[MUSIC PLAYING] SPEAKER 1: Hello and welcome to the Harvard Center for International Development's weekly podcast.

SPEAKER 2: Between 1999 and 2009 Jordan experienced a huge growth acceleration, tripling its exports and increasing income per capita by 38%. But since then its economy has been thrown off balance, impacted by a number of external shocks that include the global financial crisis, the Arab Spring and the Syrian Civil War. For the past year CID has been working in the country with the goal of understanding what is hindering income growth per capita and drafting a roadmap to help Jordan get back on the sustainable growth track. This week we talked to CID fellows and project managers, Miguel Angel Santos and Tim O'Brien on the methodologies and findings of this research project.

SPEAKER 3: Hi, Miguel and Tim welcome, thank you for talking to us today. So you recently released a working paper written with a team of CID researchers after a one year engagement with the government of Jordan. The papers entitled, Jordan elements of a growth strategy. But Jordan actually experienced a period of impressive economic growth not that long ago, between 1999 and 2009, what was leading growth in that period?

MIGUEL ANGEL SANTOS: Well, as Tim have started is good to say that this report is the result of a year work in Jordan, where we have deployed 17 people, nine CID growth lab research fellows, and six external consultants and we had two interns there over the summer. So there's a lot of work behind the paper. And yes, Jordan, was one of the fastest growing countries in the decade from '99 to 2009. The country managed to increase its income per capita in those 10 years by 40%. We have studied that growth was mostly export-led, exports quadrupled over that period.

And the thing is the sectors that were driving growth during that decade it's mostly agricultural exports, textiles, and chemical products. These we knew as we walked into the project, and as we did more research what we were able to determine is that these three sectors mostly employ low skilled workers that in Jordan tend to be known Jordanians. So although these sectors were driving exports and exports drove growth by pulling also on their non-tradable sector the fact is that the sectors leading the export boom were sectors that did not create high wage jobs and do not tend to employed many Jordanians.

So I just mention this because as we think of a strategy towards the future, we might have to think about growth in sectors that managed to exploit the comparative advantages of Jordan while at the same time creating high paying jobs for the Jordanians, one of whose comparative advantages they are very well educated and have a significant number of high skilled people that at the moment remains unemployed.

SPEAKER 3: But then after this period of growth, after 2009 the country suffered a series of external shocks that had a dramatic impact on FDI, exports, and fiscal debt. Could you talk a bit more about that?

MIGUEL ANGEL SANTOS: Yes. Actually, I mean, everything seemed to have happened to Jordan after 2009. First it was a global financial crisis that caused a flight to security and the savings of the war Jordan had been receiving in the decade prior to the crisis, foreign direct investment in an amount that averaged 13% of GDP every year. And after the global financial crisis that number has fallen down to 5%. So the global financial crisis was the first hit, it caused a flight to safety and a decrease in the amount of money flowing to Jordan.

And then the oil prices came down, in spite of Jordan being an oil importing country, and you're thinking, well, this may have benefited. The fact is that the flow of funds into Jordan mostly comes from oil exporting countries. So those are the countries that give grant to Jordan, those are the countries that invest in Jordan, and those are the countries where Jordanian works and then send money back to Jordan in remittances. So when an oil country suffers a hit, and oil prices crash from 2013 onwards, Jordan in spite of being an oil importer suffered also a hit. So that was also an important impact.

But also the Arab Spring cause a massive wave. First caused some events that ended up causing a massive wave of refugees into Jordan. So on top of the economy growing at a rate that was a third, that it was growing over the previous decade, overall the fact remains that Jordan suffered a tremendous increase in its population about 50% in three years, mainly driven by Syrian refugees inflows and also by Egyptian refugees inflows. So when you put everything together plus the fact that war conflicts in the Middle East affected the trade routes of Jordan with commercial partners that represent that 25% of Jordanian exports, which is Iraq, Lebanon, Syria, and the exports that were done through Syria were mostly affected by the conflicts in Iraq and Syria. And that represented 25% of Jordanian exports, and after 2014 that came down to 5% of Jordanian exports. So Jordan really had to substitute for new trading partners, and although it did manage its exports stagnated, so they stop borrowing it stagnated.

So in a country tremendous external shocks, what we have highlighted in the paper is, in the context of tremendous external shocks, and strong fiscal consolidation, the Jordan economy has shown an extraordinary resiliency, and has continued to grow at a rate of 2.5% per year. The problem is that due to the massive increase in population of more than 50% in 10 years, when you compute a growth in per capita terms it has been like nine years in a row of decrease over which Jordan has lost 12% of its income per capita. And that's what is causing the crisis that ended people thinking that CID could go there and do research and add some value.

