PPPs, Fiscal Risk, and the IMF’s PFRAM Tool

Tokyo Fiscal Forum 2018
June 4-5, 2108
Tokyo, Japan

IMF Fiscal Affairs Department (FAD) and Technical Assistance Office in Thailand (TAOLAM)

Holger van Eden
IMF Regional Public Financial Management Advisor for SE Asia
hvaneden@imf.org

Activities of the Advisor are funded by resources for capacity development provided to the IMF by the Government of Japan
PPPs the financing solution for public investment in Asia?

- Infrastructure spending expected to grow 7-8 percent in real terms over the next decade in Asia Pacific
- By 2025 annual spend on infrastructure in the region will equal 60 percent of world’s total
- Annual financing requirement at least 1.7 trillion US$ over the 2016-2030 period (in 2015 prices)

>>> Traditional public investment constrained by limits to revenue mobilization and (appropriate!) fiscal rules
>>> SOEs can have legacy costs, considerable inefficiencies, and need government guarantees

>>> Are PPPs the solution?
Public investment is not only hampered by lack of financing, but often affected by poor maintenance, cost overruns, completion delays, poor design, poor maintenance, corruption concerns, and poor project selection. Public investment is critical for economic growth and for the quality of life, but...
PPPs can address some of these issues....

PPPs can be an efficient way of procuring public investment, if they help:

- Contain cost overruns and delays in construction phase
- Improve project design and quality of service
- Guarantee proper, timely and cost effective operation and maintenance
- Allow government to refrain from detailed project management, and focus on outputs and results

PPPs may be able to mobilize additional capital and user fees for project finance

PPPs can also transfer substantial project risk (financial, technical, operational) to the private party
But only to a limited extent.....

PPPs have higher financing costs, require a profit margin for the private entity, and have high transaction costs.

Also, while (official) public debt may remain low, (off-budget) expenditure obligations and contingent liabilities are likely to increase.

>>> PPPs generate fiscal risk and costs!
Use of PPPs in Emerging Asia and Advanced Countries is still quite modest

Public-Private Partnerships Investment (Nominal, % of Total Investment)

Note: Total investment = public investment + PPP investment
PPPs part of the Fiscal Iceberg!

- **Budgetary risks are related to:**
  - **direct costs**, and
  - **contingent liabilities** (explicit or implicit)

- **PPPs fiscal risks:**
  - Reduce budget flexibility by committing public funds through long-term contracts
  - May move spending and liabilities off budget
  - Bypass spending controls/fiscal discipline

- **PPPs – if not managed well - may undermine macroeconomic stability**
PPP are not easy to manage

- PPPs are complex to design and implement:
  - Appropriate incentive/reward mechanism
  - Risk sharing (full transfer unrealistic)
  - Financing arrangements
  - Support measures (subsidies, guarantees, minimum revenue, equity injection, tax amnesty)
  - Contracting
  - Renegotiation/Termination

>>>Will require developing substantial public sector expertise

>>>Presents high transaction costs

>>>Which limits overall volume
Typical issues at the macro level...

- Inadequate legal framework

- Weak role of the Ministry of Finance as the gate-keeper of public finances

- Lack of integration of PPP projects within the budgetary process
  - Separate investment appraisal and selection process
  - Budgeting procedures bias decision-making in favor of PPPs
  - Annual appropriation mechanism not appropriate for PPPs
  - Inadequate long-term fiscal sustainability assessment

- Noncompetitive procurement

- Poor monitoring/lack of fiscal transparency
  - Inadequate accounting and reporting standards
  - Poor information on medium-term commitments and contingent liabilities
  - Use of State-owned enterprises, parastatals, etc. to hide government involvement
Managing Fiscal Risk of PPPs

• **Micro approach – reducing the risk of the PPP process**
  – Legal and Policy Framework
  – Integration into normal project appraisal/selection
  – Value for Money assessment and fiscal impact analysis
  – Risk sharing policy
  – Gatekeeper role MOF
  – Standard approaches and contracts
  – Monitoring Framework – individual
  – Capacity building

• **Macro Approach – limiting overall exposure of PPPs**
  – Monitoring Framework – macro
  – Improved accounting and reporting standards
  – Include PPPs in sustainability framework
  – Limits on for example (i) contingent liabilities (separate, or part of debt ceiling), (ii) direct expenditure of PPPs, or their NPV, (iii) total value of PPP program (stock and/or flow)
PFRAM estimates the macro-fiscal impacts of a PPP project recorded in line with international standards IPSAS 32 and GFSM 2014

- Fiscal commitments are recognized when the contract is signed (as the assets are built)
- Asset and liabilities of the PPP are accounted on the government balance sheet if government retains control of the asset
- It also generates results on cash basis and compares these with accrual results
What P-FRAM doesn’t do?

It does not substitute a complete financial and economic project evaluation

- Aim is to estimate the macro-fiscal impacts
- User-friendly design means it is based on a limited amount of information and assumptions
- So, it can only provide a broad idea of costs and risks

PFRAM v2.0 is in the works – Improvements + PPP portfolio approach
<table>
<thead>
<tr>
<th><strong>5 Main Outputs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private partner cash flow</strong></td>
</tr>
<tr>
<td><strong>Public Financial Statements</strong></td>
</tr>
<tr>
<td><strong>Project Macroeconomic impact</strong></td>
</tr>
<tr>
<td><strong>Fiscal Risk Matrix</strong></td>
</tr>
<tr>
<td><strong>Sensitivity Analysis</strong></td>
</tr>
</tbody>
</table>
Outputs

Private cash flow

Project fiscal impact

Impact of PPP Project on Headline Fiscal Indicators

Cash Flows of the PPP Private Project Company

Government Liabilities

Government Nonfinancial Assets

Gov. Net Lending/Borrowing (Accrual balance)

Government Cash Balance
Outputs: Summary Project Risk matrix

![Project Risk Sharing Arrangements Table]

<table>
<thead>
<tr>
<th>Identification of Risks</th>
<th>Allocation</th>
<th>Likelihood</th>
<th>Fiscal Impact</th>
<th>Risk Rating</th>
<th>Mitigation Strategy</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Governance risks</td>
<td>Public</td>
<td>High</td>
<td>Medium</td>
<td>High</td>
<td>NO</td>
<td>High priority</td>
</tr>
<tr>
<td>2 Construction risks</td>
<td>Shared</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>NO</td>
<td>High priority</td>
</tr>
<tr>
<td>3 Demand risks</td>
<td>Private</td>
<td>High</td>
<td>High</td>
<td>Critical</td>
<td>NO</td>
<td>Critical</td>
</tr>
<tr>
<td>4 Operational and performance risks</td>
<td>Shared</td>
<td>Low</td>
<td>Low</td>
<td>Irrelevant</td>
<td>NO</td>
<td>NO action required</td>
</tr>
<tr>
<td>5 Financial risks</td>
<td>Private</td>
<td>Medium</td>
<td>Low</td>
<td>Low</td>
<td>YES</td>
<td>Low priority</td>
</tr>
<tr>
<td>6 Force majeure</td>
<td>Shared</td>
<td>Low</td>
<td>High</td>
<td>Medium</td>
<td>NO</td>
<td>High priority</td>
</tr>
<tr>
<td>7 Material adverse government actions</td>
<td>Public</td>
<td>Low</td>
<td>Low</td>
<td>Irrelevant</td>
<td>NO</td>
<td>NO action required</td>
</tr>
<tr>
<td>8 Change in law</td>
<td>Public</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>YES</td>
<td>Low priority</td>
</tr>
<tr>
<td>9 Rebalancing of financial equilibrium</td>
<td>Private</td>
<td>Low</td>
<td>High</td>
<td>Medium</td>
<td>NO</td>
<td>High priority</td>
</tr>
<tr>
<td>10 Renegotiation</td>
<td>Shared</td>
<td>Medium</td>
<td>High</td>
<td>High</td>
<td>YES</td>
<td>Medium priority</td>
</tr>
<tr>
<td>11 Contract termination</td>
<td>Shared</td>
<td>Low</td>
<td>Medium</td>
<td>Low</td>
<td>NO</td>
<td>Medium priority</td>
</tr>
</tbody>
</table>
Questions?
Recent experience of establishing a PPP framework to mitigate fiscal risks in Bangladesh

4 June 2018
Mita Conference Hall, Tokyo

PPP Authority
Prime Minister’s Office, Bangladesh
World Bank called on to fix the accounting problems that make Public–Private Partnerships (PPPs) fundamentally flawed and dangerous.

