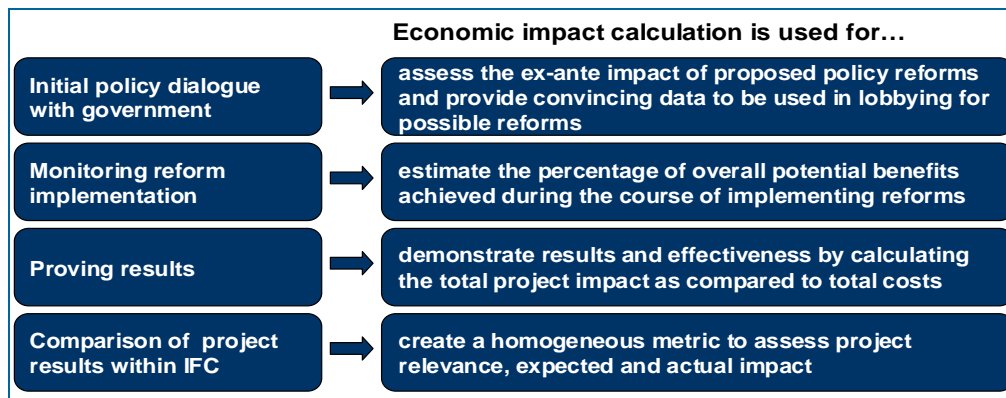


## “SHOW ME THE MONEY!” QUANTIFYING THE IMPACT OF REGULATORY SIMPLIFICATION PROJECTS

SANDA LIEPINA, ANDREA DALL’OLIO AND SANWAREE SETHI

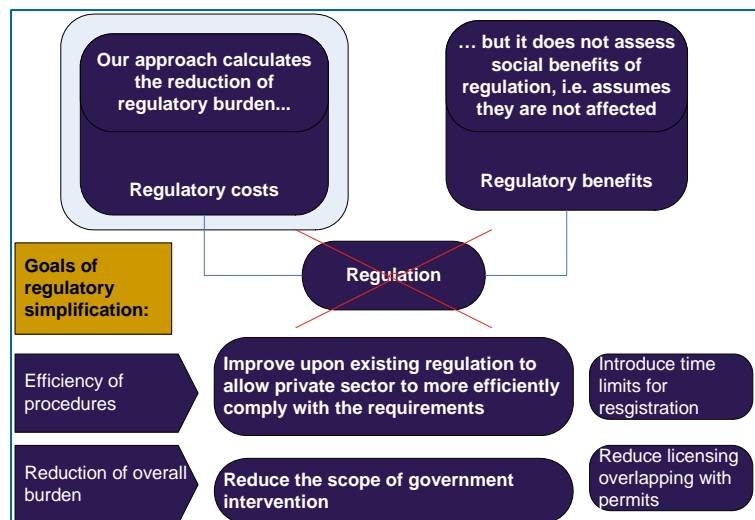
IFC PEP has developed the following methodology to measure and attribute the economic impact of its national-level Business Enabling Environment (BEE) Regulatory Simplification Projects in Eastern Europe and Central Asia. By comparing specific aspects of the business environment *before and after*<sup>1</sup> IFC-supported reforms are enacted by the government, it is possible to quantify the benefits accruing to the target population, i.e., the aggregate cost savings to businesses. This effort to quantify the benefits of regulatory improvements has been welcomed by both government counterparts and IFC PEP’s donor partners. Using this methodology, IFC PEP has estimated an aggregate cost savings of US\$84 million for businesses in its focus countries.<sup>2</sup> The developed methodology is relevant throughout the project life-cycle and can be a useful tool for engaging and motivating key stakeholders to reform.



### Desired impact of regulatory simplification projects

The goal of regulatory simplification is to reduce to the greatest extent possible the administrative burden of compliance with government regulations, while maintaining a necessary level of regulation to protect the public. Regulatory simplification thus benefits businesses by reducing the total cost of the administrative burden arising from government regulations and by freeing up these resources for other pursuits.

