Cost-Benefit Analysis of Tax Reform in the Democratic Republic of the Congo

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Background

- *Essor*: *Pour un environnement propice à l’investissement en RDC* is a five-year DFID-funded programme seeking to improve the incomes of the poor in DRC through reforms to the country’s investment climate.

- In the 2015 inception phase, a series of themes were identified in consultation with Essor’s government stakeholders as priorities for investment climate reform. One of which was:

  - Tax;

  - Our Team was tasked with developing the Scoping Study and Business Case for the Tax Activity.
Overview

- Team of three experts carried out a Scoping Study to assess the best ways to affect, given likely available resources and other support, efforts that could help to reduce the burden of the tax system on Small, Medium, and Microentrepreneurs.

- The Scoping Team then prepared a Business Case that includes the structure of the activities that would receive ESSOR support, identifies goals, objectives, outputs, activities and inputs.

- DFID generally requires its Business Cases to identify how the project will be carried out while providing Value For Money (VFM).

- VFM usually is based on the three (sometimes four) Es: Effectiveness, Efficiency, and Economy. DFID has a specific rubric for scoring VFM.

- Our Team decided to go beyond the VFM framework and to develop a CBA.
## Complexity of paying taxes in DRC: problem tree

<table>
<thead>
<tr>
<th>Systematic root causes</th>
<th>Root causes</th>
<th>Outcomes</th>
<th>Impact on MSMEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncoordinated fiscal decentralisation and lack of compliance with fiscal transfers</td>
<td>Provinces, ETDs, line ministries and various other institutions create own taxes without coordinating</td>
<td>MSMEs subject to multiple taxation from multiple agencies</td>
<td>Multiple tax payments for the same tax</td>
</tr>
<tr>
<td>Low public sector salaries</td>
<td>Lack of control over tax collectors</td>
<td>Overly complex tax compliance requirements</td>
<td>Tax obligations that do not consider profit or burden</td>
</tr>
<tr>
<td>Poor coordination between government bodies in designing and administering taxes</td>
<td>Poor clarity and information on taxation and weak voice of MSMEs</td>
<td></td>
<td>Time and resources wasted on complying with overly complex tax system (including: for travel, queueing, negotiations, filling out forms, paying fines for errors, payments to limit harassment, etc.)</td>
</tr>
<tr>
<td>Weak rule of law and enforcement and high tax leakage</td>
<td>Asymmetry of power and information</td>
<td></td>
<td>High tax compliance costs on MSMEs</td>
</tr>
</tbody>
</table>
The project

• Coordination/advocacy/empowerment
• Simplification
• One Stop Shop for MSMEs in some locations
• M-solutions
Coordination/advocacy/empowerment

Activities

• Coordinate/advocacy/empowerment
• Assistance Ministry of SMEs in organization and advocacy
• Develop and share knowledge about tax and non-tax requirements as affect MSMEs to Min of MSMEs
• Support MOF in coordination efforts with Provincial and local government in Kinshasa and Goma
• Create and support Tax Policy Platforms in Kinshasa and Goma

Outcomes – mid results

• Min of SMEs advocates for the tax needs of business associations to other entities in government
• MSMEs better advocate for their needs
• Min of SMEs is better capable of assisting MSMEs to understanding tax and non-tax fees and charges
• MSMEs, broader business, CSOs and MOF and tax authorities improve their dialogue
Activities

• Technical analyses of tax and non-tax systems, compliance requirements, legal framework, business processes
• Proposals for simplification of tax and non-tax and compliance requirements
• High-level advocacy for reforms
• Collaborate with MOF, DGRAD, DGII in implementing and others to implement coordinated, simplified taxation and parafiscalite

Outcomes – mid results

• MSMEs pay a reduced number of non-tax fees and charges at lower frequency
• Medium and large taxpayers make a reduced number of tax and non-tax declarations and payments
• MSMEs have less uncertainty about parafiscalite
• Reduced incentive to remain in the informal sector
• MSMEs face lower compliance costs
One Stop Shop for MSMEs in some locations

Activities

- Essor works with MOF, Ministry of SMEs and with MSMEs organizations to develop proposals for creating one-stop-shop (OSS)
- Essor works with DGI and local taxing authorities to develop and implement plan for OSS