Never mind the balance sheet – the dangers posed by public-private partnerships in central and eastern Europe.

PPP Accounting and Reporting Issues
Richard Hemming
Fiscal Affairs Department
International Monetary Fund

"International Seminar on Strengthening Public Investment and Managing Fiscal Risks from Public-Private Partnerships"
Budapest, March 7–8, 2007

Remember: Public-Private Partnerships Aren't Free
Laura Bliss
Mar 22, 2017
Bangladesh Macro-Economic Overview

**Bangladesh: Country Data**

- **Area**: 147,570 km²
- **GDP**: USD 249 billion (FY 2017)
- **GDP Per Capita**: USD 1544 (FY2017)
- **GDP Growth**: 7.28% (FY2017)
- **Inflation**: 5.7% (Dec 17, 12 month average)
- **Forex. Reserve**: USD 33 billion (Dec 2017)
- **Debt to GDP ratio**: 27.1% (FY2017)

**Rapidly Increasing Foreign Exchange Reserves (2009-17)**

**Improving Debt to GDP ratio (2007-16)**
“To become a middle income country by 2021 and a developed country by 2041”

- **7.4%**
  - Annual average growth
- **$12.5bn**
  - Target Infrastructure investment
- **3.8% (GDP)**
  - Target ADP allocation on Infrastructure
- **1.8% (GDP)**
  - Target PPP
Key Pillars to Delivering a PPP Program

- Regulatory Environment
- Institutional Framework
- Capacity Enhancement
- Project Bankability
- Long term Financing

Bangladesh PPP Law
September 2015

Transaction and Technical Advisors
Meeting the PPP Investment Challenge – Power Generation Plan

**Private Sector Financing**  
(% of total financing needs)

- **2016**: $0.5bn (27%)
- **2017**: $0.5bn (25%)
- **2018**: $2.2bn (50%)
- **2019**: $3.5bn (58%)
- **2020**: $4.2bn (61%)

**Private Sector Power Generation**

- **2016**: 5,200 MW
- **2017**: 5,600 MW
- **2018**: 7,000 MW
- **2019**: 9,000 MW
- **2020**: 11,000 MW

**Total Installed Capacity**

- **2016**: 12,500 MW
- **2017**: 15,000 MW
- **2018**: 18,000 MW
- **2019**: 21,000 MW
- **2020**: 24,500 MW
PPP Projects Pipeline

In Principal Approval
(Number of Projects)

PPP Projects by Sector
(Number of Projects)

In Principle Approval

48 Projects
(US$13bn*)

Project Development

11 Projects
(US$4bn*)

Procurement

15 Projects
(US$2.0bn*)

Contract Signed

10 Projects
(US$3bn**)
(including 1 project under PSIG)

* Estimated  ** Approximately  (Data as at May 2018)  (excludes power sector PPP projects)
Comprehensive Regulatory Framework

Framework protecting rights, setting out obligations and providing empowerment

Guidelines to develop, procure and implement PPP projects

Guidelines to address unsolicited proposals for PPP projects

Rules for implementing National Priority Projects

Policy for developing PPPs in Partnership with other countries on a G2G basis

Guidelines for accessing funds for project and program development

Guidelines for accessing grant funding for enhancing project viability

Standard forms for project support and development

(* Note: Currently being updated to Rules)
Governance Framework for the PPP Programme

Board of Governors

- Chairman, Hon. Prime Minister
- Vice Chairman, Hon. Finance Minister
- Member, State Minister (Finance and Planning)
- Members, Cabinet Ministers (Infrastructure ministries)
- Member Secretary, Principal Secretary

Advisory Board

- Chairman, Principal Secretary
- Member, Finance Secretary
- Member, ERD Secretary
- Member, NBR Chairman
- Member, Legislative Secretary
- Member Secretary, CEO PPPA

Administrative Ministry
Prime Minister’s Office

PPP Authority
Governance Framework for the PPP Programme

Empowerment

- PPP Authority empowered to act as PPP Champion
- Ability to ensure best practice applied by ministries
- Centralised monitoring and oversight

Strategic Programme Oversight

- Programme oversight from the highest level
- Ensures objectives are aligned with national and fiscal policy
- Enables accelerated implementation of strategic goals

Policy Alignment

- Ensures policy development takes into account fiscal issues, international and development agencies relationships, legislative and legal matters

Administrative Support

- Enables inter-ministerial and inter-agencies co-ordination and allows issues to be rapidly escalated and resolved.
Approval Authorities for PPP Project

Project Approval
- Cabinet Committee on Economic Affairs
- Executive Committee of the National Economic Council

Linked Project Approval
- Legislative & Parliamentary Affairs Division
- PPP Authority
- PPP Project
  - Legal review and concurrence
  - Regulatory, transaction & process review and concurrence

Investment decision ratification
- Planning Division
  - Policy Decision Approval
- Finance Division
  - VGF Subsidy & guarantee approval

Agency
- Implementation Approval

Line Ministry
- Investment decision ratification

PPP Project
- Linked Project Approval
**Project Identification Approval**

### Annual Development Program (ADP)

**Agency** → **Ministry** → **Planning Division** → **Finance Division** → **Parliament**

- Identify Needs
- Prioritise competing needs
- Confirm investment decision & financing modality
- Review against fiscal space and finalise
- Parliament review and approve finance bill

### Approval of Project Selection

**Agency** → **Ministry** → **PPPA** → **LM** → **Cabinet Committee (CCEA)**

- Initiate Project
- Policy Approval
- Endorsed Projects Proposal Form
- PPP Screening
- Administrative approval for CCEA
- In-Principal Approval

- Investment prioritised as part of ADP process by Planning Ministry and Finance Ministry
- Projects with revenue generation opportunities identified as PPPs in the ADP
- Distinguish between service concessions and revenue concessions
- Individual projects in principle approved for PPP by Cabinet Committee on Economic Affairs (headed by Hon. Finance Minister)
**Feasibility Study**

- **Project Team**
  - Draft feasibility study (DFS)
- **Agency**
  - DFS approval
- **PPPA**
  - DFS review & comments
  - Revised Final feasibility
- **IA**
  - Feasibility approval

**Viability Gap**

- **Agency**
  - VGF Application
  - VGF needs Assessment
- **PPPA**
  - Review and scrutiny
  - Summary report & recommendation
- **Finance Division**
  - Review & Scrutiny against budget
- **Finance Minister**
  - VGF Submission
  - VGF approval

- **VGF Screening Committee**
  - Scrutiny

- **PPP Screening Committee**
  - Scrutiny

- **PPPA**
  - DFS approval

- **Project Team**
  - Feasibility with TA

- **VGF needs Assessment**

- **Finance**

- **Review & Scrutiny**

- **Ring fenced VGF subsidy budget approved in parliament**

- **Provision for VGF or direct guarantees need approval from Finance Ministry**

- **Detailed Feasibility Study Approval**

- ** DFS includes needs assessment and socio-economic return analysis**

- **Full technical, legal, commercial and financial assessment carried out including linked projects**

- **Ring fenced VGF subsidy budget approved in parliament**

- **Provision for VGF or direct guarantees need approval from Finance Ministry**
Bid Documents and Linked Project Approvals

**Bid Document & Structuring Approval**

- **Project Team** → Draft Bid Docs
- **Agency** → Draft Bid Docs
- **PPPA** → Endorsed Bid Docs
- **Agency** → Final approval

**Approval of Linked Project**

- **Agency** → Identify Linked Project
- **Ministry** → Policy Approval
- **Planning Division** → Projects Concurrence
- **National Economic Council (ECNEC)** → In-Principal Approval

- **Bid docs based on ‘draft’ model templates; changes to risk allocation scrutinised**
- **Screening carried out by inter-ministerial team and practitioners**
- **Linked projects (e.g. land acquisition, resettlement, utility shifting costs) separately approved by ECNEC (headed by Hon. Prime Minister)**
Bidder Selection Approvals

Approval of Selected Bidder and Contract Terms and Conditions

- **Evaluation Committee**
  - Technical & Financial Evaluation
  - Evaluation report

- **PPPA**
  - Evaluation report

- **Agency**
  - Approval

- **Negotiation Team**
  - Approval to negotiate
  - Negotiation with Selected Bidder
  - Negotiated contract