IFC PEP’s BEE program includes a number of multiyear national-level regulatory simplification projects. They are designed as targeted interventions addressing key hindrances to



<sup>1</sup> IFC PEP understands that under ideal circumstances, impact assessment would involve the use of experimental analysis to compare the counterfactual of an IFC intervention rather than a before/after comparison. However, given that in our region the relevant legislation exists at the national level, it is not possible (or advisable) to construct municipal-level comparisons for the sake of impact assessment. We believe that this methodology provides a sound alternative in cases where project intervention occurs at the national level, i.e., in cases where it is virtually impossible to assess impact using experimental methodology.

<sup>2</sup> Examples from three IFC PEP projects can be found in Annex 1.

private sector development<sup>3</sup> and generally pursue the following objectives: 1) diagnostics and monitoring via regular SME surveys; 2) streamlining of 2-3 selected administrative procedures (national-level policy and legislative changes and implementation support for pilot agencies); 3) advocacy work with governments and the private sector to facilitate reforms and outreach to increase legal awareness by SMEs of selected administrative procedures.

### Key aspects of methodology

We have developed our approach to calculating the economic effect of regulatory improvements for businesses by adapting methodologies used in a number of OECD countries. More specifically, our approach builds on methodologies<sup>4</sup> developed by the Ministry of Finance of the Netherlands, the European Commission, as well as the U.S. Small Business Administration and Office of Management and Budget. The key challenge was to have an approach that is reliable, simple, and applicable in an environment best characterized by scarce data. We have leveraged the data commonly available within projects as part of the M&E framework and have ensured basic standardization of SME surveys in order to consistently capture data needed to produce and verify our estimates of economic impact.

The methodology employed distinguishes between two types of costs on businesses (see Annex 2 for a more detailed outline of the methodology):

1. **Direct costs:** The direct impact on economic cost (e.g., administrative costs, including official and unofficial payments and labor costs) of an enterprise resulting from the reform of a regulatory procedure, calculated at the firm level, the sector level, or for the SME sector as a whole. Direct costs are calculated by multiplying the following:
  - Number of times the given procedure (e.g., licensing) is undertaken by a representative firm on a yearly basis (data publicly available)
  - Individual cost of each procedure including official payments (data available through official sources) and unofficial payments (data collected through SME surveys).
  - Cost of employees directly dedicated to administrative procedures and the daily average employee salary (data collected through SME surveys).
2. **Indirect (opportunity) costs:** Impact on revenues or costs, due to alternative uses of time formerly dedicated to administrative procedures (e.g., delayed entry and temporary closure of business). We calculate the delay of entry (in the case of procedures such as business registration, licensing, permits, and other entry controls<sup>5</sup>) using the following:
  - Average annual net profit for start-up companies using averages for different sectors (data publicly available)
  - Average time spent in each administrative procedure (data collected through SME surveys)
  - Average number of working days per years in the economy/sector (data publicly available)
  - Costs related to the temporary closure of a firm's activity are calculated using the following:
    - Average annual losses for an active company whose activity is stopped but which retains its production factors
    - Average time a company's activity is stopped due to the given procedures (data collected through SME surveys)

We have chosen to use net profits (i.e., profit after taxes) expressed in U.S. dollars as the indicator of cost savings for businesses. Understanding the impact of policy changes in terms of profits has two advantages: (1) businesses operate to generate profit, and this measure best reflects the benefit companies receive as a result of better regulation; (2) expressing the economic benefit of reforms in profits allows aggregation of overall impact of cost reduction measures. The alternative option we considered was to use sales as an indicator. Businesses are more likely to report precise revenue data in business surveys, though similar concerns of underreporting apply. At the same time, not all regulatory simplification measures have an impact on sales, whereas reduction in costs

