



# Digitalizing Public Finance Operations - the IMF Experience

Session 2-1 - TFF : Digitalizing Public  
Finance Operations

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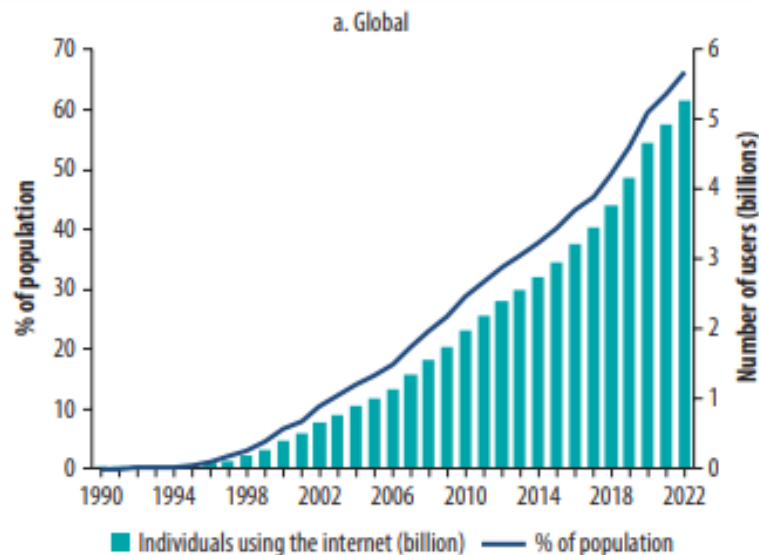
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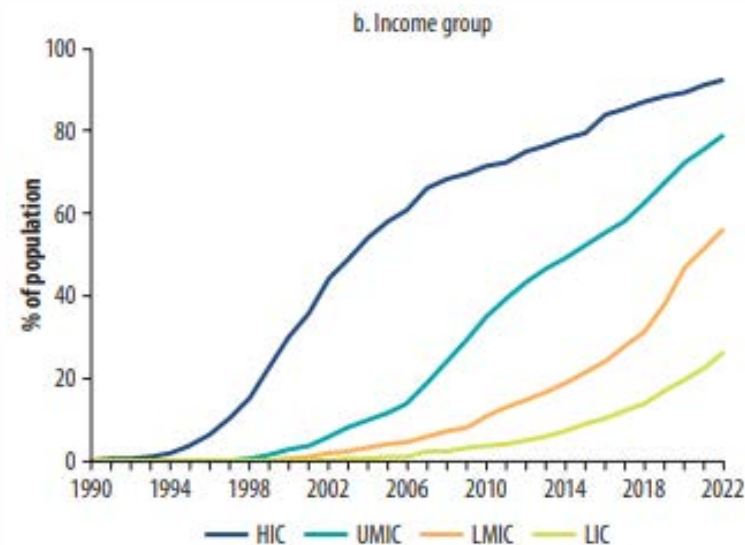
# I. General Context for GovTech

- GovTech initiatives, through the digitalization of fiscal operations, enable sustainable reforms in Public Financial Management, Revenue Administration, and Tax and Expenditure Policy.
- Given the high digitalization level in most countries, implementing fiscal reforms without digital tools is not feasible anymore.
- In this “race”, advanced economies are better equipped than developing countries, highlighting development disparities. Overcoming the digital divide is crucial to fully reap the benefits of GovTech.

**Internet Users as a Share of Global Population**



**Internet Users by Country Income Group**



Source: Digital Progress and Trends Report, WB (2023) – Note: HIC=high-income countries, LIC=low-income countries, LMIC=lower-middle-income countries; UMIC=upper-middle-income countries

## II. Global State of GovTech in Fiscal Operations

### Global State of Digitalization across Revenue and Customs Administrations

#### Tax Administration

- **96%** - Operational ICT Solution\*
  - ▶ **72%** - E-Filing Channel
  - ▶ **69%** - E-Payment Channel

#### Customs Administration

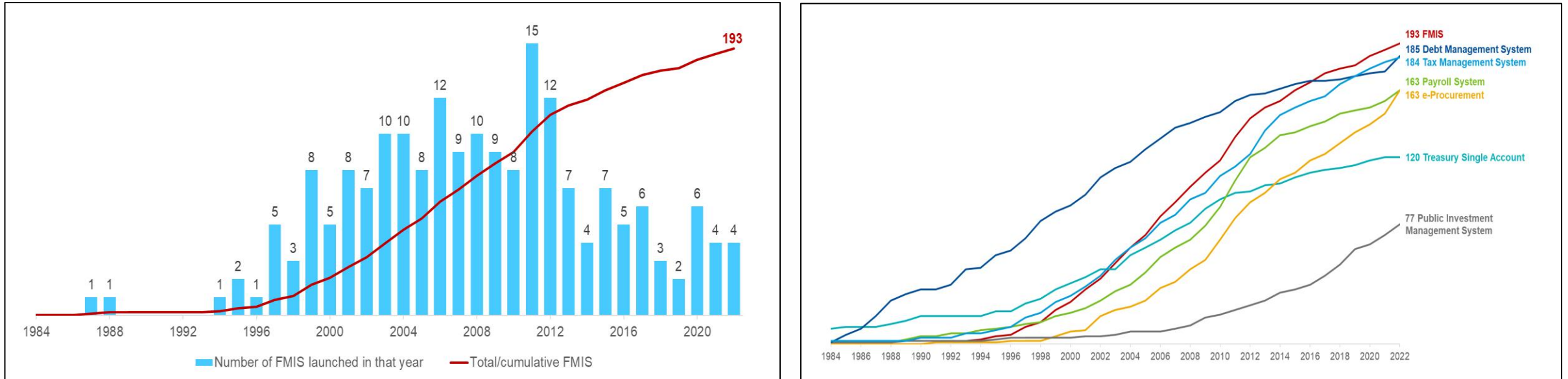
- **99%** - Automated Customs System
  - ▶ **76%** - Fully Implemented
- **65%** - Electronic Single Window
  - ▶ **26%** - Fully Implemented

Source: ISORA and UN Global Survey on Digital and Sustainable Trade Facilitation.