SPEAKER 3: So within that context, what was the team's goal coming into the project?

TIM O'BRIEN: Well, we have to recognize that at the start of the project we didn't know everything that Miguel just laid out. We knew bits and pieces could make a few observations at the start. So taking a step back, the goal coming into the project was really to understand the history of growth in Jordan, Jordan's current predicament, we knew that it had high debt, high unemployment, but we needed to understand where that came from. We learned that growth had slowed down from this previous fast rate of growth, but we didn't know that before we started looking into the history. So we had to first figure out how Jordan got to where it is today, and what the growth problem Jordan faces today is. And we could trace that back to these shocks beginning in 2008, and the structure of the economy prior to 2008 not being well oriented to withstand those shocks or to make use of Jordan's natural comparative advantages. So the goal of the project was to do that first of all. Understand the historical process of growth, the current growth problem, and then begin to ask, what is binding Jordan from getting out of this vulnerable place? Why?

It's showing a lot of resilience given the shocks that have hit it, but how can it break free of these regular shocks that it faces? So we proceeded from that to study what are the binding constraints to growth and what are the opportunities that Jordan has to build a way out of the drivers that have failed and create new drivers of growth. Bringing these things together, historical narrative, and understanding of constraints and opportunities, we aim to build what we call the growth narrative. Which recognizes weaknesses from the past and tries to identify a promising path forward.

And then our goal was to go further than that and work together with the government to study particular policies that could relieve the constraints that we saw as most binding? And in doing so to provide different types of training and different economic tools, different ways of thinking about problems that might be new to Jordan in an open and big way. So we try to follow the diagnostic process. When we see that there are problems we try to understand them at a deeper level and then work together with the government and stakeholders outside the government to try to build coalitions and improve policymaking. That's the overall picture.

SPEAKER 3: OK. And coming up with this roadmap for a sustainable economic growth seems like an extremely challenging task. Can you briefly outline what's the team's process coming into a country engagement like this?

MIGUEL ANGEL SANTOS: Well, part of the challenging task is that it's to realize that the economy will have to grow within the context of fiscal consolidation. That means the government is making a huge effort to reduce the public deficit. What they have done from 2011 to 2018 its fiscal adjustment process that goes beyond that carried in Portugal and Spain. And if you add cutting the deficit of public enterprises probably it's one of the largest fiscal adjustments that have been made in modern times. The point with that is that fiscal expenditure demands goods and sometimes it's a driver of growth. So you have to grow in a context where there's no demand driven by public expenditure. So the point here is one of the first realizations we had is you have to grow a base on the rest of the world demand, which meant basically that your strategy has to be export-led so that's the first challenge. And when you combine this to what I told you before it has to be export driven bisectors that exploit the comparative advantages of Jordan and create high paying jobs for the Jordanians. That's one of the key challenges.

So Jordan entering into an agreement with the IMF in 2012, and within the context of these agreement they have produced this massive fiscal consolidation. But it hasn't been enough, and that has forced Jordan to go into international markets and issue bonds. Now the story behind the bond issue it's interesting because one of the consequences of the Arab Spring was this sabotage of a gas pipeline that drove subsidized gas from Egypt to Jordan. So that pipeline was sabotaged a number of times over the first year of the Arab Spring. And Jordan was forced to go to the international markets to buy oil at a time that oil was at record prices. And that created a massive deficit and the current account that forced Jordan to go and issue debt to cover for that deficit while the country kept on working in substituting expensive oil fuel energy sources for liquid and natural gas that started running-- a system that started running mostly 2015 onwards.

But of this period Jordan is keeping a very high foreign debt that went from 55% of GDP before the global financial crisis to 95% of GDP. You still have a fiscal deficit, you still have a large current account deficit, so fiscal consolidation is likely to continue. So the three pillars of our growth strategy is, well, first we're going to have to find a way to maintain Jordan out of the international markets. Because as the country is growing less and it's getting more debt the yield demanded by international markets and Jordanian debt is increasing. And if Jordan continues to issue debt at a rate of 78% and doesn't grow 78% per year your debt to GDP relationship can only deteriorate. So that's the first thing, to find a way for Jordan to finance its current account deficit in excess in a way that Jordan is kept away from the international markets for a number of years while the economy stabilizes.

That among other things, is one of the things we commented in the paper. The IMF program of 2012 and 2015 seems to have been insufficient, because in spite of the massive fiscal adjustment the country still had to go to issue debt in the international markets, which is something you don't do until the economy is fully stabilized. So fiscal consolidation will most likely have to continue, we have some comments on how that can be done in the paper and in a research. You need to finance your deficits in the meantime with concessional financing, coming either for extraordinary access from multilateral or from donors and grants from your partner countries. And you have to do this to open space, to implement the measures you have to make so that the export sector mostly services start growing again.