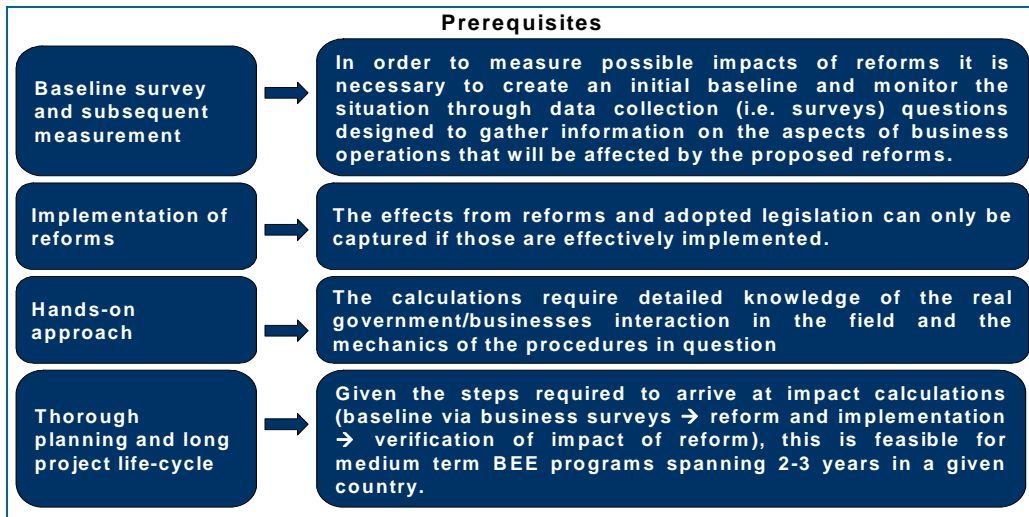
<sup>3</sup> As determined via representative business surveys and other sources; for details, see Smart Lessons: Key Benefits of Enterprise Surveys for Improving the Business Enabling Environment.

<sup>4</sup> Standard Cost Model Methodologies developed by the Legislative Burden Department of the Ministry of Finance of the Netherlands; suggested approaches to estimating the administrative burden and red tape in various communications on reduction of the red tape in the EU by the European Commission; 2005 OMB Report to Congress – Validating Regulatory Analysis: 2005 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities, etc.

<sup>5</sup> In IFC PEP's region there are virtually no truly informal firms operating outside the legal registration and licensing framework; it is therefore legitimate to include these costs in our calculations (informality in the region mostly appears as significant underreporting). This might not be relevant in other regions, such as in Latin America.

is always a relevant indicator. As a result, the sales indicator would not accurately represent the resources freed up for other business pursuits, nor could it be aggregated to arrive at a single measure of cost savings to a business.

Ensuring standardization and consistency in calculations over the span of a few years from pre to post reforms is the critical challenge. This requires certain operational and project design features as detailed in the chart below.

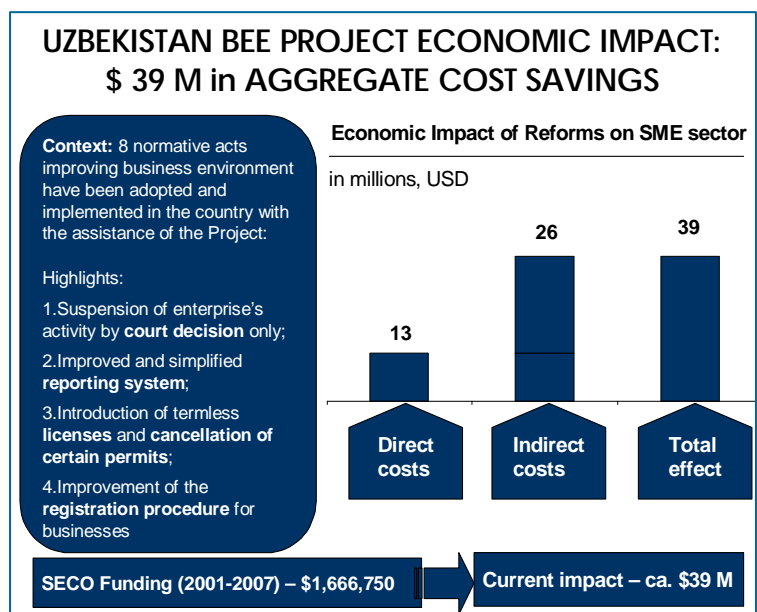


### Lessons learned and the way forward

**Lesson 1:** *Surveys have proven key to obtaining firm-level data on actual changes after the reform.* As shown in the methodology section above, surveys are instrumental tools for gathering data to arrive at impact calculations and to test the estimated impacts later on. By carefully approaching hypotheses and design issues, we are able to discern the true attributable impact of reform. Survey-related lessons are detailed in the Smart Lessons on “Key Benefits of Enterprise Surveys for Improving the Business Enabling Environment” and won’t be repeated here. It is, however, important to note that in this region it is impossible to collect necessary data at the firm level from any publicly available data. As a result, conducting our own surveys is the sole means to collect the data needed to undertake this type of impact assessment.

