, "Had the opportunity for work existed last week or within two weeks, would __have been available?"
- 9. The follow-up question, "Is __ willing to take up work during the past week or within two weeks?" is also not likely to be informative since willingness to work depends on the context of the job opportunity.
- 10. As with GNP and GDP, a national and a domestic labor force.
- An alternative view is that insecurity can perform the function of an incentive device to elicit
 good work performance. If so, workers in insecure jobs will tend to have higher earnings
 on average.
- 12. The ISSP is "a continuing annual programme of cross-national collaboration on surveys covering topics important for social science research." [http://www.issp.org].
- 13. These statistics are gathered from large enterprises belonging to the Securities and Exchange Commission's list of top corporations.
- 14. In the Philippines, this is reckoned quarterly and an average for the entire year is reported. The same is done with the separation rate.
- The case studies included both casual and regular workers formerly employed in two garment firms in Metro Manila.

- 16. In a recent study [Sicat 2009], regulations on worker dismissals and minimum wages were found to be the most problematic for Philippine companies.
- 17. Prior to 2003, for instance, the LFS collected earnings, not wage, data which incorporated the effects of hours worked as well as any wage premium due to overtime.

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CHAPTER

9

Securing Food, Reducing Poverty: Opportunities, Constraints, and Policy Actions¹

Arsenio M. Balisacan

ABSTRACT

This paper takes an Asian perspective of the issues confronting Philippine agriculture. The sector faces enormous opportunities for income growth and poverty reduction from the rapidly changing food markets in Asia. However, the country's ability to seize these opportunities has been hampered by policy and governance constraints, thus, holding back Filipino farmers from taking advantage of these opportunities. The unwanted consequence is persistently high poverty and hunger in the midst of growing Asian prosperity. This paper outlines the basic reforms required to strengthen the contribution of agriculture and modernizing the supply chains in poverty reduction.

INTRODUCTION: EXPANDING OPPORTUNITIES FOR FILIPINO FARMERS

THE ONGOING RAPID structural transformation in Asia has brought about tremendous growth opportunities in the Asian region, including vast food markets for Filipino farmers. Several factors are contributing to these expanding opportunities. The first factor is the rapidly growing household incomes in Asian countries. In China, for example, income is doubling every eight years. In Indonesia and Thailand, this happens every 20 years; while in Vietnam it is 12 years. The rapid income growth in the countries of the region has caused agri-food markets to expand by 5-7 times bigger than those of countries belonging to the Organization for Economic Cooperation and Development (OECD). Unfortunately, for the Philippines, given the slow pace of economic growth in recent decades, it has taken 44 years to double income. The country cannot afford to miss the boat this time. The rapid growth of agri-food markets in the region offers a tremendous opportunity for income growth for Filipino farmers, just as it has done for their counterparts in Thailand, Indonesia, Vietnam, and China.

The second factor contributing to the expansion of growth opportunities for food markets is rapid urbanization. Urbanization brings with it changes in preferences, eating habits, and food demand. It also brings about rapid expansion of nonfarm employment opportunities for landless agricultural workers and family members of small farm households. In East Asia and the Pacific, urban population has grown from about 26 percent in 1980 to 48 percent today. In ASEAN-member countries, 75 percent of the food economy is in urban areas. This suggests rapid expansion of the demand for high-value crops and non-grain products, including fresh fruits, vegetables, and meat and fish. Filipino farmers can seize this growth opportunity, but only if the government can provide an enabling environment for investment and trade.

The third factor is diversification of food consumption as a result of income growth and urbanization effects. Per capita consumption of rice in Asian countries has grown over the years but is beginning to decline in Asia, as a whole. Similarly, the share of rice in the food consumption basket is declining and is seen to continue to decline in the coming years as prosperity continues to grow in the countries of the region. The decline of the share of rice in the consumption basket is an indication that preferences and food demand of the urban population are shifting away from traditional staples (rice for Filipinos) to high-value and varied commodities including processed food, fresh fruits and vegetables, and fish and meat products. Farmers who have the enabling environment to diversify away from traditional, low-value crops to high-value commodities and livestock can benefit from this market development.