- **Agency**
  - Approval

- **Ministry**
  - Negotiated & endorsed contract
  - Processing for vetting

- **Legislative Division**
  - Legal Vetting
  - Vetted Documents

- **Ministry**
  - Processing for CCEA Approval
  - CCEA Summary

- **Cabinet Committee (CCEA)**
  - Final Approval

- **Strong oversight over evaluation and negotiations**
- **Contract terms and conditions are legally vetted by Legislative Division**
- **Final approval of project, contract terms and conditions and selected bidder provided by CCEA**
Concluding Remarks

Strategic allocation of fiscal revenue
- Investment decision prioritisation
- Maximise revenue raising opportunity
- Needs assessment and socio-economic returns

Ensuring relevant approvals
- Programme and PPP Budget approved by Parliament
- Approval by Cabinet Committee and National Economic Council
- Subsidy and guarantee approval by Finance Ministry

Appropriate risk allocation
- Detailed feasibility identifying project execution risks
- Allocation of risk according ability to mitigate
- Use of standard bid docs and terms and conditions

Contingent liability management
- Quantify contingent liability of PPP transactions
- Develop funding envelope/fund for direct & contingent liabilities
- Reporting, on-going monitoring & measuring fiscal impact
Financing Infrastructure
For sustainable growth in Africa

Naoyuki YOSHINO
Dean & CEO, Asian Development Band Institute (ADBI)
and Professor Emeritus of Keio University

Umid Abidhadjaev
Research Consultant, ADBI

June, 2018
Various Risks and Risk Sharing

1. Risks: Infrastructure Investment
   i. Political risk (government),
   ii. Construction risk,
   iii. Operation and maintenance risk,
   iv. Exchange rate risk.
   v. Environmental risk

2. User charges cannot be set too high
   User charges << Total costs

3. How to maintain stable income stream?
   Utilize Spillover Tax Revenues
   USA: Uses property tax revenues
Financing for Infrastructure
Various Private Financial Investors in Asia

1. **Banks --- Safer projects**
   - Brown field (infrastructure)
   - Invest into operation period
   - Securitization after certain period of time
   - Privatized projects by the government

2. **Insurance and Pension funds** (Brown fields)
   - Long term projects (10 years –20- 30 years)

3. **Revenue Bonds (floating interest rate)**
   - Uncertain income streams

4. **Equity Investments**
   - Construction period and Green fields
Different Classes of Infrastructure Assets

Safer Assets

Different Infrastructure Classes

Riskier Assets

Banks

Insurance

Pension Funds

Revenue Bond

Equity
Infrastructure Revenue Bond

Regional Development Agency issues
Revenue Bond (user charges) plus (Spillover effects)

60% to Private Investors

40% to Government
Equity and Bond Investment in infrastructure

A company issues a bond and equity (spillover effects). The equity investment is 70% and the bond investment is 30%. Investors are divided into two groups: 70% invest in bonds and 30% invest in equity.
## Macroeconomic Effect of Infrastructure Investment

<table>
<thead>
<tr>
<th>Spillover Effects Estimated from a Macroeconomic Translog Production Function</th>
<th>1956-60</th>
<th>1961-65</th>
<th>2001-05</th>
<th>2006-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct effect</td>
<td>0.696</td>
<td>0.737</td>
<td>0.114</td>
<td>0.108</td>
</tr>
<tr>
<td>Indirect effect ((K_p))</td>
<td>0.452</td>
<td>0.557</td>
<td>0.091</td>
<td>0.085</td>
</tr>
<tr>
<td>Indirect effect ((L))</td>
<td>1.071</td>
<td>0.973</td>
<td>0.132</td>
<td>0.125</td>
</tr>
<tr>
<td>20% returned</td>
<td>0.305</td>
<td>0.306</td>
<td>0.045</td>
<td>0.042</td>
</tr>
<tr>
<td><strong>Increment</strong></td>
<td><strong>43.8%</strong></td>
<td><strong>41.5%</strong></td>
<td><strong>39.0%</strong></td>
<td><strong>39.1%</strong></td>
</tr>
</tbody>
</table>

Source: Yoshino and Nakahigashi (2016)
New Book on Infrastructure

• “FINANCING INFRASTRUCTURE IN ASIA AND THE PACIFIC: Capturing Impacts and New Sources”

• Edited by Naoyuki Yoshino, Matthias Helble, and Umid Abidhadjaev
  – the latest evidence on the impact of infrastructure investment on economic and social indicators
  – country studies on how infrastructure investment can increase output, taxes, trade and firm productivity
  – innovative modes of infrastructure financing
IMF’s Capacity Development Activities in Asia and the Pacific

Tokyo Fiscal Forum
June 4-5, 2018

Chikahisa Sumi
Director, IMF Regional Office for Asia and the Pacific
Global challenges

Continued strong growth...

Challenges

- Rising financial vulnerabilities
- Increasing trade and geopolitical tensions

- Historically high global debt
  - High public debt and deficits
  - Need to support medium-term growth
    - Fiscal buffers to create room for fiscal support when needed
    - Growth-friendly fiscal policies supported by structural reforms to enhance productivity
Asian context

- **Population aging**

- **Need to strengthen productivity**
  - Substantial infrastructure needs
    - Public investment efficiency
    - Private sector involvement including PPP

*Discussed at Tokyo Fiscal Forum from 2015 to 2017*
Maximize synergies...

Tokyo Fiscal Forum

- Country experiences
- Best/good practices
- Interactions with international experts and policymakers

Capacity development

- Technical assistance
  Better-tailored application to country specific issues
- Training
- Online courses
IMF Regional Capacity Development Centers in Asia and the Pacific

Essential to strengthen technical expertise and analytical tools…

…Benefit from technical assistance and training opportunities
Linking discussions at Tokyo Fiscal Forum to further capacity development...

Tokyo Fiscal Forum

1. Fiscal rules
   - European experience in design and implementation of fiscal rules and fiscal management since the global financial crisis
   - Country experience in China
   - Second generation fiscal rules: balancing simplicity, flexibility, and enforceability

IMF Staff Discussion Note (2018)

Capacity development (CD) at IMF regional CD centers

Related areas (planned courses)

- Institutions to design and conduct fiscal policy including fiscal rules and medium-term budgeting
- Macro-fiscal framework
2. Infrastructure governance
- IMF’s Public Investment Management Assessment (PIMA)
- Quality infrastructure
- Country experiences (Sri Lanka and Indonesia)

3. Public-private partnership (PPP)
   Fiscal risk management
- Frameworks for managing PPP projects
- Fiscal risk assessment
- Country experiences (Bangladesh and Malaysia)

Related areas (planned courses)
- IMF’s Public Investment Management Assessment (PIMA)
- Infrastructure planning and investment
- Fiscal risk management
- Managing fiscal risks in low-income countries
Linking discussions at Tokyo Fiscal Forum to further capacity development...

4. Digital innovations in public financial management

- Using digital technology for more efficient public service provision
- Country experience in Korea

“Digital Revolutions in Public Finance”
International Monetary Fund (2017)

Capacity development (CD) at IMF regional CD centers

Related courses (planned courses)

- Fiscal accounts, analysis, and forecasting
- Fiscal reporting
- Improving cash and debt management
- Modern tax administration
Further human resource development

JISPA (Japan-IMF Scholarship Program for Asia)

- For junior officials at key economic agencies (e.g. ministry of finance, central bank, ministry of economy...)
- Aimed at institutional capacity building of key macroeconomic management agencies
- Graduate-level study of economics at Japanese universities
- Administered by the IMF Regional Office for Asia and the Pacific (OAP)
- OAP to provide various activities for the scholars and alumni, including new initiatives starting in 2018:
  1. career-long support for the alumni
  2. practical training for the current scholars
- Since 1993
  - More than 700 scholarships
  - Alumni include Governor, Deputy Governors, and Vice Ministers
Thank You!
Mainstreaming the Digitalization of Payments into Public Financial Management

Alan Gelb, Center for Global Development
Presentation to Fiscal Conference, Tokyo, June 4-6, 2018
The Scale of G2P Payments

• Every year governments, development agencies and the private sector make $ billions in payments to people in developing countries
• Public payments to individuals, including payroll, pensions and transfers typically represent 12% of GDP or more in developing countries
• In 2014 over a billion people received cash transfers and other payments from governments and donors
• The average developing country operates some 20 social safety net programs costing 1.6% of GDP
  • Many overlaps, often not an integrated view around beneficiaries
  • Disconnected registers, delivery mechanisms
• Cash disbursement in humanitarian programming is increasing though most assistance is still in-kind
Digitalization of Payments and PFM

