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Measurement Options for Regulatory Budgeting

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Regulatory Budgeting and Executive Order 13774

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1. Introduction

With rare exceptions, regulations tend to accumulate over time (Coffey and McLaughlin, 2021; Bailey et al., 2021). Several recent economic studies have emphasized the unintended consequences of the failure to manage this accumulation of regulation. For example, studies show that regulatory accumulation can have serious negative economic impacts including reducing economic growth (Coffey et al., 2020) and hindering entrepreneurship (Chambers et al., 2018). Furthermore, regulatory accumulation has been found to be robustly associated with increasing poverty rates (Chambers et al., 2019a) and income inequality (Chambers et al., 2019b; Chambers and O'Reilly, 2020). Notably, the converse has also been shown, at least in the case of economic growth: Coffey and McLaughlin (2021) demonstrates that reversing regulatory accumulation—in their study, reducing the quantity of regulations on the books in the province of British Columbia by implementing a form of regulatory budgeting—directly led to significantly increased economic growth.

As evidence mounts that the cumulative burden of regulation can be problematic, regulatory budgets and caps designed to manage or reduce the cumulated stock of regulations are becoming more popular. A regulatory budget entails implementation of a consistent accounting system that tracks one or more dimensions of the volume of regulation. A regulatory budget cap

often takes the form of a one-in-X-out (OIXO) requirement, where X is some variable representing the burden or volume of regulation such as a dollar in regulatory costs or count of regulatory restrictions (typically, $X = 1$ or 2). Under a one-in, one-out scheme, for example, one existing regulatory restriction must be eliminated for each additional new regulatory restriction added to the regulatory code. When a specific reduction target is set (e.g., a one-third reduction in regulatory burden), a baseline count is needed. Sometimes, OIXO policies are established without such baselines. Canada's federal one-in, one-out law (*Canada's Red Tape Reduction Act*) is a good example of this, as was the approach taken in the United States with its one-in, two-out requirement under Executive Order 13771.

While regulatory budgeting is a relatively straightforward concept, its actual implementation raises many challenging operational questions. One of the most important of these questions: how do you measure regulation? For regulatory budgeting and red tape reform initiatives to deliver desired results, the solid theoretical idea of a regulatory budget needs to be married to a good practical measure of the cumulative burden. This is the current frontier of both regulatory policy and regulatory economics—a frontier with several recent developments in aggregate measurement.

In this study, we review some of the key metrics used to measure regulation. We argue that the choice of measure directly impacts the scope, sustainability, and ultimate effectiveness of regulatory budgeting as a policy solution to unwanted regulatory accumulation. We contend that complex metrics are costlier—requiring greater effort and budgetary outlays to produce and maintain. This, in turn, increases the likelihood that the scope of the regulatory budget will be narrower, and that the entire budgeting exercise will be more difficult to sustain. By virtue of these limitations, regulatory budgets that use more complex metrics will tend to have more limited impacts than those that use simpler metrics. Further, simpler metrics make it more feasible to

establish a regulatory baseline, making it possible to understand the overall amount of regulation that exists at a point in time and to obtain a perspective on the magnitude of the reduction (or increases) that have occurred since establishing the baseline. For example, when the Canadian government says it reduced its net annual administrative burden on business by \$60.5 million between 2012 and 2020 with its one-for-one legislation, it is impossible to determine the relative magnitude of this change as there is no baseline total of the amount businesses spend on administrative compliance (Treasury Board of Canada Secretariat, 2021). In contrast, it is impressive to consider that the province of British Columbia has reduced its burden by close to 50 per cent relative to its 2001 baseline. (Coffey and McLaughlin, 2021; Jones, 2015).

This paper is divided into six sections. The next section discusses and defines concepts. Section three reviews the three main categories of metrics used in regulatory budgeting, linking them to a brief history of regulatory measurement. Regulatory measurement started with tools best suited to consider regulations individually such as benefit-cost analysis used in Regulatory Impact Assessment (RIA) and has progressed to include simpler text-based measures more suitable for regulatory budgeting that are the focus of this paper. Section four more closely examines the use of text-based counts in regulatory budgeting, considers the context in which they were implemented, and available evidence on their effectiveness. In section five, we contrast experience with text-based metrics and cost-based ones. We revisit the importance of regulatory budgets to controlling the proliferation of regulation, return to the importance of finding metrics that are suitable for budgeting, and consider the future of regulatory metrics and budgets. The final section offers our concluding thoughts.

2. Clarifying Concepts: Regulation, Regulatory Accumulation, and Regulatory Budgets

The definition of regulation can broaden or narrow depending on who you ask.

Fundamentally, regulation is a form of law that is designed to change the behavior of individuals, businesses, or other entities in a jurisdiction. Ideally, this leads to positive changes in one or more outcomes that people care about, such as workplace safety or environmental quality, and the value of these changes exceed the costs of compliance. Prominent regulatory scholar Cary Coglianese explains the wide-ranging definitions of regulation:

Any discussion about how to approach regulatory evaluation should begin by clarifying key terms and concepts. The word regulation itself can mean many things. At its most basic level, regulation is treated as synonymous with law. Regulations are rules or norms adopted by government and backed up by some threat of consequences, usually negative ones in the form of penalties. Often directed at businesses, regulations can also take aim at nonprofit organizations, other governmental entities, and even individuals. Regulations can also derive from any number of institutional sources – parliaments or legislatures, ministries or agencies, or even voters themselves through various kinds of plebiscites. Given their variety, regulations can be described using many different labels: constitutions, statutes, legislation, standards, rules, and so forth. What label one uses to refer to them will not matter for purposes of evaluation. What does matter is that evaluators are precise about exactly what they seek to evaluate, however that governmental action may be labelled by others. (Coglianese 2012, p. 8).