\* Note: In ISORA, questions relating to the “operational ICT solutions” of tax administrations were removed in the latest survey. Prior results are shown here for comparison to customs.

## II. Global State of GovTech in Fiscal Operations

### Global Trends in the adoption of Financial Management Information Systems (FMIS)

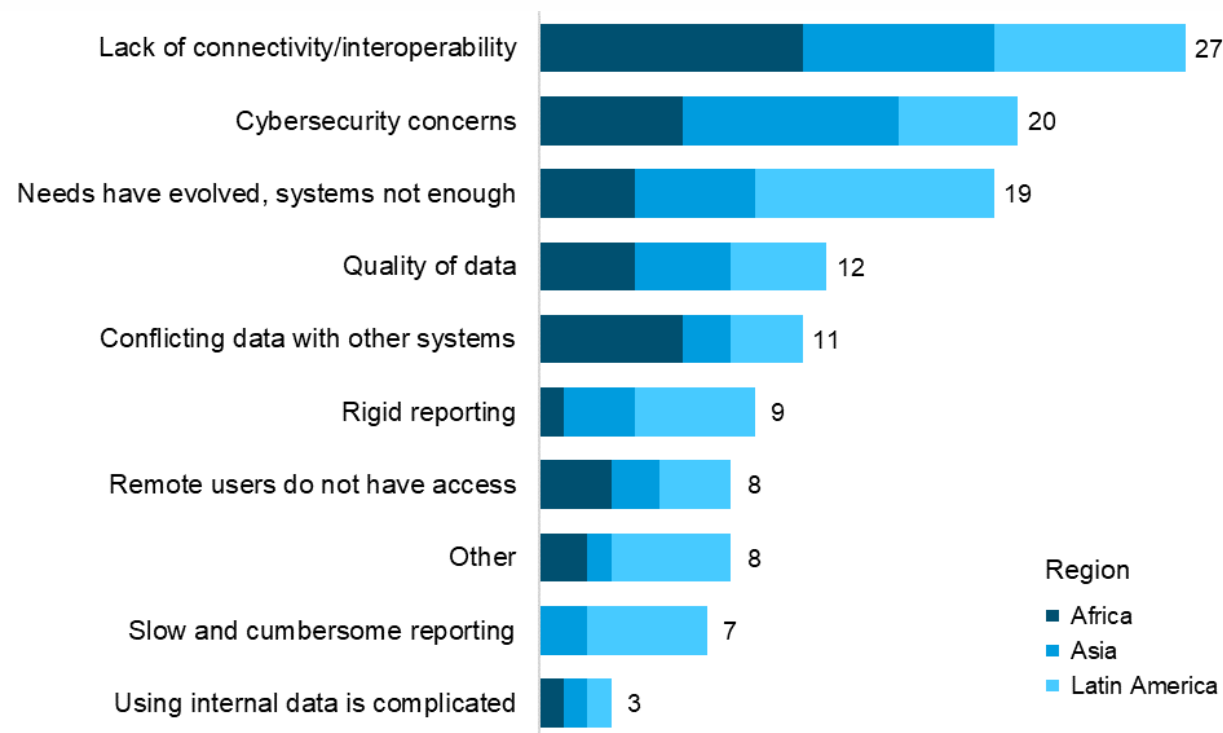


Source: IMF based on GovTech Dataset (Oct 2022), World Bank. Note: The survey is self reported by country authorities and does not indicate the quality of the systems.

## II. Global State of GovTech in Fiscal Operations

- A recent survey (2023) of 30 countries across different regions and income groups showed that lack of interoperability, quality of data, cybersecurity concerns, and evolving needs of governments remain a significant challenge for IT systems that support PFM functions.