• Some countries have moved quickly, including Mexico and China but in other countries progress has been slower
  • Many programs still disburse cash (example TASAF in Tanzania)
• Payments mechanisms, as well as the choice between in-kind, voucher and monetary support, are usually considered within the ambit of social protection policy
• Ongoing debate on the merits of different types of programs:
  • Food versus Cash (Alderman et al 2018)
  • Workfare versus Universal Benefits (Ravallion 2018)
• However, the digitalization of payments should also be looked at as an integral part of management of public resources – expediting basic PFM functions
  • Timely payment --- and to the correct payees
  • Accounting and reporting: reconciliation with government accounts
  • Strengthens accountability by creating automatic audit trail
  • Enhances the quality of information: budget execution, cash management
  • Reduces transactions costs for providing payments and services
• Shifts PFM boundary to encompass all public payments. In principle, can be monitored in real time.
Prerequisites for Digitalization of Payments

Infrastructure:
• Widespread access to payment accounts, including through mobile technology
• Unique Identification of citizens and other residents
• These are different but not independent:
  • Some countries have moved fast towards mobile money for P2P transactions but harder to use for G2P without unique ID (Tanzania, bKash Bangladesh)
  • Unique and accessible ID lowers the cost of KYC and so enables smaller accounts to be commercially viable (India e-KYC vs Nigeria BVN)
  • Mobile technology and finance create demand for services of ID verification for transactions (Kenya – IPRS, Peru, Pakistan) and can also generate revenue from e-KYC process (Peru, others)
• But also need
• Unitary vision of government objectives and goals. Avoidance of “silos”
  • Payments, mobiles, ID, cut across many different sectors and applications but fragmentation is common, raising costs and reducing interoperability
• A degree of endogeneity with real-time feedback and learning
• Cannot be driven by technology or by donors
  • Parallels with the story of FMIS which has been extensively studied
<table>
<thead>
<tr>
<th>CASE</th>
<th>Main Objectives</th>
<th>Reforms</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>India 2009 - ongoing</td>
<td>Rationalize subsidies, reduce leakage, corruption, financial inclusion, tax collection</td>
<td>Unique digital ID Reforming subsidies and transfers E-KYC Payments interoperability</td>
<td>1.1 b. enrolled in Aadhar 280 m bank accounts Reform of LPG and other subsidies Fiscal savings, service improvements</td>
</tr>
<tr>
<td>Mexico 2007 - ongoing</td>
<td>Transparency, cost savings, financial inclusion</td>
<td>Single treasury account Digital payments Tiered KYC and other measures for financial inclusion</td>
<td>Payments through single account and digital Over $1 b per year savings estimated</td>
</tr>
<tr>
<td>Ghana 2008 - ongoing</td>
<td>Eliminating ghost workers, tax collection, financial inclusion</td>
<td>Deduplication, smartcards, public payments through e-Zwich</td>
<td>Elimination of 40% of payroll where applied $35 m savings from one modest application</td>
</tr>
<tr>
<td>Estonia 2001 ongoing</td>
<td>Efficient government, inclusion, digital platform for private sector</td>
<td>Unique ID, digital data platform (X-road) and regulatory regime: fully digital administration</td>
<td>X-Road connects 170 public databases Large savings from almost universal digital services</td>
</tr>
</tbody>
</table>
India

• JAM Strategy: Jhan Dan accounts (e-KYC), Aadhaar, Mobiles
  • Plus UPI for interoperability: 145m in December 2017
• Massive shift towards digital programs and bank payments:
  • PDS, LPG, pensions, others. Often at state level.
• Real-time monitoring of all payments and subsidies:
  • By program, town, shop and beneficiary
  • Towards portability of benefits
• Rationalization of programs: LPG and kerosene
  • Use of common identifier
• Reported fiscal savings from lower leakage
• Financial inclusion esp. women (FINDEX 2017)
• Indications of better service delivery (Rajasthan)
• Feedback into Real-Time Governance
  • Example: Andhra Pradesh
Many feel the new systems are better, few think they are worse
Main positive reason: regularity of benefit, less diversion of benefits
Main negative reason: biometric authentication difficulties (PDS)
Huge boost to financial inclusion, especially of women: all have accounts now, only one third before
Estonia

- Reborn state post USSR; government prioritized digitalization for all services
  - Included extensive training of citizens
- Advanced digital identity system for virtually all citizens; multiple services
- X-Road data exchange layer to leverage existing data for public and private uses. This is essential for efficiency, but need to specify:
  - What data can legitimately be shared with who?
  - How can citizens monitor who has requested their data?
- Savings estimates from X-road 820 years government working time in 2016
- If each e-service request saved 15 minutes of working time, the government would have saved about 9.6% of its staff time.
Mexico

• 2013 National Digital Strategy built on years of effort
• Single treasury account and digitalization of government receipts
• Regulatory reform to encourage financial inclusion including
  • Four-tier risk-based KYC system to facilitate payments accounts
  • transparency on fees
  • entry of non-bank entities
• Promotion of electronic G2P payments for greater efficiency
Some Lessons from Mexico

• Changes in law can create momentum, but the effort must be sustained over time by political and technical champions.

• Put the legal and technical infrastructure in place. The Ministry of Finance created the legal framework to enable centralized payments and then built its own IT system; the Central Bank developed a national payments system.

• Shifting in stages: The process started with centralizing government-to-business payments, before moving on to government-to-person payments from 2008. Pensions were also a relatively easy target.

• Both centralizing and digitalizing payments platform delivers higher efficiency and other benefits.

• Identifying the winners and losers so as to design appropriate incentives. Large banks held lucrative government deposit floats under the decentralized process while payments cleared. They opposed the changes and now have to compete for business. Beneficiaries have been freed of the obligation to use a bank chosen by a government department to receive their payments.

• Carefully designed incentives to help persuade end recipients. In Mexico, the law required that the government obtains the consent of workers before shifting their means of payment.

• While financial inclusion goals didn’t drive the reform, they are important outcomes of the digitization of social benefits and rural payments.
## Mexico’s tiered scheme for opening deposit accounts

<table>
<thead>
<tr>
<th>Max Amount in monthly transactions (USD/Month)</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4 - Traditional Bank Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>280 + Max Balance of 370 USD</td>
<td>1,110</td>
<td>3,700</td>
<td>No limit imposed by regulation</td>
<td></td>
</tr>
</tbody>
</table>

- **Customer information required to open account**
  - Level 1: None
  - Level 2: Basic: Name, date and place of birth, gender and address
  - Level 3: Complete customer information
  - Level 4: Complete customer information

- **Hard copy required?**
  - Level 1: Not applicable
  - Level 2: No
  - Level 3: No
  - Level 4: Yes

- **Face to face account opening required?**
  - Level 1: No
  - Level 2: No
  - Level 3: Yes
  - Level 4: Yes

- **Means to access funds**
  - Level 1: Only debit card (for national use). No mobile.
  - Level 2: Any electronic means (mobile, card, bank transfers)
  - Level 3: Any electronic means (mobile, card, bank transfers)
  - Level 4: Any electronic means (mobile, card, bank transfers), and cheques

---

**Notes:**

1. Level 2 accounts allow additional 2,220 USD in transactions per month if resources originate exclusively from government programs

2. Bank may opt for face-to-face procedure

**Source:** Banxico Circular 2019/95 as modified by Circular 14/2011
Ghana: A Partial Case

- Background: chronic overstaffing, runaway recurrent spending, public wages over 9% GDP; cash-based payments weakening tax collection
- Use of digital payments to de-duplicated accounts to eliminate ghost workers as substitute for effective payroll management
- Purchase of e-Zwich from Net-1
- Deduplication of e-Zwich account-holders and efforts to pay all public salaries through e-Zwich then to roll it out to private sector wages
- Mixed success—slow rollout and resistance from public sector unions
- Large savings reported from single case of National Service System: 40% of payroll.

Lessons

- Separate out ID system from payments system
- Expect some opposition to introduction of digital systems
Conclusions

• We are reaching the point where almost all people have access to mobiles but there is still a financial gap and an ID gap.

