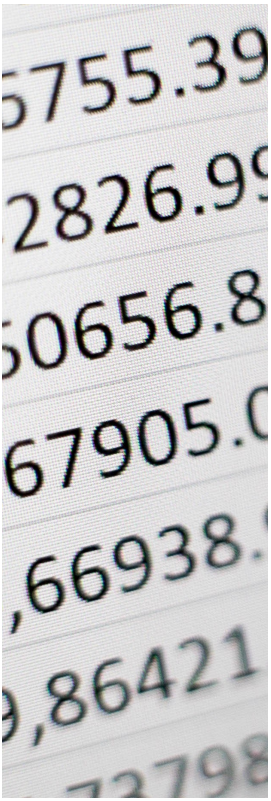
Development Academy of the Philippines Regulatory Cost Model on Compliance Costs: A Guidance Note



development academy of the philippines

Development Academy of the Philippines Regulatory Cost Model on Compliance Costs: A Guidance Note

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Foreword

Regulations always entail costs. In an ideal situation costs incurred should be offset by the higher economic benefits reaped from compliance. This is not always the case, however, due to overcomplicated procedures, redundant requirements, and convoluted permitting schemes.

The implementation of the Modernizing Government Regulations (MGR) Program of the Development Academy of the Philippines (DAP) and National Economic and Development Authority (NEDA) and the approval of Republic Act 11032, also known as Ease of Doing Business and Efficient Government Service Delivery Act of 2018 both center on the government's pursuit of better, smarter, and modernized regulations to maximize economic benefits by simplifying procedures and adopting Good Regulatory Practices (GRPs) such as the conduct of Regulatory Impact Assessment (RIA).

Estimation of regulatory compliance costs is a significant component of RIA as it provides key inputs in the assessment of regulatory options. Thus, the DAP, as part of its MGR Program, initiated the development of the Development Academy of the Philippines Regulatory Cost Model (DAP-RCM). The model facilitates a systemic approach in estimating regulatory costs of compliance and helps Philippine regulatory agencies be more informed in their formulation of regulations.

As the Philippine government endeavors towards the streamlining of its processes, the publication of this guidance note seeks to enhance current efforts in formulating simpler, smarter, and better regulations that ultimately benefit the economy.

ATTY. ENGELBERT C. CARONAN, JR., MNSA
President and CEO, Development Academy of the Philippines

List of Acronyms

AV	Annualized Value
CBA	Cost-Benefit Analysis
CCA	Compliance Cost Assessment
DAP	Development Academy of the Philippines
DAP-RCM	Development Academy of the Philippines Regulatory Cost Model
FCO	Foreign and Commonwealth Office (UK)
MGR	Modernizing Government Program
NCC	National Competitiveness Council
NEDA	National Economic and Development Authority
NPV	Net Present Value
OBPR	Office of Best Practice Regulation (Australian Government)
OECD	Organization for Economic Cooperation and Development
PV	Present Value
RBM	Regulatory Burden Measure
RIA	Regulatory Impact Assessment
SCM	Standard Cost Model
SDR	Social Discount Rate

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1. Introduction

A. Background

Regulation is implemented to address the adverse effects of market power, externalities, and asymmetric information. These regulations constrain the behavior of firms and individuals to improving the allocation of scarce resources.

While regulations are meant to improve the allocative efficiency of an economy, they entail compliance costs. Ideally, these costs should be lower than the economic benefits of regulation to ensure efficiency gains in an economy. But there are cases where the compliance costs exceed the benefits of a regulation. There are also cases where a regulation yields a net benefit to the economy but the market outcome could be improved by lowering the regulatory compliance costs.

In pursuing better regulation, it is imperative to estimate regulatory compliance cost. Such estimate has to be standardized to allow comparison across different regulations and assessment over time. The scope of compliance cost has to be clearly defined and the method should be properly developed.

The Development Academy of the Philippines Regulatory Cost Model (DAP-RCM) on compliance costs is an approach in estimating the costs incurred by regulated entities to comply with a regulation and those incurred by regulatory agencies in administration and enforcement. It breaks down regulation into a range of manageable components that can be measured.

Estimation of compliance costs proceeds from an assessment of a problem

and identification of regulatory options to address the problem. These options include a base case which can either be "do-nothing" or "as-is" / "status quo" case. The base case is compared to alternative regulatory options to derive the incremental compliance costs.

The DAP-RCM on compliance costs can be used to (1) measure the cost of regulation, (2) set a quantitative target on reducing the compliance cost of a regulation, and (3) monitor the results of a regulation. The DAP-RCM on compliance costs is meant to provide an indication on the magnitude or extent of compliance costs. It is not intended to provide exact costs.

Ultimately, the DAP-RCM serves as an approach in estimating compliance costs which provide important information in identifying areas where regulation can be improved. It is a significant component of Regulatory Impact Assessment (RIA), which is the broader analysis of all of the costs and benefits of a proposed regulatory initiative (or of existing regulations).

B. Development of the DAP Regulatory Cost Model

In 2016, the National Competitiveness Council (NCC) initiated the development of a Standard Cost Model (SCM), an activity-based costing model that estimates administrative burden, i.e., the cost of complying with information obligations. In line with its goal to measure the gains from cutting red tape through its Project Repeal, the NCC collaborated with the Foreign and Commonwealth Office (FCO) of the United Kingdom to develop an SCM for the Philippines.

The NCC-proposed SCM adapted the International Standard Cost Model developed by the SCM Network. This model is used in a number of European countries, including Denmark, the Netherlands, Norway, Sweden, and the United Kingdom.

In the development of an SCM for the Philippines, the NCC conducted several public consultations. Parameter estimates for the costs of labor and overhead were presented to the industry for validation. Feedback (i.e., public consultation through trainings conducted) was collected to improve the model specification and cost estimates. A key suggestion in these public consultations is the expansion of the scope of the model to include other regulatory costs incurred by firms and citizens.

The proposed DAP-RCM builds on the initiative of the NCC in estimating regulatory compliance costs. It expands the scope of regulatory costs to include all compliance costs: administrative burden, substantive compliance costs, and administration and enforcement costs (see 2.A for the Taxonomy of Regulatory Costs). It also considers the direct financial costs collected by

regulatory offices to capture all the costs incurred by regulated entities. It recognizes that direct financial costs are not costs in the economic sense; these are transfers to allow regulators to recover its costs of administration and enforcement.

The proposed DAP-RCM incorporates features of the International SCM of the SCM Network and the Regulatory Burden Measurement (RBM) Framework of the Office of Best Practice Regulation of Australia. (Refer to Table 1.)

With the passage of Republic Act 11032, commonly known as the Ease of Doing Business and Efficient Government Service Delivery Act, there is an immediate need for government agencies to undertake compliance cost analysis, conduct time and motion studies, and reengineer processes to reduce bureaucratic red tape and to promote efficiency and simplicity of processes. The law also requires agencies to conduct RIA to establish that proposed regulations do not add undue costs and regulatory burden to agencies and regulated entities.

