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THE ECONOMY OF PUERTO RICO: RESTORING GROWTH

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PANEL ONE: Economic Growth in Puerto Rico

**Moderator:**

MIGUEL SOTO-CLASS

Center for the New Economy

**Presenter:**

SUSAN COLLINS

The Brookings Institution & Georgetown University

PANEL TWO: Why is Employment so Low?

**Moderator:**

WILLIAM DICKENS

The Brookings Institution

**Panelists:**

MARIA ENCHAUTEGUI

University of Puerto Rico

STEVEN DAVIS

University of Chicago and American Enterprise Institute

PANEL THREE: Options for Restoring Growth

**Moderator:**

FRANCISCO URIARTE

Center for the New Economy

**Presenter:**

BARRY BOSWORTH

The Brookings Institution

## P R O C E E D I N G S

MR. BOSWORTH: Good morning, my name is Barry Bosworth of the Brookings Institution, and I'd like to welcome you to this small conference this morning upon completion of this book on Puerto Rico. That was a joint project both of the Brookings Institution here in Washington and the Center for New Economy in San Juan, Puerto Rico.

We're going to try to have a discussion basically about three parts of the book. We're not going to try to go over the whole thing. So, we want to have three sessions. The first one will be sort of an overview of the economic growth experience of Puerto Rico and sort of where it stands today. Then we thought a primary topic to focus on is the employment situation in Puerto Rico and the various dimensions of it from both the demand and the supply side of the labor market. And then, third, the last session we'll talk about some policy options and ideas about what Puerto Rico could do to improve its situation.

So, I think with that short introduction, I'll introduce Mike Soto, who is the director of the Center for the New Economy in Puerto Rico. I think he has some introductory remarks he'd like to make, and he's going to chair the first session, and we'll get going.

Thank you very much.

MR. SOTO: Good morning. It's a great pleasure for me to be here and to welcome you today. As many of you know, this has been a three-year project that we have undertaken with the Brookings Institution. So, when I say that it's a great pleasure to be here, I really mean it. It's been a long time and a lot of effort during these last three years, but it's been a great experience, and I think

the product that we have is fantastic and will be very influential.

There is a -- many of you may not know that there is a -- that Brookings actually did a book on Puerto Rico in 1930. I was just showing it to the director of the press here, and actually we didn't know about it until we started doing this book but a friend showed it to me, and as it turns out, this book had a lot of proposals that were the ones that were followed during the economic growth period for Puerto Rico, and we hope that the new book will be just as influential as this one was back then.

And, I always like to read a couple of lines from the introduction to this old book, because it's very interesting, and I think you'll realize why when you hear them. It says, "Puerto Rico presents two problems to her own people and to the federal government. The first is economic -- how to raise the incomes and the standards of living of her people to something approaching a parity with those prevailing in the continental U.S. The second is political -- how to establish mutually satisfactory public relations between the island and the mainland." And so you see, after 75 years we are in a very similar situation today. And so it is with great pleasure that we have undertaken this project.

What you have with you today is actually a summary of the book. It turned out that after three years we have such a large volume that we decided to publish an executive summary version of the book, which we will also be translating and publishing in Spanish, and we'll be presenting the book in various places. We were in Congress yesterday for a brief presentation of the book. We're here today. We're going to be in New York in July; in Boston next semester. We will be presenting in Puerto Rico all through the year, first at the

end of June with an initial conference, and then each chapter will be presented individually during 2006 and early 2007.

So, I'd like to introduce to you now, for our first panel, "Economic Growth in Puerto Rico," Susan Collins. She's a senior fellow in economic studies here at Brookings and a professor of economics at Georgetown University. Her area of expertise is international economics. Her research interests center on exchange rate regimes in developed and developing economics and determinants of economic growth and issues raised by increasing cross-national economic integration. She is one of the editors of the much anticipated *Puerto Rico Restoring Growth*. Her professional activities are the following: She serves as a member of the American Economics Association Executive Committee. She's part of the editorial board of the *World Bank Research Observer* and part of the advisory editorial staff of *Economic Letters*. She's also a research associate at the National Bureau of Economic Research. Prior to these positions, Dr. Collins was an associate professor of economics at Harvard. She served as senior staff economist on the President's Council of Economic Advisors during 1989 to 1990, and she received her B.A. *summa cum laude* in economics from Harvard and her Ph.D. from MIT.

So, I welcome you, Susan.

DR. COLLINS: Mike, thank you for that very nice introduction. It is indeed a pleasure to be here. This is a project that I have greatly enjoyed working on, and I am very pleased to have the opportunity to be able to present some of the highlights of it to you here today.

I have the task of doing two things. One of them is, in some ways,

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setting the stage for the presentations to follow, and the second is talking about the issues of economic growth, which are really what motivated us to undertake this study. And so much of the substance of what I will be talking about comes from the second chapter of the book, which is summarized in the monograph and is detailed in the longer chapter, which will appear in June.

Puerto Rico is an extremely interesting economy for a variety of reasons. As you well know, it is about a thousand miles southeast of Miami. Physically it's about the size of Ireland, and as we will come back to later on in the discussion, we think Ireland is actually a very relevant comparison, because it is exactly that kind of a dynamic growth economy that we think that Puerto Rico can and should be able to achieve.

Puerto Rico has a citizenship just about 3.8 million, just under 4 million, and that means that it is as densely populated as New Jersey, which is the most populous, most densely populated U.S. state. Its residents have been U.S. citizens since 1917, and there are nearly as many people of Puerto Rican descent on the mainland as in Puerto Rico, so there's clearly a lot of connection between them. And for that and other reasons, Puerto Rico has one of the world's most open economies. There's clearly a free flow of goods and service trade; there's a free flow of capital. But also, which is quite unusual in many ways, its citizens can freely move to the mainland to work. And, as I'll come back to later on, that, we think, makes a Puerto Rico a great interest, not just to people of Puerto Rican descent and to U.S. citizens, but also more broadly to people interested in the international community about what the issues are for a peripheral economy to a large, vibrant mainland, and so we argue actually in the

study that the analysis and the implications of Puerto Rico's experience should be of quite broad interest.

In terms of Puerto Rico's economy, we argue that it should be seen as a glass that is half full. There are a great number of significant achievements that one could point to. In particular, Puerto Rico has been able to increase its per capita income so that it has the highest standard of living in the Latin American region. It has also had a significant increase in educational attainment, increasing the average years of schooling of its population to over 12 years by 2000, which is comparable to many, many OECD industrial countries. It's still somewhat below the U.S. mainland, which is about 13½ years, but that's really a remarkable achievement. Puerto Rico has been able to substantially increase the educational levels of its population.

But, as I said earlier, Puerto Ricans are U.S. citizens, and we argue that the appropriate benchmark is really the U.S. mainland, and there things do not look quite so rosy. To highlight a couple of the concerns, Puerto Rico's per-capita income is just a third of the mainland average and is actually only half of the per-capita income of the poorest U.S. state. Half of Puerto Rican residents live below the U.S. poverty line, and the numbers are more striking if you focus on children.

More concerning, the very impressive experience that I will come back to in just a few minutes in the 1950-'75 period has really stalled, and so the progress in catching up with the mainland has faltered, and that's really what the motivation for a lot of the analysis in this chapter is.

One way to think about the main points I would like to make here

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is to focus on this chart. What this chart does is it compares Puerto Rico's economic performance with that of the U.S. mainland. The top line that you see is a measure of Puerto Rico's GDP per worker relative to that on the mainland. You can think of GDP per worker as a measure of labor productivity.

As you see, from 1950 to the mid'1970s, Puerto Rico was able to make a very impressive achievement of increasing GDP per worker from about 30 percent of the U.S. mainland level to about 70 percent, and that really is an extremely impressive achievement. The problem is that as you see since the 1970s it's gotten stopped, and so one of the issues is why is it that Puerto Rico's labor productivity has not continued to increase at that dramatic rate? What are the differences between those two time periods?

The second line that's on that chart, which says GNI per capita, is a measure of gross national income per capita, and essentially what that line shows is a much more concerning set of developments. It's a measure of the income that accrues to those in Puerto Rico on average per person living there, and so it's a measure of living standards of Puerto Ricans. And, as you see, that increased from about 20 percent in 1950, peaking at about 40 percent in the early 1970s and since then has actually declined. And, again, these are percentages relative to the U.S. mainland. So, it's not that living standards have declined but relative to the mainland the gap is widening.

And so that raises a second set of issues. Why is it that the living standards are -- that gap is growing compared to the mainland, and why is there such a big discrepancy between the value of what's produced in Puerto Rico and the income that is actually enjoyed by its citizens?



Well, one way to think about that -- and that's actually the main set of issues that I want to address in my comments this morning -- one way to think about that is to focus on the components that differentiate GDP per worker and income per capita. As you see in this chart here, GDP per worker, as I've already said, went from about 30 percent of the U.S. level to 70 percent over this time period, whereas the income per capita only increased from about 20 percent to 30 percent. Why such a big difference?

Well, the three components that we focus on here are, first, demographics -- and let me take that one up first. Countries can have very different age distributions, and, in particular, in 1950 Puerto Rico had a much younger population than the mainland, and what that meant is that the share of its population of working age was considerably smaller, and that of course is going to imply a gap between the value of output per worker and the amount of income that is around to be shared by all of the populace. But, in fact, there was a substantial decline in fertility rates in Puerto Rico, and that age distribution has converged dramatically towards that on the mainland, and what you see is that by 2004, the demographic effect was basically awash. The demographic effect was not contributing to this discrepancy between GDP per worker and income per capita.

The second piece of our decomposition looks at the share of those of working age who are actually working, and there you see that the developments between 1950 and 2004 actually went in the opposite direction, dramatically offsetting the effect of the convergence on the demographic side, and in particular, by 2004, only about two-thirds as many -- two-thirds, the proportion

of working age Puerto Ricans -- actually had jobs as the share of working age individuals on the mainland.

And so that highlights one of the issues that in fact almost all of the authors in our study focused on to varying degrees and which you will hear quite a bit more about this morning, and that is this very concerning low rate of employment in Puerto Rico. I have a little bit more to say about it, but in the next session you will hear quite a bit more about it, more elaboration.

The third piece is something that I've already alerted you to, and that is this dramatic change in the relationship between the income that accrues to Puerto Ricans and the value of production. And so you see that the GNI relative to GDP -- they were quite comparable in 1950, but by 2004 gross national income was only about two-thirds the level of GDP.

And so those are the different components that the decomposition identifies.

Let's look at those in a little bit more detail. In the study we identify four particular problems. I'm going to spend most of my discussion talking about the top two of them, and I'll say a little bit about the third one as well.

Those four problems are, first of all, the implications of distortionary taxes, which as you'll see helps to explain much of the gap between GDP and gross national income, and I will come back to that point in a moment.

Second of all, the issue of labor productivity, which we will link in particular to investment as one of the key reasons why that labor productivity growth faltered.

And then -- the low employment, and then of course there are some fiscal difficulties, which we will return to you in the third session, which talks about policy options for the future.

Okay, what about these tax implications then? The issue to focus on here is the implications of section 936 of the Tax Act. These are provisions that have been enforced, or were enforced in Puerto Rico, for roughly 30 years. They were recently phased out and were totally eliminated by 2005, but they have left a very important legacy, and let me try to explain something that we go through in much more detail in a longer chapter:

Why is it that these tax provisions have such a dramatic effect? The way to think about is essentially these provisions provided U.S. firms with tax credits that essentially meant that it was possible for them to produce in Puerto Rico at extremely low, basically zero tax rates, and that provided very strong incentives for U.S. firms to set up operations in Puerto Rico and to produce there. A large number of -- a number of companies did that and have thrived. In particular, many of them are in the pharmaceutical industry, and let me focus on pharmaceuticals as an example here.

So, what are the incentives that are implied? Well, if you think about an industry like pharmaceuticals, there is quite a bit of research and development that is involved in the whole production process, and pharmaceutical firms have incentives to report the costs of that input of that research and development in the location which is high tax -- in other words, on the U.S. mainland -- but to report the value of the production of the results of that research and development, and that is drugs which have been extremely successful, such as

Viagra, which is produced in Puerto Rico, and a variety of other products as well -- to report the value of those products in Puerto Rico where taxes are essentially zero. And essentially the implication of that is that the official statistics, the reported measures of Puerto Rican production, substantially overstate the actual value added in production, because the Puerto Rican firms are not actually being charged the true value of that research and development of the mainland patents that they are implicitly importing, okay? And so essentially that's the way that works. It's not illegal. But it implies that there is a major tax shifting and that the measures of GDP that are officially reported are substantially overstated.

And we do a variety of estimates -- two estimates in particular -- in the longer study to try to adjust the data to levels that we think are more likely to be accurate, and our preferred estimate suggests that the measure of Puerto Rican output -manufacturing output -- is probably too high by a level of about 60 or 70 percent, and the overall GDP is perhaps being overestimated by roughly by 17 percent. I think we say roughly 20 percent in the slide.

And so it is those adjusted figures that we use in the remainder of the points that I'm going to focus on now. So, those have a couple of implications. One is in terms of the official statistics, and there are some measurement issues that we go into in addition in the longer study, but they also are, we think, the primary -- or we show -- the primary reason for that big and growing discrepancy between the GDP measures -- the measure value of production in Puerto Rico -- and the income that is actually accruing to Puerto Ricans, because, in fact, a large share of the value of production reported in Puerto Rico is actually being transferred out of Puerto Rico and really is not

accruing to Puerto Rican citizens.

There are other implications of this experience, as well, as one of them is that the firms that located in Puerto Rico have not in fact developed the kinds of extensive local linkages that one might hope for, which could provide a base for developing a dynamic, vibrant, local private sector. For a variety of reasons, including some of the prescriptions that the Puerto Rican government introduced in terms of giving those firms credit for who they actually hired in Puerto Rico and not for the broader employment that generated by contracting out, there were few incentives for them to do so, and that has left a large number of firms which, in some ways, are peripheral to a lot of the rest of the economic development.