**Lesson 2:** *Scarcity and inaccuracy of available data impose limits on what can be calculated.* The estimates provided in Annex 1 represent the lower range of the true impact of these regulatory simplification projects and are thus conservative in nature. In most cases we have anecdotal and case study evidence of other meaningful effects of reforms, which cannot be quantified due to limited data from businesses and the government. Further, it is important to keep the costs of obtaining such data reasonable. Official data are obtained by the project teams in the course of the daily work, surveys are conducted as part of the policy work, and adding a few targeted questions to assess impacts is a marginal cost.

Another limitation is that the available data and timeframe of donor-funded projects allow us to evaluate only *short-term (“static”) economic effects accruing to businesses.* We measure the impact of regulatory changes on existing companies, i.e., on firms that have already taken the decision to enter into the market. These estimates are thus done for short term (for one year post reform) and are very conservative in that they do not account for subsequent effects of these regulatory changes over the future years.



In addition, these estimates do not consider the changes in market structure that might arise in the medium–long term thanks to the reduced barriers to entry.

We would ideally also want to capture the *longer term (“dynamic”) economic effects accruing to businesses*. Medium- and long-term effects are the impacts on the market structure caused by the entry into the market of new companies as a result of policy reforms. These effects are dynamic and by their nature span over the longer term and require a stronger set of assumptions and data to be assessed, i.e., the number of new companies entering the market, the effects of entry on the market structure and prices, etc.

In addition, as IFC develops its measurement techniques, it would be important to also estimate the *economic effects accruing to government* in the form of net revenues. The poor quality and lack of availability of data on government operations in the countries of our region have so far prevented us from carrying out these calculations. Nevertheless, for those willing to try, we have developed a conceptual model – see Annex 3.

**Lesson 3:** *Use reasonable and verifiable assumptions; distinguish between direct and indirect costs.* In most countries we work in, such measures of impact of reform are a novelty. IFC has often been the first to introduce this approach, and this means we also have the burden of explaining and educating the audiences we work with. Being forthcoming on the data we use and assumptions we apply is a must – thus allowing for true debate, skepticism, and verification of the impact assessment. Separation of direct and indirect costs has proved very useful and is ensuring transparency of the calculations presented.

**Lesson 4:** *Aggregate costs savings are best expressed as ranges accounting for uncertainty.* Our calculations are typically built on historical data to estimate the impact in future. By their very nature, they are best presented as a range of impact recognizing the uncertainty involved. In our policy advocacy work, however, we have found that ranges and implied uncertainty are not easily understood by the recipient audiences, who are used to precise figures. Our solution has been to use the lowest value in the range and thus be very conservative in the estimates publicized. In principle, use of ranges would be preferred.

**Lesson 5:** *Effectively applying this approach requires buy-in and understanding from project staff.* Preparation of the economic impact estimates is not a one-time effort. Use of this methodology requires that data collection be an integral part of a project’s daily activities and that data requirements are accounted for regularly. This can only be achieved if the project staff is well versed in the rationale and basic concept, which in turn means that to be feasible, the methodology needs to be kept simple. Further, in undertaking these types of calculations in the future, PEP hopes to be able to incorporate forward-looking thinking into project design. Ex-ante analyses on the various BEE reforms could allow project staff to incorporate information on the cost effectiveness of certain reforms into the process of deciding which reforms should be pursued for simplification.

#### About the Authors

**Sanda Liepina.** As Senior Operations Manager, Sanda oversees PEP’s regional BEE portfolio. Sanda has extensive experience in managing regulatory reform initiatives from both the side of government (the successful Business Environment Improvement reform program in Latvia from 1998 to 2002) and the side of advisory services providers (IFC, FIAS, EC, USAID, etc.) in various CEE and CIS countries. She holds a Law degree and an MPA from Maxwell School of Citizenship and Public Affairs.