• Mobiles: 5.6 billion adults; 5 billion unique mobile subscribers (GSMA 2017)

• Financial Inclusion: (Global Findex 2017)
  • 2011-2017 1.2 billion adults have obtained a financial account
  • 2014 - 2017, the share of adults with financial account rose from 62 to 69 percent
  • Is 63% in developing countries, about 5% less for women
  • India: 2011 35%; women 26% 2017 80%, women 77%

• ID: Increasing but about 1.1 billion people lack (ID4D)
  • About half children who are not registered...
  • And quality of some systems low.......

• There is still work to extend digital infrastructure to poor people in poor countries.
  • Including level and supportive regulation (tiered KYC) and interoperability....

• However, examples like India or Kenya show what can be achieved with a coordinated vision and an integrated approach

• Because of their implications for the management of public resources, these issues should be considered also as part of public financial management.
THANK YOU
CUSTOMER ORIENTATION IN THE DEVELOPMENT OF PUBLIC FINANCIAL MANAGEMENT SYSTEMS IN NEPAL
A PERSONAL PERSPECTIVE ON DIGITAL INNOVATION

Tokyo Fiscal Forum
4-5 June 2018
Sub National Treasury Regulatory Application (SuTRA)

What is SuTRA?

- It aims to improve Budgeting, Accounting and Financial Reporting at Sub National Tiers
- Web Based; Federal Government led; Spiral (Flexible) Approach to Development; Nepali Language
- Complementary to (and supportive of) revised Nepal Classification (GFSM 2014)

Modules and Functionality – Up to 2018/19

- Budget (including virement)
- Accounting
- Financial Reporting
- Treasury (Planned)

SuTRA and its strategic potential

1. Initiated to meet information needs of influential interests in Federal Government
2. Single classification means potential extended transparency and all the goes with it
3. SuTRA is a focal point reform - It can bring in other reforms and initiatives and embed them – it can link traditional and tech
4. It has great potential to link digital innovation to influential interests in Government
### Nepal: The Context

**Federal Nepal**

- New constitution Political Settlement and Democratic elections
- Three new tiers of government (Co-operative and Autonomous; Federal; State; Municipal)
- Many new implementation arrangements and new powers
- Fragmentation in PFM systems – some new systems required – interfacing is a big issue
- **Number of innovative initiatives on Financial Inclusion and Financial Services**
- Post Earthquake Recovery
SuTRA: The Implementation Thesis

The Theory....

• Imperatives → Incentives → Innovation

Nepal Specific Context

• Traumatic Change → Need For Knowledge → New Classification + SuTRA

Sustainability Strategy

➢ Focus on the customers and their needs
➢ Innovation is the future – we must link to it
➢ Innovation can link to central strategy via SuTRA
We focussed on ‘Trend Spotting’ to reinforce tech with SuTRA

- It’s not always entirely about innovators – establishment of new ways of working needs Trend Spotters / Early Adopters
- Innovation needs traditional and traditional needs innovation to move ahead
- This helps to embed innovation, accelerate self-sufficiency and build prosperity in the long term through alliances and mutual interest
The Customers...

Factual Starting Point:
• Many “masters to serve”
• Supply of information to meet needs
• Very diverse
• SuTRA is one of many initiatives that serve the needs of the groups
• Mapping of interests and prioritisation is needed
The Customer Dilemma....

- Immediate beneficiaries are often different groups
- Focal Point PFM reforms (such as SuTRA) don’t always naturally target the same groups as Tech
- The interests of the two groups could come closer together
- SuTRA (and focal point PFM reforms) can bridge the gap?
- Linking tech to tradition is the challenge

SuTRA Core Customers
- Accountant General
- Ministry of Finance
- Auditor General
- Finance Ministers
- Government....

Core Tech Customers
- Citizens
- Rural Poor
- Banks
- SMEs
- Tax Payer Portal
SuTRA – PFMA-2 (DFID) – Our Project – How Linked To Other Initiatives?

**Access to Finance** - Revenues – Calculation and Collection – Digital Payments to SME and Social Payments – Bank Branch expansion - mobile money – rural access

**Banks and Nepal Clearing House** - Treasury and Cash Management - Electronic Funds Transfer – Rationalisation of balances

**Digital Inclusion of Rural Poor** - Elimination of Cheques – Reduced Fiduciary Risk – Transparency

**Federal Tax Payer Portal** – Potential to Extend Function to Local Tiers?
Customer Needs – Control and Financial Reporting

• Auditor General Prescribed 200+ Financial Reports and Schedules - Focussed on six
• Budget Reports (Appropriation) Purposes – Deadline imperative
• Budgets cannot be overspent – Essential Fiscal Discipline
• Virement functionality to aid control
• Transaction level approval controls
• Once approved, journal or payment vouchers cannot be adjusted

- Not all needs are met; but sufficient to keep satisfaction and allow us to extend the customer base – get the basics in place and then move on for now – like Schick principles?
- Immediate needs can be met and eye to the future can be maintained simultaneously
Overarching Transferable Learning Key Messages

- Involve as many stakeholders as possible on some level
- Imperatives create change and opportunity (Necessity is the mother of invention?)
- Not all customers are the same – recognise this early in development – focus on the influential
- Innovation is embedded by cultivating the right customers and programmes – map the field
- Innovation is embedded by identifying and linking to the right initiatives – analyse the field
- Recognition of inter-dependency and willingness to engage and build on each other is key
- Tech training is a start – you need to continue to engage and educate in order to retain users
Support Strategies For Moving From Early to Mass Adoption

• Support strategies should not be totally technically focussed (i.e. ‘training’ needs to be thought out properly and not underestimated – engage both the influencers and the future)

• Think of ‘training’ as marketing, engagement, extension of users
  • First to engage
  • Then to retain
  • Then to expand

• Design and plan accordingly
  • Initial technical awareness for inputters
  • Teach the influencers the power of data and what the software can offer
  • Look to integrate with the tech users

• Avoid “one size fits all” – differentiate the learning - Tailor and Target

• Transparency, inclusion and improved PFM initiatives often use the same tools – software, tech and customer focus
  ➔ And above all – Always Look to link
The Development of Digital Government and Public Service Reform in Japan

Hideaki Shiroyama
The University of Tokyo
Introduction: Technological Change and Policy Innovation

Possible Steps for Policy Innovation

1. Policy lock in as a result of path-dependent process
2. Policy innovation as a reaction to exogenous changes (introduction of technology)
3. Uncertainties remain (science and use of technologies) - Policy innovation as a outcome of interaction among various policy actors with interpretive framework (endogenous aspect)
4. Policy innovation as combination of technological and institutional elements
   cf. technology enactment theory
Importance of Framing

“Useful tools for analyzing the process of policymaking in complex situation”

• How do policy actors interpret the uncertainty (about the purpose) of the new technology and science?
• How do policy actors take advantage of the uncertain situation?
• Technologically deterministic views
How do frames cause policy change – Linking framing and network

• Perception change among policy actors cause policy change?
• We also have to understand how frames interpreted in the political structure.
  → Relations between frame and networks and coalitions of actors.
Japan’s Policy for Establishing the Digital (Electronic) Government: Four Stages

1. Advanced-information-technology-driven administration – narrow context of administrative management
2. Society with highly advanced information technologies – IT policy in general
3. Refocusing of Electronic Government and Cost Reduction
4. Digital Government and Public Service Reform
Stage I: Technology Driven Administration Reform

- Japanese government has been promoting its information technology policy with the slogan of establishing an “advanced-information-technology-driven administration (Gouseijouhouka).”
- Dec. 1994 “Basic Plan for Promoting an Advanced-information-technology-driven Administration”
- Dec. 1997 revision of the Basic Plan, use of term “electronic government” with a link to the administrative reforms
Stage 2: Society with Highly Advanced Information Technologies

- August 1994: The Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Society was established within the cabinet.
- July 2000: The IT Strategy Council was established.
- November 2000: The Basic IT Strategy was formulated.
- November 2000: The Basic Law on the Formation of an Advanced Information and Telecommunications Network Society (IT Basic Law) was passed.
- January 2001: The Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (IT Strategy Headquarters chaired by the prime minister) was established within the cabinet.
- January 2001: The e-Japan Strategy was formulated.
- July 2003: The e-Japan Strategy II was formulated.
- February 2004: The e-Japan Strategy II Acceleration Package was formulated.
Stage 2: Issues of Procurement and Organizational Response and Limits