There are other aspects that one could discuss, too, but that is one of the issues that we focus on in this chapter.

A second is to try to understand better the reasons for that slow-down in labor productivity growth that I highlighted before. We undertake a growth accounting exercise, and what that does is it decomposes the increase in output per worker into a couple of pieces. In particular, how much of that can be attributed to increases in the amount of physical capital available for workers to use in production, so that is tools, structures, all of that physical capital. How much of it can be attributed to changes in the average educational level for capital, which is the human capital piece. And then how much is left over, and that leftover residual piece is called total factor productivity, and the way to think about is that it's a measure of the efficiency with which the factors are used in production. So, how efficiently are the capital labor and education actually being

used to produce goods and services?

What we've done in this table here is to divide Puerto Rico's experience into two periods. First, the period from 1950 to 1975, and there you see the growth and output per worker was over 5 percent per year. A very impressive performance over that 25-year time period. A substantial part, over half of that can be attributed to the contributions of increased capital per worker. There is also, by international standards, a substantial contribution of that increased educational attainment that I mentioned earlier. By international standards, a contribution of 7/10ths of a percentage point per year over a 25-year time period is really quite large. And then there was also substantial increase in the efficiency of factor usage.

But, as you see, after 1975 things really deteriorated, and the average increase in output per worker using the adjusted data is just over 1 percent per year. All of the different components declined, but the largest decline is clearly in the increase in the capital available for workers to use. Now, part of that is because actually employment did increase a little bit, somewhat more during that time period, but a bigger piece of that is what happened to the investment, and as you see in that chart, investment rates in Puerto Rico fell dramatically in the 1970s. They recovered somewhat since but are still well below the levels that were attained earlier.

Most of the decline in that investment is a decline in business or private sector investment, and one would expect that development of a vibrant, dynamic, domestic, local private sector would also contribute to pulling up that private investment rate, and so a lot of these pieces we see as very closely

interconnected with each other.

At its current investment rates of just about 15 percent per year, our calculations suggest that that is only high enough to really support over the longer term growth rates in the range of 2½ percent per year, which are simply not high enough for Puerto Rico to be able close its income gap with the mainland. So, higher investment is clearly an important part of the story.

A second issue that I've already mentioned but will be elaborated in much more detail in the second session is that Puerto Rico has what one of our authors -- in fact, an author who you'll be hearing more from later on -- it has an employment shortfall of stunning dimensions. The employment rates are really surprisingly low.

The piece that I want to focus on in terms of growth and per capita income, which has been my focus this morning, is that if Puerto Rico were able to close that employment gap, so that they had the same share of working age population actually working, as on the mainland, per capita income on the island would rise by 50 percent assuming that those additional workers were able to earn the same average wages. And that's a really dramatic increase and highlights why the employment issue is so central to our policy options focus later on.

We'll talk more about that. So, let me just highlight the issues that -- let me just highlight the issues that I have covered in my remarks this morning. There really are three of them, and I focus on them in this slide by pulling them together in terms of the key things that went wrong between the earlier time period in which Puerto Rico was really growing impressively and the stagnation relative to the mainland more recently.

The three things are the labor productivity growth stopping in terms of catching up with the mainland -- and here we've highlighted the private investment concern, which again points attention to private sector development issues.

A second is this large and growing share of income earned in Puerto Rico that's transferred out of Puerto Rico, and a lot of that has come as a result of the distortionary tax implications from Section 936, which as been phased out but has left a very important legacy.

And, finally, the employment rate issues, which I have already alluded to and which you will hear more about.

And so I'm going to stop there with just two final remarks. One is that my job has been really to focus on what went wrong and how to understand the growth experience. In some ways that of course begs the issue of what to do about it, and that is the focus of the third session this morning. And so hopefully I have set the stage for the discussion in the second session, which will focus more on employment issues and private sector development and the policy option session that will follow that.

Again, I just would like to finally remind you of the issues that I raise, which is just why Puerto Rico is such an interesting economy to look at. I mean, certainly people of Puerto Rican descent are concerned about raising the growth rates and continuing to narrow the gap with the mainland. U.S. residents - U.S. citizens should all be concerned about a significant share of their populace, which has such a large fraction living below the poverty level, but, more broadly, Puerto Rico has a variety of issues and implications about what a small economy



that's peripheral to a large dynamic economy can do in terms of making sure that it doesn't get left behind, and there are issues there that are raised by developments in Europe, developments in Asia, and basically throughout the world. And so we hope that as you think about the implications and experiences of Puerto Rico, you will also think about them in that broader context.

Thank you.

MR. SOTO: Thank you, Susan. We have a few minutes for some questions and answers. Right here.

MR. WASSO: I have two questions or comments. You emphasized --

MR. SOTO: You want to identify yourself first?

MR. WASSO: I'm Bernard Wasso of the Century Foundation. You identified the transfer pricing or shifting of profits to Puerto Rico as the main reason for the gap between GNP and GDP, but it seems to me that there's a second important reason, and that is the heavy dependence on external investment. Even if that investment was just earning an honest rate of return, there still would be a big gap between GDP and GNP, and that's connected to the low saving rate on the island and the dependence on capital imports.

And my second comment is that it seems to me when looking at the labor market, you can't really look at the Puerto Rican labor market without integrating the analysis with the U.S. labor market because of the extent of back-and-forth migration decisions -- to stay in Puerto Rico longer, or not to stay in Puerto Rico longer -- and whatever the outcomes are both for unemployment and for participation rates are really part of broader equilibrium. I looked at that once

in the context of sort of a Harris Tugaro (?) model, where we had migration from -- it's a rural urban model, but I treated it between Puerto Rico and the mainland, and it suggested that the migration decisions and the labor supply changes are very sensitive, as one might expect, to what's going on in the United States, and therefore the idea of increasing participation in Puerto Rico kind of in isolation from the United States is probably going to miss a lot of what's happened.

MR. SOTO: I should say before you say anything, Mr. Wasso was part of the Tobin (?) report that was published in Puerto Rico back in the late '70s, so it's great to have you here today.

DR. COLLINS: Thank you for two excellent questions. Let me respond briefly to both of them. Let me start with your second issue. Of course the Puerto Rican labor market is intimately interconnected with the labor market on the mainland. That is an issue that the labor economists who wrote other chapters deal with quite intensively, and in fact Marie Enchautegui, who is one of the presenters in the next session, will raise some of those issues in her discussion. It is absolutely the case that there is considerable back-and-forth migration, and our comment about raising the labor force participation on the mainland was not -- was essentially trying to bring them to a par and not suggesting in some ways disconnecting the two. So, yes, those are very important points.

In terms of the difference between gross national product and gross domestic product, again, you're exactly right. Let me make two comments there. One is, it is certainly the case that if there were none of this transfer pricing but there were considerable investment in Puerto Rico, that that would create a gap

between the GDP and the GNP. In Puerto Rico, this additional factor, which is so surprisingly large, is the one that we focused on for a couple of reasons -- one, because it is unusual and it's surprisingly big and, two, because we were also very concerned about the accuracy of some of the data and how well it was measuring what goes on.

The second issue of this transfer pricing essentially implies that the official GDP numbers are not correct, and so our focus was to make sure that when we did an analysis of how much the workers in Puerto Rico were actually producing in Puerto Rico, we were using good measures of what was going on there, and so our adjustments are essentially to take account of that piece. And then it turns out that they're so large they in fact did explain most of the gap. But, you're right, it is certainly not all of the gap.

One other piece that I did want to flag, and that is you mentioned the very low savings rate in Puerto Rico. That's something that we talk about in the study I didn't mention in my remarks this morning. We measured -- savings rates in Puerto Rico are extremely negative. In fact, the household savings are extremely low. The household savings rates actually are consistently negative. There are some concerns about measurement issues there, as well, in particular because there's probably quite a bit of -- there may be some unreported income coming in there, which implies that the true savings rate might be somewhat higher than that. And we try to address those issues looking at some other data which suggests that perhaps those measured savings rates are a little lower than the true one would be, but it's hard to get a very clear handle on that.

MR. SOTO: Have a question here?

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MR. ARMITRUDA: Will Amatruda, Catholic University Law School. You made the point that labor force participation is quite low. About a year and a half, two years ago, I went to a program at the Wilson Center focusing on the Dominican Republic, and one of the presenters there said that there are 80 to 100,000 Dominicans in Puerto Rico. Now, how can they both be true?

DR. COLLINS: Let me say a couple of comments about that. That actually raises one of the issues that we address in the chapter that I did not again have time to comment on in my remarks, and that is the issue of Puerto Rico's informal economy. A number of the Dominicans -- certainly not all but a number of the Dominicans living in Puerto Rico are undocumented and are presumably working in an informal economy. There's also an active informal economy that's going on. So, some of that may not be reported in the official statistics. We were quite concerned, because it came up so frequently, and in some countries it's an extremely -- in some regions an extremely important issue that part of what was going on here was another measurement issue, which was that the informal economy in Puerto Rico was growing very rapidly, and so what we were really picking up was a shift of economic activity from the official sector to the informal sector.

We put together a variety of different indicators of what has been happening to Puerto Rico's informal economy over time. Of course, none of the available indicators are airtight. All of them have problems with them. The problems are different in each case, so our approach was to say that if they all gave a similar set of implications we would think that that was quite convincing. And, in fact, they all go in exactly the same direction, and what they suggest is

that, relative to the size of the official economy, the informal economy in Puerto Rico has actually declined, and so it's not that there is not an active, vibrant, informal economy in Puerto Rico that is alive and well, but it is not growing relative to the official economy, and so it does not explain the faltering and growth slowdowns that I was focusing on. So, a number of these Dominicans that you mention may be working in the informal economy, but, again, that does not essentially provide an explanation for the concerning trends that were really the focus of our attention.

MR. SOTO: Over here.

MR. HUNTER: Larry Hunter with the Institute for Policy Innovation. In trying to figure out what went wrong, what's gone wrong in Puerto Rico, I suppose there's a natural inclination to try to figure out what's unique about Puerto Rico, what specifically went wrong in Puerto Rico. But, as you point out, the economy is so well integrated in so many respects with the mainland. Did you look at similarities between Puerto Rico and other mainland areas of low development, some of the poorer states? Not only would that be interesting intellectually, it might also open some avenues for federal policy that could address this issue of lagging economies both on the mainland and in Puerto Rico as sort of an integrated approach.

DR. COLLINS: We did do that to some degree. We compared Puerto Rico both to countries and to different states in the United States. In fact, most of the authors of the study used a variety of comparators both within the U.S. and outside of the U.S., and so that was certainly one of the benchmarks that we looked at. And, in some cases, we tried to look at issues of best practice. So,

for example, one of the studies that is not a focus today is the study on educational issues in the educational system, and there we think -- and the authors of the chapter go into considerably more detail on -- we think that there are certainly best practice lessons from parts of the U.S. that have had schooling difficulties and have been able to address them. And so there are certainly perhaps more avenues that one could explore there. I agree that there -- Puerto Rico's absolutely part of the U.S. and there are certainly some lessons to be learned from focusing on some regions that haven't done as well. But Puerto Rico is unique from some of those other regions in a variety of ways as well -- in particular, it -- you know, in terms of its location and in terms of the infrastructure differences, etc. So, I mean, it really does have some differences compared to places on the mainland, although it has a number of similarities as well.

MR. SOTO: But it was important for us to have comparisons in this book, in this project, that were both to the mainland and to other countries so we could have sort of those benchmarks.

Question here.

MS. EVANS: Ingrid Evans, the National Association of State Work Force Agencies. I noticed on your charts that you have for Puerto Rico's growth from 1950 to 2004, that it covers a span of significant economic downturns, if you will, to the mainland. In particular, you have a starting point of 1975 to 2004, and '75, of course, was a serious recession. So, looking at the recessionary periods beginning, really, from 1975 to 2004, did you take into consideration the impact of those recessions on Puerto Rico from the mainland and, if so, did you factor into some of the reasons why things went wrong, the

possibility for a lack of being able to recover, if you will, relative to the rest of the mainland and if you associated that with other parts of the mainland?

DR. COLLINS: Our emphasis was very much the longer-term growth issues, because in terms of closing the income gap, that is something that can be achieved over periods of decades, not over shorter-term periods. It's certainly true that there is a lot of interesting things that can be said about the relationship between the cyclical behavior on the mainland and the cyclical behavior in Puerto Rico. That actually is not something that we chose to focus on in this study. Our choice of 1975 actually -- the points I was making are quite robust to changes in that particular period. The point is that sometime in the mid-1970s the catching up seemed to stall, and '75 is a, you know, nice round number to divide the time period, etc. But picking a slightly different year wouldn't change the basic point there in terms of the change in the long-term growth trends in Puerto Rico compared with the mainland.

MR. SOTO: Jamin?

MR. JAMIN: Good morning, John Jamin from the Aspira Association. In the charter you presented regarding the Puerto Rico growth in reference to the human resource capital development, it seems like there is a disconnect -- and I'd like to have your opinion about a potential disconnect between the economic development plan and the educational development plan. Apparently there is -- I mean, during the second period 1975 to '04 I think there -- the financial resource is available for human resource capital work force development, education was even larger than the first period, and it seems like there's some kind of disconnect between economic development and education.

DR. COLLINS: Let me -- if you look at the chart or actually the table that I have that focuses on the contributions of different components to growth over those two time periods, in the earlier time period it's true that the contribution of increased human capital is about .7 percent per year, and in the later time period that falls slightly to just .5 percent per year. But it's important to point out that in 1950, the educational level of the average Puerto Rican was actually quite low. I don't remember the exact number. I think it was, on average, five years. What was the average through out the Puerto Rican population? And so the initial increases are going to contribute a lot of -- have kind of more bang for the buck, whereas from 1975, they had already increased to some degree, and so continued rapid educational attainment doesn't have as much bang. And so that's why there's somewhat of a slight decline there. By international standards, contributions of increased education in the range of half a percent per year are quite high, and so we would argue that in terms of the quantity of education that is being attained, Puerto Rico stands out in both time periods as doing extremely well by international standards. The educational chapter spends quite a bit more time focusing on the issues that are identified as more concerning, and those have to do with the issues about the quality of education and the extent to which those are contributing both in the K-12 level and in the higher-education level. We don't adjust in our growth accounting for estimates of educational quality. It's simply a measure based on years of schooling.

