Congratulations Duncan. Wide set of issues around the theme of simplicity. I will talk about the potential of blockchain to simplify our tax systems but first a few general comments on simplification.

Slide 1

1 What are the causes of complexity in our tax systems?

Competing and sometimes conflicting objectives are set for tax policy: achieving fairness and efficiency objectives, for example, securing the revenue base and providing a business-friendly tax environment. These trade-off often lead to increased complexity in the legislative

Complexity also arise because politicians are always tempted to use the tax route to deliver subsidies: e.g. the widespread exemption under VAT for newspapers and children shoes etc. Part of the reason for this is that a tax expenditure does not increase public expenditure and give the appearance of lowering the tax burden!)

A large part of complexity arises because tax systems have to operate in complex and rapidly changing economic and social environments (just think of the complexity of the two Pillar solutions!)

Another cause of tax complexity is the trade-off between simple but vague rules (entailing legal uncertainty) and complex but concrete rules (entailing certainty but only for those who can pay for advice) For example, GAARs are simple but the applicable standard is not clear which creates legal uncertainty. So can we envisage a system aided by technologies that can help ease this trade-off?

Complexity also arises from the need to counter the way that some taxpayers - whether MNE and HNWI or the local plumber - will use creative ways to evade or avoid paying the right amount of tax in the right place and at the right time.

And in many developing countries complexity arises because of the need to counter corruption in the tax administration.

2. What are the preconditions for achieving less complexity through new technologies?

Firstly, tax policymakers have to recognize that to get the full benefits from technology may require redesigning the taxes to reduce many of the subjective judgments that have to be made in their application. For example, if we had a single rate of VAT that applied to all goods and services this would be much easy to translate into computer code, would involve less subjective elements (is it a biscuit or a cake, or an adults shoe or a child shoe! And if we wish to use consumption taxes to discourage tobacco, alcohol etc. we could use excises rather than VAT). Not easy decision but perhaps digitalization offers an opportunity to reconsider the traditional structures of VAT.

Digital technologies can, however, make it easier to operate complex systems which can discourage policy makers from simplifying the tax design (e.g. Brazil VAT).

Secondly, an important element of technologies and their relationship to the complexity of tax systems relates to the interface between the tax system and what the ultimate user sees.

What do I mean by that?

A system might be very complex below the surface (computer code translating law) but very simple and user friendly when you get to the interface. You do not need to understand the code to buy a digital asset/use your phone or computer.

But another way technologies can help hide complexity from the taxpayer e.g. pre-populated tax returns.

Thirdly, getting the most out of new technologies requires a level of trust between the tax administration and the taxpayer. Something that is lacking in most countries.

If taxpayers and tax administrations can work together in an open, transparent, constructive manner, it will enable them to use new technologies to design programs that minimise the compliance costs for taxpayers and administrative costs for tax administrations. More trust could also facilitate a more "revolving door "approach to staffing in tax administrations, which could be attractive in an environment where it's difficult for tax administrations to attract and retain skilled digital personnel.

Also building up trust may be easier than in the past given that we have seen so many large MNEs declare their" unwavering "commitment to the SDG and ESG and with Boards beginning - slowly yes - to see their approach to taxation in this broader context (the tax department ceases to be seen as just as "another cost centre").

This is why I feel that more of the CATA countries should be looking at cooperative compliance programs since these are all about building up trust.

Fourthly, here needs to be a shared view between business and tax administrations on what technology can and cannot do and a willingness to embed new technologies into "normal business processes". In this way, you get a buy in from business to work with you.

Fifthly, these technologies work best if there are internationally coordinate technical platforms across countries or at least groups of countries. Finally, perhaps we need to be more ambitious in the way we approach new technologies. Today most of the focus is on how can these technologies make our existing systems work better. But perhaps at the same time as we ask this question we should also be asking can the technology change the existing systems themselves? (e.g. transform the system

What are their transformation and disruptive (not destructive) potential and how do we explore this in parallel to incremental improvements.