The fourth factor that contributes to the expansion of growth opportunities is the rapid transformation in agri-food markets. The food supply and value chain is rapidly modernizing, both locally and globally. In virtually all the countries in the region, there has been a shift from largely public sector-oriented market developments to more

private sector-led investment, hence, the massive private investments in wholesale, retail, and processing. These shifters are pulling what is called the *supermarket revolution* (Reardon and Timmer 2007). The supermarkets are increasingly dominating the market scene in many of the countries and this development may be a boon or bane for the farmers, particularly small farmers, depending on how they position or find themselves in the game.

In the case of the Philippines, modern retailing has grown very rapidly from a \$1 billion-market a decade ago to a \$10 billion-market today. However, the medium and large farms appear to be the ones mainly benefiting from this development. In this modernizing supply chain, investors tend to favor medium and large farmers over small farmers, simply because transaction cost per unit of investment tends to be higher for small than for medium and large farms, especially where coordination and timeliness in post-harvest activities are crucial to quality preservation of the farm produce. However, this does not mean the lack of opportunities for small farmers to participate in the supply chain. We indicate below what needs to be done to get the small farmers become more active participants in—and benefit more from—the modernizing supply chain.

Broadly, the trend in Philippine agri-food market is changing. In the late 1990s, the top five grocers were growing at the rate of 16 percent per year. Today, the amount or volume accounted for by the top five grocers, including SM and Robinson, is growing at the rate of 26 percent a year (Romo, Digal, and Reardon2009). The influence of big supply chains in the operations of agri-food markets is expected to continue rapidly increasing in the coming years. This will dramatically change the way we understand agriculture and agricultural markets.

FAILURE TO SEIZE THE OPPORTUNITIES FOR POVERTY REDUCTION

Farmers in the major emerging ASEAN member countries of Vietnam, Indonesia, and Thailand have benefitted enormously from the modernization of supply chains, both local and global, and from the trade opportunities arising from the rapid expansion of agri-food markets in Asia. Together with sustained growth of employment opportunities in nonfarm sectors of the economy, particularly in industry, this development in the agri-food markets has resulted in rapid reduction of poverty, particularly in rural areas. In Vietnam, Indonesia, and China, based on the World Bank's poverty line of \$1.25 (in PPP-purchasing power parity) a day, the proportion of the population deemed "absolute poor" declined rapidly in the 1990s and the first decade of the present millennium (see Figure 1). Earlier, in the 1970s and 1980s, the same rapid decline was seen in Malaysia and Thailand.

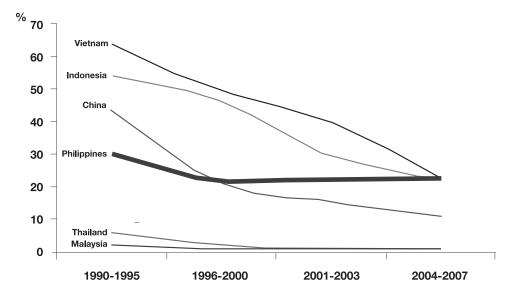


Figure 1. Poverty reduction in select Asian countries

Notes: Estimates refer to the proportion of population with income per capita below US\$1.25 a day (in PPP). Figures for Indonesia are approximations from urban/rural estimates.

Sources: PovcalNet – World Bank; Chen and Ravallion (2008) for China estimates; Badan Pusat Statistik for urban and rural population ratios.

The poverty trend in the Philippines is another story. The country's incidence of absolute poverty in the early 1990s was much lower than those for China, Indonesia, and Vietnam. However, the country made virtually no progress in poverty reduction in the subsequent years, particularly in the first decade of the new millennium. The decade saw the poverty situation in the Philippines to be quite unresponsive to the rapid growth of incomes and opportunities in the East and Southeast Asian region.