**Andrea Dall’Olio** manages IFC PEP’s Tajikistan Business Enabling Environment Project, focused on reducing administrative barriers to SMEs. The Project is currently focusing on the implementation of a new inspections law aimed at improving the outcomes of inspections and reducing their burden on businesses. Prior to joining IFC, Andrea worked at McKinsey & Company for six years. Andrea holds a Ph.D. in Economics from Brown University, and a B.A. in Economics from Bocconi University in Italy.

**Sanwaree Sethi** oversees all Monitoring and Evaluation activities at IFC PEP. Before joining IFC in 2005, she completed an M.S. in International Relations with a concentration in international development from Georgetown University. She also holds a B.A. in Economics from Amherst College.

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## Annexes

### Annex 1: Examples of calculations at work:

#### Establishing a baseline → Ensuring reforms are enacted → Estimating and verifying aggregate cost savings for businesses

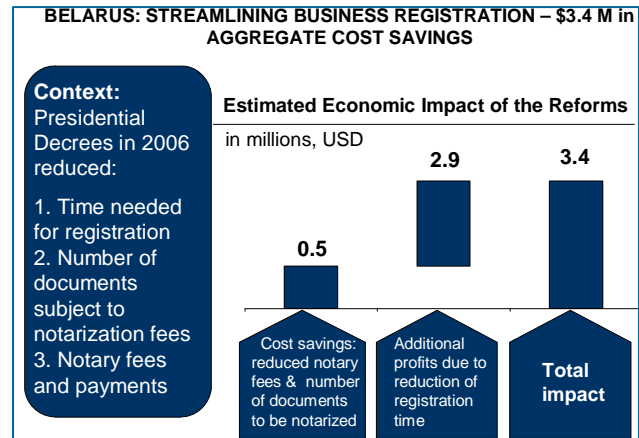
In 2005 and 2006 the **Belarus** BEE project focused its efforts on simplifying costly and burdensome business registration procedures. As a result of the project's policy work, the government enacted a series of key changes that, using our methodology, are estimated to result in direct cost savings to businesses of roughly \$500,000. In addition, the shorter registration period is expected to generate about \$2.9 M in profits for Belarusian SMEs.<sup>6</sup>

The SME survey conducted in early 2006 included specific questions on business experiences with the registration procedures. This allowed the project to capture a true pre-reform situation (baseline). The project plans to conduct another comprehensive SME survey in 2008 to capture the actual post-reform state of affairs. In the interim, in order to engage the government in a policy dialogue and estimate the impact of the reform, the project used expert assessments and official data to arrive at a conservative estimate of the aggregate cost savings to businesses. These will be verified once the data from the 2008 SME survey are available.

Another example is the work undertaken by IFC PEP in **Uzbekistan** to improve the business environment with a focus on streamlining inspections, but also tax reporting, permit and license issuance, as well company registration procedures. This program has been ongoing since 2001. Regular surveys allow tracking the impact of reforms over a longer period of time with clear pre- and post-reform benchmarks.

Inspections were the primary focus of the project's regulatory simplification work between 2002 and 2004. The SME survey conducted in 2001 established a baseline against which the project could track changes in actual business experiences with the government inspections. Pervasive inspections were clearly one of the highest burdens for the private sector in 2001 and represented a vehicle for extensive government intervention with no apparent benefit to the public. Substantial changes were progressively enacted with the assistance of the project, resulting in streamlined inspections procedures and limited abuses as confirmed by subsequent representative business surveys.