This leads me nicely onto blockchain and implications.

Slide 2

A first comment is that it may help if we get away from the term Blockchain. Let's instead refer to the two key features that lie behind blockchain; distributed ledger technology: think of this as a more sophisticated form of double-entry accounting! An immutable and transparent record on each block of a transaction that involves multiple players — put another way it is a network of nodes containing the same database. No need for central authority because if you tamper with the information on your local device, it will not match the data on the blocks.

Smart contracts: a misleading term since they are not "smart" and nor contracts as we think of traditional contracts. They are codes that automatically trigger pre-arranged transactions when a set of conditions are met e.g. when an employee pays a salary the deduction of the right amount of payroll taxes is made and paid over to the government.

The advantages of these technologies are especially relevant when:

- information is sensitive
- where there is a need for coordination along a chain of transactions (e.g. a global value chain)
- speed of a transaction is important
- immutable records of all the relevant data are helpful and should be accessible in real-time to all the parties.

The other important characteristic of blockchain is that it involves a process of disintermediation and this will change the role of the tax advisory community.

Slide 3

What is the potential of these technologies in the tax area?

Mainly in the area of transaction taxes where a centralized approach is more efficient than a decentralized solution, where real-time information is the key to counteracting non-compliance, where trust between the parties is still lacking and where the rules are not too subjective.

Which taxes fall into this group: VAT, Payroll taxes, withholding taxes, customs duties and taxes on property.

What are countries doing at present? A lot more than you think!

DTL and smart contracts are now extensively used in the financial sector.

Environmentalists are exploring how to use them to operate carbon taxes.

And in the tax area a number of pilot studies are underway. To name a few:

- A blockchain-based tourist refund VAT system in Thailand.
- Reform of custom taxes in Egypt and Rwanda.
- A single place of registration in Argentina
- A blockchain-based VAT pilot in China

We have also seen pilot studies by the WCO involving Mearsk, BM,

the Netherlands, Korea and Kenya, UNCTAD has also explored the potential of DLT to remove non-tariff barriers.

At the same time, an increasing number of MNEs (e.g. Siemens) are moving their VAT, customs and trade compliance work onto block-chain. In many ways, the private sector is way ahead of the public sector.

We at the GTPC have been a partner with a number of tax administrations, major financial institutions and EY on designing a blockchainbased approach to withholding taxes on cross border dividends, which showed that moving these transactions onto a blockchain could cut by a third or more the compliance costs and reduced fraudulent claims for refunds.

My expectation is that in the coming three years we will see some of the pilots being mainstream.

We in the tax community need to follow closely these developments so that as the technology develops it meets our needs and works towards what OECD has called the "invisible tax administrations" but I would add with "visible "transactions!

Slide 4

What are the main barriers to realising the full potential of blockchain in the tax area:

Overcoming legacy issues and ensuring that during the transitional period the revenue base is protected.

Legal barriers: rules written in an analogue age may not work in a blockchain world.

Human factors: fear of the new, especially if officials believe their jobs will be suppressed. This is why a change management program has to be in place.

Lack of comprehensive, bias-free and up to date data.

A misunderstanding of the technology by leaders in tax administration.

Slide 5

Here you see the opportunities and challenges associated with introducing DLT and smart contracts in CATA tax administrations.

My view is that the opportunities are real and that the challenges can be dealt with.

How can CATA countries approach this transformation?

First, avoid the syndrome of a new technology chasing a problem to resolve. Be clear about what problems you want to resolve and openminded of which technologies or more accurately what combination of technologies may be best suited to do this.

Second, proceed cautiously: begin with a pilot and choose a tax that is not too complex (e.g. taxes on land and building).

Third use CATA as a platform for learning from the experience of other countries.

Fourth, work with business since this will enable you to build on the platforms they have developed.