The DAP-RCM facilitates estimation of these compliance costs as an input to RIA or streamlining activities. The DAP-RCM was used by the MGR Program in several runs of its Training Course on Regulatory Compliance Cost Analysis for technical staff of various agencies to calculate compliance cost of a certain regulation. In doing so, the said model was tested and improved a number of times.

Table 1. Regulatory Cost Models: A Comparison

Items	Standard Cost Model	Regulatory Burden Measurement Framework	DAP Regulatory Cost Model
	SCM[1]	RBM[2]	DAP-RCM
Developer	SCM Network	Office of Best Practice Regulation, Australian Government	Development Academy of the Philippines
Jurisdiction	The Netherlands United Kingdom Denmark Norway Sweden	Australia	Philippines
Scope	Information obligations	1. Compliance costs: • Administrative Costs • Substantive Costs 2. Delay costs	1. Administrative burden 2. Substantive compliance costs 3. Administration and enforcement cost

[1]International SCM Network, *International Standard Cost Model Manual. (*2005): 1-63. https://www.oecd.org/regreform/regulatory-policy/34227698.pdf

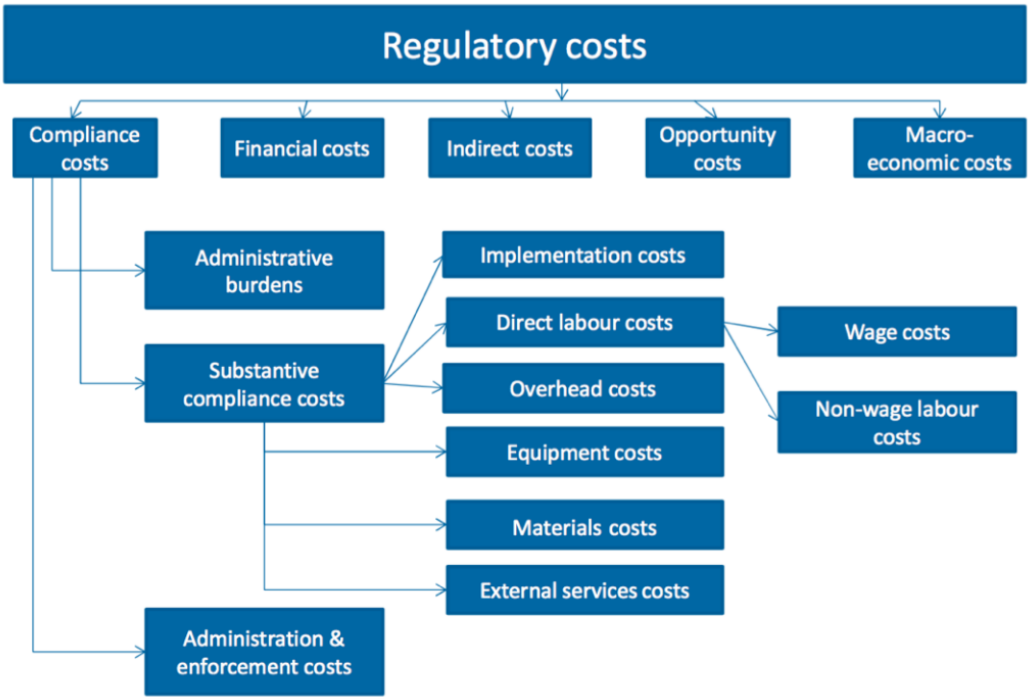
[2]Office of Best Practice Regulation, Australian Government, *Regulatory Burden Measurement Framework.* (February 2016): 1-21. https://www.pmc.gov.au/sites/default/files/publications/regulatory-burden-measurement-framework.pdf

2. Costs of Regulation

A. Taxonomy of Regulatory Costs

Regulatory costs include all the costs attributable to a regulatory option, both direct and indirect costs, regardless of who bears these costs: business, consumers, government and other groups. Figure 1 shows the taxonomy of regulatory costs (OECD, 2014); Table 2 provides a brief description of the principal categories of regulatory costs.

Figure 1. Taxonomy of Regulatory Costs



Source: OECD (2014) OECD Regulatory Compliance Cost Assessment Guidance, OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264209657-en

Table 2. Regulatory Costs

Compliance costs are the costs that are incurred by businesses or other parties at whom regulation may be targeted in undertaking actions necessary to comply with the regulatory requirements, as well as the costs to government of regulatory administration and enforcement.
Financial Costs of regulations are the cost of capital deployed in meeting regulatory compliance obligations.
Indirect Costs, also called "second round" costs, are incidental to the main purpose of the regulations and often affect third parties.
Opportunity Costs are the costs incurred due to the need to divert expenditures to regulatory compliance and away from preferred (i.e., more productive) uses.
Macroeconomic Costs are cost impacts on key macroeconomic variables such as GDP and employment caused by regulatory requirements.

Source of basic data: OECD, 2014

The categories of regulatory costs are relevant in understanding of the overall impact of regulation and all should be accounted for as far as possible in the context of cost/benefit analysis of regulations. However, as a practical matter, the quantification of these cost categories becomes increasingly challenging as the analysis moves beyond compliance costs. In particular, the second round effects of regulation (i.e. indirect costs and macroeconomic costs) are subject to significant uncertainty and pose major analytical challenges. Recognizing this, the focus of this guidance note is on compliance costs. Notwithstanding, the guidance note includes a limited treatment of competition costs, which may constitute a highly significant cost item in some cases.

B. Components of Compliance Costs

Compliance costs can be further divided into:

- administrative burdens
- substantive compliance costs
- administration and enforcement costs

Administrative burdens refer to the costs of complying with information obligations arising from government regulation. Information obligations are the responsibilities of regulated entities to provide information and data to

the public sector or third parties. An information obligation does not necessarily mean that information has to be transferred to the public authority or private persons, but may include a duty to have information available for inspection or supply on request. A regulation may contain many information obligations. (OECD, 2014)

Substantive compliance costs refer to all incremental direct costs other than administrative burdens that are borne by those upon whom the regulation imposes compliance obligations.

Table 3. Components of Substantive Compliance Costs

Category	Description
1. Implementation costs	One-off costs spent by regulated entities in familiarizing their organizations to new regulations/guidelines
2. Direct labor costs	Costs of staff time devoted to complying with regulations. This only involves staff directly engaged in regulatory compliance activities
3. Overhead costs	Fixed costs like the cost of rent, utilities, office equipment, and other inputs used by staff engaged in regulatory compliance activities
4. Equipment costs	Costs incurred in the purchase of capital equipment (machinery, software, etc.) exclusively used to comply with regulations
5. Materials costs	Costs incurred in the demand for new or certain material inputs necessary for complying with regulations and adhering to standards
6. External services costs	Costs that are incurred due to the acquisition of services from external providers that provide assistance to regulated entities

Source: OECD, 2014

Administration and enforcement costs are costs incurred by government in administering and enforcing the regulatory requirements. They can be considered to fall into the category of compliance costs since they are directly related to the achievement of the underlying regulatory objective and are an unavoidable part of the cost of regulation. (OECD, 2014)

In contrast to administrative burden and substantive compliance costs, administration and enforcement costs are borne by government entities.

