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TAXING BETTER TO BOOST GROWTH: INSIGHTS FROM THE IMF'S FISCAL MONITOR CO-HOSTED BY THE INTERNATIONAL MONETARY FUND

Washington, D.C.

Monday, October 5, 2026

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WESSEL: Good afternoon. If I can ask you all to take your seats. I'm David Wessel, director of the Hutchins Center on Fiscal and Monetary Policy here at Brookings. On behalf of the Tax Policy Center and the International Monetary Fund, I wanna welcome you all to this important session on taxes. Now, a lot of people talk about taxes and think about how much should the government raise in taxes.

And in this work, which is released right now or maybe in thirty seconds the IMF talks more about not how much to tax, but how to tax. And this complements a chapter that the IMF fiscal monitor did last year talking about the efficiency of public spending. The point is, how can we find ways to use the tax system to lower production costs, encourage investment in the growth of firms, improve incentives to work and innovate And ease compliance versions without worsening inequality.

Easy, right? That's what AI is for. And this complements a chapter actually that the IMF World Economic Outlook released this morning on how corporations-- multinational corporations are responding differently to changes in corporate tax rates than they once did. Now if this were a religious service, we would start-- I would start by reading something from scripture or some text, but it's not a religious thing, so I'm gonna read from The Economist, which is pretty close to scripture in this shop.

And The Economist had an essay well-timed for this event, and I wanna read you a few paragraphs. "It is if-- it as is if a mighty hurricane were about to hit the rich world's tax systems, which are hopelessly unprepared. The way the state raises money is wasteful, unfair, and perverse." You can see The Economist have a slightly different approach to prose than the IMF.

"You would have thought that governments would be scrambling to strengthen the system before the hurricane makes landfall, but as ever, they are running away from the tax reform instead. The accumulated flaws of modern tax systems are so ubiquitous that they have become part of the economic backdrop.

Taxes are full of needless complexity. In Germany, the rate of the VAT on oat milk is more than double that of cow's milk, for example. Such widespread special treatment has ruinous fiscal consequences. Across the OECD, a club of mostly rich countries, consumption taxes raise only fifty-eight percent of what they could if there were no carve-outs and no evasion.

Tax systems also create perverse incentives. When a parent in Britain increases their net-- its net income from nine hundred-- ninety-nine thousand nine hundred and ninety-nine pounds to a hundred thousand pounds, they automatically lose free childcare worth thousands of pounds. This can prompt some of Britain's most productive workers to cut their hours or overstuff their pensions.

No one knows when the fiscal weather will turn, but rapid advances in AI could accelerate matters. Taxes on labor are the workhorse of most tax systems worldwide, raising about half of all revenue in the OECD. In the coming years, AI could well displace workers or cut their wages even as corporate profits rise, shrinking labor's share of GDP."

This in turn could reduce revenues, increase benefit payments, making deficits even harder to support. So there's the challenge. Now we're gonna hear from the IMF about what we should do about it. Shafik Hebous is a deputy division director in the IMF's Fiscal Affairs unit. He's gonna summarize the chapter, and then we're gonna have a panel moderated by Vicki Perry, formerly of the IMF, now at Georgetown Law School, with four experts: Laura Farrow from the IADB, Elena Patel from the Tax Policy Center, Michael Best from Columbia, who's virtual, and Rodriguez Valdes from the IMF.

So with that, Shafik, the floor is yours.

HEBOUS: Good afternoon and thank you very much for being here. Let me start with the central question of this chapter. Why do How can governments raise the revenue they need while better supporting economic growth?

This question is especially important now. Public debt is high, spending pressures are rising, and yet economic growth is weak. In this context, many governments face the challenge of supporting economic growth, but without sacrificing revenue Tax policy and tax design, which we call jointly as a tax system, can reduce distortions that impede economic growth and at the same time maintain revenue.

The focus of the chapter is clear. Taking the overall revenue level as given And broadly taking the tax mix as given, it asks how can better tax systems support economic growth? That said, equity and revenue mobilization remain and are important core objectives of tax policy. They are not the focus of this chapter, and they have been the focus of other reasons IMF publications The key point in this analysis is that two tax systems that raise an identical amount of revenue can have very different costs to the economy And so we address three questions.

What are the major tax systems distortions? What reforms can reduce them, thereby supporting economic growth? And finally, what are the potential gains?

Reducing tax distortions has the potential to generate significant macroeconomic effects To illustrate, on the left, we combined five proxies of tax distortions across capital, labor, and consumption into a composite index. And this distortion index is at the country year level. For example, one measure captures by how much a common corporate income tax raises because of capital.

A measure known as the marginal effective tax rate on investment

What we see on the chart is that a one standard deviation reduction in this index is associated with higher GDP capi- per capita by up to three point five percent after three years The magnitude of this reduction is equivalent to, for example, a cut of 11 percentage point in the marginal effective tax rate that I just mentioned while holding all other variables fixed This macro analysis gives us a sense of the magnitude.

Let's turn on the right to implementation. This correlation chart establishes that-- It establishes a correlation suggesting that countries with better tax administration have lower value-added tax compliance gap. In other words, they collect more of the VAT that they should collect under the existing policy This is a direct indication that implementation matters, not only for revenue, but also for firm performance, as we will see later.

So I will go through these distortions over the next slides and discuss how they affect output by affecting production decisions, capital accumulation, labor input, and firm performance.

Let me start with the value-added tax. VAT exemptions turn what is meant to be a tax on final consumption into a tax on production. And the reason is the unrecovered VAT paid by businesses. Let me give you a simple example. Consider a manufacturer of furniture that purchases wood for one hundred and pays extra ten in VAT If the supply of this manufacturer is exempt, this intermediate manufacturer cannot recover the extra ten.

That means the VAT becomes embedded into the production costs, and ultimately it will show up in the final price of the furniture that is in the final consumer price In order to

estimate exactly these VAT related distortions, we collected detailed information on VAT systems in twenty-six countries.

And we collected detailed informations on how sectors in these countries purchase input from one another. These are the so-called input-output tables. And as you see on the left, we find that VAT related distortions increase the cost of production by twenty point f-- by two point five and nine percent of the total input cost These costs propagate through the production chain, raise prices, and reduce economic activities.

To quantify the economy-wide effect, we use a multi-sector model where some sectors purchase input from other sectors, and we simulate the impact of a revenue-neutral reform that eliminate all these increases in production costs because of VAT design problems and imposes a uniform VAT rate in a country.

And as you see on the right, we find that the welfare gains can be substantial and can reach 0.8% of GDP

The corporate income tax can also reduce output when it raises the cost of capital, which lowers investment. In order to quantify exactly these distortions, we built a novel database of the marginal effective tax rate on investment. This is the same variable that I just mentioned a few moments ago We made this database for around one hundred and ninety countries over the period two thousand and one to two thousand and twenty-five.

And when we look at the last five years' averages, that's the chart on the left, we see that the tax-induced increase in the cost of capital is between fifteen and nineteen percent, depending on the income group That indicates significant investment distortions

There are reforms that reduce these distortions or even remove them. One example is the so-called cash flow tax, which is providing immediate expensing for the total cost of the investment while denying interest deduction And now that we know that the rate is less distortionary, we can consider not only maintaining the rate but possibly even raising it on the excess returns where applicable We simulate the impact of such reforms on investment and output.

And as you see on the right chart, the potential gains are significant. Such reforms can raise the capital stock in the long term between six point five and eight percent. And the associated output gains, these are the green bars, are between two point one and two point seven percent.

Tax incentives are widespread There are two common forms of tax incentives Preferential tax regimes for small businesses, and the other is tax support for research and development investments, R&D. But, you know, tax incentives can also create distortion that impede economic growth Preferential tax regimes for small businesses encourage businesses to remain small, with adverse effects on output and investment and productivity.

They can also encourage businesses to engage in tax evasion and tax avoidance precisely in order to remain small To illustrate this, look at the chart on the left. This is one example from India, and we see that firms bunch just below, just below a turnover threshold above which they would migrate to the standard tax regime and pay the standard tax liability So the key lesson here is that tax design should avoid such large threshold effects More broadly, to support entrepreneurship and business regimes more effectively, tax system should strive to be as neutral as possible.

For example, ensuring timely recovery of input costs, as we've seen on the VAT slide, or for example, avoiding raising the cost of capital, as we've just seen on the previous slide.

Another important point is providing the appropriate loss offsets provisions Let's turn now to the other form of tax incentive that is common, and these are the R&D tax incentives.

Well, the objective here is to encourage innovation And there is a case for government intervention here. The case is positive externalities. These positive spillovers that spread across firms and sector and ultimately the economy Well, the issue is some of these incentives end up subsidizing profits rather than generating new R&D

This is particularly important because the output, the output of R&D is often in the form of intangible assets. And as we see on the right, intangible assets are often associated with market power and economic rents The analysis in the chapter suggests that cost-based R&D tax incentives are more efficient than profit-based tax incentives And in fact, if we raise the efficiency of cost-based R incentives by 10%, we can get 0.6 percentage point more private R&D without budgetary cost

Let me turn now to labor input in the production function. Employment income taxes affect output by affecting the level of employment and by affecting the number of hours worked Tax and benefit systems in many country make entering into employment less attractive, especially for the low earners. And the reason is the withdrawal of benefits, the withdrawal of transfers, the withdrawal of income tax credits, which effectively makes the financial reward from working smaller.

So what we find in the chapter is that there is a scope to expand or introduce in-work tax credits in some countries. In-work tax credits are conditional on being in formal employment So we simulate the impact of revenue-neutral reforms that expand or introduce earned work tax credits and recalibrate the employment income tax schedules, especially where workers are more responsive.