MR. SOTO: Have a question here?

MR. DE COSTA: Ernest de Costa from the Puerto Rican Research

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Institute. I'm not an economist, so I get a little dumb around this, but I was wondering about this thing, what effects the increased globalization has had on Puerto Rico. And second is how many corporations in Puerto Rico are actually owned by Puerto Ricans where the profits stay on the island?

DR. COLLINS: I'm sorry, could you repeat the second question?

MR. DE COSTA: How many corporations are owned by Puerto Ricans where the profits stay on the island?

DR. COLLINS: As far as the second one, I don't think I can give you a number. You'll hear some more about private sector development in the second session this morning, and I think the surprising thing is that that sector is much smaller. The Puerto Rican-owned firms -- I think the majority of those profits stay on the island, but that's not something that I have focused on explicitly.

On the second question, to what extent has increased globalization affected Puerto Rico, in some ways by quite a bit; in other ways, by less than for other regions. I mean, remember that Puerto Rico is right next to an extremely large, very vibrant, dynamic economy, and so it is no surprise that the U.S. mainland is Puerto Rico's main trading partner. That is exactly what one would expect, and that is what is the case. And so developments outside of Puerto Rico are important in terms of its trading regime but perhaps less than they would be if Puerto Rico were not right next door to this large, vibrant economy.

It is also true that we believe that there are some untapped opportunities for Puerto Rico to expand its international trading linkages with other regions in the world and, in particular, in Latin America, and as those

economies have grown and opened up, those opportunities presumably have grown and opened up as well. But, of course, those issues are a mixed blessing because in some ways they also provide increased competition for the Puerto Rican economy, and many of the special advantages that Puerto Rico enjoyed in its close proximity to the U.S. and its special relationships in terms of access to market and other connections have been eroded in some ways as the U.S. has developed closer ties and free-trade agreements, etc., with other places in the region and in the world. So, all of these issues are in some ways mixed blessings. There are pluses to Puerto Rico from that increased opening up because it provides opportunities that they will hopefully take increasing advantage of but also increased competition.

MR. SOTO: And I think we'll talk a little bit more about that in the second panel as well.

There's a question here?

MR. MARATCHI: Yeah, Murray Maratchi from the Federal Reserve. I wonder if you've taken a look at the GNI/GDP gap of Ireland. Ireland, as you mentioned briefly is of similar size to Puerto Rico physically, and it also has a very large pharmaceutical industry, and my understanding is it also has a substantially large gap in its GNI to GDP. Is Puerto Rico's case particularly -- is the gap much bigger than that of Ireland's? That's one question.

The second question is you mentioned that there are probably problems with the GDP data official statistics. I wonder whether the GNI statistics also have problems not only in the way they're constructed but in the way they're labeled here. My understanding is that this GNI is probably

measuring the gross income of nationals who are also residents of Puerto Rico, not the gross national income of Puerto Ricans living everywhere, and I wonder whether you could address those two, please.

DR. COLLINS: Again, two excellent questions. Thank you for raising them. Let me start with the second one. Certainly the concept that we are using is the national income of those residing in Puerto Rico. One could look, as well, at income of those on the mainland and in fact we have done some of those comparisons in the longer chapter. But certainly the concept we are using is the income of those who are residing in Puerto Rico, and we're quite explicit about that.

There are other measurement issues one could ask about, and I alluded to them in terms of some of the remittances or the amounts that might be coming from the mainland that may not be recorded. So, there are certainly measurement issues, and we spend some time in some of the appendices trying to address at least a subset of the measurement issues that one could raise.

As far as Ireland, thank you for bringing us back to Ireland. Again, we think that Ireland is a very important comparator country for Puerto Rico. It is absolutely true that Ireland also has a gap between its GNI and GDP, but it's just not as big as Puerto Rico's. And the other issue is that Ireland has been extremely successful at growing, raising employment levels at extremely rapid rates, and therefore living standards in Ireland have increased dramatically. And so part of the reason why Ireland is such an important comparator is that it is a country that has a lot of similarities in many ways but has been able to achieve the employment growth and close that living standards gap with the European

mainland.

MR. SOTO: We've got about one more minute, so -- question here? We'll do those -- yours will be the last one then.

MR. MARKO: I'm Dan Master Marko with the Artists Group. I'm going to ask a very general question. I wasn't here earlier, so if you addressed this, I apologize. But with the whole cavalcade of 936, 30A, 956, and kind of shall we say the unique collaboration with the pharmaceuticals in Puerto Rico, how much has that contributed to the distortion of the -- or the faltering of the Puerto Rico economy and the misallocation of resources?

And, secondly, what does that indicate? I know that's the next group, but what does that indicate to you in terms of the correct or proper tax policy for pro-growth and pro-savings in Puerto Rico?

DR. COLLINS: Let me actually address that briefly, because some of those topics will be discussed in more detail as the sessions continue.

We do spend quite a bit of time on the 936 distortionary tax implications, and I highlighted some of them earlier. But let me just reiterate what some of the key points are.

One of them is that there is -- has been this incentive for these firms to locate -- to overstate their profits, which has some implications for the concerns about the accuracy of measurement, which we've talked about, and means that a lot of the income that is earned in Puerto Rico is actually transferred abroad. But as I also alluded to, the existence of these firms has generated a lot of government attention in focusing on those activities, but in fact those activities have generated very few linkages with the local economy and have not been very

helpful in helping to create a dynamic, private, local business sector that can employ Puerto Ricans, that can increase labor productivity, develop the private business investment, etc. And so the focus on those large firms has, we believe, deflected attention from creating an atmosphere in which the local business sector can thrive, and that's really the way of the future for creating long-term growth.

MR. SOTO: And the last question.

MR. RAMIREZ: Thanks. Okay, Carlos Ramirez from George Mason University. I just wanted to point out from your chart here on the growth - - Puerto Rico's growth chart that at least reading these numbers looks a little bit more discouraging overall. If you compared the 1950-'75 growth period, you talk about 5.1 total growth per worker, but most of it comes from physical worker and very little comparison 1.6 for TFP, and when you compare that with the U.S., the TFP numbers are much larger than 1.6. So, even during the so-called, you know, booming period, it seems like, you know, Puerto Rico's growth rate was coming from basically physical capital per worker growth, not the other one. So, the fact that it's actually '75 to '04 is .04 is even more discouraging in that regard. So, the chances of catching up to the rest of the U.S. is pretty small.

The second question related to what you were talking about earlier -- you mentioned the size of the underground economy as being a potential explanation between the difference between GDP and GNI and, you know, that makes sense -- you know, that GNI numbers probably will not cash out the size of the underground economy, while GDP may do a slightly better job. Who knows? But the key thing is that maybe you can track, you know, like big denomination dollar bills because in a cash economy obviously that's the kind of thing that you

would look for in terms of where the big hundred dollar bills, fifty dollar bills we gravitate toward and, you know, what's happening to the size of that, you know, large denomination bills in Puerto Rico over time?

DR. COLLINS: Let me -- on the underground economy, just very briefly, we did look at a variety of measures of the underground economy. We didn't look at the big bills one. The appendix to the longer chapter talks about exactly what we did, and, again, all of the measures that we look at -- and we also report a survey of a variety of studies of Puerto Rico's underground economy and the bottom line from all of those studies as well agrees -- is that there just doesn't seem to be evidence that the size of this underground economy is growing relative to the size of the official economy. So, it's alive and well and vibrant, but the issues that we're concerned about in terms of raising living standards, et cetera, we don't think can be explained by what's happening in the underground.

As far as the TFP catch-up, certainly the drop-off is disheartening, but I don't have as much pessimism, as you suggest, for a couple of reasons. First of all, capital level in Puerto Rico has quite a ways to catch up with the mainland, and so a period, like one observed in the '50 to '75 time period, of substantial capital deepening is exactly what would be essential for Puerto Rico to be able to catch up with mainland levels. That's what -- the Asian countries that was key to their growth for many, many decades and should be an important part of what Puerto Rico needs to do to close that income gap.

As far as the TFP measures -- and this is -- there's a table that shows this in the monograph in the summary study, chapter 2, but I didn't highlight it in my remarks this morning. In fact, over the time period 1960 to

2000, Barry Bosworth and I have done a similar growth exercise for the U.S. mainland and for a large number of other countries, which we compare with Puerto Rico in our chapter, and if you look at the TFP contribution to growth for the U.S. mainland from 1960 to 2000, it's only about 1 percent per year. So, 1.6 percent per year is actually catching up. One could argue that perhaps it's not catching up as rapidly as one would like, but that is substantially higher than the TFP contribution to growth in the mainland over that 40-year time period.

MR. SOTO: Very good. Thank you very much. We went a little bit over, so we'll have just a five-minute break, I propose, and then come back here right after that. Thanks.

(Recess)

MR. BOSWORTH: The second session, as you may have already figured out from Susan Collins' presentation, one of the big focuses of Puerto Rico that we spent a lot of time on was a debate over why employment in Puerto Rico is so low. I think there are two aspects of it -- varying degrees of emphasis you can put on it, and that's what we're going to discuss in this next session. Is low employment cost in Puerto Rico because there are no jobs? In particular, are there no jobs in the private sector? Or, is it low employment in Puerto Rico caused because people don't want to work, to put it crudely. The debate over that perspective I think dominates a lot of what goes on in Puerto Rico, and this session is sort of devoted to trying to explore those issues.

The chairman of this session is Bill Dickens, who's a senior fellow in economic studies here at the Brookings Institution, and Bill's the one who first got us involved in this project, because he had been down to Puerto Rico when

CNE was first beginning, and he later served on the advisory board to the Center for the New Economy in San Juan. So, Bill, although he refused to participate in the study, was an initiating force that was responsible for much of it.

MR. DICKENS: Thank you, Barry. The second panel here today on "Why is employment so low in Puerto Rico?" -- our first presenter is Maria Enchautegui, and her co-author, Richard Freeman, is unable to be with us today. He is off doing something. No one knows what.

Maria, please. Thank you.

DR. ENCHAUTEQUI: As you have heard in the prior presentations, one of the themes in this book that crosses over many different chapters is the low employment of Puerto Ricans, and that is what we are focusing on this discussion. You have a handout, which I will be referring to throughout my presentation.

A low-employment level has been a constant in the Puerto Rican development, especially since the mid-'70s. The lowest registered low-employment rate was in 1969 and then again in 1999, when it just went just below 10 percent. This constant problem has possibly got us accustomed to live with high unemployment without much questioning. The common answer is like well, there are no jobs. They have been, in reality, real inquiries about why employment levels in Puerto Rico are so low or what population groups show the biggest problem or even less comparing ourselves with other countries. In this research, we're not talking so much about the unemployment rate, which is much more cyclical instead about employment ratio, which is the proportion of people employee over the total population and also about the labor force participation



rate, which is the proportion of the people in the age group who are employee -- actively unemployed looking for work or employed. That is the labor force participation rate.

Today, that low employment that Puerto Rico is showing compromises development. The unemployment services are provided by the government, and government revenues are not enough to provide the services needed. The benefits that the unemployed receive are also an incentive to other working people, because they say well, why I do I have to work this hard and other people are hardly working. So, it creates a lot of disincentive for other people to engage in productive activities.

In the research that Richard Freeman and I conducted for this volume we look at the big picture and try to identify what we thought was the most important, yet at times not so obvious forces that he'll explain the low employment rate of Puerto Ricans.

The micro-level data that we focus look at men because in our international comparison, we noticed that therein lies a problem. While female labor force participation rate is low, it is comparable with neighboring countries. You can look at the graph that you have in the handout. The first graph is the labor force participation of Puerto Rican men and women, and we graphed there the points for the foreign countries, and Puerto Rico stands out with a very -- with the female labor force participation rate, which is similar, for instance, to that of Chile or Argentina along that axis, but it is very low where it points to the men. So, that point outlier there really shows that its men's labor force participation rate or low employment what sets Puerto Rico apart from other countries. Not to say

that there is also employment problems for women, but since like what looks different here in comparison to other countries, this male labor force participation.

The overall employment rate of Puerto Rico is about 36 percent. That is when you take everybody that is employed over the overall population, and that is well below that of Latin America and Caribbean countries and possibly the lowest in the world. Employment rate for men over age 16 is 52 percent. In the U.S. it was 69 percent. And again, by international comparisons is the male employment what is off the mark.

Our descriptive data also indicates that the labor market detachment of men is not a short-term problem, nor episodes within the labor for history of Puerto Rican men. The biggest difference between U.S. and Puerto Rico in terms of employment, that statistics will look, is the percentage of men who have out of the labor force for five years or more. These numbers -- as you can see to this number in table 4.4, and if you look at the last row in that table we see that 65 percent of Puerto Rican men out of the labor force have no work experience for the last five years in comparison to 32 percent of Puerto Rican men. So, we have a problem of long-term detachment. It is not only a problem of episode of withdrawal.

By age 55 to 64, only 50 percent of men are in the labor force. So, we also see that Puerto Rican men are withdrawing quite quickly out of the labor force, so that by the age of 55 there are very few left in the labor force, just 50 percent not in the labor force.

Our analysis considers a series of factors, because when a problem is big the many factors must be applied together to produce it. We couldn't

identify the silver bullet. Rather, our analysis suggests that a combination of factors, some of them related to how individuals make choices of work and some related to the labor market structure in which these individuals made these choices. The factors that we analyzed are the transfer problems of the nutritional system program and the social security for disability. We also look at migration, as well as the relationship between economic growth and employment. We also consider whether the low employment rate we saw from men in the labor economy not reporting work activities.