The period also saw the country's economic growth to be quite considerable, averaging 4.7 percent a year, albeit not as dramatically high as its neighbors. Beyond income, one sees the same trend in other areas of human deprivation. The incidence of households experiencing hunger was rising or tending to rise as the economy grew in the 2000s (SWS 2012). Elsewhere in most Asian countries, hunger, malnutrition, and illiteracy declined during the period. Why the growth did not translate to absolute poverty reduction is a puzzle to students of Philippine development, although recent research has been peering into this conundrum (Balisacan 2007; Balisacan et. al 2009). The next section discusses some strands of the literature pointing to the key policy and institutional issues that shape the capacity of the country to seize opportunities for growth and poverty reduction.

KEY POLICY AND GOVERNANCE CONSTRAINTS

What are the key constraints to growth and poverty reduction that need to be addressed so that the country can achieve inclusive development, thereby also joining the shared prosperity of its neighbors? One that stands out is the relatively high cost of doing business in the Philippines, which has stifled investments, especially in sectors that have potentials for decent, productive and remunerative jobs. This stems from two basic sources – the country's weak institutions and the poor quality of its infrastructure, particularly transport.

Based on the Global Competitiveness Report 2011-2012, the Philippines ranked near the bottom (out of 139 countries) both in terms of quality of institutions (125th) and quality of infrastructure (104th). In contrast, East Asian countries, which have done well in poverty reduction, ranked much higher. Even China, a socialist country, was ranked 49th and 50th in quality of institutions and infrastructure, respectively. Of the various factors, the most problematic ones for the Philippines pertain to corruption in public institutions, inefficiency of government bureaucracy, and inadequacy of infrastructure. Investors, domestic or foreign, see the Philippines from this lens.

For farmers, these inefficiencies would translate to high post-harvest losses, large differentials between retail (consumer) prices and farmgate (producer) prices, i.e., transaction cost, and low access to income-enhancing opportunities toward diversification of farm household income. For example, due partly to poor infrastructure, farmers cannot connect efficiently to the supply and value chains, including export markets. Thus, they are missing the huge opportunities for income growth from the rapidly expanding markets for high-value crops in rapidly growing and urbanizing centers of Asia.

In terms of infrastructure, the Philippines has performed poorly in the provision of roads, railways, seaports, airports, power, and communication. This poor infrastructure connectivity has created high transaction costs and lack of spatial integration in the country wherein the regions/provinces are segmented into two: rapidly growing regions and poorly lagging regions. The consequence is deepening pockets of poverty where some provinces have much higher absolute poverty than others.

In contrast, in situations where the provinces are efficiently connected, and where investment in human development, particularly health and education, is location-neutral, then even households in lagging provinces would benefit from the growth in leading provinces. That is, while concentration of production activities in certain regions, provinces, or centers is inevitable--and perhaps even desirable--owing possibly to high agglomeration (scale) economies, efficient connectivity through infrastructure and human development would allow equitable distribution of welfare (opportunities) across households, regardless of economic density and geographic distance from growth centers.

The quest for equalization of household welfare and opportunities in a setting where production activities are spatially concentrated highlights another key aspect of Philippine development pattern: the high inequity in access to social services and assets especially in education, health, and land. For one, there is a large gap in access to certain social services, for instance, as basic as clean water, between the bottom 25 percent and the top 25 percent of the population (see Figure 2).

Household assets
Shelter

Basic education

Water

0% 20% 40% 60% 80% 100%

Itop 25 bottom 25

Figure 2. Access to social services and assets, bottom 25% (poorest) vs. top 25% (richest)

Note: Author's estimates based on the 2009 FIES.