Effectively, this means raising the financial rewards from working and avoiding very large marginal effective tax rates on employment income, particularly for the low earners. So we collect-- we collected detailed information on tax benefit systems in thirteen countries. We used microsimulation techniques, and we used an optimal tax approach And as you see in the chart, the potential gains are significant.

For example, in emerging markets and developing countries, hours worked go up by one point eight percent and total earnings as well goes up by about one point eight percent The employment rate increases by one point two percentage point. In advanced economies, these are the blue bars, there are also significant effects.

They are somewhat lower than in emerging markets. The reason is that in emerging market and developing countries, there is a larger scope to reduce these high participation tax rates

Let me turn to implementation

This is where policy meets practice. Even the most well-designed tax policy can fail if the legal framework is unclear or tax administration is cumbersome. For example, complex reporting requirement. For example, complex filing procedures, complex dispute resolution mechanisms, among many other examples.

All these absorb valuable managerial time and raise the cost of operating formally. So these costs fall particularly heavily on small businesses and on young businesses. And as we know, young businesses are particularly those dynamic businesses in the economy. So such costs hold them back and reduce their productivity In the chapter, we analyze the relationship between firm performance And the quality of tax implementation using firm level data from the World Bank Enterprise Survey.

The quality of tax implementation is constructed from the tax administration assessment tool, the so-called TAAT. And what we find is that the gap between small and large firms and the gap between young and old firms, these gaps become smaller when we go up the-- with the-- when we go up with the value of the quality index of tax implementation Let's consider labor productivity, for example.

The gap between small and large firms shrinks from twenty-nine percent to seventeen percent as we go up the quality index from the twenty-fifth percentile to the seventy-fifth percentile In the chapter, we include case studies which reflect also our capacity development work. The lesson learned is that successful tax administration reforms combine often digitalization, that is better use of data and analytics and third-party reported information.

They combine all these things with governance reforms, with investment in human capital The key lesson here is that tax implementation itself is part of the growth agenda. It's not only a matter of revenue

So to conclude, the chapter finds that tax distortions are sizable in many countries. They can reach nine percent of total input costs. They can increase the cost of capital between fifteen and nineteen percent. These are examples. The chapter also provides reform option that can reduce these distortions while maintaining revenue.

The relative importance of these distortions and the reform priorities are obviously country-specific. There are, however, some common patterns. For example, a common priority across country is restoring neutrality in investment and employment decisions. For advanced economies, improving the design and the targeting of R&D incentives is particularly important.

And for emerging market and developing countries, restoring VAT neutrality and strengthening tax implementation remain important The overarching message is that tax design and tax implementation can support economic growth without sacrificing revenue. Thank

you.

Speaker 5: That's my position.

PERRY: Well, thank you. I have-- I'm Vicki Perry, and I have the honor of moderating this discussion based on Shafik's presentation. Before we start doing that let me give you a little bit more introduction to our panelists. We have four really excellent panelists. I think this should be very interesting.

Assuming... I think I have a number of questions for the panelists, but hopefully we're going to have enough time for some questions from all of you as well. We've already taken-- We've already received a few questions in advance of the event online, so I think we'll have plenty to talk about. So let me start first with the one of us who's not actually here.

You'll-- you see him, however, Michael Best. Michael wasn't able to be with us in person, but Michael is an assistant professor of economics at Columbia, and his research focuses on tax evasion in developing countries, implications for optimal tax policy and tax administration, and the determinants of the effectiveness of public procurement in developing countries.

Before he joined Columbia, he was a postdoctoral fellow at Stanford at the Stanford Institute for Economic Policy Research. And he, before that, received his PhD from the LSE and and

a MPhil from the University of Oxford. So thank you for being with us virtually, Michael. And then going, working my way down the, the group here.

To my left is Rodrigo Valdés, who is currently the director of the Fiscal Affairs Department at the IMF. And before he became director of the Fiscal Affairs Department, he was director of the Western Hemisphere Department. Rodrigo is from Chile, and before he joined the IMF, he was the Minister of Finance of Chile and served in some other leading positions at the Ministry of Finance and the Central Bank.

He's worked in academia and the private sector including as a professor of economics in the School of Government at the Catholic University of Chile and in investment banking. So he brings a wide a wide and broad background to our discussion. To his left is Elena Patel, who is co-director of the Urban-Brookings Tax Policy Center, so known to some of you and a senior fellow in the Economic Studies program.

And she is also an external senior economist for Altera Property, where she advises on machine learning which is probably not gonna come up today, I hope. I don't think so. And but her research examines how public policy, including through tax systems and other social programs, health, social safety net, governance, shapes economic behavior including investment and capital accumulation, very relevant to today's talk.

So, and she received her PhD in economics from Michigan. And then last, but by no means least, but farthest away from me, is Laura Michel, who's the chief economist and economic counselor of the Inter-American Development Bank for the last fifteen, sixteen months, I think. And she's on leave from Harvard Business School, where she's the Warren Alpert professor of Business Administration.

She served as the Minister of National Planning and Economic Policy in Costa Rica right around the time of the Great Recession. And is, among other things, a research associate at the National Bureau of Economic Research. I won't go on. There's much more that could be said about all of our panelists, but I will, I will stop there and turn to the substance of our discussion today.

So as Shafik said and I think as David said when he opened, the challenge taken up in this chapter is how governments can raise the revenue they need while minimizing distortions in investment, employment, and production. And this... The chapter, for those of you who... Well, as Shafik was explaining, it focuses on reforms to specific taxes.

It's not largely about the tax mix. It's about, given that we're raising a certain amount of revenue, and given that we're gonna use these taxes to do it, how can we fix these taxes in order to make this whole system work better? So- I'd like to start with Rodrigo, who can give us a bit of a macro-fiscal perspective, I hope, on all this.

So Rodrigo, to state the obvious, this is taking place, this whole discussion with a-- in a somewhat difficult macro-fiscal backdrop. Growth is weak, public debt's high, revenue needs are substantial yet investment and productivity growth have been rather disappointing in a lot of countries. So how should governments think about the trade-off between raising revenue and supporting growth?

Thank you. If that isn't too narrow a question.

VALDÉS: Thank you, Vicki, for, for, for the presentation, the question. Let me thank fir-first Brookings and the Tax Policy Center for hosting us. Really important f-for us. Look, everybody knows no debt is around ninety-five percent of GDP for the world economy in a few countries going up very fast.

In other countries not going very fast up because they don't have space, really. So, the, the situation is, is, is very complicated in terms of, of fiscal dynamics. And in this environment of higher yields that we have been seeing the last few months, this is even more complex. So clearly there's an issue here that we need growth we need consolidation, and the question that you pose is, are these two objectives contradicting each other?

I think here it's, it's useful to separate cyclical consolidation from trend consolidations first as a, as a big sort of first pass. And from a cyclical perspective, and this we'll be discussing the next couple of weeks given annual meetings, we et cetera things are not too bad. No, I, I would say that, that if anything, Cyclically, many countries are doing relatively okay.

And the fact that we see central banks in tightening mood, to put it a description to what they are doing, the more so. So the case for expanding fiscal to support short-term growth is very, very weak at this moment. It's very different when you have, of course, a lot of slack in an economy central banks thinking of cutting rates.

There's a case for coordinating fiscal and monetary. Here, there's an opportunity to try to advance consolidation not being too afraid of the, of the, of the macro short run. The second part that you mentioned, I think is very important, is that trend growth is low in many places. We'll see what happens with AI.

It's like the new game in town, I, I would say. But, but even if you take out that, really we were coming from a view, at least from the fund, that trend growth was much lower than we, we had in the past and, and what we could, we could get. And here the chapter, I think, gets into a, a place where it-- where really, really there's no trade-off.

You are trying to do both revenue mobilization and, and, and high growth. Of course, you can choose one to do more because you... With better policies, you can not impeach on growth and have more revenues or the opposite. That is more how the, the, the, the chapter is framed. So if you move from cyclical to more trend considerations, I th-I think that we are in a, in a better, better place.

And of course, this is not only the chapter, no. The chapter is very careful saying, look, let's respect, and Shafik mentioned this, the combination of taxes. But of course, it is first order and well known that, for example, income taxes are more distortionary than consumption taxes, or that, say, property taxes are better than other taxes.

So that combination should also be for, for, for discussion. And at the beginning it was mentioned also that we had a previous chapter with spending. Spending is also very important to affect growth. A year ago, we presented a chapter with, with these estimates, and also our first-- as, as first order.

Final point I want to make on this sort of more growth consolidation issue is that Growth is great, useful, we have to go for it, but that doesn't mean that we don't have a homework from the fiscal side. And let me give you a couple of ideas here. One is that if countries start to grow more because of reforms or because of AI, still you have to contain spending so that the better primary result that you get is not spent.

It's very easy to have more revenues than spending. So the homework is there. And the second one is interest rates. Know that higher growth usually comes also with higher neutral rates or higher rates in general. And that, and makes that the miracle of growth, if you want, that will solve everything is not that, that clear because if interest rates move pari passu with, with growth, really all the R minus G dynamics disappear.

So we need to be careful and not to forget that even if we do what Shafik proposes and we grow more, still we have fiscal homeworks at home. Thank you.

PERRY: Thank you. Thanks, Rodrigo. Very helpful. Very helpful. So Elena- Mm-hmm. You work on business taxation, investment issues. We've been hearing that investment, or Shafik said it's a key driver for growth.

Against that background, which features of business taxation would you say matter most for investment today? Just investment itself. And how can tax systems reduce perhaps the tax burden on marginal investment but still safeguard revenue?

PATEL: Yeah, I think that's just a classic question in corporate tax, so I'm happy to talk about it, and I'm happy to say that everything in the chapter that Shafik already hinted at is just gonna be what you hear me say times two, because I don't think, fortunately, there's a lot of disagreement in this area amongst tax economists.