The sheer number of participants in transfer programs suggests that they play a role in creating work disincentives. The main two programs are, in Puerto Rico, the most widespread is the nutritional assistance program, and also and one that touches particularly men is the Social Security disability payments. Disability Social Security is a big factor among men. According to the monthly labor survey that we do in Puerto Rico, about 25 percent of men that are not in the labor force say that they are disabled. These figures are in table 4.7. That table also shows, when you look at age 46 to 54, that 21 percent of men in that age group were receiving income from Social Security, and actually all their papers show that the share of family income coming from transfer has been growing a lot in Puerto Rico in the last decade.

Moreover, combining disability with work activity is very rare in Puerto Rico. Almost all men that say they are disabled are not working, and that is not as common in the United States. That is quite common in the United States for a person that is disabled to have some work activities. In Puerto Rico that is very uncommon.

The average payment for Social Security is 69 percent of the minimal earnings of Puerto Rico, so just by receiving the Social Security payment you can make up to 69 percent of what would make if you would be in the labor market.

In Puerto Rico there is also a high ratio of jobless families. In 37 percent of all married couple families, nobody is working. That is an outrageously high proportion of jobless families, which when we look at these calculations we think that in the extreme case, transfer from disability from government payment may be taking out of the labor market about 5 percentage of working men.

Another factor to consider is migration. Migration serves to export the most attached to labor market, possibly leaving behind those with attachment to a labor market. We also assume -- the extreme case -- let's assume that everybody who is very willing to work leave the island because couldn't find a job, and those are the people who end up here and similarly what happened if they go back to Puerto Rico and keep those high employment rates. That would be the extreme case, but we find that possibly the men's labor force participation would go up. Employment rate would go up about 3 percentage points. But migration also works in another way, placing a lower value in wages. When there is high unemployment, the tendency is for wages to go down, as there is excess labor. But wages do not go down, or don't go down enough, because people leave to become employees in the U.S. Wages then remain high. Wages may be also prevented from falling for other reasons, like the migration that we considered, for instance, possibly minimum wage or possibly a high preservation wage may

be due to the high transfers. Our study also did -- and this is important but I'm going to talking later -- is more a survey of poor communities -- working poor communities in San Juan where we asked people about the preservation wage and their numbers were about \$7 per hour, which is another reason for preventing the market from clearing.

If we look -- so, what these factors do -- the migration preventing wages from falling, the minimum wage, and the preservation wage -- what it's producing is wages at the low end of the wage distribution that are quite high in comparison to other jurisdictions on the island. If you look at my figure 4.4, this one here, what we are doing here is graphing the ratio of earnings for differing occupations in different areas. What we see is a U-shaped form, which actually holds onto another analysis, too, showing that wages at the low end in Puerto Rico are comparatively high when you compare with U.S. overall and also with the poorest state of U.S., which is Mississippi, and that possibly the high wages at the low end may be preventing the creation of employment.

The informal economy also explains part of the reported low employment. If we are -- we are assuming that many people, that possibly some people that are not -- that are working the informal economy, are not reporting that they are working. So, we tried to figure that out and for that we conducted more surveys in the communities here in San Juan, finding out to see about what is the employment in the formal economy, although this survey is very small. I like to recognize the importance of the Center for the New Economy to be willing to fund this survey at least to give us an idea of what is happening in the formal economy, because in Puerto Rico the in formal economy is a big issue that

everybody talks about, and their effort to quantify at the micro-level there is very little micro-evidence of what is happening in the formal sector, and because of that we are actually pooling the resources of these surveys and other papers for the Center for the New Economy. But what we find is that, yes, the employment rate would go up about possibly 3 percentage points if we take account of the informal economy. However, the labor force participation rate would hardly move, because what we find is that most men in the informal economy say that they are unemployed, which means that they are also -- they are already in the force. So we may raise somewhat the employment level, but we don't find that we would raise the labor force participation.

Finally, the development growth we have pursued is mainly based on high-technology manufacturing promoted by the 936 federal incentive is not conducive to high employment levels. If you look at the table 4.5, there what we do is finding the integration analysis of the effect of employment -- the effect of GNP and GDP on employment, and we see something that is very consistent, and that is that in Puerto Rico the GDP has a very small effect on employment creation. The largest effect on employment creation comes from the GNP. When we look at the United States we don't see such a difference. So, we see that the GDP is not contributing much to employment growth but there is contribution from the GNP. This could be from what Susan already referred to; that the GDP measures may be exaggerating the value added or could be that the profits from the foreign companies are leaving the island. But we see that these route of development that is growing a lot of the GDP while the GNP is not conducive to employment creation and that when you compare to the United States we don't

see those big differences.

But the common thing in all these factors that we analyze is what we named Uncle Sam hypothesis, namely that Puerto Rico links to the United States have produced some income advantages but have also created various incentives and distortions in the working structure of the country. The minimum wage, the welfare payments, the Social Security, high gross domestic product because of multinational manufacturing intensive capital are all rules why we thought was conceived for a high-income country. Once these rules are transferred to a lower-income country like Puerto Rico, they create reverse effect on employment. The Uncle Sam has certainly brought in some goodies to Puerto Rico, but it has also eroded work incentives and job creations.

There are some difficulties in solving the problem just outlined as the rules of the games sometimes require larger institutional arrangements. Yet, a couple of things can be done within the institutional arrangement that we have now. For example, we see that employment policies in Puerto Rico have overwhelmingly been labeled and demanding.-oriented and that the supply side of the equation also has been overlooked. We have to start to pay more attention to how workers make decisions that will work and how to intervene in the incentive structure that workers face. First, we think the government benefits have to be more closely tied to work. In 2006, the numbers I just looked recently, there were 475,000 families in the foot stamp program in Puerto Rico, yet only 9,000 persons participated in work incentive programs. So, 9,000 out of 475 -- that is about 2 percent, yet the government has spent -- \$57 million were given to --subsidies to employers to employ these people -- \$57,000 million.

Just recently the reforming of the families, actually reinventing all the work programs to encourage more -- instead of placement of people in jobs to encourage more training. We have yet to see how that would work.

We also think that Puerto Rico should implement a program similar to the earning contacts credit (?) so that low-income people can reap the benefits of work.

Finally, there is a need -- and Susan Collins alluded to this -- of taking more advantage of the multinational presence and the multinational companies in Puerto Rico may be providing and facilitating ways in which they can integrate better to the local economy.

Thank you.

MR. DICKENS: Thank you. Our next speaker will be Steve Davis. His co-author, Luis Rivera Batiste, can not be with us today due to his untimely passing. Luis was a great economist, and it's a double tragedy, because he was very enthusiastic about this project and would certainly like to have joined us if he could.

Steve.

PROF. DAVIS: Thanks, Bill.

It's a pleasure to be here to address you today and to participate in this project on the study of the Puerto Rican economy. For an economist, it's a fascinating case study.

I want to talk more about this employment shortfall that has already come up and try to understand the nature of it, talk about its character and some of the reasons for it.



Okay, so employment rates in Puerto Rico are less than two-thirds of the rates in the U.S. in recent decades. This shortfall is even bigger if you adjust for hours worked. I'll focus on the employment rate, but if you make an adjustment for hours, work for employed persons is bigger. It holds for men and women. It's bigger for some groups than others. It holds across every education category, and it's especially big for less educated persons.

Here's a picture of the evolution of employment and labor force participation rates in Puerto Rico, relative to the United States, over the last 50 years or so. Okay, this is from a labor force survey. It bears out what I said earlier about the low employment rates in recent decades. You can also see from this picture that this wasn't always so. If you go back to the first half of the 1950s, the employment gap between the United States and Puerto Rico was actually quite modest, okay? So, this is something that arose in recent decades.

I'm going to drill down and try to understand more particularly where this employment shortfall lies. What you see very quickly is that it's concentrated in the private sector. So, just a couple of statistics to give you an idea of how enormous the private sector employment gap is between Puerto Rico and the United States. Among Puerto Rican adults of working age, 28 percent are employed in the private sector. A comparable figure for the U.S. mainland is 58 percent, okay? So, more than twice Americans, adult Americans, is a proportion of the working-age population, and I have first-hand experience as owners or employees working in the private sector. Now, if you try to narrow that down a bit and you make some effort on this in the paper, if you try to focus on the parts of the private sector that we would associate with the free enterprise

system -- so you might want to take out things like education, because education sector is dominated by public sector -- if you kind of look at a narrower definition of what we call free enterprise -- the free-enterprise segment, then you find that fewer than a quarter of Puerto Ricans of working age work in the free-enterprise segment of the economy as opposed to more than half on the U.S. mainland, okay? So, there's an enormous difference there.

One thing that will come back -- a theme that will come up over and over again -- this means that Puerto Ricans for a generation have been relatively short on work experience and the kind of human capital accumulation that comes with work experience, and they are especially short in the kind of work experience you would gain in a private-sector setting, including what you might think of as business -- market savvy business experience that would probably be a useful input into entrepreneurial activity. So, there's a big gap between the United States and Puerto Rico in that respect.

Here's a little table that shows you from the last three decennial censuses the share of employment in Puerto Rico that's accounted for by the public sector as compared to the United States. And you can see that throughout this time period the public sector has been a much larger share of employment in Puerto Rico. The gap has narrowed a little bit, but as of the most recent census, you still have 25 percent of all workers in Puerto Rico employed by the public sector. Now, if you try to break that down, what you see is that about half of that public sector employment gap between Puerto Rico and the United States comes from the fact that in an accounting sense the industry structure in Puerto Rico is more heavily tilted towards industry where public sector employment tends to be

important.

The other half is coming from higher -- a bigger share for public sector employment within narrowly defined industries, and in this table I've given you several examples of that, and what you'll notice in this table -- and I deliberately picked industries that range quite widely -- I've got electric light and power; sugar and confectionary manufacturing; nursing facilities; hospitals -- what you see in all of these cases as of 2000 the share of employment accounted for by the public sector is still considerably larger than the United States. Now, there has been some privatization of public sector activities in Puerto Rico, but what this table suggests is that at least relative to the United States as a benchmark there's a considerable remaining opportunity to privatize public sector activities in Puerto Rico.

Now, I mentioned earlier this shortfall. I'm saying market relevant savvy. Now, it's hard to quantify that shortfall, but here is a crude effort to do that, and what I've done here is calculated the college educated workers in the private sector as a percentage of all working-age persons in both Puerto Rico and the United States, okay? So, we can see in 1980, for example, only 2.9 percent of Puerto Ricans of working age were both college educated and working in the private sector as compared to 8.1 percent in the United States. That gap is narrowed by 2000. By 2000 there's 6.9 percent of Puerto Rican adults are college-educations working in the private sector. But that's still less than half of the corresponding figure in the United States. So, if you think that college education has something to do with providing you with useful market skills to run a business or to start some type of entrepreneurial endeavor, this by itself would

give you pause in addition to some of the other things that I pointed to.

Now, another feature that's quite striking about Puerto Rico is not just that it's got this underdeveloped private sector but the nature of the underdevelopment in the private sector. So, if you look more closely, what you see is that the industry structure of employment -- and I'm talking about the private and public sector put together -- is grossly misaligned with the human capital characteristics of the population, and I'll say exactly what I mean by that. So, let me do that in terms of a picture. Focus on the right-hand side of this picture for a moment. This is for 1980, and what is shown there is a relationship that is actually not very surprising. But here's the relationship. On the horizontal axis of this picture, just mean years of schooling attained by persons of working age in the population. So, it's just the most basic measure of how well educated the population is in a particular state. And on the vertical axis I've got a measure of the schooling intensity of the state's industry mix, okay? Some industries -- for example, higher education -- use very highly educated persons as inputs. Other sectors say hotels and restaurants have less educated persons on average. So, for each state I construct an index of the schooling intensity of its employment across industries. And what you see there -- again, not surprising -- states that have well-education populations also tend to have schooling-intensive industry mixes. And there's a rather tight relationship there.

There's really only one clear exception to this story, and that's Puerto Rico. So, here we see in 1980 Puerto Rico is much less well educated than any state on the U.S. mainland, and yet if you've look at where Puerto Rico would be on that line in terms of the vertical axis, you find that Puerto Rico would be

13th out of the 51 states. So, Puerto Rico had an industry structure in 1980 that would be similar to, say, what you find in Vermont, okay, which is a far-better educated state not only than Puerto Rico but far better educated than the average U.S. state, okay? So, there is something very seriously misaligned.

Another way to put this is the missing jobs in the Puerto Rican private sector are largely concentrated in labor-intensive industries. I mentioned hotels and restaurants earlier -- personal services of all sorts, retail establishments, less skilled manufacturing. The story in 2000 -- it's similar, except that Puerto Rico has now become more educated relative to the mainland, as you heard before.

So, for decades now, Puerto Rico has had an industry structure that's grossly misaligned with the human capital characteristics of its population. Another way to say that is that Puerto Rico has failed to provide the kinds of jobs that provide good opportunities for work and training and human capital development in the form of on-the-job learning for its population. So, that's a big problem in Puerto Rico.

Now, let me give you some examples and comparisons to try to drive this point home. Puerto Rico's employment in eating, drinking, and lodging, okay -- this is basically hotels and restaurants -- this is a pretty big employment sector, maybe 5 or 6 percent of employment in the U.S. -- that rate is lower in Puerto Rico than in any of the 50 states, okay? Despite the fact that Puerto Rico has many less educated workers and despite the fact Puerto Rico seems like a natural destination for tourism and business activity, conventions, and so forth. If you compare to Hawaii, which is often taken, for obvious reasons, to be a

comparison for Puerto Rico, you find that as a fraction of the working age population, three times as many Hawaiian residents work in eating, drinking, and lodging establishments as in Puerto Rico, okay? So, that's an illustration of what I was showing you more systematically in the pictures before.

There's a very similar story for entertainment and recreation services. Puerto Rico is very much at the bottom of the scale compared to the 50 states.

Now, a different kind of comparison is to Singapore. We heard earlier about comparisons to Ireland. Let me briefly sketch out the Singaporean story. It's another densely populated island. It's got a population of about the same size as Singapore. In terms of economic success, it's everything Puerto Rico aspires to be. A few facts. It's got a per-capita income level now, which is close to Japanese levels. So, in other words, it has become quite a rich society. Forty years ago it was a rather poor society -- I think poorer than Puerto Rico. It's got a 63 percent employment rate. That's close to U.S. levels. It has a big financial sector, strong growth, and other knowledge industries, and an excellent educational system, okay?