From the perspective of most governments, “regulation” has a specific technical definition—regulation is delegated lawmaking, sometimes called administrative law, a statutory instrument, delegated legislation, or subsidiary legislation. In such a context, regulation is distinguished from other sorts of law in that regulation takes its power from and is meant to support specific legislative acts.

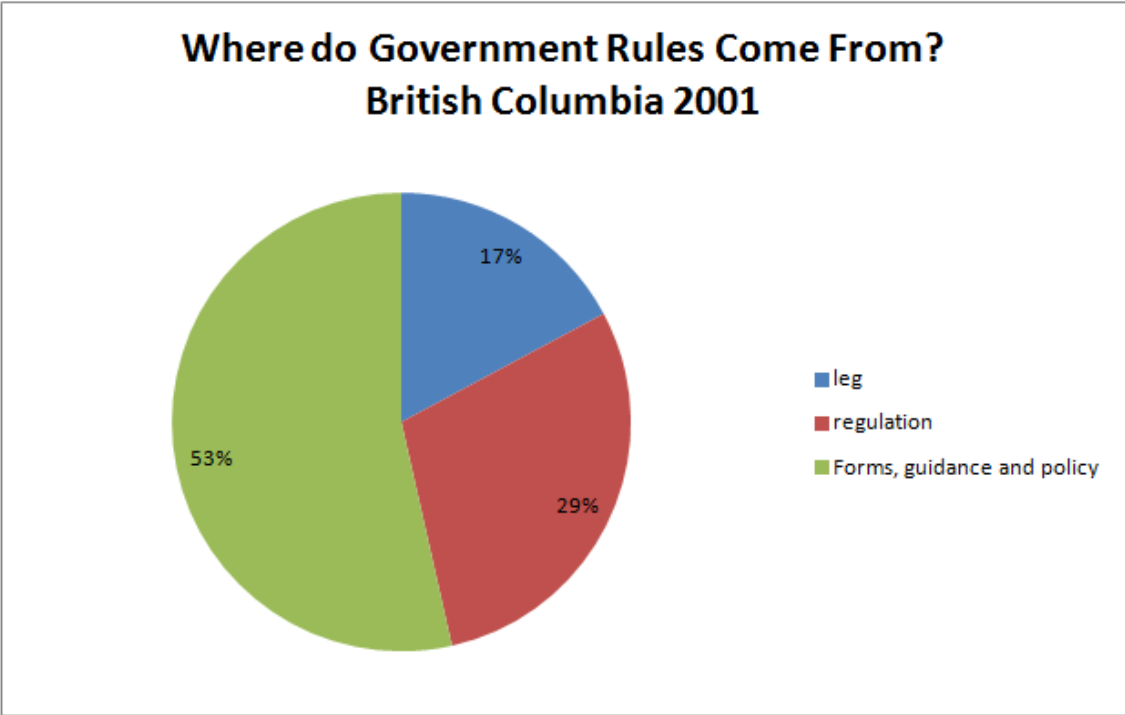
However, those outside of government tend to have a much broader definition of regulation that includes government rules wherever they may be found. Outside of the narrower technical realm of formal regulations (e.g., the text of the laws issued by regulatory agencies and printed in the *United States Code of Federal Regulations* or in Canada the interpretation of legislation known as Governor-in-Council (federal) and Order-in-Council (provincial) published in the *Gazette and Regulation Bulletins*), government rules and compliance obligations can be found in primary legislation, and, far more commonly, in forms, guidance, bulletins, and instruction manuals – a set of informal regulatory documents that tend to be referred to collectively as “guidance documents.”

Understanding this definitional difference is important to choosing metrics for regulatory budgets that match the policy objectives they are intended to serve. If, the policy objective is to reduce the overall burden of government rules, then choosing a narrow measure such as “regulation” that does not include guidance documents and the like, is a mismatch.

How important are these definitional differences? This partly depends on how many government rules (or how much of the burden of these rules) falls outside of the more narrowly defined “regulation.” If the more narrowly and technically defined “regulation” captures most of the rules, we could dismiss this difference as trivial. But common sense and evidence from several Canadian jurisdictions that have categorized government rules suggest this is not the case.

To illustrate, figures 1 and 2 use data from two Canadian provinces to show the three main areas where government compliance obligations can be found: legislation (i.e., statutes and acts of legislatures), regulations (statutory instruments, delegated legislation, and subsidiary legislation), and “guidance” (forms, guidance, instruction manuals, and other informal regulatory and policy documents).