So the first part of the question, I think, you know, what matters most for new investment is how we treat the cost of investment and also how we treat borrowing to finance new investment. The headline rate matters, I think, a lot less than people think it does. But I do wanna come back to what is just a structural problem, because it explains, for example, why the U.S.

system looks the way it does. Like many countries, the United States taxes corporations and their profits based on where they are produced and where they report their profits. And so that means factories can be built somewhere else, profits could be shifted to low tax jurisdictions, and every country with this kind of system faces steady pressure to cut its rate just to keep up with its neighbors.

So that pressure is a big part of why we had the Tax Act in twenty seventeen that cut the corporate rate historically from thirty-five to twenty-one percent. There was a case for that at the time. The U.S. with its federal and state taxes was near the highest of the OECD for corporate tax, and the cut brought us more in line with the rest of the developed economy.

But I do think we overshot, given our revenue needs and given how low the rate is today. So given what we need, I think the rate could come back up. But I do think at the same time, the chapter is right that cutting the rate is really not the best way to incentivize new investment because a lower rate cuts the tax on every dollar of profit, including the profit that comes from investment that's already been made and profit that comes from market power.

And so much of that lost revenue is really not doing a lot to encourage investment, which is why I don't tend to describe a rate cut as the best way to spur new investment. The better tool is one that's familiar to us. We wanna let companies deduct the cost of new investment right away instead of over many years.

That's a policy called expensing, and that has been hidden under the banner of bonus depreciation in the United States for a long time. With the most recent tax bill, we have expensing for certain kinds of investment, but we've only gone partway. So equipment can be expensed permanently, but buildings are still written off, and intangible investment sits kind of in a middle ground.

That means that the tax system is still favoring certain kinds of investment over others, and that companies are making choices for tax reasons instead of business reasons. And that, you know, comes with a macroeconomic cost and comes with a revenue cost. It's important to say that at the same time, the twenty twenty-five tax bill took a step backward on borrowing.

It loosened the limit on how much companies can deduct for-- in their interest expense. So right now, you can buy a piece of equipment and deduct the full cost of it right away, and if you finance that, you can also deduct the cost of the loan. And so that means the tax breaks, breaks can be worth more than the tax on the profit that the machine earns.

And so this means the government's effectively paying part of the cost of the purchase. So that's a subsidy for borrowing, and it's pushing companies toward investments that they're really only making because of the tax law. So that's where the US code has gotten itself in kind of an odd middle ground with parts of a system we like with expensing but still deductible interest that is distorting what types of investment are happening in the economy and how specifically they're financed.

So limiting interest deductions can bring some of that back, and a somewhat higher rate can make up for the difference. Now, I cannot miss an opportunity to talk about a cash flow tax. Whenever I'm on a stage at Brookings, I feel like it's my duty as an economist. So all of these pieces come together in a system that's called a destination-based cash flow tax.

The cash flow tax part is expensing and removing interest deductibility from the base. The benefit of that is that you're tax-taxing excess returns or profits that don't come from the normal return on investment. And so we're taxing the things that go with market power. We like that. That does not distort investment directly.

It's just windfall gains, we think, to companies that are making very successful investments. The piece of it that's the destination pays part, we have half of it now. We have tariffs. We haven't had tariffs at this level in a long time, but they haven't been paired with export subsidies. And when you bring as- export subsidies together with tariffs, then we start taxing US domestic consumption.

And that gets us to the system that is called, what is a bad name sometimes 'cause people don't like the acronym, but a destination-based cash flow tax, and it's not so far away from the system we have right now. But I think that's where we get to the revenue potential in the corporate code that minimizes the distortion on investment while maximizing the potential for growth.

Thanks.

PERRY: Thanks a lot. Thanks a lot Michael, let me turn to you now. A lot of your work is focused on the impact of revenue administration and implementation, especially in developing countries. That, as we know, comprises at least three things: administrative capacity on the part of the government, compliance costs imposed on the taxpayers by virtue of having to comply with the law, and certainty.

That is, do they know what the tax system is now and is going to be? What are the impacts of those things on-- particularly on growth, especially in developing countries? What can you tell us from your work in this area?

BEST: Thanks so much for the question, Vicky. And I'm so sorry that I wasn't able to join you all in person.

I was planning to come, and then at the last minute I, I had a, a family issue come up that meant that I had to stay in New York today. These are fantastic questions. I think they're sort of at the heart of a lot of what's embedded in the chapter. And, and I wanted to sort of start by lauding the chapter.

It's, it's beautifully written. It's incredibly clear despite dealing with some very complicated subject matter. And as a sort of dyed in the wool microeconomist, I love that we're trying to answer macroeconomic questions by using the tools of microeconomics. Because we actually do have quite a lot of good little pieces of evidence on a lot of these big questions that we're asking here.

But what's really beautiful about this chapter is that it's trying to pull it all together and, and emphasize the fact that there is scope here for something that comes very close to looking like a free lunch. The idea that we can raise the same amount of revenue by, by keep average incomes higher, or hold average incomes fixed and raise more revenue.

There, there is something very real and, and large on the table there. But I think you, you very rightly raise the issue of compliance and, and administration cost that comes up a lot in low and middle income countries. And so I think there's a couple of things I wanted to put on the table there for us to discuss.

One is, you know, that incredibly striking chart from India showing the bunching at the threshold above which you have to enter the regular VAT system, is extremely striking. And so it does of course suggest that, well, we're putting these brakes on the growth of firms, and we really want small firms to grow into big firms.

That's how we get innovation. That's how we increase un- em- employment. That's how, that's where growth comes from. And so we really don't want to disincentivize firms from growing. At the same time, those thresholds don't exist completely arbitrarily. They're there for pretty good reasons in many cases. We also think that small firms don't have the bandwidth to deal with the high compliance costs that come with being a taxpayer in a modern tax system.

And we want to relax those those, those pressures on, on small firms precisely to allow them to eventually grow. And so that puts us in a little bit of a tough spot, right? If we want to say, "Well, we don't want thresholds that discourage firms from growing, but we also want to help small firms by making things easier, simpler, lower taxes, et cetera for them," then it's gonna be a little bit tricky to do both at the same time.

But of course, there is one direction that I think this chapter pushes us to think which is that, you know, the part of the reason that we wanted to have these thresholds is because we thought that the compliance burden on firms under regular tax schedule is really high. Well, what if we could lower that tax burden?

If we can make compliance easier for firms in the regular schedule, then you're gonna have a much smaller barrier to growth, and you can perhaps start moving the threshold down and start making the system overall more, more efficient. A second thing that I think is very important to think through, and it comes from some of the work I've been doing i- in Pakistan on the audit system, is that one of the bottlenecks that I think we don't talk about nearly enough is the legal system.

And so if whenever I talk to policymakers in low- and middle-income countries, one of the first things I try and ask them is "What's the backlog of tax disputes in, in the courts in your s- jurisdiction?" And usually old people start rolling their eyes, "Oh, my gosh, we have such a terrible problem with this.

Rich taxpayers just appeal every judgment we make against them, and then we get tied up in court, and this takes forever. And we don't have the legal capacity to actually handle all of these cases, and so this backlog gets worse and worse and worse." And this again goes back to this question of why is the tax system so complicated in the first place, right?

The more complicated the system is, the more scope there is for appeals to happen, for, for tax officials to make mistakes which then have to be rectified, or for firms to fail to understand exactly what the incentives are that the tax schedule presents them with. And that creates these conflicts that then have to be dealt with through the legal system.

And so again, simplifying the system is going to reduce that pressure on the legal system, and making investments in the legal capacity of tax administrations is going to help to relieve some of that pressure. The third thing I wanted to end with is I think there's something very sort of beautiful about the way that the, the chapter talks about reform.

And so I think, you know, that we, by now, at least in the academic literature, we have a pretty good way of thinking about marginal reforms. And what I mean by that is if I want to raise one more dollar of revenue, I think we know quite a lot now about where I should be trying to get that dollar from.

And I think we know that it depends a lot on the administrative capacity of the setting that you're working in. Things that would be optimal as a way to raise one more dollar in Canada are very different from the things that would be optimal to raise one more dollar in Namibia, and there are very good reasons for this.

And some of the tax policies that look like they may not work very well in somewhere like Canada, things like turnover taxes, for example, I've worked on start to look much more attractive in settings where fiscal capacity is much lower. Now, what we don't very much know about is how to design bigger reforms, and I think this is going to be very important in the next few years because as we started out discussing the sort of macro backdrop of of what's going on in the world at the moment doesn't look fantastic.

And so I suspect that that's going to then mean that we're going to start seeing some very large fiscal reforms in many countries. And I think actually the IMF is in a wonderful position here to try and help guide us through all of this, having been, you know, on the front rows if not in the back rooms of many of these previous experiences to to help us think through how do we bundle compliance and administrative reforms together with policy reforms.

Maybe I want to say at the same time as I'm creating fiscal space by doing the administrative reforms to increase the efficiency of the tax system, what exactly does that mean then that I should start turning to in the, in the policy domain to start using up some of that space or widening the space even further.

And so I think I'll pause there, and I look forward to hearing more.

PERRY: Thanks very much. A lot to think about there. Especially struck by your... The distinctions you draw between developed countries and developing countries and what's the, where's the way to go with respect to the latter are obviously extremely important.

So finally, Laura I wanted to ask you a bit more about tax incentives and tax holidays. These are pervasive and, well, everywhere, but especially in developing countries. Though they're-
I

ALFARO: don't know about that. But-

PERRY: Well, okay. ... let's leave it

ALFARO: there.

PERRY: Pervasive. Let's just say pervasive. Although they're criticized as costly, ineffective.