Now, the last point is the one I want to emphasize or put together with the others. Relative to population, there are twice as many Singaporeans working in hotels and restaurants as there are Puerto Ricans. The point here is -- and I sensed this when I was in Puerto Rico -- people often view an emphasis on labor-intensive industries as somehow taking the low road to economic development. In my view, that's quite mistaken. In fact, you can simultaneously have -- and I think they're compliments to a considerable extent -- growth in

labor-intensive, service-oriented industries and growth in knowledge-intensive, high-tech, professionally oriented industries, and I put Singapore as an example of a society which has clearly succeeded in going down that path.

Another aspect of Puerto Rico's economy that I think is a problem is it's not a very fertile environment for the type of creative destruction process that is key for productivity growth and economic development. Now, it's hard to get your hands around that in a systematic, quantitative way with the data that are available, so I'm going to come at it a little bit indirectly. Think about the retail sector in the United States and in Puerto Rico. I want to focus on that sector. Now, you may or may not be aware that the retail sector is one of the big sources of high-productivity growth rates in the U.S. economy in the last 15 or 20 years. There's been a remarkable transformation in the U.S. retail sector that is associated with the expansion of national chain stores -- Wal-Mart, Target, Borders, Home Depot, Staples -- I've listed several of them there. There's certainly been a creative destruction process, and they have displaced a large number of independent and smaller retail establishments, and so there have been lots of job loss associated with that, lots of job gain as well. That transformation has brought spectacular productivity gains. This is well documented in many academic studies that are cited in our study. Some of the particulars of those productivity gains involve more efficient logistics, better inventory management, big box stores that facilitate high sales per employee, and that's translated into large consumer benefits that I think are fairly well documented, and the consumer benefits take the form of bigger product selection, lower prices -- substantially lower prices, and vigorous competition.

This process has been greatly retarded in Puerto Rico by a number of factors. I'll talk about them briefly. So, let me give you indicators of the extent to which that transformation, which has really reshaped the retail sector in the U.S., has not occurred in Puerto Rico. I've got data here for 1997. Believe it or not, this is the most recent business census data that I could get on this for Puerto Rico. What you see is 1997 the share of paid employees in establishments that have at least 50 employees, okay? So, that's my definition -- my notion of big establishments here, big retail establishments. I see I actually have the numbers reversed there. I'm not sure whether that's -- it's 36 percent in Puerto Rico and it's 76 percent in the United States, okay? In other words, Puerto Rico is much more dominated by small retail establishments than the U.S. Now, you can't explain that by appealing to the difference in population density. You've already heard Puerto Rico is a very densely populated island, so it's certainly got the population density to support large retail establishments. Instead you see just the opposite.

Another basic measure is what share of employees, paid employees in the retail sector, work for unincorporated enterprises, okay? It's -- that's 3.4 percent of the United States, a very small share, but it's 16 percent in Puerto Rico, okay? So, I put these fourth as indicators of the extent to which Puerto Rico has not yet benefited from the type of transformation that's taken place in the U.S. retail sector.

There's another reason why the retail story is quite interesting, and that is that entrepreneurship isn't always associated with small and mid-size firms. If you think about the firms I talked about a minute ago that had transformed the retail sector, Wal-Mart for example, they've been very



entrepreneurial but they're hardly small.

Okay, in the interest of time I will skip my slide on schooling. Let me briefly talk about some of the culprits. You heard from Maria that the structure of transfer payments in Puerto Rico undermines work incentives. I think that's a very serious issue. There are tax subsidies that distort the structure of employment. We heard some about that from Susan. I suspect we'll hear more from Barry.

By the way, I didn't say anything about pharmaceuticals, but it is the case if you look at the employment numbers in pharmaceuticals you will see that the share of employment in pharmaceuticals on Puerto Rico is 10 times as large as on the U.S. mainland and twice as big as any state. So, there's very clear evidence that these tax subsidies did affect the structure of Puerto Rican employment, but as I suggested earlier they weren't well targeted to expanding job opportunities in the right sectors of the Puerto Rican economy. They were also extremely expensive for the U.S. Treasury.

There's a large role for the public sector in employment and production. I think there's lots of indirect evidence that a big public sector role tends to soften competitive forces and discourage entry and the creation of a vibrant public sector. A classic example of this is the U.S. Post Office, which has a legal monopoly on first-class mail delivery. Government enterprises tend to use the political system to repress competition from rivals, and that discourages the emergence of a vibrant business sector.

There are a number of other regulatory barriers that deter business entry and exit and damp the creative destruction process. We talk quite a bit

about them in the paper. The one we focused the most attention on is the permitting process that governs the granting of permits for construction projects, new business openings, business sales, and so on. I won't have time to talk about this in detail. Let me just say a bit about how we went about trying to learn about this.

We took a two-tack approach. First my co-author interviewed more than 100 persons who have first-hand experience in the permitting process in Puerto Rico as real estate developers, as construction engineers, as government officials who were overseeing the process, as attorneys and other specialists who were advising business owners, business owners themselves, and then also a few outside experts, like academics. The near consensus message that came out of these interviews is summarized here. The permitting process that governs construction and economic development of physical structures is excessive slow and costly; it's opaque, difficult to figure out what the rules are, how to abide by the rules. It's fraught with uncertainty and capricious outcomes, and it's very much susceptible to manipulation by commercial rivals. So, for example, if you want to set up a new retail establishment and there's somebody else a couple blocks away who doesn't like that new competition, then that person can appeal in the permitting process to slow down the new real estate development. And there's some evidence of -- there's lots of planes but there's some direct evidence of corruption in this process, and we cite, for example, a couple of -- some judicial proceedings that took place in Puerto Rico. Two of the more important ones, that twice in the 1990s in separate episodes there were high officials in the governor's office who were convicted of taking money to try to facilitate this process or to

circumvent some of the rules in this process. So, there's a lot of problems with the process. There have been some reforms that have met with very limited success. Why does this matter for Puerto Rico's economic development for expansion of its private sector, and for the creation of better employment opportunities? Well, here are a summary of the reason why it matters. It raises the cost of creating new businesses, providing new job opportunities. It creates very -- large barriers to trying to engage in an entrepreneurial activity, especially for smaller firms and for persons who are not well connected politically, because they are going to face the most difficulty in trying to navigate this process.

And then finally I think the politicization of the permitting process is one example of an endemic problem in Puerto Rico, which is a business culture that is focused on rent-seeking activity and special favors from government officials and bureaucrats as a way to success, whereas what we would like to see the government do is provide an environment that rewards firms that provide benefits to consumers, that that's the way to become successful and well off rather than cultivating favors from government officials.

Thanks.

MR. DICKENS: Thank you, Steve.

And I'd like to thank both of the presenters for timely completion of their talks that we have plenty of time for questions. I'll take the first question now. Yes, please. Wait for the microphone. Right there. Thank you.

FEMALE SPEAKER: Hi, (off mike) Association. I was wondering if the research has considered unemployment being linked to who's in political power in Puerto Rico.

PROF. DAVIS: I'm sorry, I didn't catch the last part.

MR. DICKENS: Could you repeat --

FEMALE SPEAKER: -- the link -- the relationship between unemployment and the political party in Puerto Rico in your -- the individual's relationship to that political party.

PROF. ENCHAUTEGUI: Well, in my understanding I think we have used -- well, it's two things on, that we don't have a very vibrant sector, private sector, and the government has started growing because the jobs are not being created, and that has some -- depends somewhat on who is in political power, but that's being a constant. I mean, there are some people that become employed just because of political reasons and whatever, but I think that when you look at the long-term trends in the public sector employment, what you see is that actually public sector has been used to create employment because I think the private sector is not as vibrant or maybe that creates another vicious circle, right? But I don't think it's specifically because of a political party or specifically to any political party.

MR. DICKENS: Next question.

MS. DUVETTE: Hi. Annette Duvette, U.S. Census Bureau.

Following up on that idea of the political parties in power and unemployment and adding to the idea of the private sector, don't you think that also the government, the political party in question, in power at that moment, is a hindrance, is an obstacle for the development of a strong, private sector in Puerto Rico, maybe because of what was mentioned before, the permit process and the different regulations that are not allowing the private sector to grow? Also, maybe small,

medium-size enterprises that maybe in the future can build up and become a strong private sector in Puerto Rico. How, then, the government with the story -- I'm not very familiar with the story yet, I'm looking forward to reading it in the future -- but how, then, the government is an obstacle and hindrance to the development of a strong private sector?

PROF. DAVIS: Yes, I do think the government in Puerto Rico has been a major impediment to the development of the private sector. I think we're going to hear some more about possible solutions, but let me just preview some of them. Moving away from using the tax system as a set of specific instruments to try to create jobs or investment in certain sectors, moving away from that and moving towards a broad tax base with low tax rates and then letting the market find the best opportunities rather than the government trying to guide the market to certain opportunities, that's a change in mindset, I think, in some respects in Puerto Rico, but that would be quite useful. I pointed to the permitting process, because it seems to be one of the leading examples of how inefficiency and lack of transparency and politicization of the regulatory and oversight process of the government has actually become a costly basis to business development and a tool that incumbent businesses can use to discourage competition from rivals, and that it's very important to understand that incumbent businesses can often have incentives that are aligned with the existing powers in the government that very much misaligned with the entrance of new businesses and with consumers, and I think I would like to see Puerto Rico move into a direction where the government views its role as to facilitate competition in the private sector largely for the benefit of consumers but also for the broader economic development of the island.

MR. SOLOMAR: Hi. I'm Raphael Cook Solomar, attorney with a law firm here in Washington, D.C. I have a question for Professor Davis. It seems to me you have suggested (off mike) between the development of the Puerto Rican economy and somehow the absorption of our retail industry by gigantic American chains, and I would you to expound on that proposition, please.

PROF. DAVIS: Yeah, two things. There's two aspects of the retail sector that I want to emphasize. One, it's a sector when has benefited on the U.S. mainland from a profound transformation, okay, as part of this creative destruction process I mentioned earlier. Now, in the retail sector it took the shape of displacing smaller firms in favor of larger, national firms. That may or may not be the case in other sectors and other time periods. The point I want to make, that I'm trying to get across, is it's not really the proper role for the government, in my view. It's not the most useful for all for the government to try to shape the nature of the creative destruction process and the productivity enhancing transformation of sectors, but rather to set the rules of the game where the market can gravitate towards those outcomes that are going to be best for consumers and best for economic development. The best tool we have for doing that in most instances is to set the stage for a highly competitive market environment, okay? We have that in the U.S. It happens in recent decades to have involved the movement towards larger firms and national chains. In other sectors it's different. We had a wave, for examples, of pharmaceuticals where small biotech firms became an important player in the market for a period of time. So, in some periods and some industries, this transformation that enhances productivity and

brings benefits to consumers will take the form of a movement towards national chains, large firms. In other cases it will move in a different direction. I think it's a mistake for the government to try to dictate which direction that will happen. Rather, what I would like to see the government do, not just in the retail sector but across the board, is to lay the foundation for a competitive market process.

MR. DICKENS: Was there a question over there before?

MALE VOICE: Hi. I'm Otto (off mike) with the government of Puerto Rico in Washington. Going back to Mr. Davis, I just wanted to see if you looked not only into local regulations or commonwealth regulations in Puerto Rico but what federal regulations exist that could have an effect on the creation of that entrepreneurial spirit or entrepreneurial -- for example, such as, I would say the minimum. Does that play a role yes or no? And I'm not siding one way or the other; I'm just saying is there any indication in terms of your study other than factors just in Puerto Rico? Did you take into account any other elements that are federal regulations or federally regulated?

MR. DICKENS: I can tag onto that. The evidence that you presented about the small size of the food and drink sector and the hotel sector -- I tend to think of those as being ones that are heavily affected by minimum wages and would have thought that that might be where you were going with that evidence.

PROF. DAVIS: Yes. Again, I thank you for the question, for that comment. Actually, the study -- and maybe I was remiss in here today. The study actually spends a fair amount of time talking about the minimum wage. I think there is very, very compelling evidence not new to us, but in other studies

that we cite there's very compelling evidence that the application of U.S. minimum wages to Puerto Rico had a profound effect driving up labor costs at the low end of the distribution. And it's consistent with one of the figures that Maria showed you. So, now, going from there to actually tracing out the exact effect on employment is hard to do, and I'm not aware of anybody who's done that in an iron clad way, but I am very sympathetic to what Bill said just a minute ago, and I think that one of the factors -- not the only factor, but one of the factors that accounts for this misaligned industry structure in Puerto Rico has been very high, real minimum wage relative to average wages on the island, and that was something that was instituted by the U.S. federal government and posed on Puerto Rico in the late '70s as I recall, okay? So, that is a very clear example of what I think is an unfortunate economic policy that's been imposed on Puerto Rico from the outside, and I think it would make great sense to de-link the U.S. and Puerto Rican minimum wages. To my mind, it makes no sense to have the same minimum wage by law in Puerto Rico as on the U.S. mainland unless and until Puerto Rican wages reach the level of U.S. wages.

But following up on your broader question, are there other examples of this, I think are. Let me point to another one that we talk a bit about in the study -- the Jones Act. The Jones Act requires that all transport of goods by sea between the U.S. and Puerto Rico take place on U.S.-owned vessels, okay? That's just like a tax on Puerto Rican exports to the U.S. mainland and a tax on Puerto Rican imports from the U.S. mainland. Other countries -- for example, Mexico -- are not subject to that same requirement, so if Mexico wants to seek out the most efficient, lowest-cost shipping to any other country between the United



States and itself, it can do so, but Puerto Rico is not allowed to do that. So, that's another example. I have not tried to quantify exactly how much that raises prices and costs in Puerto Rico, but I think, from an economic perspective, it's harmful to Puerto Rico and not an advisable economic policy.