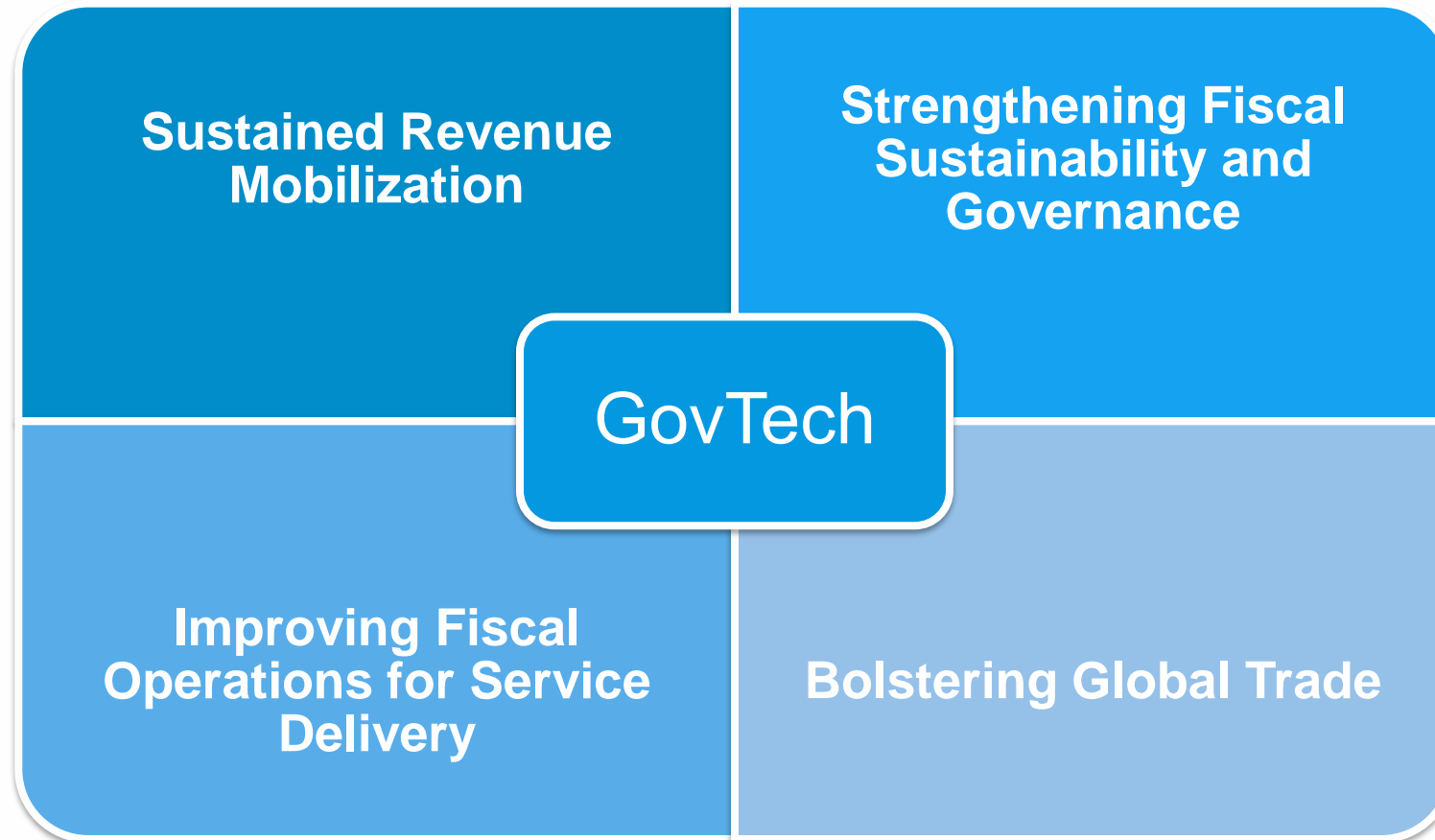
### Tax Revenues and Business Digitalization by Level of E-Government



Source: Digital Solutions Guidelines Workshops (May 2023), IMF

### III. Macro Fiscal Impact of GovTech

#### Areas of Macro Fiscal Impact of GovTech Initiatives



# III. Macro Fiscal Impact of GovTech: Selected Examples



- **Strengthening Fiscal Sustainability and Governance:**

**Somalia** - Upgrade the FMIS to introduce process reengineering for invoice tracking and digital signature implementation to strengthen internal controls and to capture accounts payables.

**Georgia** - Use of Machine Learning / AI in detecting risky payment invoices.

**Honduras** - Web Portal to publish COVID-19 spending & natural disasters related spending  
*Main Impact: Increased transparency of IMF's resources (SBA/SCF)*



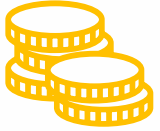
- **Improving Fiscal Operations for Citizen Service Delivery:**

**Costa Rica** - Treasury system to consolidate payments of cash transfer social programs

*Main Impact: Reduced pay time from 3 to 5 days to 24 hours. Near 430,000 beneficiaries are receiving electronic payments.*



# III. Macro Fiscal Impact of GovTech: Selected Examples



- **Sustained Revenue Mobilization:**

**Senegal** - Digitalization Transformation Built on Medium-Term Reform Plan

**Main Impact:** *Business continuity with sustained revenue and 60% reduction in time to refund VAT claims*

**Madagascar**-AI application for selectivity of customs declarations (in cooperation with Korea TA)

**Main Impact:** *increase of fraud detection (x1.5) and reduction of false positives by 60%*



- **Bolstering Global Trade:**

**Uruguay** - Single Window Integration of Foreign Trade

**Main Impact:** *35% Reduction in Response Times - Moving Cargo to bolster the economy*



- **Positive spillover effects on digitalization in business supporting the economy:**