So- How important are these incentives in attracting foreign direct investment, especially to countries that are essentially capital takers? How can they be made more cost-effective? What do we need to change in order to get these to have a greater sort of... Come out better on the cost-benefit analysis side?

ALFARO: So first let me thank the IMF and Brookings for this invi-invitation. Second, let me clarify something. In Latin America, we tend to have two last names. My name is Laura Alfaro Michael, and the only reason I wanna clarify that my first name is Alfaro is not because I have such a great name as Michael.

To be best is always best. But I'm an A, and so I do like my place in the alphabet. Oh. Citations. Then I wanna congratulate the IMF. Taxes affect everything. Sometimes we want to avoid that. They affect absolutely everything we do. What we buy, what we save, when we work, how we invest, supply and demand.

They do. That's a fact. Collecting taxes also has costs. And so I, I congratulate their, their effort and courage to think how we can do this more effectively, 'cause this is the job of governments. We do need to think how we do this more effectively because we do need revenue to fund all the activities of the government.

Now, let me talk about FDI. It turns out that this is the research I have done through a lot of my career. And we do talk a lot about tax incentives. It turns out the evidence on tax incentives to FDI is actually a little bit mixed. And in particular for Latin America, it's not clear at all.

There's a lot of evidence, but there's not a casual estimates, a clear evidence that these incentives are the reason why a, a company may choose a country over another one. Why? Because labor availability, infrastructure, country risk play a huge role. And, and again, I, I have done this in my work, but there is also evidence from the region that just doesn't find these casual estimates.

Now, is there a reason to offer some of these incentives? That's a little bit more complicated. Firms and governments in particular tend to think that attracting capital and creating jobs is a reason. That's a very nice political economy reason, but it turns out that is not an economic reason because the rate of return should deal with that.

If you have enough of a return, that's because you are bringing the capital and creating the incentives. And that, that is also why I mentioned that it's actually very generalized in rich countries. The New York Times a while ago put a list of all the tax incentives US cities offer. Again, with this view of attracting employment and capital Now, there is a couple of reasons that are more complicated.

One is externalities and, and spillovers. It turns out foreign direct investment does have the potential to create a lot of spillovers and externalities to countries because it turns out FDI is not just capital, it's know-how and management, and FDI firms do dominate the world of R-R&D. And there is a lot of evidence that they have created positive spillovers or that can create linkages and do have the potential to jumpstart development.

At the same time, there is evidence that they do create competition for local resources. So at the end of the day, it's a cost-benefit analysis and that is what I think is missing. I rarely have seen a cost-benefit analysis when a firm is being offered these incentives. So perhaps we should start there.

Let's try to do a cost-benefit analysis. I'm not saying this is easy, but I'm a student of Harberger. We do have some tools to try to come up to some of these cost benefits. The other reason is a little bit more complicated. I think many countries emerging and developing, could be also rich, are trying to overcome other problems they have.

They are trying to overcome that lack of labor, that lack of infrastructure, that lack of stability, that lack of proper property rights, rules, clarity through these subsidies.

PATEL: Mm-hmm.

ALFARO: And that is self-defeating in a way because what we're doing is offering one set of countries a regime and a different set of countries another regime, and it turns out that we have to overburden the other set of countries.

And then at the end, we don't end up doing what we want. So in terms of what needs to be changed, I think I'm gonna repeat some of the things that have been said. We need to do cost benefit. I think in the corporate tax system, this fast recovery is key. And you are correct, we do have it in a lot of agricultural firms tend to have it, and some in real estate, but we don't have it in other sectors.

So, so we need to think about that. We need to think how to improve the cost of tax collection. This is true for small firms. This is true for local firms. This is true for foreign firms. We should try to improve it for everyone. And at the end of the day, we should try to improve the problems that we have, which is let's try to improve our labor, our infrastructure, and offer clear and stable rules for all firms.

Thanks.

PERRY: Okay. Thank you I wonder if I could just follow up on this discussion of incentives with you, Elena particularly in terms of talking about research and development-

PATEL: Mm-hmm ...

PERRY: incentives. This is, as we've seen already today, frequently singled out as perhaps the area or the biggest area where there might be a justification for preferential tax treatment in terms of spillovers in particular.

When do these work well? Should governments favor instruments like the R&D tax credit and enhanced deductions, or should they favor things like reduced rates on patent income or IP income? What, what works-

PATEL: Yeah, I think it's

PERRY: a- ... if we can say?

PATEL: I think it's a really good question. I... Like, if we step back to what do we think fundamental reform looks like in the business sector, we like to say broaden the base, lower the rate.

We usually don't mean get rid of the R&D tax credit. I think it's probably the single most effective way that we use the tax code to subsidize behavior. The reason why we focus on that behavior, of course, is the spillover effects. When one company engages in R&D, other

firms benefit from that technology, maybe not immediately, but eventually, and it reverberates through the economy.

And so that is a classic case of an externality. A private firm is not gonna make the same decision that a government would make, and therefore, we subsidize that activity through the code. So the question was, what's the best way to do it? There-- In the US, we use R&D tax credits. There are also ideas like a patent box.

I think if the government wants to encourage research, it just needs to lower the cost of doing research. I don't think that means cutting the tax on profits that research earns later. The credit is rewarding the research itself. The patent box, as I said, it rewards the profits from an idea that's already succeeded.

And there's a recent varied literature review by Nirupama Rao and Tim Simcoe about R&D, what we know about it across a wide variety of papers and economic research, and they point out that patent boxes can create market power, and that really pushes against the spillover effects that we're trying to encourage by subsidizing the R&D activity to begin with.

So I think I land on the side of, yes, we should be subsidizing R&D, and the credit is the more effective way to go than the patent box if you're considering how to do it in the code. I will tell you there's a third spicy option, which we don't usually talk about, which is also just direct industrial policy, picking winners and losers, and that's why we don't tend to talk about it.

The R&D credit is a more market-based solution. You can encourage R&D by specific, picking specific projects you want to succeed, but then you put the government in the position of determining what's likely to succeed, and that can lead to all kinds of bad behavior. So when does the credit work well? I think that the credits do work well.

If you look at economic research, we do find positive effects, but the size of effect depends on which kinds of firms you're looking at. There's a recent OECD study that finds that small firms respond strongly and large firms tend to not respond very well. That can make sense. Young firms really can't borrow against the idea, so if you reduce the cost of investing, that can change what's actually done.

A large firm that has steady state profits will do most of its research anyway, and so these credits are just windfall gains. The problem is the money doesn't line up that way. In the US, it's the largest companies that claim eighty-five percent of the research credit, and across the countries in the OECD, large firms get a-about half of all the relief.

So on average A dollar is buying less than a dollar of new research, even though if you were to direct it at small firms, it might be able to do more. I think there's a second thing going on in the US code. I'm not gonna speak to how much it goes on in other countries, but in the US, we weaken the incentive in other ways.

So in one case, in the US, you can only get the credit when you're spending above a certain base, and that base rises with spending in recent years. And so that means that spending shrinks the credit in the year that follows. So if you do a lot of activity this year, it lowers the amount of credit you can get to next year.

And so Treasury has found that when you account for rules like this, firms are really receiving less than half of what the credit is worth on paper. That's one. The second is stability matters. We have made a lot of changes in the tax code over the last ten years, in particular with regards to R&D spending, and so that is very hard for firms to plan around.

I think I would call that sort of an administration and complexity cost along other topics we've talked about today. So that's important to keep in mind. And then sometimes it turns out the code is not designed holistically, but in one-off instances. And so there are other policies in the US code, like the corporate alternative minimum tax credit, that sometimes pushes against the incentives that we put into the business code by trying to ensure that corporations are paying their fair share.

So all those things are gonna serve to weaken the incentives of the R&D tax credit. So what does better design look like? I think there's four things. First is just a simpler credit on all research spending, maybe than above a base. So there are countries that do this. The second is trying to make sure that credit is really usable for young firms.

Young firms don't tend to owe tax yet. That weakens the value of the credit. So unless it's transferable or tradable, you are making the margin of decision very different for young cur-- firms than for developed firms. Third, you could consider capping the benefit for the largest claimants. That if you think that the largest claimants are gonna engage in the R&D activity anyway, we're just sort of clawing back the windfall gain of that credit for those particular firms.

And then fourth, you could think about matching the generosity of the credit to the capacity to check the claims. The R&D credit is sort of infamous in the United States for being unable to really properly audit. There's a lot of effort that goes into auditing the R&D tax credit. And so I have to say that administration goes hand in hand with revenue, and the better resourced the administration of the tax code is, the more effective the credit will be itself.

Thanks.

PERRY: Thanks. Thanks. Very helpful. I want to come back to the young firm issue in a bit. Yes. But Rodrigo, before we do that maybe we can talk a little bit about something that we haven't really been talking about too much yet, which is equity redistribution concerns beyond efficiency and growth. Maybe we can just back up then. I think Shafik discussed some of this, but why is that generally considered relatively efficient, say, as compared to some of the standard corporate tax, for example?

And maybe more importantly, how realistic are reforms that were discussed that are aimed at broadening the VAT base when governments are facing not only big issues around debt and growth, but also constantly facing distributional concerns and pressures, right, understandably, to protect particular households and even particular goods?

We could talk about goods Because goods are consumed by certain households, or we can talk about goods, but I leave that to you.

VALDÉS: Okay. Look, before going to the VAT, a couple of footnotes on the discussion about- Yes, please. Yes ... FDI. Just,

PERRY: Great ...

VALDÉS: publicity of a paper that some people in the department did for low-income countries.

It was very surprising to see that FDI didn't depend too much from taxes, but depended quite a bit on fiscal institutions, transparency, and ethics. So at least for that distribution part of, of, of, of income per capita around the world building basic fiscal seems to be first order with respect to, to taxes.