Figure 1: Breakdown of government compliance obligations in British Columbia

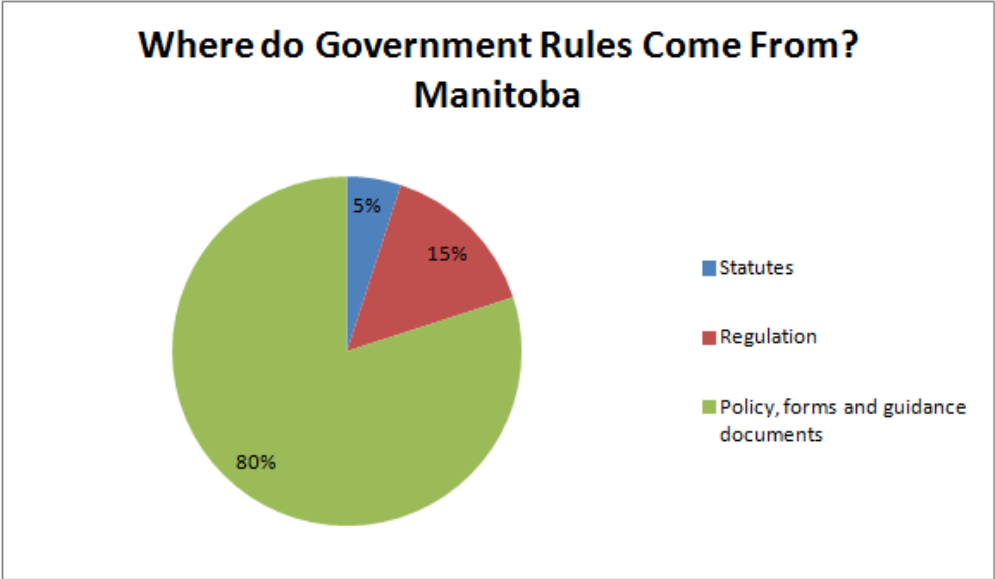


Source: Government of B.C. data from 2001

Data from a British Columbia inventory performed in 2001, as part of its regulatory reforms show 17 per cent of government requirements coming from legislation, 29 per cent coming from “regulation” as formally defined, and 53 percent from “guidance” documents (see figure 2). A later inventory (not shown), done in 2007, once the province’s regulatory reduction initiative had reduced the total number of regulatory requirements, shows 23 percent of government rules from legislation, 34 per cent from regulation and 43 per cent from guidance documents, suggesting a disproportionate amount of the regulatory reduction came from requirements found in guidance documents. This makes some sense, because for a regulatory agency, it is likely easier to simplify a form or a guidance document than to change a statute or regulation.

Manitoba used a slightly different way of measuring, which is discussed more fully in section 4.2. Like British Columbia, Manitoba had far more government rules in areas outside of what is technically considered “regulation,” although its percentages were not the same as British Columbia’s. Figure 2 shows 80 per cent of government rules were in the form of policies, forms and guidance documents with only 15 per cent and 5 per cent respectively found in the regulation and statute buckets. After some reduction, a more recent Manitoba report finds Manitoba’s regulatory requirements broken down along the following lines: 62 per cent policy, forms and guidance; 20 per cent policies; 12 per cent regulations and 6 per cent statutes.¹ Like in British Columbia, a significant amount of the reduction was in the “guidance” category.

Figure 2: Breakdown of government compliance obligations in Manitoba, 2017



Source: Manitoba Government, technical data

¹ Manitoba Regulatory Accountability Report, Manitoba Government Regulatory Accountability Secretariat, September 2020. https://www.gov.mb.ca/asset_library/en/proactive/2020_2021/mra_2020_report.pdf

Data from these two provinces in Canada suggest that defining what is included in regulatory reduction initiatives is critical. Ignoring the considerable number of policies, forms and guidance requirements that lie outside of what is technically considered regulation is problematic. The objective of most regulatory budgets is to maintain or lighten the burden faced by businesses and citizens and much of this burden, at least in volume if not in cost, is coming from guidance, policies and forms.

The definitional difference between the narrower technical use of the term “regulation” and the broader meaning can also cause confusion when politicians talk about regulatory reform as if the reform applies broadly to all regulatory documents (i.e., inclusive of forms and other guidance documents) when in fact what is being measured and reported applies to a much narrower set of documents. A good example of this, discussed later in the paper, is recent U.S. reforms.

2.1 Regulatory accumulation

Coffey and McLaughlin (2021) point out that where there is regulation, there also tends to be regulatory accumulation or the buildup of the stock of regulations over time.² For example, at the federal level in the United States, the number of pages of regulation in effect has grown from about 10,000 in 1950 to 185,984 in 2019.³

Regulatory accumulation and its potential impact on the economy has caught the interest of economists and policymakers alike, with several national and subnational jurisdictions exploring ways to reduce the number of unnecessary regulations. We focus on the challenge of finding the right metrics for regulatory budgeting—because the effectiveness of a regulatory

² Regulatory accumulation should not be confused with *agencification*, or proliferation in the number of regulatory agencies. Although the two phenomena often occur together, having more agencies will not always mean having more regulations.

³ Page counts of the *Code of Federal Regulations* from the website of the Office of the Federal Register, Accessed October 4, 2021.

budget to control or reduce regulatory accumulation depends on it.

2.2 What is a Regulatory Budget?

Regulatory budgets are designed to account for regulatory activity undertaken by a government through systematic and regular measurement. The unit of measurement can vary, but the point of the exercise is—like a fiscal budget—to keep track of where resources are allocated and to have some way of limiting excess.

Regulatory budgets, like other types of budgets, only work to reduce spending if they force the spender to identify and prioritize the most valuable options. The behavior of a regulatory department or agency with a budget differs from that of a department or agency without a budget. In a no-budget world, an agency's objective is to fulfill its mission with the promulgation of rules. In contrast, an agency with a regulatory budget has different incentives. First, to avoid new regulations that would not achieve high benefits relative to their budgetary cost. Second, to eliminate old regulations that are found to be ineffective or intolerably inefficient. In other words, a regulatory budget process resembles an error-correction process: it leads to fewer new errors as well as aids in the identification and correction of existing ones. Further, it ensures that older, less effective rules are “sunsetting” to make way for newer more effective ones.