To be sure, inequity in access to social services is ubiquitous in the developing world, even in Southeast Asian neighbors, particularly Indonesia, Thailand, and Vietnam where, as noted above, economic growth in recent decades has been accompanied by a near eradication of abject poverty. However, this inequity is far more remarkable in the Philippines than in other East Asian countries. The high inequity in access to social services, especially health and education, is likewise very evident across regions or provinces, or between urban and rural areas. But even within rural areas, huge disparity in access to social services is the norm. Indeed, it is this inequality within geographic areas that accounts for about three-fourths of the overall inequality in the distribution of welfare across households; inequality between these areas accounts for the remaining one-fourth of the overall inequality (Balisacan 2007).

Expectedly, given connectivity inefficiency, the state of poverty and inequality varies substantially across provinces. Poverty and health deprivation indicators in the Ilocos provinces (Ilocos Norte, Ilocos Sur, La Union and Pangasinan) are comparatively low, even though average per capita incomes in these provinces are not as high as those in Southern Luzon and Central Luzon provinces. The Ilocos provinces have relatively low levels of income (and land) inequality. A partial explanation for this is the absence of plantations or haciendas that dominate the rural settings in the Visayas.

The government's direct response to these inequities has taken various forms, including asset reforms and cash transfers intended for the poor. However, in the past two decades, every major poverty-reduction program has been either poorly designed or, if reasonably designed, badly implemented. As such, the programs have been grossly ineffective in achieving their goals and have become very costly from a fiscal viewpoint. The high leakage of the program benefits to the unintended groups could have actually contributed to the gnawing inequality. As compiled by the World Bank (2010), among the programs with high leakage included the *Pantawid Kuryente* Program, which had a leakage rate of about 72 percent; DepEd's "Food-for-School Program", 59-62 percent; *Tulong para kay Lolo at Lola* Program, which was implemented during the 2008 global financial crisis, 61 percent; Philhealth Indigent Program, 50 percent; and NFA rice price subsidy, 41 percent.

The country's ineffective and costly food policy is another constraint. This policy, as indicated in various Philippine Development Plans, has multiple objectives-- achieve food security, increase incomes of small farmers, protect poor consumers from high prices, and raise productivity to enhance farming's contribution to economic growth and development. In practice, the policy is focused largely on rice and it involves buying rice from producers at high prices and selling to consumers, especially in urban areas, at low prices.

The other goal of the policy is to achieve national self-sufficiency in this staple. Implementing this policy is the National Food Authority, an attached agency of the Department of Agriculture. To effect the policy, NFA is accorded with virtual monopoly in rice importation, regulates domestic rice trade, and is provided subsidy outlay by the National Government for its "buy high, sell low" operations. The policy has effectively raised both consumer and producer prices above world prices at comparable points in the marketing chain. Despite the subsidy, consumer prices were about 40 percent higher than comparable border prices, hurting consumers, especially the poorest 30 percent of the population whose rice expenditure accounts for about one-fourth of their food expenditures. Although the policy has been somewhat successful in stabilizing the retail price of rice (albeit at a level higher than comparable border price), especially in major urban areas (particularly Metro Manila), this has not been so in the case of farm prices.

The uncertainty faced by the private sector in the food market arising from NFA's import operations (e.g., unexpected arrival of rice imports during harvest months) has created greater, not less, volatility in farm prices (Balisacan, Sebastian and Associates 2006; Balisacan, Sombilla, and Dikitanan 2010). Worse, this uncertainty has bred corruption and discouraged private investments in storage and distribution facilities. The policy has proven to be a costly way of securing availability of rice at the national level and providing income transfers to the poor. In recent years, for every peso given to the poor, the government spent about two pesos (Roumasset 2000).

In the meantime, NFA accumulated a huge debt of over Php170 billion by 2010. Annually, the National Government provides budgetary outlay to NFA to partially cover the debt. This outlay usually represents the single largest item in the total government spending for agriculture (David, Intal and Balisacan 2009).