Direct financial costs may be included in the evaluation of compliance costs. These costs are the result of a concrete and direct obligation to transfer a sum of money to the Government or another competent authority. Such costs include administrative charges, taxes, etc. For example, the fees for applying for a permit would be a direct financial cost of regulation.

Direct financial costs are adopted to recover the regulatory costs of government administration and enforcement. Changes in the amount of regulatory fees have no impact on the overall cost of the regulations, affecting only the distribution of these costs.

It should be made clear that direct financial costs represent partial transfers of the costs of regulatory administration and enforcement from government to industry, rather than economic costs per se. There is a need to avoid double counting when addressing direct financial costs.

Figure 2. Categories of Compliance Costs

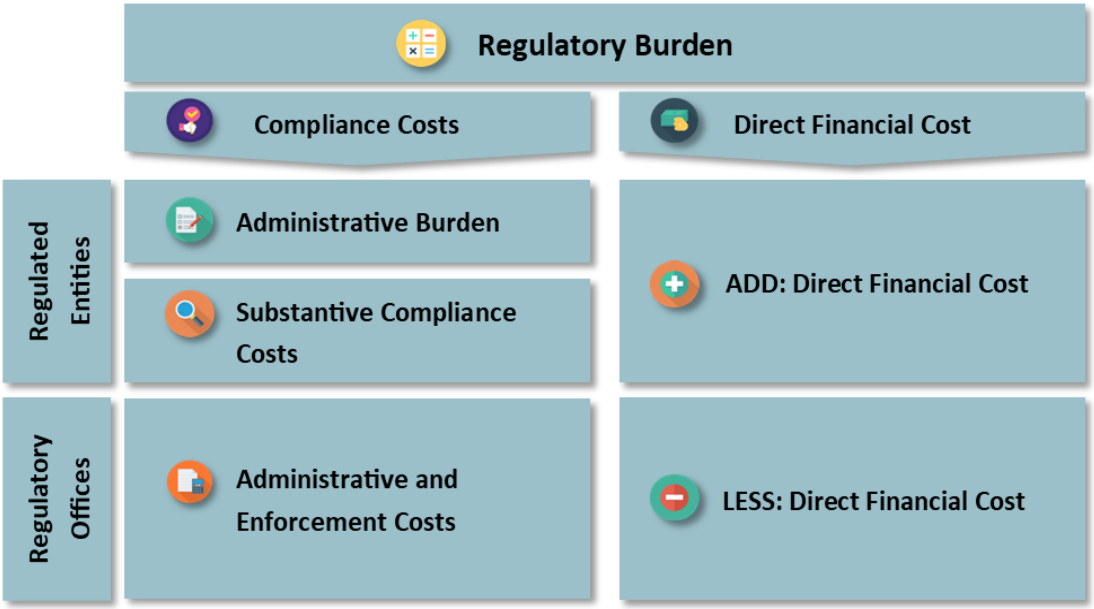


Figure 2 presents a summary of the costs of regulation. Regulated entities bear the following costs: administrative burden, substantive compliance costs, and direct financial costs. Regulators incur administration and enforcement costs. This is partly pared down by the direct financial costs that are collected from regulated entities.

A checklist of potential compliance costs is presented in Table 3.

Table 4. Checklist of Potential Compliance Costs

Business	Government	Citizens
• Procuring equipment as required • Staff recruitment and/or training • Purchase of external services • Changing production, warehousing and/or distribution processes • Information provision (e.g. for disclosure based regulation) • Monitoring/audit of compliance • Review of compliance performance • Design and implementation of any needed changes to the compliance strategy	• Designing implementation systems • Developing and implementing staff training • Adapting internal processes • Procuring goods and services and/or recruiting additional staff • Developing and publishing guidance material for regulated parties • Preparing official notices • Providing advice in response to inquiries, holding preliminary discussions with applicants • Receiving and processing applications • Record-keeping • Transmitting and publishing data • Implementing monitoring and supervisory measures	• Gathering, compiling, and processing data and information • Filling in forms • Drafting correspondence (e.g., letters, faxes, e-mails) • Transmitting information or data to competent authorities • Making payments • Photocopying, filing and storing documents • Co-operating in an inspection by public authorities (e.g., general safety inspection for automobiles) • Purchasing equipment (e.g., a child seat) • Personally providing certain services or commissioning them to third parties • Time expenditure for travelling and waiting

Source of basic data: OECD 2014

C. Competition-Related Costs

Some regulations can reduce the amount of competition in markets. In most cases, impacts on competition are unintended by-products of the regulation, although in others the anti-competitive impact can be deliberate. Regulation can reduce competition by:

- making it more difficult for new competitors to enter the market, by creating regulatory requirements that are difficult for them to meet;
- preventing firms from competing strongly – for example by setting rules that reduce price competition or restrict advertising;
- by creating a negative impression of a highly regulated market in which it is difficult to do business profitably.

The impacts of a regulation on competition can be among the most important of all regulatory impacts. This means it is essential to consider any competition impacts when considering the regulatory costs of regulations and in conducting RIA.

The OECD has developed a Competition Checklist, which serves as a screening test for determining whether a proposed regulation may have a significant impact on competition. If the screening test identifies a risk, there may be a major negative impact on competition. In this case, specialist input from relevant agencies such as the Philippine Competition Commission may be necessary as completing a full competition analysis is a highly technical task.