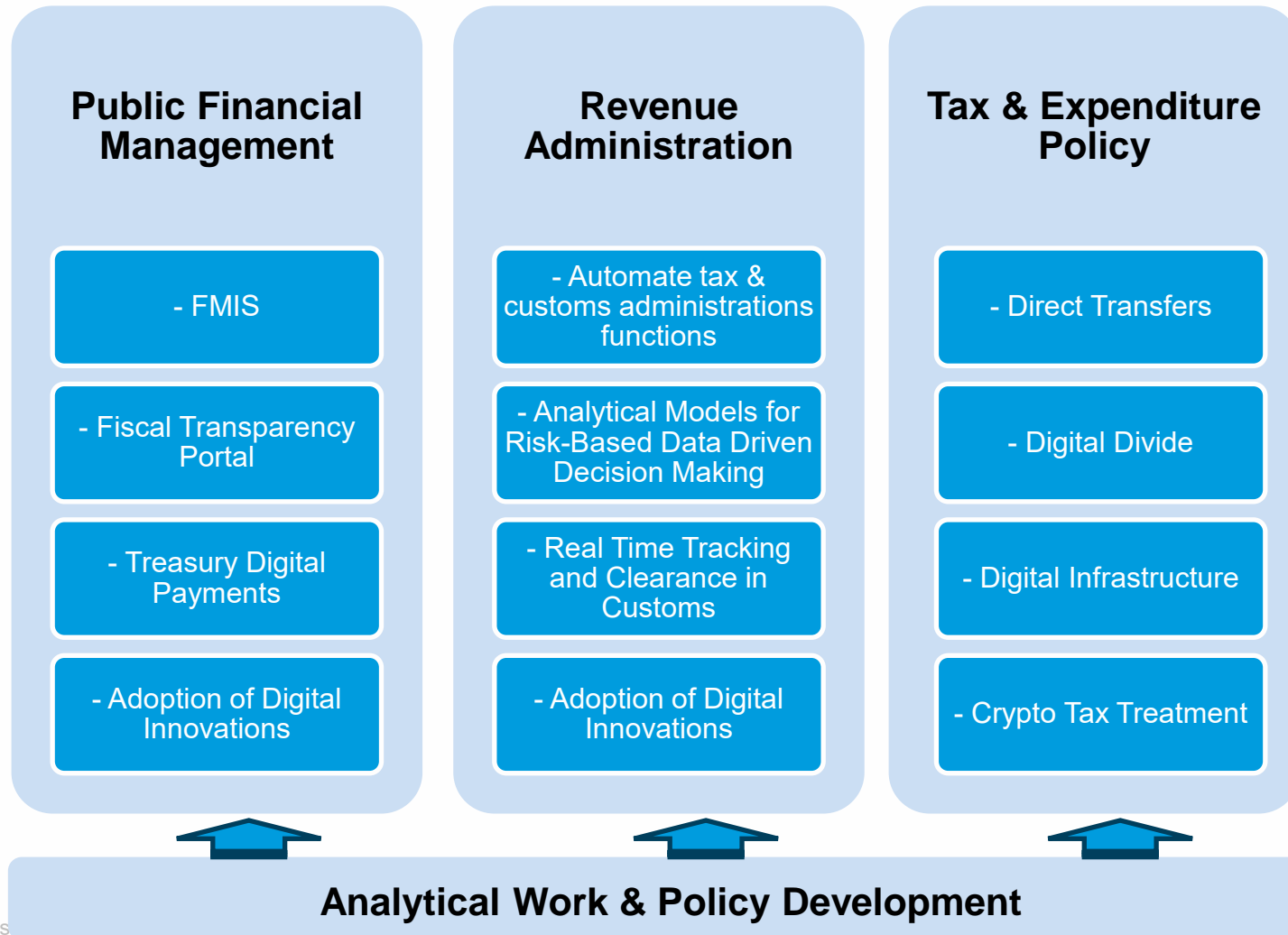
**Peru** - e-invoicing

**Main Impact :** *Business adoption of technology and VAT compliance improved*

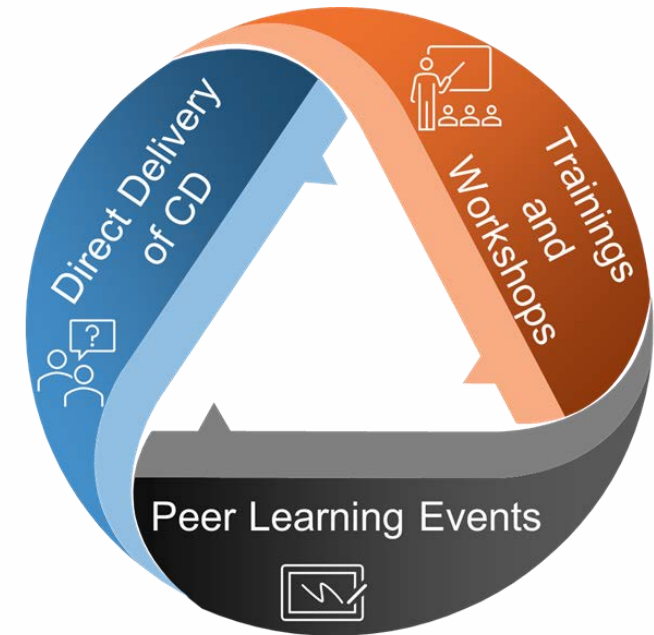
## IV. GovTech : What We Do & How We Do It

- FAD Capacity Development (CD) on public finance digitalization (GovTech) accelerated during COVID-19 and have been continuously increasing.

### Areas of GovTech Support



### Modalities of GovTech Support



# IV. GovTech : What We Do & How We Do It

- Analytical Work & Policy Development to inform FAD CD.