Outcomes – mid results

- MSMEs use the OSS to pay national, provincial and local taxes in one location
- MSMEs incur lower compliance costs
- MSMEs face less capricious treatment from tax officials
- MSMEs increase their compliance with official tax payments
Activities

- Develops consensus with DGI, Governor, tax authorities and the private sector at all levels within specified locality on piloting a mobile-solution
- Identify need for and assist in development of legal and regulatory changes, if needed
- Develop necessary tools, forms & software
- Implement M-solutions

Outcomes – mid results

- MSMEs no longer need to go to tax offices or to banks to pay taxes
- Lower compliance costs
- Reduction in capricious treatment of MSMEs
- MSMEs face a reduced total cost of paying and complying with taxes
DFID and Value for Money

• **Economy** – are we doing the project on the cheap?
• **Efficiency** – are we taking advantage of leverage, other activities to get the outputs and results that we seek?
• **Effectiveness** – this is similar to efficacy. Will we actually achieve the targeted results?

Our team met all these requirements, but felt that these still do not answer the question that we had:

• Will this project be worth its cost?
Estimating project benefits

• What are the benefits?
  – Reduced cost of compliance for taxpayers
  • Especially for micro, small and medium
  • But do not ignore the large taxpayers

• Best way to estimate these benefits would be a two-step process:
  – Calculate the cost of taxpayer compliance and stratify by business size
  – Estimate how quickly and by how much the project could help reduce these costs

  – We did not calculate benefits of lower tax administration costs for government agencies.
Challenges to calculating benefits

• Uncertain about number of active large, medium, small, and micro taxpayers were in system.
  – Firm size and taxpayer size metrics were different between the DGI and the national business survey

• There had been no TCCS conducted in DRC

• We wanted to incorporate firms that were not yet in the tax system, i.e. they were in the “hidden economy”
TCCS results from elsewhere

• From Taxpayer Cost of Compliance Surveys elsewhere we know:
  – Ukraine results of the survey show
    • small firm compliance costs to come to about 8.2 %
    • medium size firms the cost ranges from about 1.0 to 0.8 percent, and
    • largest firms it ranges from 0.2 to 0.07 % of turnover.
  – South Africa, the ratios were
    • 5 % for small businesses,
    • 3-2 % for medium size businesses, and
    • 0.05 % for large businesses.

International Comparison of Tax Compliance Costs

Tax Compliance Costs as a Percentage of Turnover

Turnover in ’000 USD

- South Africa
- Ukraine
- Uzbekistan
- Kenya
- Georgia
- Ethiopia
- Nepal

Tax Compliance Cost Burden and Taxpayer Perceptions Survey in Ethiopia, 2015, Jacqueline Coolidge, WBG.
It takes a lot of time to pay taxes in DR

How much time does it take to comply with your taxes?

Source: Doing Business 2016, World Bank; Paying Taxes 2016, PwC
Model assumptions

- Relative taxpayer costs higher in DRC than in the other countries
- Calculations of number of firms from firm surveys/census rather than from Tax Administrations:
  - Lack of good database
  - Various levels of government imposing tax and parafiscalite
  - Assume that we can only capture part of GDP, due to informality of 57%.
Assumptions of compliance cost rates

- tax compliance costs come to at least
  - 10% of total turnover for small firms,
  - 3% for medium size firms, and
  - perhaps 1% for large firms.

- These are higher than for either Ukraine or South Africa
- Rate is much higher for large firms.
To conduct this analysis, we have estimated the following:

- Number of taxpayers in the system by micro, small, medium and large size firms;
- Total value-added and total revenue by these firms;
- Total cost of complying with tax and parafiscalité systems;
- Savings to these firms that can be reached per year by 2021, by firm size grouping;
- Benefit (savings in taxpayer compliance costs) by firm size grouping and by type of intervention, i.e., transparency, simplification, one-stop shop, and M-Solutions; and
- Roll out of these benefits over time.
- All costs and benefits calculated in British Pounds: all prices held constant
- Discount rate is real 10%.
### Firms, size, employees, VA, turnover, compliance cost