In contrast, compared to the country's budget for rice R&D, the government spent less than a billion pesos a year. Ample evidence shows the social returns to agricultural R&D, including rice R&D, are usually high, exceeding over 30 percent. It is difficult to find other public programs and projects that would yield better returns than those for agricultural R&D. Yet, in its pursuit of rice self-sufficiency, the government has not accorded R&D investment a high priority.

Another key constraint to rural development is the ineffective and costly asset reform program. In order to address the high inequity in the countryside, the government has been pursuing asset reform programs over the last four decades. Of these programs, the most far-reaching was the Comprehensive Agrarian Reform Program (CARP), including its mutation, the CARP Extension with Reforms (CARPer). The government spent a huge amount of money for CARP, which is estimated at Php236 billion (in 2007 prices). This amount is equivalent to 20 percent of the total government spending on agriculture for the period 1988-2007. The extension of the land reform for another five years under CARPer is expected to incur an outlay of another Php150 billion. To appreciate the magnitude involved, a major flyover, similar to that in Quezon Avenue and EDSA, is worth about Php1 billion. With Php236 billion, the government could have populated Metro Manila and neighboring areas with additional 200-plus flyovers!

What has been the impact of CARP/CARPer? Findings of studies that have examined the issue from the lens of science-based impact evaluation are not encouraging. Using the most comprehensive data set involving national agriculture and population censuses, nationally representative surveys of family incomes and expenditures, labor force surveys, and administrative records from implementing agencies, Balisacan et al. 2011 have shown that the changes in household incomes of farmer beneficiaries in agrarian reform communities (ARCs) are not significantly different from the changes observed for comparable farmer households in non-ARCs, all other things being equal (see Figure 3). The change in poverty incidence observed for ARCs is also not any different from that for non-ARCs. In short, despite the huge spending for CARP over the past two decades, the program has not much to show in terms of improvement in household welfare in rural areas.

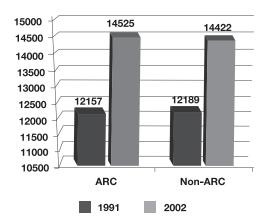


Figure 3. Changes in the average farm income of ARC and Non-ARC beneficiaries

Source: World Bank, 2009.

What has gone wrong? Although the CARP has good intentions, its design was poorly conceived, largely because of its grossly inadequate understanding of rural development dynamics and the political economy of asset reform in a regime of weak governance. For one, the CARP provisions were very restrictive, especially on transferability of land titles. The restriction prevented the awarded land from being used as collateral, rendering the certificate of land ownership awards (CLOAs) not bankable. This has effectively curtailed farmers' access to credit. Worse, the traditional line of access to credit was destroyed in the process by the program.

Further, the common mode of ownership transfer was collective titles, not individual titles. What matters most to formal financial intermediaries are individual, unencumbered titles, not collective titles. Disturbingly, about 71 percent or about two million hectares of the total land distributed under the agrarian reform program were actually under collective ownership arrangement (see Table 1). It is probable that the two million hectares have remained unproductive all these years because those lands do not carry much weight in credit access, i.e., those lands lack or have low collateral value. But even if those lands have collateral value, farmer beneficiaries are likely to be severely constrained from choosing production arrangements, crops, or technologies that suit their particular conditions or circumstances. For example, a farmer with sufficient farming experience and skills may be better off as an individual farm operator rather as part of a collective production arrangement.

Type of title	No. of titles	%	Area (ha)	%
Individual	693,969	79	850,201	29
Collective	180,749	21	2,082,765	71
Total	874,718	100	2,932,967	100

Table 1. Land titles distributed under CARP/CARPer

Source: World Bank, 2009.

IS AGRICULTURE STILL THE ENGINE TO POVERTY REDUCTION?

Around the world, particularly in East Asia, the relative importance of agriculture in national income, employment, and poverty reduction is rapidly declining. This is an empirical regularity: As development proceeds, that is, as per capita incomes rise, both supply and demand factors cause the industrial and services sectors of the economy to grow faster than the agricultural sector, thereby leading to the relative decline of agriculture in the national economy. Invariably, in the fast emerging economies of Asia, this structural transformation has also been accompanied by substantial poverty reduction.