Mm-hmm. And a second thing is just a comment that more from my experience, it's so difficult to explain to politicians that preferential treatment is not good in general equilibrium. They see the partial equilibrium effect. They li-- "This is great." You can convince them that it could be just time shifting, no?

We had a program wh-where a president liked very much to cut the VAT for tourism when there were vacation times, no? Or... So yeah, of course, you will have a, a lot. He would probably understand that he was shifting also consumption here, but it was impossible to explain well, and I think we don't have good tools, no quantifications to say, "Look, the problem is that you have to then tax more at the end of the day other sectors."

And that part, I think, makes all these special treatments so difficult to, to explain. Let me move to, to equity, VAT, and, and that, that type of questions. Look I mean, first topic I think was very clear that the, the, the, the, the chapter makes a sort of an assumption really to say, "Look, let's look at efficiency."

We will have some effects, not major, no? Here, some of the things that are proposed that really don't have too much effect on, on distribution. But the chapter recognizes, and w-we can tell you, within the IMF discussion of this chapter, clearly the political aspect and the redistribution came very, very strongly.

So on this, I'm going to more VAT. Let me first say that we find it's, that it's very efficient always as, as, as well known. It's a consumption tax, so distorts much less than other taxes. Right. I think that case is, is, is easy to, to make. But what is true, and again, this I'm telling you this more, more from my personal experience, politicians see very difficult to go against the argument.

Look, rich people- spend less as a percentage of income, they save more, therefore, you are taxing more poor people than rich people. In a narrow sense, that's true. Okay? That, that is regressive, quote-unquote, the, the VAT. But the problem is that we don't explain very well that the money you collect is a lot of money, and if you spend that money wisely, at the end of the day, it's much better than not having that money.

Rich people will sort of give a lot of VAT proceeds to, to the government to, to redistribute. So in a sense, to, to... One way to put it is that asking all objectives to each particular instrument is a big mistake- Mm-hmm ... in policies. You have to take the full fiscal apparatus as a whole to see how this is working.

And on that, we have better and better instruments to go directly through direct targeting in transfers. And I think that's the way, at the end of the day, if you really care about redistribution, to go that way. Because VAT at the end, and especially exemptions, as, as Shafik was mentioning, have an efficiency cost that is-- They're very clear in the paper, but also are not very clearly progressive.

I mean, they are very costly in terms of how much money you lose in the upper part of the income distribution through this. So at the end not easy to convince anybody on this. No. But there's some, m-m-more and more, I would say, efforts to try to move from broad sort of tools, like cutting the VAT, to more direct transfers, conditional or not conditional, but that, that serve much much better.

We are in a moment today where digital, where data administrative records, the, the payment system is such that it's not that difficult to, to move towards, towards that. Mm-hmm. Of course, there is a full other discussion about the effects of transfers on- Mm-hmm ... incentives, et cetera. No, but, but if you really want to at least have a l- more effective and efficient way to redistribute, clearly VAT cuts or exemptions are very...

not, not, not, not top in the list, are very, very low, actually.

PERRY: Okay. Thanks. Thanks. Laura, I wanted to return. There's been, throughout, since we started an hour ago, there's been discussion at various points of young firms. Okay? There seems to have been sort of general agreement that we need young-- that young firms tend to grow or maybe the-- may be a source of growth in the economy. And we've discussed a little bit about how they could be particularly tax disadvantaged in some cases. How could... And we talked about bunching, a, a problematic issue.

So how can governments ad- best address this issue? If we assume that we want young firms, we want to make young firms grow what's the best way of doing that?

ALFARO: So I think n- now that Rodrigo was talking about his, his, his political scars, it... When I was in government we tried to pass a tax reform, which at the end we did, but the judicial system brought it down out of process.

Oh. Yes. I cannot tell you all the number of ways in which shrimp is creating a lot of externalities and spillovers in Costa Rica- ... and should be part of the basic group, food groups every young Costa Rican should have.

PERRY: Shrimp.

ALFARO: Shrimp, yes. Okay. And I can actually- All right ... go into every single product you can think of-

which deserve a special treatment and be taken out of the value added tax. So I, I do agree with Rodrigo. Politically it's very hard, but the best way is if you wanna do the redistribution, try to go somewhere else, although we do know that everything is complex. So one topic that sometimes gets mixed together is these young firms that we do agree have the potential, not always to grow and, and employ people, and bring productivity and small firms.

Sometimes these two things get confused, and we end up with the romanticism of small firms. Yes. And I invite you to go to many places in Latin America to get the real romanticism of very small firms. It's a lot of informality. In the flagship report that we have done on, on competition, we do find that a lot of these size-based policies, which one could argue may try to get into the young firms, end up just creating a lot of bunching, as, as you mentioned.

And this bunching is in everything that has a size. If you put anything on employment, you have bunching. If you get... put something on minimum revenue, then everyone has less than this revenue. If you say firms of this size will deal with this very less complex system and higher f- bigger firms have to do this more complex system, that everyone has...

Like, everything you can think of does create this bunching. And, and so we need to think really what is it that, that we, we are trying to help. I, I am actually more positive that there are systems that can help young firms. I, I actually think the US, if anything, is one of the most successful systems in trying to create entrepreneurship because of a lot of the way the financial system in the US works, finding the unicorns, the VCs.

It turns out a lot of these young firms, some have the good ideas and others don't have good ideas. And so it does require a very complex system to be able to find the good ideas from the bad ideas, and then what is a little bit more complex, a small firm being able or, or young firm to organize itself around being able to deliver that young...

that, that idea. And this is perhaps my business school background is coming, but it turns out that that is very tricky. Like, they find out that three, four, five years, the better idea always wins, but what kills you at first is that organization being able to find a way to deliver that good idea.

And that is not easy and, and perhaps we should just accept that. It's not a size threshold. It's a very complex system, and we're gonna try to find not only the information asymmetries, but the monitoring. And, and a lot of the system that works is the ones that are giving them money little by little. So you accomplish this, I give you this amount.

You accomplish it... And again, I do think the US has been very successful in doing this. I've heard the UK actually also managed to have this very complex financial system. It, it doesn't seem to be easy to r- replicate. But again, we, we do need to end this romanticism of the small for the s- for just size.

And then I think I'm, I'm repeating what we have said. I think simplification that seems to be the way to go, this level playing field. And, and I actually do think, and I know the book wanted to have some restrictions, and I think that's fair game, but the whole fi- fiscal system matters. Like, we do have a lot of firms that are not paying certain taxes because we may subsidize pensions.

Like, if you- Mm-hmm ... never pay labor tax, you still get a pension. So why on earth are you gonna pay labor tax? Or if you just pay at the end, you get it. So, so there are all these complexities and the generatives of the system that, that sadly do, do need to at some point be seen at a macro level to be able to understand these set of things.

PERRY: Thanks. I think that's such a good point that tends to get lost, including in the United States, about the excessive romanticism around small business.

ALFARO: Mm.

PERRY: Which is very different from businesses that may grow most of them don't. So it may be that we're serving some other function that way, but it's not necessarily economic efficiency or welfare.

But anyway, thanks for that. And finally, somewhat sticking with efficiency and interaction with administration, I want to turn back to Michael. One of the things that I was interested in hearing you say was, well, yes turnover taxes may be something that we need in countries with very weak tax administration other simplified kinds of regimes.

And I wonder if you could elaborate on that. I mean, there are trade-offs between simplicity and economic efficiency, but there are certainly trade-offs between ability to raise revenue and lack of simplicity. So maybe you could tell us a little bit more about that. I know that, you know, the word turnover tax is anathema in a sense to economic efficiency, yet maybe not so for tax administration.

BEST: Absolutely. That's a wonderful way of putting it, thank you. You know, th- we wrote this paper a, a long time ago studying Pakistan as our case study to try and make this point, and there the basic idea was that, well, we know from, you know, decades of beautiful theory that when it's costless to administer a tax schedule, the optimal, the second best optimal thing to do is to have a tax schedule that doesn't distort any of the decisions that businesses make when producing their outputs And the, you know, the proof of that is very elegant.

It's, it's an extremely compelling argument, but it does rest on this incredibly important assumption that there's no cost of en- enforcing the tax schedule, i.e., that there's no evasion of the tax schedule. And then once there might be some evasion, now we have to start thinking carefully about, well, what aspects of the tax code facilitate that evasion?

And in the particular case that we were studying, turnover taxes versus profit taxes, the data suggested to us that it was significantly easier for firms to misreport how big their profits were than it was for them to misreport how big their turnover is. And then that starts to change this trade-off.

All of a sudden, it can become useful to place taxes on bases that are in from this production efficiency point of view verboten, but from an enforceability and administrability point of view, more appealing. And so that was the kind of the basic trade-off that we were trying to explore. And so the point that we were trying to make was that whenever it's very costly to enforce taxes, so whenever fiscal capacity is lower or evasion is more widespread, then you start to want to rely on taxes that look on the face of them like taxes that are, that are ruled out by a lot of the standard theory.

And so I think since then, people have made much more progress on, on putting more texture on this. And so I think now we are getting a much clearer picture of sort of what exactly do we mean by what the circumstances might be under which you might rely on a, on a production inefficient tax, right?

And specifically, it's the cases where we think that there's a large ability of firms to misreport their profits rather than their turnovers. But that in itself is a function of the tax code itself, right? When we say, well, profits are defined as sales minus deductible allowable expenses, now there's all sorts of nitty-gritty going into that about what exactly you allow as a deduction, what exactly you count as revenues.