There are many other problems of this sort that have to do with the tax system that you've already a little bit about from Susan and you may hear more about later.

PROF. DAVIS: In back?

DR. CORREODO: Good morning. I'm Dr. Iliana Correodo, a behavioral scientist, so I'm trying to keep up with some of the economic factors that are being brought to our attention, and I would like to make several comments. One of them is that I have not thus far seen explained the relationship between Puerto Rico and the United States from a political standpoint. Are there restrictions -- the fact that Puerto Rico is not an island nation and has to follow the regulations that are set forth by the United States?

I also have some concerns about the methodology. It isn't clear to me how large the samples are, what kind of scientific surveys if any were conducted in order to gather the data. The conclusions are of concern, because some of them are not economic conclusions but, rather, behavioral. So, just the information related to (off mike) that this incentive to work because of federal benefits that the island receives, which I might add have federal caps on them. So, Puerto Rico's federal benefits are lower than the federal benefits that those of us here in the continental U.S. receive. So, you know, that is something that also needs to be taken into consideration.

There is also the air breach reality, the number of Puerto Ricans that move back and forth between the island and the continental U.S. The number of students who are currently enrolled in the continental American universities and other universities, so, you know, these are all (off mike) resolved. The geographic differences in the island are very significant. Were those taken into account?

I don't want to maximize the issue of Dominican and other migration to the island, but that is an issue of concern. Was that also part of the equation? Was the brain drain -- the fact that there are now 600,000 Puerto Ricans in Orlando who are predominantly professionals -- physicians, dentists, lawyers, et cetera--what effect does that have on the figures back in the island? It is brain drain.

In looking at the types of disabilities, were these physical or mental? Is there data implying that the Social Security system in Puerto Rico is much more lenient in diagnosing a disability and therefore their roles have been swelled because of the numbers of people that otherwise would have been diagnosed had they been in the continental United States?

MR. DICKENS: Is there much more to the question?

DR. CORREDO: Yes, one -- two final issues that I would see addressed. 936 and some of the other previous activities in the island -- the information that you present mean that they were failures, that no infrastructure was left behind?

And I just have to make one final comment, because -- and I want

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it to be understood from the perspective it's very transparent, there's no hidden meaning, but for the last eight years I've been working in Geneva, and I've now recently come back to this area, to Washington, where I've lived most of my adult life, and I find it somewhat disappointing to see that we are still looking at Puerto Rico from a monolithic, monocultural perspective, and I had hoped that in those eight years that I was away some of this would have changed.

Thank you.

MR. DICKENS: Thank you for your comments and also for the great for the book. Many of the issues that you mentioned are discussed -- obviously, the presentations that you're hearing today are just little snippets -- the main thrust of the much longer articles that are in the book. Any of the issues that you raised that you particularly feel deserve --

PROF. DAVIS: Let me just say a couple of things briefly. These methodological issues are discussed at length in the paper. Briefly, though, on sample sizes, most of what I showed you is based on decennial census data, so we're talking about samples of hundreds of thousands of persons per year in Puerto Rico and millions in the U.S. The business census data that I showed you are based on records of every taxpaying business unit. The labor force survey stuff that I showed you and I think which Maria also relied heavily on is the largest, best survey on labor force outcomes that's conducted on a regular basis in Puerto Rico. So, I think the sample size issue is a non-issue.

The transfer payment -- again, let me just mention one statistic to help you understand how pervasive transfer payments are in the life of Puerto Rican households. So, one of the other studies in this book -- it's not represented

here today -- calculates that 25 percent of household income in Puerto Rico is in the form of transfer payments from the government, okay? That's an enormous fraction. I think it's more than twice as high in Puerto Rico as it is in the United States. So, I think there's no doubt, and almost all of the economists who looked at this have come to this conclusion that a big part of the employment puzzle in Puerto Rico is not just the size of the transfer payments but the sense that they are not structured in a way that provide work incentives. They're actually structured in a way that discourages people from working.

And then just one last thing, if I could say. You know, I think the design of this study was actually, to my mind, quite a nice one in the sense of trying to capture both an inside and an outside perspective on the Puerto Rican economy. Each chapter was paired one Puerto Rican economist expert with one outside expert, and the idea was to try to get the best of both worlds so that we can look at Puerto Rico with inside expertise but also get the benefits of a different perspective, and I actually think the volume does quite a nice job in that respect.

MR. DICKENS: I'm told we have time to run over two more questions. Yes.

MR. HEFF: I am Neimer Heff from Applied Physics Laboratory. I have a question for Professor Davis. So, you cite the issue of low employment in the retail sector as of concern, and then you propose that perhaps the lack of creative destructive -- like has happened in the U.S. retail sector, you know, explains part of that -- and then I think you go on to say that the permit process is a main issue in preventing that lack of creative destruction. However, there are

some noteworthy examples not uncommon of big retail chains from the U.S. that have had a strong presence in Puerto Rico for many years and have not driven the local retail businesses out of the market, like the have here in some cases. Also there are some noteworthy examples of retail -- national retail chains that have been already to Puerto Rico have failed and were taken over by local retail companies. So, I'm wondering if you looked at other explanations than the complicated permit process in two questions. Specifically, one, did you look at other possibilities to explain why there is low retail participation in general, not just, you know, local versus national. And then also did you look at other possibilities as to why you claim that the -- you know, there is this lack of creative destruction; in other words, have you looked at other possibilities as to why the other big boxes that have not made it into the island yet?

Thank you.

PROF. DAVIS: A couple of things. First, I fear from a couple of questions I've come across as a proponent of big retail firms in general. That's not at all my -- okay, so that's not where I'm coming from. The point is there's been this transformation of the U.S. retail sector that's taken place in recent decades. There's now very good evidence, in my view, that that transformation has had big consumer benefits. That process has slowed, okay, and as you pointed out, rightly I think, it's hard to put finger on exactly what had slowed that process in Puerto Rico relative to the United States mainland. The permitting process may be part of it. High minimum wages part of it. Other regulatory barriers that we talk about. Some of these factors in the study. As I understand, for example in Puerto Rico if you want to open a new business you have to get a patent from the local

municipality. In some cases the local municipality will only grant -- will not grant you a patent in an area that they feel is already well served. Well, what does that mean? The most desirable retail locations are already served, so if somebody else wants to open up in that same location they're told no, you've got to open way over there where there's no -- you know, there's no traffic and so on. So, there are many of these barriers.

There's actually a connection, I think, between the lack of low-wage jobs in Puerto Rico on the demand side and some of these supply side issues that have to do with transfer payments. If you make it unattractive for people to work in the marketplace, they're going to carry out some of the same activities in the home sector -- cooking, cleaning, laundering, and so on -- that they might have purchased in the market sector if the tax and transfer system had been more favorable. And you can see evidence of this when you compare high-tax countries to low-tax countries, and here I'm not talking about Puerto Rico versus the U.S.; I'm talking among rich countries you tend to see countries that high marginal tax rates on labor income and consumption, have rather small personal services, small retail sector, small restaurant sector, and so on. So, I think that's another part of the story, but can I actually apportion it out and say well, it's 25 percent this, 10 percent that -- no, not on the basis of our study.

MR. DICKENS: One last question. In front here.

MALE SPEAKER: (off mike) with the government of Puerto Rico office in Washington. This question is for Maria. There's been a lot of anecdotal comment about the brain drain and a lot of professionals leaving Puerto Rico to the states and other places, but in your book you state -- and your study shows --

that actually there's a reverse brain drain happening, and could you expand on that a little bit?

PROF. ENCHAUTEGUI: Yeah, that comes from other research. I mean, the data I have look on immigration doesn't show brain drain. Yes, we have a lot of professionals leaving, but we have a lot of professionals in Puerto Rico. So, you would expect a lot of them to leave. When you look at the how the professionals are represented, the one who leave, and that's really the comparison. We don't see that Puerto Rico is a sport in this proportionally educated people. Still, they're most likely to move other people at the lower end of the education distribution.

PROF. DAVIS: Can I add something on this brain drain issue, because there's now doubt migration between the mainland and Puerto Rico is an issue, but I sometimes think it gets overstated. Suppose I came in here and I told you that for 30 years the State of Rhode Island has had an employment that's less than two-thirds of the rest of the United States? Well, we could come here and talk about people are leaving Rhode Island to get jobs elsewhere. But the question you ought to ask yourself next -- well, why are they leaving Rhode Island, okay? And the same applies Puerto Rico. Now, open borders between the U.S. and Puerto Rico is not a new thing. I guess it's been since 1917 since Puerto Ricans became U.S. citizens, maybe sooner. So, you have to ask yourself why do Puerto Ricans want to leave Puerto Rico? They've got family there, it's a pleasant place to be. There must be some shortcoming in the economy.

MR. DICKENS: Okay, I'd like to thank Professor Enchautegui and Professor Davis. We're going to move right into the next section, and that

will be chaired by Francisco Uriarte, the chairman of the Center for a New Economy.

MR. URIARTE: Okay, so moving on while we put the presentation up. We're going to be closing this briefing. We're representing the story with a summary of the "Options for Restoring Growth," and Barry Bosworth will be the one addressing that area. I want to take a little bit of liberty here to let you know that the book is not out yet. It will be out in June, and the discussion and the debate certainly will help enrich what we're trying to do. But let's wait till it's out and then we'll start debating the issues once you've had a chance to read through it completely.

Barry Bosworth is a senior fellow in the economics studies program at the Brookings Institution in Washington, D.C., where his research has involved work on the determinance of economic growth in the developing countries, saving, and capital formation. In addition, his current projects include a story of economic consequences of population aging, productivity growth in U.S. services, producing industries, and a story of policies to promote economic growth in Puerto Rico. Mr. Bosworth has been a senior fellow since 1979 and has served as a research associate from 1971 to 1977. He was director of the President's Council on Wage and Price Stability between 1977 and 1979. A visiting lecturer at the University of California at Berkeley between '74 ad '75 and assistant professor at Harvard University between 1969 and 1971. Barry received his Ph.D. from the University of Michigan in 1969. Some of his recent publications include *Services Productivity in the United States; New Sources of Economic Growth; The Empirics of Growth: An Update; Increased Life*



*Expectancy: A Global Perspective; Coping with Methuselah; Aging Societies: The Global Dimension; Coming Together: Mexico-U.S. Relations; and Valuing the Renminbi; (off mike) papers.*

Barry, I hope I didn't destroy these names.

With you, Barry Bosworth.

DR. BOSWORTH: Thank you very much for that introduction.

I'm going to try to be brief, because people have already mentioned to some extent this morning already quite a few things about policy options in Puerto Rico, so I'd just like to provide a little bit of structure for the discussion.

Puerto Rico, I think is, from an economist's point of view, just absolutely fascinating, particularly if you start, as Susan and I did, with sort of an interest in economic growth, because if you go talk to World Bank people or IMF today or most academic economists, the things people talk about, about why countries do well, you think Puerto Rico has, right? It's amazing, right? In recent decades, there's just been a great deal of emphasis, for example, on the subject of institutions and the importance of institutions.

We talked this morning about the government shouldn't try to determine where the economy goes. The government should try to set an environment in which growth can occur. Puerto Rico's had U.S. institutions. It's had basically U.S. institutions, now, for a century. It has the American legal system, and it's got American bank regulation. Unfortunately, in the last few weeks it doesn't look so good. I guess there are some problems with Puerto Rican banks, but --

Second, as Susan mentioned, it's an extremely open economy, so

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anybody who wants to talk about the success of that economy is -- you've got to be open to the global economy. Puerto Ricans essentially free-trade, complete free trade in the movement of goods between Puerto Rico and the United States. Free movement of people, which is a highly emotional issue around the world, that somehow immigration from low-income countries to high-income countries will solve the problem of poverty in much of the world. And it has absolutely free movement of finance. A Puerto Rican bank can locate in the United States mainland; a mainland bank can open in Puerto Rico. I think Puerto Ricans borrow a lot of money on the mainland. They invest a lot of money on the mainland. So, there's free flow back and forth, right?

Third, it is an extremely well-educated, bilingual population which is sitting right in between North and South America, and the Caribbean should offer huge advantages from a business perspective.

Third, you don't have to worry about macro-economic stability. It's tied to the U.S. dollar. It doesn't have any ability to manipulate its exchange rate in any way whatsoever, and inflation is just going to be tied basically to the same rate of inflation that's here on the mainland.

So, in those perspectives you would have thought that Puerto Rico would do very well. There are a couple of other things, I think, though that gives us concern about that whole thing. A couple of them have already come up this morning.

One is the United States has its laws and makes its treaties to suit its own circumstances, right? They could care less what Puerto Ricans think about those rules. I thought, for example, we were discussing the labor section

earlier -- before the 1970s Puerto Rico had the authority to set its own minimum wage. When the U.S. government wanted to go, in the mid-1970s, concern about Puerto Rico--one of the things that American Labor Unions were concerned about was competition from Puerto Rico, so they insisted that U.S. minimum wage be applied to Puerto Rico -- completely different wage level, completely different situation. So, there are some concerns that those things are different.

A second big issue, which we've discussed already and I want to return to a little bit, is work disincentives. Why, in fact, it's such a big problem for Puerto Rico.

Third, in the study we haven't had a chance to talk about this morning much on education. The two authors who worked on that weren't able to come to this today. But there is a concern that what used to be a model of impressive achievement in education is eroding over time. And that one I think there's always arguments here in the U.S. My father told me the schools were never as good when I was going as when he was going. There was a deteriorating education. I tell my children the same thing. And they can be properly skeptical about these arguments that the education system's always deteriorating. It ought to be really bad by now. But in Puerto Rico, as in some mainland major cities, there is an empirical test that you can apply, right, because in Puerto Rico as in the United States, people can vote with their feet. They can leave the public school system. And one of the sources of concern in Puerto Rico is that now about 25 percent of all schools are outside the public system. That suggests there's a problem in the public system, right? So, I think we worry about that one.