<table>
<thead>
<tr>
<th></th>
<th>No. Firms in the tax system</th>
<th>Avg. No. Employees</th>
<th>VA per employee GBP</th>
<th>Turnover multiple of employee VA</th>
<th>Labor VA GBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>80,000</td>
<td>3</td>
<td>330</td>
<td>2.0</td>
<td>79,200,000</td>
</tr>
<tr>
<td>Small</td>
<td>200,000</td>
<td>30</td>
<td>495</td>
<td>3.0</td>
<td>2,970,000,000</td>
</tr>
<tr>
<td>Medium</td>
<td>10,000</td>
<td>90</td>
<td>990</td>
<td>7.5</td>
<td>891,000,000</td>
</tr>
<tr>
<td>Large</td>
<td>400</td>
<td>1,800</td>
<td>1,155</td>
<td>8.0</td>
<td>831,600,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>290,400</td>
<td></td>
<td></td>
<td></td>
<td>4,771,800,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Labor VA GBP</th>
<th>Capital VA GBP</th>
<th>Total turnover GBP</th>
<th>Inputs GBP</th>
<th>VA to turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>79,200,000</td>
<td>158,400,000</td>
<td>79,200,000</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>2,970,000,000</td>
<td>8,910,000,000</td>
<td>5,049,000,000</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>891,000,000</td>
<td>6,682,500,000</td>
<td>3,118,500,000</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>831,600,000</td>
<td>6,652,800,000</td>
<td>1,829,520,000</td>
<td>73%</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>4,771,800,000</td>
<td>22,403,700,000</td>
<td>10,076,220,000</td>
<td>55%</td>
<td></td>
</tr>
</tbody>
</table>

- model GDP: 12,327,480,000
- Nominal GDP: 22,232,664,300
- LTs % GDP: 39%
- Adjustment: 176%
## Total benefits for businesses of ESSOR tax project

### Generation of benefits

<table>
<thead>
<tr>
<th>No. Firms in system</th>
<th>Total compliance costs GBP</th>
<th>Transparency Savings</th>
<th>Simplification Savings</th>
<th>OSS Savings</th>
<th>M-Solutions Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>80,000</td>
<td>15,840,000</td>
<td>-1%</td>
<td>-2%</td>
<td>0%</td>
</tr>
<tr>
<td>Small</td>
<td>200,000</td>
<td>891,000,000</td>
<td>-1%</td>
<td>-2%</td>
<td>-1%</td>
</tr>
<tr>
<td>Medium</td>
<td>10,000</td>
<td>200,475,000</td>
<td>-0.30%</td>
<td>-1%</td>
<td>0</td>
</tr>
<tr>
<td>Large</td>
<td>400</td>
<td>49,896,000</td>
<td>-0.20%</td>
<td>-0.20%</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>290,400</td>
<td>1,157,211,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Difference between this table and prior, changed estimates of firms to be more similar to those registered with DGI.
## Beneficiary analysis

### Distribution of benefits

<table>
<thead>
<tr>
<th></th>
<th>Change in compliance cost rate</th>
<th>New compliance burden %</th>
<th>Benefit in Pounds, 2021</th>
<th>% benefit accrues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>-4.0%</td>
<td>6.00%</td>
<td>633,600</td>
<td>1.7%</td>
</tr>
<tr>
<td>Small</td>
<td>-4.0%</td>
<td>6.00%</td>
<td>35,640,000</td>
<td>92.9%</td>
</tr>
<tr>
<td>Medium</td>
<td>-1.0%</td>
<td>2.00%</td>
<td>2,004,750</td>
<td>5.2%</td>
</tr>
<tr>
<td>Large</td>
<td>-0.2%</td>
<td>0.55%</td>
<td>99,792</td>
<td>0.3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>38,378,142</td>
<td></td>
</tr>
</tbody>
</table>
Benefits roll out over time

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GB Pounds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro</td>
<td>0</td>
<td>0</td>
<td>39,600</td>
<td>79,200</td>
<td>356,400</td>
<td>633,600</td>
</tr>
<tr>
<td>Small</td>
<td>0</td>
<td>0</td>
<td>1,782,000</td>
<td>5,346,000</td>
<td>20,493,000</td>
<td>35,640,000</td>
</tr>
<tr>
<td>Medium</td>
<td>0</td>
<td>0</td>
<td>100,238</td>
<td>200,475</td>
<td>1,102,613</td>
<td>2,004,750</td>
</tr>
<tr>
<td>Large</td>
<td>0</td>
<td>0</td>
<td>4,990</td>
<td>49,896</td>
<td>74,844</td>
<td>99,792</td>
</tr>
<tr>
<td>TOTAL</td>
<td>0</td>
<td>0</td>
<td>1,926,827</td>
<td>5,675,571</td>
<td>22,026,857</td>
<td>38,378,142</td>
</tr>
</tbody>
</table>