All of these little details start to matter a ton, and this is exactly where this interaction between tax administration and tax policy becomes so sort of, front and center in how we think about this. All of those decisions are going to impact both how efficiently you're able to collect the taxes and how costly it is gonna be to collect the taxes.

And so again, I, I know we're starting to sound like a broken record here, but a simpler system is gonna be much, much easier to draw those bright lines in where you can say, "Look, this simple is very simple." It's gonna also be simple for the tax administration to verify what's what's, what's reported.

It's simple for the businesses and taxpayers to understand what their obligations are and that's gonna just sort of make the entire system function more effectively. If I may, I wanted to pick up on a couple of the things that some of the others have raised. Please do. One thing that I found very interesting, and it's something that I feel like I hear very often, is that, you know, we have a propensity to try and do redistribution through the tax code rather than through the, the spending side of the budget, or even through things like, you know, the earned income tax credit and things like this.

And my conjecture is that a lot of this comes from the political costs, that failing to collect taxes on something as a way of doing redistribution has a much lower political cost than taking money we've already raised and giving it to somebody who's in a favored group. And I just wanted to sort of, hear your guys' reactions to that.

PERRY: Rodrigo, do you want to speak to that from your previous experience, if not current?

VALDÉS: Super interesting way to do it. Let me, let me... I, I don't know to say yes or no, but let me give you one thing that worries me. That a lot of the effort done from the government side and the spending side is in goods, in, in, in goodies, not in cash, and therefore it doesn't move the Gini coefficient measures.

So you look at income distribution and not consumption distribution in all this discussion. So, it makes very difficult to go through the spending side to really shift the measures that we have of income distribution. Again, if you go transfers, it's a very different story. Now, but if you look at emerging markets, typically in those database, they barely move with spending the income distribution side.

Developed countries do because I guess that my pensions are so big that they produce a, a change. But Mexico, Chile, Colombia barely see anything. Of course, if you go into the consumption valuing the goods, the effect is very large, but it doesn't work for the day-to-day discussion.

PERRY: Interesting.

ALFARO: I, I'm, I'm...

I would need to check, but I, I'm not sure this is true in Latin America. In Latin America, we have managed to give cash transfers very successfully. We have managed to increase them, which I don't know if it's the optimal, but we have managed to give so many things to so many people. But we also have taxes that distort so many people in so many ways.

So, so it's not clear that Latin America would validate this hypothesis. We have managed to do it all, ... not necessarily in an efficient way,

PATEL: I guess I would just add that I think in the US the instinct to run support through the tax code is because in a system like the US most but not all people touch the tax code.

We already know how to get to them. It's why during the pandemic, the easiest way to send stimulus out was to just pump it through the tax code as opposed to lifting up new spending. I would guess that in- In Latin

ALFARO: America we need cash transfers.

PATEL: Yeah. I would guess that in less developed countries that's not true, that people don't touch the tax system the way they do in the US.

And so it's maybe a harder, like, higher hurdle to try to do redistribution through the code when you have a very large informal sector.

VALDÉS: Let me add one extra given that we're in the political economy of, of transfers and all that. Yeah, it's true that in some of the American countries this became very, very important.

You know, and the case of Brazil probably is, is the most important one in this. But there are others that they didn't do this. No, it, it was less going into transfer. But what I want to mention is that once you open a program- Mm-hmm ... where transfers are easy and visible, the po- the political economy of that into each election becomes very-

PERRY: Yeah

VALDÉS: complicated to manage too. So perhaps taxes are not as bad

PERRY: as It's certainly more noticeable than the tax, as Rodrigo was saying. And

VALDÉS: very difficult to oppose to. Yeah.

PERRY: Yeah. Well, let me just ask you all one general question, and then after that we can open it up for audience questions. So perhaps just Rodrigo, then Michael, then we'll go down the line, but this is an easy one.

Where do you see the greatest opportunities for tax reform to support growth? And that answer, I assume, is gonna differ considerably depending on what country we're talking about. And here's the harder question. What do you think the chances of this happening are? Whatever you think the thing to do is.

So, Rodrigo, do you wanna...

VALDÉS: okay. I think, I think the... A- as you mentioned, Vicki, it's very different from-- for different countries, no? Yeah. And I think the chapter is carefully trying to say, "Look, this is not one recipe for everybody." Right. In the department, we have a very strong view that you need a minimum of revenues to sustain a functioning state.

BEST: Yes.

VALDÉS: So really, I would say for low-income countries that are well below ten percent of GDP, 15 is our preferred number of revenues. Really, the, the lack of efficiency comes because you cannot protect security, property rights, et cetera. So you need to collect that. And I'm with Michael. Then the, the easiest thing first, that's it.

But then you can start moving towards other countries, and I think here we need to recognize first that the heterogeneity of, of, of revenue intake is very large. So there's a bunch of countries where really the, the size of taxes seems to be too large, or at least there's no space to solve the fiscal through more revenues.

And in the case of Europe, we have a few countries there, no? And the other, the other extreme is some emerging markets have really low intake, so you need... You, you, you have some space there. In terms of what to do with the chapter, if I have to choose, I think the corporate part, for example, I think is more doable-

PERRY: Okay

VALDÉS: than others. If I imagine a political discussion on this, the VAT part probably is the- Okay ... the hardest at the end of the day because it's very entrenched, no? So th- those would be my sort of intuitions of, of the political economy of the things that are in the, in the chapter.

PERRY: Great. Michael, do you want to add anything from your

BEST: point of view?

Mostly a plus one. I think Rodrigo is exactly right. Like, the, the way Elena presented it is fantastic. The, the, there has been this movement towards immediate expensing of

investments, and I feel like both politically and economically, those are the two things that are, that... The two good reasons that that's likely to have a very large impact on growth.

PERRY: Okay. Laura.

ALFARO: Let me just follow up with what Rodrigo said. There, there's a lot of heterogeneity in Latin America. I, I always say this, I have many kids, and they're all very different. Yes. And so I do have countries that tax and collect very little. I have countries that actually tax and collect a lot.

Yes. And so I think, mm, it... The policy for these countries is, is different. I do believe what Alesina, the late Alesina said. The, the most credible and legitimate is when you tackle spending. That, that is when you manage to get perhaps a more credible reform. But, but in terms of the hope, I, I actually do see hope in some of the countries in the region that are using a tax that was not mentioned which is the inflationary tax.

Oh. As we know, that is the most regressive tax, and some of the countries in the region that have, for many reasons use that a lot are, are trying to improve their macro and fiscal, and it does come to trying to reduce the, the inflationary tax.

PATEL: Yeah. I'll just bring back up what we've already said because it needs to be said.

I think the corporate tax system is a mess right now, and I think a lot of people point fingers at the way we tax business and connect that to sort of projections for future growth. I think politically it probably is quite difficult to get away from taxing profits and more toward taxing cash flows and even destination-based cash flows.

But I do think that is probably the easiest reform. I would also... I think it's important to bring up the US in this context because we've talked about a VAT so much and just to elevate what Rodrigo said one more time, we don't have a federal VAT in the US. We could have a ve- federal VAT if not for political pressure against it.

But in a world where in the US we seem to be woefully short on revenue and maybe need to tackle spending a VAT is a clear source to me for where to get that. And as Rodrigo said, it is a regressive tax on face, but it depends on what you do with the revenue that you raise through the VAT. And so there can be a VAT paired with, I think, social spending that makes whole the lower part of the income distribution that still raises revenue to close what is a persistent and very large budget deficit for the US federal government.

PERRY: Great. And now we have a lot of hands I see already, and we're going to have, Mic ... mics going around. So why don't we go in order around this way, 'cause that hand came first. This hand? Yes, that hand.

Speaker 5: Okay.

PERRY: And if you are directing your question to one or more of the panelists, could you-

VALDÉS: And, and, and Shafik

AUDIENCE QUESTION: perhaps-

VALDÉS: Okay.

Also

PERRY: part of the- Yeah, and Shafik also. Can be asked. You can direct questions to Shafik as well.

AUDIENCE QUESTION: Okay. Thank... I, I'm Jim Nantz. Actually, I'm not sure these are questions, but just two quick points. So one is on incentivizing research and development. It seems to me that far and away the largest incentive is essentially the patent system, and much of re- fundamental research is not done by companies.

It's done by the federal government-

NIH-

HMI, HHMI, universities, hospitals, and yet successful research then often is privatized and all the rewards go, you know, all the windfall profits go to some private entity, even though it was financed by, directly or indirectly, by federal policy.

So, you know, it's, it's more a reward for pat- the patent system, I think, than it is for research, but okay. My second point is several commentators stated that a cashflow tax or value-added tax does not tax the normal return to capital, and that's just wrong. And it's wrong for the following reason.

So the standard macroeconomic assumption for doing revenue estimates, analyses of tax reforms, is that the overall price system is held constant. If that's true, factor incomes fall. If factor incomes fall, the cost of cap- the cost of investment goods falls. If the no- if the rate of return, the real rate of return is unchanged, there's no reason to think it would be changed, then the return, the aggregate return to capital over time falls.

That's what we call a tax burden, okay? You can do the opposite. If the price level rises, the nominal returns to capital remain the same, but the real purchasing power falls. So in either case, it's a burden on the normal return. Yes, it taxes super normal returns. And so a, a related point is why a fascination with ca- destination-based cash flow tax, which is just one part of a VAT.

A VAT is broadly used, broadly accepted, no legal challenges. Destination-based cash flow tax, it's a new tax. It'd be tied up in court, and you can achieve all those results. Let me just give you one way. If you wa- don't wanna tax the labor component of a VAT, repeal the payroll tax and raise the money with the

PERRY: VAT.

Yeah. Thank you. We'll come back to that, but let's take another couple questions first, and then maybe ask the panel to respond. And Shafik.