3. Significant Developments in Regulatory Measurement

Compared to fiscal budgeting, regulatory budgeting has a distinct disadvantage: measurement is far more challenging. Fiscal budgets detail government spending, tax revenues, and surpluses or deficits that are directly observable and measured in monetary terms. Regulatory budgets must grapple with an assessment of regulatory burdens imposed on businesses and citizens which can be harder to identify and disentangle from other costs. Regulatory burden can be measured in time, dollars, or some version of how many rules must be complied with.

As discussed in the previous section, regulatory burdens can come from legislation,

regulation, and guidance documents. Regulatory burden can be divided along other dimensions too. For example, breaking down costs into those borne by government in the form of managing and enforcing government regulations (these can be found in government budgets) and costs borne by businesses and citizens in the form of compliance. Compliance costs can be further categorized into those related to buying new equipment and the costs of paperwork and administering regulation. Disentangling what is and isn't included in existing regulatory metrics can be confusing but is important for transparency and understanding how closely the measurement matches the intended policy objective of a regulatory budget.

Regulatory budgeting is still relatively new and not standardized. For example, both the Canadian province of British Columbia in 2001 and the federal government of the United States in 2017 put in place one-in-two-out regulatory budgets but, as we discuss further below and in the next section, while the budgets sounded similar, the metrics chosen to implement them were very different, leading to big differences in scope, longevity, replicability, and ultimately effectiveness at achieving desired policy objectives.

Below is a brief overview of three main approaches to regulatory measurement and their relevance to the challenge of finding the right metrics for regulatory budgeting.

3.1 Regulatory Impact Assessment and the U.S Opportunity Cost Model

The most established practice of regulatory measurement is considering the costs and benefits of individual regulations. This has been around since the late 1970s when the Carter administration started using “Inflation Assessments.” The Regulatory Impact Assessment (RIA) requirement was broadened to include Benefit-Costs Analysis under President Reagan in the 1980s.⁴ By the mid-1990s over half of the OECD countries employed RIA and currently, all

⁴ The typical RIA consists of four elements: a statement of need for the regulation, an assessment of alternative regulatory approaches, a benefit-cost analysis, and in some instances, a cost-effectiveness analysis.

OECD country use the RIA method, which is considered a best practice to ground regulatory decisions in evidence and “ensure that regulations are efficient and effective in a changing and complex world.”⁵

While benefit-cost analysis has proved an important tool for evaluating individual regulations and may deliver on slowing regulatory accumulation, it was not designed with regulatory budgeting in mind and would be exceptionally costly to apply broadly to all regulations and guidance.

The US regulatory budget brought in by President Trump when he signed Executive Order 13771, *Reducing Regulation and Controlling Regulatory Costs* comes closest to using a RIA-style approach in a regulatory budget. The order required that executive branch agencies proposing a new regulation must find two to repeal. Initially there was an additional requirement to add no additional costs, which was subsequently changed to finding some cost reductions (Broughel and Jones 2018). The budget sounded broad when the President talked about it publicly, but it ended up being very narrow in scope. The Office of Information and Regulatory Affairs (OIRA) determined which regulations fell under the Order and how they would be measured. OIRA guidance specified only “significant” regulatory action and guidance would qualify and that “opportunity costs to society” would be the appropriate metric. Only a few dozen regulations a year (those expected to have \$100 million or more in impact) are required to have anything approximating an estimate of opportunity cost. Broughel and Jones (2018) estimate that this narrowed the scope of the regulations that fell under the budget to around one percent of the total per year. The authors underscore one of the important trade-offs in regulatory measurement:

⁵ <https://www.oecd.org/regreform/regulatory-policy/ria.htm>; <http://regulatoryreform.com/wp-content/uploads/2015/02/OECD-Regulatory-Policies-in-OECD-Countries-2002.pdf>

“In theory, using a measure such as the “opportunity cost to society” suggested by OIRA is desirable because regulatory costs and benefits, not counts, are ultimately what matter for citizens’ quality of life. However, in practice, opportunity cost measures are more difficult and expensive to manage, and they narrow the scope of the reforms to such a degree that reforms become significantly less meaningful.” (Broughel and Jones, 2018, p. 16)

The US regulatory budget had other challenges including a difference in what could count as an “in” or addition to the regulatory burden and what could count as an “out” or subtraction from the burden. This difference undermined its credibility and made it difficult to track. Ultimately it did not survive the change in government in 2020.

3.2 The Standard Cost Model

The Standard Cost Model (SCM), was developed in the Netherlands in the 1990s and subsequently used there in a regulatory budget in the early 2000s when a 25 per cent reduction target was set. It was developed in response to a sluggish economy and businesses advocating for systemic measurement. The SCM has since been employed—with some variations—in countries including Denmark, Sweden, the UK, Belgium, Norway and Canada.⁶

The SCM determines an aggregate cost for a portion of the regulatory burden (administrative costs) borne by private business (sometimes broadened to include “semi-private” businesses like charities). By design, it is not meant to apply to regulatory costs borne by citizens. The Standard Cost Model (SCM) defines administrative burdens as “The costs on businesses when complying with information obligations stemming from government regulation.”