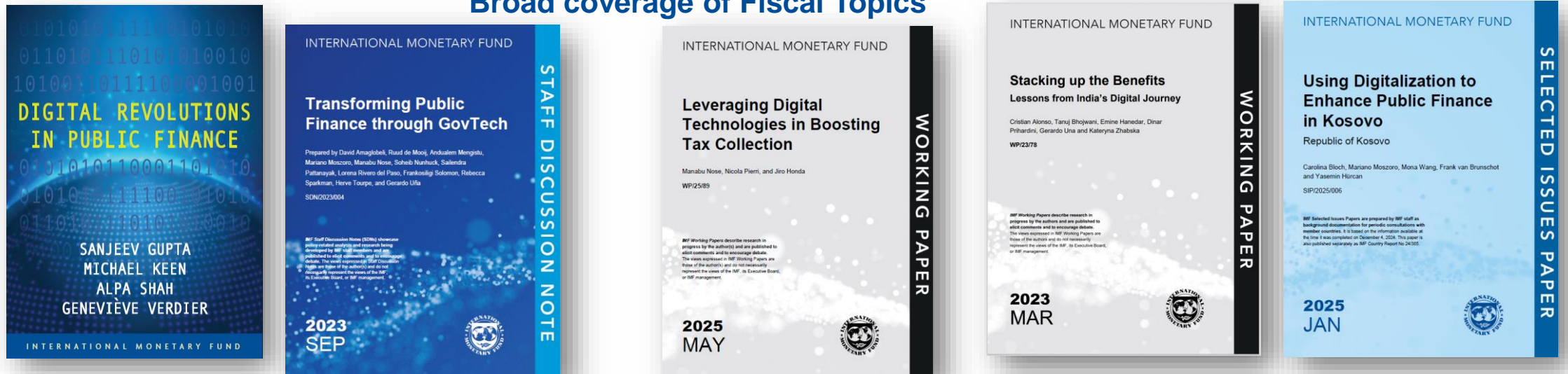
## Public Financial Management



## Revenue Administration



## Broad coverage of Fiscal Topics

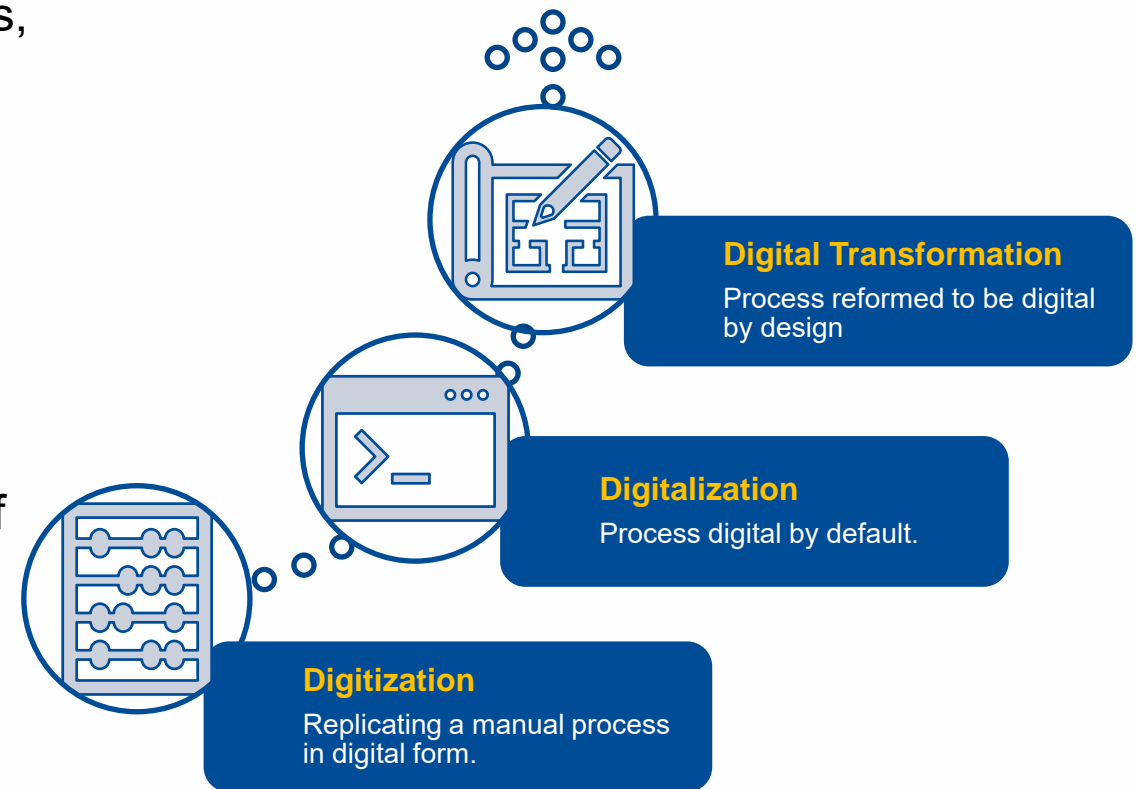


# IV. GovTech : What We Do & How We Do It

## Our Focus is on Supporting Digitalization of Fiscal Operations to...

- **Strengthen the digital fiscal ecosystem** (to enable also the adoption of digital innovations, like AI, based on solid fundamentals)
- **Respond to the evolving needs of fiscal operations** (which can be challenging due to outdated or legacy systems).
- **Leverage technology to enhance and modernize business processes** (instead of merely automating existing functions).
- **Promote data utilization for data-driven decision-making** (expanding beyond mere compliance-focused reporting).

### Stages of adoption of digital tools/solutions



# IV. GovTech : What We Do & How We Do It

...but keeping in the center the fiscal operations “Core Systems”