Then another theme I think that comes up repeatedly is Puerto

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Rico, particularly on the government side, is not a very transparent society. There's an awful lot of rent-seeking behavior going on in Puerto Rico by people in the private sector with relationships with people in the government sector that the influence rules. It's not an open, transparent society, and you worry about the strength of the competition therefore that exists in that kind of a system.

And, finally, I think one we have to address a little bit is Puerto Rico has emerging fiscal problems, and that's been the dominant theme in the last couple of weeks. That was not the focus of this study. We were more worried about some longer-term trends on the physical side, but I thought we could say a few things about them this morning and have some discussion.

What I think emerges out of that is a memory that Puerto Rico does not need more suggestions. There have been enough studies with little suggestions by politicians, by academics, and by others -- you ought to do this, you ought to do that. They've done an awful lot. The problem, it seems to me, with policy actions in Puerto Rico to address this problem is there is simply no focus on any broad theme what it is people are trying to achieve. They just announce that this change will solve the problem, they enact it, and then they forget about it. If it was enacted by the previous government, by definition you have to forget about it. We are not going to follow through on anything that was done by the other party, and that creates a very destructive environment in which Puerto Ricans are not coalesced on trying to develop a strategy and solution.

And the second theme we want to emphasize is that we do not have a magic bullet. We didn't even try. I think one of the lessons that comes out of economic growth studies around the world is there is no magic formula for

economic growth. Every society has to tailor the situation to fit their own characteristics. Everybody finds a slightly different way. I wouldn't suggest the way Japan does it is the way the United States could do it, for example. Every society is different.

I think Puerto Rico needs the same thing. Puerto Rico needs an economic growth policy basically developed by Puerto Ricans, and it needs to coalesce around some broad themes and stick to them and follow through over time. This is not going to be solved overnight.

Yesterday we had a discussion. I think somebody asked a very appropriate question -- What should Puerto Rico do to create more jobs. That's the wrong question. You could create an end -- the government cannot create new jobs in Puerto Rico. The government can try to create an environment within which people in the private sector will create job opportunities. You don't ever have a discussion here on the mainland, right, of what do we have to do to create jobs? We don't focus on that. We just assume the jobs will be created if the underlying economy is strong and growing. And I think that's the focus, too. We'll never be able to identify or pick winners and losers and know exactly where the growth comes.

So, I think the focus here has to be on trying to create an environment, and I think what emerges from the study is basically five broad themes that Puerto Rico could focus on.

The first -- and I think there's been a lot of discussion on this morning, just overwhelming -- Puerto Rico has to find a way to get more people employed. It's too big a burden to ask this very small number of workers to

support that whole society. And it's destructive to people to not have a job and have the satisfaction of knowing that you have a productive activity. So, from all sides I think that's the most critical problem that has to be resolved. You can look at this as carrots and sticks. I think that's futile. I think you have to see this as a problem of both demand and supply. Puerto Ricans need to be rewarded more and helped when they get a job on the supply side, and there needs to be more job opportunities for them on the demand side.

The second one is what Steve Davis was talking about. The first one is what Maria was talking about.

The other one I think is that -- Steve mentioned in great detail -- Puerto Rico has to quit relying on large multinational American corporations who have a different agenda than Puerto Rico. It has to create its own private sector businesses that are for Puerto Ricans and directed to succeed in Puerto Rico and not dependent on U.S. tax law and its ambiguities.

So, I think it does need a lot of emphasis on private sector development in Puerto Rico.

Again, we'll have a few suggestions. Steve has some in his chapter in the book. We put some in the policy chapter. But we don't have an answer -- How do you go create a strong private sector? It's a lot of things that you have to do, not one or two.

The third, education reform, Puerto Rico has to do something about.

Fourth, I think something's got to be done -- we'll talk a little bit more before I quit -- on strengthening the infrastructure.

And the last one, and it's broader than the issue of taxes or expenditures -- Puerto Rico needs a physical reform, more properly, a government reform. The role of government in the economy and society I think is what we want to focus on.

First of all, on creating employment, the first one mentioned. I think there the key to it is Puerto Rico in some dimensions I think has a social welfare system that looks like that of the United States in the 1960s and '70s. All the reforms that have taken place here in the United States to try to help people get into productive jobs have simply been ignored. In particular, the one that comes most to mind I think is the earned income tax credit. That has been an extremely effective program in the United States that creates incentives.

And the second aspect of it, I think, is we have to move away from means tested programs.

Let me jump ahead a minute just to show you what we mean by that. This is a typical chart. What would happen if you were working in Puerto Rico -- or not working in Puerto Rico? You had a mother with children, got welfare payments at various times and social transfers, and decided to go out and get a job for minimum wage. Suppose she worked five hours. How much money would she get to keep? Nothing. Suppose she worked half time, how much money should she keep that she had just earned? Nothing. Why? Because as she earns more money from outside in productive work, the magnitude of the transfer payment's reduced. So, there's no incentive. This was known in the United States in the 1960s and '70s this is a terrible problem. Families couldn't afford to get productive jobs, because if they did their children would be taken off the

Medicaid program, for example, here in the U.S. We have gone too around the reform to try to create a system that's not biased against work. Puerto Rico is basically ignored and I think that's a big reform that has to be made to get rid of this notion that if you go get a job you're just going to get no net benefits other than the psychological satisfaction from the job.

So, I think that is a problem both for the commonwealth and for the federal government. Yes, Puerto Rico does not have access to programs that are quite as generous as they are on the mainland. I agree. But the alternative, level of wages, is much less generous than on the mainland. And what matters is the options before you. So, if you wanted even more social transfers, you could go to the U.S. But if you went to the mainland you can't qualify on a sustained basis for many of those programs. There will be limits and standards that will be applied.

So, what matters for Puerto Rico is a lot of these transfer programs are very attractive compared to getting a job in Puerto Rico. In particular, the U.S. Social Security system is extremely redistributive. If you are a low-wage worker, it's a very attractive retirement program, because we don't do much for the top but we do a lot for the bottom, as we should. But it means if you're disabled there's a big return to disability if you're in a low-wage job. And one of the things that stands out in Puerto Rico, in the U.S. Social Security data, is the incidence of disability is very high. How is it possible that jobs are more dangerous in Puerto Rico? It's not something you can say, "Oh, ex-number of these people are cheating. You need a review, right? That's the federal government responsibility -- to make sure that the disability program under Social



Security is being applied in Puerto Rico on the same basis as on the mainland.

But most of the other transfer programs are controlled by the Puerto Rican government, and they are the ones who set the standards for it.

So, I think the focus is to try to get the transfer of system away from means tested; quit penalizing people for getting a job; and restructure the incentives on the supply side.

I think at the same time there is some evidence in the U.S. that work force development programs -- if they're comprehensive, integrated with the education system, and offer lifetime-type retraining -- have had positive returns. Many regions of the United States and states' local areas have been expanding those types of activities. I think Puerto Rico needs to get more involved in trying to strengthen the employment skills of its population.

Susan and I made a calculation of how fast would employment have to grow over, say, the next 20 years to catch up to where it is on the mainland? You'd need a growth rate of about 3 percent per year to get up there. That's not impossible to achieve. We want to emphasize it. Puerto Rico is not in a state of collapse. This is still a pretty healthy economy. Year after year employment opportunities do expand in Puerto Rico. You just want to accelerate the process so it would catch up faster with that of the mainland. A 3 percent employment growth is a high rate of growth, but many U.S. states have been growing it faster than that -- for example, Florida, where a lot of Puerto Ricans have moved to, as a matter of fact because of the employment opportunities -- and many countries around the world have experienced the state of employment growth of about 3 percent. So, this is an achievable goal for a Puerto Rican.

Private sector development -- I'm not going to add a lot to -- I don't know that much about it. What I learned a lot was from listening to Steve Davis talk about it. But I think Puerto Rico has -- a lot of things have to be done, as he was trying to emphasize, to create an environment that's attractive operating business.

Last week I was in Puerto Rico for a couple of days and just reading the newspapers I thought was most distressing about sort of the legislative discussion about the (off mike). There seems to be so little appreciation in Puerto Rico, and the importance of. You live in a competitive, global environment. If you want jobs, you have to attract business. You have to stop them from going to Ireland. You have to be more attractive than Ireland. You have to be more attractive than Miami. Those are your major competitors. And Puerto Ricans persist in doing things that seem to me -- at least from what you read -- are aimed at driving business out of the country. If you drive the business out of Puerto Rico, you're going to drive the employment out of Puerto Rico. Unlike the past, 25 years or 50 years ago I think what the (off mike) was printed in Puerto Rico was very clever. Bring in these American firms with big tax incentives provided by the federal government. They're going to earn a lot of economic rent. Why shouldn't we get a share of that? And basically the approach of the Puerto Rican government was they took a share, so they could tax those American corporations because they were getting a lot of rent from the U.S. federal government and transferred a bit of it Puerto Rico. That's not the world anymore, right? That's all gone away. You live in a global environment where you're competing with lots of countries around the world. And in that case, 936 is gone, but 936 wouldn't work

anyway. Now you live in a world for, say, for U.S. tax purposes. We call them controlled foreign corporations. You have to pay taxes if you bring the money back to the United States. That was the big difference. 936, the drug companies could bring the money back to the United States and never pay tax. Now they can't do that. But most multinational firms don't want to bring the money back to the United States anyway, right? They want to expand in a global market. They're reinvesting abroad, and they hope maybe there'll be another tax holiday, like there was last year, right? And they can bring their money back. And so they don't really care anymore about this sort of situation. They may have an incentive to operate abroad, but Puerto Rico has to compete with other offshore locations that are attractive places to do business. Taxes are not the only criteria by any means. A skilled work force, attractive wage rates, low levels of regulation, etc., all of the things that Steve mentioned for local business also apply to making Puerto Rico a popular place to be.

I think that this is an area of (off mike). Another one I would mention in here to me seems important. I think Puerto Rico can do better in tourism, but tourism is not going to be the future of Puerto Rico. There's a lot of lower-cost Caribbean islands it seems to me that are probably more attractive, right? You can do everything to some extent, right? You can create -- business will come there, do business, and also wants to have some entertainment.

It seems to me obvious that Puerto Rico is ideally suited to do a lot of business services between North America and Latin America. You've got a bilingual population; you've got a good airport; you've got very good infrastructure; you've got basically a good financial system. You should be able

to provide all the business services to promoting economic activity between North and South America. But right now, Miami outperforms it, and this we got -- I think the competition there.

What could the federal government do about it? Well, as somebody mentioned, the Jones Act. Steve mentioned the Jones Act earlier this morning. I think that is a barrier. Transportation costs. Puerto Rico is now disadvantaged relative to Mexico. It's easier to get goods from Mexico and the United States than it is from Puerto Rico. But more important maybe is air transportation. Puerto Rico -- you have to fly in American flagships to go between Puerto Rico and the mainland, right? Why can't Puerto Rico just be exempted from all these transportation restrictions? Why does the federal government care, right?

At that point, Puerto Rico could be a transportation hub for North and South America. In other words, aircraft ought to be free to fly out of Puerto Rico and go wherever they want with no restrictions. Would it matter if a trivial concern for the United States as a whole and it would make it a more attractive business center to operate in?

We've had some discussion of -- in the trade section, which again we couldn't do on a policy of trying to promote synergism among industries in Puerto Rico, that there is evidence that you have to have interaction between the university and the industrial community. And in Puerto Rico the university is not at the center of the economy.

We produced some statistics in our study. The University of Puerto Rico is not active in research and development. Puerto Rican firms are not

active in research and development. Puerto Rico right now is not a big R&D community. Even though it may think it's active in an industry that's got a lot of R&D, that R&D does not take place on the island of Puerto Rico. So, there are opportunities to try to make the university research and development system more plugged in to Puerto Rican economy.

Finally, human physical capital I mention. I think your -- the education chapter suggests that Puerto Rico could learn some things by looking at the experience of large U.S. American cities that have the same problems. Mainly, Chicago was one that they talked about in some detail, where the city government finally took over the educational system and tried to enact an accelerated pace of reform. But a lot of Puerto Ricans' problems are not unique to Puerto Rico and the education there. They're the same things we find in big urban centers in the United States. And we struggle with the same thing.

I think Puerto Rico wants to follow that discussion, but there is no answer as far as I know to solving all these sort of problems yet. So, Puerto Rico simply wants to be part of that.

Physical infrastructure -- certainly San Juan is a modern city compared to the rest of the United States. On the other hand, I think that some of the infrastructure is beginning to deteriorate, and it doesn't quite measure up.

The communication system -- basically pretty good, but if you want internet connections and high-speed access to the rest of the world, Puerto Rico's lagging behind. It's a constant frustration to me when I go to the Center on the New Economy and I have to work off their internet connections. Too slow. So, there's evidence there.

There's a study by CNE showing that electrical costs in Puerto Rico are about 2 cents a kilowatt higher than they are in other parts of the United States. There's no real good reason for that except for inefficiency of the power system in Puerto Rico.

So, there communications and power, electricity I think in particular stands out, that Puerto Rico has to do more to improve the infrastructure.

Finally then, to conclude with Puerto Rico's physical situation. What I think is sort of remarkable here, given -- people sometimes talk as though the government has been dramatically expanding its spending, it's running huge deficits, and it's wasting money. In fact, what you see is a steady erosion of the government share of income in Puerto Rico. Why? Because the tax system is basically collapsed. We're just not collecting any significant revenue, because over time what the Puerto Rican government does is one tax favor right after another to various interest groups in Puerto Rico who get exempted from taxes. And so there is no comprehensive tax system in Puerto Rico. Even if you look at the retail sales tax, there's a lot of exceptions for different types of commodities, which the government judges to be socially more important than others so exclude them. So, it's a very narrow tax base.

I would say on the revenue side what we think we've learned from a lot of economic studies of tax systems around the world, efforts to use the tax system to promote various activities simply doesn't work. People learn to avoid those, and they're not successful. Instead what it does, it encourages rent-seeking behavior, meaning if I can get to the government and I can get them to give me a

tax exemption but not to my competitor, I gain. And that's what's going on in the Puerto Rican tax system in spades. Everybody wants a special deal, including those big multinational American corporations who come to Puerto Rico but only if you will give us a special pass.