• Procurement issue and “Legacy Problem”
• Dec 2001 “Council on the Improvement of the Software Development and Procurement Process” established within the METI
• May 2002 IT Associate Council established within METI introduced Enterprise Architecture (EA) program
• Sep 2002 Introduction of the Council of Ministerial Chief Information Officers (CIO Council) throughout the ministries + Technical Advisor to CIOs
• July 2003 the Electronic Government Development Plan – for comprehensive Business and System “Optimization” Plan ← ”Visualization” of the entire operations
• Optimization Plan on Personnel and Salary decided in February 2004 (aiming for 2007) – but unsuccessful and fundamental review undertaken in 2006
Stage 3: Refocusing of Electronic Government and Cost Reduction

- Issues - Purpose of e-government- ratio of electronic procedure?; Limits of project management capability
- April 2006: Government Program Management Office (GPMO) established at Cabinet Office
  <September 2009 DPJ Government>
- Task Forces under the IT Strategic Headquarter (electronic administration , medical service, ITS) – focuses on needs
- 2012: Administrative Reform Implementation Headquarter; Government CIO
  <December 2012 Abe Government>
- Government information system reform and operation cost reduction under Government CIO
Stage 4: Digital Government and Public Service Reform

• May 2017 Government Digital Promotion Policy
• January 2018 Government Digital Transformation Plan
• Focus on Public Service Reform
  ① Cost reduction→service value increase
  ② Open data
  ③ User centric service – BPR based on service design thinking
12 Principles of Service Design

• Summarized concrete points to practice service design thinking as “12 Principles of Service Design”

• Synchronize with recent international trends of digital service reform, based on the know-how gained from the efforts of digitalization and business reforms

1. Start with user needs
2. Grasp each fact deeply
3. Think End-to-End
4. Pay attention to all stakeholders
5. Make services simple
6. Utilize digital technologies thoroughly
7. Be integrated with user’s daily experiences
8. Don’t create only by yourself
9. Create services openly
10. Iterate many times
11. Do consistently, not all at once
12. Build services, not systems
Government Digital Transformation Plan -Major Initiatives-

Administrative Service Reform by Cross-ministry Measures

(1) 100% Digitalization of Administrative Service

【Digital First】

- **Implement thoroughly online principles** of each procedure
  - **Digitalize thoroughly administrative services** after implementing **BPR and system reform** by each procedure
  - Reorganize how identity verification should be (e.g. stamping, face-to-face verification, etc.)
  - Review digitalization of procedures among the private sector.

【Once Only】

- **Eliminate attached documents in administrative services**
  - **Eliminate attached documents which are already owned by the government** by utilizing “The Social Security and Tax Number System” and so on
  - Propose a bill to eliminate all attached documents in a lump as soon as possible which includes the following items:
    - No need to submit certificates of the registered matters of corporations
    - No need to submit residential certificates

【Connected One-stop】

- Promote **one-stop services in cooperation with the private sector** and prioritize the following three major life events:
  - One-stop service for moving
  - One-stop service for nursing care
  - One-stop service for death and succession
【Open Data】

(2) 100% Opening of Administrative Data

- Open data by design
  - Design and operate work and information system on the premise that the data is open to the public
- Grasp needs and disclose data promptly
  - Talk directly with the private sector, grasp their needs and accelerate opening the corresponding data
  - Disclose data based on recommended data set
(3) Development of Digital Reform Infrastructure

【Data Standard for Administration】

■ Formulate “Data Exchange Standard for Administration”
✓ Formulate data exchange standard by the end of FY2017 regarding the core of administrative data formats (e.g. dates, address, etc.)
■ Standardize vocabulary, codes, characters, etc.
✓ Organize system of vocabulary, codes, etc. as “Data Standard List for Administration (tentative name)” regarding social infrastructure fields (e.g. facilities, equipment, procurement, etc.)

【Digital Platform for Corporations】

✓ Establish a platform where data can be utilized effectively by the public and the private sector through authentication system which enables you to apply multiple procedures with a single ID, corporation information website and so on
1. Current Status of Digitalization of Administrative Services

(1) Only 12% of the administrative procedures of the central and local governments are available online.

※12% = 5,047/ 43,333 procedures
※71% are available online (on a basis of the number of applications)

(2) Many procedures require attached paper documents.

① Waste of time and labor for people and business operators to get attached paper documents in municipal offices, etc.

② Digitalization has not progressed due to requirement of attached paper documents.

2. Coming Initiatives Based on Discussion of IT Strategy Headquarters

(1) Eliminate all requirements of attached documents in a lump and aim to increase the number of procedures available online

(2) Propose a required bill as soon as possible for which procedures does not require attached documents such as certificates of the registered matters of families or corporations, etc.

Examples of attached documents required for many procedures (FY 2016) ※Surveyed by IT Strategy Office, Cabinet Secretariat

<table>
<thead>
<tr>
<th>Attached Documents</th>
<th>the Number of Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>- certificates of the registered matters of corporations:</td>
<td>: 146 Million</td>
</tr>
<tr>
<td>- residential certificates</td>
<td>: 51 Million</td>
</tr>
<tr>
<td>- certificates of the registered matters of families</td>
<td>: 47 Million</td>
</tr>
</tbody>
</table>
Digital Government and Tax Administration in Japan

- Increasing use of e-Tax
- Introduction of “my number”
- Reduced requirement of attached paper documents
- Increasing work load and limits of personnel
【Number of the count for income tax return】

<table>
<thead>
<tr>
<th></th>
<th>1989</th>
<th>2015</th>
<th>Comparison with 1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income tax return (0.01 millions)</td>
<td>1,697</td>
<td>2,151</td>
<td>+454 (approx. 1.3 times)</td>
</tr>
<tr>
<td>Tax refund (0.01 millions)</td>
<td>659</td>
<td>1,247</td>
<td>+588 (approx. 1.9 times)</td>
</tr>
</tbody>
</table>

【Capacity (fiscal year)】

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>2016</th>
<th>Comparison with 1997 at the peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity (number of persons)</td>
<td>57,202</td>
<td>55,666</td>
<td>Δ1,536 (approx. 2.7% reduce)</td>
</tr>
</tbody>
</table>

【History of utilization rate of e-Tax】

- Corporate tax return
- Tax return only for large scale corporation
- Income tax return
Future of Digital Government and Tax Administration

• Future possible uses in Tax Administration – For tax payers: customized information delivery, automated consultation; For efficient administration: automated check of declaration, AI support for investigation priority areas

• Linking tax administration to realization of benefits of public services (budget)?

cf. extra-budgetary sources of international organization
Cf. WHO's new Programme Budget Portal

• Providing further details of the Organization’s work, financing and implementation progress.

• With quarterly updates this portal will present a better breakdown of our work (categories of works, regions/ countries, types of contribution), navigating through the different categories, programmes and outputs through which WHO’s work is delivered. Countries now specify the financial details at output level in order to meet WHO’s requirement for IATI compliance.
About IATI (International Aid Transparency Initiative)
Developing countries face huge challenges in accessing up-to-date information about aid, development, and humanitarian flows — information that they need to plan and manage those resources effectively. Similarly, citizens in developing countries and in donor countries lack the information they need to hold their governments accountable for the use of those resources. IATI aims to address these challenges by making information about aid spending easier to access, use, use, and understand.

Why aid transparency matters
Discussions around the post 2015 Sustainable Development Goals highlight that improved access to information frameworks at the national level will enable individuals to hold leaders and development actors accountable. Development agencies are focusing their attention on incorporating beneficiary feedback mechanisms more effectively into their work. Improved data provision and data sharing mechanisms are an essential element of the feedback process. IATI opens up development to all stakeholders of development cooperation, which maximises the impact of cooperation on the poorest and most vulnerable communities.
Several donors have included implementing IATI as part of the commitments under the Open Government Partnership, an international initiative that seeks to promote transparency and empower citizens.
Framings and Networks of Actors

• “Promoting an advanced-information-technology-driven administration (Gyouseijyouhouka)”, “electronic government” →Main Actors were MIC Administrative Management Bureau officials

• “Advanced information and telecommunications network society” →the former Ministry of Posts and Telecommunications and METI, associate CIOs

• Refocusing on purposes and management capability→GPMO, Government CIO

• “User centric service design”, ”Digital Government”→Users, Service reform support team under Government CIO

cf. Government CIO review mechanism (Transformation Plan)

• Issues of concrete framing in the localized contexts of operating staff- Key is communization and coordination between CIO advisors, on site operating managers and users
Concluding Remarks

• Changing framing and networks
  “Promoting an advanced-information-technology-driven administration (Gyouseijouhouka)” → “Advanced information and telecommunications network society” → EA → User centric service design

• Increasing focus on needs and users
  But back to comprehensive framing or focus on basic information infrastructure?