Integrated Tax Administration System

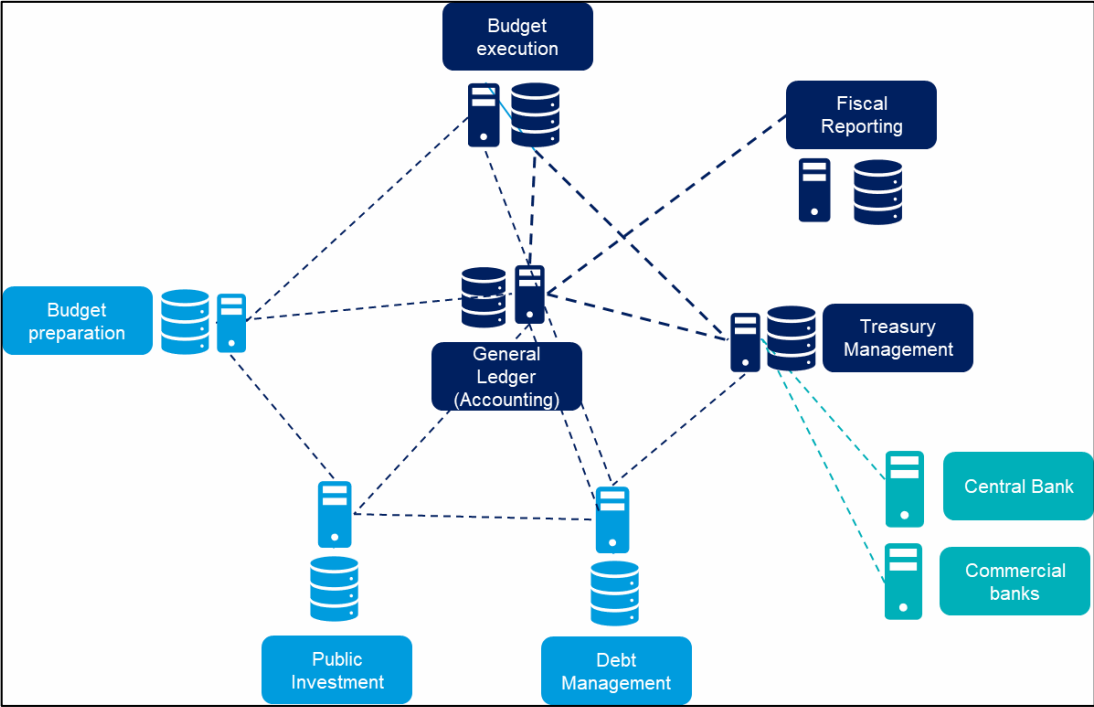
Electronic Taxpayer Services		
▪ Registration	▪ Payment	▪ Refunds
▪ Filing	▪ Appeals	▪ Support
Internal Tax Administration Operations		
▪ Service Delivery	▪ Workload Management	▪ Reporting
◦ Inquiries	◦ Risk-Based Prioritization	◦ Management
▪ Taxpayer Management	◦ Compliance Cases	◦ Operational
◦ Registration	▪ Audit	◦ Ad-Hoc
◦ Accounts	▪ Appeals	▪ ITAS Configuration
◦ Certificates	▪ Collection	◦ Tax Types
◦ Assessments	▪ Refunds	◦ Tax Forms
◦ Documents	◦ Exceptions Processing	◦ Tax Periods
◦ Returns	▪ Returns, Payments	◦ Events
◦ Payments	▪ Reconciliation	▪ ITAS Administration
◦ Refunds	▪ Core Accounting	◦ Users and Groups
◦ Correspondence	◦ Taxpayer	◦ Internal Security
◦ Enforcement	◦ Revenue	