The SCM does not include the direct financial costs of compliance (e.g. the fees associate

⁶ Canada’s one-in-one out law uses the SCM and Quebec’s provincial measurement is based on it.

with applying for a permit) or the substantive compliance costs of purchasing equipment to meet compliance requirements.

The SCM can be used to consider the administrative burden of a new regulation or to understand the entire stock of administrative burden to business. It was a major step forward for regulatory budgeting because it created a systematic approach to evaluating a portion of the regulatory burden that includes some regulation as well as guidance documents. However, it excludes other pieces of the regulatory burden, and, by design, only considers burdens on business.

3.3 Text-Based Metrics

At around the same time the standard cost method was being created, two different versions of text-based regulatory requirements were being developed in North America that spurred additional innovation—regulatory requirements as defined by the province of British Columbia and regulatory restrictions as defined by the Mercatus Center’s RegData project.⁷ Text based metrics involve counting and tracking regulatory obligations either using machine-based techniques or manually. The measurement is simpler than the standard cost model as it is a count of the obligations (e.g, the occurrences of the words “shall” and “must” and similar language) in regulatory text. Regulatory text metrics can measure any combination of statutes, regulations, and guidance. The metric can be applied broadly across all departments and regulatory agencies or more narrowly to a subset of rules or agencies. These measures are objective and replicable but

⁷ Although they are not currently being used for regulatory budgeting, there are two other count-based measures worth mentioning as they are somewhat related to text-based metrics: counting rulemakings and pages. Both have been referred to in studies on limiting changes to the overall regulatory burden. See Dawson and Seater (2014) and Coffey, McLaughlin, and Tollison (2012) for examples of counting pages, and McLaughlin (2011) for an example of counting rulemakings. However, as neither is currently being used for regulatory budgeting, we limit our discussion to pointing out that while no measure is perfect, these two count-based measures are particularly crude. For example, some individual regulations have hundreds of specific requirements associated with them while others have far fewer. Counting pages can be problematic if font sizes or page sizes change. In addition, as discussed in section two, these measures do not include government rules that can fall outside of regulation (e.g. rules found in legislation and guidance etc.). In British Columbia, it was considering the limitations of these count-based metrics that led to the development of the text-based regulatory requirement metric.

do not directly estimate costs.

4. A More Detailed Look at the Use of Text Based Metrics

Text-based metrics are emerging as a promising tool for regulatory budgeting as they are simpler to implement than the standard cost model, can be more easily applied broadly, and have a strong model of success in British Columbia dating back to 2001, around the same time the standard cost model was established in the Netherlands. Like the standard cost model, text-based metrics are evolving differently depending on the jurisdiction using them. In this section, we provide more detail for three different versions of text-based metrics including some context around how and why they are being used.

4.1 British Columbia

British Columbia's provincial government has published regulatory requirement counts to track its regulatory budgets since 2001, making it the longest running regulatory tracking initiative in North America.⁸ The budget was established to meet a 2001 campaign promise to implement a regulatory budget, although the soon-to-be elected Premier did not call it that. He simply said that if elected he would reduce regulation by one-third in three years. The commitment was bold for its time as aggregate regulatory measurement and budgeting did not have an established track record. Once elected, the new Premier turned his attention to implementing the regulatory budget. He appointed a minister tasked with determining an appropriate measure by which to track the one-third regulatory reduction and implementing a program to make it happen. The new minister responsible reviewed available measurement options, rejecting regulation and page counts as too crude and cost measures as too complicated.⁹

⁸ Quebec has also had regulatory measurement in place since 2001 but has not been nearly as consistent in its reporting as British Columbia.

⁹ For a full discussion of British Columbia's regulatory reforms see Jones (2015).

Instead the government created its own way of measuring, which it called “regulatory requirements.” A regulatory requirement is text based and defined as “any action or step that must be taken, or information that must be provided to access services, carry out business, or meet legal responsibilities under provincial legislation, regulation, policy, or forms.”¹⁰ The words “shall” or “must” are strong indications of a regulatory requirement when evaluating regulatory text.

The 2001 baseline count of regulatory requirements for 2001 is 330,812. The baseline was calculated over the course of several months with the help of some interns and includes requirements found in legislation, regulation, government policies and forms.¹¹ Thus the budget is comprehensive, although there are some exclusions for delegated authorities. The government achieved its one-third reduction target by its 2004 deadline with a policy of requiring two regulatory requirements be eliminated for each new one introduced.

After the original target was met in 2004, a one-in-one-out policy for regulatory requirements, based on maintaining the one-third reduction from 2001 levels, was put into place and remains in effect today.¹² The government reports on its progress annually, as required by legislation. Interestingly, the counts have continued to fall and remain below the reduction budget (one-third below 2001 levels). As of the report issued in June of 2020, regulatory requirements had been reduced by roughly half since 2001 and stand at 167,635.¹³

The province’s regulatory counts and budget now have more than a twenty-year history and have survived a change in government. Recent research suggests that meeting the regulatory

¹⁰ British Columbia, Regulatory and Service Improvements BC: How we Count, https://www2.gov.bc.ca/assets/gov/government/about-the-bc-government/regulatory-reform/pdfs/how_we_count_factsheet.pdf

¹¹ The original baseline was higher. An early review to eliminate some initial double-counting lowered it.