That gets to be very distortionary, and I think the focus and point of (off mike) is very simple. There should be a broad-based income tax. All the distortions are caused by tax rates. The higher the rate, the bigger the distortion. How do you get tax rates down and still raise the revenues you need to provide public services? You broaden out the tax base. You exempt nothing. You have a broad-based tax with a low rate. The broader the tax, the lower the rate can be, the fewer the distortions.

And that should be the focus of tax policy in Puerto Rico. At present the government's going in the opposite direction as it raises peculiar little taxes on peculiar little groups in society, and it's becoming an increasingly, severely, distortionary type tax system.

I think the two that we suggest the most we don't really care a big deal. I would have thought that Puerto Rico would go for a VAT simply because it's an island and therefore it's very easy to keep track of what comes in and goes out. But if you don't like that, you can try a retail sales tax. Basically the same thing. The trouble with the retail sales tax? Most people don't apply to about half of retail. Most the services get exempted and then everybody's always saying oh my, come out here; don't tax food, it hurts the poor and things like that. You end up with a very small tax base. And then it becomes very distortionary of people's patterns of spending.

The other big area -- and I'm not going to spend the time going into detail, but I just think is unique to Puerto Rico -- is the property tax. I know lots of people who own property don't like property taxes. But there's a lot of economic study showing that a basic, simple, straightforward property tax encourages people to use land efficiently, not waste it. Puerto Rico's scarce resource is land. It needs a tax system that encourages people to use that land productively. Instead, it's got this craziest system for property taxation imaginable that basically means there's no property tax in Puerto Rico. So, it's a great way to hide wealth and avoid taxation. So, I think Puerto Rico needs a reform of the consumption tax. I prefer (off mike) but it's not a big deal. And it needs a reform of the property tax. More broadly, what Puerto Rico government needs, we want to argue, is an overall reform that just opens it up, simplifies the rules in many different dimensions, and makes them all transparent.

Try to figure out what government spending is in Puerto Rico. Try to figure out what government spending is on a particular area of activity -- say, education -- and have any belief that the number you're given has any validity, because there are about four or five different measures. The Puerto Rican government is just not too transparent in its conduct of relationships with its citizens, and I think that's a big need for a broad case of reform.

We think the focus ought to be, in Puerto Rico, on trying to create a level playing field for everybody. So, the government should withdraw from the business of trying to give people special advantages.

That we talk about as I have the value added tax reform. I think this is a good time -- Susan started this by saying Puerto Rico is a glass half full.



Another cliché is to say Puerto Rico is in a crossroads today. I think to some extent it is. It can and should do better. That's the most fundamental lesson we got. This is a very well-educated, productive population. Human capital in a global system is your resource. You have to manage it well. Puerto Rico has great opportunities in (off mike), and relying on such things as special tax gimmicks simply is not the way forward for Puerto Rico and instead it has to do more to develop a domestic Puerto Rican private economy. I think it's the key. It's got to diversify. It can't rely on government to create jobs. If it can do that I think Puerto Rico -- and we would argue -- can be a highly successful image. And that's the direction we hope we go.

I think you noticed -- this is not much of a detailed roadmap that we've come up with. I think it is just broad themes. But I think Puerto Rico has to solve its problems in Puerto Rico, and it's not for outsiders to try to detail.

Thank you.

MR. URIARTE: Thank you, Barry.

We have probably about 10 minutes for questions, so we'll start with --

MS. ALLISEA: My name's Ilene Alicia. I'm a marine policy specialist, and Puerto Rico's a small island that has become highly polluted because of basically land-based sources of pollution. We're all concerned about the environment, and my question is do you see a role for private business in environmental protection in a world where I think we should all be responsible to a certain extent for protecting our environment, an environment that we'd like to protect in Puerto Rico because we want tourists to pay to come see it. So, are

there -- what is the relationship between economic development and environmental protection for a private business, and should it be voluntary? There are many examples that it can work in a profitable manner. I don't see this practiced in Puerto Rico.

DR. BOSWORTH: No, I think you make -- too often economics and environment are seen as somehow in competition with one another. That I do not believe is true. It's certainly not true in Puerto Rico, which doesn't have a lot of natural resources it's trying to exploit or its industries are not directed in that way. Doing something about the environment creates jobs, just the same way any other policy does, and so creating an environment where you're doing sound environmental reforms that make sense and are productive, they're going to help the economy. So, reducing pollution and improving the environment is not a barrier to economic growth in Puerto Rico, particularly since it seems to us that the strength is probably more in the service-type areas of the -- making greater use of human capital is probably the way for Puerto Rico to go, and so a lot of -- what we ended up with is the service sector looks underdeveloped. Nobody is really trying to suggest that Puerto Rico would go big time into oil refineries anymore for example. It used to have one, but that period seems past. So, I don't think the two are in competition with one another.

MR. URIARTE: Next question. Yes, sir.

MALE SPEAKER: I am a foreign investor in Puerto Rico, and I --

MR. URIARTE: You lonely?

(Laughter)

MALE SPEAKER: And I agree completely that one of the

problems that you have in Puerto Rico is that there is a discretionary and very complex tax system, and that -- and discretionary more than anything else certainly discourages job creation and more investment, etc. But you did not mention, sir, the municipal tax system, which is super discretionary and very dangerous because it does have a property tax that sometimes is higher than the income tax that a company pays in Puerto Rico, and I think that that is something that hurts very much job creation and investment in the country because certainly if you are a company that has -- is very heavy in assets to produce, it can be a great disadvantage and great disincentive for job and investment creation in Puerto Rico.

DR. BOSWORTH: From what I've heard recently I fully agree with you. We thought in the midst of the study that we were negligent in not trying to learn more about municipal governments and their revenues and their functions. One of the problems -- I think we came to it too late, but also when we tried to we couldn't find anybody who had any statistics or information. I think you are right. From anecdotal stories we heard, municipal governments sort of operate almost in the informal part of government. They're not well documented. What they do -- they're ignored in a lot of the Puerto Rican statistics that we could get, and I think that you are right, it's a failure of our study to some extent that we didn't know that and focus on it from the beginning, and if we had an opportunity in the future I think we'd want to go back.

Doing government turned out to be far more difficult than we anticipated in many dimensions, so just -- it was like a wall. We could not penetrate and get information about what government does in Puerto Rico. Some

of the things about transparency are a reflection of our own problems, right? We couldn't deal with people from the government in a transparent fashion. If you'd ask for information, nothing would happen. So, I think that you are right, but it's because there's too much rent seeking in Puerto Rico by people who like it this way. If you're the only one who knows, you get a break. So, yes, we wish we could do the government aspect over again. We would approach it differently. We would have devoted a lot more resources to it.

MR. URIARTE: It's an opportunity for us.

DR. BOSWORTH: Yeah, CNE.

MR. GONZALES: Excuse me, my name is (off mike) Gonzales. I work with -- as a staffer for the Russian commissioner from Puerto Rico, Congressman (off mike), but please don't hold that against me. I've been known to be a lose cannon most of the time. It's really refreshing to have a study that was developed by a private entity (off mike) Puerto Rico, founded by the private sector, because that way you get at least -- well, intent of an objective picture. The problem Puerto Rico has had -- and, by the way, I'm very encouraged that you're going to make presentations down there, that you're going to translate it into Spanish. I hope you make a private presentation to the governor. You're going to handcuff him to the chair, because he's not going to like what you're going to say, but worse yet he might agree with everything you say, and then the end result is the same. Nothing gets done.

I remember participating in a panel with Richard (off mike) I don't know how many years ago, and he said Puerto Rico has all the studies that we will ever need for generations to come, but there's no political will to carry them

out. And that is a real problem, and that is what we really have to focus on. But I appreciate and I congratulate you on the intent of being objective within the overall Puerto Rican situation and it's very refreshing, and the only way you're going to achieve that is by having private sector -- founded by the private sector to carry out an economic study on the economy in Puerto Rico. So, thank you very much.

MR. URIARTE: And move it to implementation also I would like to add.

There's a gentleman back there that has been trying to make a question.

MR. JESUS: Ivan DeJesus. I'm a Ph.D. student at Columbia, and we've been discussing Puerto Rico and a case study that comes in Chicago -- Chicago, as we all know, is a city, so my question is what, if any, has there been about land taxes and the use of looking at Puerto Rico as a large city as in a form of developing its strategy for economic growth instead of the traditional macro open economy models that have been used in the past?

DR. BOSWORTH: I think that's another area. I don't want to -- somehow we're picking out all the areas that we thought we should strengthen, right? In the study I think we thought we should have had more involvement of academics with a big background in regional economic policy, and we realize more -- the comparison we feel for Puerto Rico is to a state or a county or municipality, not to another country. It is so integrated with the U.S., and I think its future lies with trying to expand that. So, it faces a lot of economic development issues, like states, and it's -- and that way maybe we should have had

more of a focus on, like, a regional strategy for Puerto Rico. That's not a big function of it right now.

MR. URIATE: Other questions? Is there in the back? Yeah.

FEMALE SPEAKER: (off mike), Fannie Mae. I'm trying to get a better understanding of what's going on in the housing market, specifically in Puerto Rico. The book had mentioned that commercial banks had allocated more funds to investments in real estate, yet real estate developers are having a huge -- or face huge economic barriers to development, and then also the property tax issue and of course the land, you know, the scarce resources of land in Puerto Rico. Could you give me a better idea generally of what the housing sector needs in Puerto Rico?

DR. BOSWORTH: Well, I think Steve Davis is a better person than I to answer that, but from what I understand -- actually, his co-author would have been -- but Luis Rivera Batiste unfortunately died a couple of weeks ago. That was an area that he spent a lot of time focusing on. I think that a way of sort of -- as I understand it, it needs to be opened up. There needs to be more open, transparent competition for the regulations, the approval process, and everything else in Puerto Rico to do that.

There is a big -- as I understand it -- residential real estate boom in Puerto Rico, because a lot of Puerto Ricans think housing is a good thing to invest your nest egg in, and part of that is created by a regulatory environment that makes it difficult to expand the housing stock in a timely fashion. But I -- that was not an area I guess I can say I know enough about to in detail tell you.

MR. URIARTE: Let's get people from the back.

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MALE SPEAKER: Hello, my name is (off mike). Listening to the presentations reminded me of a marketing professor I had in college who said he hated economists, and the best example he used was -- he would say imagine you're in a hole 50 feet deep. You're in with an economist. How do you get out? The economist says imagine we have a ladder. Well, in hearing some of the conversations about you know, Puerto Rico should become a central hub of transportation. The Florida congressional delegation will never allow that to happen. Puerto Rico should be exempt from Jones Act legislation, which by the way is the vehicle that Puerto Rico became U.S. citizens in the first place, so that has a very political taint to it. If we're going to exempt Puerto Rico, you don't think Hawaii is going to require the same thing? Well, Hawaii is a state. It shouldn't have that right. I think in all honesty we all know that here, especially the Puerto Ricans in the room, that Puerto Rico's future depends on its political decision of how American they want to be or how independent they want to be. That's the bottom line. There is no transition from one government to another, because each party -- and I certainly have opinions about it -- is too busy fighting each other every four years, every eight years, every twelve years. You don't want to have transparency because the other political party is going to use it against you. So, we all know it boils down to the political situation in Puerto Rico, and I felt I was remiss if I didn't say anything about this. So, I really didn't have a question. It was just a comment.

DR. BOSWORTH: I think that's an interesting perspective. When we were doing the study we felt exactly the opposite. We didn't want to get tangled up in the political issues of Puerto Rico. I guess I would argue it doesn't

make any difference how this issue is resolved in Puerto Rico between statehood or other options. You have to do the same things to get a successful economy. It may be that this political debate is one of the reasons that the parties won't come together and focus on doing something about the economic situation in Puerto Rico. I agree. In that sense it may be a barrier. But, you know, as long as you're 50/50 you can't solve the problem, right? A society can't go forward when you're so deeply split over a question. So, then, maybe you'd better figure out a way since you're not making any progress resolving the political issue. Maybe you ought to call a truce or something so that you can focus together on doing something about the economic concerns, because you don't have to be of a given party to solve these economic problems. You've just got to quit fighting about something you can't seem to resolve. In that sense I agree, politics is part of the problem in Puerto Rico, but I don't think that resolution of the status question is going to make it any easier to achieve economic growth in Puerto Rico.

MR. URIARTE: There's food for thought.

One last question. The gentleman over here.

MALE SPEAKER: My name is (off mike), president of the Puerto Rican American Research Institute, Research and Development. You -- I think you underestimate the power of the status question. It's issues I thought were very benign, could not possibly have attracted attention fighting about the status question--every issue I attracted, the status question always comes up. So, you underestimate the power of that.

Now, the second section of creating unemployment. What we need in Puerto Rico is a marshal plan which will give and encourage Puerto



Ricans to go into business and back them up.

The question of entrepreneurship -- we have never had a strong entrepreneurship philosophy in Puerto Rico, and we need to develop it. There is also a historic reason for that. So, what we need is a marshal plan which will fund Puerto Ricans to develop businesses in Puerto Rico so we can get going and create more jobs.

Thank you.

DR. BOSWORTH: On that point I guess, on the funding, I don't agree in the sense of I see no evidence that lack of access to funding is a key aspect of Puerto Rico's problems. It appears, if you look at interest rates, loan terms, etc., people don't have a problem getting credit in Puerto Rico, right? That's not your problem. It's using that credit for productive purposes and having -- and I don't even think you can say that it doesn't have a strong entrepreneurial core. It does. There's a lot of very successful private people. One is that's how this study got financed -- by successful people in the private sector. But you've got an institutional system that puts a lot of barriers in people's way. You don't need a marshal fund. That's just an outdated idea that people romanticize about, I think, about Europe. It was a unique situation for Europe, not for the United States.

MR. URIATE: I want to thank all the group and the panelists -- Barry, Susan, Dr. Davis, Dr. Enchautegui, and the other participants, and I'm sure that the speakers will be around if you want to continue talking to them.

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