1. Not losing the administration’s KEY focus – Taxpayer Compliance in the Center



Helping strengthen these processes – one of IMF’s areas of TA in Public Finances

Financial Management Information System



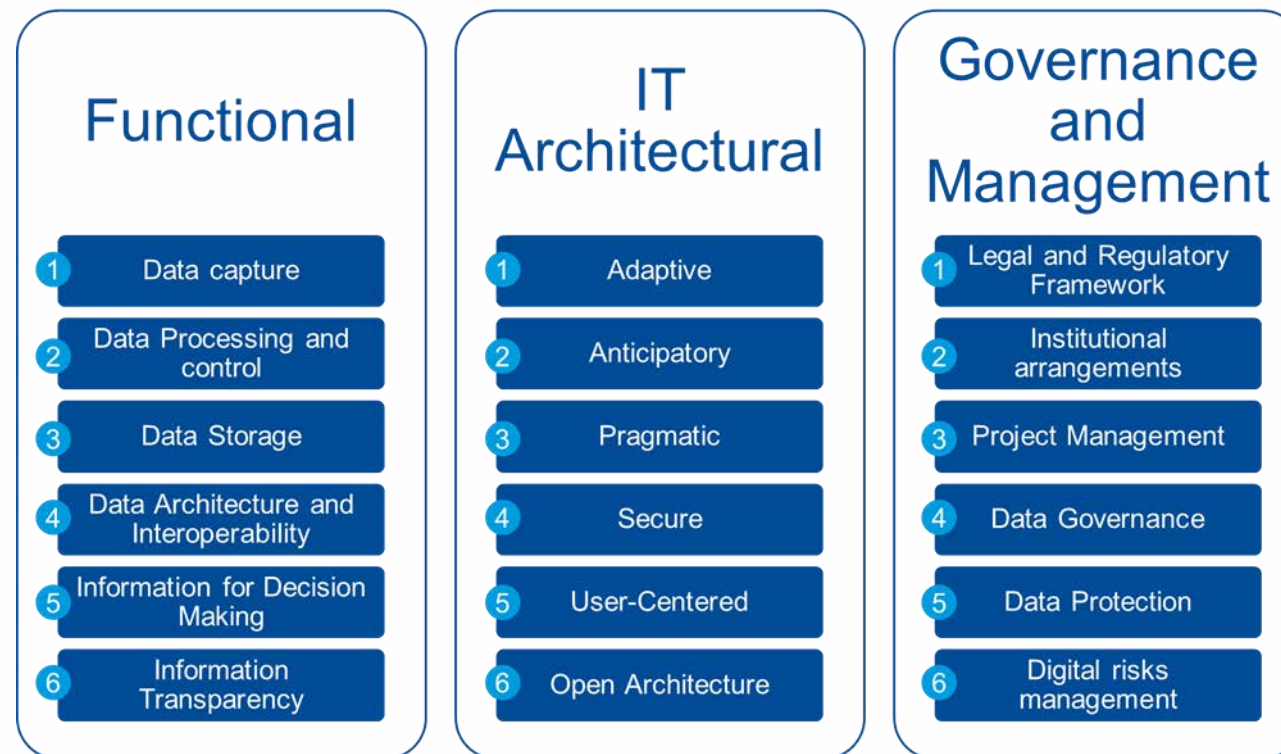
■ Core FMIS modules / systems



## IV. GovTech : What We Do & How We Do It

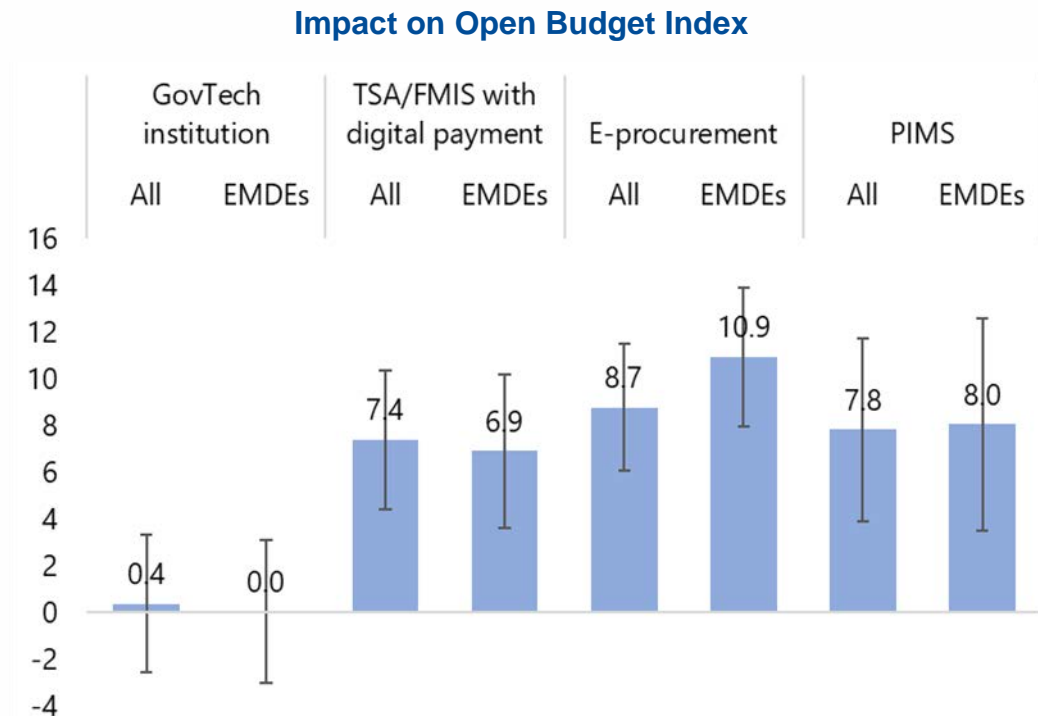
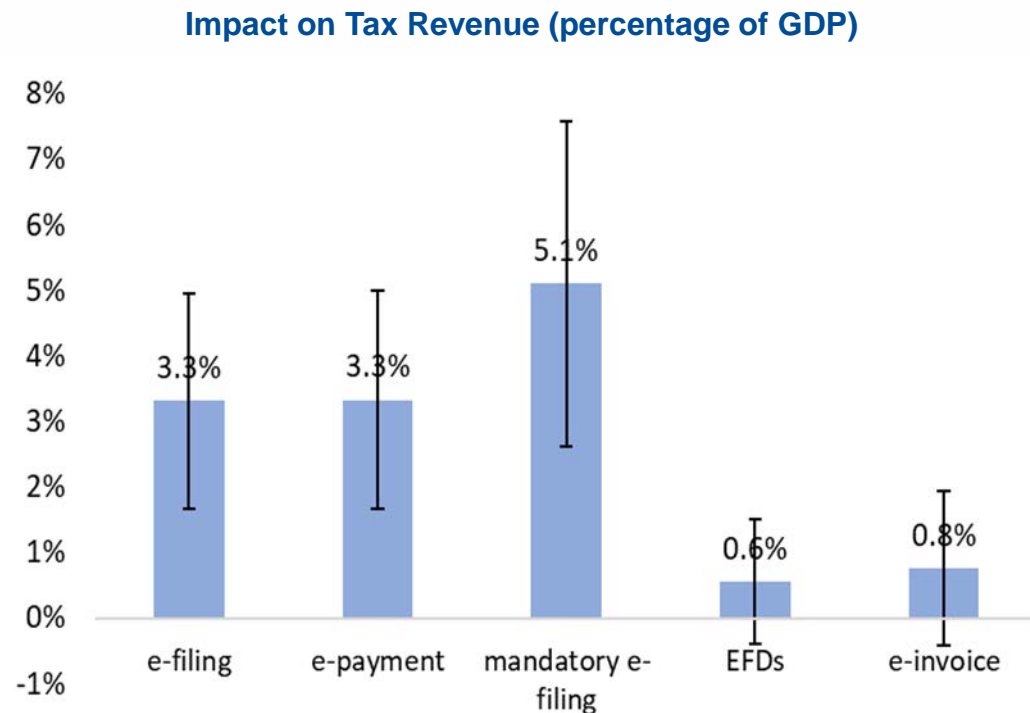
- However, the benefits from GovTech initiatives in fiscal operations do not occur automatically, require a good enabling environment, a comprehensive transformation process, and measurable results.