• Interesting development in tax administration
  But potential at the interaction between tax administration and budgeting, and between budgeting and administrative management (that is organizationally separately located in Japan) cf. US: Federal CIO in OMB
Digital Innovation in DBAS

Seongho, Jeong (Research Fellow, KPFIS)
Background

- Systemically manage the financial management information of related organizations
- Promptly reflect the internal/external changes in financial management
- Prior DBAS, financial management information systems operated separately
Reform process

• After fiscal crisis of 1997–1998, benchmark around the world

  1) introduction of the national finance management plan (MTEF);

  2) introduction of the top–down budgeting system;

  3) introduction of the program budgeting system;

  4) development of the performance management system;

  5) introduction of the accrual–based accounting and financial statements;

  6) construction of the integrated financial management information system
Primary Function of DBAS

- Program management system (PMS)
- Budget Management System (BMS)
- National Treasury Management System (NTMS)
  - Electronic Billing Presentation and Payment (EBPP) Electronic Fund Transfer (EFT)
- Assets and Debt Management System (ADMS)
- Real-Time Receipts/Disbursement System (RTRDS)
- Performance Management System (PfMS)
Reason for Fiscal Reform

• Traditional budget system, centralized way, strict control of the budgetary inputs.

• Spending without a thorough performance evaluation.

• National priorities is often harmed by the line ministries’ self-interests

• Line ministries were likely to obtain more of an allocation with more budget requests

• MOSF’s Budget Office cutback (or decrease) budget as much as possible

• Budget review process became a game-theory, time-consuming
### Big bang Approach Reform

<table>
<thead>
<tr>
<th>Year</th>
<th>Introduction of New System</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Performance-oriented Budgeting System</td>
<td>Pilot test with 16 agencies</td>
</tr>
<tr>
<td>2003</td>
<td>Top-down Budgeting</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>National Finance Management Plan (NFMP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Performance Management System (PfMS)</td>
<td>Submission of Performance Plan, all ministries</td>
</tr>
<tr>
<td></td>
<td>Self-Assessment of Fiscal Projects (SAFP)</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Program Budgeting</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Operation of KFMIS (DBAS)</td>
<td>Developed since 2004</td>
</tr>
<tr>
<td>2009</td>
<td>Accrual Accounting</td>
<td>Developed since 1999</td>
</tr>
<tr>
<td></td>
<td>Submission of Performance Report</td>
<td>All ministries</td>
</tr>
</tbody>
</table>
• **Early FIMSys** is a DOS-based (DOS-NARA), run 5.25 floppy diskettes, client-server method. Afterwards, Windows.ibm (A/S 400) method was applied. - budget management (NBS-Net) and fund management (FMS-Net).

• **SALIMI** is a simple, while NaFIS is much more specific. - provide: integrated settlement of cash-based standards
Second Generation

- **FIMSys** function (Window_based)

- **NaFIS** (update version of SALIMI)
Third generation (DBAS)

OLAP: On-Line Analysis Processing
EIS: Executive Information System
EDW: Enterprise Data Warehouse
GFS: Government Finance Statistics
## Evolution of DBAS

**1st Generation**
- FIMSys
- SALIMI

1999

**2nd Generation**
- FIMSys (3)
- NaFIS (2)

2000

**3rd Generation**
- dBrain
- Official Launch
- e-Nara Doeum

January 2007  
July 1, 2016  
January, 2017

### Ministry of Planning and Budget
- FIMSys(DOS->Windows) -> Budget Manag’t (incl. Fund)

### Ministry of Finance Economy
- SALIMI -> National Treasury Managt’+ Asset/Debt Manag’t
- NaFIS
  - SALIMI + EBPP/EFT + accounting Manag’t (accrual_based)

### System Evolution
- Managed by public organization (KPFIS)
- Outsourced to private IT corporations supervised by Ministry Of Strategy and Finance (e.g. Samsung SDS, LG CNS)
- DBAS (fully upgrade) FIMSys + NaFIS + Program Manag’t + Performance Manag’t
Accomplishments

- **NFMP** has positive changes:
  1) Set up national priorities with long-term views,
  2) Line ministries are more cautious when they set up ministerial planning
  3) Many discussions about the strategic allocation of resources
  4) Targets economic stabilization for the long-term

- Expenditure ceilings for **Top-down budgeting** is important; pilot operations for four agencies before fully adoption

- **SAFP** has a direct effect on connecting the budget with the performance

  Project evaluated as “unsatisfactory” by the SAFP loses budget allocation

  Operates Preliminary Feasibility Test; Preliminary Feasibility Test is a prerequisite necessary to ensure the future performance of the projects.

- Reforming the budget system (NFMP, top-down, and SAFP) is important issue

  "Republic of Korea’s DBAS is one of the most developed finance management information systems which I ever seen...DBAS is one of the most integrated and unique financial information systems in the world." (Dener, 2010)
Considering the Next Generation

- In recent years, government has been considering the next generation of the DBAS
  - Reflects new technologies and 4th industrial evolution (e.g., big data, AI, chatbots).
  - Promotes change to an integrated system seamlessly link (central government, local government, and state-owned enterprises and so on)
Session 4: Digital innovations in public finance management--Comments

Peter J. Morgan
Senior Consulting Economist and Co-Chair of Research
Asian Development Bank Institute

Tokyo Fiscal Forum
4-5 June 2018, Tokyo
Mainstreaming the Digitalization of Payments into Public Financial Management (PFM)

• Some countries moved quickly, Mexico and China, but others slower
• Digitalization of payments should be looked at as an integral part of management of public resources – expediting basic PFM functions
• Prerequisites for digitalization of payments
  • Infrastructure: payments access and unique IDs
  • Unitary vision of government objectives and goals
• Access to mobiles common, but still a financial and ID gaps
  • Need to extend digital infrastructure to areas where lacking
  • Need for supportive regulation (tiered KYC) and interoperability
• Question
  • How to integrate acquired data into the planning and evaluation process?
  • What are good examples of this?
Customer Orientation in the Development of Public Financial Management Systems In Nepal

- Coherent multi-dimensional strategy
- System aspects
  - Digital financial inclusion policy
  - Federal Government Tax Payer Portal: tax returns, tax IDs (for how many)
  - Nepal Clearing House
  - Sub National Treasury Regulatory Application (SuTRA) comprehensive accounting system
    - Revenues – Calculation and collection
    - Budgeting – Policy and resource allocation
    - Accounting and reporting
    - Elimination of cheques: Reduced fiduciary risk, transparency, digital inclusion
    - Electronic funds transfer
  - Selected highlights
    - Initially aimed to serve government interest at subnational level
    - Common classification means extended transparency
- Question: What were key implementation challenges?
  - Issues of implementation at local level, how applicable elsewhere?
The Development of Digital Government and Public Service Reform in Japan

- Japan’s policy for establishing digital government: Four stages
  - Advanced-information-technology-driven administration – narrow context of administrative management
  - Society with highly advanced information technologies – IT policy in general
  - Refocusing of electronic government and cost reduction – Issues of procurement and organizational responses and limits
  - Digital government and public service reform
- Government Digital Transformation Plan—Major initiatives
  - 100% digitalization of administrative services and 100% opening of administrative data—attached paper requirements have limited progress in this area
  - Development of digital reform infrastructure: data standards & platforms
  - Increasing use of e-Tax, introduction of “my number” ID a key development
- Questions
  - How to promote reduction of paper requirements?
  - How integrated into the policy planning and evaluation process?
Digital Budgeting and Accounting System (DBAS) in Korea

- Comprehensive system
  - Program Management System (PMS)
  - Budget Management System (BMS)
  - National Treasury Management System (NTMS)
  - Electronic Billing Presentation, Payment & Transfer (EBPP, EFT)
  - Performance Management System (PMS)
  - Assets & Debt Management Systems (ADMS)
  - Performance Management Systems (PfMS)

- Accomplishments
  - National Finance Management Plan (NFMP) – national priorities with long-term views; line ministries more cautious
  - Self-Assessment of Fiscal Projects (SAFP) – feedback on financing of projects; introduction of Preliminary Feasibility Test