The effects of all the reforms that could be quantified were determined. The aggregate economic effect of eight Presidential decrees developed with in-depth assistance of IFC PEP experts during the life span of the project constitutes roughly US\$39 million for the SME sector. This consists of US\$13.4 million in direct cost savings as a result of improved and streamlined inspection, permits, licensing, registration



### UZBEKISTAN BEE PROJECT ECONOMIC IMPACT: \$ 39 M in AGGREGATE COST SAVINGS

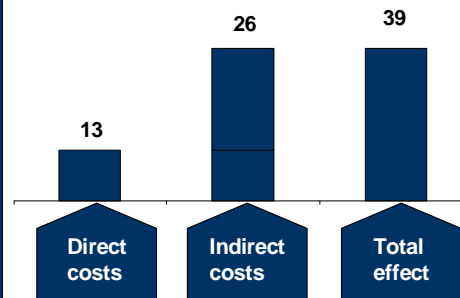
**Context:** 8 normative acts improving business environment have been adopted and implemented in the country with the assistance of the Project:

**Highlights:**

1. Suspension of enterprise's activity by **court decision** only;
2. Improved and simplified **reporting system**;
3. Introduction of **termless licenses and cancellation of certain permits**;
4. Improvement of the **registration procedure** for businesses

**Economic Impact of Reforms on SME sector**

in millions, USD



SECO Funding (2001-2007) – \$1,666,750

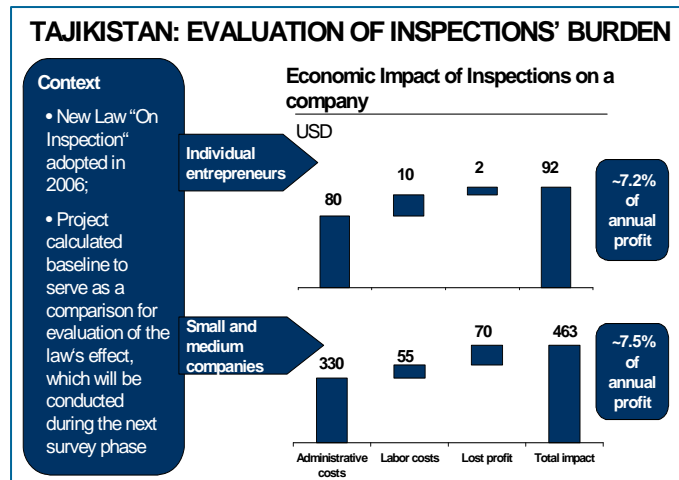
Current impact – ca. \$39 M

<sup>6</sup> Detailed calculations are available upon request.



and reporting procedures. In addition these improved procedures are expected to generate approximately US\$25.9 million in profits for SMEs in one year.<sup>7</sup>

IFC is consistently applying this approach to other reforms enacted as a result of BEE projects. In **Ukraine**, implementation of the 2005 permits reform is still incomplete, and the inspections reform has just been adopted in 2007. It was already possible, however, to calculate the burden of both procedures in terms work time lost as a baseline for impact assessment. We have also been able to make the first estimate of the savings resulting from the first phase of implementation of the permits reform (roughly US\$2 million have been saved in 2006 compared to 2004, and full implementation by the new regime of fire safety permits, allowing low-risk businesses to use self-certification, will result in savings of over \$31 million for SMEs). The most recent reform enacted in **Tajikistan**, the adoption a far-reaching Law on Inspections in 2006, does not yet lend itself to full pre-post reform assessment, as its implementation is still in progress. We have calculated the overall burden inspections, expressed as a percentage of the annual profits of businesses. This represents the baseline against which to measure the effect of the reform in a few years' time.



## Annex 2. Detailed outline of the methodology

The methodology employed distinguishes between two types of costs on businesses:

1. **Direct costs:** direct impact on economic cost (labor or administrative costs) of an enterprise resulting from the reform of regulatory procedure;
2. **Indirect (opportunity) costs:** impact on revenues or costs, due the different use of time formerly dedicated to administrative procedures.

**1. Direct costs.** Direct costs can be estimated at firm level, at specific economic sector level, or for the SME sector as a whole, depending on the set of data available for each of those. Direct cost calculation makes use of basic indicators and in particular leverages IFC experience with SME surveys in the regions. Direct costs can be differentiated between:

- D1. Administrative costs:** Administrative costs can be calculated for each procedure by multiplying:
- The number of times a procedure (e.g., licensing) is undertaken by a representative firm on a yearly basis ( $n$ )
  - The individual cost of each procedure. Individual costs related to administrative procedures can be distinguished between<sup>8</sup>:
    - **Official payments:** Data available from official sources ( $P_o$ )
    - **Unofficial payments:** Data available from surveys or estimated as a percentage on top of the official ones ( $P_u$ )

$$D1 = n * (P_o + P_u)$$

- D2. Labor costs:** Costs of employees directly dedicated (in full-time equivalent terms) to administrative procedures.<sup>9</sup> The main driver of calculation is represented by:
- the amount of full-time employee time (in working days) dedicated to a specific administrative procedure ( $d$ )
  - the daily average employee salary<sup>10</sup> ( $w$ ).