### Pillars of GovTech for Public Finance



## V. Impact of GovTech on Public Finance

- Although GovTech adoption continues to grow, having comprehensive metrics to evaluate its advantages and effects are still under development.
- When implemented well, GovTech can improve revenue collection, curbing corruption, promoting fiscal transparency, and efficient use of public funds. The IMF is actively addressing this issue to support Ministries of Finance in their decision-making processes.

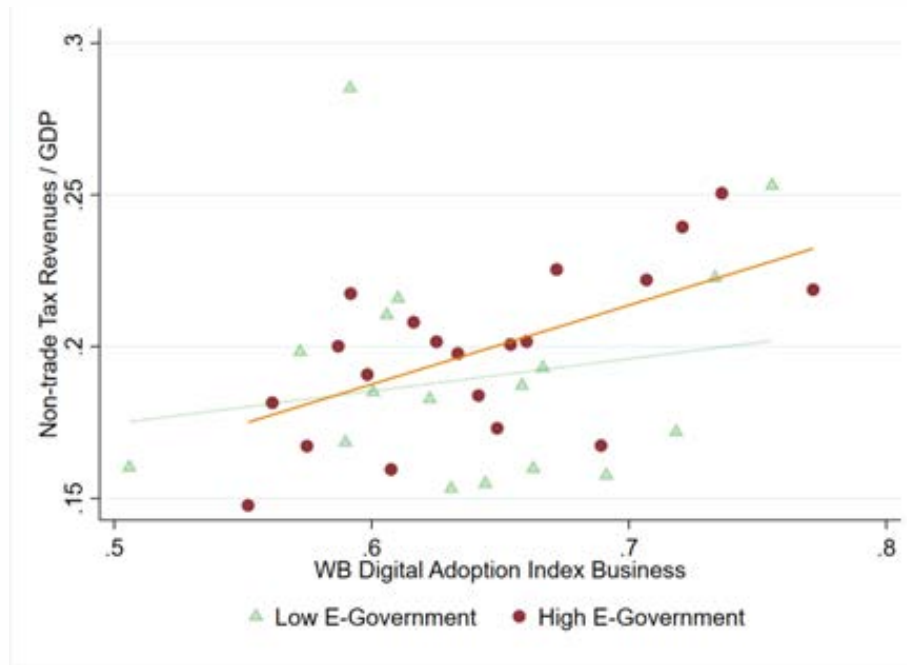


Source: Transforming Public Finance Through GovTech, IMF (2023) – Note: EMDEs = emerging market and developing economies

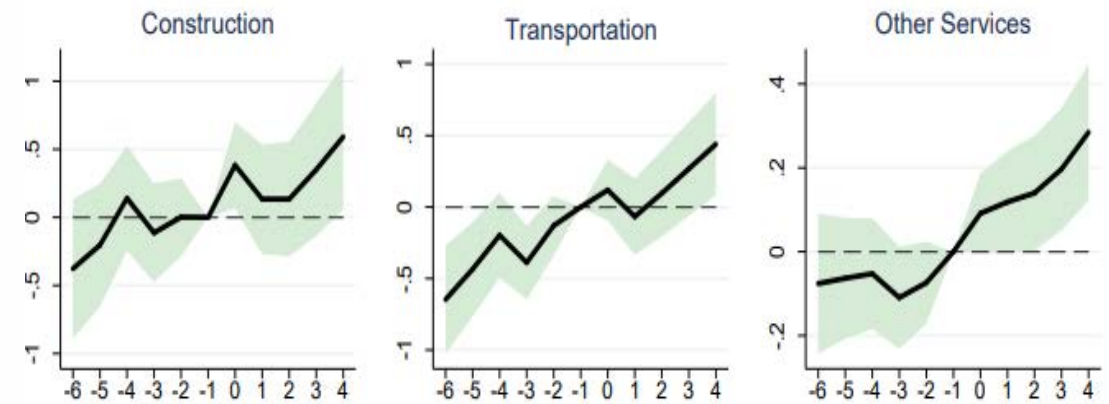
## V. Impact of GovTech on Public Finance

- Furthermore, advancing both GovTech and the digital transformation of businesses is essential for boosting tax revenues.

**Tax Revenues and Business Digitalization by Level of E-Government**



**Peru: Impact of VAT e-Invoicing Adoption by Economic Sector (VAT Payments)**



Source: Transforming Public Finance Through GovTech, IMF (2023) – Note: EMDEs = emerging market and developing economies



## VI. Key Takeaways

- Digitalizing extend beyond just launching a new technological platform, it should support modernization of fiscal operations through GovTech to provide better public services to citizen and business.
- Often GovTech initiatives struggle due to insufficient planning and oversight.
- For successful digitalization of public finance operations, it is essential a holistic approach considering several key elements – organization’s mission, operational processes, governance structures, change management, data management strategies, and workforce skills.
- If digitalization is not treated as a comprehensive process, it may result in minor enhancements in operations or, in the worst case, could even hinder them.
- Addressing the “Digital Divide” is crucial to implementing a customized and pragmatic phased strategy, while also exploring opportunities to leapfrog advancements.
- Thus, GovTech serves as an enabler for more efficient and transparent public finance operations, it should not be seeing as the ultimate goal; crucial to help public finance organizations in better delivering their missions.

**THANKS!**