AUDIENCE QUESTION: Okay. Hello. My name is Daniel. I'm a student geo-graduate student at W- George Washington University. Mm-hmm. So, I actually come from Bolivia- nice neighbor there.

And I think a point that I really wanted to make was there's a lot of Latin American countries that have a lot of the informal sector, like, like been la-- it has been pointed out. But for my country specifically, and I believe I'm not the-- that Bolivia is not the only one, they have like a fif- fifty to seventy percent of their GDP is already just informal, an informal sector.

So if a government would, would tackle this on, would it be better to increase government spending to build out an entirely, like, new regulation sector like, I don't know, pseudo IRS, and then build up their police departments because both of them are woefully under- un- underfunded, or to give more tax incentive to this informal sector that already are not paying taxes?

But in, in that sense, I would say there's-- their incentive for most of these little companies is that, or little businesses, is not paying taxes is an option, right? So would it be better for, for a more inflation-- like a, like a push in, in in government spending to try to regulate it, but that could also backfire because people still have an incentive to, like, not pay taxes or to give them minimal incentives, basically just a slap on the wrist, and then also not paying taxes because they're not enforced.

I think that's my question. What would be-- what would, what would the outcome would be optimal?

PERRY: Thank you. Okay. And then maybe one more last question. Or you. Who's that? Wait. Oh, over here. Sorry. Yeah.

AUDIENCE QUESTION: Thank you. My name is Graham Respiki. I'm an undergraduate student at Georgetown. My ten-- my question is that I'm going to posit there's a structural tendency for the tax regime to grow in complexity over time.

So then imagine a situation where we do do, you know, one bigger beautiful bill or something, and all of the problems- ... the current tax regime are solved, and it's all very simple. What's to prevent the re-complication of the tax regime over time?

PERRY: If only we knew. Okay. Let's, let's respond to some of those things.

I think maybe, I don't know, Rodrigo, Shafik, do you wanna say anything very briefly about Jenna's point, point about the normal return? But then perhaps Elena on the patent system after that.

HEBOUS: Okay. So thank you for the remarks. I think... So the chapter focuses on the domestic aspects. We didn't go into border adjustments and destination-based taxation in this particular chapter.

But we do speak about the efficiency elements of the cash flow tax, so that component of the, of the, of the reform. And that we can show mathematically that the cash flow tax does not fall on the normal return. It falls primarily on the eh, economic, economic rent. The major difference between a destination-based cash flow tax and a VAT is that the destination-based cash flow tax allows the deduction of wages basically, whereas the VAT does not.

So that's kind of, a major, a major difference between, between the two. So I, I will leave it at, at this point.

PERRY: Yeah. And then if you guys wanna have more discussion offline, we'll leave it for that.

HEBOUS: Absolutely.

PERRY: Yeah. If you wish. Rodrigo, do you have anything you'd like to add to that or differ, differ, add?

VALDÉS: No, no, I, I, I, I agree with Shafik in terms of the difference between VAT and, and, and corporate. I would-- Let me just add, I would say that the corporate has another reason that is basically for personal income tax not to become too corporate. No. So to pe- people not... So it's more complicated even because it's true that only VAT rates super high, no exemption seems to be very appealing.

But then I-- if you have an income tax to people, I wonder whether not having corporate taxes could produce a problem. But look, I just wanted to mention one thing about the complication of tax systems. There are many, many things, but I learned from someone that I work with that tax system were like a bonsai.

You cannot let them grow. You have to be always... And of course, bonsais are very complex within. No, it's not that, But, but there are so many incentives to find ways around that it's impossible to keep them super simple.

PERRY: There's a reason the US has a thousand-page tax code. Elena, do you wanna just speak briefly to the patent system point that Jim made?

PATEL: Yeah. No, I think I would probably react to a couple of things. I agree that the way that we incentivize R&D is, like, more holistic than just the R&D tax credit itself, so it also is the way the patent system works. It also is the way the patent system is enforced domestically and internationally. These things all come together, so I think it's a mistake.

And it can involve, again, I don't like to talk about it, but it can involve industrial policy and some directly targeted spending as well. And so it would be a mistake to think that the way that we support R&D is only the R&D tax credit or only a patent box. It's a holistic system, and it's a good point to make that I think a lot, a lot of times the patent people don't talk to the tax people, don't talk to the lawyers, and when you get these guys in a room together, sometimes you realize even more problems than you might have noticed than when you were all by yourself.

The second couple of things I'll just react to is my intuition about a VAT versus a DBCFT. Some of that trade-off in the conversation in 2016, for example, was we're never gonna get a VAT in the U.S. Is there a backdoor to getting a VAT in the U.S. by thinking about a DBCFT plus the personal income tax that we have?

And also just to remind people, they actually aren't mutually exclusive. You can have a VAT with a corporate tax. And so to the point of it's a big tax system and you need to be t-thinking about all the parts, you shouldn't think of these as mutually exclusive. And my very last short point is, some of the reason why the tax code is so complicated, one of many reasons, is that the simplest ideas, the pol- political ideas about tax, require regulations and lots of lines of tax code.

So, like, no tax on tips. That sounded frivolous, no big deal. That's gonna be really easy to throw into the code, and it turned out not even a little bit. And so I think being y- you know, keeping a close eye on tax complexity is always, I think, on the mind of tax regulators and the people drafting legislation.

It's just that tax is inherently complicated, and an idea that sounds very simple to write down into code quickly becomes very complicated.

PERRY: Yeah. As I said to my basic tax students last week, that exact example.

PATEL: Yeah.

PERRY: No tax on tips is, like, thrown out at a rally, and I could just see all of the tax people in the Treasury and the IRS and all my friends going...

PATEL: Yes.

PERRY: What did that mean? Okay, let me just move on to Daniel's question about... Daniel from Bolivia. And Michael, perhaps you could respond to this first, Making the point that probably two-thirds of the economy is informal. So what's, what's the best way to go to work through that? Build out the IRS, give more incentives, give up on taxing the informal sector?

What, what, what does your experience show you?

BEST: This is a very, You ask a fantastic question, Linnea, so I hope you're gonna do lots of great research on it, 'cause I think we need much more research to be done on this. It's, it's a very hard question. I think there's two things that I would add to try and help think this through.

So the first one is that if you want to reduce informality, I think it becomes very important to first think about why you think there is so much informality. And let me give you sort of two different views of why there are informal firms. One is that there are some reason why people are not able to find jobs as workers in the formal sector.

And then the, your main second best option is if you can't find a job in the formal sector and the government, you become a informal entrepreneur. But really you're not sort of, an entrepreneur by choice, you're doing it out of necessity and then an opposite view is, is exactly the opposite.

That well, there's so much regulation involved in becoming a registered business, that actually you're a very smart businessperson, and the most profit-maximizing thing that you can do is to avoid a bunch of regulations and taxes. And so which one of these you think it is really changes how you think you should try and tackle informality.

If it's the latter, you really want to reduce those barriers to formality. If it's the former, you may want to go more in terms of thinking about how you get firms to grow so they can absorb that excess supply of labor. A second issue to think through here is that I wanna go back again to this question about tax policy and the tax administration.

One, I think trend that we see if we look over the course of history in, in rich countries today or if we look across countries today is that as you see the sort of complexity of the economy naturally changing, so, firms are getting bigger technology means that more transactions are digital and therefore traceable, all of those things start to generate the possibility for a modern tax administration to collect tax revenues.

Take the VAT as an example, right? Part of the, the reason that the case for the VAT is very strong is that there's a, a paper trail left by transactions between two businesses, and that makes it easier, with that information, for a tax administration to collect those, those revenues. So as the economy naturally transforms and, and grows and becomes more sophisticated, it also becomes easier for the tax administration to collect taxes.

And so w- we kind of need to think about where along that trajectory each country is and, and that's gonna point us in the direction of what the right direction of reform is.

PERRY: Thanks. Laura, do you want to add anything from the point of view of the Latin American countries?

ALFARO: So, so the, the one thing I wanna add is that we tend to think of informality and, and informality, informality as zero one.

It turns out it's a tad more complicated because there's a continuum. And so there are sometimes firms that, yes, they're excluded from everything. There, there's some that are more complex that start playing with different things that they opt in, opt out. And even when we look at, at bigger firms, which we tend to think are the ones that comply with everything, that's also n- not true.

There might be some... So, so it is a very complex continuum just to add to the problem. And I... There is a case, the case of Brazil. Brazil managed to reduce a lot of informality in '80s, '90s, and it was a little bit of a mixture of, let me reduce cost, let me increase verification compliance, and the beauty of growth which also helped.

And so, so again, it's just a very complex system that is hard to... But it's a great research question.

PERRY: It's a great research. And then the final question, if any, that we've taken so far, if anybody... Maybe you could just repeat the question since time's passed there.

AUDIENCE QUESTION: Yeah. The basic question was just that given the tendency for...

PERRY: Oh, right. I thought

ALFARO: the bonsai answered that.

AUDIENCE QUESTION: The bonsai. Yeah, I guess that's right. It was a good answer, but I think the question was if you had a particular perspective on

PERRY: that. Yeah. I like the bonsai. Okay. More questions. There's a question. You've been very patient in the front, so we'll start there

AUDIENCE QUESTION: Yeah, I'm curious if, if if the ideal would be to relieve the normal return from taxation through whatever means and if we should not be taxing size itself, okay, but rather focusing, I assume, on supernormal returns, doesn't that mean that we should be seeking ways...

That, that the ideal would essentially be a progressive r-- taxation of supernormal returns indexed to the rate of return as opposed to the quantity of, of, of income? It seems that that would make sense. If the normal return is to be excluded, then we should be taxing according to the rate of supernormal return.

Does, does that make sense? Whether or not it's administrable.