China's experience in the 1980s and 1990s (and even today) is illustrative of the poverty-reducing effects of structural transformation. Not only did the agriculture sector decline sharply in relative importance, the country also had very rapid poverty reduction, especially in agriculture and rural areas. About 600 million people were lifted out of poverty in the past three decades. The country was the single largest contributor to the global poverty reduction achieved in the last quarter century. Behind its success was the dynamic interplay of rapid agricultural production growth fuelled by productivity improvements, especially in the food sector, and even more rapid nonagricultural income growth induced mainly by massive off-farm investments in industry and labor-intensive exports. This has tremendously transformed the sources of household incomes even among farming households. In the early 1980s, about 80 percent of the income of Chinese farm households came from agriculture. By late 2000s, only about 40 percent of household incomes were derived from the sector. (The same pattern, though at a slower rate, can be observed in the development experience of Thailand, Vietnam, and Indonesia.)

As noted above, poverty reduction has varied remarkably across the Philippine regions and provinces. Part of the variation has to do with the pace of local income growth, broadly suggesting, as in national and global contexts, that income growth is a necessary prerequisite for poverty reduction. But the source of growth matters to local poverty reduction. For the country's 77 provinces, poverty reduction tended to be the norm whenever nonagricultural income was growing faster than agricultural income (see Table 2). This was true not only in urban areas but also in rural areas. However, this

does not suggest that agricultural growth is, at this stage of the country's development, inconsequential to local poverty reduction. On the contrary, under certain conditions, agriculture matters and will continue to matter for poverty reduction. A number of provinces achieved poverty reduction in a regime where agricultural income grew faster than non-agricultural income. The response of poverty to sectoral growth, whether agricultural or non-agricultural, depends on a number of factors that could vary from one area to another.

Table 2. Growth of agricultural income vs. non-agricultural income

Number of provinces (ΔFIES '06-'88)	∆ag income > ∆non-ag income	∆ag income ∢∆non-ag income
Urban (excluding 5 provinces)		
Poverty reduction	5	43
Poverty increase	9	11
Rural (excluding Metro Manila)		
Poverty reduction	4	46
Poverty increase	7	15

Source: Fuwa, Balisacan, and Bresciani 2011.

An in-depth examination of the factors influencing the response (elasticity) of poverty reduction to income growth reveals that the factors operating for the agricultural sector are quite different from those for the non-agricultural sector (Table 3). For the former, the elasticity tends to be higher in areas where agricultural productivity potential, based on geo-physical endowments, is high, and urbanization is relatively low. What this suggests is that agricultural development remains to have high potential as driver of poverty reduction in areas with high potential for agricultural productivity growth (e.g., high potential for irrigation development, such as relatively flat landscapes), as well as in relatively "more rural" (remote, less commercialized) areas. For example, Ilocos provinces, given their comparatively low asset inequality and location far away from industrializing or urbanizing centers, agriculture is likely still a key driver for their poverty reduction. As noted below, this will be even more so if the access of these provinces to national road network is much improved so that the sector is linked efficiently to major markets for farm produce, including exports.

For the non-agricultural sector, the response tends to be influenced by the initial levels of income (asset) inequality, human capital, and infrastructure development. High land inequality, such as in Negros provinces, weakens the capacity of non-farm income growth to serve as key driver to poverty reduction. High level of human capital favors non-farm development and this in turn favors faster poverty reduction. Rapidly developing areas tend to have good infrastructure, reducing transaction costs and facilitating agglomeration economies.

Table 3. Initial conditions affecting the sectoral growth elasticity of poverty reduction (Provincial panel data, 1991-2006; fixed effects model).