3. The DAP-RCM on Compliance Costs

A. The DAP-RCM on Compliance Costs: Structure

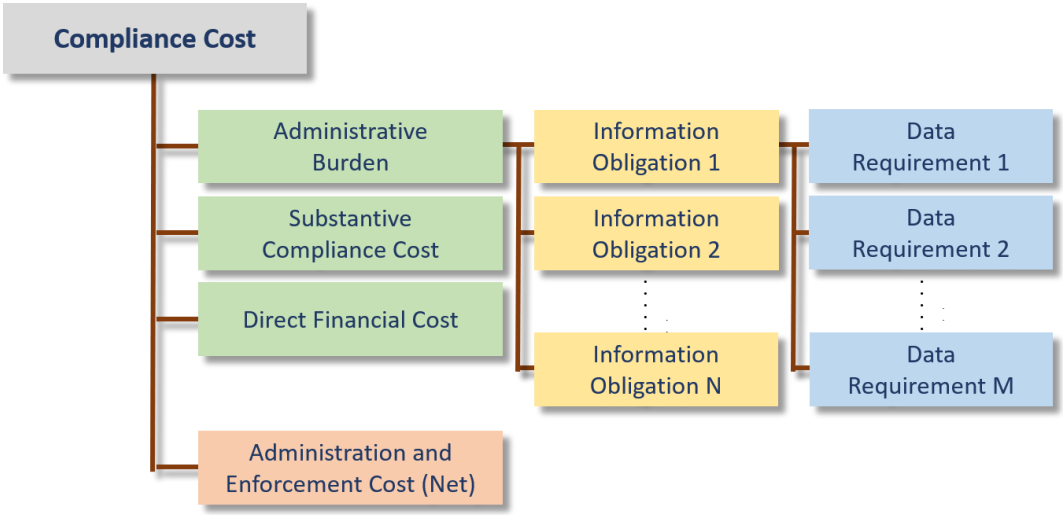
The DAP-RCM on compliance costs has two components: One, the costs incurred by regulated entities and two, the net costs incurred by regulating agencies.

1. Total Compliance Costs = $Cost_1$+$Cost_2$ where:
   $Cost_1$: Total cost incurred by regulated entities
   $Cost_2$: Net cost incurred by regulating agencies
2. $Cost_1$ = AB+SCC+DFC where:
   AB: Administrative Burden
   SCC: Substantive Compliance Cost
   DFC: Direct Financial Cost
3. $Cost_1$: AEC—DFC where:
   AEC: Administration and Enforcement Cost

The first component of the DAP-RCM is the cost incurred by regulated agencies. This cost component is composed of (1) administrative burden, (2) substantive compliance costs, and (3) direct financial costs.

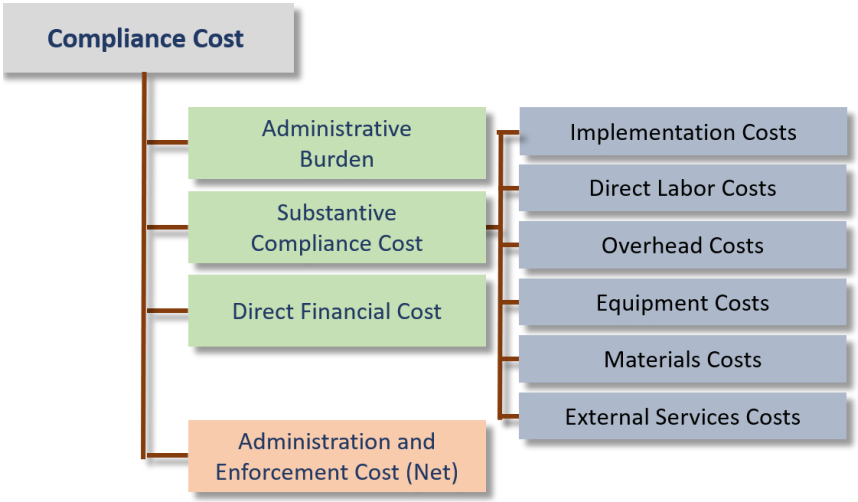
The ***administrative burden*** is disaggregated into the costs of providing all information obligations. (Refer to Figure 3). The cost of each information obligation may be further broken down into the cost of providing the data requirements in each information obligation.

Figure 3: Administrative Burden Disaggregation



The structure of the ***substantive compliance costs*** of the DAP-RCM follows the categories proposed by the OECD (2014): implementation costs, direct labor costs, overhead costs, equipment costs, materials costs, and external services costs (Refer to Figure 4).

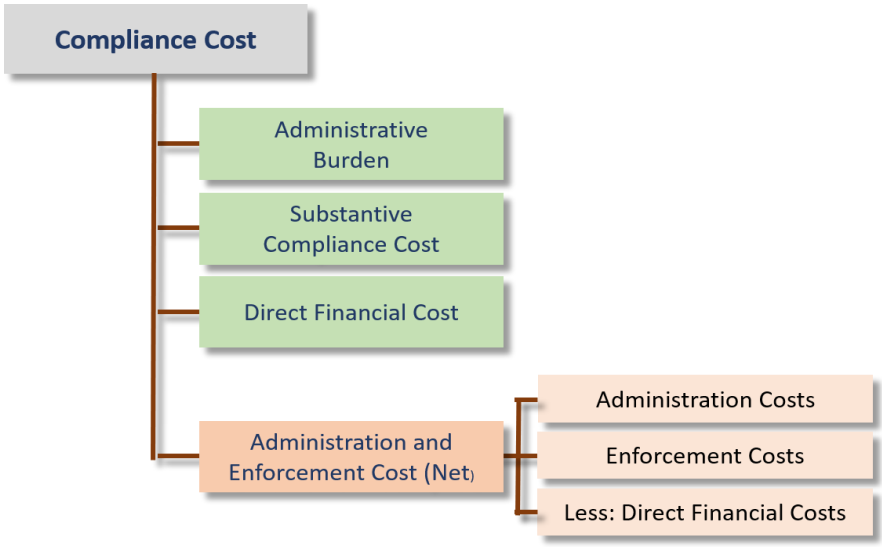
Figure 4: Categories of Substantive Compliance Costs



The ***direct financial cost*** is considered as part of the compliance cost incurred by regulated entities. It includes fees and charges collected by regulatory agencies.

The second component of the DAP-RCM is the net cost incurred by regulating agencies. This cost component is composed of administration costs and enforcement costs, net of proceeds received from fees and charges collected from regulated agencies, ie., direct financial costs (Refer to Figure 5).

Figure 5: Net Cost Incurred by Regulating Agencies



Box 1: Compliance Cost: An Illustration

The Philippine National Standards for Drinking Water of 2017

On 23 June 2017, the Department of Health issued Administrative Order No 2017-0010, the Philippine National Standards for Drinking Water (PNSDW) of 2017. The regulation updates the PNSDW of 2007, prescribing standards and procedures on drinking-water quality to protect public/consumers' health. A part of the administrative order compels drinking water service providers to comply with the new standards for drinking water. What are the incremental compliance costs of the PNSDW 2017 related to drinking-water quality standards?

Administrative burden. The PNSDW of 2017 compels water service providers to include additional parameters in the submission of their water quality test results to local health authority. These additional drinking-quality parameters entail recurring incremental costs of laboratory tests.

Substantive Compliance Costs. Water services providers need to educate themselves with the requirements of the PNSDW of 2017, resulting in a one-off incremental cost to familiarize themselves with the new regulation. In case a water service provider is not compliant with the new drinking-water quality standards, it has to institute the necessary corrective measures. These corrective measures may require one-time external service costs to solicit technical advice from experts. There could also be non-recurring incremental costs to acquire additional equipment and recurring labor and materials costs.