PERRY: Thanks. And then one more over here. Yeah, you're next, and then we'll respond to those.

AUDIENCE QUESTION: Thank you. Hi, I'm Rebecca Leiva from the Embassy of Peru, right down the street, actually. Thank you for taking the time, first of all. And my question actually uses a Peruvian example and Chile as well because I grew up there, actually.

So Peru and Chile offer contrasting approaches when it comes to investment attraction, specifically in Latin America. While Peru utili-utilizes more of a a highly fragmented array of

geographic and sectoral tax exemptions paired with stability contracts, Chile has, like, historically relied on a more uniform corporate tax structure paired with rigid long-term tax stability regimes like Decreto Ley six hundred.

So does the new fiscal monitor chapter find that localized sectoral incentives generally fail cost-benefit tests compared to uniform broader rate frameworks? And additionally what administrative or political economy conditions allow emerging markets to successfully unwind entrenched sectoral exemptions without breaking regulatory certainty or destabilizing foreign in-- investor expectations?

Thanks. Thanks.

PERRY: We'll talk about those two first. Maybe the question on progressive rates of return on supernormal returns, progressive rates of tax on supernormal returns, and Shafik is well-placed to respond to that one first.

HEBOUS: Yeah. I mean, I think one idea to view this is if we have pure economic rent, at least theoretically, you can tax it fully without worrying about efficiency consequences if the-- if we have this example, which is the, the full monopolistic rent.

It's difficult to come up with an exact example like that, except in the case of natural resources, which would warrant a very high rate in order to tax the natural... national assets basically at, at, at source. In essence, the question becomes if we, if we know that we are identifying quasi economic rent, we would like to set the rate somewhere.

Now, we usually think that if we have a progressive rate, that could lead to all sort of complexities, including the bunching patterns that we've seen. A simple uniform rate on economic rent somewhere is the easiest to administer and would enable us to capture some appropriate share of, of, of this quasi economic rent.

So I would say that the major issue, and we ha-- there is some evidence, including from Costa Rica, by the way, when you have a progressive tax rates on profit, that we end up with all these sort of bunching behavior companies splitting the rent in order to reduce the rate and split it across various entities.

So these kind of complexity in practice ma-ma-make it really difficult to impose progressive tax rate on profits in practice. I have to admit that in, in some cases, in some sectors, as I said, you may have like in a country, a flat tax rate, say, on economic rent, but then say for the natural resources, you'd have specific regimes specific fiscal regimes designed for the natural resources, which would imply a higher effective ra- rate than for the rest of the economy.

So that would be my, my immediate reactions on this.

PERRY: Thanks. Anybody want to add anything to that? Yeah,

PATEL: I think I just would add administrability is a str- is hard. I think there, there's an... Suppose you had a system that was only capturing supernormal returns by whatever means you got there. I think you're asking about should we be taxing things that earn a rate of return of 5% different than 10% as opposed to the dollars.

Is that right?

AUDIENCE QUESTION: 50% versus 3%.

PATEL: Sure. That's fine. You can... But I guess the point I wanna make is that when you're talking about rates of return on particular investment, even within a company, you can have seven or eight different assets that mix rates of return. And so it becomes simpler to target the supernormal returns by dollars if you can get to them, which we can't very easily in the current system.

So I think there's a real administrative struggle with trying to do anything more than just a simple, especially with the flat rate, to get around bunching and other behavioral concerns that we worry about.

PERRY: Thanks.

PATEL: Okay.

PERRY: Just a sec, Jill. Let's... If you could maybe address the Peruvian versus Chile.

Oh, no, there's

PATEL: a

PERRY: Chilean here. Oh, that's true. Yeah, but should we speak about Chile both?

ALFARO: And to be honest, I'm not sure I understood the question. It was very long, like, very specific about taxations and system. And let me just remind you that as part of the IDB, I'm not allowed to talk about the policy, specific policy of members.

PERRY: Okay.

VALDÉS: I can, I can tell you the story of what you mentioned, that is this, this DL six hundred, that is it's actually interesting. I haven't discussed it at the... in, in the department yet. But for decades, I'm thinking about mining that has a very long maturing process. So you need to really have, for a long time, money if you, if you want to become a private miner.

In my country, there was something called invariability of the system. You have a contract, and I guess this is standard internationally, between the state and the investor, whereby you pay a premium in the corporate tax, but with that, you have a contract that they cannot charge you more than that ever.

So that will complicate this, for example, these discussions about royalties. If you want to redo the royalty, then you have a contract. For different reasons, this was eliminated fully about ten years ago. And for different reasons, it was put back this year. And for everybody, not only foreigners. So now in Chile, a cor- a, a Chilean corporate can buy an insurance basically by paying a slightly higher corporate tax, but whereby you will not be taxed with higher corporate taxes down the road for the investment you protect.

PERRY: Higher in any way- In- ... not just the

VALDÉS: rates. In any way. In any way. Let, let's see what happens down the road with that. Let's see what happens. And how you distinguish what is old, what is new. It's, it's, it's not trivial, the, the implementation.

PERRY: Okay. Jim, just quick follow-up, maybe.

AUDIENCE QUESTION: Can I just make a point about graduated rates?

Wait for the mic. Oh, sorry. About graduated rates on natural resources. Since I worked on a proposal when I was in New Mexico on severance taxes, which could be thought of as a way of raising revenue.

Speaker 2: Mm-hmm.

AUDIENCE QUESTION: A lot of countries, you know, have royalties or whatever. But basically, the way it would work is you would have a base price, maybe a base rate, but when the price went over some level, which was basically the lifting cost- The for a new well, the cost of it producing you know, from a new well, then the rate would graduate with the price.

Mm-hmm. So if oil went from at, at $50 a barrel, it might be a 10% rate. At $100 a barrel, it might be a 75% rate or whatever. Alaska had something like that.

PERRY: Right.

AUDIENCE QUESTION: But that could be applied not just to oil and gas, but coal, to timber, whatever.

PERRY: Thanks. And I think that's...

VALDÉS: Look, as a first reaction, I think it's, it's fine to think about, I would say temporarily consistent schedules.

I think one of the problems that we have with royalties in general, with the old structure of fixed royalties, is that the reality change, prices change a lot, and then you have to redo everything and opening up contracts, and that brings a lot of problems. So if you really-- ex- exactly. If you, if you ex ante try to imagine different scenarios and where you will share a bigger part of the bigger rents in case they are bigger, I think it's m- much healthier for the investment process ex ante and protects you in ex post.

So it's happening. S-some countries are doing, some doing, some are doing that.

PERRY: One more back here, and we're kind of running out of time, so I think we have about five more minutes.

AUDIENCE QUESTION: Hi, everyone. My name's Alex. I, I practice tax in the UK, and they suffer from a lot of this bunching in terms of their VAT threshold.

They've s-spoken about corporate income tax, personal income tax as well. Are there any verified or, or provable ways to avoid bunching in corporate tax and personal tax systems?

ALFARO: Don't put the threshold.

PATEL: Yeah. Yeah. Smooth the threshold out. Yes. Unfortunately, I don't think there's any way to avoid it besides getting rid of the incentive to bunch.

But is that politically viable? Say it again?

AUDIENCE QUESTION: Is that politically viable to, to totally abolish- Well- ... for someone having-

PATEL: The expanded premium tax credits- Michael wants to- ... smooth the threshold to try to get rid of bunching, and so... Michael, go ahead. But yeah- Michael ... I just think it's a, you have to redesign the system.

BEST: Michael. Sorry. I wanted to just say two things. I've spent a lot of time thinking about bunching. I think there's one example, in fact, from the UK that's really interesting on this. So, the stamp duty is a tax that you pay on the transaction of real estate, and historically, that system featured what we call notches.

At certain price thresholds, the percentage that you paid on the entire value of the transaction would shoot up, and so you have these very big discrete jumps. Those generate enormous amounts of bunching. And so then there was a reform that changed those notches into kinks, where instead you only paid the higher tax rates on the marginal bits, on the bits above the threshold.

That smooths out the tax schedule, and con-commonly you see much, much, much less bunching in the modern tax schedule than in the old one. I think the other thing to say is that, you know, bunching per se doesn't necessarily mean that the system is broken. If the bunching is happening around some threshold, and that threshold captures, I don't know, 5%, 2% of the total number of taxpayers who are paying or facing this tax schedule, you want to think about the whole schedule not just what's happening around these arbitrary thresholds.

PERRY: Great. Thanks. That's very helpful. And the stamp duty example is a great one. One wonders as a tax policy person, one wonders whether the original drafting was just a mistake, but possibly not. Anyway I think we're just about out of time, so maybe just ask everybody if they have... everyone on the panel and plus, and Shafik, if you just have one last comment before we wind up.

ALFARO: So I have one inspired by the opening that was reading The Economist. I actually have a very nice quote from Schumpeter, "The spirit of people, its cultural level, its societal structure that its, its policy can deliver all of this and more is written in its financial history." 1918.

PERRY: There we go. Elena?

I

PATEL: can't possibly top that. That was

PERRY: great. No, that's hard to top. That is hard to top. Shafik, do you wanna say anything about-

HEBOUS: I just would like to remind you that we have also all the technical annexes published next to the chapter. So if you would like to dig deeper into the models and so on, please have a look and then feel free to, to ask us, and thank you very much for reading the chapter.

PERRY: There're great annexes to this chapter. Rodrigo, do you have any concluding thoughts?

VALDÉS: No. I just want to thank Brookings. I want to thank you, Vicki, for this, the, my fellow pana- panelists, and, and especially Shafik and, and his team who did this. Lot of hands, lot of versions that I saw passing, so great work.

Thank you.

PERRY: And thank you from me to all the panelists. That was great. Good discussion. And to the audience for participating.