Dependent variable = ln(Provincial poverty_{ir})

Variable	Coeff	Std Err			
Ln(non-ag Y per capita)	-1.670***	0.358			
Ln(agri Yper hectare)	-0.230***	0.083			
Time trend (year)	-0.010***	0.003			
Ln (non-ag income) interacted w/ initial conditions of 1991					
OFW share	-0.501***	0.116			
Malnutrition	6.309***	2.122			
Road density	-0.372***	0.134			
Income inequality	1.877**	0.846			
Ln (ag income) interacted w/ initial conditions of 1991					
Irrigation potential	-0.674**	0.312			
Rice yield	-0.289**	0.075			
Constant	27.745***	6.324			
Number of obs.	402	·			
R-squared	0.550				
F-test (all coefficients zero)	39.116				

Note: Other provincial fixed effects that are not statistically significant are not shown. These variables include local political characteristics, urban-rural disparity, and schooling of household head.

Source: Fuwa, Balisacan, and Bresciani 2009.

The type of infrastructure development influences the response of poverty to income growth. In another study examining the impact of infrastructure on agricultural/non-agricultural income growth, Balisacan et al. (2011) find that investing in local roads is likely to facilitate rural non-farm growth, while investing in national roads is likely to reinforce agricultural growth by providing greater access to markets, including export markets, for agricultural produce. Thus, investing in national road networks does not appear likely to lead to rural industrialization, but rather to farther agglomeration (urbanization), while investing in local road networks could facilitate rural-non farm sector development (and may well mitigate urban congestion).

CONCLUDING REMARKS

The generation of decent, remunerative jobs requires nothing less than robust investment growth in productive sectors of the economy, especially in agriculture and manufacturing. To lift investment to higher levels, the investment climate in the Philippines has to be substantially improved. This involves reducing the cost of doing business by massively developing public infrastructure (particularly power and

transport), reforming inefficient regulatory processes and policies, and maintaining sound macroeconomic fundamentals (stable and low inflation, sustainable fiscal and external deficits). While the relative importance of agriculture in national income and employment has continued to decline, and while non-agricultural income growth has increasingly become the key driver of poverty reduction, agricultural development remains a powerful agent for poverty reduction in many areas of the country. The power of agricultural income growth to deliver poverty reduction is expected to remain strong in areas where the geo-physical conditions favor high potential for agricultural productivity growth, such as in relatively flat landscapes with high potential for irrigation development, and in relatively "more rural"--remote, less commercialized--areas. Given sufficient connectivity infrastructure, these areas can benefit from the rapidly growing food markets in the country's fast-urbanizing centers, or in rapidly transforming emerging economies, including those in the country's ASEAN neighbors.

The aim of food policy should be to achieve inclusive access to food while generating long-term sources of productivity and income growth. This would need reorienting food-security policy toward facilitating--not inhibiting--trade, competition, and crop diversification. The current "buy high, sell low" policy does not advance inclusive access to food, even among the poorest groups of the population. Neither is the "rice self-sufficiency" objective consistent with the goal of generating long-term sources of productivity and income growth in rural areas. The better alternative is to shift the composition of agriculture budget from input/output subsides (as instruments to achieve self-sufficiency) to efficiency-enhancing investments, such as R&D (to develop technologies appropriate for local conditions), road network development, irrigation and flood control development, conditional cash transfers for the human capital formation of poor farm households, and complete conversion of collective CLOAs to individual titles to enhance credit flows to agriculture.

The Aquino administration has the window of opportunity to get food and agriculture policy right this time. With President Aquino's high political capital, it should be possible to achieve genuine reforms that move the country to a rapid but sustained and inclusive growth trajectory, thereby winning with finality the war on abject poverty.

ENDNOTES

 This paper was originally prepared for the 48th Biennial Convention of the Philippine Agricultural Economics and Development Association at the Mariano Marcos State University in Batac, Ilocos Norte, on 20 October 2011. Since May 2012, Professor Balisacan has been serving as Secretary of Socioeconomic Planning and Director-General of the National Economic and Development Authority

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