- Questions
  - What were the key issues and requirements for implementation?
  - How applicable to emerging market economies?
Conclusions and Questions

• What are the advantages vs. costs?
  • In emerging economies: promote financial inclusion, shift away from cash, increase efficiency and transparency of disbursements, cost savings, increased tax collection
  • In advanced economies: reduce costs, promote efficiency and transparency, move toward digitalized cashless society
• A comprehensive approach is needed
  • Digital financial inclusion infrastructure: bank accounts; convenient online access; digital ID
    • Access in rural areas remains a challenge, how to promote?
  • Reform, standardization and digitalization of government procedures and accounts
    • Move away from legacy systems can be challenging
    • SuTRA system in Nepal and DBAS in Korea – very interesting
    • What are main issues for implementation in emerging economies?
Conclusions and Questions (2)

• How to implement at multiple levels of government?
  • Significantly more complicated
  • What are key issues of implementation?
  • Capacity and infrastructure issues

• Developments from here? Fintech can be game changer
  • Blockchain has many potential applications
    • Facilitate establishment of ID
    • Verification of transaction records
    • Digital currencies
    • Customs, trade facilitation
  • Artificial Intelligence (AI), cognitive computing

• Need for capacity building and training
• Need for experimentation—”sandboxes”
Thank You!
RESTRUCTURING THE STATE BUDGET TOWARDS FISCAL SUSTAINABILITY IN VIETNAM

Dr Nguyen Viet Loi, President
National Institute for Finance
Ministry of Finance, Vietnam
Contents

1. The necessity of state budget restructuring

2. Orientations and Solutions
1. The necessity of state budget restructuring

The state budget restructuring has been set out since 2016 based on the current macroeconomic context and requirements of public finance management.

- **Firstly**, globalization and economic Integration, FTA commitments put pressure on state budget revenues

- **Secondly**, industry Revolution 4.0 and impacts on Vietnam’s economy and public finance policies

- **Thirdly**, need for economic development of Vietnam

- **Fourthly**, pressure of shortcomings in public finance management and the state budget structure
1. The necessity of state budget restructuring (cont.)

Pressure of public finance management and the state budget structure

- The revenue structure is unstable as the revenue sources mainly depend on revenues from oil and import – export taxes which accounted for 32% of the total revenue in the period of 2011-2015

- The proportion of the domestic revenue in the total revenue increased to 68% for 2011-2015 but the growth still remains slow. In terms of revenue structure by taxes, it has some positive changes but is not accordance with the development of services.

Figure 1. The state budget revenue and expenditure of GDP (%)

Source: data collected by the NIF
1. The necessity of state budget restructuring (cont.)

Pressure of public finance management and the state budget structure

- The pressure from the state budget expenditure: The current expenditure takes a major proportion with more than 70% of the total state budget expenditure due to high pressure arising from the state management system and public service units and an increase of debt payment.

- At the same time, public investment does not reflect the leading role in attracting resources from the private and FDI sectors.
1. The necessity of state budget restructuring (cont.)

Pressure of public finance management and the state budget structure

- The budget deficit is high and persistent; public debt significantly increases; it leads to high pressure on debt service.

- The investment demand for socio-economic development programs and projects has increased and public debt in Vietnam rise sharply from 52% to GDP in 2010 to 62% in 2015

![Figure 2. The budget deficit and public debt to GDP (%)](source: MoF)
2. Orientation of solutions and Outcomes

Orientation of Solutions:

- Reviewing the tax system and improving the sustainability of state budget revenue in terms of scale and structure. Extending the tax base and gradually reducing the tax exemption and deduction.

- Restructuring the state budget expenditure to ensure accordance with state budget revenue. For the investment expenditure, it should be efficiently allocated and used, prioritized the national important infrastructures.

- Restructuring public debt towards maximizing the medium and long-term loans and minimize the short-term loans; prioritizing for debt payment.
Outcomes

- The State budget revenue was stable and the proportion of stable revenue sources increasing.

- State budget expenditure initially dropped (to about 28% of GDP in 2017) and the proportion of expenditure on development investment increased.

- The state budget deficit fell to 3.4% in 2017, lower than 3.9% of the target and 5.7% of the average state budget deficit of the period 2011-2015.

- Public debt and government debt reduced to the threshold

### Vietnam’s Fiscal indicators, 2011-2020

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State budget revenue/GDP</td>
<td>23</td>
<td>23.5</td>
<td>24.47</td>
<td>24.75</td>
</tr>
<tr>
<td>State budget expenditure/GDP</td>
<td>29</td>
<td>25-26</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>State budget deficit/GDP</td>
<td>5.6</td>
<td>&lt;3.9</td>
<td>5.64</td>
<td>3.42</td>
</tr>
<tr>
<td>Public debt/ GDP</td>
<td>55.1</td>
<td>65</td>
<td>63.7</td>
<td>61.3</td>
</tr>
</tbody>
</table>

*Unit: % GDP*

Source: Ministry of Finance
Challenges forwards

- State budget revenue is relying on unsustainable sources, such as revenues from natural resources and minerals, land use fees, etc.

- State budget expenditure remains at high level. Current expenditures account for large proportion and it is difficult to cut down on it.

- Regarding public debt management, the mobilization and use of government loan are not effective in some investment projects.
Thank you for your attention!
Tokyo Fiscal Forum 2018: Round Table Discussion

Mr. Suwit Rojanavanich
Director-General, Fiscal Policy Office
Ministry of Finance
June 2018
Ministry of Finance has been upholding the fiscal sustainability framework which specifies that:

- Outstanding public debt to GDP not more than 60%
- Total debt service to government budget not more than 15%
- Capital expenditure to government budget at least 25%
- Medium-term budgetary balance
**Rationales**

- Constitution of the Kingdom of Thailand B.E. 2560
  - Section 62: The State shall strictly maintain its financial and fiscal discipline to ensure that financial and fiscal status is stable and secure in accordance with FRL.
- No overarching law on fiscal discipline (Budget Procedures/Treasury Reserve/Public Debt Management/Working Capital Management Act)
- Innovative fiscal practices (Conduct of quasi-fiscal activities via SFIs and SOEs. Extrabudgetary spending. Establishment of extrabudgetary funds.)
- Lack of nationwide fiscal overview (Public agencies, SOEs, parliamentary agencies, constitutional court, court of justice, administrative court, constitutional agencies, public organisations, revolving funds with juristic person status, and Local Administration)

**Expected Benefits**

- Public agencies are able to maintain fiscal disciplines with clear guidelines
- Regulations cover innovative fiscal practices
- Comprehensive public agencies’ data enables thorough fiscal analysis

**Salient Features**

**Fiscal Policy Committee**

- Chairman: Prime Minister
- Deputy Chairman: Finance Minister

**Fiscal Discipline**

- Stipulate fiscal discipline regulations, especially numerical limits
- Formulate and revise Medium-Term Fiscal Framework
- Formulate risk management policy and supervise risk management

**Monitoring and Supervising**

- Prepare Whole-of-government Account and Fiscal Risk Statement
- Punishment for violation of the Law in accordance with Organic Law on Auditing
Medium Term Fiscal Framework (MTFF)

Fiscal Responsibility Law (FRL) became effective on 20 April 2018.

Fiscal Responsibility Law is compulsary under this law.

MTFF will serve as a master plan for:

- Fiscal and budget planning
- Annual budget formulation
- Public debt management

**MUST**

- Must be formulated within 3 months after the end of each fiscal year
- Must cover the timeframe no less than 3 years
The main features of MTFF must cover:

01. Fiscal framework which comprises of fiscal objective and policy measures

02. Overview of current macroeconomic condition and forecast

03. Fiscal position and forecast including revenue, expenditure, fiscal balance, and fiscal management

04. Public debt status and analysis

05. Other government’s fiscal and spending obligations
Central fund for emergency use to total budget must be between **2.0-3.5%**

Principal repayment to total budget must be between **2.5-3.5%**

Carry-over expenditure must **not exceed 10%** of total budget

Extra carry-over expenditure must **not exceed 5%** of total budget

Stock of fiscal responsibility as a result of government policy must **not exceed 30%** of total budget
Ratio for Debt Management under FRL

Debt to GDP must not exceed 60%

Debt to government revenue must not exceed 35%

Foreign-dominated debt to total public debt must not exceed 10%

Foreign-dominated debt to revenue from exports of goods and services must not exceed 5%