¹² The one-in-one out policy has been extended five times—to 2008, to 2012, to 2015, to 2019, and to 2022.

¹³ *Better Regulations for British Columbians 2019/20 annual report*, Ministry of Jobs, Trade and Technology, June 2020, Province of British Columbia. <https://www2.gov.bc.ca/gov/content/governments/about-the-bc-government/regulatory-reform/regulatory-service-improvement>

budget target and maintaining it lifted economic growth in the province by one percentage point annually (Coffey and McLaughlin, 2021).

4.2 Manitoba

Manitoba began its regulatory budgeting and red tape reduction initiative in 2015 with an explicit focus on measurement, including a commitment to create a baseline count of regulatory requirements from which to evaluate progress towards reducing the overall regulatory burden on individuals, businesses, non-profits, and local governments.

The province modeled its reforms on British Columbia, with a few notable differences. The regulatory requirement metric used in Manitoba is more comprehensive than the one used in British Columbia. The budget also works differently. Instead of setting a one-third reduction target in three years, the Manitoba government passed legislation requiring that two regulatory requirements be eliminated for every new one added between July 2019 and March, 2021, when a one-in-one out rule comes into effect. In addition, the two regulatory requirements being eliminated must represent at least twice the administrative burden of the new regulatory requirement coming in—an additional provision that did not exist in British Columbia.¹⁴

Manitoba's baseline starts April 1, 2016, when it recorded 906,824 regulatory requirements found in 12,393 documents across government.¹⁵ Like in British Columbia, the baseline was corrected after review and is currently reported as 962,586.¹⁶ The province reduced its requirements to 939,306 by March 2018 and then to 880,048 by March 2019, and 871,173 by March of 2020 for a total reduction of 9.4 per cent or 90,824 requirements relative to its starting

¹⁴ *Manitoba Regulatory Accountability Report*, Manitoba government Regulatory Accountability Secretariat, September 2019, p. 4.

¹⁵ Manitoba Government News Release, September 19, 2017; <https://news.gov.mb.ca/news/?item=42154&posted=2017-09-19>

¹⁶ *Manitoba Regulatory Accountability Report*, Manitoba Government Regulatory Accountability Secretariat, September 2019.

baseline.¹⁷

Like British Columbia, Manitoba is using a text-based metric it calls “regulatory requirements.” A regulatory requirement is similarly defined as “an action or step that must be taken, or a piece of information that must be provided, in accordance with provincial government legislation, regulation, policy or forms, in order to access programs or services, carry out business or participate in regulated activities.”¹⁸ However, Manitoba’s measure is more comprehensive in several respects. First, it includes arms-length government entities that are excluded from British Columbia’s count.¹⁹ Second, it includes frequency. For example, a piece of information on a form that must be submitted four times a year counts as four regulatory requirements in Manitoba and one regulatory requirement in British Columbia. The budget also works differently as the Manitoba one-in-two-out policy requires that the requirements being eliminated be of equivalent burden. The burden is determined by a regulatory cost calculator. In British Columbia, this requirement does not exist.

Like British Columbia, the province’s count started as a physical, paper-based count, with marked up copies of all regulatory documents scanned and part of the permanent record. The instructions for doing the count include: “Paper copies of the Acts, regulations, policies and forms must be printed (all single-sided) and assembled in binders, as counting must be recorded directly on the paper copies. Marked up paper copies will be scanned and will form a permanent record, so the legibility of the marking and the quality of the copies is important.”²⁰

¹⁷ Manitoba Regulatory Accountability Report, Manitoba Government Regulatory Accountability Secretariat, September 2020. https://www.gov.mb.ca/asset_library/en/proactive/2020_2021/mra_2020_report.pdf

¹⁸ Manitoba counts all policies and forms whether they were prescribed by legislation or regulation.

¹⁹ Manitoba’s count only excludes Regional Health Authorities, School Divisions, Post-secondary institutions, and Courts. It includes Crown Corporations.

²⁰ Manitoba Government, Guide for Manitoba Regulatory Requirements Baseline Count, updated April 24, 2017, Regulatory Accountability Support, p. 3.

The count has since been since been uploaded to the government's new Regulatory Accountability Database. The database includes access to other measurement tools including an administrative burden estimator (ABE) for regulatory requirements that was adapted from Standard Cost Model to help assess the costs of new proposals. The tool is unique in that it allows for cost estimation at the regulatory requirement level. Another aspect of Manitoba's measurement program is its use of a Direct Internal Cost Estimator (DICE), which allows regulators to estimate the cost to government of managing, administering, and enforcing new regulatory requirements.

Manitoba's approach is especially noteworthy in its emphasis on transparency: "Key to the approach is being highly transparent and open with the public and stakeholders in identifying and tracking regulatory requirements and the costs they impose."²¹

4.3 RegData

While the text-based metrics of regulation used in British Columbia and Manitoba require humans to read regulatory text and count regulatory requirements, computer-assisted approaches have been in development for the past decade that can produce similar, and other, metrics of regulation. The earliest and most prominent of these approaches is the RegData project, which was introduced in a working paper in 2012, subsequently published as Al- Ubaydli and McLaughlin (2017), with the intent of creating comprehensive, objective, and replicable regulatory datasets with which to study the causes and effects of regulation. RegData's primary measure of regulation is called "regulatory restrictions," and, although it was developed independently, it is remarkably similar to the count-based measures implemented in British

²¹ Ibid.