<sup>7</sup> Detailed calculations are available upon request.

<sup>8</sup> IFC PEP SME surveys collect data on total costs of the procedures, which are represented by the sum of official and unofficial payments.

<sup>9</sup> These estimates assume that the employee time can be disposed of or dedicated to other administrative activities (versus revenue-enhancing ones).

<sup>10</sup> Including all social benefit costs.

$$D2 = w * d$$

Total direct costs will be calculated as the impact on net profits of administrative and labor costs ( $D1 + D2$ ). A variation in administrative and labor costs increases gross profits but in turn will imply higher profit tax, thus reducing the total impact. For this reason, in order to calculate direct cost effects, an estimated **average profit tax rate**<sup>11</sup> ( $t$ ) will be needed.

$$D = (D1 + D2) * (1 - t)$$

The average tax rate can be estimated for the overall economy or be differentiated according to the type of business (i.e., individual entrepreneurs versus legal entities) or economic sector.

**2. Indirect (opportunity) costs.** Indirect costs require a more detailed approach to calculations and use of a higher number of assumptions. Overall, we distinguish between two main categories of opportunity costs determined by administrative procedures:

11. Costs related to **delay the entry** of a new firm into the market, i.e., by deferring the launch of profit-generating activities. Examples of these procedures are business registration, licensing, permits, and other entry controls. The cost of this delay can then be measured as the proportion of profits “lost” due to delayed entry into the market. In order to calculate opportunity costs the key elements are:
  - o Average annual net profit for start-up companies, for each industry or average per sectors ( $\Pi_s$ )
  - o Average time spent in each administrative procedure (number of working days) ( $d$ )
  - o Average number of working days per year in the economy/sector ( $dt$ )

$$I_1 = \Pi_s * \frac{d}{dt}$$

12. Procedures which result in **temporary closure of a firm’s activity**, i.e., that imply loss of productive activities for existing companies. Typical examples of procedures stopping economic activity are inspections, repeated licenses, repeated permits, as well as the suspension of activity due to the absence of licenses/permits. These costs are typically faced by existing companies; in order to estimate them, the key elements are:
  - o Average annual losses for an active company whose activity is stopped but which remains active, i.e. which retains all its production factors ( $L$ )
  - o Average time, in working days, a company is stopped due to the procedure(s)
  - o Average profit tax rate ( $t$ )

$$I_2 = L * (1 - t) * \frac{S}{dt}$$

### Annex 3. Approach to estimates of economic effects accruing to the government in the form of net revenues.

The revenues/costs for the government directly impacted by the regulatory simplification reform are:

- **Administrative fees:** Administrative procedure directly impacting the collected fees
- **Indirect taxation revenues:**<sup>12</sup> i.e., VAT effects from higher sales arising from:
  - o Lower fees and lower administrative costs; businesses immediately generate more profits (as an effect of cost reduction) and in turn generate more tax revenues;
  - o Lower opportunity costs, i.e., higher profits and more tax revenues
- **Direct taxation revenues:** In particular **profit tax**, which can be impacted as a result of:
  - o Lower fees and lower administrative costs; businesses immediately generate more profits (as a result of cost reduction) and in turn generate more tax revenues;
  - o Lower opportunity costs, i.e., higher profits and more tax revenues
- **Public employee costs:** Impact arising from the variation of government employees’ time dedicated to the procedures and more efficiency.

<sup>11</sup> Estimated taking into account, among other factors, the share of revenues officially reported.

<sup>12</sup> The effect on indirect tax is highly country specific, given the number of indirect taxes applied (i.e., VAT, road users’ tax and similar applied to total revenue of the business, etc.)