Administration and Enforcement Costs. In addition to the incremental costs in the development of the PNSDW of 2017, the health authority may have to incur non-recurring costs related to the following: (1)production of guidance materials for regulated entities, (2) design of implementation systems of the PNSDW of 2017, and (3)development and implementation of training programs for the staff of the regulatory office. There could also be recurring costs associated to monitoring the implementation of the new regulation.

B. The DAP-RCM on Compliance Cost: The Formula

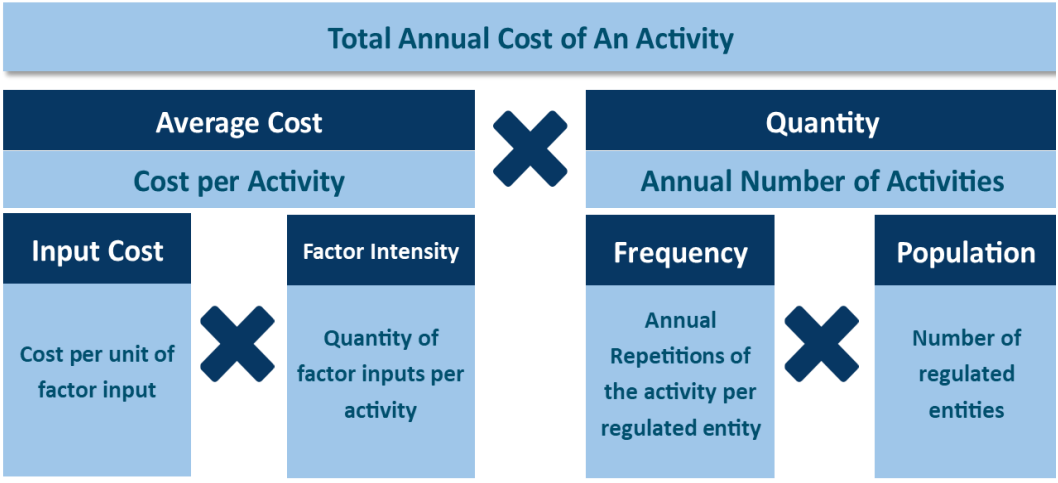
1. Activity-Based Costing

Regulatory compliance costs can be estimated using the activity-based costing method. This method is based on the assumption that compliance with a regulation can be decomposed to a set of activities. To perform these activities, factor inputs have to be employed which, together with the corresponding input costs, determine the cost of an activity. The cost of these factor inputs can be broadly categorized into (1) internal costs, (2) external costs, and (3) acquisitions.

- Internal Costs refer to the cost of labor input of regulated entities, including any overhead costs.
- External Costs refer to the cost of external services employed by regulated entities.
- Acquisitions refer to the cost of material goods, services, and equipment.

To estimate the annual compliance cost of an activity, the (1) average cost of the said activity is multiplied with the (2) annual number of activities that should be undertaken to comply with the regulation. (Refer to Figure 6).

Figure 6. Activity-based Costing Formula



The average annual cost of an activity is computed as the product of the cost per unit of factor input and the quantity of the factor inputs per activity. The annual number of activities is computed as the product of the annual repetitions of the activity times the number of regulated entities.

The average cost of each activity is driven by cost parameters. Table 5 presents a summary of the parameters that determine the cost of internal labor, external labor, and acquisitions.

The average cost of an activity emanates from internal labor, external labor, and acquisitions. The magnitude of the cost estimate of each of these cost areas is driven by the average input cost and the factor intensity of the activity. While input costs are market determined, factor intensity is driven by the complexity of a regulation which, in turn, affects the quantity of factor inputs that have to be employed.

2. Other Methods

Table 6 summarizes the alternative methods in estimating compliance costs together with a brief evaluation of their corresponding advantages and disadvantages. In each of these cost components, it should be underscored that cost estimates should be attributed to regulatory compliance and only the incremental cost should be estimated.

For instance, the entire cost of an equipment should be considered an incremental cost of regulation if regulated entities acquire such equipment in compliance with a regulation. Otherwise, if the equipment benefits a business beyond regulatory compliance, only a percentage of the purchase cost is allocated to the regulation.

C. Estimating Compliance Costs

1. Methods in Estimating Compliance Costs

The average cost of each activity is driven by cost parameters. Table 5 presents a summary of the parameters that determine the cost of internal labor, external labor, and acquisitions. The average cost of an activity emanates from internal labor, external labor, and acquisitions. The magnitude of the cost estimate of each of these cost areas is driven by the average input cost and the factor intensity of the activity. While input costs

are market determined, factor intensity is driven by the complexity of a regulation which, in turn, affects the quantity of factor inputs that have to be employed.

Table 5. Cost Parameters for Activity-based Costing

Cost Area	Cost Parameter in the Calculation
Internal Labor	• Labor hours/minutes spent by internal labor on an activity • Hourly pay for various occupation groups • Overhead Cost
External Labor	• Labor hours/minutes spent by external labor on an activity • Hourly rate for various external service providers
Acquisitions	• Expenditure on necessary acquisitions to comply with regulatory requirements

Adapted from SCM Network, International Standard Cost Model Manual

Table 6 summarizes the alternative methods in estimating compliance costs together with a brief evaluation of their corresponding advantages and disadvantages. In each of these cost components, it should be underscored that cost estimates should be attributed to regulatory compliance and only the incremental cost should be estimated.

For instance, the entire cost of an equipment should be considered an incremental cost of regulation if regulated entities acquire such equipment in compliance with a regulation. Otherwise, if the equipment benefits a business beyond regulatory compliance, only a percentage of the purchase cost is allocated to the regulation.

Table 6. Methods in Estimating Compliance Costs

Cost	Methods	Advantages	Disadvantages	Indications for Use
Direct labor costs: wage/salary costs	Averages calculated from survey data or less formal consultation with affected business or other groups.	If a well-designed survey is used, a high level of accuracy in relation to current costs.	Resource intensive, may yield misleading data if survey is poorly designed. May produce accurate result in short term at the expense of a better long-term estimate.	Appropriate where regulations affect a specific sector, particularly if its wage costs are considered likely to be atypical. Alternatively, may be useful where specific skills are required to conduct major compliance tasks.
	Economy-wide average (e.g., Victoria, Australia)	Simplicity/ease of use Should involve limited loss of precision given tendency for wage rates to equilibrate over time.	May not accurately reflect costs in short/ medium term. May thus lack credibility with affected industry/ industries.	Suitable where a compliance obligation will be applied across many sectors. Cost-effectiveness also suggests that this approach may be most appropriate where expected costs are limited and detailed analysis is not cost-effective.
	Sectoral averages (e.g., Germany)	Provides a more accurate estimate of short-/ medium-term costs than an economy-wide average. Avoids the resource cost of surveys or other purpose specific data collection.	Additional complexity in estimation, if several sectors are affected while the gain in accuracy (vs using an economy -wide average) may be limited.	May improve accuracy where compliance costs fall largely on a particular sector or sectors with a typical wage levels.