Columbia and Manitoba, but with a couple of important differences. First, RegData data are not produced manually but by computers using text-analysis and machine-learning algorithms. Second, much of the data currently available from the RegData project focuses on regulatory restrictions found in formal regulatory documents, not restrictions found in legislation or guidance documents.²²

RegData has been used in hundreds of research applications, but more importantly for this paper, RegData has also been used in policy applications of regulatory budgeting. For example, several states in the United States have used or built upon the output of RegData to establish baselines and track progress in regulatory budgeting, including Idaho, Virginia, Ohio, and Missouri.²³ The Canadian province of Alberta also built upon the logic of RegData to create its regulatory budgeting approach.

RegData datasets currently cover three national (United States, Canada, and Australia) and many subnational jurisdictions (45 US states plus DC, all Canadian provinces and territories, and six Australian states). RegData offers richer and more complex metrics of regulation as well, such as industry-specific regulatory data. However, to our knowledge, as of this writing industry data has only been used in research, and has not been used in any regulatory budgets.

5. Regulatory Measurement Options and the Future of Regulatory Budgeting

Like fiscal budgeting, regulatory budgeting can be an important accountability tool for citizens to evaluate governments in their efforts to balance the benefits that regulations bring to society with an understanding of the costs and burden they impose. One of the big challenges that

²² RegData originally focused solely on regulations, but as the project grew, some jurisdictions' legislative documents were included. As of this writing, RegData datasets cover both regulatory and legislative documents in the US states, Canadian provinces, and Australian states, as well as the federal regulations and statutes of Canada and Australia.

²³ See Broughel (2022) for details about the regulatory budgeting efforts in these states.

governments face as they work toward the win-win of less burden from government rules (regulation broadly defined) while maintaining or, ideally, improving the outcomes that regulations are designed to achieve is how to measure burden in a way that is both practical and credible.

5.1 Comparing Measurement Options

The first big question and stumbling block for many jurisdictions when it comes to implementing a regulatory budget is choosing a metric. Currently there are three big categories of to choose from: full cost models, such as opportunity cost used in recent US reforms, or some variation of cost analysis used for RIA; the Standard Cost methodology (or a variation of it); and text-based metrics. Table 1 gives an overview of the trade-offs when considering these different options.

Full cost measures are theoretically more appealing than text-based counts but are far costlier to implement and tend to narrow the scope of the reforms to a degree that they become significantly less comprehensive and meaningful. They are not widely used in regulatory budgeting and do not have a track record of sustained success.

The Standard Cost Model is more widely used, particularly in Europe. Although less costly to implement than an RIA-based approach such as the U.S. regulatory budget of 2017 to 2020, an SCM-based budget is also expensive to implement, and its scope is limited by design to focus only on the administrative cost of regulation and only on the costs imposed on business.

Text-based counts of regulatory requirements or restrictions are becoming a popular option, particularly for jurisdictions at the subnational level. They are affordable to implement, easy to understand, and can be used to cover most of the regulatory burden. They also have been

used successfully to achieve regulatory reductions. As referenced earlier, British Columbia’s one-in-two-out budget sounded similar to the recent one-in-two-out U.S. budget, but the two used very different metrics. The BC budget used the text-based metric (regulatory requirements) and the U.S. approach used opportunity cost. RegData shows slowed growth for the U.S. and significant reductions for BC.

Table 1: Measurement Options for Regulatory Budgeting						
Regulatory Measure	Use	Comprehensiveness	Replicable	Cost to Implement	Sustainability	Overall Assessment
Opportunity cost	Reforms in the US 2017-2021 under Executive Order 13771	Very limited scope, applied to around one percent of regulations.	Very difficult to replicate, cost analysis depends on assumptions	Very costly and resource intensive to use even for individual regulations.	Difficult to sustain, no longer in use in the US.	Not a good choice for regulatory budgets. Expense and complexity limits transparency, scope and overall effectiveness.
Standard Cost Model	Various countries in Europe including the Netherlands, UK; Variation on the model used in Canada. Quebec uses it.	Limited scope. Applies to a portion of regulatory costs (administrative costs) borne by business. In theory it could be extended.	Somewhat difficult to replicate, as estimates of time for administrative compliance are used	Costly and resource intensive	Widely used in Europe since the 2000s	Not the best choice for regulatory budgeting as it is limited by design and costly to create a baseline. Good for evaluating new regulatory proposals and comparing to alternatives.
Text-based regulatory counts	British Columbia, Manitoba, various other Canadian provinces, and US states, used in research papers.	Several jurisdictions are applying it comprehensively—to legislation, regulation and guidance affecting both businesses and citizens.	Replicable, can be challenging if doing manually, using technology makes this easier.	Less costly than other options. Can be done manually or with the help of computers. Sub-national	British Columbia has been using a text-based measure since 2001; Manitoba since 2017. More recently some other	Best available choice for regulatory budgets as it is can be applied comprehensively, and it is relatively easy to create a baseline.

				jurisdictions have been able to implement.	states and provinces have adopted.	
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5.2 Measurement Options and Regulatory Inventories (Baselines)

Another important consideration when choosing a metric is how well it lends itself to creating an inventory or baseline for the regulatory burden. The simpler the measure, the easier this is. Thus, with text-based metrics, baselines are often available. British Columbia, Manitoba, and more recently Alberta have all assessed the number of regulatory requirements they started with when they implemented reforms and are tracking this over time. RegData has this information at the federal level for Canada, the US and Australia as well as for US states and Canadian provinces. In addition to tracking the flow of ins relative to outs, a baseline allows an assessment of the relative amount of reduction or addition to the existing stock of regulation. It adds to available information and makes reductions easier to communicate as a percentage change in the stock of regulations provides more perspective than an absolute number representing costs or requirements. Text-based metrics allow for the creation of a comprehensive, objective, and replicable baseline. In addition, particularly when making use of technology, changes relative to that baseline can be calculated at regular and potentially frequent intervals—in some situations, even on a daily basis—by simply re-running the software application using the updated body of regulatory text.