**TOTAL: Project horizon**

68,007,397

**TOTAL discounted by overage of reachable GDP**

38,628,201
Estimating project costs

• ESSOR project had a financial range available for the scoping team.
• Scenarios of what we thought we could do with the range of funding, discussed the possible impacts and likelihood of achievement
• Estimated a budget based on resource needs that we felt would produce the best project, would be agreeable to counterparts, and could be accomplished within time framework.
• This estimated set of resources and their deployment over time became our cost side in the project analysis (cash flow analysis).
• No estimate of costs to DRC national and local governments.
Project costs

• Highest in first year of operations.

• Short- and long-term Technical Assistance. Plus support

• Materials and other
  – See next slide
## Material support

### Component 1: Support to Ministry of SMEs, MOF, policy development and
Cost of Compliance Survey
Trainings and workshops
Materials production, reports, translations, distribution
Multi-Agency conferences and ESSOR Tax Launch
Annual conference for lessons learned and moving ahead
International observation and learning (per persons cost)
Outreach programs

Domestic travel and other incidental expenses for all four components (qrtrly)

### Component 2: Advisory of simplification
Materials production, reports, translations, distribution
Workshops
International observation and learning (per persons cost)
Multi-Agency conferences and workshops

### Component 3: One-Stop-Shop
Procurement or designs, systems, applications
High-level, multi-agency conferences
Material production, reports, translations, distribution
Outreach programs

### Component 4: M-solutions
Implementation from local ITC firms
High-level, multi-agency conferences
Material production, reports, translations, distribution
Outreach programs
<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>OPTIMISTIC</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Benefits</td>
<td>Costs</td>
<td>Cash flow</td>
</tr>
<tr>
<td>2016</td>
<td>-</td>
<td>1,004,000</td>
<td>(1,004,000)</td>
</tr>
<tr>
<td>2017</td>
<td>-</td>
<td>802,000</td>
<td>(802,000)</td>
</tr>
<tr>
<td>2018</td>
<td>1,094,438</td>
<td>802,000</td>
<td>292,438</td>
</tr>
<tr>
<td>2019</td>
<td>3,223,724</td>
<td>802,000</td>
<td>2,421,724</td>
</tr>
<tr>
<td>2020</td>
<td>12,511,254</td>
<td>802,000</td>
<td>11,709,254</td>
</tr>
<tr>
<td>2021</td>
<td>21,798,785</td>
<td>-</td>
<td>21,798,785</td>
</tr>
</tbody>
</table>

| Scenario 1 |  |  |  |
|------------|------------------|------------------|
| IRR        | 113%              |
| NPV        | £21,860,979.1    |
| Discount rate | 10%            |

| Scenario 2 |  |  |  |
|------------|------------------|------------------|
| year       | Benefits         | Costs            | cash flow        |
| 2016       | -                | 1,004,000        | (1,004,000)      |
| 2017       | -                | 802,000          | (802,000)        |
| 2018       | 802,000          | (802,000)        |
| 2019       | 1,094,438        | 802,000          | 292,438          |
| 2020       | 3,223,724        | 802,000          | 2,421,724        |
| 2021       | 12,511,254       | -                | 12,511,254       |
| 2022       | 15,734,979       | -                | 15,734,979       |

| Scenario 2 |  |  |  |
|------------|------------------|------------------|
| IRR        | 56%               |
| NPV        | £7,246,387        |
| Discount rate | 10%            |
Limitations

• This analysis is illustrative since:
  - Lacks actual TCCS
  - Lacks actual taxpayer database information
  - Created “economy”
  - Is based on unreasonably short horizon for accruing costs and benefits
  - Optimistic re feasibility of achieving reforms
  - Does not include counterpart and others costs of implementation
  - Does not include the reductions in cost for tax administrations