Cost	Methods	Advantages	Disadvantages	Indications for Use
Direct labor costs: non-wage labor costs	Benchmark (economy-wide) % of direct labour costs (e.g., Victoria)	Simplicity/ease of use. Implicitly ensures that all relevant non-wage labour costs are taken into account.	Limited. May overestimate costs to some extent where actual non-wage costs are low.	Usable in most circumstances
	Sector-specific estimates	May somewhat increase accuracy where there are significant sector-specific costs (e.g., accommodation allowances in remote areas)	Some increase in complexity and cost of estimation	Useful where regulations affect a particular sector with unusual cost characteristics.
Overhead costs	Benchmark % of direct labour cost (e.g., Victoria)	Simplicity/ease of use. Implicitly ensures that all relevant overheads are taken into account.	May significantly over estimate costs where actual overheads are low (e.g., small business)	Appropriate for use in most circumstances due to significant reduction in resource cost and limited loss of precision (due to the limited size of variability of these costs).
	Checklist approach	Enumerating overhead categories can help ensure all relevant items are accounted for and enables use of values more appropriate to the specific regulatory circumstance	Some increase in complexity. Probable need for benchmark percentages to be provided for each category.	May be helpful where there are reasons to believe that overhead costs in the main affected sector are substantially different in size from benchmark estimates.

Cost	Methods	Advantages	Disadvantages	Indications for Use
Materials costs	Process analysis, desk research on product prices.	Limited costs.	Lack of reference to industry limits accuracy. Potential errors are large due to high variability of possible impacts.	Use should be restricted to contexts in which cost impact is likely to be relatively limited.
	Consultation with materials suppliers	Provides better understanding of the nature of available products, hence their ability to comply, as well as costs.	Suppliers may have limited understanding of choices made by producers.	Likely to be used when there is enough time and materials suppliers can be easily identified.
	Survey of affected firms	Responses based on better understanding of effect of regulation on productive processes	Accuracy may be limited by lack of understanding of available alternatives.	Likely to be most useful where larger, more sophisticated firms are affected

Cost	Methods	Advantages	Disadvantages	Indications for Use
Equipment or capital costs	Full cost approach	Identifies cash expenditures associated with the regulatory requirement.	May over-estimate capital costs if equipment has uses other than facilitating financing compliance.	Appropriate where capital expenditures are substantially incurred due to regulatory requirements and few economic advantages accrue to firms as a result.
	Percentage allocation of purchase cost	Allows for circumstances in which equipment has functions beyond enabling regulatory compliance (e.g., leads to productivity gains).	Difficulty in determining proportion of purchase cost to attribute to regulation.	Appropriate where capital purchases yield significant benefits to business beyond regulatory compliance.
	Standard percentage of purchase cost (e.g., Germany)[4]; Capital items are effectively considered as replacements for existing items which are assumed to be ½ depreciated. Hence only ½ of costs is counted	Acknowledges that in many cases, capital costs will be only partially attributable to regulatory compliance. Is simpler to implement than the variable percentage allocation option suggested above.	Where a capital item is purchased wholly or largely for regulatory compliance purposes, such a discount may not be conceptually justified. Thus, regulatory costs may be under-estimated. Similarly, the cost of newly purchased capital equipment may be significantly greater than the depreciated value of replacement items, again leading to under-estimation of costs.	Potentially suitable in a wide range of cases

[4]Organisation for Economic Co-operation and Development, *OECD Regulatory compliance cost assessment guidance* . (2014): 1-76. https://doi.org/10.1787/9789264209657-en.

Cost	Methods	Advantages	Disadvantages	Indications for Use
Cost of external services	Averages calculated from survey data gained from affected businesses or other groups	If a well-designed survey is used, a high level of accuracy in relation to current costs.	Resource intensive, may yield misleading data if survey is poorly designed. Difficulties in determining the frequency with which costs are incurred.	Likely to be appropriate where these costs are expected to be significant.
	Estimates derived from informal consultation with industry associations, etc.	Can provide a general indication of costs relatively easily.	An indirect source of data, likely to be of variable quality.	Useful where there are strong industry groups or other intermediaries to supply data.

Source: OECD, 2014

2. Administrative Burden: An Illustration

For illustration, consider a shift in regulatory requirement from manual to online filing of data. Table 7 illustrates the potential change in the administrative burden.

Table 7. Administrative Burden: Illustration 1

	Manual Submission	Online Submission	Difference
	(A)	(B)	(A) – (B)
1. Cost per Activity (a) x (b)	**420**	**7**	**413**
a. Labor Cost, ₱ per person hour	70	70	0
b. Quantity of labor, hours	6.00	0.10	5.9
Trip to and from the regulatory office	5.00	0.00	5
Secure an application form	nil	nil	
Fill-in the application form	0.10	0.10	0
Submit application form	0.90	nil	
2. Annual Number of Activities (a) x (b), in 000	**36,000**	**36,000**	**0**
a. Frequency, Repetitions per year	12	12	0
b. Population, No. of regulated entities, in 000	3,000	3,000	0
3. Annual Administrative Burden, in ₱ Million	**15,120**	**252**	**14,868**

This illustration shows a radical reduction in administrative burden if an online submission replaces manual submission. The illustration also shows that further cost reductions can be realized if the regulation is modified to reduce the frequency of submission of the data and exemptions are considered to reduce the number of regulated entities. For instance, instead of monthly submission of data, the frequency can be reduced to quarterly submission. Some of the regulated entities may also be exempted from submission of the data. The illustration can be modified to consider different laborers who work on an activity. In addition, an activity may require other factor inputs (external services and acquisitions.)

Table 8 shows the estimated administrative burden which considers (1) two types of laborers who are involved in different activities; and, (2) acquisition of transport services. This modification provides a more precise estimate but is more tedious as it considers a more granular level of analysis.