5.3 Using text-based metrics for comparability and research

Because text-based metrics are typically more comprehensive, objective, and replicable

than full cost or standard cost model metrics, text-based metrics are better suited for comparisons and research. In Figure 3, we take advantage of these features to examine trends in year-to-year changes in the stock of regulation across 62 national and subnational jurisdictions in Canada and the US. Each data point in Figure 3 is a year-to-year percent change in regulatory restrictions (e.g., the words “shall” and “must”) in the jurisdiction’s regulatory code. For example, the federal regulations in the US contained 841,978 regulatory restrictions in 1999, and 853,667 in 2000. That addition from one year to the next of 11,689 restrictions represents a 1.39% percentage increase.

Figure 3: Distribution of Year-to-Year Percent Changes in Regulatory Restrictions

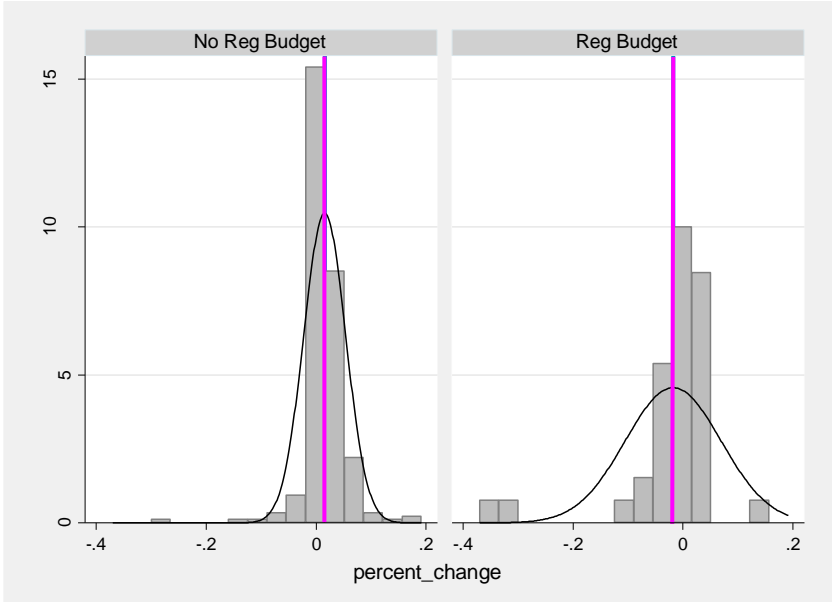


Figure 3 shows two distributions of year-to-year percent changes in regulatory restrictions. The distributions show data from two categories: jurisdictions operating under a regulatory budget (“Reg Budget”) or jurisdictions operating without a regulatory budget (“No Reg Budget”). Note that a given jurisdiction (such as the US) may be in the Reg Budget category for some years (2017 – 2020) and in the No Reg Budget category for other years (1970 – 2016). The mean percent change for jurisdictions in the No Reg Budget category is 0.0156, or 1.56

percent growth in regulatory restrictions from year to year. The mean percent change (indicated with the tall, thin vertical bar in the figure) for jurisdictions in the Reg Budget category is -0.0179, or a decrease in regulatory restrictions of 1.79 percent. This cursory analysis is, of course, by no means dispositive. Rather, the exercise is intended to show that such an analysis is readily feasible with data from text-based metrics. Further, it suggests that regulatory budgets do help reduce regulatory restrictions.

6. Concluding Remarks

Benefit-cost analysis is now a well-established best practice for evaluating the merit of individual regulations, and many governments require it as part of a RIA. But looking at the merit of an individual regulation is different from a regulatory measurement program intended to monitor the aggregate quantity or cost of regulation for regulatory budgeting purposes, a practice that is less well-established and requires broad, credible metrics that are cost-effective to collect, maintain, and report. Successfully implemented, comprehensive measurement of regulation can provide some sense of the total quantity or burden of regulation and how it is changing over time. This, in turn, creates more transparency and makes governments more accountable for their regulatory activity. Such transparency and accountability is clearly valued when it comes to fiscal budgeting, and similar values likely apply to regulatory budgeting.

Policymakers that have implemented a regulatory budget would presumably be interested in tracking the budget's success. A baseline and a way of measuring change relative to the baseline are ideal for tracking success, whether the goal is to reduce, maintain current levels, or manage the growth of regulation. However, these regulatory budgeting actions become more challenging when measurement is complicated or expensive.

Text-based metrics are emerging as a practical and effective choice for regulatory

budgets. They offer a number of advantages including a cost-effective way to get a handle on both the stock and the flow of government rules stemming from legislation, regulation and guidance, policies and forms. They can complement tools such as cost-benefit analysis and RIAs that are well-suited to consider individual regulations but too costly to be used for the many obligations found in guidance documents.

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