So it's very complex because you have to combine all of these three elements. And for the export sector to grow, the ones we have detected, and we're going to talk in a minute, some of them do not depend on the energy but others do. So you will need also a strategy to reduce the cost of energy to allow more sectors to grow in the medium term. But in the short term, your safest bet is to try to grow based on the service sector, because for that you need skills, which mostly you have, we'll coming on that in a minute, and you don't need energy, which is one of the most binding constraints in the country right now.

SPEAKER 3: That's very interesting. In the paper you describe the economic complexity analysis developed by the team, could you tell us a bit about this methodology?

TIM O'BRIEN: Sure. So we use the concepts and tools of economic complexity widely in the countries that we work, because in order to understand how a country grows and can it grow faster you have to understand what the structure of its tradable economy is. What things people producing, and through that you know something about the capabilities that the economy has to produce more and more complex things. So whenever we enter a country we do a mix of growth diagnostics and economic complexity analysis. And the complexity analysis is meant to uncover patterns within the structure of the economy, that tell us something about what the country has a comparative advantage in and what constraints might limit it from developing a comparative advantage in other things.

We usually start with the tool that we have online the Atlas of economic complexity, which gives you a good start in understanding a country's exports, how they've changed over time, what they have a comparative advantage in, and where they're located in the product space. But in the case of every country we just build on that with more local data, sometimes we look subnational at how different parts of the country compare in their economic complexity of the things they produce. Sometimes we add layers of services which we're starting to build into the Atlas but you can always get much more detail when you're working within a country. So we try to leverage the data the individual countries or places, states or cities have. On top of the tools that you'll see on the online, Atlas and go from there to learn about constraints and opportunities.

SPEAKER 3: OK. So as you have mentioned, taking country specific elements into account is obviously key to perform an effective analysis and set feasible and effective recommendations. In the case of Jordan, what were the main assumptions you had in mind when developing the analysis?

TIM O'BRIEN: Well, we started with the online Atlas as I said, and it showed a very strange pattern. So when you look back at time in Jordan's position in the product space, it was in what we thought was a strong position, that would signal that it would continue to diversify. It was more diversified and more complex things than a country of its income level. But over time as you followed the story of Jordan you saw that it wasn't diversifying into new parts of the product space. It wasn't starting to produce more complex things, in fact, it was producing less and less complex things over time. So that jumped out to us as something that we had to explain in order to understand what's wrong with growth in Jordan. So instead of converging in its income level to the point that its economy seemed like it could sustain its economy was turning backwards to match the income level that had already had. Very confusing thing.

Eventually as we learned more we started to see that the Atlas online wasn't capturing the nature of the service economy in Jordan. So we put a lot of effort into coming up with a Jordan specific way of understanding services. And that led us to build new or expand our economic complexity tools through an innovative use of global data set called Dun & Bradstreet. So with that tool in place we started to see how Jordan's economy looks when including services versus other countries and over time. And we started to see that when it came to manufacturing Jordan was regressing in the structure of its economy. It was starting to produce things that poorer countries produce, garments in particular. But when you looked at services more complex services were starting to emerge, IT, finance, and other ones that we'll discuss a little bit later.

SPEAKER 3: Jordan is located in a very unstable part of the world. A few of the external shocks you mentioned in the beginning reflect that, the large inflow of Syrian refugees, the impact of the wars in Syria and Iraq. Had the team worked in similar context before? How you take such a particular surrounding into account in your diagnostics?

MIGUEL ANGEL SANTOS: Well, the way we have taken Jordan's complexity into account is by trying to assemble a team of people that is as diverse as possible and that has significant experience on the region. So some of the fellows that are in our team in Jordan have worked before in Saudi Arabia, and a number of us now including myself, have worked for a number of years in Venezuela, which are countries exports-- countries whose exporting structure is mostly primary commodities, and also countries that are largely exposed to external shocks due to the fact that they only export commodities whose prices in the international markets are highly volatile.

We have also brought a few experts into the team that have worked before with multilateral institutions in the Middle East, and in particular, in Jordan to help with other parts. Sometimes when we walk into a country with the particularities of Jordan we realize we don't have all the expertises in the team that are required to address all the issues. And in that case, one of the great advantages of being where we are is having the possibility of tapping into a network of experts that have the experience in the areas of policy or in the regions that the center doesn't necessarily have. So in Jordan we address that by assembling a team of diverse fellows, as I mentioned at the beginning, we had nine fellows which are more than nine working in Jordan, and we brought in six outside experts into the team, and in that way we tried to address the complexities of the place.