Table 8. Administrative Burden: Illustration 2

	Manual Submission	Online Submission	Difference
	(A)	(B)	(A) – (B)
1. Cost per Activity (a) x (b)	**927.00**	**14.00**	**913.00**
1.1 Labor Cost	427.00	14.00	413.00
a. Labor Cost, ₱ per person hour	70.00	70.00	0.00
Technical staff	140.00	140.00	
Unskilled labor	70.00	70.00	
b. Quantity of labor, hours	6.00	0.10	5.90
Technical staff	0.10	0.10	
Unskilled labor	5.90	0.00	
Trip to and from the regulatory office	5.00	0.00	5.00
Technical staff	0.00	0.00	
Unskilled labor	5.00	0.00	
Secure an application form	0.00	0.00	0.00
Technical staff	0.00	0.00	
Unskilled labor	0.00	0.00	
Fill-in the application form	0.10	0.10	0.00
Technical staff	0.10	0.10	
Unskilled labor	0.00	0.00	
Submit application form	0.90	0.00	0.90
Technical staff	0.00	0.00	
Unskilled labor	0.90	0.00	
1.2 External Services	0.00	0.00	0.00
1.3 Acquisition	500.00	0.00	0.00
a. Transport Services	500.00	0.00	500.00
b. Other acquisitions	0.00	0.00	0.00
2. Annual Number of Activities (a) x (b), in 000	**36,000**	**36,000**	
a. Frequency, Repetitions per year	12	12	0
b. Population, Number of regulated entities	3,000	3,000	0
3. Annual Administrative Burden, in ₱ Million	**33,372**	**504**	**14,868**

It should be noted that the illustration is limited to the administrative burden. A more comprehensive approach in evaluating the two alternatives should incorporate the other components of compliance costs, i.e., substantive compliance and the administration and enforcement costs. Such costs may neutralize cost savings from online submission of data. For instance, the regulatory agency and the regulated entities may have to invest in IT Infrastructure to enable the online submission of data.

Further analysis is needed when looking into the annual cost savings from administrative burden. Administrative burden occurs at different time periods and the required investment in IT infrastructure will have to be made at the onset of the migration to an online submission of data.

Finally, it should be emphasized that changes in cost estimates of alternative regulatory options comes from changes in benefits of a regulation. Some reductions in compliance costs may have adverse effects on the magnitude of benefits. For instance, a reduction in the frequency of reports to regulatory agencies can diminish the benefits of a timely information for regulatory intervention.

3. Notes on Compliance Cost Estimates

Representative firm/individual

In the estimation of compliance cost, a representative firm or individual is used. Such firm or individual serves as the unit of measurement. Such notional regulated entity is conceived to handle their administrative tasks in a "normal" manner: It is neither better nor worse than may be reasonably expected. This is in line with the goal of the Compliance Cost Model (CCM) to provide an indication of the compliance cost of regulation rather than a robust estimate of compliance costs.

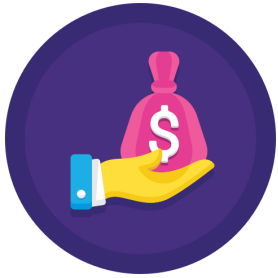
In estimating the regulatory cost incurred by the representative firm, it is imperative to conduct consultations with regulated entities, key informants on the cost of outsourced services, and other experts.

Ex-post and Ex-ante estimate[5]

The ex-post compliance cost estimate measures the *baseline* cost of regulation. It is the factual consequence of regulations on firms and individuals. The method and assumptions behind this estimate should be transparent to allow appropriate updates which can be used in quantifying regulatory improvement.

The ex-ante compliance cost estimate measures the *anticipated* cost of a proposed regulation. The ex-ante estimate is used in evaluating the impact of a regulation before it is implemented. The estimate may also be used as a benchmark in evaluating the performance of a regulation.

One-off and Recurring costs



In estimating compliance costs, it is important to distinguish between one-off and recurring costs of regulation. One-off costs refer to those that are incurred once in connection with the businesses adapting to a new or amended regulation. The one-off costs are not included in the baseline measurement; they are included in the compliance cost estimates of alternative regulatory options.

In contrast, recurring costs refer to compliance costs that are constantly incurred because of a regulation. Such costs may occur at regular intervals such as periodic renewal of licenses, annual filing of taxes, and quarterly filing of withholding taxes. Some recurring costs are incurred at irregular intervals, such as tests conducted for imported products like cement, application for subsidy, and request for authority to import restricted products. Since these costs are incurred at irregular intervals, they are classified as a situation-determined compliance cost.

[5]International SCM Network, *International Standard Cost Model Manual. (2005): 1-63. https://www.oecd.org/regreform/regulatory-policy/34227698.pdf*

Public consultation and compliance cost estimate

In estimating compliance costs, public consultations are indispensable. Key informants provide a wealth of information on the following: (1) regulations that govern businesses and individuals; (2) activities undertaken to comply with existing regulations and those that will have to be undertaken to comply with alternative regulatory options; (3) quantity of factor inputs that are needed in the conduct of activities; and, (4) prices of factor inputs.

Among the key informants who can be interviewed are practitioners in business, professional bodies or industry organizations, professional experts, and government regulatory offices.

Activity-based costing: Advantages and disadvantages

There are two key advantages in a bottom-up activity-based costing method. (OECD, 2014)

1. First, it assists in ensuring that the CCA conducted is comprehensive in scope and, by clearly setting out the specific compliance obligations involved, will also aid consideration of the proportionality of the regulatory provisions being considered.

2. Second, it provides a mechanism which encourages regulatory officials to review each obligation to determine whether it can be streamlined or simplified (or even whether it is necessary) and therefore functions as a means of helping to minimize compliance costs.

It may be appropriate to consider whether a top-down analysis is more appropriate in the specific regulatory context being considered. Where some particular units are wholly or largely devoted to regulatory compliance activities, the use of a top-down analysis may provide a more comprehensive analysis of actual compliance costs. This is because it is typically not possible to allocate all of a staff member's working time to specific activities. Some time is necessarily "unproductive" in this sense, for a range of reasons. This means that an aggregation of the time allocated to individual tasks will generally sum to less than the total working time of the individuals involved. In this way, bottom-up analysis will almost invariably

under-estimate the true cost of regulatory compliance to some degree. Therefore, key benefit of the alternative, top-down approach is avoiding this systematic under-estimation (OECD, 2014)

Accounting Cost versus Economic Cost

The analysis of regulatory cost of compliance is conducted from the societal point of view. Such perspective requires a distinction between accounting cost and economic cost.

Accounting costs are estimated based on market prices. From the point of view of a firm or an individual, the prevailing or expected market prices represent the cost incurred in acquiring goods or services that are needed to comply with a regulatory requirement.

Economic costs represent the competitive, undistorted supply price for an incremental unit of a good or service. The prevailing or expected market price is adjusted to eliminate market distortions due to taxes/duties, subsidies, and price controls. Economic costs are also referred to as the shadow price of goods and services.

4. Net Present Value

A. Net Present Value

Costs do not usually occur in the same year but are spread over several years. Discounting allows for the systematic comparison of costs that occur in different time periods.

The need to discount future cost is based on the view that economic agents, and the society in general, prefer current consumption over future consumption. The rate at which individuals are willing to trade current consumptions for future consumption is known as the rate of time preference. In financial analysis, this rate is the weighted average cost of capital; in economic analysis, this rate is the social discount rate or SDR.

The need to discount future costs may also be understood from the perspective that costs arising from regulations have an opportunity cost. The resources used in complying with a regulation can be used for alternative purposes. The rate of return arising from a regulation should exceed the return on the best alternative use of resources.