SPEAKER 3: After your analysis you have identified eight expert teams with the highest potential to drive sustainable growth in Jordan. Could you tell us what they are and what were the underlying assumptions that led you to these themes?

TIM O'BRIEN: Sure. So bringing all the pieces we discussed so far together, the complexity analysis including services, the historical patterns, understanding Jordan's very complex labor market as a result of the movement of people in the region including refugees. We did the best we could to rigorously pull out of the data, the sectors or industries that Jordan was already involved in, that could support the highest wages as well as the industries that had similar capabilities to those that Jordan was present in, they can also support higher wages. So the industries that Jordan already has being called the intensive margin and those that it doesn't have yet being called the extensive margin.

And we did that through the economic complexity analysis inclusive of services that we walked through in the paper. And we added to that a layer of understanding which of those industries are sensitive to some of the things that Jordan is most constrained in. So that being water and electricity, especially the price of electricity, and those two things are linked. A bit of transportation, the ability of people to move around, in particular, trade routes throughout the region, which we know have been disrupted. And we pulled all that together and we grouped out actually 50 different industries on the intensive margin and 50 different industries on the extensive margin, that could support higher wages, Jordan had some capabilities in, and were for the most part, not intensive in water and electricity.

And we added to that our observations on the female labor force in Jordan, which is underutilized at present. One unique feature of Jordan, one opportunity you could say, is that they're rapidly increasing the education level of women. So you have every year more and more women of working age who have a college education or more. So this is a resource that should be fueling the economy. And combining all those things, those upwards of 100 industries, we saw natural groupings of them. The first grouping was business IT and professional services. The second grouping was education services, health care services was third, and then creative industries, tourism, transport services, construction, and specific types of agriculture and food manufacturing.

Each of these had some connection to measurable output, that's already present in Jordan and its connections through what we call the industry space to potential new industries. Each one of them would be an improvement in overall wages, allow more women to become activated in the labor force. And each one had a specific purpose in generating more exports in order to pay for the current account deficit.

So some of those like business IT, education, health care, creative industries are particularly high skilled. They can appeal to investors who want to locate in a place like Amman that has a highly educated labor force and the inputs that you need in order to serve the region but also serve global markets. Other things like tourism or transport take advantage of Jordan's particular geographical advantages, historical advantage, cultural advantages. And then things like agriculture and construction, construction also being a regional advantage because of the future reconstruction of surrounding countries, but agriculture and tourism in particular, having the potential to generate large volumes of trade.

So there was a unique business cases to be made for each of these themes. And that's where we're going now, is trying to understand both the business case for each theme, in particular, sector specific constraints that might stand in the way for each.

OK, great. In the paper you mentioned that Jordan's restrictive immigration policy, including restrictions to hire high skilled foreign workers, could be hindering growth for the service exports industry that you just mentioned. However, you also mentioned that one of the Jordan's comparative advantage is precisely its high skilled population. That seems contradictory, could you talk a bit more about that?

MIGUEL ANGEL SANTOS: Yeah, absolutely. It's one of the questions we most often get when we present our work. And what we mean is that Jordan has a great number of professionals educated in a very good system, that are receiving high wages in the regions where they migrate, implying they are well prepared, that go largely unemployed. But at the same time, some of the foreign companies we have interviewed that have said, operations in Amman are complaining that they need to bring high skill talent that has the experience to set up their businesses, which is different. So one thing it's having good universities where people graduate with very proficient capacities that we know, because they go on to work in other countries and do well.

And another thing is talking about talent with specific skills and experience in the areas that we have identified as potential. So a common complaint, if you talk to business that have established themselves in Amman, is that they need middle managers with the experience on the business, that they have gained somewhere else, because by definition, that sector didn't exist before they arrived. And they need to bring that talent as most companies do from some other operations that may be in India or maybe in another country. So we're talking here about talent with six to eight years of experience, mostly managers and middle managers. Which are required in turn to create sometimes tens, sometimes hundreds of jobs for the Jordanian qualified base that it's coming out of their education system but has not got the experience. So it's a different type of talent, these talents complement each other.

When we get this question the first thing we think is that people consider these things as competing, and in fact as I just explained they complement each other. The Jordanians just going out of the education system that have high skill and are well-prepared, complement the skills of these managers that come with experience in these industries with potential from other sectors. And that in turn allow everyone to be more productive and make higher wages.

SPEAKER 3: Great, great. OK, thank you very much for being here. I think those are the questions we have.

MIGUEL ANGEL SANTOS: Thank you.

SPEAKER 1: If you want to learn more about CID research and events, please visit cid.harvard.edu. See you next week.

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