The present value of the compliance costs of a regulation in a given year is calculated as follows:

$$PV = \frac{1}{(1+r)^t} C_t$$

where

C_t:	cost of regulation at year t
r:	social discount rate
t:	year
$\frac{1}{(1+r)^t}$	discount factor at year t

In the Philippines, the social discount rate, *r*, is set at 10%. (Refer to Annex 1. An alternative discount rate may be employed provided a justification is stated.)

For a stream of costs, the Net Present Value, NPV, is calculated as follows:

$$NPV = \sum_{t=0}^{T} \frac{1}{(1+r)^t} C_t$$

B. Annualized Values

When alternative policies have different time horizons, the present value of costs should be presented in terms of annualized value (*AV*). The formula for computing the *AV* is as follows:

$$AV = \frac{PV * r}{1 - (1+r)^{-T}}$$

where

PV:	present value of net benefits over the T periods
r:	social discount rate
T:	duration of the policy impact periods

C. Sensitivity and Scenario Analysis

Sensitivity analysis is a behavioral approach that uses several possible values for a given variable to assess its impact on the NPV of compliance costs of a regulatory option. This technique estimates the variability of NPV in response to changes in a key variable.

A common sensitivity approach is to estimate the NPVs associated with pessimistic (worst), most likely (expected or baseline), and optimistic (best) estimates of net benefits. The *range* can be determined by subtracting the pessimistic-outcome NPV from the optimistic outcome NPV.

DAP Regulatory Cost Model on Compliance Costs

Annexes

Annex 1. Social Discount Rate

INVESTMENT COORDINATION COMMITTEE

MEMORANDUM

For : **Heads of Departments/Agencies of the National Government, Government-Owned and Controlled Corporations, Government Financial Institutions, Local Government Units and All Others Concerned**

From : Secretary Carlos G. Dominguez
Department of Finance
Chair, ICC - Cabinet Committee

Secretary Ernesto M. Pernia
National Economic and Development Authority
Co-Chair, ICC – Cabinet Committee

Subject: **REVISIONS ON ICC GUIDELINES AND PROCEDURES (UPDATED SOCIAL DISCOUNT RATE FOR THE PHILIPPINES)**

Date: 30 September 2016

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1. The NEDA Board, during its 14 September 2016 meeting, confirmed the Investment Coordination Committee's (ICC) approval of the updating of the Social Discount Rate (SDR) **from the current rate of 15% to a lower rate of 10%**.

2. SDR reflects the hurdle rate which the economic internal rate of return (EIRR) of a proposed project must equal or exceed for it to become an economically viable investment. Since the late 1980s, the ICC has maintained a rate of 15% for project evaluation; however, several empirical studies conducted thereafter have recommended a lower rate, i.e., Asian Development Bank (1997) at 11.5% and Jenkins and Kuo (1998) and NEDA Manual (1999) at 10%. More recently, a study conducted by Prof. Ruperto Alonzo in 2014 yielded an SDR range estimate from 7.4% to 10%. Further, the updated SDR is consistent with the 10 to 12% rates currently being used by multilaterals banks and reflects the current circumstances in light of the positive developments in the economy over the past few years.

3. All project proposals submitted for ICC review shall henceforth adopt the updated SDR.

For information and guidance.

SEC. CARLOS G. DOMINGUEZ
Department of Finance

SEC. ERNESTO M. PERNIA
National Economic and Development Authority

Annex 2. Common Cost-Benefit Analysis (CBA) Pitfalls[2]

1. Downplaying or ignoring non-financial social costs and benefits

Regulatory proposals differ considerably in the ease and accuracy with which the prospective costs and benefits can be quantified. Although CBA places emphasis on valuing costs and benefits in monetary terms, it is important that the Regulatory Impact Statement (RIS) process is not biased in favor of those proposals with impacts that are relatively easy to value. One should take care to ensure that monetized impacts do not overshadow other important factors in decision making.

2. Double counting benefits

If the costs and benefits of a regulatory change have been estimated from the impact in the primary market, do not count them a second time as a result of consequent changes in secondary markets. For example, if a change to transport regulations results in savings in travel time to a particular group of homeowners, it would be inappropriate to add the resulting increase in their house prices (which is merely the capitalized equivalent of the benefits counted earlier) to the benefits of the regulatory change.

Generally, impacts will often manifest in two ways, the real impact (for example, time savings or increased productivity), and the nominal impacts when the real impacts are reflected in markets. Either can be used to place dollar figures on the impacts, but care should be taken that the analysis does not include both.

3. 'Before/after' rather than 'with/without'

The costs and benefits of a proposed regulation properly relate to changes compared to what would have happened in the absence of the regulation. That is, if it is necessary to compare the world without the change to the world with the change. It is inappropriate to merely calculate incremental costs and benefits compared with the status quo, unless no further changes would have come about in the absence of the proposal.

[2] OBPR, 2016

This problem is especially prevalent when assessing the impact of regulations that are part of a suite of policies with the same aim (for example, there are several climate change actions aimed at reducing electricity use in buildings, and several regulations aimed at reducing the take-up of cigarette smoking). In these cases, it is important to analyze the incremental impact of the regulation being considered, recognizing that, even if no action is taken, the Government's other actions may work towards the desired outcomes. That is, the "without regulation" base case option should include the impacts of these complementary interventions. Furthermore, you should consider whether the community would change its current behavior in the absence of any government action.

4. Using the riskless rate of interest to discount net benefits that contain market risk

A riskless rate of interest should only be used to discount net benefits that are uncorrelated with market returns. The use of low 'social discount rates' is common in the CBA literature and often justified through one of the following arguments:

- The government can borrow at the bond rate, usually much lower than the market rate of interest, and therefore the rate of return required by the government is lower than that required in the private sector.
- The government has a diversified portfolio of 'investments' and therefore faces no market risk.
- Society should not discount the welfare of future generations.

However, these arguments are typically not pertinent for regulatory interventions. While it is true that the government can raise funds at the lower bond rate, it is the opportunity cost of those funds (the alternative uses to which the funds could have been put) that is important, rather than the funding costs, in considering the social impact. Further, the Government is generally no better placed to diversify its asset holdings than are individuals and, unlike individual investors, it does not usually invest funds with diversification in mind. Finally, you should not account for the welfare of future generations by adjusting the discount rate; this requires the relative value of different generations' welfare to be quantified, and there is no accepted way of doing this. Rather, you should consider the impact of your proposal on future generations explicitly.

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THE MGR PROGRAM

The Modernizing Government Regulations (MGR) Program is a comprehensive national regulatory reform program that aims to improve ease of doing business in the Philippines through regulatory and non-regulatory solutions in partnership with government agencies and the industries they regulate.

Specifically, it aims to: (1) enhance capacity of agencies to improve the regulation making process and effectively manage the delivery of regulatory services; 2) identify specific measures to reduce unnecessary regulatory burden on specific industries; and, (3) develop mechanisms that would make regulations more relevant and coherent.

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